

Laboratory Glass, Vessels, Consumables & Application-specific Products



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Laboratory glass



The DURAN Group

With its already well-established production sites in Mainz, Wertheim and Pula/Kroatia, the DURAN Group has a complete value chain ranging from the glass melting process to precise forming and machining processes.

It continues to offer its customers the flexibility of a medium-sized company together with the comprehensive know-how as a result of its experience of many years.

The material of glass

General properties

In comparison with other materials such as stainless steel or plastic, glass offers near-universal chemical resistance to water, saline solutions, acids, alkalis and other organic solvents. It is only affected by hydrofluoric acid and at increased temperatures by strong alkalis and concentrated phosphoric acids.

Glass is dimensionally stable and safe even at high temperatures and does not release harmful substances when heated. Glass also exhibits high transparency.

In the laboratory, various types of glass are used depending on application. These are chiefly soda-lime glass (AR[®]-glass) as well as various types of borosilicate glass.

Soda-lime glass has less chemical and thermal load capacity than borosilicate glass. Due to its high thermal expansion, soda-lime glass has a low thermal shock resistance and can incur stresses and crack when heated or cooled. Soda-lime glass is well suited to applications involving temporary chemical contact at room temperature as well as to disposable articles.

Borosilicate glass is to a large extent chemically inert and suitable for use up to very high temperatures. The various types of borosilicate glass mainly differ from one another in terms of their linear coefficient of expansion and hence their resistance to changes in temperature.

The most commonly used types of borosilicate glass are borosilicate glass 3.3 (DURAN[®], SIMAX), borosilicate glass 4.9 (Fiolax[®]) and borosilicate glass 5.1.

The following factors are critical to the quality of laboratory glassware:

- The glassware and glass type
- The shape obtained during the production process
- Even distribution of wall thickness in all areas of the article (particularly in critical areas such as in the neck/shoulder area and at the transitions to the base). This ensures:
 - better mechanical stability
 - higher thermal shock resistance
 - freedom from stresses, which can cause the vessel to burst when heated

These quality characteristics not only increase safety for employees in the laboratory, but also extend the useful life of the laboratory glassware and protect valuable substances.

Comparison of DURAN[®] and soda-lime glass

Chemical properties:

	DURAN [®]	Soda-lime glass
Chemical composition	81 % SiO ₂ 13 % B ₂ O ₃ 4 % Na ₂ O/K ₂ O 2 % Al ₂ O ₃ No added heavy metals	69 % SiO ₂ 1 % B ₂ O ₃ 3 % K ₂ O 4 % Al ₂ O ₃ 13 % Na ₂ O 2 % BaO 5 % CaO 3 % MgO
Hydrolytic resistance to DIN ISO 719	Class 1	Class 3
Acid resistance to DIN 12116	Class 1	Class 1
Alkali resistance to ISO 695	Class 2	Class 2

Physical properties:

Transformation temperature [°C]	525	
Coefficient of expansion α (20 to 300 °C) [10 ⁻⁶ K ⁻¹]	3.3	9.1

Usage instructions:

Max. allowable usage temperatures	500 °C	approx. 100 °C
Maximum negative temperature	-70 °C	approx. 0 °C
Maximum temperature difference ΔT	100 K	30 K
Use in the microwave	Suitable	Unsuitable
Pressure and vacuum operation	Only products indicated as such are suitable for use under pressure/vacuum due to their geometry and wall thickness (e.g. suction bottles, dessicators, DURAN [®] pressure plus bottles)	Unsuitable
Cleaning in dishwashers	Suitable	Unsuitable

The special features of DURAN®

Very high chemical resistance, nearly inert behaviour, a high usage temperature, minimal thermal expansion and the resultant high resistance to thermal shock are its most significant properties. Excellent physical and chemical performance makes DURAN® the ideal material for use in the laboratory and for the manufacture of chemical apparatus used in large-scale industrial plants. It is also widely used on an industrial scale in all other application areas in which extreme heat resistance, thermal shock resistance, mechanical strength and exceptional chemical resistance are required. The properties of DURAN® meet the specifications of DIN ISO 3585. Compared to other types of borosilicate 3.3. glass, DURAN® is noted for its highly constant and technically reproducible quality.

Chemical properties

DURAN® glass is more chemically resistant than all other known materials. DURAN® borosilicate glass is highly resistant to water, acids, saline solutions, organic substances and halogens, such as chlorine or bromine. It also has good resistance to alkaline solutions. Only hydrofluoric acid, concentrated phosphoric acid and strong alkalis break down the glass surface (glass corrosion) at temperatures >100 °C. Their near-inert behaviour means that there are no interactions (e.g. ion exchange) between the medium and glass and it is thus possible to practically rule out any influence on the experiments.

Physical Properties:

Temperature stability under heating

The maximum permissible operating temperature for DURAN® is 500 °C. As it has a very low coefficient of linear expansion ($\alpha = 3.3 \times 10^{-6} \text{ K}^{-1}$), a feature of DURAN® is its high thermal shock resistance up to $\Delta T = 100 \text{ K}$. This is also dependent on the wall thickness and the geometry of the products.

Temperature stability under freezing

DURAN® can be cooled down to the maximum possible negative temperature and is thus suitable for use with liquid nitrogen (approx. -196 °C). When doing so, bear in mind the product geometry and the properties of any additional components used (e.g. screw caps). In general, DURAN® products are recommended for use down to -70 °C. When cooling down and thawing, care must be taken to ensure that the temperature difference does not exceed 100 K. In practice, therefore, it is recommended that they be cooled and heated gradually. When freezing substances such as DURAN® bottles, the container should only be filled to max. 3/4 full and frozen at an angle of 45 ° (in order to enlarge the surface area).

Use in the microwave

DURAN® laboratory glassware is suitable for use in microwaves. This also applies to plastic coated DURAN® products.

The **thermal shock resistance of glass** is dependent on the shape, wall thickness, surface characteristics and finish of the glassware used.

Rapid changes in temperature cause high temporary stress in the glass, meaning that rapid cooling processes are very dangerous, since in this case a thin outer layer of the glass is placed under tensile stress over the still hot inner core. Glass is much more susceptible to tensile stress than to compressive stress.

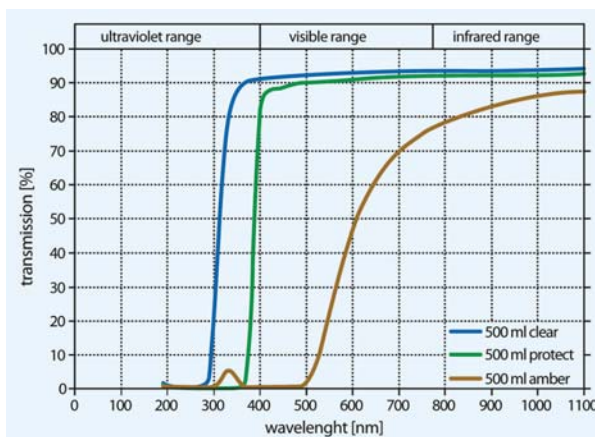
DURAN® is much more resistant to rapid changes in temperature than soda-lime glass due to its lower thermal expansion.

Conformity with standards and guidelines

DURAN® is a neutral glass with high hydrolytic resistance and therefore belongs to glass type 1 according to the European Pharmacopoeia (EP, Section 3.2.1), the Japanese Pharmacopoeia (JP, Section 7.01), the United States Pharmacopoeia (USP, Section: 660) and the National Formulary. In addition to being in conformity with the DIN ISO 3585 international standard, in which the properties of borosilicate glass 3.3 are defined, many items of DURAN® laboratory glassware meet the standards for glass laboratory equipment.

Optical properties

In the spectral range from approx. 310 to 2200 nm the absorption of DURAN® clear glass is negligibly low. In photochemical processes the light transmission of DURAN® in the ultraviolet range is of particular importance. The transmissivity in the UV range indicates the ease with which photochemical reactions, such as chlorinations and sulfochlorinations, can be carried out. The chlorine molecule absorbs in the range from 280 to 400 nm and thus serves as a carrier of the radiation energy.



Amber colouring of DURAN® laboratory glassware

The amber colouring allows the storage of light-sensitive substances in DURAN® products. In the wavelength band between 300 and 500 nm, light transmission compared to DURAN® clear glass is <10 %. Accordingly, the amber DURAN® glass meets USP/EP/JP guidelines. Since the amber diffusion ink is applied to the outside of the clear glass article by means of spray coating, the proven DURAN® properties inside the bottle remain unaffected; there is no contact or interaction between contents and amber coating. The coating is then stove enamelled, and therefore is resistant to chemicals and cleaning in a dishwasher.

Safety instructions

DURAN® glassware is safe to use. The guidelines applicable for the use of special glass in laboratories in the country in question should always be observed. The following points should, however, always be observed:

- Before using DURAN® laboratory glassware, it should be checked to ensure that it is suitable for the intended purpose and that it will function properly.
- Faulty laboratory glassware can present a hazard (e.g. risk of cuts, burns, infection) which should not be underestimated. If appropriate repairs to any item cannot be carried out or cannot be justified on grounds of cost, it must be disposed of in the proper manner (as household waste or, depending on possible contamination, in accordance with the applicable guidelines; never as waste glass).
- Glassware should only be subjected to sudden changes in temperature taking into account a thermal shock resistance of $\Delta T = 100 \text{ K}$. This applies in particular to thick-walled glassware, such as suction bottles or desiccators.
- Make sure that apparatus stands firmly and is not subjected to stress by using appropriate support material.

Environmental compatibility of DURAN® laboratory glassware

DURAN® laboratory glassware is manufactured from natural, mineral raw materials. Unlike other materials, laboratory glassware can be used for years if handled properly and therefore is superior to other materials in ecological terms.

Toxic substances cannot leach out. The production processes have been systematically optimised for maximum environmental compatibility during the production process.

Glass beakers / Erlenmeyer flasks



Rotilabo®-glass beakers

Made of borosilicate glass 3.3. Graduated, has spout.
Acc. to DIN 12331, ISO 3819. Autoclavable.

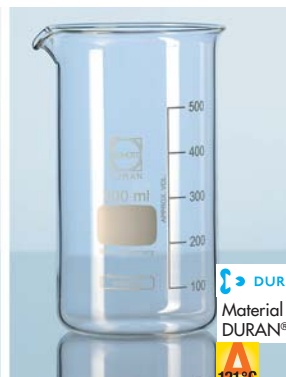
*Without graduation. **Without graduation and not according to DIN

Short form

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5*	22	30	X685.1	10	26,00
10*	26	35	X686.1	10	28,85
25*	34	50	X687.1	10	30,30
50	42	60	X688.1	10	23,05
100	50	70	X689.1	10	19,50
150	60	80	X690.1	10	21,20
250	70	95	X691.1	10	23,15
400	80	110	X692.1	10	26,90
600	90	125	X693.1	10	37,20
800	100	135	X694.1	10	44,30
1000	105	145	X695.1	10	46,25
2000	130	185	X696.2	1	9,15
3000	150	210	X697.1	1	29,35
5000	170	270	X698.1	1	37,10
10000**	217	350	ACK7.1	1	72,00

Tall form

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25*	30	55	X700.1	10	29,00
50	38	70	X701.1	10	18,10
100	48	80	X702.1	10	20,00
150	54	95	X703.1	10	23,90
250	60	120	X704.1	10	24,75
400	70	130	X705.1	10	26,45
600	80	150	X706.1	10	31,95
800	90	175	X707.1	10	47,20
1000	95	180	X708.1	10	53,25
2000	120	240	X709.2	1	9,15
3000	135	280	X710.2	1	27,10



Glass beakers

Made of DURAN®. Graduated, has spout.
Acc. to DIN 12331, ISO 3819. With Retrace-Code. Autoclavable.

*Without graduation. **Without graduation and not according to DIN

Low form

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5*	22	30	C108.1	10	45,50
10*	26	35	C109.1	10	51,40
25	34	50	C110.1	10	44,30
50	42	60	C111.1	10	42,30
100	50	70	C112.1	10	42,10
150	60	80	C113.1	10	44,40
250	70	95	C114.1	10	45,70
400	80	110	C115.1	10	54,90
600	90	125	C116.1	10	68,10
800	100	135	C117.1	10	94,00
1000	105	145	C118.1	1	11,00
2000	132	185	C119.1	1	19,00
3000	152	210	C120.1	1	34,25
5000	170	270	C121.1	1	58,10
10000**	217	350	C122.1	1	165,00

High form

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	38	70	C123.1	10	42,60
100	48	80	C124.1	10	43,10
150	54	95	C125.1	10	45,80
250	60	120	C126.1	10	48,30
400	70	130	C127.1	10	57,80
600	80	150	C128.1	10	70,90
800	90	175	C129.1	10	100,00
1000	95	180	C130.1	1	11,55
2000	120	240	C131.1	1	20,85
3000	135	280	C132.1	1	43,60

- ▶ Liquid concentrates - special standard cleaners for labware, see page 1063
- ▶ Autoclaving instructions on page 5
- ▶ Beakers made of plastic see page 13
- ▶ Weight rings for beakers and Erlenmeyer flask see page 194
- ▶ Watch glasses for covering beakers see page 161

The following factors are critical to the quality of laboratory glassware:

- The glassware and glass type
- The shape obtained during the production process
- Even distribution of wall thickness in all areas of the article (particularly in critical areas such as in the neck/shoulder area and at the transitions to the base). This ensures:
 - better mechanical stability
 - higher thermal shock resistance
 - freedom from stresses, which can cause the vessel to burst when heated

These quality characteristics not only increase safety for employees in the laboratory, but also extend the useful life of the laboratory glassware and protect valuable substances.



Programme extension!

DURAN GROUP

Material
DURAN®



DURAN®-Super Duty glass beakers

- Proven DURAN® properties
- Glass type I, neutral glass according to USP, EP and JP
- High mechanical stability due to increased wall thickness
- Reinforced, sturdy rim
- Uniform wall thickness distribution
- Autoclavable, sterilizable
- With retrace code
- Easily readable scale
- Fired-on highly durable labelling

Notes of use:

To avoid thermal stress in the glass, it is recommended that Super Duty products are slowly and uniformly heated. Standard DURAN beakers and Erlenmeyer flasks should be used when working at very high temperatures, or if rapid temperature changes are expected, as these are characterized by excellent thermal shock resistance. However, their mechanical sturdiness is limited compared with the Super Duty range.

DURAN®-Super Duty glass beakers, low form

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	60	80	PC33.1	10	52,40
250	70	95	PC34.1	10	52,40
400	80	110	PC35.1	10	69,40
600	90	125	PC36.1	10	80,60
1000	105	145	PC37.1	10	128,00
2000	132	185	PC38.1	10	224,00
5000	170	270	PC39.1	1	125,00

DURAN®-Super Duty glass beakers, tall form

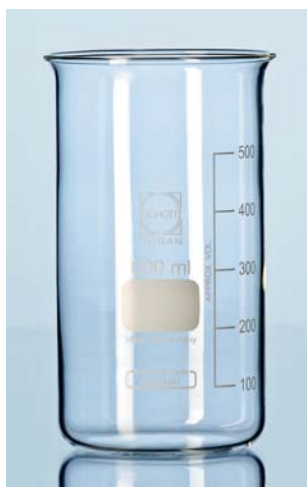
Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	54	95	CHL2.1	10	54,00
250	60	120	CHL3.1	10	55,10
600	80	150	CHL4.1	10	83,50



Rotilabo®-beakers

Made of type 3.3 borosilicate glass.
Low form, with graduations, spout and handle. Autoclavable.

Volume (ml)	Outer Ø x H (mm)	Art. No.	Pack Qty.	€
250	70 x 95	NT29.1	6	27,45
400	80 x 110	NT30.1	6	28,95
600	90 x 125	NT31.1	6	33,90
1000	105 x 145	NT32.1	2	14,95



**NEU
NOUVEAU
NEW**

DURAN GROUP

Material
DURAN®



Beakers without spout

Made of DURAN®. High form with easy-to-read graduations and large labelling surface for easy product identification. Graduation markings are kiln fired onto the glass for maximum durability. Ideal for heating applications thanks to even wall thickness distribution. With Retrace Code. Autoclavable.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
50	38 x 70	CCK5.1	10	42,60
100	48 x 80	CCK6.1	10	43,10
150	54 x 95	CCK7.1	10	45,80
250	60 x 120	CCK8.1	10	48,30
400	70 x 130	CCK9.1	10	57,80
600	80 x 150	CCL0.1	10	70,90
1000	95 x 180	CCL1.1	10	113,00

Beakers



Rotilabo®-beakers, PTFE

With spout. Chemically inert. Temperature stable from -200 to +260 °C. Low gas permeability. Anti-adhesive. Autoclavable.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	13	18	T643.1	1	7,70
5	20	26	T645.1	1	8,40
10	24	33	T646.1	1	9,70
25	32	47	T647.1	1	11,30
50	43	60	1183.1	1	14,75
100	54	68	1184.1	1	18,10
150	59	69	T648.1	1	19,70
250	66	97	1185.1	1	29,05
400	80	106	T649.1	1	39,75
500	80	125	T650.1	1	40,85
600	90	125	T651.1	1	57,85
1000	100	155	1187.1	1	80,65
2000	120	210	T652.1	1	149,45
5000	170	280	T653.1	1	275,20



Rotilabo®-beakers

Made of high-grade stainless steel 18/10. With flange and contact base for magnetic and heating stirrers. Good chemical and temperature resistance. Autoclavable.

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
100	60	50	HT90.1	1	68,70
250	85	65	HT91.1	1	72,00
500	110	80	HT92.1	1	95,80
1000	130	100	HT93.1	1	117,20
2000	180	120	HT94.1	1	166,65
3000	180	150	HT95.1	1	197,80
5000	210	180	HT96.1	1	262,30



Rotilabo®-cup

Made of stainless steel 18/10, suitable for foodstuffs. Autoclavable.

Volume (ml)	Height (mm)	Top inside Ø (mm)	Art. No.	Pack Qty.	€
75	50	50	YX59.1	1	5,75
125	60	60	YX60.1	1	6,30
150	65	65	YX61.1	1	7,10
250	100	75	YX58.1	1	6,05



Rotilabo®-beakers

Made of glazed porcelain. With spout. Temperature stable up to 1000 °C. Autoclavable.

Short

Volume (ml)	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
275	85	70	XX35.1	1	10,95
400	99	80	XX36.1	1	12,90
620	116	90	XX37.1	1	14,85
860	129	100	XX38.1	1	18,85
950	100	123	XX39.1	1	24,20

Tall

Volume (ml)	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
170	90	52	XX40.1	1	9,15
225	106	57	XX41.1	1	9,70
450	143	70	XX42.1	1	12,05
1100	157	101	XX43.1	1	18,85

Measuring beakers



Griffin beakers

Made of **PP**, transparent. With spout and graduated by blue markings. Temperature stable from 0 to +125 °C. Autoclavable.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
10	2	30 x 36	2870.1	1	1,70
25	5	38 x 50	2871.1	1	1,70
50	10	47 x 60	2872.1	1	1,70
100	10	55 x 70	2873.1	1	1,75
150	20	66 x 80	2874.1	1	1,95
250	25	77 x 95	2875.1	1	2,35
400	50	87 x 112	2876.1	1	2,80
500	50	94 x 118	HX26.1	1	3,20
600	50	100 x 127	2877.1	1	3,15
1000	100	120 x 147	2879.1	1	4,45
2000	200	149 x 187	P804.1	1	7,65
3000	250	170 x 212	P805.1	1	15,05
5000	500	203 x 247	P806.1	1	19,85

Griffin beaker set

PP. 10 items (one beaker each 10 to 1000 ml).

Art. No.	Pack Qty. (assortment)	€
2880.1	1	21,75



Griffin beakers

Made of **PMP**, clear. Highly resistant to chemicals. With spout and imprinted red graduation. Temperature stable from -0 to +150 °C. Autoclavable.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
10	2	30 x 36	2890.1	1	1,90
25	5	38 x 50	2891.1	1	2,00
50	10	47 x 60	2892.1	1	2,35
100	10	55 x 70	2893.1	1	2,60
150	20	66 x 80	2894.1	1	3,35
250	25	77 x 95	2895.1	1	3,40
400	50	87 x 112	2896.1	1	4,45
500	50	94 x 118	HX27.1	1	5,20
600	50	100 x 127	2897.1	1	5,75
1000	100	120 x 147	2899.1	1	8,00
2000	200	149 x 187	P807.1	1	13,25
3000	250	170 x 212	P808.1	1	23,45
5000	500	203 x 247	P809.1	1	31,50

Griffin beaker set

PMP. 10 items (one beaker each 10 to 1000 ml).

Art. No.	Pack Qty. (assortment)	€
2900.1	1	34,40



Griffin beakers

Made of **PP**, highly transparent. With spout and embossed scale. Temperature stable from 0 to +125 °C. Acc. to ISO 7056. Autoclavable. Suitable for foodstuffs.

*Variant supplementary to ISO 7056

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
25	5	38 x 50	CKK4.1	1	1,70
50	10	47 x 60	CKK5.1	1	1,90
100	10	55 x 70	CKK6.1	1	2,00
150*	20	66 x 80	CKK7.1	1	2,10
250	25	77 x 95	CKK8.1	1	2,35
400*	50	87 x 111,5	CKK9.1	1	2,85
500	50	94 x 117,5	CKL0.1	1	3,25
600*	50	100 x 126,5	CKL1.1	1	3,40
1000	100	120 x 147	CKL2.1	1	4,45
2000	200	149 x 187	CKL3.1	1	7,65
3000	250	170 x 212	CKL4.1	1	15,35
5000	500	203 x 247	CKL5.1	1	20,35



Rotilabo®-Griffin beakers

Made of transparent **PFA** (Perfluoroalkoxy). Graduated with embossed markings. Highly resistant to chemicals. Temperature stable from -200 to +250 °C. Autoclavable.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
25	5	32 x 50	A862.1	1	18,40
50	10	39 x 59	A863.1	1	23,20
100	20	50 x 72	A864.1	1	32,25
250	50	67 x 96	A865.1	1	54,50
500	100	88 x 122	A866.1	1	84,40
1000	100	105 x 143	A867.1	1	149,45

Measuring beakers



Griffin beakers

Made of tetrafluoroethylene (ETFE), transparent. Highly resistant to chemicals. With spout and imprinted black graduation. Temperature stable from -100 to +150 °C. Autoclavable.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
25	5	32 x 50	2881.1	1	10,25
50	10	39 x 59	2882.1	1	10,60
100	20	50 x 72	2883.1	1	15,80
250	50	67 x 96	2884.1	1	27,20
400	50	77 x 109	2885.1	1	38,10
500	100	88 x 122	HX28.1	1	44,65
600	100	91 x 125	2886.1	1	51,75
1000	100	105 x 143	2887.1	1	74,85



Rotilabo®-sample beakers

Made of PP, transparent. Graduated. With three spouts on corners for no-drip pouring. Temperature resistant from -20 to +121 °C. Autoclavable.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
50	5	49 x 57	HT84.1	100	38,60
100	10	58 x 72	HT85.1	100	42,95
250	10	76 x 90	HT86.1	100	55,80
400	20	85 x 108	HT87.1	100	60,20
800	50	107 x 133	HT88.1	100	94,60
1000	50	115 x 145	HT89.1	100	95,70

- Sample beaker with a volume of 30 ml see page 105



Rotilabo®-measuring beakers

Made of highly transparent PP with a smooth surface. Graduated with embossed red markings. Autoclavable. Approved for foodstuffs.

Volume (ml)	Graduations (ml)	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
50	2	70	40	YA29.1	1	1,80
100	2	80	50	YA30.1	1	2,00
250	5	120	70	YA31.1	1	3,00
500	10	133	91	0757.1	1	3,45
1000	10	170	116	0758.1	1	4,80
2000	20	215	150	0768.1	1	8,45
3000	50	242	170	0779.1	1	11,20
5000	100	270	210	0780.1	1	16,05

Rotilabo®-measuring beakers set

Set of 5 beakers, capacity 500 to 5000 ml.

Art. No.	Pack Qty. (assortment)	€
0859.1	1	36,55



Measuring beakers

Made of PP, highly transparent. With embossed scale and sturdy handle with good grip. Temperature stable from 0 to +125 °C. Autoclavable. Suitable for foodstuffs.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
50	2	40 x 70	CKL6.1	1	2,00
100	2	50 x 80	CKL7.1	1	2,15
250	5	70 x 120	CKL8.1	1	3,10
500	10	91 x 133	CKL9.1	1	3,60
1000	20	116 x 170	CKN0.1	1	4,95
2000	50	150 x 215	CKN1.1	1	8,75
3000	50	170 x 242	CKN2.1	1	11,60
5000	100	210 x 270	CKN3.1	1	16,25

Measuring beakers



Measuring beakers

Made from transparent **PP**. 10 ml graduations, H 140 mm, Ø 100 mm. With easily legible, imprinted scale and sturdy handle. Stackable. To preserve the imprint, cleaning at temperatures not exceeding 60 °C is recommended. Suitable for foodstuffs.

Volume (ml)	Colour	Art. No.	Pack Qty.	€
500	blue	APH6.1	1	3,85
500	yellow	APH7.1	1	3,40
500	red	APH8.1	1	3,40
500	green	APH9.1	1	3,40

Measuring beaker assortment

Each set comprises 4 500 ml beakers in blue, yellow, red and green.

Art. No.	Pack Qty. (assortment)	€
APK0.1	1	13,55



Measuring beakers

Made of **SAN**, transparent. With embossed scale and sturdy handle with good grip. Temperature stable from -40 to +70 °C. Suitable for foodstuffs.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
250	5	70 x 120	CKN4.1	1	3,60
500	10	91 x 133	CKN5.1	1	5,00
1000	10	116 x 170	CKN6.1	1	6,40
2000	20	150 x 215	CKN7.1	1	10,45
3000	50	170 x 242	CKN8.1	1	13,15



Rotilabo®-measuring beakers

Made of highly transparent **PP**. With black scale printed on two sides. Open handle enables stacking of beakers. Autoclavable.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
250	5	75 x 115	XY21.1	1	2,75
500	10	100 x 140	P800.1	1	3,45
1000	10	125 x 167	P801.1	1	4,55
2000	20	148 x 212	P802.1	1	8,40
3000	50	170 x 242	P803.1	1	11,50



Measuring beakers 51

By Haldenwanger. Made of glazed porcelain, with the exception of the outer bottom surface. Graduated. Temperature stable up to 1000 °C. Autoclavable.

Volume (ml)	Size	Ø x H (mm)	Art. No.	Pack Qty.	€
250	3a	80 x 100	XL85.1	1	80,65
500	5a	95 x 125	XL86.1	1	94,60
1000	8	110 x 165	XL87.1	1	136,55
2000	10	140 x 193	XL88.1	1	192,45

Erlenmeyer flasks



Rotilabo®-measuring beakers

Cylindric. Made of 18/10 stainless steel. Graduated inside and outside. Autoclavable.

Capacity (l)	Subdivisions (l)	Ø x H (mm)	Art. No.	Pack Qty.	€
0,7	0,1	100 x 100	9472.1	1	30,05
1,3	0,1	120 x 120	9473.1	1	37,65
2,1	0,2	140 x 140	9475.1	1	48,70
3,2	0,2	160 x 160	9476.1	1	63,90
4,0	0,5	180 x 180	9478.1	1	82,75
5,0	1,0	200 x 200	9479.1	1	98,85



Rotilabo®-measuring beakers with handle

Made of stainless steel 18/10, polished. Graduated on the inside. With open handle, stackable. Suitable for foodstuffs. Autoclavable.

Volume (ml)	Graduations (ml)	Height (mm)	Art. No.	Pack Qty.	€
100	50	50	YY00.1	1	4,45
250	50	70	YY01.1	1	5,70
500	100	110	YY02.1	1	9,70
1000	500	135	YY03.1	1	13,25
2000	500	195	YY04.1	1	22,50



Rotilabo®-measuring beakers

Made of 18/10 stainless steel. Graduated inside, in 10 ml increments. Suitable for use with foodstuffs. Autoclavable.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
30	50 x 25	LT24.1	5	16,85
50	53 x 45	LT25.1	5	21,05



Rotilabo®-wide neck Erlenmeyer flasks

Made of borosilicate glass 3.3. Graduated. Acc. to DIN 12385. Autoclavable.

*Acc. to DIN.

Volume (ml)	Flask outer Ø (mm)	Height (mm)	Outer neck Ø (mm)	Art. No.	Pack Qty.	€
25*	42	70	32	X734.1	10	39,35
50	51	85	34	X735.1	10	39,35
100	64	105	34	X736.1	10	22,80
200	79	131	50	X737.1	10	27,20
250	85	135	50	X738.1	10	29,20
300*	87	156	50	X739.1	10	34,20
500	105	170	50	X740.1	10	36,75
1000	131	215	50	X741.1	10	51,50
2000*	153	280	72	X742.2	6	53,65

Rotilabo®-narrow neck Erlenmeyer flasks

Made of borosilicate glass 3.3. Graduated. Acc. to DIN-ISO 1773. Autoclavable.

*Acc. to DIN-ISO.

Volume (ml)	Flask outer Ø (mm)	Height (mm)	Outer neck Ø (mm)	Art. No.	Pack Qty.	€
25	42	70	22	X745.1	10	39,35
50	51	85	22	X746.1	10	39,35
100	64	105	22	X747.1	10	20,45
200*	79	131	34	X748.1	10	25,80
250	85	140	34	X749.1	10	27,65
300*	87	156	34	X750.1	10	33,80
500	105	175	34	X751.1	10	36,05
1000	131	220	42	X752.1	10	51,60
2000	166	280	50	X753.2	6	47,55
3000	187	310	50	X754.1	1	26,05
5000	220	365	50	X755.1	1	39,60

► Weight rings for beakers and Erlenmeyer flask see page 194

Erlenmeyer flasks



Wide-neck Erlenmeyer flasks

Made of DURAN®, graduated. With labelling field.
Acc. to DIN ISO 24450. With Retrace-Code. Autoclavable.

* Not acc. to DIN. ** Not graduated

Volume (ml)	Outer neck Ø (mm)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25 *	31	43	70	C144.1	10	48,50
50	34	51	85	C145.1	10	48,70
100	34	64	105	C146.1	10	47,60
200	50	79	131	C147.1	10	51,80
250	50	85	140	C148.1	10	52,10
300	50	87	156	C149.1	10	62,90
500	50	105	175	C150.1	10	71,80
1000	50	131	220	C151.2	1	12,00
2000 *	72	153	276	C152.2	1	21,50
3000 **	106	190	285	AAA3.1	1	71,30
5000 **	108	220	322	AAA4.1	1	92,25
10000 **	147	285	420	AAA5.1	1	178,00

Narrow-neck Erlenmeyer flasks

Made of DURAN®, graduated.
Acc. to ISO 1773. With Retrace-Code. Autoclavable.

*Not acc. to ISO.

Volume (ml)	Outer neck Ø (mm)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	22	42	75	C133.1	10	48,30
50	22	51	90	C134.1	10	48,50
100	22	64	105	C135.1	10	46,10
125*	28	67	112	PY97.1	10	46,60
200*	34	79	131	C136.1	10	48,50
250	34	85	145	C137.1	10	49,00
300*	34	87	156	C138.1	10	56,70
500	34	105	180	C139.1	10	63,40
1000	42	131	220	C140.2	1	10,90
2000	50	166	280	C141.2	1	20,50
3000	52	187	310	C142.2	1	38,35
5000	52	220	365	C143.1	1	57,30
150	28	74	118	XT07.1	10	47,30
800*	42	120	200	XT08.1	10	81,20

The following factors are critical to the quality of laboratory glassware:

- The glassware and glass type
- The shape obtained during the production process
- Even distribution of wall thickness in all areas of the article (particularly in critical areas such as in the neck/shoulder area and at the transitions to the base). This ensures:
 - better mechanical stability
 - higher thermal shock resistance
 - freedom from stresses, which can cause the vessel to burst when heated

These quality characteristics not only increase safety for employees in the laboratory, but also extend the useful life of the laboratory glassware and protect valuable substances.



DURAN®-Super Duty narrow neck Erlenmeyer flasks

- Proven DURAN® properties
- Glass type I, neutral glass according to USP, EP and JP
- High mechanical stability
- Reinforced, stable rim
- Regular wall-thickness
- Autoclavable, sterilizable
- With retrace code
- Easily readable graduation
- Fired-on highly durable labelling

Notes of use:

To avoid thermal stresses in the glass, slow and gradual warming is recommended for Super Duty products. When working at very high temperatures, or if rapid temperature changes are expected, standard DURAN®-beakers and Erlenmeyer flasks should be used, as these are characterized by excellent thermal shock resistance. However, their mechanical sturdiness is limited compared with the Super Duty range.

DURAN®-Super Duty narrow neck Erlenmeyer flasks

Volume (ml)	Outer neck Ø (mm)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	22	42	75	PC40.1	10	87,50
50	22	51	90	PC41.1	10	89,00
100	22	64	105	PC42.1	10	83,40
250	34	85	145	PC43.1	10	61,10
500	34	105	180	PC44.1	10	84,80
1000	42	131	220	PC45.1	10	134,00
2000	50	166	280	PC46.1	10	248,00
5000	52	220	365	PC47.1	1	119,00

DURAN®-Super Duty wide neck Erlenmeyer flasks

Volume (ml)	Outer neck Ø (mm)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	34	64	105	PC48.1	10	57,90
250	50	85	140	PC49.1	10	61,10
500	50	105	175	PC50.1	10	84,80
1000	50	131	220	PC51.1	10	134,00

Erlenmeyer flasks



DURAN GROUP

Material
DURAN®



Flasks for culture media, Erlenmeyer shape

Made of DURAN®. One-sized, straight neck with Ø 38 mm, for metal caps. Autoclavable.

Volume (ml)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	64	114	L182.1	10	141,00
200	79	138	L183.1	10	151,00
250	85	149	L184.1	10	154,00
300	87	161	L185.1	10	76,90
500	105	183	L186.1	10	96,20
1000	131	229	L187.1	1	20,20
2000	166	302	L188.1	1	26,30

► Metal caps and baffled flasks see p. 258

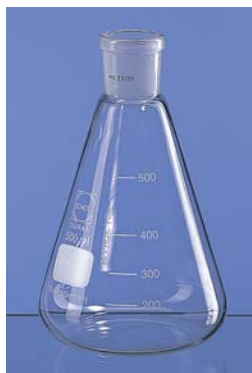


Rotilabo®-Erlenmeyer flasks

Made of borosilicate glass 3.3. With standard ground glass joint.

Volume (ml)	Standard taper (NS)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	42	70	Y643.1	10	74,85
25	19/26	42	70	NT33.1	10	66,60
50	14/23	51	85	Y644.1	10	107,00
50	29/32	51	85	X769.1	10	85,90
100	19/26	51	105	X770.1	10	119,35
100	29/32	64	105	X771.1	10	98,90
200	29/32	79	130	NT34.1	10	117,20
250	29/32	85	135	X773.1	10	92,90
250	45/40	85	135	X774.1	10	137,60
250	14/23	85	140	NT35.1	10	117,20
500	29/32	105	170	X776.1	10	110,75
500	45/50	105	175	NT36.1	10	146,20
1000	29/32	131	215	X778.1	10	177,40
1000	45/40	131	215	X779.1	10	188,15
2000	29/32	166	275	Y684.1	6	131,15
2000	45/50	166	275	NT37.1	6	138,70

► Standard ground glass joint stoppers see p. 126



Material
DURAN®



Erlenmeyer flasks

Made of DURAN®. With standard ground glass joint. DIN 12387. Graduated.

*Acc. to DIN. **Tolerance: ±4 mm

Volume (ml)	Standard taper (NS)	Largest outer Ø (mm)	Height** (mm)	Art. No.	Pack Qty.	€
10*	14/23	30	60	KX15.1	10	67,20
25	14/23	42	70	KT59.1	10	79,90
25	19/26	42	70	KT98.1	10	83,85
50	14/23	51	85	KT60.1	10	80,65
50	19/26	51	85	KT99.1	10	85,50
50*	24/29	51	85	KX17.1	10	85,80
50	29/32	51	85	KT62.1	10	84,95
100	14/23	64	105	KT97.1	10	86,65
100	19/26	64	105	KT61.1	10	89,45
100*	24/29	64	100	KX18.1	10	93,35
100	29/32	64	105	KT63.1	10	77,95
250*	19/26	85	145	KX16.1	10	158,05
250*	24/29	85	140	KX19.1	10	103,15
250	29/32	85	139	KT64.1	10	85,80
250	45/40	85	128	KT68.1	10	152,65
300*	29/32	87	150	KX00.1	10	92,80
500	29/32	105	170	KT65.1	10	109,65
500	45/40	105	165	KX01.1	10	186,00
1000	29/32	131	223	KT66.1	10	165,55
1000	45/40	131	208	KT69.1	1	28,70
2000*	29/32	166	284	KT67.1	1	44,10
5000*	45/40	220	360	KX20.1	1	160,20



Rotilabo®-Erlenmeyer flask

Made of borosilicate glass 3.3. With GL thread and graduations. Screw cap made of PP. Autoclavable.

Volume (ml)	Thread	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	GL 25	64	100	NY86.1	1	8,10
250	GL 32	85	140	NY87.1	1	9,35
500	GL 32	105	175	NY88.1	1	11,45
1000	GL 32	131	215	NY89.1	1	13,05

Erlenmeyer flasks



Material
DURAN®

Erlenmeyer flasks

Made of DURAN®. Thread acc. to DIN and graduated. With screw caps made of PBT (polybutylene terephthalate) and PTFE coated sealings. Autoclavable.

Note: unscrew cap before autoclaving.

Volume (ml)	Largest outer Ø (mm)	Thread	Height (mm)	Art. No.	Pack Qty.	€
100	64	GL 25	109	E531.1	1	25,75
250	85	GL 32	149	E532.1	1	26,35
500	105	GL 32	180	E533.1	1	27,75
1000	131	GL 32	225	E534.1	1	41,90



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PFA Erlenmeyer flasks

Made of PFA. Graduated, highly transparent. Microwave safe. Autoclavable.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Volume (ml)	Height (mm)	Neck Ø (mm)	Art. No.	Pack Qty.	€
100	97	18	YY57.1	1	66,45
200	123	23	YY58.1	1	112,90
300	130	23	YY59.1	1	149,45

► Erlenmeyer flasks sterile see page 257



Rotilabo®-wide neck Erlenmeyer flasks

Made of PP. With screw cap, also usable for ground glass stoppers. Autoclavable at 121 °C.

Volume (ml)	Graduations (ml)	Thread	Standard ground glass joint	Art. No.	Pack Qty.	€
50	10	GL 40	34	8338.1	1	4,05
100	20	GL 40	34	8339.1	1	4,55
250	50	GL 52	45	8341.1	1	6,30
500	100	GL 52	45	8342.1	1	7,30
1000	200	GL 52	45	8344.1	1	9,80



Disposable Erlenmeyer flask

Made of PP. Transparent, graduated from 0 to 170 ml. Specially shaped edge allows drip-free pouring. Can also be used for cultivating drosophila. Autoclavable.

Delivery without snap-on lid (please order separately).

Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
55	55	105	AYP4.1	500	149,45

Accessories:

Snap-on lid for disposable Erlenmeyer flasks, Ø 46 mm	AYP5.1	2000	123,65
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Erlenmeyer flasks

Made of PTFE. Thick-walled, with standard ground joint. Highly pure, chemically inert. Hydrophobic, anti-adhesive surface. Temperature stable from -200 to +250 °C. Autoclavable.

Volume (ml)	Standard ground glass joint	Height (mm)	Outer Ø (mm)	Art. No.	Pack Qty.	€
50	19/26	86	54	NP91.1	1	113,95
100	19/26	128	63	NP92.1	1	152,65
250	29/32	144	85	NP93.1	1	208,55
500	29/32	190	107	NP94.1	1	371,95

Measuring cylinders



Class A measuring cylinders, blue markings

Tall form. Made of borosilicate glass 3.3. With hexagonal foot. Comes with batch identification. Certificate of conformity can be requested. Adjusted to IN. Acc. to DIN 12680-2. Autoclavable.

Volume (ml)	Graduations (ml)	Error (±ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
5	0,1	0,05	115	13	Y303.1	2	14,20
10	0,2	0,10	135	16	Y304.1	2	14,55
25	0,5	0,25	160	21	Y305.1	2	15,70
50	1,0	0,50	195	26	Y306.1	2	16,80
100	1,0	0,50	240	31	Y307.1	2	17,45
250	2,0	1,00	320	41	Y308.1	2	26,85
500	5,0	2,50	380	53	Y309.1	2	37,10
1000	10,0	5,00	465	67	Y310.1	2	60,20
2000	20,0	10,00	565	84	Y311.1	1	56,80



Material
DURAN®



Class A measuring cylinders, amber markings

By Hirschmann. **Tall form.** Made of DURAN®. Acc. to DIN EN ISO 4788. Comes with durably printed batch identification. Certificate of conformity can be requested. Adjusted to IN. With hexagonal base and spout. Autoclavable.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
5	0,1	0,05	115	13	AN01.1	2	19,90
10	0,2	0,10	140	14	AN02.1	2	19,90
25	0,5	0,25	170	21	AN03.1	2	20,40
50	1,0	0,50	200	25	AN04.1	2	20,90
100	1,0	0,50	260	29	AN05.1	2	21,95
250	2,0	1,00	335	39	AN06.1	2	39,70
500	5,0	2,50	390	53	AN07.1	2	68,80
1000	10,0	5,00	470	65	AN08.1	1	51,50
2000	20,0	10,00	500	85	AN09.1	1	85,85



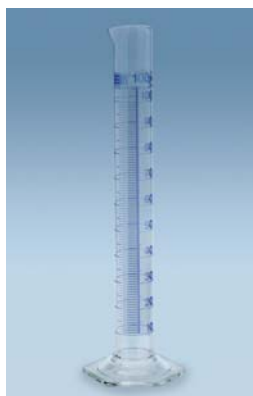
Material
DURAN®



Class A measuring cylinders, blue graduated

By Hirschmann. **Tall form.** Made of DURAN®. Acc. to DIN EN ISO 4788. Comes with batch identification. Adjusted to IN. With spout and hexagonal foot. Autoclavable.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
5	0,1	0,05	115	13	Y568.1	2	20,35
10	0,2	0,10	140	14	Y569.1	2	19,30
25	0,5	0,25	170	21	Y570.1	2	20,00
50	1,0	0,50	200	25	Y571.1	2	21,00
100	1,0	0,50	260	29	Y572.1	2	21,95
250	2,0	1,00	335	39	Y573.1	2	39,70
500	5,0	2,50	390	53	Y574.1	2	66,90
1000	10,0	5,00	470	65	Y575.2	1	53,65
2000	20,0	10,00	570	85	Y576.1	1	94,50



Material
DURAN®



Measuring cylinder class A, blue graduated

By Hirschmann. **Tall type.** Made of DURAN®. With **Schellbach stripe** for enhanced legibility and more exact meniscus configuration. DIN EN ISO 4788 certified. Certified conformity, with retrace code. Calibrated to IN. With hexagonal base and ring graduations. Autoclavable.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Height (mm)	Art. No.	Pack Qty.	€
5	0,1	0,05	115	CNX1.1	2	23,15
10	0,2	0,1	140	CNX2.1	2	21,40
25	0,5	0,25	170	CNX3.1	2	22,60
50	1	0,5	200	CNX4.1	2	23,60
100	1	0,5	260	CNX5.1	2	29,60
250	2	1	335	CNX6.1	2	48,35
500	5	2,5	390	CNX7.1	2	81,60
1000	1	5	470	CNX8.1	1	53,70
2000	20	10	500	CNX9.1	1	103,75

Measuring cylinders

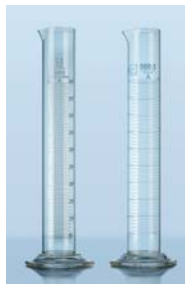


Material
DURAN®
 121°C

Class A measuring cylinders, blue markings

By Hirschmann. **Tall form.** Made of DURAN®. Hexagonal foot and protective collar made of **PP** that can be slipped on easily. With spout. Rings markers principal values. Acc. to DIN EN ISO 4788. Comes with batch identification. Certificate of conformity can be requested. Adjusted to IN. Autoclavable (without hexagonal foot).

Volume (ml)	Graduations (ml)	Error (±ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
10	0,2	0,1	140	14	CX74.1	2	15,60
25	0,5	0,25	170	21	CX75.1	2	16,05
50	1	0,5	200	25	CX76.1	2	18,85
100	1	0,5	260	29	CX77.1	2	20,70
250	2	1,0	335	39	CX78.1	2	36,25
500	5	2,5	390	53	CX79.1	2	57,95
1000	10	5,0	470	65	CX80.1	1	47,00



DURAN GROUP
Material
DURAN®
 121°C

DURAN®-measuring cylinders

Made of DURAN®. According to DIN ISO 4788. **High form.** With hexagonal base and spout. Standardised wall thickness over the complete measurement range prevents wedge error. Calibrated to IN. Temperature stable up to 250 °C without change in volume. Autoclavable.

Class A with blue graduations. Conformity certified, with mark of conformity and enclosed batch certificate.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
5	0,1	0,05	112	13	AKA2.1	2	17,35
10	0,2	0,10	137	14	AKA3.1	2	17,15
25	0,5	0,25	167	21	AKA4.1	2	18,15
50	1	0,50	196	25	AKA5.1	2	19,40
100	1	0,50	256	29	AKA6.1	2	20,70
250	2	1,00	331	39	AKA7.1	2	40,00
500	5	2,50	360	53	AKA8.1	2	67,10
1000	10	5,00	460	65	AKA9.1	1	51,70
2000	20	10,00	500	85	AKC0.1	1	90,60

Class B with white graduations

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
5	0,1	0,1	112	13	AKC1.1	2	16,70
10	0,2	0,2	137	14	AKC2.1	2	17,80
25	0,5	0,5	167	21	AKC3.1	2	18,60
50	1	1	196	25	AKC4.1	2	19,30
100	1	1	256	29	AKC5.1	2	22,10
250	2	2	331	39	AKC6.1	2	30,20
500	5	5	360	53	AKC7.1	2	46,90
1000	10	10	460	65	AKC8.1	1	45,70
2000	20	20	500	85	AKC9.1	1	76,00



Material
DURAN®
 121°C

Class B measuring cylinders, blue markings

By Hirschmann. **Tall form.** Made of DURAN®. With hexagonal foot. Acc. to DIN EN ISO 4788. Graduated, has spout. Autoclavable.

Volume (ml)	Graduations (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
5	0,1	115	13	C173.2	2	16,15
10	0,2	140	14	C174.2	2	15,70
25	0,5	170	21	C175.2	2	16,05
50	1,0	200	25	C176.2	2	16,90
100	1,0	260	29	C177.2	2	18,95
250	2,0	335	39	C178.2	2	33,65
500	5,0	390	53	C179.2	2	53,75
1000	10,0	470	65	C180.1	1	44,10
2000	20,0	500	85	C181.1	1	76,45



Material
DURAN®
 121°C

Class B measuring cylinders, amber markings

By Hirschmann. **Tall form.** Made of DURAN®. Acc. to DIN EN ISO 4788. Adjusted to IN. With hexagonal foot and spout. Autoclavable.

Volume (ml)	Graduations (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
5	0,1	115	13	AN10.1	2	16,80
10	0,2	140	14	AN11.1	2	16,05
25	0,5	170	21	AN12.1	2	16,45
50	1,0	200	25	AN13.1	2	16,70
100	1,0	260	29	AN14.1	2	18,05
250	2,0	335	39	AN15.1	2	33,00
500	5,0	390	53	AN16.1	2	53,35
1000	10,0	470	65	AN17.1	1	44,00
2000	20,0	500	85	AN18.1	1	75,80

Measuring cylinders

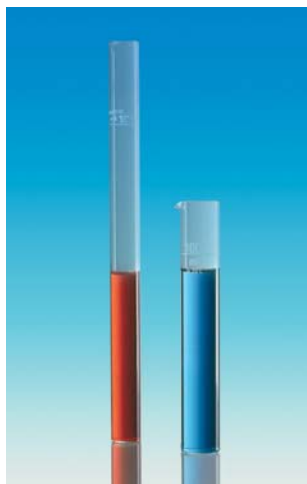


Material
DURAN®


Class B measuring cylinders, blue markings

By Hirschmann. **Tall form.** Made of DURAN®. Hexagonal foot and protective lip made of PP can be slipped on easily. With spout and scale. Acc. to DIN EN ISO 4788. Adjusted to IN. Autoclavable (without hexagonal foot).

Volume (ml)	Graduations (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
10	0,2	140	14	CX81.1	2	12,15
25	0,5	170	21	CX82.1	2	13,65
50	1,0	200	25	CX83.1	2	14,55
100	1,0	260	29	CX84.1	2	17,95
250	2,0	335	39	CX85.1	2	28,60
500	5,0	390	53	CX86.1	2	45,70
1000	10,0	470	65	CX87.1	1	38,65



Nessler cylinders

Made of soda-lime glass, with spout. Filling volume is adjusted to IN, with white ring mark.

Short

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
50	175	26	TX37.1	1	15,40
100	200	32	TX38.1	1	16,80

Tall

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
50	265	21	TX39.1	1	13,45
100	320	26	TX40.1	1	14,30





Class B measuring cylinders

By Hirschmann. **Low form.** Made of 3.3 borosilicate glass. Graduated, with hexagonal base and nozzle, amber graduations. Acc. to DIN EN ISO 4788. Autoclavable.

Volume (ml)	Height (mm)	Ø (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
10	100	21	1	K255.2	2	15,40
25	125	25	1	K256.2	2	15,40
50	150	29	2	K257.2	2	16,05
100	170	39	2	K258.2	2	18,95
250	220	54	5	K259.2	2	33,80
500	255	65	10	K260.2	2	52,25
1000	295	85	20	K261.1	1	42,80
2000	345	105	50	K262.1	1	74,95





Rotilabo®-short measuring cylinders made of PP

Made of transparent PP. With embossed scale and round base. Autoclavable.

Volume (ml)	Height (mm)	Ø (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
10	88	16	0,25	K846.1	1	3,45
25	107	22	1,0	K847.1	1	3,60
50	143	29	2,5	K848.1	1	3,90
100	178	34	5,0	K849.1	1	4,45
250	264	45,5	10,0	K850.1	1	7,75
500	305	55,5	10,0	K851.1	1	9,15
1000	332	70	25,0	K852.1	1	11,75
2000	370	92	50,0	K853.1	1	16,25

Measuring cylinders



Rotilabo®-tall measuring cylinders made of PP

Made of transparent **PP**. With embossed scale and hexagonal base. Rings mark the main points. Adjusted to IN. Tolerance of Class B conforms to DIN 12681 / ISO 6706. Thermal stress up to 60 °C causes no permanent exceeding of tolerance limit.

Volume (ml)	Height (mm)	Ø (mm)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
10	145	15	0,2	0,2	8357.1	1	2,40
25	170	22	0,5	0,5	8359.1	1	2,85
50	200	27	1,0	1,0	1666.1	1	3,10
100	250	33	1,0	1,0	1667.1	1	3,85
250	315	44	2,0	2,0	8362.1	1	5,85
500	360	58	5,0	5,0	1668.1	1	7,65
1000	440	68	10,0	10,0	1669.1	1	10,25
2000	482	97	20,0	20,0	8363.1	1	23,45



Measuring cylinders with handle

Made of **PP**. With hexagonal base and handle (hand opening 89 x 29 mm). For safe, effortless pouring. Double scale for IN and EX, correctness ±5 %. Autoclavable.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
1000	10	64 x 439	YC27.1	1	36,05
2000	20	89 x 490	YC28.1	1	63,40



Measuring cylinders

Class A, made of **PMP** in compliance with DIN 12681/ISO 6706. **Certificate of conformity**, clear. Graduated with embossed markings; principle values designated with rings. With hexagonal foot. Supplied with test certificate with batch number and year of manufacture. Autoclavable at 121 °C.

Volume (ml)	Height (mm)	Ø (mm)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
25	170	22	0,5	0,25	P148.1	2	13,75
50	200	27	1,0	0,5	P149.1	2	14,55
100	250	33	1,0	0,5	P150.1	2	19,60
250	315	44	2,0	1,0	P151.1	2	30,75
500	360	58	5,0	2,5	P152.1	1	23,45
1000	440	69	10,0	5,0	P153.1	1	33,50
2000	482	97	20,0	10,0	P154.1	1	55,15



PFA measuring cylinders

Made of **PFA**, highly transparent. With easy-to-read graduations and wide base. Autoclavable.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Volume (ml)	Height (mm)	Neck inside Ø (mm)	Art. No.	Pack Qty.	€
30	165,9	17,8	YY72.1	1	342,95
50	216,7	20,0	YY73.1	1	367,65
100	231,8	25,7	YY74.1	1	439,70
200	281,8	33,6	YY75.1	1	532,15
300	295,3	40,7	YY76.1	1	628,90
500	352,4	49,5	YY77.1	1	708,45
1000	316,7	77,7	YY78.1	1	1245,95

Mixing cylinders



Material
DURAN®

Class A mixing cylinders

By Hirschmann. Made of DURAN®. Acc. to DIN EN ISO 4788. Graduated. Comes with durably printed batch identification. With blue markings. Adjusted to IN. With hexagonal base. With standard ground joint (NS) and PE-stopper.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Standard taper (NS)	Height (mm)	Art. No.	Pack Qty.	€
10	0,2	0,1	10/19	160	Y585.1	2	39,15
25	0,5	0,25	14/23	193	Y586.1	2	41,50
50	1,0	0,5	19/26	226	Y587.1	2	47,10
100	1,0	0,5	24/29	290	Y588.1	2	51,20
250	2,0	1,0	29/32	367	Y589.1	2	76,90
500	5,0	2,5	34/35	425	Y590.1	2	108,60
1000	10,0	5,0	45/40	510	Y591.2	1	92,35
2000	20,0	10,0	45/40	610	Y592.1	1	158,05



Material
DURAN®

Class B mixing cylinders

By Hirschmann. Made of DURAN®. Acc. to DIN EN ISO 4788. With PE-stopper and blue markings. With hexagonal base. Adjusted to IN.

Volume (ml)	Graduations (ml)	Standard taper (NS)	Height (mm)	Art. No.	Pack Qty.	€
10	0,2	10/19	160	Y577.1	2	32,15
25	0,5	14/23	193	Y578.1	2	33,90
50	1,0	19/26	226	Y579.1	2	37,85
100	1,0	24/29	290	Y580.1	2	40,75
250	2,0	29/32	367	Y581.1	2	60,95
500	5,0	34/35	425	Y582.1	2	94,40
1000	10,0	45/40	510	Y583.2	1	73,10
2000	20,0	45/40	610	Y584.1	1	134,40

► Aerometer see page 782



Material
DURAN®

DURAN GROUP



DURAN®-mixing cylinders

Made of DURAN®. Compliant with DIN EN ISO 4788. Standardised wall thickness across the full measurement range prevents wedge error. With hexagonal base, standard taper and line graduations. Calibrated to IN. Temperature stable up to 250 °C without change in volume. Autoclavable.

Delivery incl. PE stopper.

Class A with blue graduations. Conformity certified, with mark of conformity and enclosed batch certificate.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Standard taper (NS)	Height (mm)	Art. No.	Pack Qty.	€
10	0,2	0,10	10/19	156	AKE0.1	2	37,70
25	0,5	0,25	14/23	190	AKE1.1	2	39,80
50	1	0,50	19/26	222	AKE2.1	2	45,00
100	1	0,50	24/29	287	AKE3.1	2	49,80
250	2	1,00	29/32	363	AKE4.1	2	72,60
500	5	2,50	34/35	398	AKE5.1	2	102,00
1000	10	5,00	45/40	500	AKE6.1	1	93,30
2000	20	10,00	45/40	540	AKE7.1	1	156,00

Class B with white graduations

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Standard taper (NS)	Height (mm)	Art. No.	Pack Qty.	€
10	0,2	0,2	10/19	156	AKH8.1	2	33,60
25	0,5	0,5	14/23	190	AKH9.1	2	34,70
50	1	1	19/26	222	AKH0.1	2	38,90
100	1	1	24/29	287	AKH1.1	2	40,30
250	2	2	29/32	363	AKH2.1	2	60,80
500	5	5	34/35	398	AKH3.1	2	95,80
1000	10	10	45/40	500	AKH4.1	1	70,20
2000	20	20	45/40	540	AKH5.1	1	141,00



DURAN GROUP

Standard ground glass joint stoppers

Made of PE. Anatomically shaped for easier opening and closing, sealing ribs on taper ensure optimal and leak-proof sealing. With batch code on base of stopper. Temperature stable from -40 to +80 °C

Standard taper (NS)	Colour	Art. No.	Pack Qty.	€
7/16	blue	AKH6.1	10	7,15
10/19	green	AKH7.1	10	9,30
12/21	violet	AKH8.1	10	11,00
14/23	yellow	AKH9.1	10	7,75
19/26	blue	AKK0.1	10	8,70
24/29	green	AKK1.1	10	10,10
29/32	red	AKK2.1	10	12,50
34/35	orange	AKK3.1	1	2,80
45/40	brown	AKK4.1	1	3,20



Volumetric flasks

Made of borosilicate glass 3.3. **Class A.** With certificate of conformity and batch identification. With standard ground joint and **HDPE**-stopper. Adjusted to IN. Acc. to DIN EN 12664, ISO 1042.

Transparent glass

* Wide neck

Volume (ml)	Error (±ml)	Standard ground joint	Art. No.	Pack Qty.	€
5	0,025	7/16	Y273.1	2	12,40
5	0,025	10/19*	Y274.1	2	12,40
10	0,025	7/16	Y275.1	2	13,25
10	0,025	10/19*	Y276.1	2	12,90
20	0,040	10/19	Y277.1	2	13,35
25	0,040	10/19	Y278.1	2	14,00
50	0,060	12/21	Y279.1	2	14,85
50	0,060	14/23*	Y280.1	2	15,80
100	0,100	12/21	Y281.1	2	16,35
100	0,100	14/23*	Y282.1	2	17,55
200	0,150	14/23	Y283.1	2	21,85
250	0,150	14/23	Y284.1	2	22,05
500	0,250	19/26	Y285.1	2	29,35
1000	0,400	24/29	Y286.1	2	48,40
2000	0,600	29/32	Y287.1	2	79,55
5000	1,200	34/35	Y288.1	1	96,65

Amber glass. Graduated with white markings.

*Wide neck

Volume (ml)	Error (±ml)	Standard ground joint	Art. No.	Pack Qty.	€
5	0,025	7/16	Y289.1	2	20,40
5	0,025	10/19*	Y290.1	2	19,90
10	0,025	10/19*	Y292.1	2	19,90
20	0,040	10/19	Y293.1	2	21,30
25	0,040	10/19	Y294.1	2	22,25
50	0,060	12/21	Y295.1	2	23,80
50	0,060	14/23*	Y296.1	2	24,00
100	0,100	12/21	Y297.1	2	27,00
100	0,100	14/23*	Y298.1	2	27,90
200	0,150	14/23	Y299.1	2	37,75
250	0,150	14/23	Y300.1	2	42,60
500	0,250	19/26	Y301.1	2	56,55
1000	0,400	24/29	Y302.1	2	79,50

► Glass-stoppers see page 125



Material
DURAN®

Volumetric flasks

By Hirschmann. Made of DURAN®. **Class A.** Comes with durably printed batch identification. With standard ground joint and **PE** stopper. Adjusted to IN. Acc. to DIN EN ISO 1042.

Transparent glass. Graduated with blue markings.

*Wide neck

Volume (ml)	Error (±ml)	Standard ground joint	Art. No.	Pack Qty.	€
5	0,025	7/16	Y231.1	2	25,80
5	0,04	10/19*	Y232.1	2	25,80
10	0,025	7/16	C162.1	2	25,00
10	0,04	10/19*	Y233.1	2	25,80
20	0,04	10/19	C163.1	2	25,00
25	0,04	10/19	C164.1	2	25,00
25	0,06	12/21*	Y234.1	2	27,10
50	0,06	12/21	C165.1	2	28,20
50	0,08	14/23*	Y235.1	2	27,45
100	0,1	12/21	C166.1	2	28,95
100	0,1	14/23*	Y236.1	2	28,20
200	0,15	14/23	C167.1	2	35,75
250	0,15	14/23	C168.1	2	39,05
500	0,25	19/26	C169.1	2	45,70
1000	0,4	24/29	C170.1	2	73,25
1000	0,6	29/32*	Y237.1	2	88,80
2000	0,6	29/32	C171.1	2	109,65
5000	1,2	34/35	C172.1	1	126,85

Trapezoid. Graduated with blue markings.

Volume (ml)	Error (±ml)	Standard ground joint	Art. No.	Pack Qty.	€
1	0,025	7/16	Y239.2	2	31,40
2	0,025	7/16	Y240.2	2	31,40
5	0,04	10/19	Y241.1	2	31,75
10	0,04	10/19	Y242.1	2	31,75
20	0,04	10/19	Y243.1	2	31,75
25	0,04	10/19	Y244.1	2	32,05
50	0,06	12/21	Y245.1	2	32,05

Amber glass. With marking ring and graduation in white ceramic colour.

1) Not in compliance with DIN *Wide neck

Volume (ml)	Error (±ml)	Standard ground joint	Art. No.	Pack Qty.	€
5	0,04	10/19	L450.2	2	44,10
10	0,04	10/19	L452.2	2	44,10
20 ¹⁾	0,04	10/19	L453.2	2	44,10
25	0,04	10/19	L454.2	2	44,10
50	0,06	12/21	L455.2	2	46,25
50	0,08	14/23*	L456.2	2	47,95
100	0,1	12/21	L457.2	2	50,10
100	0,1	14/23*	L458.2	2	51,30
200	0,15	14/23	L459.2	2	56,15
250	0,15	14/23	L460.2	2	59,80
500	0,25	19/26	L461.2	2	78,05
1000	0,4	24/29	L462.1	1	58,40
2000	0,6	29/32	L463.1	1	88,15

Volumetric flasks



DURAN®-volumetric flasks

Clear glass, blue or white graduations. Calibrated to IN. According to DIN 12 600. Temperature stable up to 250 °C without change in volume.
Delivery incl. PE stoppers, temperature stable from -40 to +80 °C.

Class A with blue graduations and white ring mark. Conformity certified, with mark of conformity and enclosed **batch certificate**.

Volume (ml)	Error (±ml)	Standard ground glass joint	Overall height (mm)	Art. No.	Pack Qty.	€
1	0.025	7/16	65	AHL8.1	2	49,10
2	0.025	7/16	70	AHL9.1	2	49,10
5	0.04	10/19	70	AHN0.1	2	27,60
10	0.04	10/19	90	AHN1.1	2	27,80
20	0.04	10/19	110	AHN2.1	2	28,60
25	0.04	10/19	110	AHN3.1	2	28,60
50	0.06	12/21	140	AHN4.1	2	31,20
100	0.1	12/21	170	AHN5.1	2	34,80
100	0.1	14/23	170	AHN6.1	2	35,10
200	0.15	14/23	210	AHN7.1	2	39,80
250	0.15	14/23	220	AHN8.1	2	41,30
500	0.25	19/26	260	AHN9.1	2	48,80
1000	0.4	24/29	300	AHP0.2	2	85,30
1000	0.6	29/32	300	AHP1.2	2	94,10
2000	0.6	29/32	370	AHP2.2	2	116,00
5000	1.2	34/35	475	AHP3.1	1	117,00

Class A with blue graduations and white ring mark. Conformity certified, with mark of conformity and enclosed **individual certificate**.

Volume (ml)	Error (±ml)	Standard ground glass joint	Overall height (mm)	Art. No.	Pack Qty.	€
1	0.025	7/16	65	AHP4.1	2	98,20
2	0.025	7/16	70	AHP5.1	2	98,20
5	0.04	10/19	70	AHP6.1	2	67,70
10	0.04	10/19	90	AHP7.1	2	67,90
20	0.04	10/19	110	AHP8.1	2	68,70
25	0.04	10/19	110	AHP9.1	2	68,70
50	0.06	12/21	140	AHT0.1	2	71,30
100	0.1	12/21	170	AHT1.1	2	74,90
100	0.1	14/23	170	AHT2.1	2	75,20
200	0.15	14/23	210	AHT3.1	2	79,95
250	0.15	14/23	220	AHT4.1	2	81,40
500	0.25	19/26	260	AHT5.1	2	89,00
1000	0.4	24/29	300	AHT6.1	1	68,50
1000	0.4	24/29	300	AHT6.2	2	125,00
1000	0.6	29/32	300	AHT7.1	1	68,50
1000	0.6	29/32	300	AHT7.2	2	134,00
2000	0.6	29/32	370	AHT8.2	2	156,00
5000	1.25	34/35	475	AHT9.1	1	133,00

Class B with white graduations and white ring mark.

Volume (ml)	Error (±ml)	Standard ground glass joint	Overall height (mm)	Art. No.	Pack Qty.	€
5	0.08	10/19	70	AHX0.1	2	23,30
10	0.08	10/19	90	AHX1.1	2	23,80
20	0.08	10/19	110	AHX2.1	2	24,50
25	0.08	10/19	110	AHX3.1	2	24,50
50	0.12	12/21	140	AHX4.1	2	28,30
100	0.2	14/23	170	AHX5.1	2	31,65
200	0.3	14/23	210	AHX6.1	2	35,20
250	0.3	14/23	220	AHX7.1	2	36,90
500	0.5	19/26	260	AHX8.1	2	44,75
1000	0.8	24/29	300	AHX9.1	1	26,25
1000	0.8	24/29	300	AHX9.2	2	75,00
2000	1.2	29/32	370	AHY0.1	1	33,15
2000	1.2	29/32	370	AHY0.2	2	104,00
5000	2.4	34/35	475	AHY1.1	1	111,00



DURAN GROUP
Material
DURAN®

DURAN®-volumetric flasks, class A, USP<31>

Clear glass with blue graduations and white ring mark. Calibrated to IN. According to DIN 12 600. USP<31> compliant, conformity certified with symbol of conformity and enclosed USP certificate.

Temperature stable up to +250 °C without change in volume.

Delivery incl. PE stoppers, temperature stable from -40 to +80 °C.

Volume (ml)	Error (±ml)	Standard ground glass joint	Overall height (mm)	Art. No.	Pack Qty.	€
5	0,02	10/19	70	AHY2.1	2	71,00
10	0,02	10/19	90	AHY3.1	2	71,20
25	0,03	10/19	110	AHY4.1	2	72,10
50	0,05	12/21	140	AHY5.1	2	74,90
100	0,08	14/23	170	AHY6.1	2	79,00
200	0,1	14/23	210	AHY7.1	2	83,95
250	0,12	14/23	220	AHY8.1	2	85,50
500	0,15	19/26	260	AHY9.1	2	93,40
1000	0,3	24/29	300	AKA0.2	2	131,00
2000	0,5	29/32	370	AKA1.2	2	164,00



NEU
NOUVEAU
NEW

Material
DURAN®

Volumetric flask with glass stopper

By Hirschmann. Made of DURAN®. Class A. Certified conformity with retrace code. With ground glass joint and hollow glass stopper. Calibrated to IN. DIN EN ISO 1042 certified.

Clear glass. Blue graduations.

*Wide mouth

Volume (ml)	Tolerance (±ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	0,025	7/16	70	CNY0.1	2	31,95
5	0,04	10/19*	70	CNY1.1	2	30,80
10	0,025	7/16	90	CNY2.1	2	30,80
10	0,04	10/19*	90	CNY3.1	2	30,80
20	0,04	10/19	110	CNY4.1	2	30,95
20	0,06	12/21*	105	CNY5.1	2	36,45
25	0,04	10/19	110	CNY6.1	2	30,85
25	0,06	12/21*	110	CNY7.1	2	30,85
50	0,06	12/21	140	CNY8.1	2	30,85
50	0,08	14/23*	140	CNY9.1	2	32,05
100	0,1	12/21	170	CPA0.1	2	32,05
100	0,1	14/23	170	CPA1.1	2	33,15
200	0,15	14/23	210	CPA2.1	2	42,50
250	0,15	14/23	220	CPA3.1	2	45,15
500	0,25	19/26	260	CPA4.1	2	55,05
1000	0,6	19/32*	300	CPA5.1	1	49,80
1000	0,4	24/29	300	CPA6.1	1	43,25
2000	0,6	29/32	370	CPA7.1	1	61,30
5000	1,2	34/35	470	CPA8.1	1	135,45
10000	2,0	45/40	570	CPA9.1	1	256,95

Trapezoidal shape. Blue graduations.

*Wide mouth

Volume (ml)	Tolerance (±ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
1	0,025	7/16	60	CPC0.1	2	38,70
2	0,025	7/16	70	CPC1.1	2	38,70
5	0,025	7/16	70	CPC2.1	2	38,70
5	0,04	10/19*	70	CPC3.1	2	38,70
10	0,025	7/16	90	CPC4.1	2	38,70
10	0,04	10/19*	90	CPC5.1	2	38,70
20	0,04	10/19	110	CPC6.1	2	38,70
25	0,04	10/19	110	CPC7.1	2	38,70
50	0,06	12/21	140	CPC8.1	2	38,70

Brown glass. White graduations.

*Wide mouth

Volume (ml)	Tolerance (±ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
5	0,025	7/16	70	CPC9.1	2	67,20
5	0,04	10/19*	70	CPE0.1	2	56,45
10	0,025	7/16	90	CPE1.1	2	67,20
10	0,04	10/19*	90	CPE2.1	2	56,45
20	0,04	10/19	110	CPE3.1	2	56,45
20	0,04	12/21*	110	CPE4.1	2	56,45
25	0,04	10/19	110	CPE5.1	2	56,45
25	0,06	12/21*	110	CPE6.1	2	56,45
50	0,06	12/21	140	CPE7.1	2	56,45
50	0,08	14/23*	140	CPE8.1	2	56,45
100	0,1	12/21	170	CPE9.1	2	56,45
100	0,1	14/23	170	CPH0.1	2	58,05
200	0,15	14/23	210	CPH1.1	2	65,50
250	0,15	14/23	220	CPH2.1	2	67,75
500	0,25	19/26	260	CPH3.1	2	93,00
1000	0,4	24/29	300	CPH4.1	1	65,25
2000	0,6	29/32	370	CPH5.1	1	98,90



Volumetric flasks with screw cap, class A

Individually ring-marked 'In'. Tolerance class A according to DIN EN ISO 1042. Autoclavable.

Note: exposure to temperatures up to 121 °C (autoclaving) will not cause tolerance limits to be permanently exceeded.

① Made of PFA, with screw cap made of PFA.

High temperature and chemical resistance. Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning. High purity, ideal for use in trace analysis and for storage of reference solutions. No memory effect.

Volume (ml)	Tolerance (±ml)	Thread GL	Height (mm)	Art. No.	Pack Qty.	€
10	0,04	18	90	XY51.1	1	120,40
25	0,04	18	115	XY52.1	1	124,70
50	0,06	18	150	XY53.1	1	126,85
100	0,10	18	180	XY54.1	1	158,05
250	0,15	25	235	XY55.1	1	197,80
500	0,25	25	270	XY56.1	1	226,85

② Made of PMP, opaque. With screw cap made of PP.

With imprinted lot number and batch certificate. We recommend cleaning at below 60 °C to preserve the imprint. UV-absorbent for storage of light-sensitive substances.

Volume (ml)	Tolerance (±ml)	Thread GL	Height (mm)	Art. No.	Pack Qty.	€
10	0,04	18	90	XY44.1	1	17,65
25	0,04	18	115	XY45.1	1	18,50
50	0,06	18	150	XY46.1	1	20,35
100	0,10	18	180	XY47.1	1	22,05
250	0,15	25	235	XY48.1	1	26,45
500	0,25	25	270	XY49.1	1	31,35
1000	0,40	32	310	XY50.1	1	54,95

Volumetric flasks



Volumetric flasks with stopper, class A

Made of PMP. With standard ground joint stopper made of PP. Individually ring-marked 'In'. Tolerance class A according to DIN EN ISO 1042. With imprinted lot number and batch certificate. We recommend cleaning at below 60 °C to preserve the imprint. Autoclavable.

Note: exposure to temperatures up to 121 °C (autoclaving) will not cause tolerance limits to be permanently exceeded.

① Transparent.

Volume (ml)	Tolerance (±ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0,04	10/19	90	XY30.1	1	9,80
25	0,04	10/19	115	XY31.1	1	9,95
50	0,06	12/21	150	XY32.1	1	13,05
100	0,10	14/23	180	XY33.1	1	14,65
250	0,15	19/26	235	XY34.1	1	18,40
500	0,25	19/26	270	XY35.1	1	19,15
1000	0,40	24/29	310	XY36.1	1	22,25

② Opaque.

UV-absorbent for storage of light-sensitive substances.

Volume (ml)	Tolerance (±ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10	0,04	10/19	90	XY37.1	1	17,65
25	0,04	10/19	115	XY38.1	1	18,50
50	0,06	12/21	150	XY39.1	1	20,35
100	0,10	14/23	180	XY40.1	1	22,05
250	0,15	19/26	235	XY41.1	1	26,45
500	0,25	19/26	270	XY42.1	1	31,35
1000	0,40	24/29	310	XY43.1	1	54,95

Volumetric flasks with stopper, class B

With standard ground joint stopper made of PP. Ring shaped marker can be adjusted individually. Tolerances comply with DIN EN ISO 1042.

Please note:

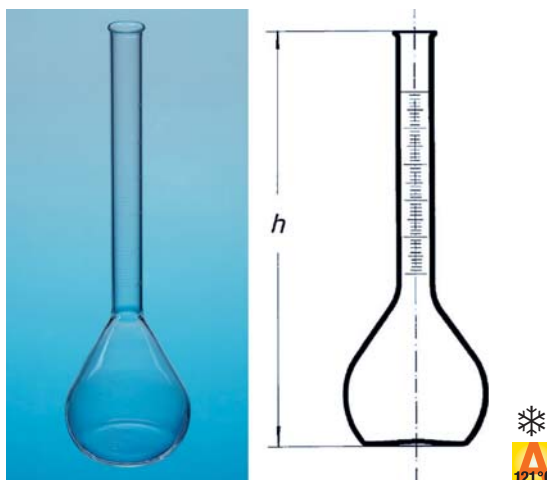
Temperatures up to 60 °C cause no permanent exceeding of tolerance limit.

③ Made of PMP. Autoclavable at 121 °C.

Volume (ml)	Tolerance (±ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
25	0,08	10/19	115	8374.1	1	8,30
50	0,12	12/21	150	8375.1	1	10,70
100	0,20	14/23	180	8377.1	1	12,20
250	0,30	19/26	235	8378.1	1	15,60
500	0,50	19/26	270	8380.1	1	16,25
1000	0,80	24/29	310	8381.1	1	18,85

④ Made of PP.

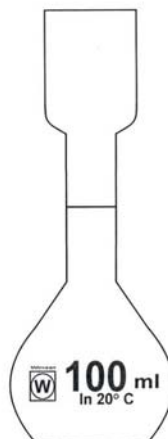
Volume (ml)	Tolerance (±ml)	Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
25	0,08	10/19	115	8364.1	1	7,20
50	0,12	12/21	150	8365.1	1	9,15
100	0,20	14/23	180	8366.1	1	9,80
250	0,30	19/26	235	8368.1	1	12,20
500	0,50	19/26	270	8370.1	1	12,80
1000	0,80	24/29	310	8372.1	1	14,85



Rotilabo®-flasks with graduated neck

Made of borosilicate glass 3.3 with heavy duty rim. Brown, graduated. Autoclavable.

Volume vessel (ml)	Neck volume (ml)	Graduations (ml)	Height (mm)	Art. No.	Pack Qty.	€
50	+5	0.2	155	ACA7.1	1	15,30
100	+10	0.2	205	ACA8.1	1	16,30
200	+20	0.2	245	ACA9.1	1	22,55
250	+25	0.5	280	ACC0.1	1	29,25
500	+50	1.0	320	ACC1.1	1	29,30
1000	+100	1.0	400	ACC2.1	1	38,20



Rotilabo®-Kohlrausch flasks, class A

Made of borosilicate glass 3.3. For sugar analysis acc. to Kohlrausch. With ring mark, accuracy within official test tolerance.

Volume (ml)	Art. No.	Pack Qty.	€
100	AAN3.1	1	23,90
200	AAN4.1	1	29,35

Measuring vessels



Gay-Lussac pycnometers

Made of borosilicate glass 3.3. For determining the density of non-volatile, low-viscosity liquids. Pear-shaped. With ground glass plug, grind Ø top 9 mm, bottom 7 mm. Adjusted at 20 °C.

Volume (ml)	Art. No.	Pack Qty.	€
1	P224.1	1	31,50
2	P225.1	1	33,65
5	P226.1	1	33,25
10	P227.1	1	34,35
25	P228.1	1	36,05
50	P229.1	1	39,80
100	P230.1	1	46,25



Rotilabo®-Reischauer pycnometers

Made of borosilicate glass 3.3. With graduations in neck and ground glass joint 10/13. According to ISO 3507.

Volume (ml)	Height (mm)	Art. No.	Pack Qty.	€
25	105	TP46.1	1	27,65
50	115	TP47.1	1	30,45



Rotilabo®-pycnometers

Made of borosilicate glass 3.3. For bituminous compounds and mineral substances. With ring mark.

Volume (ml)	NS	Art. No.	Pack Qty.	€
500	45/40	AAN8.1	1	82,80
1000	60/46	AAN9.1	1	104,30
2000	60/46	AAP0.1	1	120,40



Oxygen bottles

Made of borosilicate glass. With PE stopper and labelling space. For the determination of water dissolved oxygen. Total volume is engraved in bottle, accuracy 0.01 ml.

Volume (ml)	NS	Art. No.	Pack Qty.	€
100-150	14/23	AAP3.1	1	17,55
100-150	29/22	AAP4.1	1	19,30
250-300	19/26	AAP5.1	1	18,50



Winkler oxygen bottles

Made of clear glass. With ground-in stopper NS 18.8 and opaque label, exact content is engraved on bottle. Two digits after the comma, tolerance ± 0.1 ml.

Volume (ml)	Art. No.	Pack Qty.	€
100-150	HH78.1	1	25,60
250-300	HH79.1	1	28,20

- Spring clips for Winkler oxygen bottles, see page 127

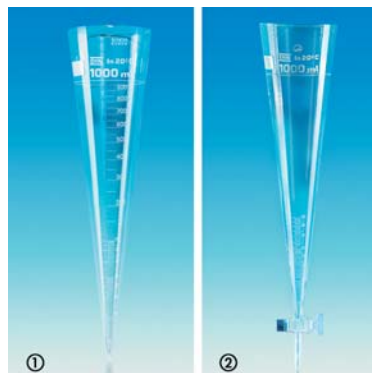
Measuring vessels



Einhorn fermentation saccharometer

Made of calcium soda glass. For determining the sugar content in liquids. With indelibly branded white graduations (0.2-5 ml). Autoclavable.
Delivery incl. burette with ring mark at 10 ml.

Art. No.	Pack Qty.	€
CKY9.1	1	21,30



DURAN GROUP
 Material
 DURAN®

① Imhoff Sedimentation cone

Made of DURAN®. Graduated. Acc. to DIN 12672, part 1. Volume 1000 ml. Dimensions: H 465, widest Ø 120 mm.

Art. No.	Pack Qty.	€
K618.1	1	78,60

② Imhoff Sedimentation cone with stop cock

Made of borosilicate glass 3.3. Acc. to DIN 12672. Graduated up to 100 ml. Ring marking at 1000 ml. Cock with NS-glass-plug. Dimensions: H (with cock) 510 mm, H (without cock) 465 mm, widest Ø 120 mm. Funnel-Ø outer: 10 mm, inner 6.5 mm.

Art. No.	Pack Qty.	€
AK68.1	1	159,10



DURAN GROUP
 Material
 DURAN®
 121°C

Levelling bottles

Made of DURAN®, transparent. With flanged edge and glass connection on base for hoses with inner Ø 10 mm. Autoclavable.

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	73	131	PK81.1	1	30,65
500	89	162	PK82.1	1	37,00
1000	111	200	PK83.1	1	49,50



Rotilabo®-Imhoff sedimentation cone

Made of clear SAN. Graduated with embossed markings, and has a screw fitting for emptying. Volumes 1000 ml.

Graduation:

- 0-2 ml = 0.1 ml
- 2-10 ml = 0.5 ml
- 10-40 ml = 1.0 ml
- 40-100 ml = 2.0 ml
- 100-1000 ml = 50.0 ml

Art. No.	Pack Qty.	€
9144.1	1	27,60

Stand for 2 Imhoff sedimentation cones

Made of PMMA. Dimensions: L 300 x W 150 x H 290 mm.

Art. No.	Pack Qty.	€
9147.1	1	80,00

Stands for Imhoff funnels

Made of epoxy-coated wire.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
For 3 Imhoff funnels	45 x 17 x 41	YA75.1	1	87,85
For 4 Imhoff funnels	58 x 17 x 41	YA76.1	1	96,75

► Rotilabo®-cleaning brushes from page 1092



Twist-off wide-necked jars

Made of hydrolytic class III clear glass. TO 66 thread. For sampling, packaging and storage of solids, pastes or non-aggressive liquids. Wide mouth opening allows easy filling and cleaning.

Delivery without screw cap (please order separately).

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
210	69,5 x 74,5	AYC0.1	12	20,40
380	75,5 x 112	AYC1.1	12	38,70

Accessories: twist-off caps

Made of metal, white. TO 66 thread. Good sealing properties.

Art. No.	Pack Qty.	€
AYC2.1	12	13,15



Wide-necked jars with screw cap

Made of hydrolytic class III clear to brown glass. For sampling, packaging and storage of solids, pastes or non-aggressive liquids.

Wide-mouth opening for easy filling and cleaning. DIN 168 round thread.

Delivery incl. leakproof PP closure with LDPE seal.

Clear glass

Volume (ml)	Thread	Ø x H (mm)	Art. No.	Pack Qty.	€
125	GL 40	54 x 98	AYC3.1	80	115,05
250	GL 55	70 x 113	AYC4.1	48	99,90
500	GL 55	84 x 154	AYC5.1	20	65,80
1000	GL 68	103,5 x 180,5	AYC6.1	18	94,10

Brown glass

Volume (ml)	Thread	Ø x H (mm)	Art. No.	Pack Qty.	€
125	GL 40	54 x 98	AYC7.1	84	133,30
250	GL 55	70 x 113	AYC8.1	42	104,10
500	GL 55	84 x 154	AYC9.1	20	69,05
1000	GL 68	103,5 x 180,5	AYE0.1	12	91,40



DURAN®-settling bottles

Made of DURAN®. For storage and dispensing of aqueous media and aggressive liquids. Design conforms to ISO 4796-3. With retrace code. Autoclavable.

With standard ground joint

Delivery incl. ground glass stopcock and ground glass stopper.

Volume (ml)	Ø x H (mm)	Bottom tube NS	Neck NS	Art. No.	Pack Qty.	€
500	86 x 164	19/26	24/29	CCN4.1	1	100,00
1000	107 x 200	19/26	29/32	CCN5.1	1	104,00
2000	134 x 249	19/26	29/32	CCN6.1	1	135,00
5000	182 x 320	29/32	45/40	CCN7.1	1	186,00
10000	228 x 398	29/32	60/46	CCN8.1	1	258,00
20000	289 x 492	29/32	60/46	CCN9.1	1	413,00

With GL 45 thread

Delivery incl. screw cap, silicone seal, drain cock and PTFE spindle.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
1000	101 x 225	CCP0.1	1	106,00
2000	136 x 260	CCP1.1	1	129,00
5000	182 x 330	CCP2.1	1	180,00
10000	230 x 410	CCP3.1	1	275,00



DURAN GROUP

Dropper bottles

Made of soda-lime glass. Complete with rubber sucker and replaceable standard joint pipette made of clear glass. Ground 14/15.

Clear glass

Volume (ml)	Height (mm)	Art. No.	Pack Qty.	€
50	79	T930.1	10	72,80
100	105	T931.1	10	81,00

Brown glass

Volume (ml)	Height (mm)	Art. No.	Pack Qty.	€
50	79	T932.1	10	75,90
100	105	T933.1	10	87,80

Glass bottles



Programme extension!

DURAN GROUP

Material
DURAN®



Programme extension!

DURAN GROUP

Narrow neck storage bottles

Made of DURAN®. Acc. to ISO 4796-2. With ground glass joint glass stoppers, solid glass (NS 14 to 24) or semi-hollow (in NS 29 or larger). With Retrace-Code. Autoclavable.

Narrow neck storage bottles, clear glass

Volume (ml)	Standard taper (NS)	Largest outer Ø (mm)	Height without stopper (mm)	Art. No.	Pack Qty.	€
10	10/19	28	52	CCT0.1	1	23,35
25	12/21	36	64	CCT1.1	1	23,60
50	14/15	42	80	Y622.1	1	21,00
100	14/15	52	96	Y623.1	1	21,10
250	19/26	70	130	Y624.1	1	23,40
500	24/29	86	164	Y625.1	1	29,95
1000	29/32	107	200	Y626.1	1	33,90
2000	29/32	134	248	Y835.1	1	48,90
5000	45/40	182	323	CCT2.1	1	149,00
10000	60/46	227	398	CCT3.1	1	226,00
20000	60/46	288	492	CCT4.1	1	426,00

Narrow neck storage bottles, brown glass

Volume (ml)	Standard taper (NS)	Largest outer Ø (mm)	Height without stopper (mm)	Art. No.	Pack Qty.	€
25	12/21	36	64	CCT5.1	1	44,10
50	14/15	42	80	Y627.1	1	33,00
100	14/15	52	96	Y628.1	1	33,60
250	19/26	70	130	Y629.1	1	44,50
500	24/29	86	164	Y630.1	1	52,50
1000	29/32	107	200	Y631.1	1	62,20
2000	29/32	134	248	Y836.1	1	101,00
5000	45/40	182	323	CCT6.1	1	223,00
10000	60/46	227	398	CCT7.1	1	329,00
20000	60/46	288	492	CCT8.1	1	619,00

Narrow neck storage bottles

Made of soda-lime glass. Acc. to ISO 4796-2. With conical ground glass joint and standard ground glass stopper, solid glass (NS 14 to 24) or semi-hollow (in NS 29 or larger).

Narrow neck, clear glass

Volume (ml)	Conical ground joint (NS)	Largest outer Ø (mm)	Height without stopper (mm)	Art. No.	Pack Qty.	€
100	14/15	52	96	H055.1	10	69,80
250	19/26	72	130	H056.1	10	83,60
500	24/29	89	165	H057.1	10	108,00
1000	29/32	110	200	H058.1	1	13,35

Narrow neck, amber glass

Volume (ml)	Conical ground joint (NS)	Largest outer Ø (mm)	Height without stopper (mm)	Art. No.	Pack Qty.	€
50	14/15	42	80	H060.1	10	101,00
100	14/15	52	96	H061.1	10	103,00
250	19/26	72	130	CCX3.1	10	109,00
500	24/29	89	165	H063.1	10	136,00
1000	29/32	110	200	H064.1	1	15,80



DURAN GROUP

Material
DURAN®



Glass stoppers

Made of DURAN®. Octagonal with ground glass joint, acc. to DIN 12252. Autoclavable.

Type	Standard taper (NS)	Art. No.	Pack Qty.	€
Solid	14/23	E652.1	10	37,60
Solid	19/26	E653.1	10	53,50
Semi-hollow	29/32	E654.1	10	60,50
Semi-hollow	45/40	E655.1	1	11,40

Brown glass stoppers

Made of SBW glass or DURAN®. With ground glass joint acc. to DIN 12252, octagonal. Autoclavable.

Type	Standard taper (NS)	Art. No.	Pack Qty.	€
SBW glass, solid	14/23	LK28.1	10	54,40
SBW glass, solid	19/26	LK29.1	10	70,50
DURAN®, solid	24/29	LK30.1	10	81,10
DURAN®, semi-hollow	29/32	LK32.1	10	80,50
DURAN®, semi-hollow	45/40	LK33.1	1	15,85



Programme extension!

DURAN GROUP

Material DURAN®



Wide neck storage bottles

Made of DURAN®. Acc. to ISO 4796-2. With ground glass joint glass stoppers, solid glass (NS 14 to 24) or semi-hollow (in NS 29 or larger). With Retrace-Code. Autoclavable.

Wide neck storage bottles, clear glass

Volume (ml)	Standard taper (NS)	Largest outer Ø (mm)	Height without stopper (mm)	Art. No.	Pack Qty.	€
50	24/20	44	79	Y612.1	1	24,85
100	29/22	52	97	Y613.1	1	26,20
250	34/35	70	133	Y614.1	1	35,10
500	45/40	86	163	Y615.1	1	43,20
1000	60/46	107	201	Y616.1	1	58,00
2000	60/46	133	247	Y833.1	1	69,50
5000	85/55	182	358	CCP4.1	1	186,00
10000	85/55	229	443	CCP5.1	1	276,00
20000	85/55	290	570	CCP6.1	1	479,00

Wide neck storage bottles, brown glass

Volume (ml)	Standard taper (NS)	Largest outer Ø (mm)	Height without stopper (mm)	Art. No.	Pack Qty.	€
50	24/20	44	79	Y617.1	1	43,75
100	29/22	52	97	Y618.1	1	38,10
250	34/35	70	133	Y619.1	1	62,00
500	45/40	86	163	Y620.1	1	73,30
1000	60/46	107	201	Y621.1	1	92,95
2000	60/46	133	247	Y834.1	1	135,00
5000	85/55	182	358	CCP7.1	1	284,00
10000	85/55	229	443	CCP8.1	1	378,00
20000	85/55	290	570	CCP9.1	1	708,00



DURAN GROUP

Wide neck storage bottles

Made of soda-lime glass. With conical ground glass joint and standard ground joint glass stopper, solid glass (NS 14 to 24) or semi-hollow (in NS 29 or larger). Acc. to ISO 4796-2.

Wide neck, clear glass

Volume (ml)	Conical ground joint (NS)	Largest outer Ø (mm)	Height without stopper (mm)	Art. No.	Pack Qty.	€
50	24/20	44	79	H044.1	10	88,60
100	29/22	52	97	H045.1	10	97,00
250	34/24	71	129	H046.1	1	15,35
500	45/40	86	164	H047.1	1	18,15
1000	60/46	107	200	H048.1	1	23,90

Wide neck, amber glass

Volume (ml)	Conical ground joint (NS)	Largest outer Ø (mm)	Height without stopper (mm)	Art. No.	Pack Qty.	€
100	29/22	52	97	H050.1	10	125,00
250	34/24	71	129	H051.1	1	19,15
500	45/27	86	164	H052.1	1	21,80
1000	60/46	107	200	H053.1	1	28,80



NEU
NOUVEAU
NEW

DURAN GROUP

Material DURAN®



Acid bottles with cap

Made of DURAN®. With standard taper stopper and additional ground glass cap, providing a tight seal and protection against acid vapours. Autoclavable.

Clear glass

Volume (ml)	Ø x H (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	55 x 145	19/17	CCL6.1	1	57,40
250	75 x 180	19/17	CCL7.1	1	69,70
500	82 x 220	24/20	CCL8.1	1	77,65
1000	109 x 260	29/32	CCL9.1	1	97,80

Brown glass

Volume (ml)	Ø x H (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
100	55 x 145	19/17	CCN0.1	1	76,70
250	75 x 180	19/17	CCN1.1	1	89,95
500	82 x 220	24/20	CCN2.1	1	101,00
1000	109 x 260	29/32	CCN3.1	1	135,00

Glass bottles



Rotilabo®-narrow neck bottles for chemicals

By Rixius. Made of brown glass, hydrolytic class III with blue screw-on caps. Acc. to DIN 12111. Lip seal formed in lid.

Volume (ml)	Thread	Height (mm)	Type	Art. No.	Pack Qty.	€
250	32	160	square	0328.1	6	25,70
500	32	180	square	0329.1	4	18,60
1000	45	230	square	0330.1	2	14,85
2500	45	270	round	A849.1	1	9,90



Programme extension!



Rotilabo®-screw top bottles, brown glass

Made of type 3.3 borosilicate glass. According to ISO 4796-1. With graduations and GL DIN thread. With brown outer coating. Autoclavable.

Delivery incl. screw cap and pouring ring made of PP.

Volume (ml)	Thread	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	32	46	91	ANP3.1	10	105,90
100	45	56	100	NY57.1	10	103,95
250	45	70	138	NY58.1	10	126,85
500	45	86	176	NY59.1	10	181,70
1000	45	101	225	NY60.1	10	213,95
2000	45	136	260	NY61.1	10	272,00
5000	45	186	330	NY62.1	1	123,65
10 000	45	234	410	NY63.1	1	198,90
20 000	45	299	505	NY64.1	1	246,20



Screw neck bottles Rotilabo®, clear glass

Made of borosilicate glass 3.3. Acc. to ISO 4796-1. With subdivisions and DIN-thread GL. Autoclavable.

Delivery incl. screw-on cap and pouring spout ring made of PP.

Volume (ml)	Thread	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	32	46	91	ANP4.1	10	45,15
100	45	56	105	X712.1	10	35,50
250	45	70	143	X713.1	10	40,75
500	45	86	182	X714.1	10	46,15
1000	45	101	230	X715.1	10	74,10
2000	45	136	265	X716.1	10	149,45
5000	45	186	355	Y682.1	1	70,55
10 000	45	234	435	Y683.1	1	144,05
20 000	45	299	505	TK83.1	1	197,80



Rotilabo®-square laboratory bottles GL 80

Made of type 3.3 borosilicate glass, with graduation and GL 80 thread. Autoclavable.

Delivery incl. screw cap and pouring ring made of PP.

Clear glass

Volume (ml)	Side length (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	94	141	APK8.1	10	90,25
1000	105	187	APK9.1	10	106,45
2000	115	260	APL0.1	1	18,30
5000	160	357	APL1.1	1	101,60

Brown glass

Volume (ml)	Side length (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	94	141	APL2.1	10	278,45
1000	105	187	APL3.1	10	317,15
2000	115	260	APL4.1	1	51,85
5000	160	357	APL5.1	1	209,65

Replacement screw cap and pouring rings for GL 80 threaded bottles

Made of PP. GL 80 thread. Suitable for Rotilabo® square laboratory bottles with GL 80 thread (Art. Nos. APK8.1-APL5.1). Temperature stable from -40 to +140 °C. Autoclavable.

Type	Art. No.	Pack Qty.	€
Replacement screw caps	APL6.1	10	13,35
Replacement pouring rings	APL7.1	10	6,25

Glass bottles

Screw neck bottles made of DURAN®

- With DIN-GL-thread and graduation
- Bottles 100 to 2000 ml: Ring-shaped reinforcement on bottle neck shows nominal capacity
- Bottle 25 ml: With special moulded glass edge - extra pouring spout ring is not necessary
- With printed Retrace-Code (Batch identification)



Screw neck bottles, clear glass

Made of DURAN®, transparent. Acc. to ISO 4796-1. Autoclavable.

With pouring ring and screw cap made of PP

Volume (ml)	Thread	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	25	36	50	AAA9.1	10	78,40
25	25	36	74	A356.1	10	62,40
50	32	46	91	A357.1	10	66,60
100	45	56	105	A358.1	10	56,90
150	45	62	110	PC79.1	10	61,30
250	45	70	143	A359.1	10	63,80
500	45	86	181	A360.1	10	79,40
750	45	95	203	PC80.1	10	99,40
1000	45	101	230	A361.1	10	109,00
2000	45	136	265	A362.1	1	26,45
3500	45	160	295	PC81.1	1	84,30
5000	45	182	335	A363.1	1	115,00
10000	45	227	415	A364.1	1	188,00
20000	45	288	510	A365.1	1	407,00

Without pouring ring and screw cap

Volume (ml)	Thread	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	25	36	50	AAC0.1	10	60,70
25	25	36	70	T424.1	10	45,20
50	32	46	87	T425.1	10	45,20
100	45	56	100	T426.1	10	36,50
150	45	62	110	PC82.1	10	41,30
250	45	70	138	T427.1	10	43,70
500	45	86	176	T428.1	10	59,50
750	45	95	203	PC83.1	10	79,50
1000	45	101	225	T429.1	10	92,70
2000	45	136	260	T430.1	1	24,40
3500	45	160	295	PC84.1	1	82,10
5000	45	182	330	T431.1	1	113,00
10000	45	227	410	T432.1	1	186,00
15000	45	268	445	T433.1	1	232,00
20000	45	288	505	T434.1	1	404,00



Screw neck bottles, brown glass

Made of DURAN®, Amber, unchanged DURAN® properties on inside of flask since only the exterior is coated; long useful life and good chemical resistance of brown colouring! Light protection: absorption in short wave range up to 500 nm. Acc. to ISO 4796-1. Autoclavable.

With pouring ring and screw cap made of PP

Volume (ml)	Thread	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	25	36	50	AAC1.1	10	177,00
25	25	36	74	A366.1	10	163,00
50	32	46	91	A367.1	10	167,00
100	45	56	105	A368.1	10	185,00
150	45	62	110	PC85.1	10	225,00
250	45	70	143	A369.1	1	26,20
500	45	86	181	A370.1	1	33,65
750	45	95	203	PC86.1	10	371,00
1000	45	101	230	A371.1	1	41,40
2000	45	136	265	A372.1	1	64,20
3500	45	160	295	PC87.1	1	138,00
5000	45	182	335	A373.1	1	185,00
10000	45	227	415	A374.1	1	269,00
20000	45	288	510	A375.1	1	475,00



Square bottles

Made of DURAN®, transparent. With Retrace-Code. Space-efficient alternative (up to 44 %) to round screw neck bottles / per bottle in shelves, refrigerators and autoclaves. Burled base for stable and non-slip standing. Pouring ring and screw cap temperature stable from -40 to +140 °C. Autoclavable.

With pouring ring and screw cap made of PP

Volume (ml)	Thread	Side length (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	32	50	109	P770.1	10	60,00
250	45	64	143	P771.1	10	67,20
500	45	78	181	P772.1	10	84,30
1000	45	94	222	P773.1	10	119,00

► Technical information on DURAN® and laboratory glassware see page 8

Glass bottles



DURAN® YOUTILITY laboratory bottles

- Made of DURAN®. With Retrace Code. Autoclavable.
- Specially shaped recessed grips for easier and safer handling.
 - Slim bottle shape allows more space-saving use
 - Scale indicating total volume
 - Predefined labelling space
 - Ergonomically shaped screw cap with leak-proof sealing system for optimal handling, even by users with small or gloved hands
 - Optimised thread (compatible with DIN GL 45 closures) for faster bottle opening and closing

Delivery incl. pouring ring and optimised screw caps made of PP.

DURAN® YOUTILITY bottles, clear glass

Volume (ml)	Thread GL	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
125	45	55	124	AEY2.1	4	26,90
250	45	66	158	AEY3.1	4	28,90
500	45	78	193	AEY4.1	4	35,70
1000	45	93	253	AEY5.1	4	50,50

DURAN® YOUTILITY bottles, brown glass

For the storage of light-sensitive substances. Meets the requirements of USP <660> and Eur. Ph. 3.2.1. with regard to light protection. Unchanged DURAN® properties on inside of flask since only the exterior is coated; long useful life and good chemical resistance of brown colouring.

Light protection: absorption in short wave range up to 500 nm.

Volume (ml)	Thread GL	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
125	45	55	124	CCT9.1	4	83,00
250	45	66	158	CCX0.1	4	116,00
500	45	78	193	CCX1.1	4	149,00
1000	45	93	253	CCX2.1	4	183,00

Accessories:

Replacement DURAN® YOUTILITY screw caps	AEY7.1	10	16,40
Replacement DURAN® YOUTILITY pouring rings	AEY8.1	16	8,35
DURAN® bottle tags made of silicone, eight colours	AEY9.1	16	22,60

DURAN® YOUTILITY labels

Made of polyester, self-adhesive. With class 1 autoclaving/steam sterilisation indicators (ANSI/AAMI/ISO 11140-1:2005). Temperature stable from -40 to +150 °C, suitable for use in fridges and freezers, autoclaves, incubators and water baths. Removable without leaving any residues.

Dimensions: labels for 36 x 70 mm bottles, labels for screw cap: 30 mm.

Art. No.	Packaging	€
AEY6.1	1 roll of 200 labels	60,30



Wide-neck screw thread bottles

Made of DURAN®. Graduated with labelling area and Retrace Code. Screw thread GLS 80. Large neck interior-Ø of 65 mm enables easy and safe filling and removal of powders, pastes, granulates and liquids. Suitable for microwaves. Autoclavable.

Delivery incl. screw cap and pouring ring made of PP.

Clear glass

Capacity (l)	Ø (mm)	Height (mm)	Height including cap (mm)	Art. No.	Pack Qty.	€
0,25	95	105	109	XT02.1	10	91,70
0,5	101	148	152	ET99.1	10	121,00
1	101	218	222	EX00.1	10	159,00
2	136	248	252	EX01.1	1	31,25
3,5	160	271	275	PY89.1	1	92,40
5	182	310	314	EX02.1	1	126,00
10	227	385	389	EX03.1	1	207,00
20	288	480	484	EX04.1	1	449,00

Brown glass

Especially suitable for storing light-sensitive media. Unchanged DURAN® properties on inside of flask since only the exterior is coated; long useful life and good chemical resistance of brown colouring.

Capacity (l)	Ø (mm)	Height (mm)	Height including cap (mm)	Art. No.	Pack Qty.	€
0,25	95	105	109	XT03.1	1	37,15
0,5	101	148	152	HT11.1	1	40,10
1	101	218	222	HT12.1	1	48,50
2	136	248	252	HT13.1	1	69,90
3,5	160	271	275	PY91.1	1	149,00
5	182	310	314	HT14.1	1	217,00
10	227	385	389	HT15.1	1	296,00
20	288	480	484	HT16.1	1	485,00

Wide-neck screw thread bottles DURAN®-Protect

Made of DURAN® clear glass. GLS 80 thread. **PU-sheathing.** Plastic sheathing protects against mechanical damage (scratch resistant), minimizes the loss of liquid (leakage and splash protection) and prevents glass from flying around when broken. Light protection up to max. wave length of 380 nm. Autoclavable. Suitable for microwave. Suitable for freezing up to max. -30 °C. With Retrace-Code.

Attention: Do not expose DURAN®-Protect bottles to an open flame and do not heat directly. Max. thermal stress 135 °C. Avoid exposure to thermal stress for longer than 30 min.

Delivery incl. pouring ring and screw cap made of PP.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	95	105	XT04.1	10	178,00
500	101	152	LC00.1	10	206,00
1000	101	222	KY97.1	10	272,00
2000	136	252	KY98.1	10	454,00
3500	160	275	PY90.1	1	188,00
5000	182	314	KY99.1	1	225,00



DURAN®-Protect screw neck bottles

Made of DURAN®, **PU encased**. Acc. to 4796-1. Freezable down to -30 °C. The plastic casing protects against mechanical damage (scratch protection), minimises loss of fluid in the event of glass breakage (leak and splash protection), prevents scattering of glass shards and provides light protection up to a wavelength of 380 nm. Microwave safe. Autoclavable.

Note:

do not expose DURAN®-Protect bottles to naked flames or direct heat. Max. thermal load 135 °C. Avoid continuous thermal exposure for longer than 30 min.

DURAN®-Protect clear glass bottles

Delivery incl. pouring ring and screw cap made of PP.

Volume (ml)	Thread	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	45	56	100	1076.1	10	140,00
150	45	62	110	PC88.1	10	144,00
250	45	70	138	A378.1	10	149,00
500	45	86	176	1077.1	1	17,60
750	45	95	203	PC89.1	10	211,00
1000	45	101	225	1078.1	1	24,30
2000	45	136	260	A379.1	1	44,80
3500	45	160	295	PC90.1	1	169,00
5000	45	182	330	A380.1	1	227,00

DURAN®-Protect clear glass bottles

Delivery without pouring ring and screw cap.

Volume (ml)	Thread	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	25	36	50	AAA6.1	10	144,00
25	25	36	70	AAA7.1	10	128,00
50	32	46	87	AAA8.1	10	129,00
10000	45	227	410	AKN0.1	1	348,00
15000	45	268	445	AKN1.1	1	568,00
20000	45	288	505	AKN2.1	1	757,00

DURAN®-Protect brown glass bottles

DURAN® retains its properties inside the bottle as the glass is coated externally only; light protection up to 500 nm.

Delivery without pouring ring and screw cap.

Volume (ml)	Thread	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	25	36	70	AKK5.1	10	251,00
50	32	46	87	AKK6.1	10	252,00
100	45	56	100	AKK7.1	10	252,00
250	45	70	138	AKK8.1	10	331,00
500	45	86	176	AKK9.1	10	408,00
1000	45	101	225	AKL0.1	10	530,00
2000	45	136	260	AKL1.1	10	820,00
5000	45	182	330	AKL2.1	1	296,00



Programme extension!



DURAN®-pressure plus screw neck bottles

Made of DURAN®. Vacuum- and compression-proof within a range of -1 to +1.5 bar (under pressure, the max. usage temperature is 140 °C and thermal shock resistant is 30 K). Extremely versatile, e.g. can be used as a suction bottle, filling bottle, Woulff bottle or wash bottle. Directly connectable to pressure or vacuum systems. Graduated, with DIN thread GL 45 and identification label indicating range of operation.

With Retrace-Code. Autoclavable.

Delivery without screw cap and pouring ring.

Clear glass

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	70	138	CK34.1	1	8,30
500	86	176	CK35.1	1	11,20
1000	101	225	H995.1	1	12,90

Brown glass

DURAN® retains its properties inside the bottle as the glass is coated externally only. Light protection up to 500 nm.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	70	138	CK36.1	1	28,60
500	86	176	CK37.1	1	35,30
1000	101	225	CK38.1	1	42,60

DURAN®-pressure plus Protect screw neck bottles

Made of DURAN®. The plastic casing protects against mechanical damage (scratch protection), minimises loss of fluid in the event of glass breakage (leak and splash protection), prevents scattering of glass shards and provides light protection up to a wavelength of 380 nm.

Delivery without screw cap and pouring ring.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	70	138	CCX5.1	1	15,85
500	86	176	CCX6.1	1	19,80
1000	101	225	CCX7.1	1	25,70

► For screw caps see page 39

Screw caps



DURAN GROUP

Material
DURAN®



Premium bottles

Made of DURAN®, transparent. Thread GL 45. Acc.to ISO 4796-1. With pouring ring and lid made of TPCh260, without colour additives and colour pigments, temperature resistant from -196 to +260 °C. Screw cap with PTFE-coated silicone seal. Especially suitable for demanding sterilisation processes e.g. for hot air or dry sterilisation and for depyrogenizing due to the guaranteed thermal shock resistance of 160 K. Complies with USP/FDA standards. Scale exact up to ±5 %. Reverse scaling not only indicates current liquid level but also enables reading of removed volume. Autoclavable.

With TÜV GS mark

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	56	100	HL99.1	1	16,30
250	70	138	HT00.1	1	17,00
500	86	176	HT01.1	1	18,25
1000	101	225	HT02.1	1	21,90

With TÜV GS mark and batch certificate

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	56	100	HL99.2	10	149,00
250	70	138	HT00.2	10	154,00
500	86	176	HT01.2	10	170,00
1000	101	225	HT02.2	10	202,00



Dispenser GL 45

Made of PTFE, with screw cap made of PPS. Free rotating dispenser with stopcock and vent for controlled and safe pouring of aggressive or highly pure liquids. Surfaces are chemically inert, hydrophobic, anti-adhesive and therefore easy to clean. Temperature stable from -200 to +250 °C.

Delivery incl. PTFE septum cap for sealing the outlet.

Outlet Ø (mm)	Stopcock bore Ø	Art. No.	Pack Qty.	€
4	4	NT22.1	1	109,65



Screw caps

Made of PBT. With PTFE-coated sealing. Colour red. Temperature stable from -45 to +150 °C, autoclavable.

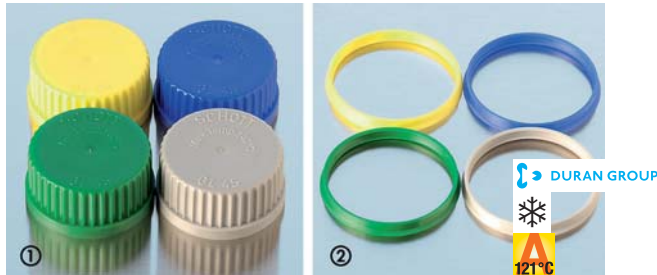
Thread GL	Art. No.	Pack Qty.	€
14	E695.1	10	18,85
18	E696.1	10	22,70
25	E692.1	10	27,20
32	E693.1	10	41,30
45	E694.1	10	61,85

- Autoclaving informations on page 5
- Technical information on DURAN® and laboratory glassware see page 8

Selection list for screw caps

Cap	Material	Colour	Temperature-stable	USP/FDA-conformity	Safety originality effect	Pressure compensation	DIN-thread GL
Screw caps (CK22.1 ff.)	PP	yellow/green/grey	-40 to +140 °C	no	no	no	45
Screw caps (E752.1 ff.)	PP	blue	-40 to +140 °C	no	no	no	25,32,45, GLS 80
Tamper evident screw caps (AH99.1)	PP	blue/red	-40 to +140 °C	no	yes	no	45
Membrane-screw caps (CK81.1 f.)	PP/PTFE	blue	-40 to +140 °C	no	no	yes	45, GLS 80
Screw caps (TX90.1 ff.)	PBT	red	-45 to +180 °C	no	no	no	14,18,25,32,45
Premium-screw caps (CK79.1 f.)	TPCh260	colourless	-196 to +260 °C	yes	no	no	25, 45
Quick-release closures (PC52.1)	Polyarylsulphone	colourless	-45 bis +180 °C	yes	no	no	GLS 80

Screw caps



Screw caps and pouring rings

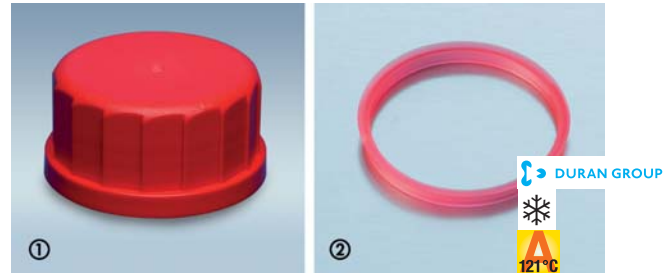
Made of **PP**. Temperature stable from -40 to +140 °C.
Steam autoclavable at max 140 °C.

① **Screw caps** with lip seal gasket. Without pouring rings, please order separately.

Thread	Colour	Art. No.	Pack Qty.	€
GL 25	blue	E752.1	10	11,70
GL 32	blue	E753.1	10	11,50
GL 45	blue	E754.1	10	13,40
GL 45	yellow	CK22.1	10	13,40
GL 45	grey	CK23.1	10	13,40
GL 45	green	CK24.1	10	13,40
GLS 80	blue	KY95.1	10	21,90

② Pouring rings

Thread	Colour	Art. No.	Pack Qty.	€
GL 32	blue	K752.1	10	4,00
GL 45	blue	K753.1	10	4,95
GL 45	yellow	CK25.1	10	4,65
GL 45	grey	CK26.1	10	4,65
GL 45	green	CK27.1	10	4,65
GLS 80	blue	KY96.1	10	14,25



Screw caps and pouring rings

Colour **red**. Autoclavable and stable to +180 °C hot air sterilisation.

① **Screw caps** made of **PBT**. With PTFE-coated sealing. Temperature stable from -45 to +180 °C. Without pouring rings, please order separately.

Thread	Ø x H (mm)	Art. No.	Pack Qty.	€
GL 14	20 x 17	TX90.1	10	16,20
GL 18	23 x 20	TX91.1	10	18,85
GL 25	33 x 23	TX92.1	10	23,30
GL 32	42 x 26	TX93.1	10	35,30
GL 45	54 x 28	TX94.1	10	53,50

② Pouring rings

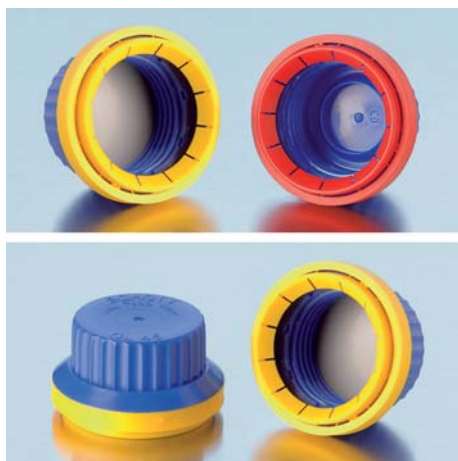
Made of **ETFE**. Temperature stable from -100 to +180 °C.

Thread	Art. No.	Pack Qty.	€
GL 32	N542.1	10	10,75
GL 45	N543.1	10	11,70

Replacement gaskets for screw caps

Made of PTFE-coated silicone rubber.

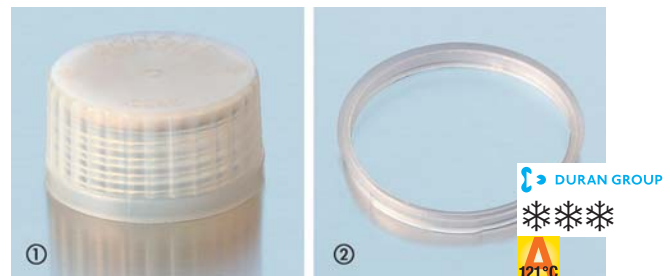
for screw caps	Art. No.	Pack Qty.	€
GL 14	AKL5.1	10	4,15
GL 18	AKL6.1	10	6,50
GL 25	AKL7.1	10	9,75
GL 32	AKL8.1	10	13,90
GL 45	AKL9.1	10	22,90



Original seal

Made of **PP**. For laboratory bottles with DIN-thread GL 45.
Steam autoclavable to max +140 °C.

Type	Art. No.	Pack Qty.	€
Red tamper-proof ring: with lip seal	AH99.1	10	14,50
Yellow tamper-proof ring: with PTFE coated silicone seal	KE51.1	10	44,80



Premium screw caps and pouring rings

Made of **TPCh260**. Without colour additives or colouring pigment, resistant to chemicals. Ideal for lab bottles with DIN thread. FDA/USP/EP and JP approved, suitable for use in the pharmaceuticals and foodstuffs sectors. Temperature stable from -196 to +260 °C.

Autoclavable and dry-sterilizable. With Retrace Code, with batch certificat.

① **Premium screw caps**. The welded silicone seal is coated with PTFE. Without pouring rings, please order separately.

Thread	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
GL 25	32	22	PY85.1	5	23,50
GL 45	51	26	CK79.1	5	46,80

② Pouring rings for lab bottles with DIN thread GL 45.

Art. No.	Pack Qty.	€
CK80.1	5	11,45

Screw caps



Screw caps

Made of **PPS**. With PTFE-coated silicon gasket. Temperature stable from -50 to +250 °C, autoclavable.

Thread	Art. No.	Pack Qty.	€
GL 14	NT01.1	10	25,30
GL 18	NT02.1	10	23,15
GL 25	NT03.1	10	31,95
GL 32	NT04.1	10	37,10
S 40	NT05.1	5	29,00
GL 45	NT06.1	5	31,00

Gaskets

Made of **silicone rubber elastomer** with chemically inert **PTFE coating**. 3.3 mm thick. Temperature stable from -200 to +250 °C. Autoclavable.

Thread	Ø (mm)	Art. No.	Pack Qty.	€
GL 14	13	NT13.1	25	12,40
GL 18	16,8	NT14.1	25	18,85
GL 25	23,5	NT15.1	25	39,25
GL 32	30,2	NT16.1	5	11,30
S40	38	NT17.1	5	9,60
GL 45	43,2	NT18.1	5	13,45



Membrane screw caps

Made of **PP**. With welded **PTFE-membrane**. Nominal pore size 2.5 µm. The membrane is liquid-proof, but gas permeable. This enables the pressure differential to reach upwards of 1 bar between the ambient pressure and the internal conditions of the bottle. This significantly reduces the risk of contamination. The ingress of liquids or solids is prevented. The caps can be screwed tightly on the laboratory glass bottles while autoclaving. Steam autoclavable to max. +140 °C.

Thread	Art. No.	Pack Qty.	€
GL 25	LY42.1	5	22,30
GL 32	LY43.1	5	22,30
GL 45	CK81.1	5	20,10
GLS 80	KE50.1	2	15,30



Screw caps GLS 80

Screw cap made of **PP**, gasket insert made of **PTFE**. High chemical resistance since medium only comes into contact with PTFE. Temperature stable from -20 °C to +140 °C, autoclavable.

Art. No.	Pack Qty.	€
NY56.1	1	35,45



DURAN GROUP



Quick-release closures and pouring rings GLS 80

① **Screw caps** made of **Polyarylsulphone plastic**. Notably improved chemical, thermal and mechanical properties compared to **PP** closures; temperature stable from -45 to +180 °C. Seal **PTFE-coated** on both sides. Thread permits opening and closing with only a three-quarter turn.

Ø x H (mm)	Art. No.	Pack Qty.	€
86 x 40	PC52.1	5	95,30

② **Pouring rings** made of **PTFE**.

Height (mm)	Art. No.	Pack Qty.	€
6,85	PC53.1	5	61,80

Accessories:

Replacement sealing discs for screw caps, PTFE coated on both sides	AKN3.1	5	25,95
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Pressure equalisation sets

Screw cap made of **PPS** with **PTFE/silicon gasket** and interchangeable filter membrane (pore size 2.5 µm) made of **PTFE**. For pressure equalisation after the removal or addition of liquid samples from sealed containers or for the storage of out-gassing media. Pressure equalisation takes place when the pressure differential exceeds 0.1 bar. High chemical resistance since medium only comes into contact with PTFE. Temperature stable from -200 to +250 °C, autoclavable.

Technical specifications:

Thread GL	Membrane Ø (mm)	Flow rate (l/h)	
		at 0.5 bar	at 1 bar
14	12	16	25
18	16	25	85
25	23	50	180
32	29	80	320
45	45	210	800

Thread GL	Art. No.	Pack Qty.	€
14	NX61.1	1	8,75
18	NX62.1	1	10,45
25	NX63.1	1	13,45
32	NX64.1	1	32,15
45	NX65.1	1	47,20

Replacement membranes for pressure equalisation sets

Thread GL	Art. No.	Pack Qty.	€
14	NX66.1	10	22,05
18	NX67.1	10	26,15
25	NX68.1	10	29,30
32	NX69.1	5	38,85
45	NX70.1	5	26,15

Screw caps and olives



① Screw caps with borehole

Made of **PBT**. With GL-thread, for connecting olives, pipes or stopcocks. Autoclavable, temperature stable from -45 to +180 °C.

Thread GL	Hole Ø (mm)	Art. No.	Pack Qty.	€
14	9,5	L993.1	2	3,25
18	11	EL61.1	1	2,80
25	15	LL40.1	5	8,85
32	20	H396.1	1	2,10
45	34	L994.1	1	3,95

② Gaskets for screw caps with borehole

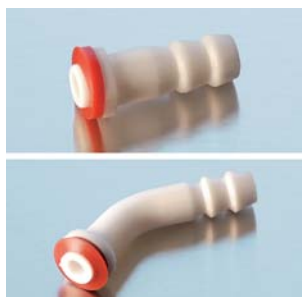
Made of **silicone rubber**, with moulded on **PTFE**-sleeve and borehole.

Thread GL	for pipe Ø (mm)	Art. No.	Pack Qty.	€
14	5.5-6.5	AK96.1	1	4,25
18	5.5-6.5	AK97.1	1	4,60
18	7.5-9.0	AK98.1	1	4,60
18	9.0-11.0	AK99.1	1	4,60
25	7.5-9.0	LL92.1	2	9,45
25	9.0-11.0	LL93.1	2	9,45
25	11.0-13.0	LL94.1	2	9,45
32	9.0-11.0	LL95.1	2	13,90
32	11.0-13.0	H397.1	1	6,60
32	13.0-15.0	LL96.1	2	13,75
32	15.0-17.0	LL97.1	2	12,95
32	17.0-19.0	LL98.1	2	13,20
45	25.0-27.0	LL99.1	1	12,70
45	31.0-33.0	LN00.1	1	12,70

③ Septa for screw caps with borehole

Pierceable gaskets made of **silicone rubber**. For screw caps with borehole and GL-thread. Autoclavable.

Thread GL	Ø (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
14	12	2	LL48.1	20	12,70
18	16	2	LL49.1	20	13,30
25	22	2	LL50.1	10	9,50
32	29	2	LL51.1	10	9,95
45	42	3	LL52.1	5	14,10



Olives

Made of **PP**. With silicone rubber gasket. For screw caps with borehole and GL-thread. Autoclavable, temperature stable from -40 to +140 °C.

Type	Thread GL	Outer Ø (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
Straight	14	8,6	5,0	L992.1	2	3,10
Bent	14	8,6	4,0	LL46.1	2	3,40
Straight	18	10,8	6,8	EL60.1	1	6,05
Bent	18	10,8	6,8	LL45.1	2	10,60

Accessories:

Spare sealing gaskets for olives GL 14	LK26.1	20	11,40
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DURAN GROUP



Screw cap GL 45 with connectors

Made of **PP**. Temperature stable up to +140 °C, dishwasher safe. Features two continuous connectors, angled at the top to prevent kinking of tubes. Autoclavable.

- Designed for safe, sterile transfer of liquid media within a closed system
- The core rotates freely and allows a container to be replaced without twisting the fixed tubes
- Ideal for use with soft elastic tubes with ID 6-9 mm (Piton®, Tyron®, silicon), e.g. when using peristaltic pumps
- A filter attachment for sterile pressure equalisation is optional

Screw cap GL 45 with twin connectors, outer Ø 6-9 mm

Art. No.	Pack Qty.	€
PY86.1	2	42,50

Filter attachment for pressure equalisation

Art. No.	Pack Qty.	€
PY87.1	2	38,40



Flex distributors with GL 45 thread

Made of **PP**, with curved connectors at top and straight connectors on the bottom. Temperature stable from -20 to +110 °C

Number of connections	Hose inner Ø (mm)	Connector port (mm)	Art. No.	Pack Qty.	€
2	7-11	7	NP98.1	1	30,10
3	6-9	6	NP99.1	1	47,20



DURAN GROUP



Olives

Made of **PTFE**, temperature stable from -200 to +260 °C. With silicone rubber gasket and screw thread cap made of PBT, temperature stable from -45 to +180 °C, with GL-thread. Autoclavable.

Type	Thread GL	Outer Ø (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
Straight	14	9,0	5,0	LK72.1	2	10,80
Bent	14	9,0	5,0	LK74.1	2	14,40
Straight	18	10,5	7,5	LK73.1	2	12,30
Bent	18	10,5	7,5	LK75.1	2	17,10
Straight	25	13,0	10,0	LN34.1	2	21,50

Accessories:

Spare sealing gaskets for olives GL 14	LK26.1	20	11,40
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Bottle multi-dispensers



Screw caps with hole

Made of **PPS**. Temperature stable from -50 to +250 °C, autoclavable.
Supplied without gasket. Please order separately.

Thread	Hole Ø (mm)	Art. No.	Pack Qty.	€
GL 14	9,2	NT07.1	10	13,45
GL 18	11	NT08.1	10	17,10
GL 25	15	NT09.1	10	25,60
GL 32	20	NT10.1	10	35,40
S40	28	NT11.1	10	64,40
GL 45	34	NT12.1	10	28,85

Gaskets

Made of **silicone rubber elastomer** with chemically inert **PTFE coating**. 3.3 mm thick. Temperature stable from -200 to +250 °C. Autoclavable.

Thread	Ø (mm)	Art. No.	Pack Qty.	€
GL 14	13	NT13.1	25	12,40
GL 18	16,8	NT14.1	25	18,85
GL 25	23,5	NT15.1	25	39,25
GL 32	30,2	NT16.1	5	11,30
S40	38	NT17.1	5	9,60
GL 45	43,2	NT18.1	5	13,45



Connectors

Made of **PFA** or **PTFE** with FPM O-ring and screw cap made of **PPS**. Temperature stable from -200 to +250 °C. Near-universal chemical resistance since medium only comes into contact with PFA or PTFE.

PFA

Type	Thread GL	Outer Ø (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
straight	14	8,7	6,0	NY33.1	2	10,75
curved	14	8,7	6,0	NY34.1	2	13,45
straight	18	10,4	7,0	NY35.1	2	20,45
curved	18	10,4	7,0	NY36.1	2	18,85

PTFE

Type	Thread GL	Outer Ø (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
straight	25	16,0	10,0	NY37.1	2	23,15
straight	32	21,0	16,0	NY38.1	2	38,20



DURAN GROUP

Material
DURAN®



HPLC-bottles

Made of **DURAN®**. Vacuum and pressure resistant. With Retrace-Code. Suitable for loading HPLC-equipment and for safe transfer of solvents in closed or sterile systems. Cap can be rotated freely, which prevents the hose from being twisted when changing the bottle.

Delivery incl. HPLC-screw cap (Made of **PP**. GL 45, four metric M8-threaded necks) with hose connection set (4 seal inserts each made of silicone for hose Ø 1.6 mm and Ø 3.2 mm, 4 sealing gaskets made of silicone and 4 screw caps with bore hole).

Please order pressure compensation set separately if required.

Type	Art. No.	Pack Qty.	€
HPLC-bottle 500 ml	KY94.1	2	78,00
HPLC-bottle 1000 ml	KY93.1	2	82,00

Accessories:

Screw cap GL 45 with 4 threaded necks and hose connection set	HE24.1	2	46,10
Spare hose connection set	HE26.1	1	17,95
Spare membrane filter pore size 0.2 µm	HE27.1	2	10,50
Pressure compensation set (Screw cap with olive, hose made of tygon, membrane filter)	HE25.1	1	18,90
DURAN®-pressure plus-screw thread bottle, 500 ml	CK35.1	1	11,20
DURAN®-pressure plus-screw thread bottle, 1000 ml	H995.1	1	12,90



Rotilabo®-FEP-tubes

Temperature range -270 to +205 °C. Flexible, pore-free, gasproof. Hardness: 55-60 Shore D. Transparent. Autoclavable.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
0,8 (1/32")	1,58 (1/16")	0,4	C022.1	10	19,90
1,58 (1/16")	3,18 (1/8")	0,8	Y504.1	5	30,45
2,0	4,0	1,0	C023.1	10	50,00
3,96 (5/32")	6,35 (1/4")	1,2	Y505.1	5	52,90
4,0	6,0	1,0	C024.1	10	80,10
4,35 (1 1/64")	6,35 (1/4")	1,0	Y506.1	5	45,70
6,0	8,0	1,0	C025.1	5	55,40
6,35 (1/4")	9,52 (3/8")	1,59	Y507.1	5	103,20
8,0	10,0	1,0	C026.1	5	67,20
9,52 (3/8")	12,7 (1/2")	1,59	Y508.1	5	129,00
10,0	12,0	1,0	C027.1	5	84,75

Bottle multi-dispensers

ROTH



Bottle multi-dispensers

Screw cap GL 45 with 2 or 3 GL 14 threaded collars. Suitable e.g. for filling HPLC-automatic machines with solvents, for usage with titration equipment and for transferring sterile culture media in biological processes. Can also be used in lieu of a Woulffe's bottle.

Multi-dispenser bottles can be connected to tubes with outer-Ø of 1.6 to 6.0 mm with a GL 14 laboratory screw joint. The sealing insert is freely rotatable and prevents hoses from twisting when changing the bottle. Autoclavable.

Delivery without bottle, laboratory screw joints GL 14 for different tube diameters and a pressure compensation set. Please order separately.

① Made of **PP**, high chemical resistance, temperature stable from -40 to +140 °C.

Type	Art. No.	Pack Qty.	€
2-way dispenser	HX84.1	2	40,50
3-way dispenser	HX85.1	2	43,50

② Made of **PTFE** or **PFA** with screw cap made of **polyphenylene sulfide**. Multi-purpose, chemically inert and temperature stable from -50 to +250 °C.

Type	Art. No.	Pack Qty.	€
2-way dispenser made of PFA	K094.1	1	88,70
3-way dispenser made of PTFE	K095.1	1	106,45

Laboratory screw joints for 2- and 3-way dispensers

Consists of 2 threaded joint caps GL14 made of **PP** and 2 inserts for different tube diameters made of **PTFE** with silicone ring. Autoclavable.

for hose with outer Ø (mm)	Art. No.	Pack Qty.	€
1.6	HX86.1	2	23,75
3.0	HX87.1	2	23,75
3.2	HX88.1	2	23,75
6.0	HX89.1	2	23,75

Accessories:

Pressure compensation-set (screw cap with olive, Tygon tube, membrane filter)	HX90.1	1	18,90
DURAN®-pressure plus-screw thread bottle, 500 ml	CK35.1	1	11,20
DURAN®-pressure plus-screw thread bottle, 1000 ml	H995.1	1	12,90
Spare membrane filter pore size 0.2 µm	HE27.1	2	10,50
Flat gasket GL 45 made of EPDM	AKL4.1	1	5,50

Threaded reducing adapters

Suitable for vials with GL 40 thread, and for use with adapters with thread GL 45.

Material	Art. No.	Pack Qty.	€
Fluororubber	P321.1	1	21,45
PTFE	KY92.1	1	84,50

Thread adapter

Made of **PTFE**. For bottles with thread S 38-430, for screwing on GL 45-adapters. Suitable for bottles, Art. No. AE00.3 and HN44.3, for use with dispensers, bottle multi-dispensers or HPLC-bottle dispenser systems.

Art. No.	Pack Qty.	€
KY68.1	1	47,85



GLS 80 bottle multi-dispensers

Made of **PP** or **PTFE**. Screw cap GLS 80 ① with four GL 18 thread necks. Ideal for loading HPLC-equipment with solvents, for use with titration devices and for transferring sterile culture media in biological processes. Also suitable for use Woulff bottles. Tubes with an outer Ø of 3.2 to 12.0 mm can be attached to the bottle multi-dispensers with a GL 18 lab screw fitting. Autoclavable.

Delivery without bottle (Art. No. XT02.1ff), laboratory screw joints (Art. No. KE53.1ff) and pressure equalisation set (Art. No. KE85.1). Please order separately.

① Made of **PP**. Temperature stable from -40 to +140 °C.

Art. No.	Pack Qty.	€
KE52.1	1	48,80

② Made of **PTFE**. Temperature stable from -200 to +250 °C.

Art. No.	Pack Qty.	€
NY20.1	1	89,15

Lab screw fittings

For GLS 80 connection system (Art. No. KE52.1 or NY20.1). Consists of 2 threaded joint caps GL 18 ② made of **PP** and 2 inserts ③ for different tube diameters made of **PTFE** with silicone ring. Autoclavable.

for hose with outer Ø (mm)	Art. No.	Pack Qty.	€
3.2	KE53.1	2	29,10
6.0	KE54.1	2	29,10
8.0	KE55.1	2	29,10
10.0	KE56.1	2	29,10
12.0	KE57.1	2	29,10

Accessories:

④ Screw cap PBT GL 18	E696.1	10	22,70
Wide-neck screw thread bottles GLS 80 500 ml	ET99.1	10	121,00
Wide-neck screw thread bottles GLS 80 1000 ml	EX00.1	10	159,00
⑤ Pressure compensation set (Screw cap GL 18 with olive, Tygon tube, membrane filter)	KE58.1	1	19,20
Spare membrane filter pore size 0.2 µm	HE27.1	2	10,50
Flat gasket GLS 80 made of EPDM, 78 x 63.5 x 1.5 mm	AKL3.1	5	7,45



Screw couplings

Made of **PBT**. With GL-thread and silicone seal, flexible and freely rotatable. Autoclavable, temperature stable from -45 to +180 °C.

Thread	Art. No.	Pack Qty.	€
GL 14	LL41.1	1	15,60
GL 18	LL42.1	1	17,40
GL 25	LL43.1	1	20,80
GL 32	LL44.1	1	24,80
GL 45	PY98.1	1	35,20

Bottle multi-dispensers



Safety Caps

Multi-dispenser-safety caps with thread GL 45. Especially good for handling aggressive or gas-forming liquids. All connecting parts are made of **PTFE**. Autoclavable, temperature stable up to 140 °C. Suitable for loading HPLC-automatic machines and for the safe transfer of aggressive solvents in closed or sterile systems. Cap can be freely rotated, which prevents the hose from getting twisted when changing the bottle. Stopcocks can also be purchased to prevent hoses from draining and to protect against loss of material and air pockets.

Delivery incl. sealing cones (inner-Ø 3.2 mm), connector screws, connector screws with integrated sealing cones, air valve and membrane filter.

① Safety Cap, made of PBT.

Type	Art. No.	Pack Qty.	€
1 connector	KY73.1	1	144,00
2 connectors	KY74.1	1	158,00
3 connectors	KY75.1	1	167,00

② Safety Cap, made of PBT. With stopcocks.

Type	Art. No.	Pack Qty.	€
1 connector	KY76.1	1	207,00
2 connectors	KY77.1	1	232,00
3 connectors	KY78.1	1	264,00

Accessories:

Sealing cone, inner-Ø 1.6 mm made of PTFE	KY81.1	10	47,70
Sealing cone, inner-Ø 2.3 mm made of PTFE	KY82.1	10	47,70
Sealing cone, inner-Ø 3.2 mm made of PTFE	KY83.1	10	47,70
Connector screw with sealing cone (1.6 mm), made of PTFE	KY84.1	10	121,00
Connector screw with sealing cone (2.3 mm), made of PTFE	KY85.1	10	121,00
Connector screw with sealing cone (3.2 mm), made of PTFE	KY86.1	10	121,00
Connector screws-spare set, made of PP	KY87.1	12	37,80
Blind screw UNF 1/4", made of PTFE	LC01.1	10	84,50
Air valve made of PC	KY88.1	1	47,70
Membrane filter for air valve, 1 µm, made of PTFE	KY89.1	1	6,60



Safety Waste Caps

Safety screw caps GL 45 with connectors for activated carbon filter and leak hose. Parts contacting media made of **PTFE**. Autoclavable, temperature stable up to 140 °C. For safe collection and storage of liquid laboratory waste. Active carbon filters prevent harmful gases and vapours from escaping, enhancing the safety in the laboratory. Cap can be rotated freely, which prevents the hose from being twisted when changing the bottle. Optional leak hose connection made of **PP**, for hoses with inner-Ø 6-8 mm. See Safety-Caps for additional accessories and spare parts.

Delivery incl. sealing cone (inner-Ø 3.2 mm) and connector screws.

Type	Art. No.	Pack Qty.	€
Waste Cap (3 connectors)	KY79.1	1	116,00
Waste cap for leak hose (2 connectors)	KY80.1	1	126,00

Accessories:

Activated carbon filter large, capacity 48 g	KY90.1	1	193,00
Activated carbon filter small, capacity 24 g	KY91.1	1	128,00



HPLC intake filters

Filter cartridge holder made of **PTFE** with UNF 1/4" 28G internal thread and interchangeable filter cartridge made of porous **PTFE** (Art. No. NX55.1). Protects HPLC systems, pumps, gaskets, pistons and membranes against contamination by particles or crystallising residues. Filter Ø 14 mm. Filter length 25 mm.

Pore size (µm)	For hose with inner Ø (mm)	Art. No.	Pack Qty.	€
2	(1/32") - 0.8	NX55.1	1	65,60
2	(1/16") - 1.6	NX56.1	1	66,35
10	(1/32") - 0.8	NX57.1	1	53,25
10	(1/16") - 1.6	NX58.1	1	54,85

HPLC replacement filter cartridges

Made of porous **PTFE**, for HPLC intake filters. Filter Ø 14 mm. Filter length 20 mm.

Pore size (µm)	Art. No.	Pack Qty.	€
2	NX59.1	1	40,65
10	NX60.1	1	29,00



HPLC connector caps with GL 45 thread

Screw cap made of **PPS** with distributor element made of **PTFE**. Connections with UNF 1/4" 28G internal thread on top and bottom for attaching connecting hoses. Freely rotatable distributor element, cap can be screwed on and off without twisting the hoses. Optionally available with shutoff valve and plug made of **FEP**. Excellent chemical resistance, suitable for use at temperatures from -50 to +200 °C.

Delivery without connecting hoses, please order separately.

For hoses with 0.8 mm inner Ø x 1.6 mm outer Ø, 0.8 mm through-hole.

Type	Art. No.	Pack Qty.	€
2 connections	NX21.1	1	40,80
4 connections	NX22.1	1	48,30
2 connections with shutoff valve	NX23.1	1	97,85
3 connections with shutoff valve	NX24.1	1	109,65

For hoses with 1.6 mm inner Ø x 3.2 mm outer Ø, 1.6 mm through-hole.

Type	Art. No.	Pack Qty.	€
2 connections	NX25.1	1	39,80
4 connections	NX26.1	1	48,95
2 connections with shutoff valve	NX27.1	1	65,60
3 connections with shutoff valve	NX28.1	1	95,70

HPLC connecting hoses

Crimped **PTFE** hoses with preassembled black UNF 1/4" 28G banjo screws made of **PP** and pressure discs made of **PA**. Ready to use straight from the box, no need for time-consuming assembly in the lab.

Temperature stable from -50 to +120 °C, pressure resistant up to 30 bar.

Inner Ø x outer Ø 0.8 x 1.6 mm (1/32" x 1/16")

Overall length (mm)	Art. No.	Pack Qty.	€
100	NX29.1	1	12,40
250	NX30.1	1	12,70
500	NX31.1	1	13,55
750	NX32.1	1	16,15
1000	NX33.1	1	13,80

Inner Ø x outer Ø 1.6 x 3.2 mm (1/16" x 1/8")

Overall length (mm)	Art. No.	Pack Qty.	€
100	NX34.1	1	11,40
250	NX35.1	1	11,85
500	NX36.1	1	12,90
750	NX37.1	1	14,85
1000	NX38.1	1	15,05



HPLC screws

① **Dummy screws made of PTFE** with UNF 1/4" 28G external thread. For sealing unused HPLC distributor cap connections. Temperature stable from -200 to +260 °C.

For hose inner Ø x outer Ø (mm)	Colour	Art. No.	Pack Qty.	€
0.8 x 1.6	white	NX39.1	10	38,65
1.6 x 3.2	white	NX40.1	10	39,25

② **Banjo screws made of PTFE** with UNF 1/4" 28G external thread. Temperature stable from -200 to +260 °C.

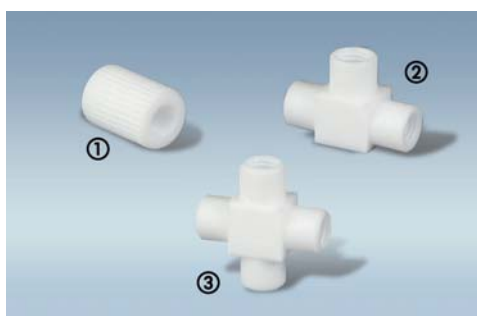
Delivery incl. pressure discs made of **PA**.

For hose inner Ø x outer Ø (mm)	Colour	Art. No.	Pack Qty.	€
0.8 x 1.6	white	NX41.1	10	48,20
1.6 x 3.2	white	NX42.1	10	48,20

③ **Banjo screws made of PP** with UNF 1/4" 28G external thread. Temperature stable from -10 to +100 °C.

Delivery incl. pressure discs made of **PA**.

For hose inner Ø x outer Ø (mm)	Colour	Art. No.	Pack Qty.	€
0.8 x 1.6	black	NX43.1	10	12,80
0.8 x 1.6	white	NX44.1	10	12,80
0.8 x 1.6	red	NX45.1	10	12,80
1.6 x 3.2	black	NX46.1	10	12,80
1.6 x 3.2	white	NX47.1	10	12,80
1.6 x 3.2	red	NX48.1	10	12,80

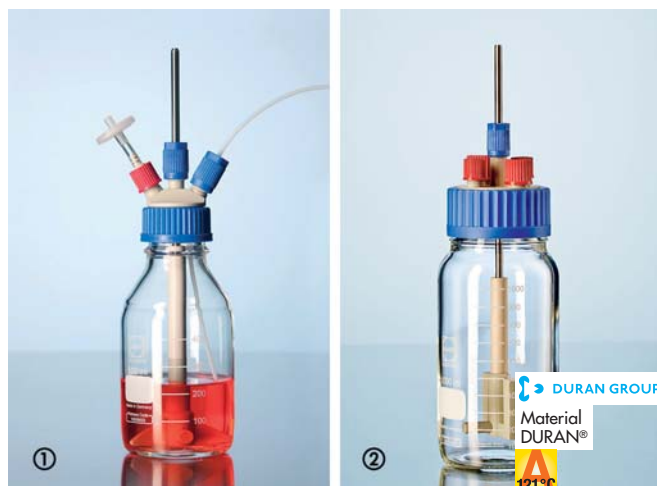


HPLC screw couplings

Screw couplings made of PTFE with UNF 1/4" 28G internal thread. For connecting or extending HPLC connecting hoses.

Type	Connections	For hose inner Ø x outer Ø (mm)	Art. No.	Pack Qty.	€
① straight	2	0.8 x 1.6	NX49.1	1	7,35
① straight	2	1.6 x 3.2	NX50.1	1	7,35
② T-type	3	0.8 x 1.6	NX51.1	1	27,85
② T-type	3	1.6 x 3.2	NX52.1	1	26,80
③ X-type	4	0.8 x 1.6	NX53.1	1	36,05
③ X-type	4	1.6 x 3.2	NX54.1	1	36,05

Stirrer reactors



Stirrer reactor sets

Significantly better mixing compared to standard magnetic stirring bars. Suitable for mixing solutions, dissolving solids, and fermentation processes. Driven by a magnetic stirrer. An additional media bottle or a sterile pressure equaliser can be connected using the DURAN® connector system.

- Materials used: PP/PTFE/PEEK/stainless steel/DURAN® glass
- Parts in direct contact with media are FDA-compliant
- Speed range: up to 500 rpm
- System is fully autoclavable
- Temperature stable up to +140 °C.

① GL 45 stirrer reactors

- 2 GL 14 connections
- Variable stirrer shaft, fits 500 ml and 1000 ml DURAN® GL 45 threaded bottles
- Compatible with the DURAN® connector system
- Suitable for hoses with diameters from 1.6 mm to 6.0 mm

Delivery incl. 500 ml or 1000 ml DURAN® GL 45 threaded bottle, 2-port GL 45 screw joint made of PP with magnetic stirrer shaft, 2 x GL 14 screw cap (PBT, red), (please order matching laboratory screw joints HX86.1-HX89.1 separately).

Type	Art. No.	Pack Qty.	€
GL 45 stirrer reactor set, 500 ml	PK85.1	1	210,00
GL 45 stirrer reactor set, 1000 ml	PK86.1	1	222,00

② GLS 80 stirrer reactors

- 4 connections: 2 x GL 18, 2 x GL 14
- Variable stirrer shaft, fits 1000 ml and 2000 ml DURAN® GL S80 wide-neck threaded bottles
- Interchangeable stirrer element (anchor stirrer is standard, impeller stirrer is optional)
- Compatible with the DURAN® connector system
- Suitable for hoses with diameters from 1.6 mm to 12.0 mm

Delivery incl. 1000 ml or 2000 ml DURAN® GLS 80 wide-neck threaded bottle, GLS 80 4-port screw joint made of PP with magnetic anchor stirrer and GL 14 screw joint (PP, blue), 2 x GL 14 and 2 x GL 18 screw cap (PBT, red), (please order matching laboratory screw joints HX86.1-HX89.1 and KE53.1-KE57.1 separately).

Type	Art. No.	Pack Qty.	€
GLS 80 stirrer reactor set, 1000 ml	PK87.1	1	239,00
GLS 80 stirrer reactor set, 2000 ml	PK88.1	1	251,00

► Magnetic stirrer and stirring rods see page 961



Accessories for GL 45 stirrer reactors

Replacement stirrer shaft, magnetic, suitable for GL 45 stirrer reactor, including shaft

Art. No.	Pack Qty.	€
PK89.1	1	164,00

Replacement GL 45 screw cap, 2-port (2 x GL 14), PP (without agitator), incl. GL 14 screw joint (PP, blue)

Art. No.	Pack Qty.	€
PK90.1	1	44,80

Accessories for GLS 80 stirrer reactors

⑥ GLS 80 4-port stirrer reactor cap with magnetic anchor stirrer, complete with shaft, screw joint and caps (2 x GL 14, 2 x GL 18)

Art. No.	Pack Qty.	€
PK91.1	1	216,00

⑦ Replacement impeller stirrer, magnetic, suitable for GLS 80 stirrer reactor

Art. No.	Pack Qty.	€
PK92.1	1	155,00

Replacement anchor stirrer, magnetic, suitable for GLS 80 stirrer reactor

Art. No.	Pack Qty.	€
PK93.1	1	155,00

① Replacement 4-port screw cap for GLS 80 stirrer reactor, PP, blue/grey

Art. No.	Pack Qty.	€
PK94.1	1	59,70

Replacement shaft for GLS 80 stirrer reactor, stainless steel, including PEEK screw joint

Art. No.	Pack Qty.	€
PK95.1	1	37,80

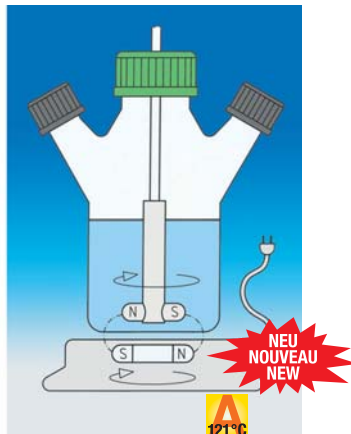
Accessories for stirrer reactor sets

DURAN® connector system

Laboratory screw joint consisting of screw connector cap ② and insert ③ for various hose-Ø.

Type	for hose with outer Ø (mm)	Art. No.	Pack Qty.	€
② + ③ GL 14 laboratory screw joint	1.6	HX86.1	2	23,75
② + ③ GL 14 laboratory screw joint	3.0	HX87.1	2	23,75
② + ③ GL 14 laboratory screw joint	3.2	HX88.1	2	23,75
② + ③ GL 14 laboratory screw joint	6.0	HX89.1	2	23,75
② + ③ GL 18 laboratory screw joint	3.2	KE53.1	2	29,10
② + ③ GL 18 laboratory screw joint	6.0	KE54.1	2	29,10
② + ③ GL 18 laboratory screw joint	8.0	KE55.1	2	29,10
② + ③ GL 18 laboratory screw joint	10.0	KE56.1	2	29,10
② + ③ GL 18 laboratory screw joint	12.0	KE57.1	2	29,10
④ GL 14 screw cap		E695.1	10	18,85
④ GL 18 screw cap		E696.1	10	22,70
⑤ GL 14 pressure equaliser set		HX90.1	1	18,90
⑤ GL 18 pressure equaliser set		KE58.1	1	19,20
Replacement membrane filter 0.2 µm		HE27.1	2	10,50

Desiccators



Triple neck culture bottles

Made of borosilicate glass 3.3. With screw caps made of PP/glass fibre (centre neck) and PPS (side necks), as well as height-adjustable stirrer insert made of PTFE and stainless steel. For gentle mixing of cell cultures. High chemical resistance, fully autoclavable. Hoses, probes or sensor probes can be inserted into the side necks. Drive is provided by commercially available magnetic stirrers (max. speed 1,000 RPM), centre neck, GL 45 thread, inner Ø 30 mm.

Usable volume (ml)	Thread, side necks	Art. No.	Pack Qty.	€
50	GL 14	NY29.1	1	139,75
125	GL 18	NY30.1	1	141,90



Rotilabo®-glass desiccators

Made of borosilicate glass 3.3. Vacuum resistant.

Delivery incl. glass stopcock, plastic cap with hole (9 mm) and matching porcelain plate with hole.

Type	Ø max (mm)	Base Ø (mm)	Art. No.	Pack Qty.	€
100	151	90	NX07.1	1	74,75
150	210	140	NX08.1	1	101,95
200	269	190	NX09.1	1	105,25
250	329	240	NX10.1	1	149,45
300	392	290	NX11.1	1	203,20



Stirring magnet fish-clip® holders

Ideal for stirring sensitive liquids such as cell suspensions or tissue cultures. Magnet is placed into vessel with the flexible rotor clamp and can be fixed over the vessel base at the required height. When the magnetic stirrer is switched on the rod magnet will turn with controlled movements, protecting the substance and vessel. The support rod does not turn and the stopper remains gastight.

- Rotor and support rod made of PVDF
- Support rod: length 250 mm, Ø 10 mm
- Stable to 160 °C, autoclavable

Delivery incl. magnetic follower.

Type	Art. No.	Pack Qty.	€
For magnetic followers Ø 6 mm	Y899.1	1	40,85
For magnetic followers Ø 8 mm	Y900.1	1	40,85

Accessories for magnetic follower holders fish-clip®

Type	Art. No.	Pack Qty.	€
Clamp stopper made of silicone for NS 19/26	Y901.1	1	4,45
Clamped joint GL 25	Y903.1	1	10,15
Clamped joint GL 32 with NS-adaptor 29/32	Y906.1	1	33,55



Replacement stopcock for Rotilabo®-glass desiccators

Made of borosilicate glass 3.3. Ø 8 x L 100 mm.

Art. No.	Pack Qty.	€
NX12.1	1	40,00



Replacement plastic caps for Rotilabo®-glass desiccators

Made of PP.

Type	Art. No.	Pack Qty.	€
Without hole	NX13.1	1	3,20
With hole, 9 mm	NX14.1	1	3,90

Desiccators



DURAN GROUP
Material
DURAN®

Desiccator bases

Made of DURAN® glass with ground flange. Without coating. The precision workmanship allows parts such as covers, bases, stopcocks and closures to be replaced and interchanged between all DURAN®-desiccators of similar type and size. By combining individual parts, the DURAN®-system enables the user to be flexible and work according to his individual needs.

DURAN®-desiccators are excellent for a wide range of applications: e.g. for drying and keeping substances dry; for culturing plants, bacteria, cell cultures; for vacuum manipulation; as mini clean-rooms for storage of sensitive substrates, components, high-purity metals; in the development or manufacture of semiconductors; in material and environmental research; in chip technology, etc. **Designed for use up to the maximum technically possible vacuum (0 mbar).**

DN = Nominal diameter

① Without connector

DN	Overall height (mm)	Height (mm)	Outer Ø (mm)	Inner Ø (mm)	Capacity (l)	Art. No.	Pack Qty.	€
100	112	58	153 ± 2	118,5	~0,7	H356.1	1	52,70
150	154	81	215 ± 2	172	~2,4	H357.1	1	56,80
200	202	115	270 ± 2	224	~5,8	H358.1	1	93,90
250	235	120	320 ± 2	274	~10,5	H359.1	1	171,00
300	283	150	380 ± 2	332	~18,5	H360.1	1	274,00

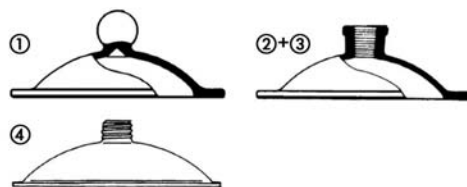
② With 24/29 socket, Novus

DN	Overall height (mm)	Height (mm)	Outer Ø (mm)	Inner Ø (mm)	Capacity (l)	Art. No.	Pack Qty.	€
100	112	58	153 ± 2	118,5	~0,7	H361.1	1	96,10
150	154	81	215 ± 2	172	~2,4	H362.1	1	98,00
200	202	115	270 ± 2	224	~5,8	H363.1	1	141,00
250	235	120	320 ± 2	274	~10,5	H364.1	1	254,00
300	283	150	380 ± 2	332	~18,5	H365.1	1	385,00

③ Thread size 32, Mobilex

DN	Overall height (mm)	Height (mm)	Outer Ø (mm)	Inner Ø (mm)	Capacity (l)	Art. No.	Pack Qty.	€
150	154	81	215 ± 2	172	~2,4	H366.1	1	92,40
200	202	115	270 ± 2	224	~5,8	H367.1	1	125,00
250	235	120	320 ± 2	274	~10,5	H368.1	1	211,00
300	283	150	380 ± 2	332	~18,5	H369.1	1	327,00

- Lubricating grease on page 1096
- For drying agent see the Chromatography Chapter!



DURAN GROUP
Material
DURAN®

Desiccator lids

Made of DURAN® glass with ground flange.

DN = Nominal diameter

① With knob

DN	Outer Ø (mm)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	153 ± 2	118,5	75	H371.1	1	53,80
150	215 ± 2	172	98	H372.1	1	69,20
200	270 ± 2	224	107	H373.1	1	68,50
250	320 ± 2	274	122	H374.1	1	71,90
300	380 ± 2	332	150	H375.1	1	94,70

② With 24/29 socket, Novus

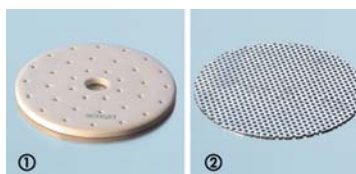
DN	Outer Ø (mm)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	153 ± 2	118,5	62	H376.1	1	62,80
150	215 ± 2	172	85	H377.1	1	70,10
200	270 ± 2	224	94	H378.1	1	76,00
250	320 ± 2	274	109	H379.1	1	94,20
300	380 ± 2	332	137	H380.1	1	134,00

③ With special 24/29 socket, Wortex

DN	Outer Ø (mm)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	215 ± 2	172	85	H382.1	1	79,00
250	320 ± 2	274	109	H384.1	1	105,00

④ With screw thread 32, Mobilex

DN	Outer Ø (mm)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	215 ± 2	172	85	H386.1	1	66,50
200	270 ± 2	224	94	H387.1	1	66,90
250	320 ± 2	274	109	H388.1	1	70,20
300	380 ± 2	332	137	H389.1	1	95,40



DURAN GROUP

Desiccator plates

Made of porcelain acc. to DIN 12911 and metal acc. to DIN EN 10142. For all desiccators listed above with equivalent nominal diameter (DN).

DN = Nominal diameter

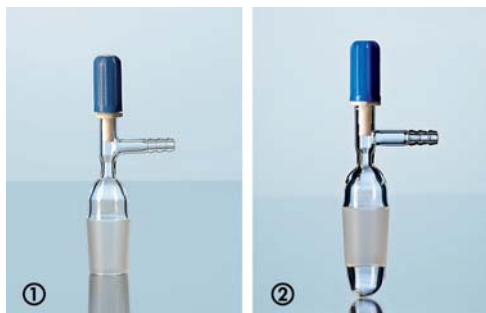
① Porcelain. Hole-Ø 5 mm.

DN	Ø (mm)	Art. No.	Pack Qty.	€
100	90	H403.1	1	22,90
150	140	H404.1	1	35,25
200	185	H405.1	1	68,80
250	235	H406.1	1	94,80
300	280	H407.1	1	129,00

② Metal zinc coated. Hole-Ø 3 mm

DN	Ø (mm)	Art. No.	Pack Qty.	€
100	90	H408.1	1	6,65
150	140	H409.1	1	12,55
200	185	H410.1	1	16,65
250	235	H411.1	1	21,25
300	280	H412.1	1	27,20

Desiccators



DURAN GROUP

Accessories for desiccators, type Novus

Stopcock with PTFE spindle

Image	Tube	Standard taper (NS)	Length (mm)	Olives-Ø (mm)	Art. No.	Pack Qty.	€
①	Side socket	24/29	108	8	H399.1	1	31,10
②	Cover socket	24/29	124	8	H400.1	1	35,40



DURAN GROUP

Accessories for desiccators, type Mobilex

Image	Type	Art. No.	Pack Qty.	€
①	Stopcock (Length 160, olive Ø 8 mm)	H401.1	1	24,10
②	Screw cap GL 32 with bore hole Ø 20 mm	H396.1	1	2,10
③	Gasket with hole Ø 12 mm	H397.1	1	6,60
④	Cap, thread size 32 with gasket	H398.1	1	3,90



DURAN GROUP

Accessories for desiccators, type Wertex

Stoppers

Standard taper (NS)	Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
24/29	70	76	H402.1	1	36,25

Desiccator grease white

Pharmacy quality.

Art. No.	Pack Qty. (kg)	€
1477.1	1 kg	16,45



DURAN GROUP
Material
DURAN®

Desiccator sets

Made of DURAN®. Designed for use up to the maximum technically possible vacuum (0 mbar).

Delivery without porcelain dessicator plate. Please order separately.

① Includes lid with knob, without connection

For drying moist products as well as storage of moisture-sensitive substances.

DN	approx. volume (l)	Height (mm)	Flange ID (mm)	Flange OD (mm)	Art. No.	Pack Qty.	€
100	0,7	187	118,5	153 ±2	AHK8.1	1	103,00
150	2,4	252	172	215 ±2	AHK9.1	1	122,00
200	5,8	209	222	270 ±2	AHL0.1	1	144,00
250	10,5	357	272	320 ±2	AHL1.1	1	226,00
300	18,5	433	332	380 ±2	AHL2.1	1	341,00

② Type Novus with tube (NS 24/29) and stopcock in lid

For faster drying or degassing of samples, vacuum can be applied via the stopcock.

DN	approx. volume (l)	Height (mm)	Flange ID (mm)	Flange OD (mm)	Art. No.	Pack Qty.	€
100	0,7	174	118,5	153 ±2	AHL3.1	1	153,00
150	2,4	239	172	215 ±2	AHL4.1	1	164,00
200	5,8	296	222	270 ±2	AHL5.1	1	195,00
250	10,5	344	272	320 ±2	AHL6.1	1	292,00
300	18,5	420	332	380 ±2	AHL7.1	1	416,00

Warning:

When working with glass, the limits caused by mechanical stress and changes of temperature must be considered and the utmost precaution must be taken:

Never subject glass equipment to sudden temperature changes, i.e. do not remove when hot from the drying cabinet and place on a cold or wet lab bench. This applies especially to thicker glass equipment, such as desiccators.

To avoid mechanical stress in the glass, evacuated vessels and/or vessels under pressure may not be heated on one side only or with a naked flame.

Glass vessels must be checked for flaws and defects prior to evacuation or pressure load (severe scratches, grooves, etc). Damaged glass vessels may not be used when working with vacuum or pressure.

Never expose glass equipment to sudden pressure changes, e.g. do not aerate evacuated vessels instantly. Laboratory glass vessels with flat base (e.g. Erlenmeyer and flatbottomed flasks) may not be put under pressure or vacuum.

Desiccators



Rotilabo®-desiccators

Bases made of **PP**, lids made of **PC**. Lightweight and almost totally breakproof. Equipped with check valve, a removable insert for the drying agent and a perforated plate. Suitable for use with water jet pumps.

Delivery incl. a neoprene rubber gasket, suitable desiccator-plate and vacuum stopcock.

Capacity (l)	Inner Ø (mm)	Usable height (mm)	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
2,15	150	135	190	ca. 520	1008.1	1	58,70
4,35	200	175	230	ca. 825	1827.1	1	88,15
9,20	250	225	300	ca. 1250	1009.1	1	111,80



① Spare desiccator plates

Made of **PP**. 7 mm thick.

For	Ø (mm)	Art. No.	Pack Qty.	€
Desiccator 1008.1	140,5	N955.1	1	5,70
Desiccator 1009.1	238	N957.1	1	8,90
Desiccator 1827.1	189	N956.1	1	8,30

② Spare vacuum stopcock

Made of **PC** with **PE** valve. For tubes with inner-Ø 8 mm.

Art. No.	Pack Qty.	€
N958.1	1	11,50



Spare rubber joint gaskets

Made of neoprene.

For	Art. No.	Pack Qty.	€
Desiccator 1008.1	N959.1	5	12,85
Desiccator 1827.1	N960.1	5	17,75
Desiccator 1009.1	N961.1	5	23,60

- For drying agents, e.g. silica agents etc., see the Chromatography Chapter!



Polycarbonate desiccator

By Nalgene®. Made of **PC**, fully transparent. For normal pressure and vacuum applications to max. 10 mbar. Maintains a partial pressure of 0.95 bar (95 kPa) over a 24 hour period. Implosion safe if used properly. No greasing needed. Connections for tubes with inner-Ø from 6.35 to 9.53 mm in lid and base. Suitable for room temperature applications only.

Delivery incl. silicon O-ring, vacuum tap made of **PP** (removable) and 2 TPE plugs for sealing hose connections while not in use. Please order desiccator plate separately.

Outer Ø x H (mm)	Inner Ø (mm)	Usable height (mm)	Art. No.	Pack Qty.	€
280 x 329	251	195	PK30.1	1	95,70

Accessories:

Spare desiccator valve made of PP	PK34.1	1	27,85
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Desiccator plate for polycarbonate desiccator

Metal-ceramic combination, light green. Unbreakable, i.e. if used properly in the desiccator it is resistant to thermal shock, corrosion and breakage.

Ø (mm)	Art. No.	Pack Qty.	€
230	PK31.1	1	61,50



Vacuum bells

Low-pressure chambers for degassing or drying samples. Resistant to implosion during proper use. Suitable for use without vacuum grease.

Delivery incl. base plate with seal and hose adaptor for hoses with 6.4 mm inner Ø.

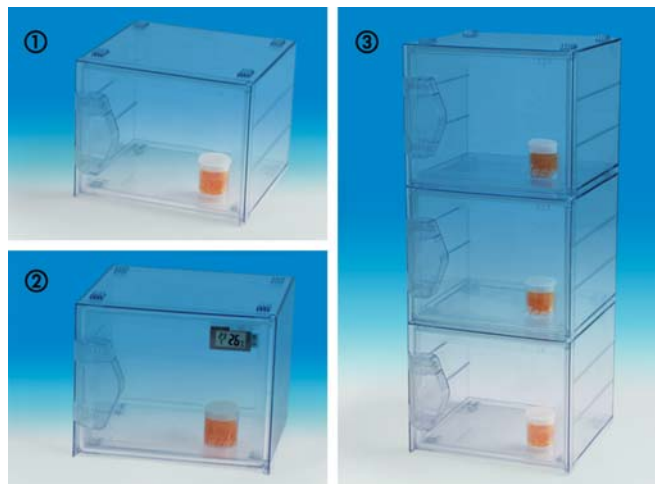
Bell made of transparent PC, plate made of white PP.

Nominal capacity (l)	Ø x H of bell (mm)	Outer Ø of plate (mm)	Art. No.	Pack Qty.	€
4,7	170 x 237	191	ATL5.1	1	117,20

Bell made of transparent brown polyetherimide, plate made of white PC.

Nominal capacity (l)	Ø x H of bell (mm)	Outer Ø of plate (mm)	Art. No.	Pack Qty.	€
8,3	222 x 254	330	ATL6.1	1	241,90
18,9	305 x 305	330	ATL7.1	1	385,95

Desiccators



Basic and Premium mini desiccators

Made of PC. For drying and safe storage of moisture-sensitive products. Available with one, two or three interconnecting chambers.

- Ideal for small items, easy-to-use and transportable
- One-touch revolving door with all-round seal
- Rugged and lightweight design, shatterproof
- Transparent, visible all round, glare-free
- Stackable

Technical specifications:

Type	Mini 1	Mini 2	Mini 3
Usable volume (l)	6.2	2 x 6.2	3 x 6.2
Outer dimensions W x D x H (mm)	221 x 214 x 183	221 x 214 x 362	221 x 214 x 540
Usable inner volume W x D x H (mm)	212 x 180 x 162	212 x 180 x 162	212 x 180 x 162
Working temperature (°C)	-35 to +70		
Total all-over load (kg)	3		
Weight approx. (kg)	0.9	1.8	2.7

① Basic mini desiccators

Type	Art. No.	Pack Qty.	€
Mini 1 Basic	NT23.1	1	124,70
Mini 2 Basic	NT24.1	1	263,40
Mini 3 Basic	NT25.1	1	396,70

② Premium mini desiccators

Delivery incl. 2 shelves and digital thermal hygrometer with Min/Max function for monitoring the current temperature and humidity values.

Type	Art. No.	Pack Qty.	€
Mini 1 Premium	NT26.1	1	136,55
Mini 2 Premium	NT27.1	1	262,30
Mini 3 Premium	NT28.1	1	385,95



Rotilabo®-drying cabinets

Made of clear acrylic glass for storage of moisture-sensitive substances. Wall thickness 4 mm, smoothed edges. With lockable door and drawer for drying agents or molecular sieves.

L x W x H (mm)	Art. No.	Pack Qty.	€
230 x 175 x 175	6121.1	1	295,65
410 x 305 x 175	6123.1	1	364,45



Star desiccators

Panels made of transparent PMMA, frame made of reinforced aluminium. Door with all-round rubber seal and magnetic catch. Can be fitted with up to 13 (Star Horizontal) or 26 (Star) shelves. For drying and safe storage of moisture-sensitive products (e.g. reference materials, retained samples, metallographic samples, tobacco leaves, DNA samples, etc.). Integrated digital thermal hygrometer with Min/Max function for monitoring actual temperature and moisture levels.

Technical specifications:

Model	Star	Star Horizontal
Total volume (l)	45	
Usable volume (l)	40	42
Outer dimensions, W x D x H (mm)	310 x 375 x 525	525 x 375 x 340
Usable inner volume, W x D x H (mm)	260 x 330 x 480	480 x 330 x 260
Working temperature (°C)	-20 to +70	
Max. all-over load per shelf (kg)	10	1.5
Total all-over load (kg)	30	
Weight (kg)	7	

Delivery incl. 4 (or 2 with Star Horizontal dessicator) variable intermediate shelves made of PMMA and 1 bottom pan for dessicants.

Model	Art. No.	Pack Qty.	€
Star dessicator	CT04.1	1	747,15
Horizontal star dessicator	NX18.1	1	912,70

Desiccators



Star Vitrum desiccator

Panels made of **type 3.3 borosilicate glass**, frame made of reinforced aluminium. Door with all-round rubber seal and magnetic catch. Usable with up to 26 shelves. For drying and safe storage of moisture-sensitive products (e.g. reference solutions, retained samples, metallographic samples, tobacco leaves, DNA samples, etc.). Ideal for suitable for storing hot materials (max. 300 °C), excellent resistance to chemicals. Integrated digital thermal hygrometer with Min/Max function for monitoring actual temperature and moisture levels.

Technical specifications:

Total volume	45 l
Usable volume	42 l
Outer dimensions (W x H x D)	310 x 375 x 525 mm
Usable inner volume (W x D x H)	260 x 330 x 480 mm
Usage temperature	-20 to +150 °C
Max. all-over load per shelf	10 kg
Total all-over load	30 kg
Weight (approx.)	14 kg

Delivery incl. 4 variable height shelves made of stainless steel and 1 bottom pan for desiccants.

Art. No.	Pack Qty.	€
NX19.1	1	1030,95



Super Star inert gas desiccator

Panels made of transparent **PMMA**, frame made of reinforced aluminium. All-round rubber door seal with magnetic strip and barrel lock. Usable with up to 26 shelves. Nitrogen or noble gases can be introduced through two gassing connections with quick couplings and self-closing valves. This allows the safe storage of air and moisture sensitive substances as well as highly reactive or toxic chemicals in an inert gas atmosphere. Integrated large digital thermal hygrometer with Min/Max function for monitoring temperature and moisture levels.

Technical specifications:

Total volume	45 l
Usable volume	42 l
Outer dimensions (W x H x D)	310 x 375 x 525 mm
Additional space required for coupling	150 mm per side
Usable inner volume (W x D x H)	260 x 330 x 480 mm
Usage temperature	-20 to +70 °C
Max. all-over load per shelf	10 kg
Total all-over load	30 kg
Weight approx.	7.1 kg

Delivery incl. 4 variable shelves made of PMMA, bottom pan for desiccants and hoses with quick couplings for gassing.

Art. No.	Pack Qty.	€
NX20.1	1	965,35

Desiccators/drying cabinets

	6121.1 f	NT23.1 f	NT26.1 f	CT04.1 f	NX18.1 f	NX19.1 f	NX20.1 f	NP95.1 f	YT39.1 f
Panel material	PMMA	PMMA	PMMA	PMMA	PMMA	Borosilicate glass 3.3	PMMA	PMMA	PMMA
Thermohygrometer	-	-	x	x	x	x	x	x	x
Vacuum connection	-	-	-	-	-	-	-	-	x
Gassing connection	-	-	-	-	-	-	x	-	-
Automatic drying	-	-	-	-	-	-	-	x	-
Lockable	x	-	-	-	-	-	x	-	-
Stackable	-	x	x	x	x	x	x	x	-

Desiccators



Auto-Star desiccator

Panels made of transparent **PMMA**, frame made of reinforced aluminium. Door with all-round rubber seal and magnetic catch. Usable with up to 26 shelves. For long-term storage of moisture-sensitive materials, reference samples, electronic components, photographic equipment, papers, cultures etc.

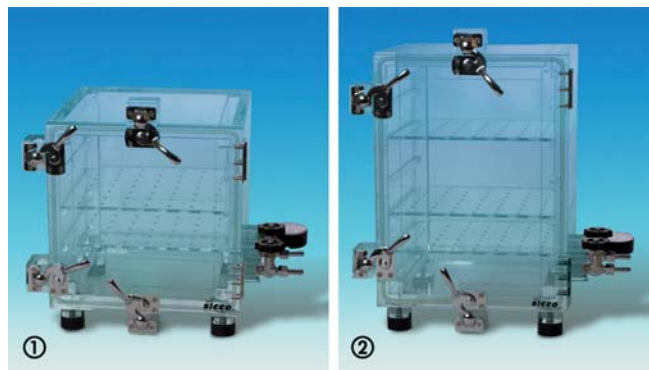
Automatic drying ensures a constant low humidity of between 20 and 30 % and compensates for frequent opening of the door. In case of power failure, the humidity level inside the desiccator does not increase for several hours thereby giving valuable samples extra protection. No need for manual regeneration of the silica gels, no need for frequent checks, space for desiccant dish can also be used. Digital thermal hygrometer with Min/Max function for monitoring actual temperature and moisture levels.

Technical specifications:

Total volume	45 l
Usable volume	42 l
Outer dimensions (W x H x D)	310 x 375 x 525 mm
Additional space required for drying unit	60 mm (back)
Usable inner volume (W x D x H)	260 x 330 x 480 mm
Working temperature	-20 to +70 °C
Max. all-over load per shelf	10 kg
Total all-over load	30 kg
Weight (approx.)	7.3 kg
Power supply	230 V, 50 Hz

Delivery incl. 4 variable shelves made of PMMA, drying unit and thermal hygrometer.

Art. No.	Pack Qty.	€
NP95.1	1	1364,20



Vacuum desiccators

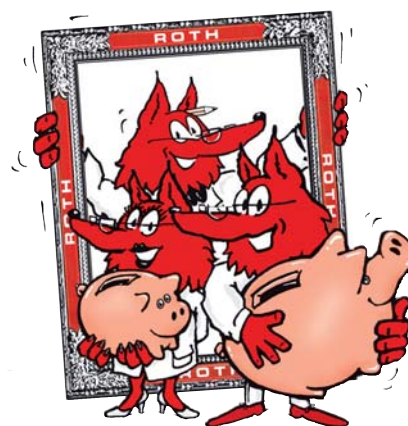
Made of transparent **PMMA**, wall thickness 25 mm. All-round silicon door seal, with 4 or 5 hinged safety locks. For contamination-free storage of air, moisture and heat sensitive products as well as for gentle drying of easily degradable and reactive substances.

Technical specifications:

Model	1	2
Usable volume (l)	17.5	24.5
Exterior dimensions W x D x H (mm)	300 x 300 x 340	300 x 300 x 440
Additional space required for valves + vacuum gauge (mm)	150	
Usable inner volume W x D x H (mm)	260 x 260 x 260	260 x 260 x 360
Working temperature (°C)	-20 to +70	
Analogue vacuum gauge display	0.1 to 0.001 MPa = 1000 to 10 mBar	
Needle valves (connector outer Ø, mm)	9.0	
Number of shelves in scope of supply / max.	2 / 3	3 / 5
Connections for hoses with internal dia. (mm)	9	
Max. all-over load per shelf (kg)	9	
Total all-over load (kg)	30	40
Weight, approx. (kg)	15	18

Delivery incl. shelves made of PMMA, analogue vacuum gauge and needle valves.

Type	Art. No.	Pack Qty.	€
①	YT39.1	1	4000,10
②	YT40.1	1	4476,30



Sample vials



Glass vials with rolled rim

Made of soda-lime glass.
Delivery incl. LDPE snap-on lids.

Low form

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
2	11,5 x 36	CLA0.1	690	112,90
5	24 x 24	CLA1.1	154	42,60
8	24 x 34	CLA2.1	154	44,10
10	24 x 41	CLA3.1	154	41,00
15	26 x 48	CLA4.1	130	38,20
20	26 x 60	CLA5.1	130	41,50
30	28 x 72	CLA6.1	108	39,80
60	32 x 106	CLA7.1	84	57,85

High form

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
3	19 x 30	CLA8.1	200	40,35
5	19 x 40	CLA9.1	200	41,95
10	22 x 45	CLC0.1	200	44,20
25	30 x 50	CLC1.1	200	59,80
30	28 x 75	CLC2.1	200	62,35
40	30 x 80	CLC3.1	200	73,00
50	30 x 100	CLC4.1	200	77,30
100	34 x 145	CLC5.1	100	91,40



Rotilabo®-snap-cap vials ND18 / ND22

Made of clear, Soda lime-glass, hydrolytic Class 3. No gasket required.
Please order lid separately.

Volume (ml)	Nominal Ø (mm)	Neck inside Ø (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
5	ND18	13,1	20 x 40	LC82.1	100	13,55
10	ND18	13,1	22 x 50	LC83.1	100	15,35
15	ND22	18,2	26 x 48	LC84.1	100	22,70
25	ND22	18,2	26 x 65	LC85.1	100	23,80

Snap-on lids

Made of PE, transparent, closed.

for nominal Ø	Art. No.	Pack Qty.	€
ND18	LC86.1	100	4,55
ND22	LC87.1	100	5,70



Wetted glasses

Made of soda-lime glass. Delivery incl. press-on lid (PE), tightly closing.

Volume (ml)	Outer Ø (mm)	Height (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
5	19	40	13	X654.1	200	42,50
10	22	45	17	X655.1	200	45,90
15	24	52	17	X656.1	200	52,90
20	25	70	17	X657.1	200	55,05
20	27	55	17	X658.1	200	57,20
25	29	50	22	X659.1	200	60,95
30	28	75	17	X660.1	200	78,40
35	28	65	22	X661.1	200	79,25
40	29	80	22	X662.1	200	80,45
50	29	100	22	X663.1	200	83,75



PET-bottles

By Nalgene®. Model 2035. Sterile. Bottle made of PET copolymer, screw cap made of HDPE. For sampling and storage of reagents and buffer solutions. Leak-proof.

Volume (ml)	Ø x H (mm)	Cap size (mm)	Art. No.	Pack Qty.	€
5	22,5 x 46	20-415	ATK0.1	100	180,60
10	24 x 57	20-415	ATK1.1	100	183,85
20	30 x 65	20-415	ATK2.1	100	198,90



Sample vials for pathology

Made of clear glass. With aluminium screw caps and black rubber seals. For storage of pathological samples. Prewashed.

Volume (ml)	Type	Ø x H (mm)	Art. No.	Pack Qty.	€
7	Bijou	21 x 51	TX30.1	288	385,95
14	McCartney	26 x 67	TX31.1	288	448,30
28	Universal wide-mouth	28 x 85	TX32.1	144	267,70

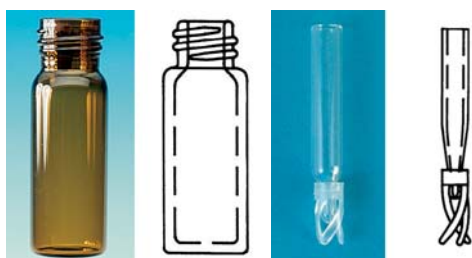
Sample vials/Autosamplervials



Rotilabo®-sample vials 0,1 ml

Made of PP. With flat bottom and thread for screw cap and septum. Height 32 mm, Ø 12 mm. Thread 8 mm. Without cap and septum.

Art. No.	Pack Qty.	€
C518.1	200	38,65



Rotilabo®-sample vials 2 ml

Made of borosilicate glass of hydrolytic class 1. With flat bottom and thread for screw cap and septum. Suitable for autosampler. Height 32 mm, Ø 11.5 mm, thickness 0.9 mm. Thread 8 mm. Without cap and septum.

Type	Art. No.	Pack Qty.	€
clear	E159.1	200	33,55
brown	E160.1	200	37,00

Rotilabo®-inserts 100 µl

For sample vials 2.0 ml (E159.1 / E160.1 / C514.1). Made of borosilicate glass of hydrolytic class 1. Height 30 mm, Ø 5 mm. With plastic spring for secure fit in vials.

Art. No.	Pack Qty.	€
C516.1	100	44,65



Caps and septa

For Rotilabo®-sample vials E159.1, E160.1 and C518.1

Type	Art. No.	Pack Qty.	€
Screw cap with hole	E161.1	200	14,30
Screw cap without hole	E162.1	200	16,15
Septum PTFE, Ø 8 mm	E163.1	1000	42,95
Septum silicone rubber/PTFE-coated, disposable	E164.1	200	29,60
Septum silicone white/PTFE red, can be pierced several times	E165.1	200	35,40



Rotilabo®-sample vials 4 ml

Made of borosilicate glass of hydrolytic class 1. With flat bottom and thread for screw cap and septum. Ideal for autosampler and DNA synthesis units (e.g. ABI). Height 45 mm, Ø 14.75 mm, 0.95 mm thick. Neck inner-Ø 8.5 mm. Thread 13 mm. Without cap and septum.

Type	Art. No.	Pack Qty.	€
Sample vials 4 ml, clear	E152.1	200	34,20
Sample vials 4 ml, brown	E153.1	200	40,35
Screw cap with hole	E154.1	200	24,70
Screw cap without hole	E155.1	200	20,40
Septum PTFE, Ø 12 mm	E156.1	1000	44,65
Septum silicone rubber/PTFE-coated, disposable	E157.1	200	38,50
Septum silicone white/PTFE red, can be pierced several times	E158.1	200	47,25

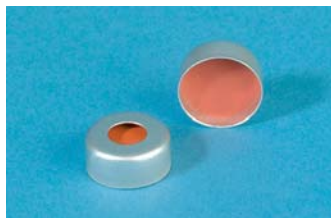


Rotilabo®-sample vials

With collar rim for aluminium caps with septum. Made of borosilicate glass of hydrolytic class 1. With flat bottom.

Delivery without aluminium caps with septum, please order separately.

Volume (ml)	Ø (mm)	Height (mm)	Neck Ø (mm)	Art. No.	Pack Qty.	€
2	12	32	11	C514.1	200	34,95
4	15	45	13	H511.1	200	37,60
6	22	38	20	H512.1	200	63,40
10	23	46	20	H513.1	200	72,35
20	23	75	20	H514.1	200	75,05

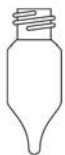


Rotilabo®-aluminium caps with septum

For Rotilabo®-sample vials C514.1 to H514.1.

for crimp vials with Ø (mm)	Septum	Art. No.	Pack Qty.	€
11	PTFE/silicone rubber	H522.1	200	23,65
11	PTFE/silicone	C515.1	200	52,90
13	PTFE/silicone rubber	H518.1	200	58,80
13	PTFE/silicone	H519.1	200	66,65
20	PTFE/butyl	H520.1	200	155,90
20	PTFE/silicone	H521.1	200	112,90

Sample vials/Autosamplervials



Rotilabo®-screw neck ND8 vials

Made of borosilicate glass, hydrolytic class 1. Thread 8-425. Flat bottom. Dimensions: Ø 11.6 x H 32 mm. CleanPack, bottles packed in a clean room under class 10.000 conditions. Standard bottles for GC and HPLC. Suitable for automatic samplers. Please order micro inserts, screw caps and septa separately.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Clear glass	1,5	KE26.1	100	13,15
Clear glass, with labelling area	1,5	KE27.1	100	14,10
Clear glass, conical base	1,1	KE28.1	100	53,25
Brown glass	1,5	KE29.1	100	14,10
Brown glass, with labelling area	1,5	KE30.1	100	15,25

Micro-inserts

Made of clear borosilicate glass. For screw neck ND8 vials.

Type	Volume (ml)	Dimensions L x Ø (mm)	Art. No.	Pack Qty.	€
Conical 15 mm tip	0,1	31 x 5	KE31.1	100	24,55
With plastic spring	0,1	29 x 5	KE32.1	100	53,70
With metal spring	0,05	27,5 x 4	KE33.1	100	29,40

Screw caps closed

Made of PP, black. Without hole. For screw top vials ND8.

Delivery incl. septum, assembled.

Septum materials	Thick-ness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Natural rubber orange red / TEF transparent	1,3	60°	TY72.1	100	17,45
Butyl red / PTFE grey	1,3	55°	TY73.1	100	18,75
Silicone white / PTFE red UltraClean	1,3	45°	NL96.1	100	28,40

Screw caps with bore hole

Made of PP, black. Bore hole Ø 5.5 mm. For screw neck ND8 vials.

Delivery incl. septum, mounted.

Septum materials	Thick-ness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
PTFE red / silicone white / PTFE red	1,0	45°	KE34.1	100	36,55
Silicone white / PTFE red UltraClean	1,3	45°	KE35.1	100	27,90
Silicone cream / PTFE red UltraClean	1,5	55°	KE36.1	100	27,90
Natural rubber orange red / TEF transparent	1,3	60°	KE37.1	100	15,90
Butyl red / PTFE grey	1,3	55°	KE38.1	100	17,10
Silicone white / PTFE red, slotted	1,3	45°	NL97.1	100	41,10

Screw caps

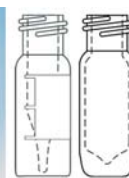
Made of PP, black. For screw neck ND8 vials.

Without septum, please order separately.

Type	Art. No.	Pack Qty.	€
Without bore hole	KE39.1	100	6,15
With bore hole Ø 5.5 mm	KE40.1	100	5,85

Septa Ø 8 mm

Material	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
PTFE	0,25	53°	KE41.1	1000	31,65
Natural rubber orange red / TEF transparent	1,3	60°	KE42.1	1000	73,85
Butyl red / PTFE grey	1,3	55°	KE43.1	1000	90,00
Silicone white / PTFE red	1,3	45°	KE44.1	1000	192,45
Silicone white / PTFE blue, slotted	0,9	55°	KE45.1	1000	478,40



Rotilabo®-short thread ND9 vials

Made of borosilicate glass, hydrolytic class 1. Wide opening for easy filling. Flat bottom. Dimensions: Ø 11.6 x H 32 mm. CleanPack, bottles packed in a clean room under class 10.000 conditions. Standard bottles for GC and HPLC. Suitable for automatic samplers. Please order micro-inserts and screw caps separately.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Clear glass	1,5	LC02.1	100	14,30
Clear glass, with labelling area	1,5	LC03.1	100	15,45
Clear glass, with integrated micro-insert	0,2	LC04.1	100	100,95
Clear glass, with solid conical bottom	1,1	LC05.1	100	72,90
Amber, with labelling area	1,5	LC06.1	100	16,40
Transparent PP, with graduation	1,5	NL98.1	100	20,25
Brown PP, with graduation	1,5	NL99.1	100	21,45

Micro-inserts

Made of clear borosilicate glass. For short thread ND9 vials.

Type	Volume (ml)	Dimensions L x Ø (mm)	Art. No.	Pack Qty.	€
Tapered 15 mm tip	0,1	31 x 6	LC07.1	100	23,85
With plastic spring	0,1	29 x 5,7	LC08.1	100	64,45
Flat base	0,2	31 x 6	LC09.1	100	20,20

Screw caps closed

Made of PP, blue. Without hole. For short-thread screw top vials ND9.

Delivery incl. septum, assembled.

Septum materials	Thick-ness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
PTFE virginal	0,2	53°	TY74.1	100	18,75
Silicone white / PTFE red UltraClean	1,0	55°	TY75.1	100	33,65

Screw caps with bore hole

Made of PP, blue. Bore hole Ø 6 mm. For short thread ND9 vials.

Also suitable for (robot) claw arms.

Delivery incl. septum, mounted.

Septum materials	Thick-ness (mm)	Hard-ness (shore A)	Art. No.	Pack Qty.	€
PTFE red / silicone white / PTFE red	1,0	45°	LC10.1	100	33,80
Silicone white / PTFE red UltraClean	1,0	55°	LC11.1	100	28,50
PTFE (*shore D)	0,2	53° *	LC12.1	100	14,75
Natural rubber orange-red/ TEF transparent	1,0	60°	LC13.1	100	17,20
Silicone white / PTFE blue, slotted	1,0	55°	LC14.1	100	41,10

UltraBond screw caps bore hole

Made of PP, blue. Bore hole Ø 6 mm. For short thread ND9 vials.

Joint cap and septum, septum cannot be pressed into the bottle even when using thick or blunt needles.

Delivery incl. septum, mounted.

Septum materials	Thick-ness (mm)	Hard-ness (shore A)	Art. No.	Pack Qty.	€
Silicone beige / PTFE white, slotted	1,3	45°	LC15.1	100	48,60

Screw caps for LC/GC-MS

Inert, non-bleed single-component cap, LC/GC-MS certified.

Transparent, with thinned penetration area, penetrable like a septum.

For ND9 short threaded vials.

Art. No.	Pack Qty.	€
NN00.1	100	33,25

Magnetic screw caps with bore hole

Made of PP, blue. Bore hole Ø 6 mm. With mounted magnetic cap, gold. For ND9 short threaded vials.

Delivery incl. septum, mounted.

Septum materials	Thick- ness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Silicone white / PTFE red UltraClean	1,0	55°	PT62.1	100	47,95

Silanised ND9 short-thread screw top vials

Made of silanised borosilicate glass of hydrolytic class 1. Please order micro inserts and screw caps separately.

The surface of the vials is deactivated by silanisation. This minimises the adsorption of polar compounds (proteins, amines, phenols etc.) by the glass and prevents the loss of valuable specimens.

Wide opening for easy filling. Flat base.

Dimensions: Ø 11.6 x H 32 mm. CleanPack, vials packed in a clean room under class 10.000 conditions. Suitable for automatic samplers.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Clear glass	1,5	XC47.1	100	44,10
Clear glass, with solid conical base	1,1	XC48.1	100	100,00
Brown glass, with labelling space	1,5	XC49.1	100	45,15

Silanised micro inserts

Made of silanised borosilicate glass, clear glass. For ND9 short-thread screw top vials, ND10 screw top vials, and ND11 rolled edge vials snap ring vials.

The surface of the vials is deactivated by silanisation. This minimises the adsorption of polar compounds (proteins, amines, phenols etc.) by the glass and prevents the loss of valuable specimens.

Type	Volume (ml)	Dimensions L x Ø (mm)	Art. No.	Pack Qty.	€
Tapered 15 mm tip	0,1	31 x 6	XC50.1	100	56,45
With plastic spring	0,1	29 x 5,7	XC51.1	100	84,85

- Additional sample vials and accessories see page 55



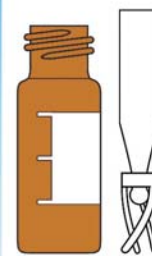
Certified Vial Kits ND9

HPLC and GC certified, tested for blank values and impurities.

Kits comprising:

- 100 short-thread screw top vials ND9 made of hydrolytic class 1 borosilicate glass. Dimensions: Ø 11.6 x H 32 mm
- 100 PP UltraClean screw caps, with 6 mm hole Ø and fitted septa, white silicone rubber/red PTFE, hardness (shore A) 55°, thickness 1.0 mm

Type	Volume (ml)	Art. No.	Qty. (set)	€
Clear glass, with labelling space	1,5	XC64.1	1	49,25
Brown glass, with labelling space	1,5	XC65.1	1	49,15



Rotilabo®-screw neck ND10 vials

Made of borosilicate glass, hydrolytic class 1. Thread 10-425.

Wide opening for easy filling. Flat bottom. Dimensions: Ø 11.6 x H 32 mm. CleanPack, bottles packed in a clean room under class 10.000 conditions. Standard bottles for GC and HPLC. Suitable for automatic samplers. Please order screw caps separately.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Clear glass	1,5	LC16.1	100	14,45
Clear glass, with labelling area	1,5	NN01.1	100	15,05
Brown glass, with labelling area	1,5	LC17.1	100	16,70

Micro-inserts

Made of clear borosilicate glass. For screw thread ND10 vials.

Type	Volume (ml)	Dimensions L x Ø (mm)	Art. No.	Pack Qty.	€
Tapered 15 mm tip	0,1	31 x 6	LC07.1	100	23,85
With plastic spring	0,1	29 x 5,7	LC08.1	100	64,45
Flat base	0,2	31 x 6	LC09.1	100	20,20

Screw caps closed

Made of PP, black. Without hole. For screw top vials ND10.

Delivery incl. septum, assembled.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Natural rubber orange red / TEF transparent	1,3	60°	TY76.1	100	24,20

Screw caps with bore hole

Made of PP, black. Bore hole Ø 7 mm. For screw thread ND10 vials.

Delivery incl. septum, mounted.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Silicone white / PTFE red UltraClean	1,3	45°	LC18.1	100	32,15
Silicone white / PTFE beige	1,5	45°	LC19.1	100	33,15
Natural rubber orange-red / TEF transparent	1,3	60°	LC20.1	100	21,00
PTFE red / Silicone white / PTFE red	1,0	45°	NN37.1	100	40,75
Silicone white / PTFE blue, slotted	1,5	55°	LC21.1	100	46,80

- For HPLC solvents and further accessories see the Chromatography chapter!

Sample vials/Autosamplervials



ND11 Rotilabo®-welt rim vials

With flange rim. Made of borosilicate glass, hydrolytic Class 1. Wide opening for easy filling. Flat bottom. CleanPack, bottles packed in a clean room under class 10.000 conditions. Standard bottles for GC and HPLC. Suitable for automatic samplers. Please order micro-inserts and flange caps separately.

Type	Volume (ml)	Dimensions H x Ø (mm)	Art. No.	Pack Qty.	€
Clear glass	1,5	32 x 11,6	LC22.1	100	12,20
Clear glass	2,5	41 x 11,6	TY77.1	100	19,90
Clear glass, with labelling area	1,5	32 x 11,6	LC23.1	100	13,25
Brown glass, with labelling area	1,5	32 x 11,6	LC24.1	100	14,95
TPX, with integrated glass-micro-insert	0,2	32 x 11,6	LC25.1	100	64,00

Micro inserts

Made of borosilicate glass, clear glass. For ND11 crimp top and snap ring vials.

Type	Volume (ml)	Dimensions L x Ø (mm)	Art. No.	Pack Qty.	€
Tapered 15 mm tip	0,1	31 x 6	LC07.1	100	23,85
With plastic spring	0,1	29 x 5,7	LC08.1	100	64,45
Flat base	0,2	31 x 6	LC09.1	100	20,20

Flange caps with bore hole

Made of aluminium, with transparent coating. Bore hole Ø 5.5 mm. For welt rim ND11 vials.

Delivery incl. septum, mounted.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
PTFE red / silicone white / PTFE red	1,0	45°	LC26.1	100	34,95
Silicone white / PTFE red, UltraClean	1,3	45°	LC27.1	100	27,45
Natural rubber orange-red / butyl red / TEF transparent	1,0	45°	LC28.1	100	11,60
Natural rubber red-orange / TEF transparent, AGILENT-quality	1,0	60°	LC29.1	100	11,35
Butyl red / PTFE grey	1,3	55°	LC30.1	100	18,15
Silicone white / PTFE blue, slotted	1,5	55°	NN02.1	100	54,65

Magnetic flanged caps with bore hole

Made of aluminium, magnetic, painted gold. Bore hole Ø 5 mm. For ND11 rolled edge vials.

Delivery incl. septum, mounted.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Silicone white / PTFE red UltraClean	1,3	45°	PT63.1	100	42,40
PTFE red / silicone white / PTFE red	1,0	45°	PT64.1	100	48,20

TPF crimp caps with bore hole

Free of halogens, elastomers, plasticisers, silicone, butyl rubber, PTFE, FEP, TEF. Recommended for GC/LC-MS, for the storage of standards and analysis of halogenated compounds, VOC's, plastics, phthalates, polymerisation catalysts and silicones. For ND11 rolled edge vials.

Septum materials	Thickness (mm)	Art. No.	Pack Qty.	€
Aluminium (with O-ring seal)	0,06	NN03.1	100	35,05



Rotilabo®-snap ring vials ND11

Made of borosilicate glass of hydrolytic class 1. Wide opening for easy filling. Flat base. Dimensions: Ø 11.6 x H 32 mm. CleanPack, vials packed in a clean room under class 10.000 conditions. Standard vials for GC and HPLC. Suitable for automatic samplers. Please order micro inserts and screw caps separately.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Clear glass	1,5	TY79.1	100	13,65
Clear glass, with labelling space	1,5	TY80.1	100	14,80
Brown glass, with labelling space	1,5	TY81.1	100	15,90
TPX, with integrated glass-micro insert	0,2	TY82.1	100	62,90

Snap ring caps hard version

Made of PE, transparent. With bore hole. For ND11 snap ring vials. Hard version for optimal leak tightness. No crimping tool is required. **Delivery incl.** septum, assembled.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
RedRubber / PTFE beige, AGILENT quality	1,0	45°	TY83.1	100	18,50
Natural rubber orange red / TEF transparent	1,0	60°	TY84.1	100	17,45

Snap ring caps soft version

Made of PE, blue. With bore hole. For ND11 snap ring vials. Soft version for easier push-on or removal. No crimping tool is required. **Delivery incl.** septum, assembled.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
RedRubber / PTFE beige, AGILENT quality	1,0	45°	TY85.1	100	19,90
Natural rubber orange red / TEF transparent	1,0	60°	TY86.1	100	18,85

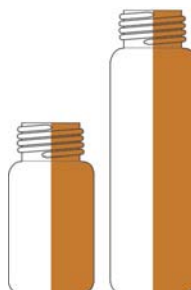
Push-on caps

Made of PE, blue, push-on type. For ND11 crimp top and snap ring vials. No crimping tool is required. Closed, with thinned penetration area instead of a septum, for non-critical assays.

Art. No.	Pack Qty.	€
TY78.1	100	8,40

► Tongs for welt rim vials see page 62

Sample vials/Autosamplervials



Rotilabo®-screw thread ND11 vials

Made of borosilicate glass, hydrolytic Class 1. Thread 13-425. Flat bottom. Dimensions: Ø 14.7 x H 45 mm. CleanPack, bottles packed in a clean room under class 10.000 conditions. Suitable for automatic samplers. Please order micro-insert, screw caps and septa separately.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Clear glass	4	LC31.1	100	17,00
Clear glass, with labelling area	4	LC32.1	100	18,30
Brown glass	4	LC33.1	100	17,80
Brown glass, with labelling area	4	LC34.1	100	19,35

Micro-insert

Made of clear borosilicate glass. For screw thread ND13 vials.

Type	Volume (ml)	Dimensions L x Ø (mm)	Art. No.	Pack Qty.	€
Conical 15 mm tip, with metal spring	0,3	40 x 6	LC35.1	100	37,65

Screw caps closed

Made of PP, black. Without hole. For screw top vials ND13.

Delivery incl. septum, assembled.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Natural rubber orange red / TEF transparent	1,3	60°	TY88.1	100	21,95
Butyl red / PTFE grey	1,3	55°	TY89.1	100	24,65
Silicone cream / PTFE red	1,5	55°	NN04.1	100	34,20

Screw caps with bore hole

Made of PP, black. Bore hole Ø 8.5 mm. For screw thread ND13 vials.

Delivery incl. septum, mounted.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
PTFE red / silicone white / PTFE red	1,0	45°	LC36.1	100	46,80
Silicone cream / PTFE red	1,5	55°	LC37.1	100	37,10
Natural rubber orange-red / TEF transparent	1,3	60°	LC38.1	100	22,40
Butyl red / PTFE grey	1,3	55°	LC39.1	100	24,10
Silicone white / PTFE blue, slotted	1,5	55°	NN05.1	100	59,15

Screw caps

Made of PP, black. For screw thread ND13 vials. Without septum, please order separately.

Type	Art. No.	Pack Qty.	€
Without bore hole	LC40.1	100	10,15
With bore hole Ø 8.5 mm	LC41.1	100	9,05

Septa Ø 12 mm

Material	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
PTFE (*shore D)	0,25	53° *	LC42.1	1000	39,80
Natural rubber orange-red/ TEF transparent	1,3	60°	LC43.1	1000	96,00
Butyl red / PTFE grey	1,3	55°	LC44.1	1000	133,30
Silicone blue transparent / PTFE white	1,3	45°	LC45.1	1000	256,95
Silicone cream / PTFE red	1,5	55°	LC46.1	1000	261,25

Rotilabo®-fine screw thread ND18 vials

Made of borosilicate glass, hydrolytic Class 1. CleanPack, bottles packed in a clean room under class 10.000 conditions. Suitable for automatic samplers. Please order screw caps and septa separately.

Type	Volume (ml)	Dimensions L x Ø (mm)	Art. No.	Pack Qty.	€
Clear glass	10	46 x 22,5	LC47.1	100	31,20
Brown glass	10	46 x 22,5	LC48.1	100	48,60
Clear glass	20	75,5 x 22,5	LC49.1	100	34,85
Brown glass	20	75,5 x 22,5	LC50.1	100	52,65

Magnetic screw caps closed

Magnetic, silver. Without hole.

For fine pitch screw top vials ND18 (art. no. LC47.1-LC50.1).

Delivery incl. septum, assembled.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1,6	55°	TY90.1	100	38,65

Magnetic screw caps with bore hole

Made of steel, magnetic, silver, bore hole Ø 8 mm.

For fine screw thread vials ND18 (Art. no. LC47.1 to LC50.1).

Delivery incl. septum, mounted.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Silicone blue transparent / PTFE white Ultra Clean	1,3	45°	LC51.1	100	67,55
Silicone white / PTFE red, slotted	1,5	55°	NN06.1	100	79,45
Silicone white / PTFE blue Ultra Clean	1,5	55°	LC52.1	100	81,40
Butyl red / PTFE grey	1,6	55°	LC53.1	100	40,65



Rotilabo®-stands for vials and micro inserts

Made of acrylic. Transparent material allows easy checking of the filling level of the vials in the stand. With silicon feet for stability and stackability.

Stand for micro inserts and vials in sizes from ND8 to ND11 (Art. no. TY95.1 and TY96.1) can also hold tapered base vials.

For autosampler vials	Hole Ø (mm)	Slots	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
Micro inserts	8,5/3	5 x 10	173 x 95 x 20	TY95.1	1	67,75
ND8 to ND11	12	5 x 10	173 x 95 x 20	TY96.1	1	73,65
ND13	15,1	5 x 8	176 x 116 x 20	TY97.1	1	75,20
ND18, ND20 (up to 20 ml)	24	5 x 5	160 x 160 x 30	TY98.1	1	84,90

► Other boxes and stands for autosampler vials see page 207

Sample vials/Autosamplervials



Rotilabo®-screw-neck ND18 vials

Made of borosilicate glass of hydrolytic class 1. Round base. Dimensions: Ø 23 x H 75.5 mm. CleanPack, bottles packed in a clean room under class 10.000 conditions. Suitable for automatic samplers. Screw caps and septa please order separately.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Clear glass	20	LY52.1	100	34,35

Screw caps with septum

Made of PP, black. **Suitable only for screw thread vials art. no. LY52.1.** Septum material: butyl red / PTFE grey. **Delivery incl.** septum, assembled.

Type	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Closed	1,6	55°	TY91.1	100	32,80
Hole Ø 12.5 mm	1,6	55°	TY92.1	100	34,85

Screw caps

Made of PP, black. **Suitable only for screw thread vials art. no. LY52.1.** Without septum, please order separately.

Type	Art. No.	Pack Qty.	€
Without bore hole	LC54.1	100	13,30
With bore hole Ø 12 mm	LC55.1	100	13,20

Septa Ø 16 mm

Material	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1,3	55°	LC56.1	1000	183,85
Natural rubber orange-red / TEF transparent	1,3	60°	LC57.1	1000	181,70
Silicone blue transparent / PTFE white	1,7	45°	LC58.1	1000	412,80
PTFE red / silicone white / PTFE red	1,0	45°	LC59.1	1000	466,55



Rotilabo®-decappers

For removal of flanged aluminium caps 8, 11, 13 and 20 mm. Coloured handles.

Colour	for aluminium crimp caps	Art. No.	Pack Qty.	€
white	NW 8 mm	C776.1	1	56,90
red	NW 11 mm	C777.1	1	56,90
green	NW 13 mm	C778.1	1	56,90
blue	NW 20 mm	C779.1	1	56,90



ND20 Rotilabo® rolled-edge headspace vials

Made of hydrolytic class 1 borosilicate glass. Clear glass, wall thickness 1.2 mm. CleanPack, vials packed in a clean room under class 10 000 conditions. Suitable for automatic samplers. Please order crimp caps separately.

Round base

Type	Volume (ml)	Dimensions Ø x H (mm)	Art. No.	Pack Qty.	€
Clear glass, bevelled headspace edge	5	22 x 38,2	LC60.1	100	27,65
Clear glass, bevelled headspace edge	20	23 x 75,5	LC61.1	100	29,80
Clear glass, DIN rolled edge	10	22,5 x 46	LC62.1	100	28,95
Brown glass, DIN rolled edge	10	22,5 x 46	NN07.1	100	32,15
Clear glass, DIN rolled edge, long neck	20	22,5 x 75,5	LC63.1	100	30,05
Clear glass with labelling space, bevelled headspace edge	20	23 x 75,5	NN08.1	100	31,20
Brown glass, DIN rolled edge, long neck	20	22,5 x 75,5	NN09.1	100	32,15

Flat headspace base

*not suitable for use under pressure.

Type	Volume (ml)	Dimensions Ø x H (mm)	Art. No.	Pack Qty.	€
DIN rolled edge	5	20 x 38	LC64.1	100	27,75
DIN rolled edge	10	54,5 x 20	NN10.1	100	27,90
DIN rolled edge, long neck	10	22,5 x 46	LC65.1	100	29,80
DIN rolled edge, long neck	20	22,5 x 75,5	LC66.1	100	30,05
DIN rolled edge	50	31 x 101	LC67.1	100	59,05
DIN rolled edge	100*	51,6 x 94,5	LC68.1	88	52,50

Crimp caps with bore hole

Made of aluminium. Bore hole Ø 10 mm.

For crimp neck Headspace ND20 vials.

Delivery incl. septum, mounted.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Butyl, dark grey	3,0	50°	LC69.1	100	18,85
Butyl / PTFE, grey	3,0	50°	LC70.1	100	30,45
Pharma-Fix-septa, butyl / PTFE	3,0	50°	LC71.1	100	41,60
Silicone blue transparent / PTFE white Ultra Clean	3,0	45°	LC72.1	100	56,45
Silicone white / PTFE beige (AGILENT HT quality)	3,25	45°	LC73.1	100	57,45

Headspace-caps with bore hole

Made of aluminium. Bore hole Ø 8 mm. For crimp neck Headspace vials ND20. With predetermined breaking points which open at 3.0 ±0.5 bar to release excess pressure.

Delivery incl. septum, mounted.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Butyl / PTFE, grey	3,0	50°	LC74.1	100	31,50
Pharma-Fix-Septum, Butyl / PTFE	3,0	50°	LC75.1	100	42,50
Silicone blue transparent / PTFE white Ultra Clean	3,0	45°	LC76.1	100	57,65
Silicone white / PTFE beige (AGILENT HT quality)	3,25	45°	LC77.1	100	59,45

Sample vials/Autosamplervials

Centre tear-off caps

Made of aluminium. For rolled-edge headspace vials ND20.

Delivery incl. septum, assembled.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Dark grey butyl rubber	3,0	55°	NN11.1	100	20,00
Transparent blue silicone/ PTFE white UltraClean	3,0	45°	NN12.1	100	57,45

Complete tear-off caps

Made of aluminium. For rolled-edge headspace vials ND20.

Delivery incl. septum, assembled.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Dark grey butyl rubber	3,0	55°	NN13.1	100	20,10
Transparent blue silicone/ PTFE white UltraClean	3,0	45°	NN14.1	100	57,95

Magnetic crimp caps with bore hole

Made of aluminium, gold coloured. For crimp neck Headspace vials.

Delivery incl. septum, mounted.

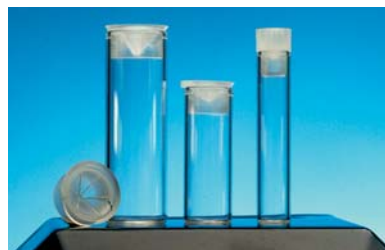
Septum materials	Hole Ø (mm)	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Butyl / PTFE, grey	5	3,0	50°	LC78.1	100	34,35
Butyl / PTFE, grey	8	3,0	50°	LC79.1	100	34,35
Silicone blue transparent / PTFE white Ultra Clean	5	3,0	45°	LC80.1	100	59,90
Silicone blue transparent / PTFE white Ultra Clean	8	3,0	45°	LC81.1	100	60,45

Butyl hollow stoppers

Grey. Suitable for all ND20 crimp top headspace vials

(Art. no. LC60.1 to LC68.1).

Art. No.	Pack Qty.	€
TY94.1	100	11,30



Rotilabo®-sample vials

Alternatively in transparent or amber borosilicate glass and/or in PP. With flat bottom (Art. No. H992.1 with conical bottom) and tight-fitting lids made of PE. The conical recess in the cap enables easy penetration with syringe and needle is automatically centered. Easy to open and close. Ideal for storing sample materials or for use in autosampler. 2 ml vials are ideal for Perkin Elmer ISS-100 and ISS 200 autosamplers.

Volume (ml)	Height (mm)	Ø (mm)	Material	Art. No.	Pack Qty.	€
0,7	40	8	PP	H992.1	100	21,00
1	40	8	glass, clear	H300.1	200	32,80
1	40	8	glass, amber	H301.1	200	38,70
1	40	8	PP	H302.1	200	36,15
2	32	12	glass, clear	H303.1	100	23,85
2	32	12	glass, amber	H304.1	100	26,25
2	32	12	PP	H305.1	100	24,95
4	45	15	glass, clear	H306.1	100	24,95
4	45	15	glass, amber	H307.1	100	27,45
4	45	15	PP	H308.1	100	26,15



Rotilabo®-screw neck ND24 vials (EPA)

Made of borosilicate glass, hydrolytic class 1. CleanPack, bottles packed in a clean room under class 10.000 conditions. Suitable for automatic samplers. Please order screw caps and septa separately.

Type	Volume (ml)	Dimensions Ø x H (mm)	Art. No.	Pack Qty.	€
Clear glass	20	27,5 x 57	LC88.1	100	40,15
Amber	20	27,5 x 57	LC89.1	100	69,90
Clear glass	30	27,5 x 72,5	LC90.1	100	41,10
Amber	30	27,5 x 72,5	LC91.1	100	73,65
Clear glass	40	27,5 x 95	LC92.1	100	42,50
Amber	40	27,5 x 95	LC93.1	100	79,55
Clear glass	60	27,5 x 140	LC94.1	100	72,60
Amber	60	27,5 x 140	LC95.1	100	85,80

Screw caps

Made of PP, white. For screw neck ND24 vials. Without septum, please order separately.

Type	Art. No.	Pack Qty.	€
closed	LC96.1	100	13,15
Bore hole Ø 15 mm	LC97.1	100	12,60

Septa Ø 22 mm

Material	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	1,6	55°	LC98.1	1000	263,40
Butyl red / PTFE grey	2,5	55°	LC99.1	1000	272,00
Silicone natural / PTFE beige (EPA-quality)	3,2	45°	LE00.1	1000	439,70
Silicone white / PTFE blue, cross-slotted	1,5	55°	LE01.1	1000	736,40

Screw caps closed

Made of PP, white. Without bore hole For screw neck ND24 vials.

Delivery incl. septum, mounted.

Septum materials	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Butyl red / PTFE grey	2,5	55°	LE02.1	100	47,30
Silicone natural / PTFE beige (EPA-quality)	3,2	45°	LE03.1	100	64,85

UltraBond™-screw caps

Made of PP, white. For screw neck ND24 vials. Joint cap and septum are a unit, septum cannot be pressed into bottle even when using thick or blunt needles.

Septum materials	Type	Thickness (mm)	Hardness (shore A)	Art. No.	Pack Qty.	€
Silicone natural / PTFE beige (EPA-quality)	closed	3,2	45°	LE04.1	100	66,15
Silicone natural / PTFE beige (EPA-quality)	Bore hole Ø 15 mm	3,2	45°	LE05.1	100	64,85

Crimping tools for autosampler vials



Rotilabo®-closing and opening pliers

Made of hardened steel with chemical resistant special coating. For sealing and opening standard aluminium crimp caps with ND 8, 11, 13 or 20 mm.

- Special surface coating for excellent grip
- Effortless working thanks to resetting spring
- Adjusting screws in crimping head and handle for optimal sealing and reproducible crimping results

① Closing pliers

for aluminium crimp caps	Art. No.	Pack Qty.	€
ND 8 mm	C780.1	1	192,45
ND 11 mm	C781.1	1	192,45
ND 13 mm	5001.1	1	192,45
ND 20 mm	C782.1	1	192,45

② Opening pliers

For controlled opening of crimped sample vials without the danger of glass breakage.

for aluminium crimp caps	Art. No.	Pack Qty.	€
ND 8 mm	ATN3.1	1	192,45
ND 11 mm	ATN4.1	1	192,45
ND 13 mm	ATN5.1	1	192,45
ND 20 mm	ATN6.1	1	192,45



Cleanroom crimping tongs

Made entirely of stainless steel, corrosion and heat resistant. The tool is tolerant to repeated sterilisation for cleanroom use. Free of lubricant and uncoated; no particles are released during use and therefore no increase in particle density occurs in the cleanroom. Crimping pressure and height are adjustable for optimal crimping results, even when using different types of vial. Autoclavable.

Closing tongs

Type	Art. No.	Pack Qty.	€
ND 11	XC66.1	1	718,10
ND 13	XC67.1	1	718,10
ND 20	XC68.1	1	718,10

Opening tongs

Type	Art. No.	Pack Qty.	€
ND 11	XC69.1	1	718,10
ND 13	XC70.1	1	718,10
ND 20	XC71.1	1	718,10



ND11 and ND20 cordless crimping tools

By Macherey-Nagel. Mobile electronic crimping tools for 11 mm and 20 mm aluminium crimp caps (unsuitable for magnetic or bimetal crimp caps).

- Consistent and reproducible crimping results
- Control unit for crimping pressure adjustment
- Longlife lithium batteries

Delivery incl. charging station and connector set.

Closing tongs

For crimp vials	Art. No.	Pack Qty.	€
ND11	APC4.1	1	698,00
ND20	APC5.1	1	698,00

Opening tongs

For crimp vials	Art. No.	Pack Qty.	€
ND11	APC6.1	1	698,00
ND20	APC7.1	1	698,00



High performance crimping tool ND11 and ND20

By Macherey-Nagel. For secure and reproducible crimping and decapping of crimp caps on sampling bottles and autosampler vials.

- Also suitable for magnetic and bimetal crimp caps thanks to very powerful motor.
- Exchangeable crimping and decapping heads
- Digital LED display
- Memory function for different crimp settings
- A stand is optionally available for convenient and safe handling

Delivery incl. power supply (12 V) and cable. Please order crimping and decapping heads separately.

Art. No.	Pack Qty.	€
APE8.1	1	1100,00

Accessories:

Crimping head for 11 mm crimp caps	APE9.1	1	350,00
Crimping head for 20 mm crimp caps	APH0.1	1	350,00
Decapping head for 11 mm crimp caps	APH1.1	1	350,00
Decapping head for 20 mm crimp caps	APH2.1	1	350,00
Stand for electronic crimping tools	APH3.1	1	175,00

Analytical beakers and scintillation vessels



Sample vials for analysis systems

By Greiner Bio-One. Made of **PS**, transparent. With conical base and vertical lip.

Volume (ml)	For model	Art. No.	Pack Qty.	€
0,3	Centrifichem	EC62.1	1000	32,80
0,5	Gemsaec	EC63.1	500	17,75
1,5	Technicon	EC64.1	500	12,40
4,0	Technicon	EC65.1	250	10,05



Sample vessels for cell counters

Made of **PS**. Optically clear, with parallel sides. For use in analyser systems. Volume 25 ml. Outer Ø 35 x H 56 mm.

Delivery incl. snap-on lid made of PE.

Art. No.	Pack Qty.	€
AYX2.1	1000	137,60



Roth scintillation vials

Made from **LDPE**.

① **Vial 20 ml** with white quarter-turn screw cap. Wall thickness 0.8 mm. Height incl. cap 60 mm. Outer Ø 27 mm. Weight incl. cap 7.3 g ±5 %. Background 5 to 10 cpm.

② **Mini Vial 5 ml** with clear screw cap, for putting into 20 ml carrier vial. Height 5.3 cm, Ø 14 mm.

Type	Volume (ml)	Art. No.	Pack Qty.	€
① Vial	20	0794.1	1000	149,45
② Mini Vial	5	5404.1	2000	131,15



Scintillation vials

All-purpose vials for liquid and gamma scintillation counters or for sample storage. Cylindrical shape allows easy filling and residue-free drainage.

Leak-proof.

① 20 ml scintillation vials

Made of transparent **PP**, closure made of **HDPE**. Opening or inner Ø 22 mm. Screw cap seals vial hermetically after 1/4 turn.

Volume (ml)	Outer Ø x H (mm)	Vial/cap material	Art. No.	Pack Qty.	€
20	27 x 61	PP / HDPE	AYX3.1	500	91,40

② 6.5 ml scintillation vials

Made of transparent **PP** or **HDPE**. Opening or inner Ø 12 mm. Special push-on cap for quick closing, can be opened again with a 1/4 turn.

Volume (ml)	Outer Ø x H (mm)	Vial/cap material	Art. No.	Pack Qty.	€
6,5	16 x 57	HDPE / PP	AYX4.1	1000	98,90
6,5	16 x 57	PP / HDPE	AYX5.1	1000	98,90

► Scintillation cocktails see Life Science!

► Dispensers on page 377



Rack for scintillation tubes

Made of **PP**, with 24 holes in 3 x 8 array. Hole-Ø 30 mm. Ideal for storing, transporting or as a rack on the laboratory bench. Dimensions: L 298 x W 127 x H 95 mm. Height to intermediate shelf 44 mm. Autoclavable.

Art. No.	Pack Qty.	€
K993.1	1	48,30

NMR-vials



Rotilabo®-NMR-vials

Made of borosilicate glass 3.3. With lenticular-shaped based. Ideal for applications with high operational capacity.

Technical specifications:

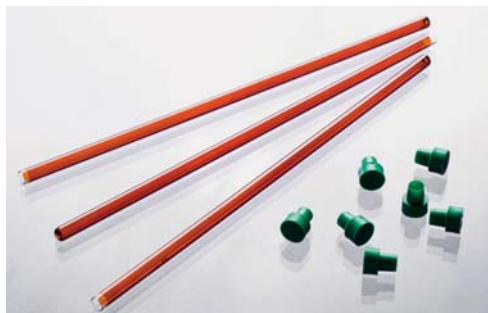
Length (mm)	178 ±0.5
Ø outer (mm)	4.95 ±0.05
Ø inner (mm)	4.15 ±0.05
Straightness (mm)	±0.07
Wall thickness (mm)	0.38
MHz	100-300

Delivery without cap, please order separately.

Type	Art. No.	Pack Qty.	€
Rotilabo®-NMR-vials	HX58.1	50	75,05

Accessories:

Caps made of EVA	HX59.1	1000	91,40
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Rotilabo®-NMR-tube, brown

Made of type 3.3 borosilicate glass. Tinted brown with resistant silver diffusion dye. Specially designed for light-sensitive samples. With lenticular base, fire polished rim.

Technical specifications:

Length	178 mm ±0.5
Outer Ø	4.97 mm +0.02, 4.97 mm -0.05
Inner Ø	4.15 mm ±0.05
Straightness	±0.07 mm
Wall thickness	0.38 mm
Megahertz	100-300 MHz

Delivery incl. sealing plug made of EVA.

Art. No.	Pack Qty.	€
ATP0.1	1	39,75



 DURAN GROUP

NMR-vials

Vials contain no paramagnetic substances. Outstanding straightness. Uniform wall thickness. Good regularity of diameter. Length 178 mm.

Two models available:

- **Economic:** Made of DURAN®, with Retrace-Code, for one-time use in fully automatic sample changers or for high throughput
- **Scientific:** Made of borosilicate glass, for multiple use. Vials can be cleaned and sterilized. Optimal utilization of substance in extremely high-resolution range.

Technical specifications:

Model	Economic	Scientific
Length (mm)	178	178
Ø outer (mm)	4,95 ±0,05	4,97 ±0,013
Ø inner (mm)	4,20 ±0,05	4,20 ±0,013
Straightness (mm)	±0,07	0,013
MHz	300	500

Delivery incl. sealing plugs.

Type	Art. No.	Pack Qty.	€
Economic	EP54.1	250	449,00
Scientific	EP55.1	5	57,25



Rack for NMR-test tubes

Made of PP. With 72 slots and 2 side handles for easy transportation. Stability is provided by hemispherical holes in the lower level. For NMR test tubes L 178 mm, outer Ø 5 mm. Dimensions: L 210 x W 110 x H 220 mm. Autoclavable.

Art. No.	Pack Qty.	€
YA94.1	1	52,15

► Racks for NMR-vials see page 209

► NMR solvents see chapter Chemicals!



Stirring spatula

Made of **PP**, white. For stirring different specimens.
Length 244 mm, rod Ø 6 mm.

Art. No.	Pack Qty.	€
TT16.1	10	10,00



Stirring bars

Made of **PVC**. Rigid, Ø 7.15 mm.

Length (mm)	Art. No.	Pack Qty.	€
250	TT38.1	10	23,85
300	TT39.1	10	23,85
350	TT40.1	10	26,80



Rotilabo®-stirring rods

For stirring different types of samples. Different models and dimensions available. Autoclavable.

Made of flexible PTFE. With spatulate ends. Rod-Ø 8 mm.

Length (mm)	Art. No.	Pack Qty.	€
150	EX96.1	1	4,85
200	EX97.1	1	5,50
250	EX98.1	1	6,15
300	EX99.1	1	7,10

Made of PTFE with stainless steel core. Can be bent if required. Remains bent. Round ends. Rod-Ø 6 mm.

Length (mm)	Art. No.	Pack Qty.	€
150	EY00.1	1	6,70
200	EY01.1	1	7,35
250	EY02.1	1	7,65
300	EY03.1	1	9,90
350	EY04.1	1	11,30
400	EY05.1	1	12,40



Rotilabo®-glass rods

Made of borosilicate glass, both ends sealed. Extensively free of inclusions.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	6	P210.1	10	6,80
200	6	P211.1	10	7,50
250	7	P212.1	10	11,00
250	8	P213.1	10	12,05
300	8	P214.1	10	13,25



Rotilabo®-rubber wipers

Made of natural rubber. With fitting for glass rods: Ø 5-6 mm.

Rod-shaped

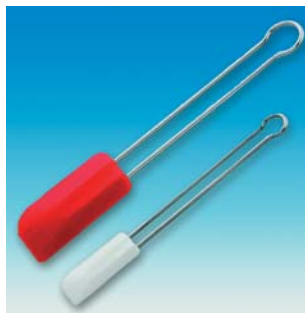
Length 38 mm.

Colour	Art. No.	Pack Qty.	€
grey	9548.1	10	11,05
red	9550.1	10	11,05

Spade-shaped

Width: top 36 mm, bottom 25 mm. Length 32 mm. 2 mm thick.

Colour	Art. No.	Pack Qty.	€
grey	9552.1	10	11,05
red	9553.1	10	11,05



Rotilabo®-silicone wipers

With stainless steel handle. For removing or wiping objects clean of sticky substances and pastes media. Suitable for food.

Overall length (mm)	Width (mm)	Colour	Art. No.	Pack Qty.	€
200	27,5	white	HY10.1	1	10,70
260	50	red	HY11.1	1	11,50

Test tubes



Rotilabo®-storage vials

Made of borosilicate glass of hydrolytic class 1.
Screw top vials with flat base. Please order caps separately.

Volume (ml)	Type	Thread	Ø x H (mm)	Art. No.	Pack Qty.	€
5	Clear glass	ND15	17 x 61	XC37.1	100	27,85
5	Brown glass	ND15	17 x 61	XC38.1	100	30,10
10	Clear glass	ND15	19 x 66	XC39.1	100	29,05
10	Brown glass	ND15	19 x 66	XC40.1	100	31,15
15	Clear glass	ND18	21 x 71	XC41.1	100	33,35
20	Clear glass	ND20	23 x 86	XC42.1	100	37,00

Caps for storage vials

Made of **PP**, black. Art. no. XC46.1 white.
Screw caps with sealing pad, closed.

Thread	Sealing material	Art. No.	Pack Qty.	€
ND15	Natural rubber red orange / TEF transparent	XC43.1	100	22,50
ND15	Butyl red / PTFE grey	XC44.1	100	24,00
ND18	Butyl red / PTFE grey	XC45.1	100	32,15
ND20	Butyl red / PTFE grey	XC46.1	100	33,35



Rotilabo®-sample vials

Made of soda-lime glass. With flat bottom and fused rim. Thickness 0.6 mm.
Delivery incl. Lupolen stoppers.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
2,5	10 x 50	0425.1	496	83,65



Durham-tubes

Made of calcium soda glass. Wall thickness 0.7 mm. With round bottom and straight edge. For detecting gas production in micro-organisms.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
0,5	6 x 35	TX27.1	250	31,10
0,5	7 x 25	TX28.1	250	45,70
0,75	6 x 50	TX29.1	350	37,95



Sample vials

Made of natural-coloured **PE**, with attached press-on lid.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,0	9	32	5862.1	100	26,15
2,5	14	32	5863.1	100	27,55
5,0	15	50	5866.1	100	35,70
7,0	22	32	5867.1	100	39,45
8,0	17	58	TT12.1	100	41,10
20	25	75	TT13.1	100	46,20
25	31	53	TT14.1	50	36,85
35	31	75	TT15.1	50	40,85



Test tube

Made of **PP**, transparent. Autoclavable.
Delivery without screw caps (please order separately).

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	30	85	PT32.1	500	46,80
60	30	126	PT33.1	300	38,30
120	44	115	PT34.1	250	41,85

Screw caps for test tubes

Made of **PP**.

For containers	Art. No.	Pack Qty.	€
PT32.1	PT35.1	500	29,05
PT33.1	PT36.1	300	20,35
PT34.1	PT38.1	250	18,10



Sterile culture vials with screw cap

Made of **PS**. Cap made of **HDPE**. **Sterile**. Centrifugable to 3000 x g.
Coloured lid inserts for identification are optional (CK72.1ff).
Volume 8 ml. Dimensions: Ø 13 x L 100 mm.
Temperature resistant in the range -80 to +80 °C.

Art. No.	Pack Qty.	€
AEL3.1	1000 (8 x 125)	246,20

Test tubes



Culture tubes with screw caps

Made of DURAN®, with DIN-thread, screw caps made of PBT, gaskets PTFE-coated. Hot air sterilization to max. 180 °C. Autoclavable.

Volume (ml)	Outer Ø (mm)	Length (mm)	Thread	Art. No.	Pack Qty.	€
6	12	100	GL 14	K248.1	50	151,00
9	13	100	GL 14	PY94.1	50	151,00
20	16	150	GL 18	PY95.1	50	151,00
20	16	160	GL 18	K249.1	50	196,00
20	20	150	GL 18	PY96.1	50	223,00
30	18	180	GL 18	K250.1	50	213,00

Made of AR®-glass, with DIN-thread, screw caps made of PP, white rubber gasket. Not autoclavable.

Volume (ml)	Outer Ø (mm)	Length (mm)	Thread	Art. No.	Pack Qty.	€
6	12	100	GL 14	K251.1	100	37,95
12	16	100	GL 18	K252.1	100	40,70
20	16	160	GL 18	K253.1	100	50,00
30	18	180	GL 18	K254.1	100	58,40



Sterile culture vials

- Made of transparent PS or translucent PP
- With two-position PE closure for anaerobic and aerobic bacteria cultures
- Sterile
- With or without graduations and labelling space
- Available in space-saving box or economy-priced bag

	PS vials	PP vials
Temperature stability	up to +70 °C	-190 to +121 °C
Centrifugable up to	1400 x g	3000 x g

Made of PS

Ø (mm)	Height (mm)	Volume (ml)	Graduations	Packaging	Art. No.	Pack Qty.	€
12	75	4	yes	individual	EA97.1	500	127,95
12	75	4	yes	25/box	EA98.1	500	106,45
12	75	4	no	Loose in bag	AEX8.1	500	65,05
17	95	12	yes	individual	EA99.1	500	174,15
17	95	12	yes	25/box	EC00.1	500	131,15
17	95	12	no	Loose in bag	AEX9.1	500	77,95

Made of PP

Ø (mm)	Height (mm)	Volume (ml)	Graduations	Packaging	Art. No.	Pack Qty.	€
12	75	4	yes	individual	EC01.1	500	127,95
12	75	4	yes	25/box	EC02.1	500	106,45
12	75	4	no	25/bag	AEY0.1	500	62,60
17	95	12	yes	individual	EC03.1	500	174,15
17	95	12	yes	25/box	EC04.1	500	131,15
17	95	12	no	25/bag	AEY1.1	500	95,70



Fluoroplastic test tubes

Made of PFA. Highly transparent. With or without ring mark, stopper joint made of PP or screw cap. Chemically inert to nearly all chemicals

- Temperature resistant in the range -200 to +250 °C
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning
- High purity, ideal for used in trace analysis and for storage of reference solutions
- No memory effect
- Autoclavable

Type	Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
With ring mark at 10 ml, with stopper joint made of PP	12	110	16	YA25.1	1	38,95
Without ring mark, without stopper joint	12	110	16	YA26.1	1	29,85
With ring mark at 10 ml, with screw cap GL 25	15	110	22	YA27.1	1	57,85
Without ring mark, with screw cap GL 25	15	110	22	YA28.1	1	47,65



PFA test tubes with plugs

Made of PFA. Highly transparent. Microwave safe. Autoclavable.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Volume (ml)	Outer Ø x H (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
5	10 x 132	8	YY79.1	1	57,75
10	12 x 152	10	YY80.1	1	65,60
15	16 x 162	14	YY81.1	1	81,20
20	16 x 175	14	YY82.1	1	81,20
25	19 x 185	16	YY83.1	1	98,80
50	22 x 235	19	YY84.1	1	125,80
60	22 x 245	19	YY85.1	1	131,15

Test tubes



Rotilabo®-test tubes

Made of borosilicate glass 3.3. Thick-walled.
Good thermal fatigue resistance. Autoclavable.

Straight rim

Volume (ml)	Outer Ø (mm)	Length (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
4	10	75	0,8-1,0	HA73.1	100	25,80
5	10	100	0,8-1,0	HA74.1	100	27,35
6	12	75	0,8-1,0	HA75.1	100	26,90
8	12	100	0,8-1,0	HA76.1	100	28,50
16	14	130	1,0-1,2	HA77.1	100	37,65
17	16	130	1,0-1,2	HA78.1	100	42,60
21	16	160	1,0-1,2	HA79.1	100	46,70
32	18	180	1,0-1,2	HA80.1	100	60,55
34	20	150	1,0-1,2	HA81.1	100	54,85
40	20	180	1,0-1,2	HA82.1	100	55,60
55	25	150	1,0-1,2	HA83.1	50	31,10
70	25	200	1,0-1,2	HA84.1	50	42,70
100	30	200	1,0-1,4	HA85.1	50	47,65

Beaded rim

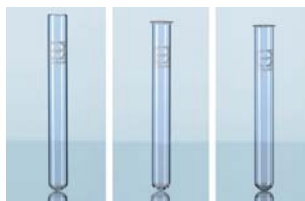
Volume (ml)	Outer Ø (mm)	Length (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,8-1,0	HA86.1	100	37,30
4	10	75	0,8-1,0	HA87.1	100	27,20
5	10	100	0,8-1,0	HA88.1	100	27,75
6	12	75	0,8-1,0	HA89.1	100	26,05
8	12	100	0,8-1,0	HA90.1	100	28,40
16	14	130	0,8-1,0	HA91.1	100	35,05
17	16	130	1,0-1,2	HA92.1	100	39,05
21	16	160	1,0-1,2	HA93.1	100	40,80
32	18	180	1,0-1,2	HA94.1	100	47,00
34	20	150	1,0-1,2	HA95.1	100	50,00
40	20	180	1,0-1,2	HA96.1	100	55,40
55	25	150	1,0-1,2	HA97.1	50	31,85
70	25	200	1,0-1,2	HA98.1	50	42,60
100	30	200	1,0-1,4	HA99.1	50	48,05

Made of borosilicate glass 5.1.

Thin-walled. Autoclavable.

Beaded rim

Volume (ml)	Outer Ø (mm)	Length (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,4-0,5	HC00.1	100	21,00
4	10	75	0,4-0,5	HC01.1	100	19,70
6	10	100	0,4-0,5	HC02.1	100	21,20
6,5	12	75	0,4-0,5	HC03.1	100	20,65
9	12	100	0,4-0,5	HC04.1	100	22,05
16	14	130	0,4-0,5	HC05.1	100	24,95
20	16	130	0,5-0,6	HC06.1	100	26,25
25	16	160	0,5-0,6	HC07.1	100	22,80
35	18	180	0,5-0,6	HC08.1	100	28,30
39	20	150	0,5-0,6	HC09.1	100	33,25
45	20	180	0,5-0,6	HC10.1	100	34,20
60	25	150	0,6-0,7	HC11.1	50	21,20
80	25	200	0,6-0,7	HC12.1	50	26,15
110	30	200	0,7-0,8	HC13.1	50	54,65



DURAN GROUP

Material
DURAN®



Test tubes

Made of DURAN®. Thick-walled and therefore mechanically stable.
Excellent thermal shock resistance. Autoclavable.

Straight rim

Volume (ml)	Outer Ø (mm)	Length (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,8-1,0	C182.1	100	32,50
4	10	75	0,8-1,0	C183.1	100	35,20
5	10	100	0,8-1,0	C184.1	100	36,75
6	12	75	0,8-1,0	C185.1	100	38,40
8	12	100	0,8-1,0	C186.1	100	41,10
9	13	100	0,8-1,0	PY93.1	100	48,00
16	14	130	0,8-1,0	C187.1	100	52,80
17	16	130	1,0-1,2	C188.1	100	62,00
21	16	160	1,0-1,2	C189.1	100	63,00
32	18	180	1,0-1,2	C190.1	100	74,80
34	20	150	1,0-1,2	C191.1	100	76,00
40	20	180	1,0-1,2	C192.1	100	84,70
55	25	150	1,0-1,2	C193.1	50	57,40
70	25	200	1,0-1,2	C194.1	50	60,25
100	30	200	1,0-1,4	C195.1	50	94,80

Beaded rim

Volume (ml)	Outer Ø (mm)	Length (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,8-1,0	C196.1	100	32,50
4	10	75	0,8-1,0	C197.1	100	35,20
5	10	100	0,8-1,0	C198.1	100	36,70
6	12	75	0,8-1,0	C199.1	100	38,40
8	12	100	0,8-1,0	C205.1	100	41,10
9	13	100	0,8-1,0	PY92.1	100	48,00
16	14	130	0,8-1,0	C206.1	100	52,80
17	16	130	1,0-1,2	C207.1	100	62,10
21	16	160	1,0-1,2	C208.1	100	63,10
32	18	180	1,0-1,2	C209.1	100	72,70
34	20	150	1,0-1,2	C210.1	100	76,00
40	20	180	1,0-1,2	C211.1	100	84,70
55	25	150	1,0-1,2	C212.1	50	57,40
70	25	200	1,0-1,2	C213.1	50	60,20
100	30	200	1,0-1,4	C214.1	50	95,00

FIOLAX®-test tubes

Made of borosilicate glass 4.9, with beaded rim. Thin-walled, suited to rapid changes of temperature and localized heating.

Volume (ml)	Outer Ø (mm)	Length (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
2	8	70	0,4-0,5	K223.1	100	17,50
4	10	75	0,4-0,5	K224.1	100	18,00
6	10	100	0,4-0,5	K225.1	100	18,00
6,5	12	75	0,4-0,5	K226.1	100	18,95
9	12	100	0,4-0,5	K227.1	100	19,95
16	14	130	0,4-0,5	K228.1	100	24,70
20	16	130	0,5-0,6	K229.1	100	28,70
25	16	160	0,5-0,6	K230.1	100	29,40
35	18	180	0,5-0,6	K231.1	100	34,20
39	20	150	0,5-0,6	K232.1	100	38,95
45	20	180	0,5-0,6	K233.1	100	39,20
60	25	150	0,6-0,7	K234.1	50	29,20
80	25	200	0,6-0,7	K235.1	50	33,20
110	30	200	0,7-0,8	K236.1	50	64,95

Test tubes



Test tubes

Made of calcium soda glass. With round bottom and straight edge.

Volume (ml)	Wall thickness (mm)	Outer Ø x H (mm)	Art. No.	Pack Qty.	€
4	0,6	10 x 75	TX18.1	1000	60,75
6	0,6	12 x 75	TX19.1	500	24,00
9	0,6	12 x 100	TX20.1	500	35,60
14	0,8	16 x 100	TX21.1	310	30,40
20	0,8	16 x 130	TX22.1	100	14,85
23	0,8	16 x 150	TX23.2	100	13,80
25	0,8	16 x 160	TX24.2	100	14,85
35	1,0	18 x 180	TX25.1	100	27,20
75	1,2	25 x 200	TX26.1	63	43,65



Rotilabo®-test tubes

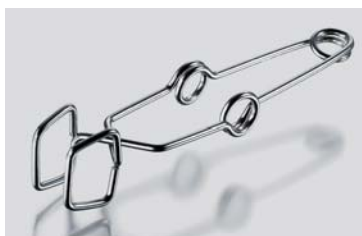
Made of soda-lime glass. Standard design L 160 x Ø 16 x thickness 0.6 mm, with round base and straight rim, slightly narrowed at the top.

Art. No.	Pack Qty.	€
0486.2	250	26,05

Rotilabo®-test tube clamps

Wooden. Length 180 mm. For test tubes with Ø 12-20 mm.

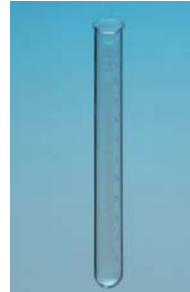
Art. No.	Pack Qty.	€
0645.1	12	9,10



Rotilabo®-test tube holder with finger grip

Manufactured from nickel-plated steel. For test tubes with max. 30 mm Ø. Length 130 mm.

Art. No.	Pack Qty.	€
X114.1	1	4,85



Rotilabo®-test tubes

Made of type 3.3 borosilicate glass, with heavy duty rim, graduated. Autoclavable.

Volume (ml)	Graduations (ml)	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
10	0,1	13	150	NY70.1	50	155,90
15	0,1	15	160	NY71.1	50	160,20
20	0,2	17	160	NY72.1	50	166,65
25	0,2	17	190	NY73.1	50	170,95
50	0,5	22	250	NY74.1	50	192,45



Test tubes including stoppers with standard ground joint

Made of borosilicate glass 3.3, with ground glass socket, ground glass stopper and white labelling space. Autoclavable.

Volume (ml)	Standard ground glass joint	Ø x L (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
10	12/21	16 x 150	1,8	NY90.1	1	15,60
20	14/23	18 x 180	1,8	NY91.1	1	15,60
30	19/26	22 x 150	1,8	NY92.1	1	15,60
50	19/26	22 x 200	1,8	NY93.1	1	15,60
100	29/32	34 x 200	2,0	NY94.1	1	18,85



Test tubes with standard ground joint

By Brand. Made of borosilicate glass 3.3. With NS socket and PP stopper. Wall thickness 1.2 mm, white graduations.

Volume (ml)	Graduations (ml)	Standard taper (NS)	Ø x L (mm)	Art. No.	Pack Qty.	€
10	0,1	12/21	15 x 165	Y752.1	1	9,65
20	0,2	14/23	17 x 200	Y753.1	1	11,80
25	0,2	14/23	17 x 220	Y754.1	1	13,65
30	0,5	14/23	19 x 220	Y755.1	1	14,90

Stoppers



Rotilabo®-test tubes

Made of **PS**. Thickness about 1 mm, with rounded base.

*conical

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	11,5	55	K940.1	1000	21,00
2	11	70	K939.1	1000	22,95
4	12	75	K937.1	1000	28,25
10	16	100	K936.3	100	5,60
10	16	100	K936.2	500	23,55
10*	16	105	K935.1	1000	50,00
15	16	150	K938.1	1000	98,70



Disposable test tubes with edge

Made of **PS** or **PP**. Capacity 10 ml, Ø 16 x H 100 mm.

Type	Material	Art. No.	Pack Qty.	€
Cylindrical	PP	TT73.1	2000	98,50
Conical	PS	TT74.1	2000	126,85

- RBS-liquid concentrate - the universal special cleaner see page 1063
- Brushes see page 1092
- Stoppers with standard ground joint made of glass and plastic, see page 126



Rubber stoppers with turn-up lip

For tight sealing of glass, plastic and metals containers with or without a flanged rim or NS. Tight fit prevents unintentional opening. The rubber stoppers can be pierced for removal of sample and remain watertight even after being perforated several times. Temperature stable from -20 to +100 °C.

Model	Bottom Ø (mm)	Top inside Ø (mm)	for ground glass joints	Art. No.	Pack Qty.	€
7,1	4,5	7,5	5	EC92.1	100	40,55
10,2	9,8	10,7	10	EC93.1	50	23,90
12,7	12,3	13,3	12	EC94.1	50	33,65
14,9	14,2	15,5	14	EC95.1	20	14,95
15,9	14,5	16,5	14	EC96.1	20	19,15
19,4	15,8	17,8	19	EC97.1	20	21,30
23,7	21,2	24,4	24	EC98.1	10	26,80
30,7	28,0	31,4	29	EC99.1	5	21,20



Silicone stoppers with turn-up lip

Ideal for impervious closure of glass, plastic or metal vessels, with or without flanged rim or Ns. Tight fit prevents unintentional opening. The silicone stoppers can be pierced for removal of sample yet remain watertight even after being perforated several times. Temperature stable from -60 to +220 °C. Autoclavable.

Model	Bottom Ø (mm)	Top inside Ø (mm)	for ground glass joints	Art. No.	Pack Qty.	€
7,1	4,5	7,5	5	EE00.1	100	40,35
10,2	9,8	10,7	10	EE01.1	50	23,45
12,7	12,3	13,3	12	EE02.1	50	39,25
14,9	14,2	15,5	14	EE03.1	20	20,45
15,9	14,5	16,5	14	EE04.1	20	22,40
19,4	15,8	17,8	19	EE05.1	20	31,40
23,7	21,2	24,4	24	EE06.1	10	26,80
30,7	28,0	31,4	29	EE07.1	5	20,55



Rotilabo®-cork plugs

Made of natural cork. Pointed, conical shape. Lightweight and robust, easy to drill through.

Bottom Ø (mm)	Upper Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
3	6	16	PL40.1	25	6,40
5	8	16	PL41.1	25	6,40
6	9	17	PL42.1	25	5,35
9	12	20	PL43.1	25	4,85
10	13	22	PL44.1	25	4,85
12	15	22	PL45.1	25	5,20
13	16	22	PP70.1	25	5,35
14	17	22	PL46.1	25	5,60
16	19	23	PL47.1	25	6,05
17	20	26	PL48.1	25	7,10
18	22	26	PL49.1	25	8,20
20	24	27	PL50.1	10	5,95
22	26	27	PL51.1	10	6,45
24	28	27	PL52.1	10	7,00
26	30	27	PL53.1	10	8,55
28	32	27	PL54.1	10	9,15
32	36	27	PL55.1	10	11,30



Rotilabo®-stoppers made of natural rubber

Colour red. Elastic. Acc. to DIN 12871. Hardness 40 Shore A. Temperature stable from -35 to +70 °C. Silicone-free. Autoclavable.

Bottom Ø (mm)	Upper Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
3,5	6,5	15	TL09.1	100	12,00
5	9	20	TL10.1	100	14,75
8	12	20	TL11.1	100	19,30
10,5	14,5	20	TL12.1	25	6,95
12,5	16,5	20	TL13.1	25	8,05
14	18	20	TL14.1	25	8,30
17	22	25	TL15.1	25	13,20
18	24	30	TL16.1	25	15,30
21	27	30	TL17.1	25	19,90
23	29	30	TL18.1	25	24,95
26	32	30	TL19.1	25	30,75
29	35	30	TL20.1	25	32,60
31	38	35	TL21.1	25	43,90
36	44	40	TL22.1	25	52,15
41	49	40	TL23.1	25	68,75
47	55	40	TL24.1	5	21,00
50,5	59,5	45	TL25.1	5	26,25
56	65	45	TL26.1	5	31,20
60	70	50	TL27.1	5	38,50
64,5	75,5	55	TL28.1	5	42,90
71	83	60	TL29.1	1	12,55
79	92	65	TL30.1	1	17,45
87	100	65	TL31.1	1	20,00
94	107	65	TL32.1	1	21,45



Rotilabo®-stoppers made of natural rubber

Elastic. Temperature stable from -35 to +70 °C (+120 °C for humid heat). Shore-hardness approx. 40. Acc. to DIN 12871. Silicone-free. Autoclavable.

Bottom Ø (mm)	Upper Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
3,5	6,5	15	C367.2	100	9,15
5	9	20	C368.2	100	11,60
8	12	20	C377.2	100	14,20
10,5	14,5	20	C378.2	25	4,85
14	18	20	0395.2	25	6,45
17	22	25	C379.2	25	10,75
18	24	30	C380.2	25	12,50
21	27	30	C381.2	25	16,30
26	32	30	C382.2	25	24,90
29	35	30	C383.2	25	30,35
31	38	35	C384.1	25	35,30
36	44	40	C385.1	25	44,95
41	49	40	C386.1	25	52,70
47	55	40	EK04.1	5	16,70
56	65	45	Y843.1	1	6,35
64,5	75,5	55	Y844.1	1	8,75
71	83	60	TK97.1	1	9,15
79	92	65	TK98.1	1	12,85
87	100	65	TK99.1	1	14,90
94	107	65	TL00.1	1	16,80



Rotilabo®-stoppers made of silicone rubber

Acc. to DIN 12871. Shore-hardness approx. 50 A. Biologically inert. Resistant to ageing, ozone and repeated sterilization. Temperature stable from -60 to +180 °C (to +250 °C for short periods). Autoclavable.

Bottom Ø (mm)	Upper Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
3,5	6,5	15	C388.1	250	38,60
5	9	20	C389.1	250	42,80
8	12	20	C390.1	100	22,75
10,5	14,5	20	C391.1	100	26,55
14	18	20	0396.1	50	20,40
17	22	25	C392.1	50	34,95
18	24	30	C393.1	50	44,30
21	27	30	C394.1	25	29,05
26	32	30	C395.1	25	43,75
29	35	30	C396.1	5	14,20
31	38	35	C397.1	5	18,30
36	44	40	C398.1	5	23,90
41	49	40	TL33.1	5	27,45
47	55	40	TL34.1	5	34,00
50,5	59,5	45	TL35.1	1	9,90
56	65	45	TL36.1	1	13,15
60	70	50	TL37.1	1	17,65
64,5	75,5	55	TL38.1	1	21,15
71	83	60	TL39.1	1	25,30
79	92	65	TL40.1	1	32,80
87	100	65	TL41.1	1	44,55
94	107	65	TL42.1	1	57,55

Stoppers



Rotilabo®-stoppers with hole

Made of elastic natural rubber. With hole. Hardness 40 Shore A. Silicone-free. Temperature stable from -35 to +70 °C. Autoclavable.

Bottom Ø (mm)	Upper Ø (mm)	Height (mm)	Hole Ø (mm)	Art. No.	Pack Qty.	€
10,5	14,5	20	3	Y846.1	25	5,40
12,5	16,5	20	3	Y847.1	25	6,50
14	18	20	3	Y848.1	25	7,40
17	22	25	4	Y849.1	25	11,80
18	24	30	4	Y850.1	25	12,55
21	27	30	5	Y851.1	10	8,35
23	29	30	5	Y852.1	10	10,80
26	32	30	6	Y853.1	10	12,10
29	35	30	6	Y854.1	10	14,30
31	38	35	7	Y855.1	10	18,10

Rotilabo®-stoppers with holes

Made of elastic natural rubber, with two holes, colour grey. Acc. to DIN 12871. Hardness: 40 Shore A. Silicone-free. Temperature stable from -35 to +70 °C. Autoclavable.

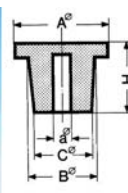
Bottom Ø (mm)	Upper Ø (mm)	Height (mm)	Hole Ø (mm)	Art. No.	Pack Qty.	€
14	18	20	3	TL01.1	25	7,00
17	22	25	4	TL02.1	25	10,45
18	24	30	4	TL03.1	25	12,00
21	27	30	5	TL04.1	10	7,45
23	29	30	5	TL05.1	10	9,30
26	32	30	6	TL06.1	10	10,95
29	35	30	6	TL07.1	10	12,60
31	38	35	7	TL08.1	10	15,20



Rotilabo®-stoppers made of silicone rubber

With hole. Transparent. Acc. to DIN 12871. Hardness 50 Shore A. Biologically inert. Resistant to ageing, ozone and repeated sterilisation. Temperature stable from -60 to +180 °C (+250 °C for a short time). Autoclavable.

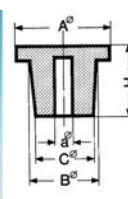
Bottom Ø (mm)	Upper Ø (mm)	Height (mm)	Hole Ø (mm)	Art. No.	Pack Qty.	€
10,5	14,5	20	3	TL49.1	25	7,55
12,5	16,5	20	3	TL50.1	25	8,75
14	18	20	3	TL51.1	25	10,80
17	22	25	4	TL52.1	25	15,60
18	24	30	4	TL53.1	25	19,80
21	27	30	5	TL54.1	10	11,30
23	29	30	5	TL55.1	10	15,00
26	32	30	6	TL56.1	10	17,60
29	35	30	6	TL57.1	10	21,75
31	38	35	7	TL58.1	10	27,05



Rotilabo®-hollow stoppers made of natural rubber

Colour red. Elastic. Acc. to DIN 12871. Hardness Shore A. Temperature stable from -35 to +70 °C. Autoclavable.

A-Ø (mm)	B-Ø (mm)	C-Ø (mm)	a-Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
19	14	12	6	18	TL43.1	10	6,60
21	16	14	8	19	TL44.1	10	7,15
27	19	17	10	20	TL45.1	10	7,50



Rotilabo®-hollow stoppers made of silicone rubber

Acc. to DIN 12871. Hardness 50 Shore A. Biologically inert. Resistant to ageing, ozone and repeated sterilisation. Temperature stable from -60 to +180 °C (+250 °C for a short time). Autoclavable.

A-Ø (mm)	B-Ø (mm)	C-Ø (mm)	a-Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
19	14	12	6	18	TL46.1	10	10,70
21	16	14	8	19	TL47.1	10	11,40
27	19	17	10	20	TL48.1	10	12,40



Rotilabo®-lamella grip stoppers

Made of LDPE. Optimal fit for vial with outer-Ø 12 and 16 mm. Temperature stable from -50 to +80 °C.

For tubes with inner-Ø 9-11 mm

Colour	Art. No.	Pack Qty.	€
natural	E023.1	1000	13,20
yellow	E024.1	1000	12,85
red	E025.1	1000	12,85
green	E026.1	1000	12,85
blue	E027.1	1000	12,85

For tubes with inner-Ø 13-14 mm

Colour	Art. No.	Pack Qty.	€
natural	E028.1	1000	15,95
yellow	E029.1	1000	15,95
red	E030.1	1000	15,95
green	E031.1	1000	15,95
blue	E032.1	1000	15,95

► Brushes for test tubes see page 1092

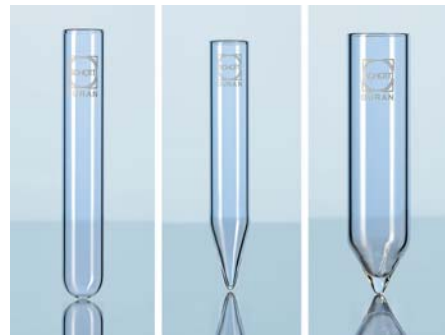
Centrifuge tubes



Centrifuge glasses with screw caps

Made of calcium soda glass. With DIN 14 thread and PP screw cap. Centrifugable up to max. 3000 x g. Autoclavable.

Type	Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
Conical	15	17 x 112	CLC6.1	100	73,10
Round bottom	15	17 x 98	CLC7.1	100	58,05

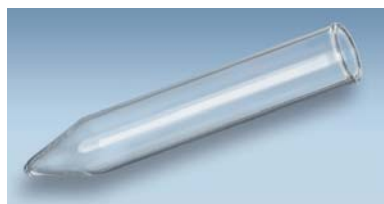


Centrifuge glasses with round bottom

Made of DURAN®. Acc. to DIN 58970 (part 2) and approved for max. speed RZB = 4000 and filled up to capacity with contents having a max. density of 1.2 g/ml. Autoclavable.

*Not acc. to DIN.

Outer Ø (mm)	Height (mm)	Volume (ml)	Art. No.	Pack Qty.	€
12	100	6	C101.1	50	158,00
16	100	12	C102.1	50	160,00
24	100	25	C103.1	10	47,00
34	100	50	C104.1	10	85,60
40*	115	80	C105.1	10	110,00
44	100	80	C106.1	10	110,00
56*	147	250	C107.1	10	191,00



Thick-walled centrifuge glasses

Made of soda-lime glass or 3.3 borosilicate glass. With straight rim, ungraduated.

Made of calcium soda glass. Pointed conical bottom, angle 30°.

Volume (ml)	Ø max. x H (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
10	17 x 98	1.2	CKA2.1	100	38,50

Made of 3.3 borosilicate glass, autoclavable. With conical bottom.

Volume (ml)	Ø max. x H (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
12	16 x 100	1.2	CKA3.1	100	74,75
50	34 x 100	2.8	CKA4.1	10	89,15

Centrifuge glasses with conical bottom

Made of DURAN®. Autoclavable.

Angle	Outer Ø (mm)	Volume (ml)	Art. No.	Pack Qty.	€
30°	16	12	K211.1	50	170,00
60°	24	25	K212.1	10	60,50
60°	34	50	K222.1	10	96,50

► Centrifuges for laboratory see page 1093



15 ml centrifuge glasses

Made of soda-lime glass or 3.3 borosilicate glass. Long conical. With or without graduations (white, 0.1 ml resolution). Wall thickness 1 mm.

Made of calcium soda glass. With straight rim.

Ø x H (mm)	Graduations	Art. No.	Pack Qty.	€
17 x 113	-	CHY6.1	100	33,65
17 x 113	1-15	CHY7.1	100	139,75

Made of calcium soda glass. With heavy duty rim.

Ø x H (mm)	Graduations	Art. No.	Pack Qty.	€
17 x 113	-	CHY8.1	100	34,30
17 x 113	1-10	CHY9.1	100	139,75
17 x 113	1-15	CKA0.1	100	139,75

Made of 3.3 borosilicate glass, autoclavable. With heavy duty rim.

Ø x H (mm)	Graduations	Art. No.	Pack Qty.	€
17 x 113	-	CKA1.1	100	139,75



Rotilabo®-centrifuge tubes

Made of PP. Transparent. Can be centrifuged up to 3500 x g. Autoclavable.

With rounded base

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
7	12	100	K941.1	100	39,70
16	17	100	K943.1	100	22,05
30	24	95	K944.1	25	31,40
50	30	100	K945.1	25	37,45
70	35	100	K946.1	20	39,80
110	40	120	K947.1	25	45,30

With pointed base

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
13	16	108	K948.1	100	19,35
16	17	120	K949.1	100	22,60

Centrifuge tubes



Rotilabo®-centrifuge tubes

Made of **PTFE**. Centrifugable up to 20 000 x g. Autoclavable, inert.
Delivery incl. screw cap.

Round bottom

Volume (ml)	Outer Ø x H (mm)	Ø screw cap outside (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
8	100 x 12	22	1.0	LT74.1	1	18,40
17	100 x 18	24	1.5	LT75.1	1	21,45
50	140 x 25	31	2.0	LT76.1	1	33,15

Conical bottom

Volume (ml)	Outer Ø x H (mm)	Ø screw cap outside (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
13	100 x 16	22	1.5	LT77.1	1	20,10
18	120 x 18	24	1.5	LT78.1	1	23,80
45	150 x 25	31	2.0	LT79.1	1	37,00



15 ml centrifuge tube

Made of **PS** or **PP**. Conical, with 0.25, 0.5, 1.0, 2.5, 5, 10, 12 and 15 ml graduations. Metal-free (< 100 ppm Sb, As, Ba, Cd, Cr, Pb).

Volume 15 ml.

Delivery without plug.

Made of optical clear **PS**. Centrifugable to 1200 x g.
Temperature stable from 0 to 90 °C.

Ø x H (mm)	Art. No.	Pack Qty.	€
17 x 120	AYX6.1	1000	93,55

Made of transparent **PP**. Centrifugable to 3000 x g. Autoclavable.

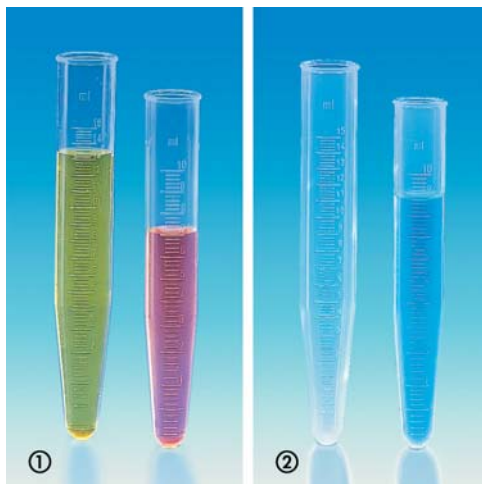
Ø x H (mm)	Art. No.	Pack Qty.	€
17 x 120	AYX7.1	1000	93,55

Plug for 15 ml centrifuge tubes

Made of **PE**. Temperature stable from 0 to 80 °C.

Colour	Art. No.	Pack Qty.	€
blue	AYX8.1	1000	46,25
green	AYX9.1	1000	46,25
colourless	AYY0.1	1000	46,25
red	AYY1.1	1000	46,25
white	AYY2.1	1000	46,25
yellow	AYY3.1	1000	46,25

- Autoclaving information on page 5
- Accessories for test tubes see page 39



Centrifuge tubes

Made of **PMP (TPX®)** or **PP**.

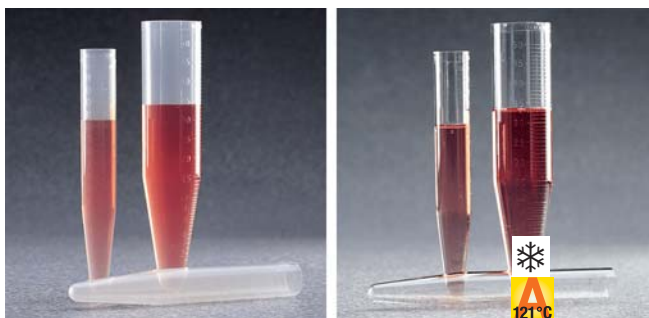
Conical, with graduation. Can be centrifuged up to 3000 x g. Autoclavable.

① Made of transparent **PMP (TPX®)**. Temperature stable up to +150 °C.

Volume (ml)	Ø (mm)	Graduations (ml)	Height (mm)	Art. No.	Pack Qty.	€
10	16	0,1	107	TT17.1	50	35,30
15	18	0,2	118	TT18.1	50	38,60

② Made of **PP**. Temperature stable up to +120 °C.

Volume (ml)	Ø (mm)	Graduations (ml)	Height (mm)	Art. No.	Pack Qty.	€
10	16	0,1	107	TT19.1	100	33,55
15	18	0,2	118	TT20.1	100	48,40



Centrifuge tubes

By Nalgene®. With tapered base and engraved graduations. For low speed centrifugation up to 6000 x g, bottles must be filled to at least 80% of total capacity. Autoclavable.

Model 3103, made of PPCO. Transparent.

Volume (ml)	Outer Ø x H (mm)	Art. No.	Pack Qty.	€
15	17 x 119	ATL8.1	10	33,80
50	28,5 x 133	ATL9.1	10	45,15

Model 3105, made of PC. Transparent.

Volume (ml)	Outer Ø x H (mm)	Art. No.	Pack Qty.	€
15	17 x 120	ATN0.1	10	37,45
50	28,5 x 135	ATN1.1	10	49,80

Stopper

By Nalgene®. Made of **PP**, for centrifuge tube models 3103 and 3105. Autoclavable.

for tubes with outer Ø (mm)	Art. No.	Pack Qty.	€
17	ATN2.1	20	28,50
28,5/29	APP8.1	20	39,25

Centrifuge tubes



Centrifuge tubes

By Nalgene®. With round bottom. Centrifugable to 50 000 x g when at least 80 % full. Autoclavable.

① Model 3110, made of PPCO. Transparent.

Volume (ml)	Outer Ø x H (mm)	Type	Art. No.	Pack Qty.	€
12	16 x 103	without rim	APN1.1	10	27,10
15	16 x 114	without rim	APN2.1	10	28,30
16	18 x 99	without rim	APN3.1	10	29,25
38	25 x 89	without rim	APN4.1	10	30,75
50	29 x 103	without rim	APN5.1	10	32,70
50	28,5 x 104	with rim	APN6.1	10	40,75
100	32 x 164	with rim	APN7.1	10	68,30

② Model 3117, made of PC. Transparent.

Volume (ml)	Outer Ø x H (mm)	Type	Art. No.	Pack Qty.	€
12	16 x 104	without rim	APN8.1	10	30,75
15	16 x 114	without rim	APN9.1	10	33,15
16	18 x 101	without rim	APP0.1	10	34,00
38	26 x 89	without rim	APP1.1	10	36,35
50	29 x 104	without rim	APP2.1	10	37,20
50	28,5 x 106	with rim	APP3.1	10	40,45
100	32 x 165	with rim	APP4.1	10	80,45

③ Stopper

Made of PP, for centrifuge tube models 3110 and 3117. Autoclavable.
Note: Only leak-tight to a limited degree during high speed centrifugation.

for tubes with outer Ø (mm)	Art. No.	Pack Qty.	€
16	APP5.1	20	30,25
18	APP6.1	20	37,10
25/26	APP7.1	20	38,30
28,5/29	APP8.1	20	39,25
32	APP9.1	20	40,85



Centrifuge tubes Eco

Made of PP. With raised graduation marking. **Sterile:** with red lid, gamma sterilized or **unsterile:** with blue lid. Can be centrifuged up to 3000 x g.

Without vertical lip

Volume (ml)	Type	Ø x H (mm)	Art. No.	Pack Qty.	€
15	unsterile	17 x 120	AN76.1	150	30,75
15	sterile	17 x 120	AN77.1	150	35,40
50	unsterile	29 x 115	AN78.1	100	25,30
50	sterile	29 x 115	AN79.1	100	29,00

With vertical lip

Volume (ml)	Type	Ø x H (mm)	Art. No.	Pack Qty.	€
50	unsterile	29 x 115	AN80.1	100	29,05
50	sterile	29 x 115	AN81.1	100	30,65



CELLSTAR®-centrifuge tubes

By Greiner Bio-One.

Made of PP. Blue HDPE screw cap. **Sterile.**

Excellent thermal, mechanical and chemical stability.

Conical base. Blue graduations and white labelling space.

DNase/RNase and human DNA free, non-pyrogenic and non-cytotoxic.

Temperature stable from -50 to +100 °C.

Type	Max. centrifugability (x g)	
	Fixed angle rotor	Oscillating rotor
15 ml tubes	15 000	4000
50 ml tubes	9000	3200
50 ml tubes with rim	11 500	2800

Transparent, without rim

Volume (ml)	Ø x H (mm)	Packaging	Art. No.	Pack Qty.	€
15	17 x 120	50 in rack	XH97.1	500	97,75
15	17 x 120	100 in bag	XH97.2	1000	160,20
50	29 x 115	20 in bag	XH98.1	500	89,25
50	29 x 115	25 in rack	XH98.2	300	76,55

Transparent, with rim

Volume (ml)	Ø x H (mm)	Packaging	Art. No.	Pack Qty.	€
50	29 x 115	25 in bag	XH99.1	450	103,75
50	29 x 115	25 in rack	XH99.2	300	80,10

Light Protection Tubes, brown, without rim

For light-sensitive substances and reactions.

Volume (ml)	Ø x H (mm)	Packaging	Art. No.	Pack Qty.	€
15	17 x 120	100 in bag	KL46.1	100	42,90
15	17 x 120	50 in rack	KL46.2	50	25,30
50	29 x 115	20 in bag	KL47.1	20	13,05
50	29 x 115	25 in rack	KL47.2	25	16,90



50 ml centrifuge tube

Made of optically clear PS, screw cap made of HDPE. Graduated from 2.5 to 50 ml. Temperature stable from 0 to 90 °C. Centrifugable up to 1000 x g, sterile test tubes are also suitable for storage of biological samples.

Type	Ø x H (mm)	Art. No.	Pack Qty.	€
Non-sterile, lid colour yellow	29 x 118	APP4.1	500	131,15
Sterile, lid colour green, in rack	29 x 118	APP5.1	500 (20 x 25)	231,15

Centrifuge tubes



Rotilabo®-centrifuge tubes

Made of highly transparent **PP**. Lid made of **PE**. **Sterile** or **unsterile**. With printed, black graduation. Certified free of nucleases, endotoxins and metals (<1 ppm). Not cytotoxic. Temperature stability: from -80 to +122 °C.

Without vertical lip, with white labelling area, centrifugable max. 17 000 x g (15 ml-vials) resp. 20 000 x g (50 ml-vials).

Volume (ml)	Type	Ø x H (mm)	Packaging	Art. No.	Pack Qty.	€
15	unsterile	17 x 120	50 in a bag	N458.1	500	106,45
15	sterile	17 x 120	50 in a bag	N459.1	500	117,20
15	unsterile	17 x 120	25 in a rack	N460.1	500	133,20
15	sterile	17 x 120	25 in a rack	N461.1	500	142,90
50	unsterile	29 x 115	50 in a bag	N462.1	500	128,50
50	sterile	29 x 115	50 in a bag	N463.1	500	140,85
50	unsterile	29 x 115	25 in a rack	N464.1	500	151,60
50	sterile	29 x 115	25 in a rack	N465.1	500	156,95

With vertical lip, with white labelling area, centrifugable up to 10 000 x g

Volume (ml)	Type	Ø x H (mm)	Packaging	Art. No.	Pack Qty.	€
50	unsterile	29 x 117	50 in a bag	X063.1	500	156,95
50	sterile	29 x 117	50 in a bag	X064.1	500	183,85



Metal Free centrifuge tubes

Made of highly pure **PP**, with white labelling area. **PE** lid, fitted. **Sterile**. **Heavy metal content <1 ppb**, suitable for sample preparation and storage for trace analysis, ICP-MS and other applications which require an extremely low metal content.

Nuclease and endotoxin free, non-cytotoxic.

Temperature stable from -80 to +122 °C. Centrifugable to 12 500 x g.

Volume (ml)	Ø x H (mm)	Packaging	Art. No.	Pack Qty.	€
15	17 x 120	50 in bag	XX96.1	500	143,00
15	17 x 120	25 in rack	XX97.1	500	153,75
50	29 x 115	50 in bag	XX98.1	500	153,75
50	29 x 115	25 in rack	XX99.1	500	174,15



Programme extension!



Oak Ridge centrifuge tubes

By Nalgene®. Made of **PC**, **PPCO**, **PSF** or **FEP**.

For **high speed centrifugation**.

For use in cooled or uncooled centrifuges up to 50 000 x g. Before centrifuging, the tubes must be at least 80 % full and FEP tubes 100 % full.

Please note: screw closures with a seal are necessary for centrifuging hazardous substances or for centrifugal forces exceeding 10 000 x g. Autoclavable. Before autoclaving, please make sure you always unscrew the lid.

Type 3115. Made of **PSF**, transparent. Screw closure made of **PP** without seal.

Nominal capacity (ml)	Filling capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
30	30	25,7 x 94,5	ATC6.1	10	71,30
50	43	29,0 x 107,7	ATC7.1	10	87,10

① Type 3118. Made of **PC**, transparent. Screw closure made of **PP** without seal.

Nominal capacity (ml)	Filling capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
10	10	16,1 x 81,7	PH26.1	10	56,25
28	28	25,4 x 101,8	PH27.1	10	60,10
30	30	25,7 x 94,5	PH28.1	10	59,90
50	43	28,8 x 107,0	PH29.1	10	68,75
85	81	38,2 x 105,7	PH30.1	10	77,95

② Type 3119. Made of **PPCO** (polypropylene copolymer), translucent. Screw closure made of **PP** without seal.

Nominal capacity (ml)	Filling capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
10	10	16,0 x 81,4	PH36.1	10	43,90
28	28	25,4 x 101,9	PH37.1	10	49,25
30	30	25,5 x 94,3	PH38.1	10	49,25
50	42	28,8 x 106,7	PH39.1	10	61,75

③ Type 3114. Made of **FEP**, screw closure made of **ETFE** without seal. Resistant to acids, bases and solvents. Ideal for chloroform and phenol extractions.

Nominal capacity (ml)	Filling capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
10	10	16,0 x 81,5	PH40.1	2	48,85
30	30	25,7 x 93,7	PH41.1	2	73,10
50	46	28,8 x 107,7	PH42.1	2	107,30

Leak-tight closures for Oak Ridge centrifuge tubes

Screw closures from **PP**, with silicon seal. These enclosures ensure leak-free use of Oak Ridge centrifuge tubes. Recommended for centrifugal forces of 10 000 x g or higher. Autoclavable.

Size (mm)	suitable for	Art. No.	Pack Qty.	€
20	PH27.1, PH28.1, PH37.1, PH38.1, PH98.1, PK02.1	PH43.1	2	20,25
24	PH29.1, PH39.1, PH99.1, PK03.1	PH44.1	2	22,60



Oak Ridge centrifuge tubes with leak-tight closure

By Nalgene®. Made of **PC**, **PSF** or **PPCO**. Screw closures made of **PP** with silicon seal. For **high speed centrifugation**. **Leak-proof**. For use in cooled or uncooled centrifuges up to 50 000 x g. Before centrifuging, tubes must be at least 80 % full. Autoclavable. Before autoclaving, please make sure you always unscrew the lid.

Type 3137. Made of **PSF**, transparent.

Nominal capacity (ml)	Filling capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
50	42	29 x 115,3	ATC5.1	10	160,20

Type 3138. Made of **PC**, transparent.

Nominal capacity (ml)	Filling capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
10	10	16,1 x 82,3	PH96.1	10	73,10
16	16	18,2 x 106,9	PH97.1	10	88,15
30	30	25,7 x 101,6	PH98.1	10	116,10
50	42	28,8 x 115,0	PH99.1	10	123,65

Type 3139. Made of **PPCO** (polypropylene copolymer), translucent.

Nominal capacity (ml)	Filling capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
10	10	16,0 x 82,0	PK00.1	10	70,95
16	16	17,9 x 106,6	PK01.1	10	81,70
30	30	25,5 x 101,4	PK02.1	10	104,85
50	42	28,8 x 114,1	PK03.1	10	124,70



Centrifuge bottles with leak-tight closure

By Nalgene®. Wide-neck centrifuge bottle made of **PC** or **PPCO**. Screw closure made of **PP** with silicon seal. Before centrifuging, bottles must be at least 80 % full. 250 ml bottle centrifugable up to 27 500 x g, 500 ml bottle centrifugable up to 13 700 x g. Autoclavable. Before autoclaving, always remove the lid.

① Type 3140. Made of **PC**, transparent.

Nominal capacity (ml)	Filling capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
250	250	61,5 x 135,1	PH89.1	4	77,40
500	450	69,5 x 160,0	PH90.1	4	95,15

② Type 3141. Made of **PPCO** (polypropylene copolymer), translucent.

Nominal capacity (ml)	Filling capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
250	250	60,7 x 133,4	PH91.1	4	70,00
500	450	69,5 x 160,0	PH92.1	4	93,20



①



②



③



Centrifuge bottles

By Nalgene®. Made of **PPCO**, **PC** or **FEP**. Before centrifuging, bottles must be at least 80 % full and FEP bottles 100 % full, with the exception of 500 ml bottle PH81.1 which should not be more than 75 % full. Autoclavable. Before autoclaving, always remove the lid.

① Type 3120. Made of **PPCO** (polypropylene copolymer), translucent. Screw closure made of **PP** without seal.

*Max. 75 % fill **for IEC rotors

Volume (ml)	Ø x H (mm)	max. RCF (x g)	Art. No.	Pack Qty.	€
250	61,8 x 127,7	13 200	PH79.1	4	33,30
500	73,8 x 169,8	4800	PH80.1	4	40,45
500	69,5 x 170,2	4800	PH81.1	4	39,25
1000	97,5 x 184,5	7100	PH82.1	4	77,20
1000**	97,7 x 179,0	7100	PH83.1	4	78,30

② Type 3122. Made of **PC**, transparent. Screw closure made of **PP** without seal.

**for IEC rotors

Volume (ml)	Ø x H (mm)	max. RCF (x g)	Art. No.	Pack Qty.	€
250	61,8 x 127,6	27 500	PH84.1	4	47,45
500	69,5 x 169,6	13 700	PH85.1	4	76,00
1000	97,6 x 188,4	7100	PH86.1	4	98,70
1000**	98,1 x 180,2	7100	PH87.1	4	100,55

③ Type 3127. Made of **FEP**. Screw closure made of **ETFE** without seal. Cooled centrifugation at 4 °C. Room temperature is not recommended.

Volume (ml)	Ø x H (mm)	max. RCF (x g)	Art. No.	Pack Qty.	€
250	60,0 x 128,8	4000	PH88.1	1	107,45

Accessories for centrifuge bottles

Leak-tight closures. Screw closures made of **PP** with silicon seal.

Size (mm)	suitable for	Art. No.	Pack Qty.	€
58	PH89.1, PH91.1	PH93.1	2	28,95
63	PH82.1, PH83.1, PH86.1, PH87.1, PH90.1, PH92.1	PH94.1	2	39,60

Centrifuge adapter for Sorvall GSA rotor.

Type DS 3125. Made of **LDPE**, white. For 250 ml centrifuge bottles.

Size (mm)	suitable for	Art. No.	Pack Qty.	€
Ø 61,5	PH79.1, PH84.1, PH88.1, PH89.1, PH91.1	PH95.1	6	69,15

To calculate the number of revolutions: $RCF = 1.118 \cdot 10^{-5} \times rpm^2 \cdot r$

Canisters



Salzkotten safety lab canisters

Made of stainless steel 1.4571, flame arrester made of 1.4401, seals made of PTFE. With pressure control valve. Stackable.

Model 202, with screw cap.

1205.1 and 1206.1 UN-approved 1A1/X1.5/250.

Capacity (l)	Height (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
10	280	300	3400	1205.1	1	321,45
25	500	300	5000	1206.1	1	369,80
50	570	380	7000	T621.1 *	1	482,70

Model 213, with screw-cap and self-closing draincock 1/2"

Capacity (l)	Height (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
10	280	300	3600	1207.1	1	625,65
25	500	300	5200	1208.1	1	655,75
50	570	380	7200	T624.1 *	1	815,95

Model 215, with screw cap, self-closing draincock 1/2" and content indicator display

Capacity (l)	Height (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
15	340	300	5000	T628.1 *	1	882,60
25	500	300	6000	T629.1 *	1	917,00
50	570	380	8200	T630.1 *	1	1090,05

* Please check with our Sales Department for delivery period for these items.



Salzkotten safety lab canisters

Made of stainless steel 1.4571, seals made of PTFE. With pressure control valve.

With screw cap, UN-approved 3A1/X2.0/600

Capacity (l)	H x W x D (mm)	Weight (g)	Art. No.	Pack Qty.	€
5	290 x 200 x 130	1600	1221.1	1	267,70
10	370 x 280 x 130	2450	1222.1	1	310,70
20	450 x 340 x 175	4500	1223.1	1	395,60

With fine dosing spout

Capacity (l)	H x W x D (mm)	Weight (g)	Art. No.	Pack Qty.	€
5	330 x 200 x 130	1600	0561.1	1	315,00
10	400 x 280 x 130	2450	0562.1	1	352,60
20	500 x 340 x 175	4500	1226.1	1	446,15



Salzkotten safety laboratory cans

Made of stainless steel WN 1.4571, polished, wall thickness 0.8 mm, seals made of PTFE. Laboratory cans for collecting, storing and filling flammable liquids. With fire arrester (WN 1.4401) in the filler neck. With fuse, the fuse melts at temperatures above 60 °C allowing the gas pressure to escape.

Type 101 and 102 with pressure relief valve (pressure equalisation from approx. 0.3 bar).

Type 100, with screw cap

Capacity (l)	Height (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
1	210	110	560	ANL8.1	1	161,25
2	270	130	740	ANL9.1	1	179,55
5	385	175	1300	ANN0.1	1	212,85

Type 101 with screw cap, pressure relief valve and UN-X approval 1A1/X2.0/600.

Type-approved transport containers acc. to GGVS/GGVSee/ADR/RID/IMDG-Code/ICAO-TI.

Capacity (l)	Height (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
1	210	110	560	ANN1.1	1	169,85
2	270	130	740	ANN2.1	1	186,00
5	385	175	1300	ANN3.1	1	224,70

Type 102, with precision metering device and pressure relief valve

Precision metering device rotatable through 360°, self-closing. With vent.

Capacity (l)	Height (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
1	230	110	600	ANN4.1	1	211,80
2	290	130	770	ANN5.1	1	229,00
5	420	175	1400	ANN6.1	1	258,00

► Safety systems for disposal see p. 673



Safety flasks

Made of aluminium 99.5 %. With screw cap and self closing pouring and ventilation valve made of plastic. Inner sealing made of Viton®. Can be used for petrol, oil, etc. TÜV tested. Design protected. With GS sign. Safety labelling in German, English and French.

Volume (ml)	Ø x H (mm)	Weight (g)	Art. No.	Pack Qty.	€
500	60 x 225	130	2984.1	1	47,10
1000	75 x 275	190	2985.1	1	51,50



Safety canisters

Made of stainless steel 1.4571, polished. 20-liter canister (Art. No. PC09.1), made of stainless steel 1.4301. Wall thickness 0.8 mm. Seals made of PTFE. For safe storage and decanting of flammable liquids. With removable flame arrestor in the filler. In models with a screw cap, the screw cap is secured against loss by a flexible shaft.

With screw cap and UN-X-approved

In compliance with GGVSEB, GGVSee, ADR, RID and IMDG Code requirements for transporting hazardous liquids. 20-liter canister (Art. No. PC09.1) also with venting screw for manual pressure relief.

Capacity (l)	H x W x D (mm)	Weight (g)	UN-approval	Art. No.	Pack Qty.	€
5	310 x 130 x 200	1650	3A1/X1.6/300	PC07.1	1	235,45
10	380 x 130 x 280	2500	3A1/X1.6/300	PC08.1	1	278,45
20	470 x 175 x 345	3700	3A1/X2.0/300	PC09.1	1	347,25

With self-closing stopcock

Suitable for horizontal storage, fits into most laboratory safety cabinets. With venting screw for manual pressure relief.

Capacity (l)	H x W x D (mm)	Weight (g)	UN-approval	Art. No.	Pack Qty.	€
5	310 x 130 x 200	1650	without	PC10.1	1	310,70
10	380 x 130 x 280	2500	without	PC11.1	1	341,85
20	470 x 175 x 345	3700	without	PC12.1	1	380,55

Accessories for safety canisters

Replacement tap 1½"

Made of stainless steel 1.4305, seals made of PTFE. Closes automatically after use. Suitable for safety canisters with pressure equalising screw PC09.1 to PC12.1.

Art. No.	Pack Qty.	€
YE00.1	1	103,20

Fine dispenser 1½"

Made of stainless steel 1.4305, seals made of PTFE. With vent. Suitable for safety canisters PC07.1 and PC08.1.

Art. No.	Pack Qty.	€
YE01.1	1	77,40

Spout 1½"

Made of stainless steel grades 1.4301 and 1.4305, seals made of PTFE. Rotatable, suitable for all safety canisters.

Art. No.	Pack Qty.	€
YE02.1	1	74,20

Replacement screw cap 1½"

Made of stainless steel 1.4305, seals made of PTFE. Suitable for safety canisters with UN approval PC07.1 to PC09.1.

Art. No.	Pack Qty.	€
YE03.1	1	47,30

Screw cap 1½"

Made of stainless steel 1.4305, seals made of PTFE. With pressure relief valve, suitable for safety canisters PC10.1 to PC12.1.

Art. No.	Pack Qty.	€
YE04.1	1	55,90

Funnel

Made of stainless steel 1.4571, angled, wall thickness 0.6 mm. Funnel-Ø 120 mm, stem-Ø 34 mm, height 120 mm, weight 350 g.

Art. No.	Pack Qty.	€
PC13.1	1	65,60



Safety laboratory cans

Made of stainless steel 1.4571, polished or unpolished. Wall thickness 0.6 mm. Seals made of PTFE, grip made of powder-coated aluminium. With removable flame arrestor in the filler. In models with a screw cap, the screw cap is secured against loss by a flexible shaft.

Polished, with screw cap and overpressure valve

Capacity (l)	Height (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
1	235	111	650	1192.1	1	152,65
2	295	131	750	1193.1	1	167,70
5	400	165	1150	1194.1	1	203,20

Polished, with microdispenser and overpressure valve

Capacity (l)	Height (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
1	235	111	700	5791.1	1	190,30
2	295	131	800	0544.1	1	205,35
5	400	165	1200	0157.1	1	231,15

Unpolished, with screw cap and UN-approval 1A1/X2.0/400

In compliance with GGVSEB, GGVSee, ADR, RID and IMDG Code requirements for transporting hazardous liquids.

Capacity (l)	Height (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
1	235	111	650	PC01.1	1	149,45
2	305	131	750	PC02.1	1	164,50
5	400	165	1150	PC03.1	1	199,95

Accessories for safety laboratory cans

Fine dispenser 1¼"

Made of stainless steel 1.4305, seals made of PTFE. Self-closing. With pressure relief valve, suitable for all safety laboratory cans.

Art. No.	Pack Qty.	€
YE05.1	1	69,90

Replacement screw cap 1¼"

Made of stainless steel 1.4305, seals made of PTFE. Suitable for safety laboratory cans with UN approval PC01.1 to PC03.1.

Art. No.	Pack Qty.	€
YE06.1	1	41,95

Replacement screw cap 1¼"

Made of stainless steel 1.4305, seals made of PTFE. With pressure relief valve, suitable for safety laboratory cans 1192.1 to 0157.1.

Art. No.	Pack Qty.	€
YE07.1	1	47,30

Funnel

Made of stainless steel 1.4571, wall thickness 0.6 mm. Funnel-Ø 120 mm, stem-Ø 23 mm, height 120 mm, weight 300 g.

Art. No.	Pack Qty.	€
PC04.1	1	59,15

Accessories:

Moistener with pump for safety laboratory cans

Made of stainless steel 1.4301. For economical soaking of cleaning cloths. Minimizes hazardous solvent vapours; liquid that is not required runs back into the can. Spring-mounted soaking tray.

Delivery without safety can, please order separately.

Type	Art. No.	Pack Qty.	€
Moistener for 1-liter safety laboratory cans	PC05.1	1	121,50
Moistener for 2-liter safety laboratory cans	PC06.1	1	123,65

Barrels



Rotilabo®-UN-wide neck barrels

Made of **HDPE**. UN-X-approved in compliance with GGVSE requirements for transporting solid materials with a density of at least 1.5 g/cm³. Coloured blue. Approved for foodstuffs.

Delivery incl. PE lid and galvanized tension ring. 30 l and 60 l barrels come with handles.

Capacity (l)	Ø (mm)	Neck inner Ø (mm)	Height (mm)	UN-approval	Art. No.	Pack Qty.	€
30	313	251	518	1H2/X61/S	T970.1	1	37,10
60	398	325	620	1H2/X88/S	T971.1	1	49,35
120	503	393	791	1H2/X200/S	T972.1	1	78,30
150	503	393	965	1H2/X255/S	T973.1	1	90,30

- High grade steel tubs see page 113
- High grade steel pots see page 112



Sekuroka®-wide neck barrels

Made of **HDPE**, with rubber seal. UN-approval (X-approval) for storage and transport of solid materials and pastes. Approved for food, chemical and pharmaceutical products. Impermeable to air, water and water vapours. Art. No. CY90.1 to 5459.1 with handles. Maximum filling temperature is 80 °C. Sealable.

Capacity (l)	Ø (mm)	Neck inner Ø (mm)	Height (mm)	UN-approval	Art. No.	Pack Qty.	€
3,6	198	136	173	1H2/X12/S	K280.1	1	13,80
6,4	198	136	265	1H2/X20/S	0788.1	1	16,70
10,4	274	204	239	1H2/X22/S	L958.1	1	26,05
15,4	274	204	328	1H2/X22/S	0789.1	1	30,65
20	274	204	418	1H2/X27/S	L959.1	1	34,40
26	316	204	426	1H2/X33/S	0790.1	1	38,20
42	410	282	416	1H2/X51/S	CY90.1	1	54,85
55	410	282	518	1H2/X66/S	CY91.1	1	60,45
68,5	410	280	632	1H2/X81/S	5459.1	1	63,25

- Scoops see page 178



Rotilabo®-mixing barrel

Made of **LDPE**, natural coloured. Capacity 30 l. With 120 mm wide neck thread opening. Screw-on lid with integral funnel. H 20 mm, inner Ø 38 mm. Additional side opening at the bottom with same dimensions. Both top and side openings can be fitted with the supplied screw cap or 9 mm tap. Sealings made of rubber. Total height 520 mm, Ø incl. handles 370 mm. Weight when empty 1800 g. Approved for foodstuffs.

Type	Art. No.	Pack Qty.	€
Rotilabo®-mixing barrel	1089.1	1	64,45
Spare lid incl. centering screw cap	P774.1	1	10,70
Spare stopcock, Ø outer 12.5 mm, inner 10 mm	P775.1	1	9,15



Rotilabo®-canister boy

Decanting aid made of stainless steel for safe removal of solids from canisters. The ergonomic design makes handling of chemicals easier, e.g. it enables complete emptying of canisters during weighing and dispensing. With adjustable limit plate. For vessels with max. 280 mm Ø and 330 mm height.

Overall size: L 275 x W 300 x H 230 mm. Total load max. 20 kg. Design protected by copyright.

Art. No.	Pack Qty.	€
Y358.1	1	116,10



Rotilabo®-storage drums

Made of 1.4541 stainless steel. Stackable. Relatively light. Brushed finish on the outside. Ground and brushed inside and out. Surfaces in contact with product Ra ≤ 0.6 µm. Lid with silicone seal and 1.4301 stainless steel tension ring. Autoclavable. Impervious to fluids.

Capacity (l)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1,5	170	85	A859.1	1	284,90
3	170	156	A860.1	1	298,85
5	250	145	0489.1	1	327,90
10	250	280	0490.1	1	396,70
30	315	425	0491.1	1	547,20



Rotilabo®-canisters

Made of HDPE, natural color UV-stabilized.

① Wide-neck canister

Slanted wide neck opening (outer-Ø 88 mm, inner-Ø 85 mm) and additional drain nozzle (outer-Ø 18 mm, inner-Ø 13 mm), with screw caps. With thread and stopper for cock connection on the narrow side.

Delivery without drain cock, please order separately.

Capacity (l)	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
5	297 x 140 x 280	C944.1	1	23,15
10	302 x 154 x 397	0572.1	1	32,80

② Narrow-neck canister

Narrow neck opening (outer-Ø 29 mm).

With drain pipe L 250 mm, Ø drain 20 mm. **Without** cock connection.

Capacity (l)	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
10	290 x 160 x 331,5	1590.1	1	9,90



Accessories for Rotilabo®-canisters

Drain cocks made of HDPE for wide-neck canisters C944.1 and 0572.1. Inner-Ø spout 10 mm. Connection possible for tubes with inner-Ø 12 mm.

Type	Art. No.	Pack Qty.	€
① straight	0573.1	1	15,70
② bent	HA38.1	1	13,45



Canisters

Made of HDPE, natural coloured. Ideal for storing, packing and transporting. Suitable for foodstuffs.

Delivery incl. screw cap. Drain cock please order separately.

Capacity (l)	UN-approval	Neck inner Ø (mm)	L x W x H (mm)	Thread DIN	Art. No.	Pack Qty.	€
2	-	34,5	145 x 109 x 196	45	T391.1	1	5,30
2,5	3H1/Y1.6/150	34,5	153 x 115 x 208	45	T392.1	1	5,90
3	3H1/Y1.6/150	34,5	153 x 115 x 240	45	T393.1	1	6,35
5	3H1/X1.9/250	40,5	190 x 145 x 251	50	T394.1	1	7,65
6	-	34,5	192 x 145 x 294	45	T395.1	1	8,95
8	-	34,5	230 x 190 x 270	45	T396.1	1	9,65
10	3H1/X1.9/250	40,5	230 x 190 x 310	50	T397.1	1	12,40
20	3H1/X1.9/250	48,5	290 x 246 x 385	61	PY06.1	1	21,50
30	3H1/X1.9/250	48,5	320 x 284 x 435	61	PY07.1	1	31,20

Draincock HDPE with screw cap

Made of PE, with separate air vent canal.

With variable speed regulation of flow. Sealing made of aveolite.

Screw cap	For	Art. No.	Pack Qty.	€
DIN 45	Rotilabo®-canister T391.1 ff.	X530.1	3	22,60
DIN 50	Rotilabo®-canisters T394.1 and T397.1	X531.1	3	27,95
DIN 61	30 l standard canister	5666.2	4	27,95

► Plastic bottles with UN approval see page 90



Uritainer™-canisters

By Simport. Made of HDPE. Outer-Ø wide-neck opening 79 mm. Lid made of PP. Push-Pull valve enables simple, controlled and drip-proof pouring. Graduated, graduation 50 ml. **CE-marking in accordance with MPG.**

① With vertical and horizontal graduation

Capacity (l)	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
3	115 x 245 x 160	HT07.1	1	4,00
4	115 x 245 x 201	HT08.1	1	4,00

② With vertical graduation

Capacity (l)	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
2,5	333 x 133 x 232	HT09.1	1	4,00
3,5	333 x 133 x 295	HT10.1	1	4,00

Canisters



Rotilabo®-space-saving canisters

By Bürkle. Made of transparent **PP**. Capacity 5 l. Many liquids can be stored and filled even in a very confined area. Suitable for foodstuffs. Autoclavable at +121 °C without cock. Thread DIN 50, with litre scale. Ø of opening 41 mm. Dimensions: W 65 x D 335 x H 335 mm. Weight 800 g.

Delivery without stop-cock and screw cap for threaded connection, please order separately.

Type	Art. No.	Pack Qty.	€
With thread connection 3/4"	9267.1	1	33,90
Without thread connection	T974.1	1	31,85

Accessories to Rotilabo®-space saving canisters

By Bürkle.

Type	Art. No.	Pack Qty.	€
Draincock 3/4" made of PP (not autoclavable)	2683.1	1	24,10
Draincock compact 3/4" (not autoclavable)	PE42.1	1	14,70
Cap 3/4"	9275.1	1	5,95
Safety holder for 3 canisters	9270.1	1	22,75



Rotilabo®-canisters

Made of **PE**. Folding. Robust with resistant, flexible walls. Sturdy integral handles for easy transport. Economical and space-saving, as canisters can be folded when empty. Smooth walls and rounded corners allow optimal emptying of canister. Fine dosing is possible without air admission. Handles and canister made of PE, recyclable. Tap connection possible. Outer-Ø spout 11 mm. Connecting nozzle 30 mm with screw cap.

Capacity (l)	L x W x H (mm)	Type	Art. No.	Pack Qty.	€
10	230 x 230 x 230	1 handle	N369.1	1	6,40
20	280 x 280 x 280	2 handles	N370.1	1	7,50

Accessories:

Stopcock	Art. No.	Pack Qty.	€
	N371.1	1	3,55



Fuel cans

Made of **HDPE**, black. Heavy-duty, industrial quality. With UN-approval. Incl. spout and attached screw cap.

*Not UN-approved.

Capacity (l)	L x W x H (mm)	Neck inner Ø (mm)	UN-approval	Art. No.	Pack Qty.	€
2	147 x 80 x 270	18	without	EY69.1	1	9,45
3	215 x 100 x 205	29	3H1/X1.0 Y1.0 Z1.0/250	EY70.1	1	10,35
5	265 x 147 x 247	29	3H1/Y1.0/250	EY71.1	1	7,65
10	333 x 164 x 324	29	3H1/Y1.2/200	EY72.1	1	11,80
20	365 x 178 x 435	29	3H1/Y/150	EY73.1	1	16,45



Flat-top canisters

By Nalgene®. With draincock and screw cap made of **PP**. Excellent for storing and dispensing reagents, titrating solutions and distilled water. The flat design fits easily into tight spaces and refrigerators. Up to 3 canisters can be stacked. With practical integral handgrip for safe and easy transport. Thread 63 mm. **Leakproof**.

Made of **HDPE**. Type 2323.

Capacity (l)	H x W x D (mm)	Art. No.	Pack Qty.	€
8	165 x 368 x 305	E193.1	1	122,55
15	203 x 368 x 368	E194.1	1	141,90

Made of **PP**. Type 2324. Autoclavable.

Capacity (l)	H x W x D (mm)	Art. No.	Pack Qty.	€
8	165 x 368 x 305	E195.1	1	155,90
15	203 x 368 x 368	E196.1	1	177,40

Spare stopcocks

Suitable for square canisters, flat-top canisters, carboys and fluorinated canisters. For tubes with inner-Ø 6.5-7.9 mm. Autoclavable.

Material	Art. No.	Pack Qty.	€
PP	E727.1	1	33,35
ETFE	E728.1	1	84,90

► Autoclaving informations on page 5



Square canisters

By Nalgene®. With screw cap thread 100 mm and draincock made of PP. Robust, graduated, space-saving model with stainless steel handle. Wide neck opening of Ø 90 mm enables easy filling and cleaning. **Leakproof.**

Made of HDPE. Type 2211 (without stopcock) or 2320 (with stopcock).

Type	Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
without stopcock	9	216 x 146 x 356	K646.1	1	70,10
without stopcock	20	318 x 219 x 381	K647.1	1	102,15
with stopcock	9	216 x 146 x 356	K648.1	1	113,95
with stopcock	20	318 x 219 x 381	K649.1	1	144,05

Made of PP. Autoclavable. Type 2212 (without stopcock) or 2321 (with stopcock).

Type	Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
without stopcock	9	216 x 146 x 356	K644.1	1	100,10
without stopcock	20	318 x 219 x 381	K645.1	1	134,40
with stopcock	9	216 x 146 x 356	E191.1	1	133,30
with stopcock	20	318 x 219 x 381	E192.1	1	165,55

Made of PC. Type DS 2213 (without stopcock) or 2322 (with stopcock). Transparent. Excellent for developing nutrient and culture media when light or transparency is required. Ideal for use in cooling rooms. **Autoclavable.**

Type	Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
without stopcock	9	216 x 146 x 356	K651.1	1	148,35
without stopcock	20	318 x 219 x 381	K652.1	1	218,25
with stopcock	9	216 x 146 x 356	K653.1	1	176,30
with stopcock	20	318 x 219 x 381	K654.1	1	212,85

Correct fit

To determine if the different stopcocks and adapters will fit your container, please check container thread type. Plastic barrels and containers have all sorts of thread types, e.g. standardized according to DIN or manufacturer-specific threads. We'll be delighted to assist you with any containers which you purchase from us. However we do ask you to understand that we are unable to give you any information with regard to them fitting containers from other suppliers. Information on the size of the diameter is unfortunately not sufficient.

Fluorinated canisters with draincock

By Nalgene®. Type DS 2327. Made of fluorinated HDPE, stopcock made of ETFE, screw cap made of fluorinated PP, thread 100 mm. Ideal for the safe storage and dispensing of solvents or distilled water. Comes in a rectangular, space-saving design. Transparent. The fluorinated outer and inner surfaces improve the barrier properties and reduce solvent absorption and permeation. **Leakproof.** With graduation, and stainless steel handle. The 20 l-container additionally has robust handles.

Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
9	216 x 146 x 343	E189.1	1	182,75
20	318 x 219 x 381	E190.1	1	211,80



Fluorinated Rotilabo®-canisters

By Nalgene®. Type 2242. Made of HDPE, fluorinated inside and out, screw cap made of fluorinated PP. Provides good barrier properties, high resistance to chemicals and reduces solvent diffusion and penetration. Very robust. Excellent for working under extreme conditions with acids and aggressive solvents. With wide base for extra stability. Long spout and integral handgrip in base enable easy pouring. Graduated in litres and gallons. **Leakproof.** Thread 53 B.

Capacity (l)	Subdivisions (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
10	2	191 x 229 x 368	E187.1	1	66,90
20	4	229 x 305 x 445	E188.1	1	99,90

► Spare stopcocks see page 369

Carboys



Carboys

Made of **HDPE**, natural coloured. With 50 mm funnel neck, thread S 65. Alternatively available without tap connection or with tap connection and stopcock.

With tap connection and stopcock

Capacity (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	167	330	K980.1	1	48,20
10	206	427	5645.1	1	53,65
25	278	580	5646.1	1	93,45
60	346	823	5651.1	1	141,90

Without tap connection

Capacity (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	167	330	K981.1	1	33,90
10	206	427	K982.1	1	36,35
25	278	580	K983.1	1	79,05
60	346	823	K984.1	1	133,30

Stopcock, blue. Offset spout. Length 25 mm, inner Ø 10 mm.

Art. No.	Pack Qty.	€
5652.1	1	20,00



Fluorinated carboys

By Nalgene®. Type 2097. Made of fluorinated **HDPE** with screw cap made of PP, thread 83 B. Excellent for storing and transporting aggressive chemicals. The fluorinated inner and outer surface reduces diffusion and penetration of solvents and enhances long-term storage with minimal evaporation loss. Extremely resistant to cracks and puncturing. Suitable for most acids, alkalis and aggressive organic solvents. **Leakproof.**

Capacity (l)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
10	249 x 389	64	C476.1	1	87,10
20	287 x 628	64	C477.1	1	131,15



Carboys

By Nalgene®. Thread narrow neck 83B. Wide neck 100 mm. Ideal for storing chemicals, standard solutions, nutrient media, distilled water and liquids. Also good for storing large amounts of powder or other solids. Graduated in 1 gal and 5 litres styles. **Leakproof.**

Made of **LDPE**, screw cap made of PP. Type 2210 (narrow neck) or 2234 (wide neck). Wide handles enable easy transport and pouring.

Type	Capacity (l)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
Narrow neck	10	249 x 389	64	K633.1	1	49,90
Narrow neck	15	287 x 432	64	K634.1	1	74,40
Narrow neck	20	287 x 528	64	K635.1	1	82,80
Narrow neck	25	287 x 597	64	K636.1	1	88,15
Narrow neck	50	376 x 673	64	K637.1	1	197,80
Wide neck	10	249 x 338	88	K638.1	1	48,05
Wide neck	15	287 x 389	88	K639.1	1	70,85
Wide neck	20	287 x 483	88	K640.1	1	91,05

Made of **PP**, wide handles enable easy transport and pouring.

Type 2250 (narrow neck) or 2235 (wide neck). Autoclavable.

Type	Capacity (l)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
Narrow neck	10	249 x 389	64	C478.1	1	72,90
Narrow neck	20	287 x 521	64	C479.1	1	122,55
Narrow neck	50	376 x 673	64	C480.1	1	213,95
Wide neck	10	249 x 343	88	K642.1	1	69,05
Wide neck	20	287 x 483	88	K643.1	1	117,20

Made of **PC**, crystal clear. With screw cap made of PP, type 2251. Excellent for developing large amounts of nutrient media, especially where light is required. Can also be used at temperatures below 0 °C. Autoclavable.

Type	Capacity (l)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
Narrow neck	10	249 x 389	64	C469.1	1	122,55
Narrow neck	20	287 x 521	64	C470.1	1	166,65

► Autoclaving informations on page 5



Carboys with stopcock

By Nalgene®. Graduated. Ideal for storing distilled water, reagents, nutrient media. **Leakproof.** For extra stability and sealing, the draincock thread has been integrated and not welded into the bottle.

Made of LDPE, type 2318. Thread 83 B (K655.1: 38-430).

Capacity (l)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
4	152 x 328	28	K655.1	1	49,15
10	249 x 389	64	K656.1	1	80,55
20	287 x 521	64	K657.1	1	115,05
25	287 x 597	64	K658.1	1	136,55
50	376 x 673	64	K659.1	1	203,20

Made of PP, type 2319. Autoclavable. Thread 83 B.

Capacity (l)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
10	249 x 389	64	K660.1	1	125,80
20	287 x 521	64	K661.1	1	154,80
50	376 x 673	64	K662.1	1	270,90

Made of PC, type 2317. Transparent, autoclavable. Thread 83 B.

Capacity (l)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
10	249 x 389	64	K663.1	1	175,25
20	287 x 521	64	K664.1	1	232,20

Spare stopcocks

Suitable for square canisters, flat-top canisters, carboys and fluorinated canisters. For tubes with inner-Ø 6.5-7.9 mm. Autoclavable.

Material	Art. No.	Pack Qty.	€
PP	E727.1	1	33,35
ETFE	E728.1	1	84,90



Accessories: filling/vent caps

By Nalgene®. Made of PP, white, with 3 connections. For sterile liquid transfer of nutrient media, biological reagents, pure water and chemicals. Usable with vacuum bottles and belly bottles with cap sizes of 53 or 83 mm. Autoclavable.

Delivery incl. TPE seals, 2 platinum-coated silicone suction and dispensing hoses, filling splash guard and 3 dummy plugs.

Ø x H (mm)	Closure size (mm)	Connections for hoses with internal Ø (mm)	Art. No.	Pack Qty.	€
66.7 x 68,6	53 B	6,3	PK44.1	1	28,60
102 x 98	83 B	6,3	PK45.1	1	31,85
102 x 98	83 B	12,7	PK46.1	1	35,45



Dual tubing olive assembly sets

For upgrading Nalgene® vacuum bottles (PK40.1 f.) or carboys with 53 mm or 83 mm screw caps.

For this purpose, two holes (Ø 10 mm for PP13.1 or Ø 16 mm for PP14.1) must be drilled in the screw cap and the those connectors fitted. Autoclavable.

For tubes with Ø inside 6 mm or 13 mm.

53 mm screw caps only be used with 6 mm tubing olives;

83 mm screw caps with 6 mm and/or 13 mm tubing olives.

Delivery incl. tube connections made of PP, nuts made of azetal, silicone seals, caps made of TPE. **(Delivery without screw caps).**

For hose with inner Ø (mm)	Art. No.	Pack Qty.	€
6	PP13.1	2	15,60
13	PP14.1	2	17,10

► PTFE thread tape see page 1103

Plastic bottles, PP



Narrow neck bottles

By Nalgene®. Type 2006. Bottle and screw cap made of **PP**. Suitable for general laboratory applications. Good chemical resistance. **Leak-proof**. Autoclavable.

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
4	16 x 41	8	PT86.1	12	10,00
8	25 x 45	14	PT87.1	12	8,55
15	25 x 58	14	PT88.1	12	9,05
30	34 x 61	14	PT89.1	12	9,65
60	37 x 85	14	PT90.1	12	10,25
125	50 x 101	18	PT91.1	12	12,90
250	61 x 133	18	PT92.1	12	19,25
500	73 x 170	21	PT93.1	12	30,65
1000	91 x 216	27	PT94.1	6	21,30



Wide-mouth bottles

By Nalgene®. Type 2105. Bottle and screw cap made of **PP**. Suitable for general laboratory applications. Good chemical resistance. **Leak-proof**. Autoclavable.

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
30	34 x 63	21	PY08.1	12	11,95
60	39 x 86	21	PY09.1	12	13,80
125	50 x 99	28	PY10.1	12	20,75
250	61 x 131	33	PY11.1	12	26,35
500	73 x 168	44	PY12.1	12	44,65
1000	91 x 199	53	PY13.1	6	27,20

► Autoclaving informations on page 5



Bottles for demanding applications

By Nalgene®. Type 2126. **Vacuum bottles** made of **PP**, thick-walled. Screw cap made of PP, white with TPE seal. Highly robust, evacuable wide-mouth bottle. Vacuum-tight over 24 hours at 20 °C. **Leak-proof**. Suitable as vacuum trap or as storage bottle for analytical or dispensing apparatus. Vacuum-resistant to 0.1 mbar. Autoclavable.

Volume (ml)	Ø x H (mm)	Closure size (mm)	Art. No.	Pack Qty.	€
1000	93 x 226	53 B	PK40.1	1	26,05
2000	119 x 260	53 B	PK41.1	1	30,65
4000	155 x 338	83 B	PK42.1	1	51,20
5000	156 x 414	83 B	PK43.1	1	76,35



Wide neck

Made of **PP**. Natural coloured. Ideal for pastes, granulates and for the decanting of hot products. Autoclavable.

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
100	94	48,5	T486.1	10	19,60
250	121	64,5	T487.1	10	25,20
500	155	77,5	T488.1	10	38,85
1000	206	96,0	T489.1	4	24,75



High breast bottles GL 45

Made of **PP**. Flexible, transparent. Chemically (formalin, ethanol) and radiation sterilizable (β rays, 25kGy), microwave safe. Autoclavable. **Delivery incl.** PP screw cap.

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
250	132	73	PY01.1	1	3,25
500	172	87	PY02.1	1	4,00
1000	197	105	PY03.1	1	7,10
2000	241	131	PY04.1	1	8,60
5000	315	178	PY05.1	1	14,75



Narrow neck bottles

Made of **LDPE**, transparent. According to DIN 168 and 13316. Comes with screw cap and is graduated.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Thread	Art. No.	Pack Qty.	€
50	10	38 x 92	GL 18	A207.1	6	8,50
100	20	48 x 108	GL 18	A751.1	6	9,80
250	25	60 x 150	GL 25	A208.1	4	9,70
500	100	75 x 182	GL 25	A752.1	4	11,15
1000	100	95 x 224	GL 32	A209.1	4	17,10

Wide neck bottles

Made of **LDPE**, transparent. With thread acc. to DIN 168. Wide neck opening for easy filling of solids and liquids. Come with screw cap and is graduated. Approved for foodstuffs.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Thread	Art. No.	Pack Qty.	€
50	10	38 x 88	GL 32	E217.1	12	20,65
100	20	48 x 105	GL 32	E218.1	12	22,90
250	25	60 x 140	GL 45	E219.1	6	13,55
500	100	75 x 170	GL 45	E220.1	6	19,50
1000	100	95 x 206	GL 63	E221.1	6	26,45
2000	100	120 x 252	GL 63	PE88.1	5	25,30



LDPE narrow neck bottles

By Nalgene®. Model 2003. Bottle made of **LDPE**, screw cap made of **PP**. Higher transparency, flexibility and impact strength than HDPE bottles. LDPE has a low trace element content and, therefore, is suitable for use in trace analysis after appropriate cleaning. **Leak-proof.**

Volume (ml)	Ø x H (mm)	Cap size (mm)	Art. No.	Pack Qty.	€
8	25 x 45	20	ATH1.1	12	10,05
15	25 x 58	20	ATH2.1	12	10,95
30	34 x 63	20	ATH3.1	12	12,10
60	39 x 86	20	ATH4.1	12	13,95
125	50 x 101	24	ATH5.1	12	17,00
250	61 x 133	24	ATH6.1	12	21,95
500	73 x 170	28	ATH7.1	12	31,40
500	73 x 168	38-430	ATH8.1	12	47,30
1000	91 x 199	38-430	ATH9.1	6	27,10



Wide neck bottles, brown

Made of **LDPE**. Ideal for protecting light-sensitive samples from UV-radiation. With screw-on cap.

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
50	77	39	T508.1	10	15,20
100	93,5	48	T509.1	10	18,20
250	120	64	T510.1	10	22,60
500	154	77	T511.1	10	35,45
1000	205	95	T512.1	4	23,65



Wide-necked bottles

Made of **HDPE**, transparent. **Sterile** or non-sterile. For sampling, packing and storage of liquid, solid and pasty media. Heavy metal free to EC/94/62, suitable for foodstuffs to EC 1935/2004. Temperature stable from -80 to +110 °C.

Delivery incl. fitted HDPE screw cap with PE seal. **Leakproof.**

Non-sterile

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
50	36 x 77	27	CCY4.1	600	418,20
100	51 x 80	37	CCY5.1	335	213,95
250	60 x 125	37	CCY6.1	145	99,45
500	80 x 136	58	CCY7.1	140	115,05
1000	101 x 174	58	CCY8.1	68	81,50
2000	121 x 220	57	CCY9.1	25	93,00

Sterile (ionising radiation, SAL⁻³)

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
100	51 x 80	37	CEA0.1	335	259,10
250	60 x 125	37	CEA1.1	145	116,10
500	80 x 136	58	CEA2.1	140	156,95
1000	101 x 174	58	CEA3.1	68	99,45

Plastic bottles, HDPE



HDPE narrow neck bottles

By Nalgene®. Type 2002. Bottle made of **HDPE**, screw cap made of **PP**. Suitable for general laboratory applications. Good chemical resistance to many acids and alkalis. **Leakproof**.

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
4	16 x 41	8	PX58.1	12	8,10
8	25 x 45	14	PX59.1	12	8,10
15	25 x 58	14	PX60.1	12	8,50
30	34 x 61	14	PX61.1	12	9,60
60	37 x 85	14	PX62.1	12	11,40
125	50 x 101	18	PX63.1	12	13,45
250	61 x 133	18	PX64.1	12	18,20
500	73 x 170	21	PX65.1	12	25,50
1000	91 x 216	27	PX66.1	6	21,65



Narrow neck bottles, brown

By Nalgene®. Type 2004. Made of **HDPE**. Ideal for protecting light-sensitive samples from UV-radiation. With screw-on cap. **Leakproof**.

Volume (ml)	Connector-Ø (mm)	Art. No.	Pack Qty.	€
4	13	APK6.1	12	15,95
8	20	APK7.1	12	15,60
15	20	AN71.1	12	15,80
30	20	AK57.1	12	20,70
60	20	AK58.1	12	21,40
125	24	AK59.1	12	26,70
250	24	AK60.1	12	35,50
500	28	AK61.1	12	51,00
1000	38	AK62.1	6	44,10

- Glass bottles from page 35
- Screw caps see page 94



Rotilabo®-narrow neck bottles

Made of **HDPE**. Rectangular. Ideal for storing, packing and sampling chemicals. With tamper evident screw cap. Thread GL 32.

Volume (ml)	Lid colour	Art. No.	Pack Qty.	€
100	blue	5698.1	10	14,55
250	red	5706.1	10	17,15
500	blue	5713.1	10	15,60
1000	blue	5717.1	10	22,05



Rotilabo®-narrow neck bottles SafeGrip

Made of **HDPE**. Original cap with PTFE-sealing. Square-shaped form for easy handling. Thread GL 32. Neck Ø inner 18,6 mm.

Volume (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
50	40 x 40 x 79	HH14.1	10	24,85
100	46 x 46 x 108	HH15.1	10	27,95
250	60 x 60 x 136	HH16.1	10	33,35
500	75 x 75 x 169	HH17.1	10	35,50



Wide neck-rectangular bottles

Made of **HDPE**. With push-in stopper and screw-on cap made of **PP**. Graduated. **Can be leaded**.

Volume (ml)	Graduations (ml)	L x W x H (mm)	Inner-Ø opening (mm)	Art. No.	Pack Qty.	€
25	5	34 x 32 x 50	18	K811.1	10	7,50
50	10	39 x 37 x 70	24	K812.1	10	8,55
100	20	48 x 42 x 90	34	K813.1	10	11,75
250	50	60 x 57 x 110	34	K814.1	10	12,70
500	100	80 x 70 x 140	44	K815.1	1	2,15
1000	100	103 x 80 x 175	58	K816.1	1	2,70
2000	100	135 x 100 x 210	58	K817.1	1	4,85



Fluorinated narrow neck bottles

By Nalgene®. Type 2097. Made of fluorinated **HDPE**. With PP screw cap. Excellent for storing and transporting aggressive chemicals. The fluorinated inner and outer surface reduces diffusion and penetration of solvents and enhances long-term storage with minimal evaporation loss. Extremely resistant to cracks and puncturing. Suitable for most acids and aggressive organic solvents. **Leakproof.**

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
250	61 x 133	17	C471.1	12	40,00
500	73 x 171	21	C472.1	12	56,35
1000	92 x 216	27	C473.1	6	48,30
2000	122 x 246	27	C474.1	2	50,50
4000	153 x 334	27	C475.1	1	35,70



① Wide neck-rectangular bottles

By Nalgene®. Type 2007. Made of **HDPE**. With PP screw cap. Sturdy wall construction, very robust. Wide neck opening for easy filling. Ideal for efficient storage and transport of liquids and solids. **Leakproof.**

Volume (ml)	H x W x D (mm)	Cap Ø (mm)	Art. No.	Pack Qty.	€
125	102 x 64 x 38	28	C488.1	12	23,80
250	114 x 76 x 48	38	C489.1	12	35,95
500	140 x 94 x 58	48	C490.1	12	56,55
1000	180 x 125 x 71	53	C491.1	6	65,60
2000	239 x 152 x 81	63	C492.1	4	68,40

② Wide neck-rectangular bottles, brown

By Nalgene®. Type 2009. Made of **HDPE**. With PE screw cap. Robust and space-efficient design. Ideal for protecting light-sensitive samples from UV-radiation. **Leakproof.**

Volume (ml)	H x W x D (mm)	Cap Ø (mm)	Art. No.	Pack Qty.	€
125	102 x 64 x 38	28	C459.1	12	35,95
250	114 x 76 x 48	38	C460.1	12	49,70
500	140 x 94 x 58	48	C461.1	12	70,85
1000	180 x 125 x 71	53	C462.1	6	82,05
2000	239 x 152 x 81	63	C463.1	4	80,75



Rotilabo®-dispenser bottles

By Rixius. Made of **HDPE**, with **PP** screw cap. With DIN 25 thread. Ø neck inside 20 mm. Suitable for Sekuroka®-soap and disinfectant dispensers plus Art. No. TE53.1 f. and Sekuroka®-dispensers Art. No. N108.1 f.

Volume (ml)	H x W x D (mm)	Art. No.	Pack Qty.	€
500	165 x 71 x 57	KA39.1	6	7,75
1000	210 x 87 x 71	KA40.1	6	9,15



Wide-neck bottles

By Nalgene®. Bottle made of **HDPE**, screw cap made of **PP**. Durable all-purpose bottles, universally applicable in the laboratory and in sampling applications. Wide neck opening allows easy filling of dry matter and liquids. **Leak-proof.**

① Type 2104, transparent

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
30	34 x 63	21	PX93.1	12	11,50
60	39 x 86	21	PX94.1	12	12,90
125	50 x 99	28	PX95.1	12	17,45
250	61 x 131	33	PX96.1	12	21,30
500	73 x 168	44	PX97.1	12	36,05
1000	91 x 199	53	PX98.1	6	25,20

② Type 2106, brown

Brown coloration protects light-sensitive substances during shipment or storage.

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
30	34 x 63	21	ATE1.1	12	26,55
60	39 x 86	21	ATE2.1	12	28,10
125	50 x 99	28	ATE3.1	12	30,55
250	61 x 131	33	ATE4.1	12	45,40
500	73 x 168	44	ATE5.1	12	55,80
1000	91 x 199	53	ATE6.1	6	51,10

UN-bottles



Sealable wide-mouth bottles

By Bürkle. Made of **HDPE**. Robust wide-mouth bottles with sealing eyelets on the screw cap and bottle. Impervious to fluids. Suitable for storing and shipping specimens. Specifically designed for viscous media, powders, granulates and pastes. Protective seals must be ordered separately.

Volume (ml)	Neck inner Ø (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
250	26,5	64 x 118	PK54.1	25	56,15
500	40	78 x 147	PK55.1	10	24,75
1000	50	100 x 186	PK56.1	10	45,90
2000	50	120 x 230	PK57.1	1	7,20

Protective seals

By Bürkle. Made of **PP**, red. For sealable wide-mouth bottles. Uniquely identifiable by a continuous 9-digit number. The ring lock is secured in the locking chamber by a metal insert made of a stainless steel spring. With disposable pull mechanism for protection against manipulation. Dimensions: length 260 mm, Ø band 2 mm.

Art. No.	Pack Qty.	€
PK58.1	10	11,50



Rotilabo®-narrow neck bottles, UN-approved

Made of **HDPE**, natural coloured. With a tamper evident screw cap made of PE with PTFE-insert. GL 45. Ideal for storing and transporting liquids.

Type 1: square. Dimensions: L 97 x W 97 x H 219 mm.

Type 2: round. Dimensions: Ø 132 x H 293 mm. With robust handle.

Type	Volume (ml)	UN-approval	Art. No.	Pack Qty.	€
Typ 1	1000	3H1/X1.9/250	T502.1	6	16,70
Typ 2	2500	1H1/X1.3 Y1.9/250	T503.1	2	8,55



Rotilabo®-wide neck bottles, UN-approved

Made of **HDPE**. Natural coloured. Square. With black plastic cap made of PP with PE foam insert 1,5 mm. Wide neck enables easy filling.

With UN-X approval for solid materials.

* without UN approval

Volume (ml)	Side length (mm)	Neck inner Ø (mm)	Height without cap (mm)	UN-approval	Art. No.	Pack Qty.	€
50	36	21,0	88,5	none	H333.1	35	51,60
100	45	24,0	101	3H1/X0.3/S	H334.1	30	48,05
250	59	35,0	128	3H1/X0.8/S	H335.1	20	49,15
350	60	35,0	164	none	H336.1	10	24,40
500	75	42,5	161	3H1/X1.5/S	H337.1	10	27,75
750	85	42,5	185	3H1/X2.5/S	H338.1	10	34,65
1000	85	42,5	212	3H1/X2.5/S	H339.1	9	32,15
1500	111	68,5	209	3H1/X4/S	H340.1	7	33,15
2500	122	68,5	258	3H1/X5/S	H341.1	3	18,20
4000	142	68,5	294	3H1/X5.5/S	H342.1	1	9,95



Rotilabo®-wide neck bottles, UN-approved

Made of **HDPE**, natural coloured rectangular. With sunken area for labels and UN approval for solid materials. With tamper evident screw cap made of PP with PE-foam insert.

* without UN approval

Volume (ml)	L x W x H (mm)	UN-approval	Art. No.	Pack Qty.	€
50	36 x 36 x 88,5	none	T474.1	10	15,60
100	45 x 45 x 101	3H1/X0.3/S	T475.1	10	17,75
250	59 x 59 x 128	3H1/X0.8/S	T476.1	10	22,60
500	75 x 75 x 161	3H1/X1.5/S	T477.1	10	29,90
1000	85 x 85 x 212	3H1/X2.5/S	T478.1	9	32,15
1500	111 x 111 x 209	3H1/X4/S	T479.1	6	32,05
2500	122 x 122 x 258	3H1/X5/S	T480.1	3	18,85
4000	142 x 142 x 294	3H1/X5.5/S	T481.1	1	10,70

UN-bottles



Stainless steel bottles with GL 45 thread

Made of stainless steel 1.4404. With smooth inner surface (acc. to IIIc DIN 17441) and rounded inside edges for complete drainage and easy cleaning. Temperature stable up to +500 °C, autoclavable.

- Shatterproof
- Light-impermeable
- Chemical resistant (except halogen-containing media)

① UN approved transport bottle 1A1/X2.0/1000

For safe transportation of hazardous and flammable liquids, for storage of high-quality materials such as fine chemicals, pharmaceuticals or cosmetic products as well as light-sensitive materials.

No additional outer packaging required, as UN-approved. Approved for the conveyance of liquids with a relative density of up to 2.0 classified into UN packaging group I, II or III as hazardous goods.

Delivery incl. screw cap made of stainless steel with PTFE gasket.

Volume (ml)	Art. No.	Pack Qty.	€
1500	AAC4.1	1	430,00

② Non-UN-approved storage bottle

For the storage of aggressive media, high-purity fine chemicals, pharmaceuticals and cosmetic products as well as light-sensitive materials.

Delivery without cap. Please order separately.

Volume (ml)	Art. No.	Pack Qty.	€
1500	AAC5.1	1	388,00

Accessories:

Stainless steel cap with GL 45 thread and PTFE gasket	Art. No.	Pack Qty.	€
	AAC6.1	1	107,00



Rotilabo®-aluminium bottles

Made of 99.5 % pure aluminium, seamlessly manufactured. For the storage and transportation of substances and retained samples. Bottles with a volume of more than 60 ml have **UN approval 1B1/X/250**. Fully drainable. Neutral odour, impervious to light, rustproof and shatterproof. Screw cap made of PP with aluminium inner gasket and tamper evident closure.

* without UN approval

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
30*	35	70	XY65.1	10	16,35
60	40	88	P791.1	10	18,10
120	57	97	P792.1	10	21,40
300	57	160	P793.1	10	30,65
600	74	192	P794.1	5	19,15
1200	88	248	P795.1	5	22,05



UN aluminium bottles

Made of 99.5 % pure aluminium. Screw cap with FKM gasket, **leak-proof**. UN approval 1B1/X/250, suitable for transportation and storage of hazardous substances. Sealable, impervious to light.

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
125	50	105	XY66.1	1	16,35
250	65	140	XY67.1	1	19,80
500	80	145	XY68.1	1	24,00
1250	100	205	XY69.1	1	25,80

Plastic bottles, PFA/PTFE



Rotilabo®-narrow neck bottles

Made of highly pure **PFA**. With ETFE screw cap and special lip seal for tight sealing.

For trace analysis and long-term storage of highly pure oxidants, acids and alkalis, as well as hydrocarbons, solvents and standards.

- High thermal stability from -200 to +260 °C, autoclavable
- Chemically inert and resistant to virtually all chemicals
- Good transparency and dimensional stability
- Entrainment and cross-contamination are practically eliminated by highly hydrophobic, anti-adhesive and smooth surfaces
- Long shelf life of low concentration reference solutions in PFA vessels
- Easy to clean
- No memory effect

Volume (ml)	Ø x H (mm)	Thread	Art. No.	Pack Qty.	€
50	37 x 90	GL 18	9718.1	1	34,35
100	45 x 114	GL 18	9719.1	1	45,60
250	61 x 157	GL 25	9720.1	1	74,85
500	76 x 189	GL 25	9721.1	1	108,60
1000	96 x 233	GL 32	9723.1	1	147,30



Rotilabo®-wide neck bottles

Made of highly pure **PFA**. With tight closing PFA screw cap.

For trace analysis and long-term storage of highly pure oxidants, acids and alkalis, as well as hydrocarbons, solvents and standards.

- High thermal stability from -200 to +260 °C, autoclavable
- Chemically inert and resistant to virtually all chemicals
- Good transparency and dimensional stability
- Entrainment and cross-contamination are practically eliminated by highly hydrophobic, anti-adhesive and smooth surfaces
- Long shelf life of low concentration reference solutions in PFA vessels
- Easy to clean
- No memory effect

Volume (ml)	Ø x H (mm)	Thread	Art. No.	Pack Qty.	€
50	37 x 86	S 28	9702.1	1	58,40
100	45 x 120	S 28	9703.1	1	88,80
250	61 x 150	S 40	9704.1	1	106,45
500	76 x 179	S 40	9705.1	1	147,30
1000	96 x 217	S 40	9706.1	1	203,20

► Screw caps made of PFA see page 94



PFA bottles

Made of **PFA**. Graduated, highly transparent, **leak-proof**. Microwave safe. Autoclavable.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Narrow neck

Volume (ml)	Height (mm)	Neck inside Ø (mm)	Art. No.	Pack Qty.	€
100	100,8	16,7	YY60.1	1	63,45
250	133,7	16,5	YY61.1	1	104,10
500	165,1	17,0	YY62.1	1	134,40
1000	202,4	25,3	YY63.1	1	230,05
2000	235	33	YY64.1	1	693,40
3000	269,9	36,6	YY65.1	1	729,95
5000	316,7	36,4	YY66.1	1	811,65

Wide neck

Volume (ml)	Height (mm)	Neck inside Ø (mm)	Art. No.	Pack Qty.	€
20	60,3	16,4	YY67.1	1	35,30
100	106,5	25,7	YY68.1	1	92,35
250	136,8	25,7	YY69.1	1	132,25
500	173,8	33,9	YY70.1	1	207,50
1000	207,2	36,8	YY71.1	1	335,40



Rotilabo®-narrow neck bottles

Made of **PTFE**. With screw cap. Chemically inert. Temperature stable from -200 to +260 °C. Low gas permeability. Anti-adhesive. Autoclavable.

Note: Unscrew cap before autoclaving!

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
1	16 x 27	10	T633.1	1	16,30
5	22 x 35	10	T635.1	1	18,85
10	26 x 50	12	T636.1	1	21,30
25	33 x 61	19	T637.1	1	28,30
50	43 x 76	25	T638.1	1	35,95
100	52 x 88	35	T639.1	1	47,30
150	60 x 90	35	T640.1	1	50,00
250	67 x 115	42	T181.1	1	61,30
500	80 x 150	52	T641.1	1	102,15
1000	100 x 185	57	T182.1	1	141,90
2000	120 x 240	60	T642.1	1	259,10

Wash bottles



Rotilabo®-glass wash bottles

Made of borosilicate glass 3.3. Complete wash bottle consisting of flat bottom flask with NS 29/32 socket and wash bottle adaptor. Autoclavable.

Volume (ml)	Art. No.	Pack Qty.	€
250	ACK8.1	1	33,55
500	ACK9.1	1	35,40
1000	ACL0.1	1	39,35

Replacement adaptor for NS 29/32 glass wash bottles

Art. No.	Pack Qty.	€
ACL1.1	1	16,70

Accessories:

Pipette bulbs PVC, suck. vol. 85 ml	H619.1	2	13,45
Pipette bulbs PVC, suck. vol. 140 ml	H620.1	2	18,75
Pipette bulbs PVC, suck. vol. 220 ml	H621.1	2	22,90



Rotilabo®-wide neck wash bottles

Made of LDPE. Comes with contents label printed in three languages, danger identification mark in accordance with the GHS. Screw cap colour-coded. Non-scratch ink. Movable suction tube enables total emptying.

Label	Volume (ml)	Art. No.	Pack Qty.	€
Acetone	250	T398.1	1	5,35
Acetone	500	T399.1	1	6,85
Ethanol	250	T400.1	1	5,35
Ethanol	500	T401.1	1	6,85
Isopropanol	250	T402.1	1	5,35
Isopropanol	500	T403.1	1	6,85
Methanol	250	T404.1	1	5,35
Methanol	500	T405.1	1	6,85
Dist. water	250	T406.1	1	5,35
Dist. water	500	T407.1	1	6,85



Rotilabo®-safety wash bottles

Bottle made of LDPE or PP, screw cap and spray tube made of PP. A pressure relief valve in the screw cap stops discharge, dripping or leakage of liquid through the spray tube, e.g. due to temperature fluctuations. With indelible contents label in four languages (German, English, French and Spanish) and hazard warning label in accordance with GHS.

500 ml, thread GL 25

Label	Material	Art. No.	Pack Qty.	€
Acetone	PP	HL51.1	1	7,65
Acetonitrile	LDPE	PY35.1	1	7,65
Dist. water	LDPE	HL52.1	1	7,65
Methylene chloride (DCM)	LDPE	PY36.1	1	7,65
N,N-dimethyl formamide	LDPE	PY37.1	1	7,65
Ethyl acetate	LDPE	HL53.1	1	7,65
Ethanol	LDPE	HL54.1	1	7,65
Heptane	LDPE	PY43.1	1	7,65
Hexane	LDPE	PY42.1	1	7,65
Isopropanol	LDPE	HL55.1	1	7,65
Methanol	LDPE	HL56.1	1	7,65
Methyl ethyl ketone (MEK)	PP	PY44.1	1	7,65
Pentane	LDPE	PY41.1	1	7,65
Tetra hydrofurane	LDPE	PY38.1	1	7,65
Toluene	LDPE	PY39.1	1	7,65
m-xylene	LDPE	PY40.1	1	7,65

1000 ml, thread GL 32

Label	Material	Art. No.	Pack Qty.	€
Acetone	PP	HL57.1	1	9,20
Acetonitrile	LDPE	PY45.1	1	9,20
Dist. water	LDPE	HL58.1	1	9,20
Methylene chloride (DCM)	LDPE	PY46.1	1	9,20
N,N-dimethyl formamide	LDPE	PY47.1	1	9,20
Ethanol	LDPE	HL59.1	1	9,20
Ethyl acetate	LDPE	HL60.1	1	9,20
Heptane	LDPE	PY53.1	1	9,20
Hexane	LDPE	PY52.1	1	9,20
Isopropanol	LDPE	HL61.1	1	9,20
Methanol	LDPE	HL62.1	1	9,20
Methyl ethyl ketone (MEK)	PP	PY54.1	1	9,20
Pentane	LDPE	PY51.1	1	9,20
Tetra hydrofurane	LDPE	PY48.1	1	9,20
Toluene	LDPE	PY49.1	1	9,20
m-xylene	LDPE	PY50.1	1	9,20

Wash bottles



Wash bottles

Made of **LDPE**, transparent. Screw cap and spray tube with elongated tip made of **PP**.

Volume (ml)	Thread GL	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
50	18	73	37	XY89.1	1	3,50
100	18	95	43	XY90.1	1	3,75
250	25	135	58	XY91.1	1	4,05
250	45	146	58	XY92.1	1	4,55
500	25	180	74	XY93.1	1	5,30
500	45	166	76	XY94.1	1	5,70
1000	32	221	92	XY95.1	1	6,35
1000	63	226	91	XY96.1	1	7,50



Screw caps

With integrated lip seal, leak-proof. Autoclavable.

Made of **PP**

Thread	Art. No.	Pack Qty.	€
GL 18	YA32.1	24	13,95
GL 25	YA33.1	12	6,75
GL 32	YA34.1	12	7,90
GL 40	YA35.1	12	12,85
GL 45	YA36.1	12	13,15
GL 52	YA37.1	12	14,00
GL 56	YA38.1	12	14,25
GL 63	YA39.1	12	15,20

Made of **PFA**

Thread	Art. No.	Pack Qty.	€
GL 18	YA40.1	1	5,00
GL 25	YA41.1	1	9,15
S 28	YA42.1	1	22,60
S 40	YA43.1	1	26,90



Rotilabo®-wash bottles

Made of **LDPE**. Natural coloured.

Volume (ml)	Height without suction (mm)	Ø (mm)	Art. No.	Pack Qty.	€
250	145	60	5330.1	1	4,05
500	180	75	5331.1	1	4,55
1000	230	100	5332.1	1	6,25

Rotilabo®-wash bottles-set

Three wash bottles. Volumes 250, 500 and 1000 ml.

Art. No.	Pack Qty. (assortment)	€
5333.1	1	12,40



Rotilabo®-wash bottles

Made of **LDPE**, coloured. Screw cap and spray tube made of **PP**. GL 25 thread. Precision jet and optimised medium backflow through fine tip of spray tube. Easy identification thanks to selection of differently coloured bottled.

Volume 250 ml, outer Ø 58 mm, bottle height 135 mm.

Colour	Art. No.	Pack Qty.	€
red	APK1.1	1	5,20
green	APK2.1	1	5,20
yellow	APK3.1	1	5,20
blue	APK4.1	1	5,20

Volume 500 ml, outer Ø 75 mm, bottle height 180 mm.

Colour	Art. No.	Pack Qty.	€
red	6530.1	1	5,40
green	6533.1	1	5,40
yellow	6536.1	1	5,40
blue	6539.1	1	5,40

Rotilabo®-wash bottle assortment

Consisting of 4 wash bottles **volume 500 ml** in red, green, yellow and blue.

Art. No.	Pack Qty. (assortment)	€
APK5.1	1	20,10

Wash bottles



Wash bottles

By Nalgene®. Type 2422. Made of **LDPE**. Screw cap and suction made of PP. Coloured caps enable easy identification of contents.
Leakproof, because the cap and suction tube were moulded in one piece.
 Capacity 500 ml.

Colour	Art. No.	Pack Qty.	€
yellow	K665.1	1	7,45
green	K667.1	1	7,45
red	K668.1	1	7,45
blue	K666.1	1	7,45



Wide neck wash bottles

By Nalgene®. Type 2402 (transparent) or DS 2408 (red). Made of **LDPE**. With PP screw cap. Wide neck opening for fast and easy filling.
 Integrated nozzle to ensure total emptying of bottle. With leakproof top.

Colour	Volume (ml)	Cap Ø (mm)	Art. No.	Pack Qty.	€
transparent	125	24	C464.1	6	26,15
transparent	250	38	C465.1	4	21,10
transparent	500	38	C466.1	4	24,10
transparent	750	38	C467.1	4	34,00
transparent	1000	43	C468.1	2	18,40
red	250	38	K669.1	1	12,50
red	500	38	K670.1	1	20,05



Wash bottles

Made of **PE**, with bent ascending pipe and removable spray nozzle.

Volume (ml)	Ø (mm)	Art. No.	Pack Qty.	€
50	35	Y767.1	1	2,50
100	43	Y768.1	1	2,45
250	60	Y769.1	1	3,25
500	75	Y770.1	1	3,55
1000	95	Y771.1	1	4,85



Rotilabo®-wash bottles

Made of **PE**. The integrated nozzle is robust and moulded in one piece. Removeable screw cap. Bottle can be emptied completely.

Volume (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
250	90 x 60 x 140	Y801.1	1	4,25
500	96 x 65 x 178	Y802.1	1	4,60



FEP-wash bottles

By Nalgene®. Type 2403. Made of **FEP**. Suction tube and screw cap made of ETFE. Excellent chemical resistance. Enable contamination-free working during trace element analysis. Leakproof, because the cap and suction tube were moulded in one piece. Free from phthalate. Autoclavable.

Volume (ml)	Art. No.	Pack Qty.	€
125	K671.1	1	83,35
250	K672.1	1	136,55
500	K673.1	1	162,35
1000	K674.1	1	211,80

Dropper bottles



DURAN GROUP

Dropper bottles

Made of soda-lime glass. Complete with rubber sucker and replaceable standard joint pipette made of clear glass. Ground 14/15.

Clear glass

Volume (ml)	Height (mm)	Art. No.	Pack Qty.	€
50	79	T930.1	10	72,80
100	105	T931.1	10	81,00

Brown glass

Volume (ml)	Height (mm)	Art. No.	Pack Qty.	€
50	79	T932.1	10	75,90
100	105	T933.1	10	87,80

Spare parts for glass dropper bottles

Type	Art. No.	Pack Qty.	€
Spare pipettes for 50 ml bottles	T934.1	10	36,10
Spare pipettes for 100 ml bottles	T935.1	10	37,60
Spare rubber sucker	T936.1	10	4,95



High breast bottles with pipette

Made of clear or brown glass. Complete with clear glass pipette, suction cup with PP stopper with standard ground joint.

Clear glass

Volume (ml)	Height (mm)	NS	Art. No.	Pack Qty.	€
50	77	14/15	TT98.1	10	99,45
100	103	14/23	TT99.1	6	93,55
250	131	19/26	TX00.1	10	138,70

Brown glass

Volume (ml)	Height (mm)	NS	Art. No.	Pack Qty.	€
50	77	14/15	TX01.1	10	117,20
100	103	14/23	TX02.1	6	99,35
250	131	19/26	TX03.1	10	162,35



121°C

Dropper bottles

By Nalgene®. Model DS2420. Bottle made of **polypropylene copolymer**, dropper cap and cap made of **PP**. For dispensing sterile aqueous media. Also autoclavable when full with tip open. Tip sealing cap is combined with the screw cap and therefore cannot be lost. Autoclavable.

Contents (ml)	Art. No.	Pack Qty.	€
125	ATL3.1	6	41,00
250	ATL4.1	6	44,20



Dropper bottles

By Nalgene®. Made of **LDPE**, stopper made of **PP**, dropper tip made of **LDPE**. Good chemical resistance. Ideal for small culture volumes. Precise single drop release. Drop size 40 µl (aqua dest). **Leakproof.**

① **Type 2751, white bottles and lids.** Suitable for UV-sensitive samples.

Volume (ml)	Height (mm)	Art. No.	Pack Qty.	€
4	41	HX22.1	25	38,30
8	52	HX23.1	25	39,70
15	62	HX24.1	25	40,75

② **Type 2752, transparent bottles, colour-coded lids** (white, red, green, blue, yellow).

Volume (ml)	Height (mm)	Art. No.	Pack Qty.	€
4	41	PP10.1	25	33,80
8	52	PP11.1	25	35,70
15	62	PP12.1	25	36,90

► Chemical Resistance of Plastics, table see page 6

Dropper bottles



Dropper bottles

Made of **LDPE**, transparent. Supplied with dropping closure.

Volume (ml)	Thread	Art. No.	Pack Qty.	€
50	GL 18	6541.1	6	9,60
100	GL 18	6542.1	6	10,70
250	GL 25	6544.1	4	10,95
500	GL 25	6545.1	4	12,50
1000	GL 32	6548.1	4	16,90

Spare dropper lids

Made of **HDPE**.

Thread	Art. No.	Pack Qty.	€
GL 18	YA52.1	24	26,05
GL 25	YA53.1	12	16,40
GL 32	YA54.1	12	17,15



Dropper bottles

Made of **PE**, translucent, with red screw cap, dropper pipette and suction cup.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
50	35 x 96	TT69.1	10	26,70
100	43 x 115	TT70.1	10	31,75
250	60 x 140	TT71.1	10	35,30
500	75 x 180	TT72.1	10	38,85

► Dropper bottles made of PTFE see page 104



Narrow-neck, four-edged bottles

By Bürkle. Made of **HDPE**, screw cap made of LDPE. With labelling area. For packing and storing liquids.

With screw cap, leakproof

Volume (ml)	Dimensions L x W x H (mm)	Thread (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
100	41 x 34 x 113	18	13	KA91.1	10	7,75
250	51 x 44 x 160	25	17,5	KA92.1	10	10,65
500	68 x 53 x 182	25	17,5	KA93.1	10	13,55
1000	90 x 64 x 230	25	17,5	KA94.1	10	19,80

With dropper-lid made of PVC

Volume (ml)	Dimensions L x W x H (mm)	Thread (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
100	41 x 34 x 113	18	13	KA95.1	10	8,25
250	51 x 44 x 160	25	17,5	KA96.1	10	11,50
500	68 x 53 x 182	25	17,5	KA97.1	10	13,65
1000	90 x 64 x 230	25	17,5	KA98.1	10	21,95



Dosing bottles

Made of **PE** with **PMP** measuring cup. Adjustable measurement units, graduated from 5 to 50 ml. Accurate to within 2 %. Measuring cup filled by putting pressure on bottle. Surplus amounts flow back automatically. Filling tube can be sealed.

Volume (ml)	Art. No.	Pack Qty.	€
250	6996.1	1	10,95
500	7009.1	1	11,45
1000	7024.1	1	13,55

► Pasteur pipettes see page 396

► UV-lamps see page 735

► Disposable capillary pipettes see page 394

Spray bottles



Spray diffusers

By Rixius. Made of brown glass. Volume approx. 20 ml, Ø 29 mm, overall height with spray nozzle 98 mm. With GL 18 thread. Spray nozzle complete with cap and tube made of PE. Tube length 111 mm. Approx. 0.05 ml spray volume per pump action.

Art. No.	Pack Qty.	€
N145.1	3	8,20



Spray bottle Turn'n'Spray

By Bürkle. Made of LDPE, parts in contact with media are made of PP, PE, silicon and stainless steel. Allows uninterrupted spraying from all positions, including overhead. Nozzle is continuously adjustable, nozzle Ø 0.6 mm. Spray quantity per stroke: 1.2 ml ±0.1.

Volume (ml)	Height including cap (mm)	Neck inside Ø (mm)	Art. No.	Pack Qty.	€
250	220	18	PX90.1	1	8,10
500	240	18	PX91.1	1	8,50
1000	295	21	PX92.1	1	9,15

- TLC ready-to-use plates and SPE-columns available in the Chromatography chapter!
- Spray flasks see page 506
- TLC atomisers made of glass see page 506



Spray bottles

Bottle made of PE, pump spray nozzle made of PP, transparent. The protective cap stops the pump from being pressed accidentally and also acts as a dust protection cap.

Volume (ml)	Bottle Ø (mm)	Height with protective cap (mm)	Art. No.	Pack Qty.	€
50	35	110	EP66.1	5	10,25
100	37	161	EP67.1	2	3,55
250	50	202	EP68.1	2	4,00



Pump spray flasks

Made of PP. Trigger-operated, with adjustable spray jet. Colour white.

Volume (ml)	Art. No.	Pack Qty.	€
400	0499.1	1	8,10
850	0500.1	1	8,50



Pressure sprayer

By Bürkle. With short spray nozzle. The hand pump can generate a pressure of up to 4 bar inside the container. Then simply press the button to spray.

Ideal for following applications: Disinfecting, cleaning, plant protection, thin-layer chromatography, technical and sanitary needs.

- Parts in contact with media: PP, PE, PA glass fiber reinforced, V2A, FKM
- Nozzles-Ø 0.6 mm, infinitely adjustable
- Spray lance (length 30 cm) are optionally available

Volume (ml)	Bottle Ø (mm)	Height including cap (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
1500	142	315	45	EP63.1	1	35,30

Accessories:

Spray lance, length 30 cm	EP64.1	1	22,15
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Tins



Rotilabo®-deep freeze boxes

Made of natural-coloured PE, (box HDPE, lid LDPE). Temperature stable from -40 to +95 °C. Polished. Rectangular, slightly conical. With notched lid. Stackable, matching. Suitable for foodstuffs.

Volume (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
500	103 x 103 x 64	1597.1	5	11,65
1000	208 x 103 x 64	1598.1	5	19,30
1000	103 x 103 x 127	1599.1	5	16,70
1500	208 x 103 x 94	A272.1	5	24,65
2000	208 x 208 x 64	A274.1	5	32,05
2000	255 x 103 x 94	A273.1	5	29,00
3300	208 x 208 x 94	A275.1	5	35,40



Multi-purpose containers

By Nalgene®. Type 5700. Made of SAN. Lid made of PE. Stackable. Lid with safety catch. The rounded edges make cleaning easier. Excellent for storing granulates, powders and small parts. The shape of the 500-ml-container makes it ideal for electrophoresis gels.

Volume (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
325	129 x 75 x 59	K677.1	4	45,80
500	191 x 156 x 37	K678.1	2	38,30
1000	127 x 73 x 175	K680.1	2	37,65
2000	191 x 154 x 94	K681.1	1	27,65



Rotilabo®-storage containers

With lid. Made of 18/10 stainless steel. Ideal for storing solid and liquid substances. Suitable for foodstuffs. 7.5 l containers have folding handles on 2 sides.

Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
0,46	80 x 80 x 80	9502.1	1	38,95
2,5	140 x 140 x 140	9506.1	1	78,50
7,5	200 x 200 x 200	9509.1	1	138,70



Rotilabo®-storage tins

Made of stainless steel 18/10, high-gloss. Odour and moisture proof. Suitable for foodstuffs.

With hinged lid made of acrylic glass and silicon seal, leak-proof.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
700	125 x 95	YX66.1	1	14,85
1000	125 x 125	YX67.1	1	17,35
1250	125 x 155	YX68.1	1	19,30
1700	125 x 195	YX69.1	1	21,30

With slip lid made of stainless steel with acrylic glass window.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
500	80 x 110	YX70.1	1	10,90
800	90 x 125	YX71.1	1	11,85
2000	125 x 170	YX72.1	1	17,95
4500	175 x 210	YX73.1	1	18,55



Rotilabo®-stainless steel deep-freeze boxes

Made of 18/10 stainless steel, matt polished, stackable. Suitable for foodstuffs. Autoclavable. Supplied without lid. Please order separately.

Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
0,5	95 x 95 x 60	YH09.1	1	17,00
1	195 x 95 x 60	YH10.1	1	23,45
2	195 x 195 x 60	YH11.1	1	30,00

Lid for Rotilabo®-stainless steel deep-freeze boxes

For deep-freeze boxes	Art. No.	Pack Qty.	€
YH09.1	YH12.1	1	8,75
YH10.1	YH13.1	1	11,05
YH11.1	YH14.1	1	15,95

- Stainless steel beaker see page 12
- Stainless steel measuring beaker see page 16

Tins



Rotilabo®-wide neck cans

Made of **hard PVC** clear or amber, or clear **PETG**. Square. Screw-on cap made of PP with PE-foam insert. Excellent for packing and storing liquids and solids. Wide neck enables easy filling. Suitable for foodstuffs.

PVC clear

Volume (ml)	Side length (mm)	Neck inner Ø (mm)	Height without cap (mm)	Art. No.	Pack Qty.	€
50	38	23	60,5	H312.1	25	19,30
100	46	31	71	H313.1	24	21,00
200	59,5	41	88,5	H314.1	14	19,35
300	67,5	41	95	H315.1	15	20,40
500	80,5	54	108	H316.1	10	21,10
750	91,5	69	120	H317.1	10	24,95
1000	97,5	69	144	H318.1	8	21,30
2000	122	69	187	H319.1	4	18,85

PVC amber

Volume (ml)	Side length (mm)	Neck inner Ø (mm)	Height without cap (mm)	Art. No.	Pack Qty.	€
50	38	23	60,5	H320.1	25	19,90
100	46	31	71	H321.1	24	21,40
200	59,5	41	88,5	H322.1	14	21,75
300	67,5	41	95	H323.1	15	23,15
500	80,5	54	108	H324.1	10	23,60
750	91,5	69	120	H325.1	10	26,90
1000	97,5	69	144	H326.1	8	23,15
2000	122	69	187	H327.1	4	18,75

PETG

Volume (ml)	Side length (mm)	Neck inner Ø (mm)	Height without cap (mm)	Art. No.	Pack Qty.	€
50	38	23	60,5	H328.1	25	23,45
100	46	31	71	H329.1	24	25,30
200	59,5	41	88,5	H330.1	14	26,35
500	80,5	54	108	H331.1	10	27,85
1000	97,5	69	144	H332.1	8	29,60
2000	122	69	187	T408.1	4	22,40



Wide neck containers

By Nalgene®. Top made of **PP**. Large wide neck opening for easy filling. No rims where material can accumulate.

- Cans 125 ml to 1000 ml have a recess in the lid and are therefore stackable
- Sizes 125 ml and 250 ml are suitable for mixers with a Mason-thread

Do not use for the shipment of liquids. Autoclavable.

PC. Clear, shock-proof, non-toxic. Excellent for storage in refrigerators and cooling chambers.

Temperature stable from -135 to +130 °C.

Volume (ml)	Ø (mm)	Cap Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	32	38	46	K682.1	4	13,25
30	36	43	48	K683.1	4	16,60
60	48	53	48	K684.1	4	18,60
125	69	70	74	K685.1	4	30,55
250	66	70	119	K686.1	4	33,65
500	117	120	86	K687.1	4	54,75
1000	112	120	142	K688.1	4	66,15

PMP. Transparent. Good chemical resistance.

Especially ideal for permanent storage. Formaldehyde loss is only approx. 2 % per year. Suitable for foodstuffs.

Volume (ml)	Ø (mm)	Cap Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	48	53	48	K693.1	4	16,80
125	69	70	74	K694.1	4	28,95
250	66	70	119	K695.1	4	33,00
500	117	120	86	K696.1	4	53,70
1000	117	120	145	K697.1	4	64,45

PP. Transparent. Good chemical resistance. Suitable for foodstuffs.

Temperature stable from 0 to +130 °C.

Volume (ml)	Ø (mm)	Cap Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	32	38	46	K698.1	12	23,45
30	36	43	48	K699.1	12	24,65
60	48	53	48	K700.1	12	25,70
125	64	70	74	K701.1	12	40,85
250	66	70	119	K702.1	6	25,95
500	117	120	86	K703.1	6	38,65
1000	117	120	145	K704.1	6	56,25

- Chemical Resistance of Plastics, table see page 6
- Autoclaving informations on page 5
- Wide-necked jars see page 31



Rotilabo®-wide-neck cans

Made of **HDPE**. With press-in plugs and screw cap. Ideal for storing powders or granulated substances. Large wide-neck opening enables easy filling and cleaning. Suitable for foodstuffs.

Volume (ml)	Neck inner Ø (mm)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
70	36	50	60	HT55.1	100	94,75
120	36	56	71	HT56.1	100	102,15
250	50	69	94	HT57.1	50	50,35
500	70	86	107	HT58.1	50	65,40
1000	85	111	128	HT59.1	20	35,70
2000	87	111	235	HT60.1	10	25,50



Sample tubs

By Nalgene®. Made of **LDPE**, transparent. With friction-fit, snap closure. Versatile - can be used as sample containers, beakers for pH measurements, weighing tubs etc. Temperature stable from -100 to +80 °C.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	23,6	24,9	ATK3.1	12	9,65
12	27,1	35,6	ATK4.1	12	10,25
18	27,1	52,6	ATK5.1	12	13,45
28	27,1	84,6	ATK6.1	12	17,10
50	37,3	70,9	ATK7.1	12	19,25
75	37,3	107,3	ATK8.1	12	25,50



Rotilabo®-screw cap bottles

Made of **HDPE**. Leakproof. Ideal for storing liquids or solids. Extremely thick-walled.

Volume (ml)	Outer Ø (mm)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	21	17	30	K760.1	10	19,65
10	21	17	52	K761.1	10	22,40
30	35	31	53	K762.1	10	25,30
60	35	31	92	K763.1	10	28,85
90	55	50	62	K764.1	5	18,85
180	55	50	108	K765.1	5	22,90



Rotilabo®-round containers

Lid of **PE**. For powders, pastes, granulates and other bulk materials. With tamper evident lid. HDPE tubs with snap-on lid, PP tubs with slip-on lid. Suitable for foodstuffs.

Volume (ml)	Ø (mm)	Height (mm)	Material	Art. No.	Pack Qty.	€
30	35	54	HDPE	5553.1	10	4,90
75	45	67	HDPE	5602.1	10	6,05
150	64	67	HDPE	5623.1	10	10,25
300	64	110	HDPE	5642.1	10	12,15
750	108	96	PP	5657.1	10	30,10
1250	108	155	PP	5694.1	5	18,25

Tins



Screw cap containers

Made of **PP**. Cap made of **PE**. For storing solid samples.
Temperature stable from 0 to +100 °C.
Free of undercuts, fully drainable.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	104	50	XY70.1	1	4,45
500	104	100	XY71.1	1	5,60
1000	126	126	XY72.1	1	7,65



Sample bottles

Made of **PP**, transparent. With snap-on lid made of **LDPE**.

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5	20	25	YA12.1	25	24,40
18	22	57	YA14.1	25	31,50
50	30	97	YA15.1	10	17,00
160	50	110	YA16.1	10	19,60



Sample tins

Made of **PP**. With screw cap made of **PP**.
For sampling, transporting and storing samples. Autoclavable.

Volume (ml)	Thread GL	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
30	40	54	38	YA17.1	10	45,70
60	40	90	38	YA18.1	10	58,05
90	56	62	54	YA19.1	10	71,50
180	56	112	54	YA20.1	10	84,90



Rotilabo®-sample tins with snap-on lid

Made of **PP**, with attached lid. Lid can be affixed vertically.
Sterile (γ-sterilized) or **unsterile**. Has labelling area and is graduated by 10 ml steps (except Art. No. EP22.1). Leakproof.
Temperature stable from -20 to +121 °C. Autoclavable with open lid.

Unsterile

Volume (ml)	Type	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
45	unsterile	29	85	EP22.1	650	88,70
50	unsterile	31	78	EP24.1	650	94,10
90	unsterile	43	80	EP26.1	350	72,70
300	unsterile	75	88	EP28.1	240	108,60

Sterile

Volume (ml)	Type	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	sterile	31	78	EP25.1	650	107,50
90	sterile	43	80	EP27.1	350	88,15
300	sterile	75	88	EP29.1	240	123,65

- Chemical Resistance of Plastics, table see page 6
- Autoclaving informations on page 5

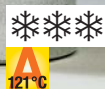
Tins



Cryo tins with screw cap

By Nalgene®. Type 5005. **Sterile**. Made of **PP**, lid made of **HDPE**. Volume 15 ml. For storing solid samples. Use in freezers and/or deep freezers. Pyrogen-free and noncytotoxic. CE marking according to IVD Guideline 98/79/EC. Dimensions: Ø 33 x H 47 mm.

Art. No.	Pack Qty.	€
PP19.1	75	91,40



Rotilabo®-aluminium cans

Made of 99.5 % pure aluminium, uncoated. Screw-on lids have integral rubber seal. Can be deep-frozen to max. -196 °C. Autoclavable.

Filling capacity (ml)	Capacity (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
2	3	23	14,5	1083.1	100	102,05
10	15	29	30,0	1084.1	100	152,65



Glass jars

Made of DURAN®. High temperature and chemical resistance. Autoclavable.

Delivery incl. lid.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
75	60 x 40	CCL2.1	1	29,90
175	80 x 50	CCL3.1	1	36,00
325	100 x 60	CCL4.1	1	44,95
1000	150 x 80	CCL5.1	1	81,60



Rotilabo®-wide neck bottles

Made of **PTFE**. Autoclavable, inert. Temperature stable from -200 to +260 °C. Thick-walled version, stackable.

Volume (ml)	Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
15	34 x 34	26,0	LT85.1	1	24,20
30	34 x 62	26,0	LT86.1	1	29,90
60	60 x 46	47,0	LT87.1	1	38,70
120	72 x 62	54,0	LT88.1	1	50,00
240	72 x 100	60,0	LT89.1	1	61,85
360	90 x 95	73,0	LT90.1	1	84,75
480	90 x 125	73,0	LT91.1	1	97,85
1000	110 x 160	92,0	LT92.1	1	149,45
2200	134 x 260	110,6	LT93.1	1	284,90

Tins



Rotilabo®-sample vials

Made of **PTFE**. Autoclavable, inert. Temperature stable from -200 to +260 °C. Thick-walled version with conical base. **Delivery incl.** closures.

Dropper bottles

Volume (ml)	Outer Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
25	80 x 33	25	LT80.1	1	39,25
50	100 x 43	25	LT81.1	1	46,05

Vials

Volume (ml)	Outer Ø x H (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
25	64 x 33	25	LT82.1	1	62,15
50	78 x 43	31	LT83.1	1	78,50



PFA vials

Made of **PFA**, highly transparent. Screw cap with 6.4 mm hole Ø and PFA-coated silicone septum. Leak-proof, good resealability properties. Autoclavable.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Delivery incl. rack made of PE.

Volume (ml)	Height (mm)	Neck inside Ø (mm)	Art. No.	Pack Qty.	€
5	35,9	18,2	YY86.1	10	256,95
7	36,2	18,3	YY87.1	10	264,45
15	39,7	25,3	YY88.1	10	772,95



PFA tins

Made of **PFA**, highly transparent. With labelling space and seal, leak-proof. Cryo and microwave safe. Autoclavable.

- Temperature resistant in the range -196 to +250 °C
- Inert to virtually all chemicals, including hydrofluoric and nitric acid
- High purity, low metal ion content, ideal for use in trace analysis and for the storage of highly pure substances
- No memory effect
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
60	46,8	50,8	YY50.1	1	55,85
120	53,2	66,0	YY51.1	1	85,95
240	96	75,4	YY52.1	1	120,40
360	90,4	95	YY53.1	1	153,75
480	94,3	65,2	YY54.1	1	176,30
1000	150,0	106,7	YY55.1	1	342,95
2000	269,1	104,1	YY56.1	1	504,20



Fluoroplastic sample tins

Made of **PFA**. Highly transparent, with screw cap.

- For sampling, transportation and storage
- Chemically inert to nearly all chemicals
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning
- High purity, ideal for used in trace analysis and for storage of reference solutions
- No memory effect
- Temperature resistant in the range -200 to +250 °C
- Autoclavable

Volume (ml)	Thread GL	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
30	40	54	38	YA21.1	1	37,85
60	40	90	38	YA22.1	1	46,15
90	56	62	54	YA23.1	1	50,75
180	56	112	54	YA24.1	1	63,75

Tins and sample beakers



Rotilabo®-sample beakers

Made of **PP**, transparent. Graduated. With three spouts on corners for no-drip pouring. Temperature resistant from -20 to +121 °C. Autoclavable.

Volume (ml)	Graduations (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
50	5	49 x 57	HT84.1	100	38,60
100	10	58 x 72	HT85.1	100	42,95
250	10	76 x 90	HT86.1	100	55,80
400	20	85 x 108	HT87.1	100	60,20
800	50	107 x 133	HT88.1	100	94,60
1000	50	115 x 145	HT89.1	100	95,70



Rotilabo®-disposable sample beakers

Made of **PP**. Volume 100 ml. With indented graduation on the side for 20, 40, 60, 80 and 100 ml. Dimensions: H 50 mm x Ø 72 mm (including 5 mm pad). With self-adhesive paper lid.

Art. No.	Pack Qty.	€
5195.1	100	18,25



Medical beakers

Made of **PP**. Highly transparent, shatterproof, graduated, 1 ml graduations (from 3 ml upwards). Dimensions: Ø bottom 27 mm, height 42 mm. Physiologically safe, biologically inert, heavy metal free.

CE certified to 98/79/EC.

Delivery without snap-on lid (please order separately).

Volume (ml)	Colour	Art. No.	Pack Qty.	€
30	natural	PT13.1	75	3,00
30	blue	PT14.1	75	3,00
30	red	PT15.1	75	3,00
30	yellow	PT16.1	75	3,00
30	green	PT17.1	75	3,00

Snap-on lid for medical beakers

Made of **LDPE**, white, Ø 39 mm.

Art. No.	Pack Qty.	€
PT18.1	75	3,20



Sample beakers

Beakers made of **PP**. Highly transparent, graduated, shatterproof.

Sterile (assembled, individually packed) or non-sterile (lid enclosed).

Physiologically safe, biologically inert, heavy metal free.

With labelling area and liquid-impermeable lid. **CE certified to 98/79/EC.**

With snap-on lid

Made of **LDPE**. Ø 67 x H 69 mm, 25 ml graduations.

Volume (ml)	Lid colour	Type	Art. No.	Pack Qty.	€
125	blue	non-sterile	PT07.1	500	52,15
125	red, with spout	non-sterile	PT08.1	500	40,85
125	yellow	sterile	PT09.1	150	66,65

With screw cap

Made of **HDPE**. Ø 64 x H 70 mm, 20 ml graduations. **Leakproof.**

Volume (ml)	Lid colour	Type	Art. No.	Pack Qty.	€
100	green	non-sterile	PT10.1	500	66,65
100	green	non-sterile	PT11.1	100	15,95
100	yellow	sterile	PT12.1	150	47,25

Tins and sample beakers



NEU
NOUVEAU
NEW



Rotilabo®-specimen containers with screw cap

Made of **PP**, transparent. **Sterile** or non sterile. With leak-proof screw cap made of HDPE. With graduations. For storage and transportation of liquids, solids and biological materials such as tissue samples and other pathological samples.

- Evaporation-proof, even with formalin
- Shatterproof
- Stackable
- CE marking in accordance with IVD

Non sterile, cap enclosed

Volume (ml)	Outer Ø (mm)	Height incl. lid (mm)	Art. No.	Pack Qty.	€
20	33	44	CEN6.1	1000	125,80
40	45	43	CEN7.1	500	93,55
60	45	60	CEN8.1	500	102,70
90	45	76	CEN9.1	300	67,70
120	53	80	CEP0.1	300	76,35

Sterile (E-Beam), cap fitted. With security label which tears on opening.

Volume (ml)	Outer Ø (mm)	Height incl. lid (mm)	Art. No.	Pack Qty.	€
60	45	60	CEP1.1	500	137,60
90	45	76	CEP2.1	300	85,80
120	53	80	CEP3.1	300	99,80



Multipurpose beaker with screw cap

Made of **PP**. With CE identification to 98/79/EC. Transparent.

Non-sterile

Volume (ml)	Ø x H (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
30	43 x 46	-	YP04.1	1000	88,15
60	43 x 65	10	YP05.1	600	57,00
120	56 x 72	25	YP06.1	500	50,50
200	64 x 81	-	YP07.1	200	76,35

Sterile, individually packed

Volume (ml)	Ø x H (mm)	Graduations (ml)	Art. No.	Pack Qty.	€
30	43 x 46	-	YP08.1	1000	116,10
60	43 x 65	10	YP09.1	500	62,90
120	56 x 72	25	YP10.1	250	62,15
200	64 x 81	-	YP11.1	150	62,15



SpecTainer™-sample vials

Made of highly transparent **PP**, screw cap made of **PE**. **Sterile** or non-sterile. For storage or transportation of liquids, pasty and solid samples. Shatterproof, stackable and leakproof. Tamper evident closure guarantees the safety of the contents: a security tab breaks when unscrewing the cap, indicating that the container has been opened.

Temperature stable from -90 to +100 °C.

Contains no plasticisers, release agents and latex.

Non-sterile, lid colour yellow

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	48	62	AYT6.1	500	112,90
90	58	62	AYT7.1	400	104,10
120	58	78	AYT8.1	300	85,80

Sterile, lid colour turquoise

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	48	62	AYT9.1	500	121,50
90	58	62	AYX0.1	400	111,80
120	58	78	AYX1.1	300	93,00

Lid inserts

Made of **PP**. For colour-coded, easy identification of reaction vials (Art. No. CK47.1 ff, CK57.1 ff and ATC4.1) or microscope slide tubs with tamper evident closure (Art. No. KL89.1), as well as sample tubs (Art. No. AYT6.1ff).

Colour	Art. No.	Pack Qty.	€
blue	CK72.1	500	14,55
yellow	CK73.1	500	14,55
red	CK74.1	500	14,55
white	CK75.1	500	14,55
green	CK76.1	500	14,55
assorted colours.	CK77.1	500	14,55



Sample- and shipping containers



Sputum containers

Made of **PS**, cap made of HDPE. Transparent vessel, without graduations. Flat base. Physiologically safe, biologically inert, heavy metal free. **CE certified to 98/79/EC.**

Sputum tube with stopper plug

Supplied assembled.

Volume (ml)	Ø x H (mm)	Type	Art. No.	Pack Qty.	€
16	22 x 62	non-sterile	PT19.1	1000	90,20

Sputum tub with screw cap

Delivery assembled, **sterile** or non-sterile.

Volume (ml)	Ø x H (mm)	Type	Art. No.	Pack Qty.	€
24	70 x 23	non-sterile	PT20.1	200	45,05
24	70 x 23	sterile	PT21.1	200	61,30

Shipping containers for sputum container

Made of **HDPE**.

Art. No.	Pack Qty.	€
PT39.1	100	38,70



Test tubes

With wide mouth spoon for bean-sized samples. Physiologically safe, biologically inert, heavy metal free. **CE certified to 98/79/EC.** Supplied assembled.

With stopper plug

Made of **PS**, cap with sample spoon made of HDPE. Transparent tube, without graduations.

Volume (ml)	Ø x H (mm)	Type	Art. No.	Pack Qty.	€
16	22 x 75	Flat base, non-sterile	PT22.1	1000	99,65

With screw cap

Made of **PP**, cap made of HDPE, spoon made of HIPS. **Radiation sterile** or non-sterile. Transparent tube, without graduations. Overlapping screw cap ensures optimal hygiene when opening, impervious to fluids. Primary packaging for the shipment of stool samples compliant with DIN EN 829.

Volume (ml)	Ø x H (mm)	Type	Art. No.	Pack Qty.	€
13	16 x 100	Round base, non-sterile	PT24.1	1000	120,40
15	20 x 76	Rim, non-sterile	PT23.1	1000	140,85
30	25 x 107	Rim, non-sterile	PT25.1	500	91,40
13	16 x 100	Round base, sterile	PT27.1	100	16,10
15	20 x 76	Rim, sterile	PT26.1	100	18,85
30	25 x 107	Rim, sterile	PT28.1	100	24,75



Protective and shipping containers

Made of **PP**, with absorbent pad and print. Secondary packaging for test and stool tubes to DIN EN 829, optimal protection against external forces. Aesculap symbol and CE mark of conformity visibly printed. Sample vessels and absorbent pads are easily removable, absorbent pad encloses the sample container and provides additional protection. Autoclavable. Protective containers dia. 30 mm fit into standard letter boxes with 35 mm slot, protective container PT31.1 is also suitable for shipping standard agar carriers (e.g. Uricult®). Protective container PT30.1 with cap PT37.1 is suitable for Port-a-Cul™-tubes.

Delivery without screw caps (please order separately).

Volume (ml)	Ø x H (mm)	for stool tubes	With caps	Art. No.	Pack Qty.	€
40	30 x 85	PT22.1 PT23.1 PT19.1	PT35.1 or PT36.1 PT35.1 for container Ø 30 mm	PT29.1	500	117,20
60	30 x 126	PT24.1	for container Ø 30 mm	PT30.1	300	88,15
120	44 x 115	PT25.1	PT38.1	PT31.1	250	96,55

Screw cap for protective and shipping containers

Made of **PP**.

For container Ø (mm)	Type	Art. No.	Pack Qty.	€
30	Standard	PT35.1	500	29,05
30	With base for tube Ø 16 mm	PT36.1	300	20,35
30	With inner attachment Ø 16 mm	PT37.1	300	22,20
44	With base for tube Ø 25 mm	PT38.1	250	18,10



Uritainer™-canisters

By Simport. Made of **HDPE**. Outer-Ø wide-neck opening 79 mm. Lid made of PP. Push-Pull valve enables simple, controlled and drip-proof pouring. Graduated, graduation 50 ml. **CE-marking in accordance with MPG.**

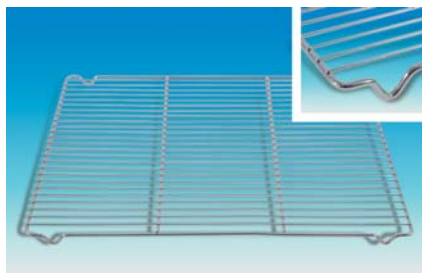
① With vertical and horizontal graduation

Capacity (l)	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
3	115 x 245 x 160	HT07.1	1	4,00
4	115 x 245 x 201	HT08.1	1	4,00

② With vertical graduation

Capacity (l)	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
2,5	333 x 133 x 232	HT09.1	1	4,00
3,5	333 x 133 x 295	HT10.1	1	4,00

Drying racks



Rotilabo®-draining grid

Made of stainless steel 18/10, wire thickness 2.5 mm, frame wire 6 mm, heavy duty. Autoclavable.

L x W x H (mm)	Art. No.	Pack Qty.	€
440 x 310 x 20	YX63.1	1	28,60
470 x 310 x 22	YX64.1	1	30,75
590 x 390 x 26	YX65.1	1	38,10



Rotilabo®-drying racks

Made of PE coated metal. Can be attached to wall or used as a stand. Come with 20 mm high drip tray and plastic caps on base feet. Dimensions: W 420 x D 170 mm.

Type	Height (mm)	Art. No.	Pack Qty.	€
12 pins and 11 arched pins	300	N144.1	1	69,35
24 pins and 20 arched pins	610	N143.1	1	89,15
51 pins (s. pic.)	610	0516.1	1	84,85
60 pins and 5 arched pins	610	N142.1	1	85,80
Spare drip tray	20	C593.1	1	11,80



Rotilabo®-draining mat

Made of PP, black, variable assembly, hole size: 2 x 2 cm, 4 mm surface clearance allows unobstructed drainage of drip water. Rugged quality. Weight 57 g. Autoclavable.

L x W x H (mm)	Art. No.	Pack Qty.	€
315 x 210 x 8	YX62.1	1	3,05



Draining racks

Made of PVC, slot-in pegs made of PP. For use on table or bench, usable on both sides. Sturdy and shatterproof. With removable collecting tray.

Delivery incl. slot-in pegs and wrenches.

W x H (mm)	Number of 60 mm pegs	Number of 100 mm pegs	Number of 150 mm pegs	Art. No.	Pack Qty.	€
400 x 400	5	26	2	XY74.1	1	169,85
500 x 500	10	39	4	XY75.1	1	197,80
600 x 600	15	56	6	XY76.1	1	222,55



Sekuroka®-safety lab sink mat

Made of soft PVC to prevent glass breakage when washing. Round profile prevents splashing of running water. The smooth surface prevents dirt from settling. Weight of mat is sufficient to insure secure position in flowing water. An additional advantage: Magnetic rods do not slip through mesh easily into drain pipe. Dimensions: L 750 x W 450 x H 15 mm. Width of profile 8 mm. Width of web 40 mm.

Art. No.	Pack Qty.	€
C374.1	1	62,25

Replacement slot-in pegs

Made of PP. Suitable for 1841.1ff draining boards and XY74.1ff draining racks.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
60	6	XY77.1	50	55,50
100	10	XY78.1	56	55,50
150	12	XY79.1	50	73,10

Lab dishes and tubs



Draining rack

Made of **PS**, with 72 slot-in pegs (Ø 15 x L 95 mm) which can be inserted randomly. The peg slots are sealed at the back and therefore leakproof. With drainage channel and tube (L 300 mm, outer Ø 12 mm). For wall mounting. Dimensions: L 630 x W 450 x D 110 mm.
Delivery incl. slot-in pegs and fixing hardware.

Art. No.	Pack Qty.	€
CT39.1	1	85,50

Accessories for draining rack

Slot-in pegs made of **PS**.

Type	Peg Ø x L (mm)	Art. No.	Pack Qty.	€
For small Ø vessels	6 x 95	CT40.1	11	11,70
Standard	15 x 95	TT76.1	72	34,30



Rotilabo®-lab dishes

By Bürkle. Made of **PP**. White. Rugged design. Approved for foodstuffs.

Dimensions base, L x W x H (mm)	Capacity (l)	Art. No.	Pack Qty.	€
190 x 140 x 42	0,5	1722.1	1	5,75
250 x 190 x 65	1,5	1724.1	1	10,25
310 x 250 x 75	3,0	0772.1	1	14,55
410 x 310 x 120	10,0	0778.1	1	24,20
530 x 430 x 140	21,0	0782.1	1	40,75
720 x 520 x 160	39,0	0799.1	1	63,75

Rotilabo®-lab dishes set

Type	Art. No.	Pack Qty. (assortment)	€
Assortment (set of six)	0938.1	1	135,45



Rotilabo®-drying boards

By Bürkle. Made of **PVC**, with robust, drying rods of different lengths (60, 100 and 150 mm), rods made of **PP**, which can be inserted and locked in place when needed. Is water-repellent, hygienic and breakproof. Also features draining rim and hose. For wall mounting.
Delivery incl. wall mounting kit and key for slot-in pegs.

Length (mm)	Width (mm)	Number of 60 mm pegs	Number of 100 mm pegs	Number of 150 mm pegs	Art. No.	Pack Qty.	€
400	400	5	26	2	1841.1	1	170,95
500	500	10	39	4	K715.1	1	209,65
600	600	15	56	6	K716.1	1	235,45



Rotilabo®-lab dishes

Made of **hard-PVC**. White. Excellent for acids.

Dimensions base, L x W x H (mm)	Outer dimensions top L x W (mm)	Art. No.	Pack Qty.	€
200 x 150 x 45	245 x 195	7032.1	1	13,35
250 x 200 x 60	305 x 250	7034.1	1	18,10
320 x 260 x 70	385 x 325	7035.1	1	27,20
350 x 300 x 80	420 x 375	7038.1	1	37,10
430 x 330 x 90	505 x 405	7041.1	1	45,40
520 x 420 x 90	600 x 495	7043.1	1	65,60
675 x 530 x 100	765 x 620	7045.1	1	107,40
540 x 420 x 180	635 x 515	7047.1	1	117,20

- Detergents see page 1063
- Intensive cleaners for laboratory dishwashers see page 1066

Lab dishes and tubs



Rotilabo®-lab dishes

By Bürkle. Made of breakproof **PVC**. Temperature stable to +70 °C. The tray with ridges on its' base is ideal for use as developing tray or for staining electrophoresis gels. Ridges prevent gels from sticking to bottom. Liquids can be poured out easily over edges of tray. The tray without ridges is ideal for general lab and storage purposes, especially when colour coding is required.

With ridges

Colour	Height (mm)	Dimensions top L x W (cm)	Dimensions base L x W (cm)	Art. No.	Pack Qty.	€
white	40	18 x 23	14 x 19	C030.1	1	9,15
white	50	24 x 32	19 x 26	C031.1	1	12,70
white	50	32 x 37	26 x 32	C032.1	1	20,40
white	105	43 x 53	31 x 41	C033.1	1	41,90
white	110	52 x 61	42 x 51	C034.1	1	73,65
white	110	63 x 73	51 x 61	C035.1	1	104,85
red	40	18 x 23	14 x 19	C037.1	1	9,15
red	50	24 x 32	19 x 26	C038.1	1	12,70
red	50	32 x 37	26 x 32	C039.1	1	20,40
red	105	43 x 53	31 x 41	C040.1	1	41,90
red	110	52 x 61	42 x 51	C041.1	1	73,65
black	50	24 x 32	19 x 26	C045.1	1	12,70
black	50	32 x 37	26 x 32	C046.1	1	20,40
black	110	52 x 61	42 x 51	C048.1	1	73,65
black	110	63 x 73	51 x 61	C049.1	1	104,85

Without ridges

Colour	Height (mm)	Dimensions top L x W (cm)	Dimensions base L x W (cm)	Art. No.	Pack Qty.	€
white	30	15 x 20	11 x 16	C050.1	1	7,00
white	40	18 x 23	14 x 19	C051.1	1	9,15
white	50	24 x 32	19 x 26	C052.1	1	13,90
white	50	32 x 37	26 x 32	C053.1	1	20,40
white	105	43 x 53	31 x 41	C054.1	1	41,90
white	110	52 x 61	42 x 51	C055.1	1	73,65
white	110	63 x 73	51 x 61	C056.1	1	104,85
red	30	15 x 20	11 x 16	C057.1	1	7,20
red	40	18 x 23	14 x 19	C058.1	1	9,15
red	50	24 x 32	19 x 26	C059.1	1	13,90
red	50	32 x 37	26 x 32	C060.1	1	20,40
red	105	43 x 53	31 x 41	C061.1	1	41,90
red	110	52 x 61	42 x 51	C062.1	1	73,65
red	110	63 x 73	51 x 61	C063.1	1	104,85
black	30	15 x 20	11 x 16	C064.1	1	7,20
black	40	18 x 23	14 x 19	C065.1	1	9,15
black	50	24 x 32	19 x 26	C066.1	1	13,90
black	50	32 x 37	26 x 32	C067.1	1	20,40
black	105	43 x 53	31 x 41	C068.1	1	41,90
black	110	52 x 61	42 x 51	C069.1	1	73,65
black	110	63 x 73	51 x 61	C070.1	1	104,85



Rotilabo®-lab dishes

Made of **MF**. Temperature stable from -40 to +110 °C.

* No cover available.

Volume (ml)	Length, top (mm)	Width, top (mm)	Height (mm)	Art. No.	Pack Qty.	€
700	190	150	40	8449.1	1	9,65
1000	290	160	35	8453.1	1	12,85
1900	290	160	60	8454.1	1	16,90
2200	350*	250	40	8455.1	1	25,30
6000	340	245	100	8457.1	1	32,95

Rotilabo®-lids

Made of **PS**. Suitable for Rotilabo®-melamin laboratory bowls.

Art. No. P165.1 with stackable recessed handle lid.

Length, top (mm)	Width, top (mm)	For	Art. No.	Pack Qty.	€
190	150	8449.1	P163.1	1	11,25
290	160	8453.1/8454.1	P164.1	1	12,55
340	245	8457.1	P165.1	1	18,95

- Detergents see page 1063
- Intensive cleaners for laboratory dishwashers see page 1066



Rotilabo®-dishes

Made of stainless steel 18/10, polished. Deep-drawn with smooth edge. Suitable for foodstuffs. Autoclavable.

Type	Volume (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
1	600	190 x 120 x 40	YH70.1	1	18,85
1	1200	240 x 170 x 40	YH71.1	1	25,30
1	2000	300 x 205 x 55	YH72.1	1	34,30
2	3000	340 x 210 x 60	YH73.1	1	27,45

- Disposable sample bowls see page 159

Lab dishes and tubs



Laboratory trays

By Nalgene®. Made of PP. Suitable storing and sterilising instruments and small laboratory items. Heavy duty design with reinforced edges for maximum stability. Autoclavable.

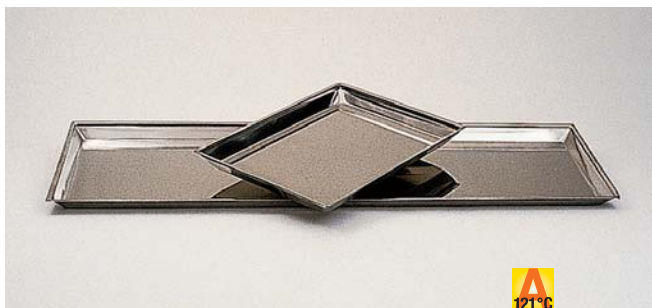
Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
2	260 x 159 x 64	ATE7.1	1	22,70
2,8	260 x 159 x 105	ATE8.1	1	27,75
3,1	324 x 260 x 70	ATE9.1	1	35,50
5	324 x 257 x 108	ATH0.1	1	39,25



Rotilabo®-spillage tubs

Made of 18/10 stainless steel. Specified dimensions refer to the base. Autoclavable. Suitable for foodstuffs.

L x W x H (mm)	Weight (g)	Art. No.	Pack Qty.	€
350 x 250 x 50	1150	0375.1	1	49,45
450 x 300 x 50	1450	0376.1	1	54,85
550 x 350 x 50	1750	Y756.1	1	70,95
650 x 400 x 50	2485	YH48.1	1	95,70



Rotilabo®-spillage trays

Made of 18/10 stainless steel. Thickness 0.8 mm. Autoclavable. Suitable for foodstuffs.

Outer dimensions (L x W x H) mm	Art. No.	Pack Qty.	€
210 x 145 x 20	9492.1	1	26,90
290 x 210 x 20	9493.1	1	24,75
580 x 210 x 20	9494.1	1	40,00
580 x 400 x 20	9495.1	1	66,55



Rotilabo®-work surface

Made of stainless steel 18/10, thickness 1.1 mm. Easy to clean and disinfect. Dimensions: L 600 x W 400 x H 7 mm. Suitable for foodstuffs. Autoclavable.

Art. No.	Pack Qty.	€
YH28.1	1	64,00



Rotilabo®-spillage tub

Made of stainless steel 18/10. With slanting sides and an inlaid perforated plate on 7 mm ridges. Dimensions bottom: L 500 x W 350 x H 60 mm, top: L 435 x W 285 mm. Setting depth approx. 50 mm. Weight 1800 g. Autoclavable. Suitable for foodstuffs.

Art. No.	Pack Qty.	€
0377.1	1	93,45



Rotilabo®-drip pans

Made of 18/8 stainless steel. With removable grid. Hole gauge 19 mm, hole Ø 12 mm. Centre hole Ø 19 mm. Autoclavable.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
310	125	30	X103.1	1	84,40
320	200	27	X104.1	1	91,40
560	200	27	X105.1	1	131,15
750	200	27	X106.1	1	160,20
440	270	27	X111.1	1	123,65
900	400	27	X113.1	1	391,30

Lab dishes and tubs



Rotilabo®-tubs

Made of 18/10 chrome-nickel stainless steel. Rectangular. With folding handles on two sides. Autoclavable. Suitable for foodstuffs.

L x W x H (mm)	Art. No.	Pack Qty.	€
365 x 270 x 75	8103.1	1	82,70
470 x 325 x 90	8104.1	1	126,85
520 x 325 x 90	8105.1	1	155,90
630 x 450 x 90	8106.1	1	241,90



Laboratory pots

Made of aluminium. For use as water or oil bath, can be used in conjunction with hotplates or magnetic stirrers. Max. usage temperature 280 °C.

Delivery incl. cover.

Capacity (l)	Height (mm)	Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1,5	100	160	1,2	AEN7.1	1	30,65
3,0	120	200	1,5	AEN8.1	1	34,95
5,2	140	240	1,3	AEN9.1	1	40,35



Stainless steel pots

Made of high-grade 18/10 steel. With sandwich base and handles. Suitable for use on hot plates and induction hobs, not usable on magnetic stirrers. Suitable lids please order separately. Autoclavable.

Capacity (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2,5	160	130	EE93.1	1	23,65
3,5	200	110	EE94.1	1	30,10
4	200	150	EE95.1	1	33,35
5	240	120	EE96.1	1	38,70
9	240	210	EE97.1	1	52,70

Lids

For stainless steel pans. Made of high-grade 18/10 steel. Welded handles.

Ø (mm)	Art. No.	Pack Qty.	€
160	EE98.1	1	8,55
200	EE99.1	1	11,00
240	EH00.1	1	14,20



Rotilabo®-water baths

Made of 18/10 stainless steel, matt polished. Heavy duty, with two side handles. Suitable for foodstuffs. Autoclavable. Supplied without lid. Please order separately.

Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
0,5	155 x 105 x 55	YY42.1	1	33,90
1	155 x 105 x 75	YY43.1	1	38,70
2,5	155 x 105 x 160	YY44.1	1	50,45
5	155 x 155 x 235	YY45.1	1	64,45
13	240 x 240 x 235	YY46.1	1	112,90

Lids for Rotilabo®-water baths

Made of 18/10 stainless steel, matt polished.

L x W (mm)	For water baths	Art. No.	Pack Qty.	€
155 x 105	0,5-2,5 l	YY47.1	1	17,20
155 x 155	5 l	YY48.1	1	19,15
240 x 240	13 l	YY49.1	1	23,45

► Autoclaving informations on page 5

Information on the care of stainless steel

Stainless steel is rustproof, durable, hygienic and non-toxic. Stainless steel generally has a higher resistance to corrosive media than mild steel.

Care: stainless steel is easy to maintain and can be cleaned either by machine or manually using mild detergents. Extraneous rust can easily be removed using a stainless steel cleaner, while lime scale deposits can be removed using acidic products (e.g. descaling agent). Do not use steel wool and avoid shock cooling after heating. Concentrated disinfectants and bleaches or diluted agents of this kind can attack stainless steel if allowed to react for a lengthy period of time. After contact with aggressive media or solids such as salts, the stainless steel must be cleaned thoroughly.

Extraneous rust: the passive protective layer of the stainless steel can be destroyed by base metal particles if they adhere to the surface of the stainless product. The chemically active particles can cause the entire steel to corrode. For this reason, do not clean, use or store stainless steel together with steel or iron particles (particularly steel wool pads).

Caution: stainless steel is not resistant to prolonged contact with chlorides and acids.



Glass instrument trays

Made of soda-lime glass with stainless steel lid. Autoclavable and hot air sterilisable up to +180 °C. **Note:** do not expose glass trays to abrupt changes of temperature. Trays must be heated and cooled slowly as soda-lime glass has limited thermal shock resistance. Do not sterilise with lid attached.

L x W x H (mm)	Art. No.	Pack Qty.	€
120 x 60 x 40	CYY9.1	1	31,00
170 x 90 x 45	EAA0.1	1	37,55
200 x 100 x 50	EAA1.1	1	41,90
220 x 150 x 55	EAA2.1	1	48,40
275 x 150 x 60	EAA3.1	1	57,00
350 x 220 x 70	EAA4.1	1	109,65
200 x 100 x 100	EAA5.1	1	48,40



Rotilabo®-instrument trays

Made of stainless steel 18/10, suitable for foodstuffs. Autoclavable.

With lid with knob

L x W x H (mm)	Art. No.	Pack Qty.	€
100 x 60 x 40	YX87.1	1	62,00
160 x 100 x 30	YX88.1	1	49,05
200 x 100 x 50	YX89.1	1	53,25
300 x 200 x 50	YX90.1	1	79,90
400 x 200 x 80	YX91.1	1	111,80

With flat lid, deep-drawn with rounded edges

L x W x H (mm)	Art. No.	Pack Qty.	€
180 x 80 x 50	YX92.1	1	19,80
200 x 90 x 50	YX93.1	1	21,95
250 x 100 x 50	YX94.1	1	33,65
300 x 125 x 60	YX95.1	1	35,50



Rotilabo®-instruments trays with lid

Made of 18/10 stainless steel. Tray is moulded in one piece. Special lid with handle. Tray is moulded in one piece for easy cleaning and disinfection. Stackable. Autoclavable.

L x W x H outer (mm)	L x W x H inner (mm)	Art. No.	Pack Qty.	€
230 x 133 x 55	210 x 120 x 45	C849.1	1	44,95
315 x 215 x 65	295 x 195 x 55	C850.1	1	69,15



Kidney dish

Made of PP, white. Capacity approx. 850 ml. Dimensions: L 260 x H 55 mm. Autoclavable.

Art. No.	Pack Qty.	€
TT75.1	1	8,95



Rotilabo®-kidney pans

Made of stainless steel 18/10, high-gloss. Suitable for foodstuffs. Autoclavable.

Volume (ml)	Dimensions L x W (mm)	Art. No.	Pack Qty.	€
250	170 x 40	YT76.1	1	8,20
350	205 x 40	YT77.1	1	10,25
500	250 x 40	YT78.1	1	11,65
750	275 x 45	YT79.1	1	12,80

Bowls



Rotilabo®-trays

Made of PP, with stacking notches. Good chemical resistance. Dishwasher-proof up to +80 °C. Suitable for foodstuffs.

L x W x H (mm)	Art. No.	Pack Qty.	€
350 x 265 x 20	YH74.1	1	4,95
400 x 300 x 20	YH75.1	1	6,60
450 x 350 x 20	YH76.1	1	7,75



Rotilabo®-instrument trays, round

Made of stainless steel, high-gloss finish. Suitable for foodstuffs. Autoclavable.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
300	20	YH66.1	1	8,25
350	20	YH67.1	1	10,40
400	22	YH68.1	1	15,00
500	22	YH69.1	1	22,40



Rotilabo®-instrument trays

Made of polished Melamin (MF). With adhesive safety base.

L x W x H (mm)	Art. No.	Pack Qty.	€
190 x 150 x 17	P159.1	2	16,65
240 x 180 x 17	P160.1	2	20,55
268 x 208 x 17	P161.1	2	23,60
355 x 240 x 17	P162.1	2	40,00
428 x 288 x 17	0824.1	2	65,05



Rotilabo®-carrier buckets

Made of PP. Extremely robust with wide grip rim. Stackable. Autoclavable at 121 °C. Suitable for foodstuffs.

Capacity (l)	Outer Ø (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
0,8	160	70	60	H289.1	1	2,30
1,7	200	80	80	H290.1	1	3,10
2,8	240	100	120	H291.1	1	4,25
4,5	280	120	220	H292.1	1	5,85
6,5	320	130	240	H293.1	1	8,20
10	360	150	360	H294.1	1	9,00
13	400	180	460	H295.1	1	12,90



Rotilabo®-instrument trays, square

Made of 18/10 stainless steel, high-gloss finish. Suitable for foodstuffs. Autoclavable.

L x W x H (mm)	Art. No.	Pack Qty.	€
220 x 170 x 10	YH57.1	1	17,50
260 x 200 x 20	YH58.1	1	22,60
310 x 240 x 20	YH59.1	1	26,85
340 x 260 x 20	YH60.1	1	29,60
365 x 280 x 20	YH61.1	1	32,25
420 x 320 x 20	YH62.1	1	38,70
470 x 365 x 20	YH63.1	1	43,65
520 x 400 x 20	YH64.1	1	53,70
600 x 470 x 24	YH65.1	1	76,35



Rotilabo®-mixing bowls

Made of PP, transparent-white. Stackable. Microwave safe.

Capacity (l)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
1	160	80	YE47.1	1	4,10
2,5	200	110	YE48.1	1	7,35
4,5	240	130	YE49.1	1	7,85
6	280	145	YE50.1	1	10,25
9	320	160	YE51.1	1	12,05
13	360	180	YE52.1	1	16,15



Rotilabo®-stainless steel bowls, bulbous

Made of stainless steel 18/10, high-gloss. Extra heavy duty. With flanged, non-slip rim. Suitable for foodstuffs. Autoclavable.

Capacity (l)	Upper Ø (mm)	Bottom Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
0,75	145	90	60	YH49.1	1	16,35
1	160	115	70	YH50.1	1	17,55
1,5	180	130	80	YH51.1	1	22,60
2,5	210	160	90	YH52.1	1	26,15
4	245	180	105	YH53.1	1	31,85
6	280	205	125	YH54.1	1	40,85
9	325	240	140	YH55.1	1	46,25
12	350	260	150	YH56.1	1	55,30
17	410	270	160	YT62.1	1	61,75



Stainless steel carrier bowls

Made of 18/10 stainless steel. Heavy duty with flanged edge and smooth base. Excellent durability, stability and grip. Stackable. Autoclavable. Suitable for foodstuffs.

Capacity (l)	Top inside Ø (mm)	Bottom Ø (mm)	Height (mm)	Weight (g)	Art. No.	Pack Qty.	€
1	160	110	65	230	L938.1	1	19,25
1,5	180	120	78	300	L939.1	1	22,55
2	200	140	88	350	L940.1	1	24,20
3,5	240	160	105	510	L941.1	1	28,70
5,6	280	180	120	660	L942.1	1	36,50
8,3	320	200	130	880	L943.1	1	48,40

Stainless steel carrier bowls set

Set of six stainless steel bowls. Capacity 1 l to 8.3 l.

Art. No.	Qty. (set)	€
0073.1	1	155,90



Rotilabo®-stainless steel bowls, conical

Made of 18/10 stainless steel, matt polished. Light-duty version with open, smooth rim. Suitable for foodstuffs. Autoclavable.

① Deep type

Capacity (l)	Upper Ø (mm)	Bottom Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
0,5	120	75	70	YH77.1	1	7,20
1	150	95	80	YH78.1	1	8,95
3	220	140	125	YH79.1	1	14,75
5	265	180	130	YH80.1	1	20,35
8	310	200	165	YH81.1	1	27,20
11	355	215	180	YH82.1	1	35,60
14	370	215	200	YH83.1	1	37,20

② Flat type

Capacity (l)	Upper Ø (mm)	Bottom Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
0,5	140	95	55	YH84.1	1	7,50
1	165	115	75	YH85.1	1	9,05
3	240	160	95	YH86.1	1	14,85
6	290	195	130	YH87.1	1	24,75
8	320	210	140	YH88.1	1	26,15
11	380	285	130	YH89.1	1	38,70
14	400	285	155	YH90.1	1	41,85



Disposable buckets

Made of white PP. For safe storage of liquids, solids and pathological samples. Tamper evident closure guarantees the safety of the contents: a security tab breaks when opening the snap-on lid, indicating that the container has been opened. Art. No. AYP9.1 and AYT0.1 include carry handle for easy transportation. Autoclavable.

Volume (ml)	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
300	45	111	AYP6.1	100	74,15
500	75	111	AYP7.1	100	82,80
1000	140	111	AYP8.1	100	117,20
2600	124	200	AYP9.1	25	76,35
5700	195	225	AYT0.1	10	64,40

Buckets



Rotilabo®-buckets with spout

Made of natural colored **HDPE**, polished, conical, can be stacked. With embossed graduation 500 ml inside. Approved for foodstuffs.

Capacity (l)	Height (mm)	Upper Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
10	280	290	570	1608.1	1	16,10
17	320	330	860	1609.1	1	19,25



Rotilabo®-bins with nozzle

Made of **PP**. With spout, handle and graduation. Scale in 1-liter-steps. Good chemical resistance. Autoclavable at 121 °C.

Warning: Autoclave buckets in standing position only.

Capacity (l)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
12	330	310	HX60.1	1	25,30
15	370	310	HX61.1	1	27,70



Buckets

By Nalgene®. Made of **LDPE**. Air-tight. With nylon coated wire handles. The close-fitting and airtight lids enable the bins to be used for storage of samples in formalin and other preservatives. Bins comply to OSHA-Norm 29 CFR part 1910.1030 for use as protection against haematogen pathogens. Suitable for safe handling of biologically harmful substances.

Capacity (l)	Inner Ø (mm)	Height incl. lid (mm)	Height without lid (mm)	Art. No.	Pack Qty.	€
7,6	240	267	254	K573.1	1	38,30
13,2	270	328	315	K575.1	1	53,90



Sekuroka®-buckets

Made of **HDPE**. White. With graduation (scale in 1-litre-steps) and handle.

Capacity (l)	Height (mm)	Upper Ø (mm)	Bottom Ø (mm)	Art. No.	Pack Qty.	€
5	240	250	165	K620.1	1	12,55
10	300	290	210	K622.1	1	15,05

Lid for Sekuroka®-buckets

Made of **LDPE**. Transparent. Air-tight.

Type	Art. No.	Pack Qty.	€
Lid for bins 5 l	K621.1	1	3,80
Lid for bins 10 l	K623.1	1	4,30



Rotilabo®-bins with nozzle

Made of **HDPE**. With metal handle. White, with graduation. Scale in 1-liter-steps.

Capacity (l)	Height (mm)	Upper Ø (mm)	Bottom Ø (mm)	Art. No.	Pack Qty.	€
9	250	280	203	AC97.1	1	10,00
12	280	300	227	AC98.1	1	11,75
17	310	340	249	AC99.1	1	17,75

- Chemical Resistance of Plastics, table see page 6
- Autoclaving informations on page 5



Stainless steel buckets

Made of **Remanit 4301**. Graduated, scale in 1-litre-steps. With smooth bottom. Handle width: 15 mm, rim width: 8 mm. Autoclavable. **Delivery without lid**, please order separately if required.

Capacity (l)	Overall height (mm)	Upper Ø (mm)	Bottom Ø (mm)	Art. No.	Pack Qty.	€
6	210	265	170	KY05.1	1	52,15
10	282	295	170	KY06.1	1	67,20
12	298	340	220	KY07.1	1	72,60
15	340	355	250	KY08.1	1	84,95

Lid

For stainless steel buckets. Made of **Remanit 4301**.

Ø (mm)	Art. No.	Pack Qty.	€
265	KY70.1	1	38,70
295	KY69.1	1	40,80
340	KY71.1	1	50,55
355	KY72.1	1	53,55



Rotilabo®-measuring beaker

Made of 18/10 stainless steel, matt polished. Heavy-duty quality, wall thickness 0.8 mm. Graduated in one-litre increments. With handle and additional grip for simple pouring. Suitable for foodstuffs. Autoclavable.

Capacity (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	240	260	YH43.1	1	289,20
15	270	300	YH44.1	1	321,45
20	270	400	YH45.1	1	381,65

Accessories:

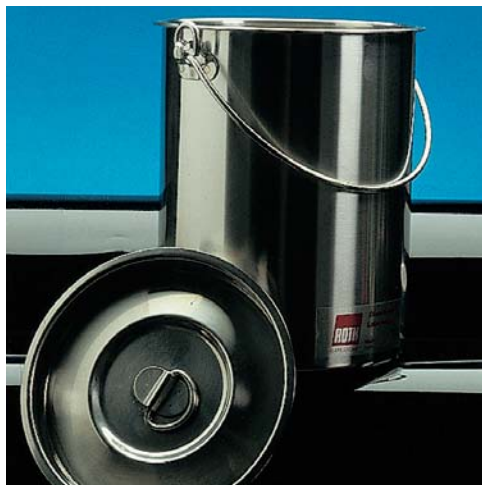
Lid for Rotilabo®-measuring beaker, 10 l	YH46.1	1	40,35
Lid for Rotilabo®-measuring beaker, 15 and 20 l	YH47.1	1	47,85



Carrier buckets

Made of 18/10 stainless steel. Lid with high/low pressure equalising valve, silicon gasket and three fasteners. Suitable for foodstuffs. Autoclavable without lid.

Capacity (l)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
6,5	240	160	LT21.1	1	95,60
10,5	240	250	LT22.1	1	107,30
15,5	300	230	LT23.1	1	149,45



Rotilabo®-carrier buckets

Made of 18/10 stainless steel. With lid and handle. Convex base. Autoclavable without lid. Suitable for foodstuffs.

Capacity (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	130	170	C856.1	1	123,65
3	155	180	C857.1	1	134,40
5	175	240	C859.1	1	160,20
8	200	290	C861.1	1	188,15
10	220	300	C862.1	1	192,45

► For additional containers for storage and transport from page 693

Flat-bottom flasks



Flat-bottom flasks

Made of DURAN®. Acc. to ISO 1773. Autoclavable.

① Narrow neck flat-bottom flasks

Volume (ml)	Neck Ø (mm)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	26	51	90	K182.1	10	80,80
100	26	64	105	K183.1	10	62,30
250	34	85	138	K184.1	10	72,80
500	34	105	163	K185.1	10	99,20
1000	42	131	190	K186.1	1	14,60
2000	42	166	250	K187.1	1	26,70
3000	50	185	250	K188.1	1	51,30
4000	50	207	275	K189.1	1	73,20
5000	50	223	290	K190.1	1	82,70
6000	65	237	315	K191.1	1	93,40
10000	65	280	360	K192.1	1	162,00

② Wide neck flat-bottom flasks

Volume (ml)	Neck Ø (mm)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	34	51	90	K193.1	10	152,00
100	34	64	105	K194.1	10	62,50
250	50	85	138	K195.1	10	73,20
500	50	103	163	K196.1	10	99,60
1000	50	131	190	K197.1	1	17,15
2000	50	166	230	K198.1	1	26,80



Flat-bottom flasks with ground glass joints

Made of DURAN®. Acc. to DIN 12348. With standard ground joint 29/32. Autoclavable.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	51	90	Y653.1	1	7,70
100	64	110	Y654.1	1	8,15
250	85	140	Y655.1	1	14,55
500	105	170	Y656.1	1	20,25
1000	131	200	Y657.1	1	27,90
2000	166	250	Y658.1	1	52,70



Rotilabo®-flat bottom flasks

Made of type 3.3 borosilicate glass with heavy duty rim. Autoclavable.

① Narrow neck, according to ISO 1773.

Volume (ml)	Neck Ø (mm)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	22	51	100	NT71.1	10	84,10
100	22	64	110	NT72.1	10	21,40
250	34	85	140	NT73.1	10	24,20
500	34	105	170	NT74.1	10	39,25
1000	42	131	200	NT75.1	1	16,70
2000	50	166	250	NT76.1	1	24,55
4000	50	207	300	NT77.1	1	34,95
6000	65	236	340	NT78.1	1	45,15
10 000	65	279	400	NT79.1	1	67,75

② Wide neck

Volume (ml)	Neck Ø (mm)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	34	51	100	NT54.1	10	83,85
250	50	85	140	NT55.1	10	92,15
500	50	105	170	NT56.1	10	107,30
1000	50	131	200	NT57.1	1	17,55
2000	76	166	250	NT58.1	1	24,30



Rotilabo®-flat bottom flasks with standard ground joint

Made of type 3.3 borosilicate glass. According to DIN 12 348. Autoclavable.

Volume (ml)	Standard taper (NS)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	29/32	85	140	NT59.1	10	122,55
250	45/40	85	140	NT60.1	10	136,55
500	29/32	105	170	NT61.1	10	145,15
500	45/40	105	170	NT62.1	10	166,65
1000	29/32	131	200	NT63.1	1	21,00
1000	45/40	131	200	NT64.1	1	22,55
2000	29/32	166	250	NT65.1	1	25,30
2000	45/40	166	250	NT66.1	1	28,95
4000	45/40	207	300	NT67.1	1	40,55
6000	60/46	236	340	NT68.1	1	48,60
10 000	60/46	279	400	NT69.1	1	91,95
20 000	60/46	345	190	NT70.1	1	125,80

Standard ground joint flasks

ROTH



Round flasks

Made of DURAN®. With ground glass joints. Acc. to DIN 12348. Autoclavable.

* Not acc. to DIN.

Transparent glass

Volume (ml)	Conical ground joint (NS)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5*	14/23	30	58	HY49.1	1	6,70
10*	14/23	35	70	HY50.1	1	6,70
25*	14/23	41	85	E588.1	1	7,15
25	19/26	41	85	KY27.1	1	7,40
50	14/23	51	90	E589.1	1	7,90
50	19/26	51	90	KY28.1	1	8,30
50*	24/29	51	90	KY32.1	1	9,05
50	29/32	51	90	E590.1	1	8,55
100	14/23	64	105	E591.1	1	7,90
100	19/26	64	105	KY29.1	1	9,60
100*	24/29	64	105	KY33.1	1	9,15
100	29/32	64	105	E592.1	1	7,90
250*	14/23	85	140	KY26.1	1	17,75
250*	19/26	85	140	KY30.1	1	18,10
250*	24/29	85	140	KY34.1	1	15,60
250	29/32	85	145	E593.1	1	14,55
250	45/40	85	145	E594.1	1	35,40
500*	19/26	105	168	KY31.1	1	27,45
500*	24/29	105	165	KY35.1	1	19,60
500	29/32	105	175	E595.1	1	18,50
500	45/40	105	175	E596.1	1	26,35
1000*	24/29	131	195	KY36.1	1	27,35
1000	29/32	131	200	E597.1	1	26,85
1000	45/40	131	200	E598.1	1	34,35
2000*	24/29	166	260	KY37.1	1	51,85
2000	29/32	166	260	E599.1	1	46,15
2000	45/40	166	260	E600.1	1	52,15
3000*	29/32	185	265	TE93.1	1	133,30
3000*	45/40	185	265	TE94.1	1	136,55
4000	29/32	207	290	TE95.1	1	133,30
4000	45/40	207	315	E601.1	1	131,15
5000*	29/32	223	315	TE96.1	1	161,25
5000	45/40	223	315	TE97.1	1	162,35

Amber glass

Volume (ml)	Conical ground joint (NS)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	64	115	Y646.1	1	32,80
250	29/32	85	145	Y647.1	1	49,80
500	29/32	105	175	Y648.1	1	52,60
1000	29/32	131	210	Y649.1	1	60,45



Rotilabo®-round bottom flasks with ground glass joint

① Made of borosilicate glass 3.3. ISO 4797 compliant. Autoclavable.

Volume (ml)	Standard ground glass joint	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	14/23	51	105	ACH0.1	10	65,05
50	19/26	51	105	ACH1.1	10	69,90
50	29/32	51	105	ACH2.1	10	65,60
100	14/23	64	115	ACH3.1	10	73,55
100	19/26	64	115	ACH4.1	10	87,10
100	29/32	64	115	ACH5.1	10	71,95
250	29/32	85	145	ACH6.1	10	110,75
250	45/40	85	145	ACH7.1	1	17,55
500	29/32	105	175	ACH8.1	10	130,10
500	45/40	105	175	ACH9.1	1	21,40
1000	29/32	131	210	ACK0.1	1	23,15
1000	45/40	131	210	ACK1.1	1	25,30
2000	29/32	166	260	ACK2.1	1	27,45
2000	45/40	166	260	ACK3.1	1	30,10
4000	45/40	207	315	ACK4.1	1	38,70
6000	60/46	236	355	ACK5.1	1	50,45
10000	60/46	279	420	ACK6.1	1	82,80

Rotilabo®-round bottom flasks with heavy duty rim

Made of type 3.3 borosilicate glass. Autoclavable.

② Narrow neck, according to ISO 1773.

Volume (ml)	Neck Ø (mm)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	22	51	105	NT88.1	10	81,20
100	22	64	115	NT89.1	10	106,25
250	34	85	147	NT90.1	10	84,95
500	34	105	175	NT91.1	10	102,15
1000	42	131	210	NT92.1	1	17,65
2000	50	166	260	NT93.1	1	22,60
4000	50	207	315	NT94.1	1	31,75
6000	65	236	355	NT95.1	1	41,95
10 000	65	279	420	NT96.1	1	62,35
20 000	80	345	500	NT97.1	1	110,75

③ Wide neck

Volume (ml)	Neck Ø (mm)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	34	51	105	NT98.1	10	82,80
100	34	64	115	NT99.1	10	102,15
250	50	85	145	NX00.1	10	90,30
500	50	105	175	NX01.1	10	103,20
1000	50	131	210	NX02.1	1	17,65
2000	76	166	260	NX03.1	1	23,05
4000	76	207	315	NX04.1	1	32,05
6000	89	236	355	NX05.1	1	44,00
10 000	89	279	420	NX06.1	1	62,90

► Boiling pebbles see page 1106

Standard ground joint flasks



Round bottom flasks

Made of **PFA**, transparent.

- High chemical resistance
- Temperature resistant in the range -200 to +260 °C
- Hydrophobic and anti-adhesive, extremely smooth surfaces allow easy cleaning
- High purity, ideal for used in trace analysis and for storage of reference solutions
- No memory effect
- Also suitable for use in rotary evaporator as safety flask
- Autoclavable

Volume (ml)	NS	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	65	117	XY62.1	1	77,20
250	29/32	88	147	XY63.1	1	89,25
500	29/32	107	177	XY64.1	1	123,65



Rotilabo®-double neck round bottom flasks

Made of borosilicate glass 3.3. With standard ground joints. Autoclavable.

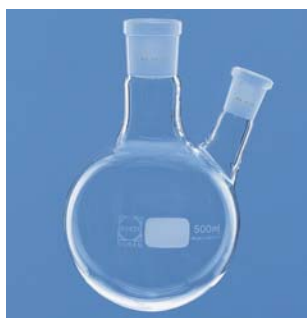
Volume (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Art. No.	Pack Qty.	€
250	29/32	14/23	ACE4.1	1	22,05
500	29/32	14/23	ACE5.1	1	24,75
1000	29/32	14/23	ACE6.1	1	29,15
2000	29/32	14/23	ACE7.1	1	36,05
4000	45/40	14/23	ACE8.1	1	55,30
6000	60/46	14/23	ACE9.1	1	75,25



Rotilabo®-PTFE round bottom flasks

Made of **PTFE**. Chemically inert, temperature stable from -200 to +250 °C. Autoclavable.

Volume (ml)	Standard ground glass joint	Ø (mm)	Art. No.	Pack Qty.	€
10	14/23	32	NX92.1	1	26,65
10	19/26	32	NX93.1	1	27,45
25	19/26	42	NX94.1	1	42,50
25	24/29	42	NX95.1	1	41,20
50	24/29	52	NX96.1	1	56,90
50	29/32	52	NX97.1	1	55,80
100	29/32	64	NX98.1	1	92,45



Two-necked round-bottom flasks

Made of **DURAN®**. With ground glass joints. Acc. to DIN 12394. Autoclavable.

* Acc. to DIN

Vol. (ml)	Centre neck with ground glass joints	Side neck with ground glass joints	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	14/23	41	85	KY12.1	1	19,30
50	14/23	14/23	51	90	KY13.1	1	20,25
100*	14/23	14/23	64	105	KY14.1	1	21,30
100*	24/29	19/26	64	105	KY24.1	1	28,70
100*	29/32	14/23	64	115	E606.1	1	23,45
250*	24/29	19/26	85	137	KY25.1	1	37,45
250	29/32	14/23	85	145	E607.1	1	31,75
500	29/32	14/23	105	175	E608.1	1	36,90
1000	29/32	14/23	131	210	E609.1	1	44,05
2000	29/32	14/23	166	260	E610.1	1	75,20

► Boiling pebbles made of PTFE see page 1106

Standard ground joint flasks



Material
DURAN®
121°C

Pear shaped flasks

Made of DURAN®. Acc. to DIN 12383. Autoclavable.

*In add. to DIN

Volume (ml)	Socket (ground glass)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
5*	14/23	27	68	TK67.1	1	9,30
10*	14/23	30	75	E602.1	1	7,60
25*	14/23	40	90	E603.1	1	9,45
25*	19/26	42	90	TK68.1	1	9,90
50*	14/23	50	110	E604.1	1	10,45
50	19/26	51	100	TK69.1	1	11,95
50*	29/32	51	100	TK70.1	1	15,25
100*	14/23	62	125	E605.1	1	12,45
100	19/26	64	130	TK71.1	1	16,05
100*	29/32	64	130	TK72.1	1	23,25
250*	14/23	85	195	TK73.1	1	28,70
250	19/26	85	195	TK74.1	1	29,60
250*	29/32	85	190	TK75.1	1	31,95



Material
DURAN®
121°C

Two-necked pear shaped flasks

Made of DURAN®. With angled side neck (angle 25°) NS 14/23. Acc. to DIN 12383. Autoclavable.

*In add. to DIN.

Volume (ml)	Centre neck with ground glass joints	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25*	14/23	40	90	TH63.1	1	22,60
25*	19/26	40	90	TH64.1	1	40,85
50*	14/23	50	100	TH65.1	1	23,55
50	19/26	50	100	TH66.1	1	44,10
100*	14/23	64	130	TH67.1	1	26,25
100	19/26	64	130	TH68.1	1	53,25
250*	14/23	85	195	TH69.1	1	70,55
250	19/26	85	195	TH70.1	1	75,70

► Taper-ground clamps see page 127



Material
DURAN®
121°C

Three-necked round-bottom flasks

Made of DURAN®. Middle neck with ground glass joints 29/32 (models KY18.1 and KY19.1 with ground glass joints 14/23). Acc. to DIN 12392. Autoclavable.

* Acc. to DIN

① Side necks parallel

Volume (ml)	Side neck with ground glass joints	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100*	14/23	64	105	KY15.1	1	30,85
100	29/32	64	105	KY16.1	1	62,30
250*	14/23	85	145	E615.1	1	46,20
250	29/32	85	137	KY17.1	1	48,35
500*	14/23	105	175	E616.1	1	49,15
500	29/32	105	175	E617.1	1	58,60
1000*	14/23	131	210	E618.1	1	60,65
1000	29/32	131	210	E619.1	1	65,15
2000*	14/23	166	260	E620.1	1	88,70
2000	29/32	166	260	E621.1	1	96,65

② Side necks angled

Volume (ml)	Side neck with ground glass joints	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50*	14/23	51	90	KY18.1	1	39,60
100*	14/23	64	105	KY19.1	1	41,85
100	14/23	64	115	E611.1	1	35,50
250	14/23	85	145	E612.1	1	43,90
250*	29/32	85	137	KY20.1	1	50,35
500	14/23	105	175	E613.1	1	50,55
500*	29/32	105	160	KY21.1	1	55,80
1000	14/23	131	210	E614.1	1	57,75
1000*	29/32	131	200	KY22.1	1	66,55
2000*	29/32	166	260	KY23.1	1	87,10



Material
DURAN®
121°C

Four-necked round bottom flasks

Made of DURAN®. Acc. to DIN 12393. Side necks with ground glass joints 29/32. Autoclavable.

*In addition to DIN

① Parallel side necks

Vol. (ml)	Centre neck with ground glass joints	Flask outer Ø (mm)	Art. No.	Pack Qty.	€
500*	29/32	105	TH78.1	1	98,05
1000	29/32	131	TH79.1	1	109,65
2000	29/32	166	TH80.1	1	140,85
3000*	29/32	185	TH81.1	1	213,95
5000*	45/40	223	TH82.1	1	321,45

② Side necks, angled (15°)

250*	29/32	85	TH76.1	1	98,50
500	29/32	105	TH77.1	1	99,15

Standard ground joint flasks



Round bottom flasks

Made of PFA. Highly pure, chemically inert. Hydrophobic, anti-adhesive surfaces. Centre neck NS 29/32. Temperature stable from -200 to +250 °C. Transparent and pore-free, partially suitable for vacuum (e.g. 30 mbar at 50 °C).

Single neck flasks

Volume (ml)	Side neck with ground glass joints	Height (mm)	Flask outer Ø (mm)	Art. No.	Pack Qty.	€
100	-	117	67	NY39.1	1	107,00
250	-	149	88	NY40.1	1	124,70
500	-	177	107	NY41.1	1	169,85

Double neck flasks

Volume (ml)	Side neck with ground glass joints	Height (mm)	Flask outer Ø (mm)	Art. No.	Pack Qty.	€
100	14/23	117	67	NY42.1	1	332,20
250	29/32	149	88	NY43.1	1	521,40
500	29/32	177	107	NY44.1	1	589,10

Triple neck flasks

Volume (ml)	Side neck with ground glass joints	Height (mm)	Flask outer Ø (mm)	Art. No.	Pack Qty.	€
100	14/23	117	67	NY45.1	1	456,90
250	29/32	149	88	NY46.1	1	768,65
500	29/32	177	107	NY47.1	1	837,45



Sulphuration flasks

Made of type 3.3 borosilicate glass. With three standard ground joints on side neck. Autoclavable.

Volume (ml)	Standard ground joint (main neck)	Standard ground joints (side necks 1 + 2)	Standard ground joint (side neck 3)	Art. No.	Pack Qty.	€
500	45/40	14/23	14/23	TK78.1	1	38,70
1500	71/51	29/32	14/23	TK79.1	1	59,15
2500	71/51	29/32	14/23	TK80.1	1	67,10
4000	71/51	29/32	14/23	TK81.1	1	88,40
6000	71/51	29/32	14/23	TK82.1	1	97,85



Kjeldahl flasks

Made of DURAN®. With ground glass joint. Acc. to DIN 12360. Autoclavable.

Volume (ml)	Flask outer Ø (mm)	Height (mm)	Standard taper (NS)	Art. No.	Pack Qty.	€
50	51	200	14/23	Y659.1	1	37,85
50	51	200	19/26	Y661.1	1	37,95
100	60	200	14/23	Y660.1	1	39,15
100	60	200	19/26	Y662.1	1	39,15
250	81	270	29/32	Y663.1	1	52,15
500	101	300	29/32	Y664.1	1	54,65
750	115	340	29/32	Y665.1	1	62,05
1000	126	350	29/32	Y666.1	1	70,75



① Iodine determination flasks

With standard ground glass joint made of DURAN®. Hollow glass-stopper 29/32. Autoclavable.

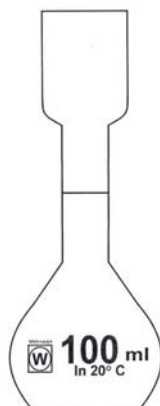
Volume (ml)	Art. No.	Pack Qty.	€
100	E535.1	1	13,55
250	E536.1	1	14,85
500	E537.1	1	17,55

② Iodine determination flasks with neck

Made of DURAN®. With iodine stopper NS 29/32 and scale.

Volume (ml)	Largest outer Ø (mm)	Height approx. (mm)	Art. No.	Pack Qty.	€
100	60	135	TK12.1	1	64,00
250	81	170	TK13.1	1	67,75
500	101	205	TK14.1	1	72,05

Standard ground joint flasks



Rotilabo®-Kohlrausch flasks, class A

Made of borosilicate glass 3.3. For sugar analysis acc. to Kohlrausch. With ring mark, accuracy within official test tolerance.

Volume (ml)	Art. No.	Pack Qty.	€
100	AAN3.1	1	23,90
200	AAN4.1	1	29,35



Material
DURAN®
121°C

Evaporating flasks

Made of DURAN®. With ground glass joint, pear shaped. Autoclavable.

Volume (ml)	Flask outer Ø (mm)	Height (mm)	Standard taper (NS)	Art. No.	Pack Qty.	€
5	25	55	14/23	TH04.1	1	15,60
10	33	65	14/23	TH05.1	1	16,45
25	40	75	14/23	TH06.1	1	17,10
50	50	88	14/23	TH07.1	1	18,20
50	56	95	29/32	TH08.1	1	12,40
100	60	110	29/32	K263.1	1	18,30
250	81	140	29/32	K264.1	1	30,75
500	101	170	29/32	K265.1	1	35,40
1000	126	210	29/32	K266.1	1	51,10
2000	158	245	29/32	TH09.1	1	63,35
3000	175	270	29/32	TH10.1	1	111,80

Evaporating flasks with PUR coating

Made of DURAN®. With ground glass joint, pear shaped. Highly transparent coating provides protection from scratches, impacts and light (absorption up to approx. 380 nm). In the event of glass breakage, the coating helps contain broken glass and leakage. Temperature stable from -30 to +140 °C. Autoclavable.

Volume (ml)	Flask outer Ø (mm)	Height (mm)	Standard taper (NS)	Art. No.	Pack Qty.	€
50	56	95	29/32	TH11.1	1	25,05
100	60	110	29/32	TH12.1	1	26,35
250	81	140	29/32	TH13.1	1	46,05
500	101	170	29/32	TH14.1	1	55,05
1000	126	210	29/32	TH15.1	1	73,00
2000	158	245	29/32	TH16.1	1	99,90
3000	175	270	29/32	TH17.1	1	145,15



Material
DURAN®
121°C

Collecting flasks

Made of DURAN®. With spherical bowl joint S 35. Made especially for rotary evaporators. Autoclavable.

Volume (ml)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	85	140	KY57.1	1	32,15
500	105	155	KY58.1	1	34,75
1000	131	200	KY59.1	1	45,90
2000	166	245	KY65.1	1	70,10

Collecting flasks with PUR coating

Made of DURAN®. With spherical ground cup S 35, specially designed for rotary evaporators. Highly transparent coating provides protection from scratches, impacts and light (absorption up to approx. 380 nm). In the event of glass breakage, the coating helps contain broken glass and leakage. Temperature stable from -30 to +140 °C. Autoclavable.

Volume (ml)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	64	100	TH18.1	1	55,05
250	85	124	TH19.1	1	62,70
500	105	150	TH20.1	1	67,95
1000	131	185	TH21.1	1	83,85
2000	166	240	TH22.1	1	113,95



Material
DURAN®
121°C

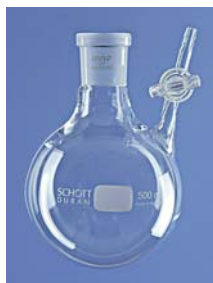
Powder flasks

Made of DURAN®. With centred ground glass joint 29/32, for drying substances on the rotary evaporator. Autoclavable.

Volume (ml)	Largest outer Ø (mm)	Height approx. (mm)	Art. No.	Pack Qty.	€
100	60	110	TH71.1	1	73,35
250	81	125	TH72.1	1	80,20
500	101	155	TH73.1	1	96,65
1000	126	195	TH74.1	1	115,05
2000	158	245	TH75.1	1	159,10

► Rotary evaporator see page 928

Standard ground joint flasks

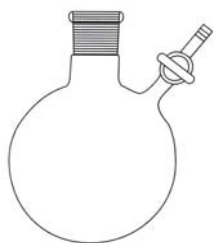


Material
DURAN®

Nitrogen round-bottom flasks (Schlenk flasks)

Made of DURAN®. With ground glass joint. With stopcock ground glass joint 14.5; bore hole 2.5 mm.

Volume (ml)	Conical ground joint (NS)	Height (mm)	Art. No.	Pack Qty.	€
25	14/23	85	KY38.1	1	44,95
50	14/23	90	KY39.1	1	45,10
50	29/32	90	KY42.1	1	45,10
100	14/23	105	KY40.1	1	47,20
100	29/32	105	KY43.1	1	49,35
250	14/23	140	KY41.1	1	57,10
250	29/32	137	KY44.1	1	57,00
500	29/32	160	KY45.1	1	61,30
1000	29/32	192	KY46.1	1	76,90



Round bottom flasks with stopcock, special sizes

By Winzer. Made of borosilicate glass 3.3. With ground glass joint and NS 12.5 stopcock, 2.5 mm hole. Connector for hoses with inner Ø 8 mm.

Volume (ml)	Conical ground joint (NS)	Art. No.	Pack Qty.	€
10	14/23	AAP1.1	1	41,95
2000	29/32	AAP2.1	1	94,20



Material
DURAN®

Nitrogen round bottom flasks with stopcock

Made of DURAN®. With PTFE stopcock. Valve bore 2.5 mm.

Volume (ml)	Standard ground glass joint	Art. No.	Pack Qty.	€
25	14/23	TH35.1	1	56,80
50	14/23	TH36.1	1	59,05
50	29/32	TH37.1	1	60,00
100	14/23	TH38.1	1	62,30
100	29/32	TH39.1	1	64,00
250	14/23	TH40.1	1	68,80
250	29/32	TH41.1	1	70,75
500	29/32	TH42.1	1	73,00
1000	29/32	TH43.1	1	90,20



Material
DURAN®

Nitrogen tubes (Schlenk tubes)

Made of DURAN®. With stopcock ground glass joint 14.5; bore hole 2.5 mm.

① Model with sleeve joint 14/23

Volume (ml)	Art. No.	Pack Qty.	€
10	KY47.1	1	46,80
25	KY48.1	1	48,40
50	KY49.1	1	49,45
100	KY50.1	1	51,60
250	KY51.1	1	57,20

② Model with core joint 14/23

Volume (ml)	Art. No.	Pack Qty.	€
10	KY52.1	1	57,95
25	KY53.1	1	59,15
50	KY54.1	1	60,20
100	KY55.1	1	61,85
250	KY56.1	1	71,85



Material
DURAN®

Nitrogen tubes with stopcock

Made of DURAN®. With PTFE stopcock. Valve bore 2.5 mm.

With ground glass socket 14/23

Volume (ml)	Art. No.	Pack Qty.	€
10	TH25.1	1	78,60
25	TH26.1	1	80,95
50	TH27.1	1	84,10
100	TH28.1	1	86,75
250	TH29.1	1	98,70

With ground glass cone 14/23

Volume (ml)	Art. No.	Pack Qty.	€
10	TH30.1	1	93,55
25	TH31.1	1	95,05
50	TH32.1	1	97,85
100	TH33.1	1	100,55
250	TH34.1	1	108,60

► Dewar containers see page 232

Standard ground joint stoppers



Reversible frits

By Winzer. Made of borosilicate glass 3.3. With vacuum receiver, two stopcocks (NS 14.5 with solid glass plug, 2.5 mm hole) and Ø 8 mm connector.

10 ml, filter plate Ø 13 mm, ground glass cones 14/23.

Porosity	Art. No.	Pack Qty.	€
1	AAT0.1	1	153,75
2	AAT1.1	1	153,75
3	AAT2.1	1	153,75
4	AAT3.1	1	156,95

50 ml, filter plate Ø 22 mm, ground glass cones 29/32.

Porosity	Art. No.	Pack Qty.	€
1	AAT4.1	1	164,50
2	AAT5.1	1	160,20
3	AAT6.1	1	160,20
4	AAT7.1	1	163,40

100 ml, filter plate Ø 32 mm, ground glass cones 29/32.

Porosity	Art. No.	Pack Qty.	€
1	AAT8.1	1	173,10
2	AAT9.1	1	173,10
3	AAX0.1	1	173,10
4	AAX1.1	1	178,45

250 ml, filter plate Ø 46 mm, ground glass cones 29/32.

Porosity	Art. No.	Pack Qty.	€
1	AAX2.1	1	188,15
2	AAX3.1	1	191,35
3	AAX4.1	1	188,15
4	AAX5.1	1	189,20

500 ml, filter plate Ø 52 mm, ground glass cones 29/32.

Porosity	Art. No.	Pack Qty.	€
1	AAX6.1	1	237,60
2	AAX7.1	1	237,60
3	AAX8.1	1	237,60
4	AAX9.1	1	246,20

1000 ml, filter plate Ø 75 mm, ground glass cones 29/32.

Porosity	Art. No.	Pack Qty.	€
1	AAV0.1	1	278,45
2	AAV1.1	1	278,45
3	AAV2.1	1	278,45
4	AAV3.1	1	289,20

- Volumetric flasks from page 25
- Mixing cylinder from page 24
- Glass flasks see page 17
- Glass components from page 130



Material
DURAN®
❄️❄️❄️

Cold traps

Made of DURAN®, cone and socket style 29/32.

Without steam outlet

Coolant (ml)	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
200	270	70	Y803.1	1	287,05
500	320	85	Y804.1	1	424,65
1000	400	100	Y805.1	1	736,40

With steam outlet

Coolant (ml)	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
200	370	70	Y806.1	1	359,05
500	395	85	Y807.1	1	487,00
1000	480	100	Y808.1	1	833,15



Glass stoppers

Made of DURAN®. Octagonal with ground glass joint, acc. to DIN 12252. Autoclavable.

Type	Standard taper (NS)	Art. No.	Pack Qty.	€
Solid	14/23	E652.1	10	37,60
Solid	19/26	E653.1	10	53,50
Semi-hollow	29/32	E654.1	10	60,50
Semi-hollow	45/40	E655.1	1	11,40

Brown glass stoppers

Made of SBW glass or DURAN®. With ground glass joint acc. to DIN 12252, octagonal. Autoclavable.

Type	Standard taper (NS)	Art. No.	Pack Qty.	€
SBW glass, solid	14/23	LK28.1	10	54,40
SBW glass, solid	19/26	LK29.1	10	70,50
DURAN®, solid	24/29	LK30.1	10	81,10
DURAN®, semi-hollow	29/32	LK32.1	10	80,50
DURAN®, semi-hollow	45/40	LK33.1	1	15,85

Standard ground joint stoppers



Hollow glass stoppers

Made of DURAN®. Hexagonal with ground glass joint. Autoclavable.

Standard taper (NS)	Art. No.	Pack Qty.	€
7/16	X782.1	10	20,30
10/19	X783.1	10	12,80
12/21	X784.1	10	13,40
14/23	X785.1	10	13,55
19/26	X786.1	10	17,80
24/29	X787.1	10	19,80
29/32	X788.1	10	23,50
34/35	X789.1	1	7,35
45/40	X790.1	1	9,50



Plastic stoppers

Made of PE. With ground glass joint acc. to DIN 12254, octagonal.

Standard taper (NS)	Art. No.	Pack Qty.	€
7/16	LL77.1	10	4,85
10/19	LL78.1	10	7,00
12/21	LL79.1	10	7,50
14/23	LL80.1	10	8,10
19/26	LL81.1	10	10,25
24/29	LL82.1	10	11,40
29/32	LL83.1	10	12,60
34/35	LL84.1	1	2,85
45/40	LL85.1	1	3,80



Rotilabo®-standard ground glass joint stoppers

Made of PE. Acc. to DIN 12242.

Conical ground joint (NS)	Colour	Bottom Ø (mm)	Art. No.	Pack Qty.	€
7/16	violet	5,9	K864.1	10	9,50
10/19	blue	8,1	K865.1	10	9,50
12/21	green	10,4	K866.1	10	9,50
14/23	brown	12,2	K867.1	10	9,50
19/26	yellow	16,4	K868.1	10	11,80
24/29	red	21,1	K869.1	10	14,80
29/32	black	25,8	K870.1	5	8,95
34/35	white	30,9	K871.1	5	12,00



Standard ground glass joint stoppers

Made of PE. Anatomically shaped for easier opening and closing, sealing ribs on taper ensure optimal and leak-proof sealing. With batch code on base of stopper. Temperature stable from -40 to +80 °C

Standard taper (NS)	Colour	Art. No.	Pack Qty.	€
7/16	blue	AKH6.1	10	7,15
10/19	green	AKH7.1	10	9,30
12/21	violet	AKH8.1	10	11,00
14/23	yellow	AKH9.1	10	7,75
19/26	blue	AKK0.1	10	8,70
24/29	green	AKK1.1	10	10,10
29/32	red	AKK2.1	10	12,50
34/35	orange	AKK3.1	1	2,80
45/40	brown	AKK4.1	1	3,20



Rotilabo®-PTFE stoppers

Made of PTFE. Usable without ground joint grease. Chemically inert, temperature stable from -200 to +250 °C. Autoclavable.

Standard ground glass joint	Height (mm)	Art. No.	Pack Qty.	€
10/19	31	NX99.1	1	7,70
14/23	34	NY00.1	1	9,15
19/26	38	NY01.1	1	11,05
24/29	44	NY02.1	1	13,90
29/32	47	NY03.1	1	16,10
34/35	51	NY04.1	1	19,15

► Stoppers made of natural rubber see page 70

Wire joint clamps



Conical joint clips

Made of **POM**. Resistant to most chemicals.
Temperature stable up to +90 °C.

for ground glass joints	Colour	Art. No.	Pack Qty.	€
10	green	1163.1	12	35,45
12	violet	1164.1	12	36,70
14	yellow	1165.1	12	37,95
19	blue	1166.1	12	39,80
24	green	1167.1	12	41,75
29	red	1168.1	12	42,70
34	orange	1169.1	12	46,05
40	yellow	1170.1	12	51,75
45	brown	1171.1	12	54,30
Set	apiece pro colour	1172.1	12	40,00



Rotilabo®-wire joint clamps

Made of nickel chromium spring steel. For conical ground glass joints.
Autoclavable.

Standard taper (NS)	Art. No.	Pack Qty.	€
14/23	CE96.1	1	3,60
19/26	CE97.1	1	3,80
24/29	CE98.1	1	4,55
29/32	CE99.1	1	4,55
45/40	CH00.1	1	6,25



Spring clips

Made of nickel-plated steel. For bottles with standard ground glass joints and Winkler oxygen bottles.

Suitable for ground glass joints	Art. No.	Pack Qty.	€
NS 14	CEA6.1	1	2,70
NS 19	CEA7.1	1	2,90
NS 24	CEA8.1	1	3,20
NS 29	CEA9.1	1	3,55



Rotilabo®-fork clamps for ground joints

Made of nickel chromium steel. Autoclavable.

Without set screw

Standard taper (NS)	Art. No.	Pack Qty.	€
14/23	CH01.1	1	15,95
19/26	CH02.1	1	17,00
24/29	CH03.1	1	17,85
29/32	CH04.1	1	20,35
45/40	CH05.1	1	21,45

With set screw

Standard taper (NS)	Art. No.	Pack Qty.	€
14/23	CH06.1	1	21,45
19/26	CH07.1	1	20,75
24/29	CH08.1	1	21,45
29/32	CH09.1	1	22,60
45/40	CH10.1	1	26,45



Clamps for conical ground joint

Made of spring steel, nickel-plated. Suitable for temperatures over 150 °C.
Autoclavable.

for ground glass joints	Art. No.	Pack Qty.	€
14	8231.1	4	26,80
19	8232.1	4	27,85
24	8233.1	4	28,95
29	8234.1	4	30,25
Set	8289.1	4	32,70

- Glass components until page 130
- Winkler bottles see page 29

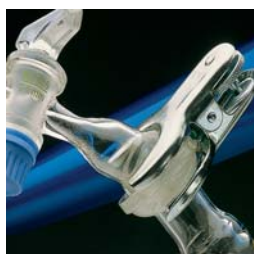
Round bottom flask stand



Rotilabo®-PTFE clamps for ground joint clamps

Made of PTFE-encased steel. Chemically inert, temperature stable from -200 to +250 °C. Autoclavable.

Standard ground glass joint	Art. No.	Pack Qty.	€
14/23	NX71.1	1	5,20
19/26	NX72.1	1	5,35
24/29	NX73.1	1	5,50
29/32	NX74.1	1	5,85
34/35	NX75.1	1	6,70
45/40	NX76.1	1	7,10



Rotilabo®-joint clamps for spherical ground joints

Made of **stainless steel**. With adjustment screw. For securing spherical ground glass joints. Very sturdy model. Autoclavable.

For spherical joint	Art. No.	Pack Qty.	€
13/2	E033.1	1	14,45
19/9	E034.1	1	15,40
29/15	E035.1	1	16,35
35/25	E036.1	1	18,75
40/25	E037.1	1	28,50
65/45	E038.1	1	56,90



Coil spring ground-joint clamps

For secure connection of tapered ground joints.

Delivery without coil springs. Please order separately.

Aluminium rings with hooks

for ground glass joints	Art. No.	Pack Qty.	€
12/21-14/23	LE76.1	10	16,15
19/26-24/29	LE77.1	10	16,70
29/32-34/35	LE78.1	10	17,15
45/40	LE79.1	10	17,75

Coil springs, made of stainless steel.

Overall length (mm)	for aluminium rings	Art. No.	Pack Qty.	€
25	LE76.1	LE80.1	10	24,85
35	LE77.1	LE81.1	10	26,05
40	LE78.1	LE82.1	10	32,05
60	LE79.1	LE83.1	10	39,45



Rotilabo®-cork rings

Compressed cork secure non-slip stand for round flasks, etc.

For flask vol. (ml)	Outer Ø (mm)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10-100	80	30	30	H111.1	5	9,65
250-500	110	60	30	H112.1	5	12,40
500-1000	140	90	30	H113.1	5	17,60
1000-2000	170	120	30	H114.1	5	22,20
2000-4000	210	150	30	H115.1	2	17,20
4000-6000	240	180	30	H116.1	2	22,15

Rotilabo®-cork ring assortments

Set 1

containing 3 rings each, type H111.1/H112.1/H113.1

Set 2

containing 2 rings each, type H114.1/H115.1/H116.1

Type	Art. No.	Pack Qty. (assortment)	€
Set 1: 10-1000 ml	0421.1	1	22,50
Set 2: 1000-6000 ml	0422.1	1	44,10



Rotilabo®-compressed cork mats

10 mm thick, ideal for hot flat-bottom flasks, beakers, etc. soft and non-slip. Pack: contains 2 mats 30 x 30 cm and 4 mats 15 x 15 cm.

Art. No.	Pack Qty. (assortment)	€
1391.1	1	32,40



Round bottom flask stand

Made of PP. With 10-step inner wall for good stability. Suitable for round bottom flasks up to 10 litres in size. Usable at temperatures of up to +100 °C (for short periods). H 49 mm, Ø 160 mm. Autoclavable.

Art. No.	Pack Qty.	€
TT11.1	1	9,25

- Clear lubricant see page 1096
- Practical cork knives see page 702

Ground glass joints seals



Rotilabo®-ridged sleeves

Made of **PTFE**. For gas-, liquid- and vacuum-tight ground glass joints up to max. 0.1 mbar. Almost universally chemically-resistant, temperature stable from -200 to +260 °C. Easy to remove with thick rim. Reusable. No grease necessary. Autoclavable.

Conical ground joint (NS)	Art. No.	Pack Qty.	€
7/16	E053.1	10	30,00
10/19	E054.1	10	23,25
12/21	E055.1	10	26,35
14/23	0692.1	10	12,05
19/26	0693.1	10	12,70
24/29	E056.1	10	13,45
29/32	0694.1	10	13,80
34/35	E057.1	5	10,55
45/40	0695.1	5	13,95
60/46	E058.1	5	19,50



Rotilabo®-sealing sleeves

Made of **PTFE**, for gas-, liquid- and vacuum-tight ground glass joints. Joint rings on the outer side of the conical sleeves ensure a high vacuum-tight seal (Leakage rate $<1 \times 10^{-1}$ mbar l s⁻¹) and prevent the ground glass joints from sticking. Easy to remove with thick rim. Reusable. Practically resistant to all chemicals. Temperature stable from -200 to +260 °C. No grease necessary. Autoclavable.

Conical ground joint (NS)	Art. No.	Pack Qty.	€
10/19	C246.1	1	7,20
14/23	1012.1	1	8,30
19/26	C248.1	1	8,95
24/29	C249.1	1	10,70
29/32	1013.1	1	16,60
34/35	C250.1	1	18,10
45/40	1014.1	1	24,10



Rotilabo®-spherical ground glass joint sleeves

Made of **PTFE**. For gas-, liquid- and vacuum-tight ball-and-socket joints. With sealing grooves for sealing in high vacuums (leakage: $<1 \times 10^{-2}$ mbar l s⁻¹). Easy to remove and reusable. No grease necessary. Temperature stable from -200 to +260 °C. High chemical resistance. Autoclavable.

For spherical joint	Art. No.	Pack Qty.	€
13	A219.1	5	28,50
19	A220.1	5	26,05
29	A221.1	5	31,85
35	A222.1	5	42,25
40	A223.1	5	46,25
51	A224.1	1	24,55
64	A225.1	1	24,00



Rotilabo®-seals for conical ground glass joints

Made of **PTFE**. Can be used to seal the equipment and containers. For gas-, liquid- and extremely vacuum-tight standard ground joints (Leakage rate $<1 \times 10^{-6}$ Pa l s⁻¹). Prevents seizing of joints. Joints remain clean and free of grease. Temperature stable up to +250 °C. Seals are wafer-thin and can be combined with joint clips. Autoclavable.

Delivery incl. cartridge with 50 fitted gaskets.

for ground glass joints	Art. No.	Pack Qty.	€
12	T221.1	50	26,70
14	E699.1	50	29,00
19	E700.1	50	29,90
24	E701.1	50	31,10
29	E702.1	50	32,20
45	T222.1	50	42,90



Rotilabo®-bellow connectors for ground joints

Made of **PTFE**. Bend of angle max. 120°.

Prevents tension between parts in glass equipment. Autoclavable.

Conical ground joint (NS)	Art. No.	Pack Qty.	€
14/23	7235.1	1	42,50
19/26	7236.1	1	50,45
24/29	7239.1	1	57,55
29/32	7240.1	1	64,30



Hose connection plug for standard ground joints

Made of **PP**, transparent, NS 29/32. With 2 Ø 8 mm hose connections. Autoclavable.

Art. No.	Pack Qty.	€
TT21.1	1	8,55

Reducing adapters



Material
DURAN®

Reducing adapters

Made of DURAN®. With ground glass joints (NS) acc. to DIN 12257.

*In addition to DIN

Socket (ground glass)	Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	19/26	K267.1	1	10,35
14/23	24/29*	K268.1	1	10,55
14/23	29/32	K269.1	1	10,05
19/26	14/23	K270.1	1	11,20
19/26	24/29*	K271.1	1	12,20
19/26	29/32	K272.1	1	11,05
24/29*	14/23	K273.1	1	14,20
24/29*	19/26	K274.1	1	15,30
24/29*	29/32	K275.1	1	12,50
29/32	14/23	K276.1	1	14,15
29/32	19/26	K277.1	1	14,65
29/32	24/29*	K278.1	1	16,90
29/32	45/40	KN64.1	1	14,45
29/32*	60/46	TK15.1	1	56,15
45/40*	29/32	KN65.1	1	24,30
45/40*	60/46	TK16.1	1	64,75
60/46*	29/32	TK17.1	1	74,50
60/46*	45/40	TK18.1	1	84,40



Rotilabo® PTFE reducers

Made of PTFE. Usable without ground joint grease. Chemically inert, temperature stable from - 200 to + 250 °C. Autoclavable.

Socket (ground glass)	Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	19/26	NX82.1	1	13,45
14/23	24/29	NX83.1	1	15,05
19/26	24/29	NX84.1	1	16,10
19/26	29/32	NX85.1	1	20,40
19/26	34/35	NX86.1	1	22,80
24/29	29/32	NX87.1	1	20,40
24/29	34/35	NX88.1	1	22,90
24/29	45/40	NX89.1	1	26,50
29/32	34/35	NX90.1	1	22,80
29/32	45/40	NX91.1	1	26,50



Ground glass joint reduction set

Made of PTFE. Highly pure, chemically inert. Comprising 7 reducer rings: NS 14, NS 19, NS 24, NS 29, NS 34, NS 45, NS 60. Height 20 mm, suitable for all ground glass joints conforming to DIN 12242. Temperature stable from -200 °C to +250 °C. Suitable for vacuum.

Art. No.	Pack Qty.	€
NY32.1	1	62,25



Material
DURAN®

Adapters from ground glass joint to spherical socket

Made of DURAN®.

Ground glass joint to spherical socket

Cone (ground glass)	Socket (spherical)	Art. No.	Pack Qty.	€
29/32	29	TH93.1	1	36,55
29/32	35	TH94.1	1	43,65

Ground joint socket to spherical socket

Socket (ground glass)	Ball (spherical)	Art. No.	Pack Qty.	€
29/32	29	TH95.1	1	37,75
29/32	35	TH96.1	1	42,50



Material
DURAN®

Extensions

Made of DURAN®.

Socket (ground glass)	Cone (ground glass)	Ø (mm)	Wall thickness (mm)	Overall length, approx. (mm)	Art. No.	Pack Qty.	€
14/23	14/23	17	1.8	120	TK08.1	1	10,25
14/23	29/32	26	2.0	130	TK09.1	1	11,75
19/26	19/26	22	1.8	125	TK10.1	1	11,00
29/32	29/32	33	2.0	150	TK11.1	1	12,85

Reducing adapters



Material
DURAN®

Adapters with olive

Made of DURAN®. With ground glass joint core and tubing olives Ø 10 mm.

Straight tubing olive

Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	CA80.1	1	8,85
19/26	CA81.1	1	9,65
24/29	CA82.1	1	10,45
29/32	CA83.1	1	10,65

Bent tubing olive (90°)

Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	CA84.1	1	9,65
19/26	CA85.1	1	10,70
24/29	CA86.1	1	11,10
29/32	CA87.1	1	11,10



Material
DURAN®

Adapters with NS-stopcock

Made of DURAN®. With ground glass joint core and stopcock with solid glass plugs. Bore hole 2.5 mm. Both straight and 90° offset tubing olives Ø 8.5-10 mm are available.

Straight tubing olive

Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	CC24.1	1	25,75
19/26	CC25.1	1	27,10
24/29	CC26.1	1	28,85
29/32	CC27.1	1	28,85

Bent tubing olive (90°)

Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	CC28.1	1	26,55
19/26	CC29.1	1	28,20
24/29	CC30.1	1	29,35
29/32	CC31.1	1	29,50



Adapters with olive

With sleeve and tubing olive outer-Ø 10 mm.

Straight tubing olive

Socket (ground glass)	Art. No.	Pack Qty.	€
14/23	LK46.1	1	12,50
19/26	LK47.1	1	13,55
24/29	LK48.1	1	14,75
29/32	LK49.1	1	15,70

Bent tubing olive (90°)

Socket (ground glass)	Art. No.	Pack Qty.	€
14/23	LK50.1	1	12,30
19/26	LK51.1	1	13,45
24/29	LK52.1	1	14,65
29/32	LK53.1	1	15,40



Material
DURAN®

Adapters with socket and stopcock

With bent nozzle. Stopcock NS 14.5 with solid glass plug, bore 2.5 mm.

Socket (ground glass)	Art. No.	Pack Qty.	€
14/23	LK54.1	1	32,05
19/26	LK55.1	1	33,00
24/29	LK56.1	1	35,95
29/32	LK57.1	1	37,20

- Drying agents see chapter Chromatography!
- Drying tubes made of PE see page 142
- Thermometers see page 749
- Thread couplings see page 43
- Clear lubricant see page 1096

Ground glass joints components



Material
DURAN®

Thermometer adapters

Made of DURAN®. Ground glass joint, plastic screw cap, silicone seal with PTFE-sleeve.

Thread	for thermometers-Ø (mm)	Cone (ground glass)	Art. No.	Pack Qty.	€
14	5,5-6,5	14/23	AK92.1	1	13,65
14	5,5-6,5	19/26	TE98.1	1	16,90
14	5,5-6,5	24/29	TE99.1	1	18,25
14	5,5-6,5	29/32	AK93.1	1	15,95
18	7,5-9,0	14/23	AK94.1	1	14,65
18	7,5-9,0	19/26	TH00.1	1	17,90
18	7,5-9,0	29/32	AK95.1	1	16,40
25	9,0-11,0	29/32	TH01.1	1	34,55
32	13,0-15,0	29/32	TH02.1	1	41,10



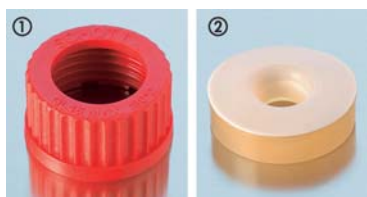
Ground swivel screw fittings

Ground element made of PTFE, with screw cap made of PPS.

Allows secure fixing of thermometers, sensor probes, tubes or hoses to avoid collisions within the reaction vial, e.g. during simultaneous use of a stirrer shaft.

Temperature stable from -50 to +250 °C.

Standard ground glass joint	Outer Ø of opening (mm)	Maximum angle of deflection	Cap thread	Art. No.	Pack Qty.	€
19/26	6	4°	GL 18	NY48.1	1	96,65
29/32	6	8°	GL 25	NY49.1	1	72,25
29/32	8	7°	GL 25	NY50.1	1	70,75
29/32	10	6°	GL 25	NY51.1	1	73,10
29/32	12	5°	GL 25	NY52.1	1	72,25



① Screw caps with borehole

Made of PBT. With GL-thread, for connecting olives, pipes or stopcocks. Autoclavable, temperature stable from -45 to +180 °C.

Thread GL	Hole Ø (mm)	Art. No.	Pack Qty.	€
14	9,5	L993.1	2	3,25
18	11	EL61.1	1	2,80
25	15	LL40.1	5	8,85
32	20	H396.1	1	2,10
45	34	L994.1	1	3,95

② Gaskets for screw caps with borehole

Made of silicone rubber, with moulded on PTFE-sleeve and borehole.

Thread GL	for pipe Ø (mm)	Art. No.	Pack Qty.	€
14	5.5-6.5	AK96.1	1	4,25
18	5.5-6.5	AK97.1	1	4,60
18	7.5-9.0	AK98.1	1	4,60
18	9.0-11.0	AK99.1	1	4,60
25	7.5-9.0	LL92.1	2	9,45
25	9.0-11.0	LL93.1	2	9,45
25	11.0-13.0	LL94.1	2	9,45
32	9.0-11.0	LL95.1	2	13,90
32	11.0-13.0	H397.1	1	6,60
32	13.0-15.0	LL96.1	2	13,75
32	15.0-17.0	LL97.1	2	12,95
32	17.0-19.0	LL98.1	2	13,20
45	25.0-27.0	LL99.1	1	12,70
45	31.0-33.0	LN00.1	1	12,70



Glass tubes

Made of calcium soda glass. Length 50 cm.

Heat resistant up to approx. 100 °C.

Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
6	0.9	CNK8.1	12	7,55
8	0.9	CNK9.1	12	8,10
10	1.0	CNL0.1	12	8,55

- Clamps for conical ground joint see page 127
- GL-screw threads see page 39
- Ground joint sleeves see page 129
- Clear lubricant see page 109
- Vacuum pumps see page 340

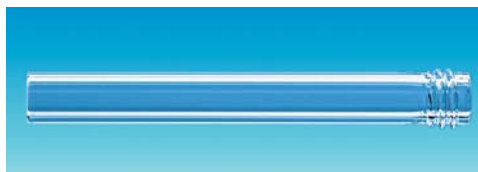


Material
DURAN®

Two-necked adapters

Made of DURAN®. With parallel necks. Acc. to DIN 12594.

Sockets (NS)	Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	14/23	Y676.1	1	20,40
19/26	19/26	LK66.1	1	28,95
29/32	29/32	Y677.1	1	27,35



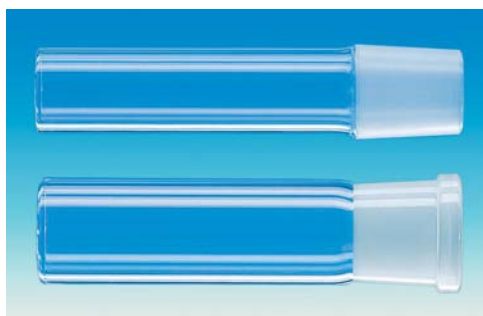
Material
DURAN®

Threaded tubes

Made of DURAN®. Acc. to DIN 12216.

*In addition to DIN

Thread GL	Ø (mm)	Wall thickness (mm)	Overall length, approx. (mm)	Art. No.	Pack Qty.	€
14	12	1.5	100	TH97.1	10	13,90
18	16	1.8	100	TH98.1	10	19,25
25	22	1.8	100	TH99.1	10	27,90
32	28	2.0	140	TK00.1	10	42,80
45*	40	2.3	180	TK01.1	10	132,25



Material
DURAN®

Tubes with standard ground joint

Made of DURAN®.

Ground glass joints acc. to DIN 12249 Shape B.

Cone (ground glass)	Ø (mm)	Wall thickness (mm)	Overall length, approx. (mm)	Art. No.	Pack Qty.	€
14/23	13	1.5	130	TH83.1	10	23,15
19/26	17	1.8	130	TH84.1	10	29,90
24/29	22	1.8	130	TH85.1	10	33,90
29/32	26	2.0	130	TH86.1	10	36,25
45/40	40	2.3	145	TH87.1	10	88,15

Sockets with ground glass joint acc. to DIN 12249 Shape E.

Socket (ground glass)	Ø (mm)	Wall thickness (mm)	Overall length, approx. (mm)	Art. No.	Pack Qty.	€
14/23	17	1.8	130	TH88.1	10	24,00
19/26	22	1.8	130	TH89.1	10	26,35
24/29	28	2.0	130	TH90.1	10	35,40
29/32	33	2.0	130	TH91.1	10	38,60
45/40	50	2.5	145	TH92.1	10	104,30



Material
DURAN®

Distillation heads

Made of DURAN®. 2 cores 75°, sleeve standard ground glass joint 14/23. Acc. to DIN 12594. For distillation thermometers with 55 mm total length.

Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	KX44.1	1	24,00
29/32	Y680.1	1	29,25



Material
DURAN®

Claisen heads

Made of DURAN®. Sleeves NS 14/23. Acc. to DIN 12594. For distillation thermometers with 55 mm total length.

Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	KX43.1	1	28,30
29/32	Y681.1	1	34,30

Distillation



Material
DURAN®

① Adapters for distillation receiver acc. to Bredt

Made of DURAN®. Sleeves with NS 29/32. Bent by 105°. With suction nozzle GL 18.

Type	Art. No.	Pack Qty.	€
Stopper for distillation receiver acc. to Bredt	EE76.1	1	53,65

Accessories:

Plastic olive, outer Ø 10 mm	EL60.1	1	6,05
Screw cap with hole, GL 18	EL61.1	1	2,80

② Distributor acc. to Bredt

Made of DURAN®. With 4 cores ground glass joints NS 14/23 for round-bottomed flasks of max. 250 ml. The top is ground glass joint NS 29/32.

Art. No.	Pack Qty.	€
EE75.1	1	90,95



Material
DURAN®

Distilling distributors acc. to Bernauer (Spider)

Made of DURAN®. With vacuum connection, ground glass joint 14/23.

Socket (ground glass)	Art. No.	Pack Qty.	€
14/23	KX78.1	1	76,90
29/32	KX79.1	1	80,65



Material
DURAN®

Stutzer splash heads

Made of DURAN®. Straight with cone and socket.

Socket (ground glass)	Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	14/23	KX80.1	1	53,75
29/32	29/32	EE70.1	1	55,90



①

②

Material
DURAN®

Vacuum adapters

Made of DURAN®. With olive, outer-Ø 7-8 mm. With drain tip.

① Straight

Socket/cone (ground glass)	Art. No.	Pack Qty.	€
14/23	LK62.1	1	18,40
19/26	LK63.1	1	21,40
24/29	LK64.1	1	25,70
29/32	LK65.1	1	21,00

② Bent 105°

Socket/cone (ground glass)	Art. No.	Pack Qty.	€
14/23	Y341.1	1	20,75
19/26	LK70.1	1	26,90
24/29	LK71.1	1	29,60
29/32	Y342.1	1	28,10

- ▶ Ridged sleeves and clamps for ground joint see page 127
- ▶ Liquid concentrates - special standard cleaners for labware, see page 1063
- ▶ Grease see page 1096

Distillation



Material
DURAN®

① Delivery adapters,

Made of DURAN®. With bent drain tube. Length 65 mm, angle 105°.

Socket (ground glass)	Art. No.	Pack Qty.	€
14/23	LK58.1	1	13,20
19/26	LK59.1	1	17,55
24/29	LK60.1	1	18,60
29/32	LK61.1	1	16,80

② Delivery adapters

Made of DURAN®. Bent 105°, with drain tip.

Socket (ground glass)	Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	14/23	KX77.1	1	16,05
29/32	29/32	EE74.1	1	19,60



Material
DURAN®

Gas inlet tubes

Made of DURAN®, with olive, bent at right angle.

Pipe length from top ground joint (NS) neck approx. 250 mm.

Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	Y344.1	1	12,00
29/32	Y345.1	1	20,35



Cooling tubes

Made of borosilicate glass 3.3. Ground glass joint. Autoclavable.

Length (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
500	29/32	TP48.1	1	17,00
1000	29/32	TP49.1	1	20,25



Material
DURAN®

Air leak capillary tube

Made of DURAN®, ground glass joints 14/23 with thin pipe socket. Pipe length from top joint neck approx. 200 mm.

Art. No.	Pack Qty.	€
Y343.1	1	10,60



Material
DURAN®

Bubble counter

Made of DURAN®. For monitoring gas flow. Ø 32 mm, overall height 120 mm, hose connection Ø 8 mm.

Length (mm)	Art. No.	Pack Qty.	€
100	KX54.1	1	25,80



Bubble counters with ground glass joint

Made of type 3.3 borosilicate glass. For monitoring the gas flow in apparatus. Suitable for excess pressure and vacuum.

With ground glass joint and GL 32 screw cap with PTFE-coated seal.

Overall height without ground joint approx. 145 mm, Ø approx. 30 mm. Temperature stable up to +200 °C.

Delivery without GL 14 connectors, please order separately for bubble counters with GL connection.

Connections	Cone (ground glass)	Art. No.	Pack Qty.	€
Tubing connector Ø 7-8 mm	29	CEK3.1	1	134,40
Threaded connection GL 14	29	CEK4.1	1	134,40
Tubing connector Ø 9-10 mm	14	CEK5.1	1	134,40
Threaded connection GL 14	14	CEK6.1	1	134,40

Accessories:

Tubing connector Ø 9 mm with connecting cap GL 14	LK72.1	2	10,80
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Distillation



Material
DURAN®

Short-path-distillation bridge

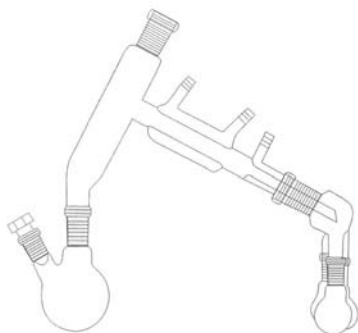
Made of DURAN®. Core and sleeve standard ground glass joint 14/23. GL 14 coolant and vacuum connections.

Delivery without olive fittings and screw caps (please order separately).

Art. No.	Pack Qty.	€
LE20.1	1	85,95

Accessories:

Replacement plastic hose connection with silicon seal, straight, GL 14, outer- Ø 8.6 mm	L992.1	2	3,10
Replacement screw caps, red, PBT, GL 14, hole Ø 9.5 mm	L993.1	2	3,25



Micro distillation apparatus

Made of borosilicate glass 3.3. Compact design for loss-free condensate flow. Short-flow distilling link with socket and two ground glass cones 14/23, Liebig condenser, jacket length 70 mm and vacuum receiver. Please order ground joint clamps and thermometer separately.

Delivery incl. distillation udder, 3 5 ml round bottom flasks, 50 ml double-neck flask and NS 14/23 hollow glass stopper.

Art. No.	Pack Qty.	€
AAN5.1	1	188,15

Replacement parts for micro distillation apparatus

Replacement parts

Type	Art. No.	Pack Qty.	€
Short-flow distilling link	AAN6.1	1	100,00
Distillation udder without vacuum receiver	AAN7.1	1	64,45
50-ml double-neck flask NS 14/23	KY13.1	1	20,25
5-ml round bottom flask NS 14/23	HY49.1	1	6,70
Hollow glass stopper NS 14/23	X785.1	10	13,55

Accessories:

Wire ground joint clamps NS 14/23	CE96.1	1	3,60
Thermometer -10 to +250 °C	ET05.1	1	19,05
Thermometer adapter	AK92.1	1	13,65



Material
DURAN®

Distillation bridges

Made of DURAN®. Joints are parallel and vertical.

Jacket length (mm)	Cone (ground glass)	Art. No.	Pack Qty.	€
150	14/23	KX82.1	1	17,05
350	29/32	EE71.1	1	31,50



Material
DURAN®

Distillation bridge

Made of DURAN®. Without condenser, with two vertical openings and ground glass joints 14/23. For distillation thermometers with 55 mm total length.

Jacket length (mm)	Cone (ground glass)	Art. No.	Pack Qty.	€
350	29/32	KY60.1	1	45,90



Material
DURAN®

Distillation bridges

Made of DURAN®. Liebig condenser with straight outlet, and ground glass joints 14/23. For distillation thermometers with 55 mm total length.

Jacket length (mm)	Cone (ground glass)	Art. No.	Pack Qty.	€
160	14/23	KX72.1	1	59,15
250	29/32	KX73.1	1	68,70



Material
DURAN®

Distillation bridges

Made of DURAN®. Liebig condenser with vacuum stopper, sleeve NS 14/23. For distillation thermometers with 55 mm total length.

Jacket length (mm)	Cone (ground glass)	Art. No.	Pack Qty.	€
160	14/23	KX49.1	1	62,35
250	29/32	EE72.1	1	71,20
400	29/32	EE73.1	1	80,10



Material
DURAN®

Distillation bridges acc. to Claisen

Made of DURAN®. Liebig condenser with straight outlet, and ground glass joints 14/23. For distillation thermometers with 55 mm total length.

Jacket length (mm)	Cone (ground glass)	Art. No.	Pack Qty.	€
160	14/23	KX70.1	1	67,20
250	29/32	KX71.1	1	76,00

- For thermometers with 55 mm total length see page 749

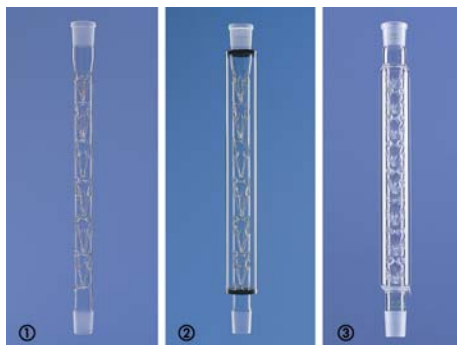


Material
DURAN®

Distillation bridges acc. to Claisen

Made of DURAN®. Liebig condenser with vacuum stopper, ground glass joints 14/23. For distillation thermometers with 55 mm total length.

Jacket length (mm)	Cone (ground glass)	Art. No.	Pack Qty.	€
160	14/23	KX45.1	1	81,20
250	14/23	KX46.1	1	83,45
250	29/32	KX47.1	1	87,00
400	29/32	KX48.1	1	91,95



Material
DURAN®

Vigreux columns

Made of DURAN®. Alternating horizontal and diagonal punctures.

① Without shell

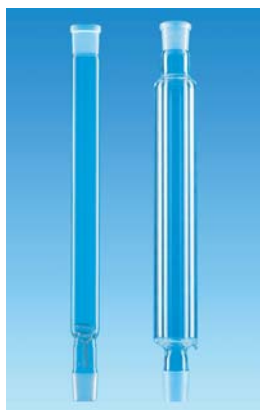
Filling height (mm)	Overall length (mm)	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
200	300	14/23	LE21.1	1	45,70
300	425	14/23	LE22.1	1	57,85
300	445	29/32	LE23.1	1	57,30

② With slip-on glass shell

Filling height (mm)	Overall length (mm)	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
300	450	29/32	E628.1	1	80,65
600	650	29/32	E629.1	1	103,20

③ With fused on glass vacuum shell

Filling height (mm)	Overall length (mm)	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
200	300	14/23	LE24.1	1	138,70
300	445	29/32	LE25.1	1	172,00
600	745	29/32	LE26.1	1	174,15



Material
DURAN®

Columns acc. to Hempel

Made of DURAN®. For filling with packing (Raschig rings or glass pearls).

Without glass jacket

Filling height (mm)	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
200	14/23	TK19.1	1	26,05
300	29/32	TK20.1	1	39,15
500	29/32	TK21.1	1	44,85
800	29/32	TK22.1	1	64,00

With fused-on glass jacket

Filling height (mm)	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
200	14/23	TK23.1	1	138,70
300	29/32	TK24.1	1	181,70
500	29/32	TK25.1	1	189,20
800	29/32	TK26.1	1	232,20

Condensers



Apparatus for the determination of etheric oils

Made of borosilicate glass 3.3. acc. to DAB. Complete distillation head with ground glass cone 29/32, Allihn cooler, vent plug NS 7/16, 1 ml measuring tube (graduated 0.01 ml) with 3 ml ball, refill/overflow funnel and Czako three-way stopcock with PTFE keys.

Art. No.	Pack Qty.	€
XX23.1	1	267,70



Material
DURAN®

Water analysis meter tubes acc. to Dean Stark

Made of DURAN®. Acc. to DIN 12420. Core and sleeve ground glass joint 29/32. With stopcock standard ground joint 14.5; bore hole Ø 2.5 mm. Maximum measuring volume 10 ml, subdivisions 0.1 ml.

Delivery without condenser and flask, please order separately.

Type	Art. No.	Pack Qty.	€
Zero point at the stopcock	LE60.1	1	82,60
Zero point above stopcock	LE61.1	1	93,55
Without stopcock, zero point at tip	LE62.1	1	66,15

- Drying agents see Chromatography chapter!
- Glass beads see page 1106
- High quality ground glass joint sleeves and joint clamps from page 127
- Special cleaner for labware see page 1063
- Dewar vessels see page 231



Material
DURAN®

Attachment for steam distillation

Made of DURAN®. With two ground glass joints 29/32 cores and GL 14 threaded connection. For 2000-ml-flasks.

Art. No.	Pack Qty.	€
LE19.1	1	58,00



Material
DURAN®

Condensers with glass hose connections

Made of DURAN®. With standard ground socket and cone.

Liebig condensers, acc. to DIN 12576.

*In add. to DIN

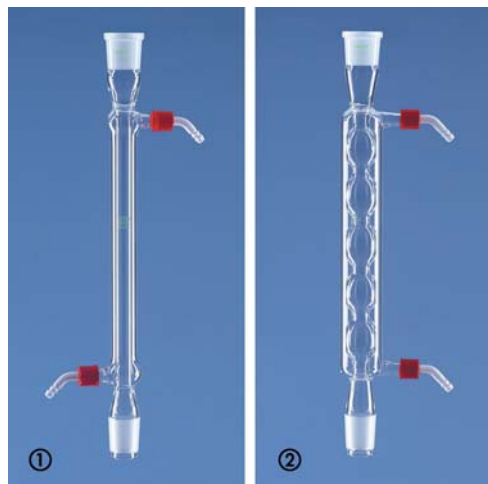
Jacket length (mm)	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
160	14/23	TK27.1	1	35,15
160	19/26	TK28.1	1	37,95
250*	14/23	TK29.1	1	39,45
250	19/26	TK30.1	1	40,55
250*	24/29	TK31.1	1	41,30
250	29/32	TK32.1	1	41,95
400	29/32	TK33.1	1	51,20

Dimroth condensers, acc. to DIN 12591.

*In add. to DIN

Jacket length (mm)	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
160*	14/23	TK34.1	1	64,30
160*	19/26	TK35.1	1	70,10
250*	14/23	TK36.1	1	78,15
250*	19/26	TK37.1	1	78,80
250*	24/29	TK38.1	1	80,85
250	29/32	TK39.1	1	74,85
400	29/32	TK40.1	1	87,75
400	45/40	TK41.1	1	122,55

Condensers



Material
DURAN®

① Liebig condensers

Made of DURAN®. With 2 ground glass joints and 2 removable plastic hose connections thread GL 14. Acc. to DIN 12576.

Jacket length (mm)	Socket (ground glass)	Cone (ground glass)	Art. No.	Pack Qty.	€
160	14/23	14/23	E630.1	1	39,35
250	14/23	14/23	E631.1	1	48,05
250	29/32	29/32	E632.1	1	48,95
400	29/32	29/32	E633.1	1	55,50

② Bulb condensers

Made of DURAN®. With 2 ground glass joints and 2 unscrewable plastic olives thread GL 14. According to DIN 12581.

Jacket length (mm)	Number of beads	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
160	5	14/23	KX81.1	1	50,55
250	5	29/32	E634.1	1	61,20
400	8	29/32	E635.1	1	75,15



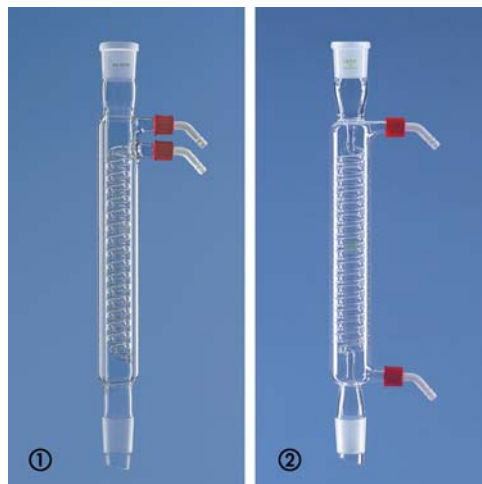
Material
DURAN®

Dimroth condensers

Made of DURAN®. With two ground glass joints and two removable plastic hose connections thread GL 14. Acc. to DIN 12591.

* Not acc. to DIN.

Jacket length (mm)	Socket (ground glass)	Cone (ground glass)	Art. No.	Pack Qty.	€
160*	14/23	14/23	E637.1	1	74,65
250	29/32	29/32	E638.1	1	79,05
400	29/32	29/32	E639.1	1	96,25



Material
DURAN®

① Coil condensers

Made of DURAN®. With two removable plastic hose connections GL 14. Acc. to DIN 12593.

*Not compliant with DIN

Jacket length (mm)	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
160*	14/23	TH44.1	1	86,25
250*	24/29	TH45.1	1	115,05
160	29/32	TH46.1	1	87,65
250	29/32	E640.1	1	98,90
400	29/32	E641.1	1	106,45
500*	29/32	TH47.1	1	124,70

② Spiral condensers

Made of DURAN®. With two removable plastic hose connections thread GL 14.

Jacket length (mm)	Socket/cone (ground glass)	Art. No.	Pack Qty.	€
160	14/23	TH48.1	1	66,55
250	29/32	E636.1	1	81,10
400	29/32	TH49.1	1	125,80
500	29/32	TH50.1	1	133,30



Material
DURAN®

Dimroth condensers

Made of DURAN®. For Soxhlet extractors, with two screw-off plastic olives.

Cone (ground glass)	Extractor-capacity (ml)	Art. No.	Pack Qty.	€
45/40	100-250	AA60.1	1	76,35
60/46	300-500	AA61.1	1	112,90
71/51	1000	AA62.1	1	133,30

Extraction



Soxhlet extractors

Made of borosilicate glass 3.3.
Cone ground glass joints 29/32, socket 45/40. Acc. to DIN 12602.

* Not acc. to DIN

Volume (ml)	Inner Ø (mm)	Art. No.	Pack Qty.	€
100	43	Y353.1	1	39,80
150	43	Y354.1	1	44,40
250	45	Y355.1	1	54,75
500*	54	Y356.1	1	73,65

- ▶ High quality ground glass joint sleeves and joint clamps from page 127
- ▶ RBS-liquid concentrate - the universal special cleaner for labware see page 1063
- ▶ Further extraction thimbles see page 499

Selection list extraction thimbles

Extraction thimble (Art. No.)	Outer Ø x H (mm)	For extractors acc. to DIN with volume (ml)
H203.1	25 x 80	30
H209.1	36 x 94	100
H210.1	33 x 100	150
L867.1	36 x 205	250
L868.1	52 x 230	500
L869.1	62 x 315	1000



Material
DURAN®

① Soxhlet extractors

Made of DURAN®. Cone NS 29/32. Acc. to DIN 12602.

Sockets (NS)	Volume (ml)	Art. No.	Pack Qty.	€
29/32	30	TE05.1	1	47,25
45/40	100	Y685.1	1	68,20
45/40	150	Y686.1	1	71,50
45/40	250	Y687.1	1	74,85
60/46	500	Y688.1	1	105,35
71/51	1000	Y689.1	1	136,55

② Soxhlet extractors with stopcock

Made of DURAN®. Cone NS 29/32. Acc. to DIN 12602.

*not acc. to DIN

Sockets (NS)	Volume (ml)	Art. No.	Pack Qty.	€
45/40	100	Y690.1	1	108,60
45/40	150*	Y691.1	1	111,80
45/40	250	Y692.1	1	119,35
60/46	500	Y693.1	1	165,55



Material
DURAN®

Knöfler-Böhm extraction heads

Made of DURAN®. Core standard ground joint 29/32. The extracting agent is constantly in circulation, the condensate flows back continuously through the extraction material into the flask.

Socket (ground glass)	Volume (ml)	Art. No.	Pack Qty.	€
29/32	30	LE38.1	1	154,80
45/40	100	LE39.1	1	195,65
45/40	250	LE40.1	1	212,85
60/46	500	LE41.1	1	281,65



Material
DURAN®

① Extraction heads for solids

Made of DURAN®. Core ground glass joint 29/32. The ascending vapours enter the condenser directly; the condensate flows back continuously through the extraction material into the flask.

Delivery without glass inserts for extraction sleeves, please order separately.

Socket (ground glass)	Volume (ml)	Art. No.	Pack Qty.	€
45/40	70	LE42.1	1	84,95
45/40	100	LE43.1	1	88,15
60/46	250	LE44.1	1	127,95

② Glass inserts for extraction sleeves

Made of DURAN®. For extraction adapters LE42.1ff.

Volume (ml)	Art. No.	Pack Qty.	€
70	LE45.1	1	32,05
100	LE46.1	1	33,90
250	LE47.1	1	39,60



Material
DURAN®

① Extraction heads

Made of DURAN®. Core ground glass joint 29/32.

For extracting liquids with a particularly light extraction agent.

Delivery without distribution tube, please order separately.

Socket (ground glass)	Volume (ml)	Art. No.	Pack Qty.	€
45/40	100	LE48.1	1	180,60
45/40	250	LE49.1	1	212,85
60/46	500	LE50.1	1	252,65

② Distribution tubes

Made of DURAN®. With frit porosity 0. For extraction adapters LE48.1ff.

Volume (ml)	Art. No.	Pack Qty.	€
100	LE51.1	1	57,00
250	LE52.1	1	65,40
500	LE53.1	1	69,90



Material
DURAN®

① Thielepape extraction heads

Made of DURAN®. Core ground glass joint 29/32. With two-way stopcock ground joint 18.8 and bore hole \varnothing 4 mm. For extraction of solid materials. The ascending vapours enter the condenser directly; the condensate flows back continuously through the extraction material into the flask.

Delivery without fritted sleeve, please order separately.

Socket (ground glass)	Volume (ml)	Art. No.	Pack Qty.	€
29/32	30	LE32.1	1	117,20
45/40	150	LE33.1	1	181,70
45/40	250	LE34.1	1	196,75

② Fritted sleeves

Made of DURAN®. For Thielepape extraction adapters. With fused in filter plate, porosity 0.

Volume (ml)	Art. No.	Pack Qty.	€
30	LE35.1	1	36,25
150	LE36.1	1	36,90
250	LE37.1	1	44,10



Material
DURAN®

① Extractor heads

Made of DURAN®. Core 29/32.

For the extraction of liquids with specific heavier solvents.

Delivery without distribution tube, please order separately.

Socket (ground glass)	Volume (ml)	Art. No.	Pack Qty.	€
45/40	100	LE54.1	1	166,65
45/40	250	LE55.1	1	213,95
60/46	500	LE56.1	1	261,25

② Distribution tubes

Made of DURAN®. With frit porosity 0. For extractor heads LE54.1ff.

Volume (ml)	Art. No.	Pack Qty.	€
100	LE57.1	1	34,35
250	LE58.1	1	39,25
500	LE59.1	1	51,50

Drying tubes

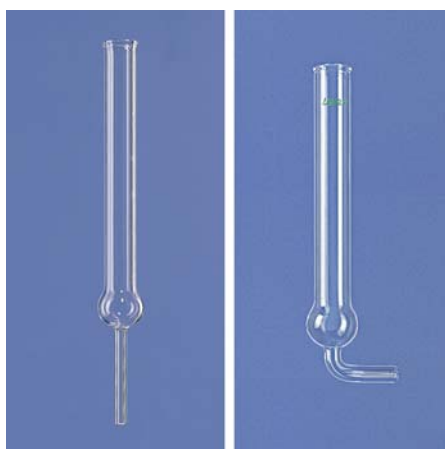


Material
DURAN®

Drying tubes with cone

Made of DURAN®. Bent (75°). Inner-Ø 15 mm.

Cone (ground glass)	Art. No.	Pack Qty.	€
14/23	KX74.1	1	14,85
29/32	Y340.1	1	17,95



Material
DURAN®

Drying tubes (chlorcalcium tubes)

Made of DURAN®. Acc. to DIN 12610, straight or bent. Inner-Ø 13 mm, nominal length 130 mm.

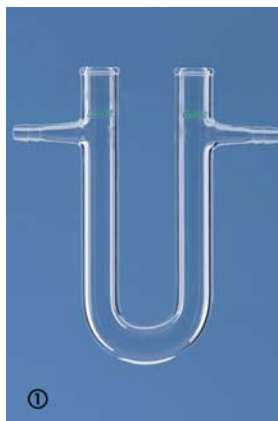
Type	Art. No.	Pack Qty.	€
Straight	KX75.1	1	7,15
Bent	KX76.1	1	9,85



Rotilabo®-drying tubes

Made of PE. Ideal for drying gases. With push-in stoppers and conical olives for tubing Ø 8 to 10 mm on both sides.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
100	20	6553.1	1	4,35
150	20	6554.1	1	5,20
200	20	6557.1	1	5,90



Material
DURAN®

U-shaped drying tubes

Made of DURAN®, U-shaped drying tubes.

① Side tube with connector, external-Ø 6 mm.

Height (mm)	Tube inner Ø (mm)	Art. No.	Pack Qty.	€
100	13	PL35.1	1	23,65
130	13	PL36.1	1	24,75
180	18	PL37.1	1	28,50

② With NS stopcocks. Conforms to DIN 12616. With interchangeable NS stopcock plugs and side hose connector Ø 6 mm. Tube inner Ø 13 mm.

Height (mm)	Socket (ground glass)	Art. No.	Pack Qty.	€
125	14/23	PL38.1	1	55,70
150	19/26	PL39.1	1	75,70

► Drying agents see chapter Chromatography!



① Rotilabo®-fermentation tube

Made of soda-lime glass. With 2 spheres and extension. Overall length 200 mm, tube Ø approx. 10-11 mm. Autoclavable.

Art. No.	Pack Qty.	€
CKY8.1	1	3,20

② Rotilabo®-fermentation tube

Made of borosilicate glass 3.3. With NS 29/32 ground glass joint. Height 200 mm. Autoclavable.

Art. No.	Pack Qty.	€
ACL2.1	1	31,00

Capillary tubes



CFS battery capillary filling device

To quickly and safely fill melting-point determination capillaries. Suitable for capillaries with a diameter of 1 to 1.5 mm and a length of 60 to 100 mm.

- Lengthy stoking and tapping are no longer required, the capillaries are cleanly and repeatedly filled to the bottom
- No direct contact with dangerous substances
- Clear housing protects against glass breakage

Usage:

The capillaries are carefully inserted into the filling funnel until their open side matches the lowest point of the funnel. Insert the funnel containing the capillaries into the unit. By turning the funnel guide, the height is adjusted until the capillaries touch the bottom and the funnel overlaps the guide by a few millimetres (see figure). The funnel is filled with a spatula tip's worth of the sample, and the unit switches on. The capillaries are filled using powerful vibrations. The unit switches off automatically after 10 seconds. The filling process can be repeated as often as required.

Note: The samples must be dry and finely powdered.
Unit dimensions: Diameter 80 x height 140 mm.

Delivery incl. AC adapter.

Art. No.	Pack Qty.	€
YT60.1	1	299,95



Material
DURAN®

Thiele melting point measuring apparatus

Made of DURAN®.

Usage:

Fill apparatus with silicone oil. Insert a melting point capillary (outer-Ø max. 2 mm) into one of the side tubes so that the molten end touches the ball of the thermometer. The other side tube is for ventilation purposes. If the apparatus does not have side tubes, a long capillary must be inserted from above. This apparatus also has to be ventilated from above. The apparatus should be heated at the elbow to ensure a uniform rise in temperature.

Type	Art. No.	Pack Qty.	€
Without side tubes	TH23.1	1	38,10
With side tubes	TH24.1	1	46,35



Rotilabo®-capillary tubes

Made of AR®-glass. Thin-walled, open on one side.
Length 80 mm, outer-Ø 1.35 mm, inner-Ø 0.95 mm.

Art. No.	Pack Qty.	€
0820.1	100	7,55

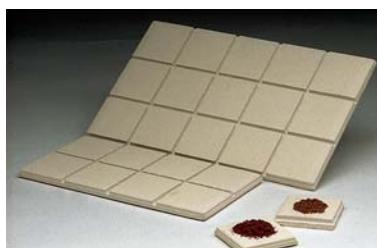


NEU
NOUVEAU
NEW

Melting point capillary

By Hirschmann. Made of clear glass. Thin-walled, open at one end.

Length (mm)	Outer Ø (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
75	1,35	0,95	EEA9.1	10 x 100	51,10
75	1,55	1,15	EAC0.1	10 x 100	57,45
80	1,0	0,8	EAC1.1	10 x 100	67,95
80	1,55	1,15	EAC2.1	10 x 100	59,45
90	1,55	1,15	EAC3.1	10 x 100	60,20
100	1,0	0,8	EAC4.1	10 x 100	91,05
100	1,35	0,95	EAC5.1	10 x 100	57,65
100	1,55	1,15	EAC6.1	10 x 100	61,50



Rotilabo®-clay squares

For drying melting-point samples. Dimensions 150 x 150 mm, divided in 25 squares 30 x 30 mm. Easy to break off by hand. No sharp edges or splinters, therefore there is no danger of injury.

Art. No.	Pack Qty.	€
A205.1	1	14,65

Stopcocks and plugs



 DURAN GROUP

Material
DURAN®

Single way stopcocks

Made of DURAN®. Wall thickness 3 mm, 1.5 mm in LP13.1 and in LP14.1. Complete with **PTFE**-stopcock plug and three part retaining device.

Plug NS	Tube outer Ø (mm)	Hole Ø (mm)	Art. No.	Pack Qty.	€
12,5	8	2,0	LP13.1	2	29,50
12,5	8	2,5	LP14.1	2	29,50
14,5	9	2,5	LP15.1	2	33,20
14,5	10	4	LP16.1	2	36,00
18,8	10	4	LP17.1	2	45,30
18,8	10	6	LP18.1	2	47,80
21,5	13	6	LP19.1	1	33,10
24	15	8	LP20.1	1	44,70
29,2	18	10	LP21.1	1	61,20



 DURAN GROUP

Material
DURAN®

Single way stopcocks

Made of DURAN®. Complete with **SBW**-glass stopcock plug and three part retaining device. Art. Nos. LP05.1 and LP06.1 are capillary stopcocks.

Plug NS	Tube outer Ø (mm)	Hole Ø (mm)	Art. No.	Pack Qty.	€
12,5	8	2,0	LP05.1	1	13,70
14,5	9	2,5	LP06.1	1	14,30
12,5	8	2,0	LP07.1	1	10,25
12,5	8	2,5	LP08.1	1	10,35
14,5	9	2,5	LP09.1	1	10,80
14,5	10	4	LP10.1	1	11,90
18,8	10	4	LP11.1	1	14,45
18,8	13	6	LP12.1	1	16,20



Programme extension!



Cock plugs

Made of **PTFE**. With screw thread and standard joint, with retaining device made of **PP**. Autoclavable.

Please order O-rings separately.

for ground glass joints	Hole Ø (mm)	Art. No.	Pack Qty.	€
12,5	2	LN96.1	2	7,85
12,5	2,5	LN97.1	2	8,20
14,5	2,5	LN98.1	2	9,35
14,5	4	LN99.1	2	10,00
18,8	4	LP00.1	2	11,40
18,8	6	LP01.1	2	13,95
21,5	6	LP02.1	1	15,00
24	8	LP03.1	1	17,95
29,2	10	LP04.1	1	26,15

O-rings for cock plugs

Made of Perbunan.

For cock plug	Art. No.	Pack Qty.	€
NS 12,5, NS 14,5	CNC6.1	20	12,85
NS 18,8	CNC7.1	20	18,20
NS 21,5, NS 24, NS 29,1	CNC8.1	20	13,45



 DURAN GROUP

Cock plugs

Made of **SBW** glass. With screw thread and standard joint.

for ground glass joints	Hole Ø (mm)	Art. No.	Pack Qty.	€
12,5	2	LN87.1	2	11,10
12,5	2,5	LN88.1	2	11,10
14,5	2,5	LN89.1	2	13,20
14,5	4	LN90.1	2	13,20
18,8	4	LN91.1	2	17,00
18,8	6	LN92.1	2	17,00

Screw-retaining devices

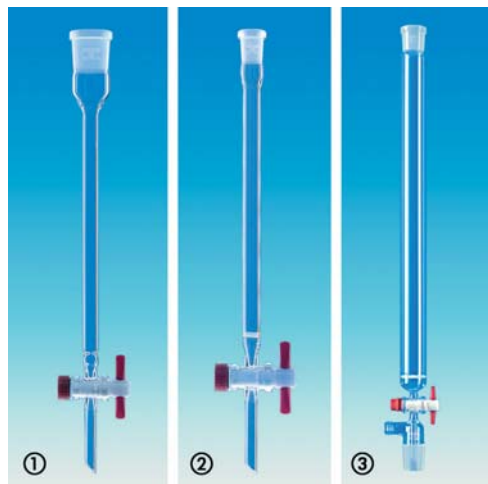
Three part, complete. For stopcock plugs made of **SBW** glass.

for cock plug NS	Thread GL	Art. No.	Pack Qty.	€
12,5	8	LN93.1	10	9,40
14,5	9	LN94.1	10	9,40
18,8	12	LN95.1	10	11,50

► Plastic cocks see page 369

► Drain cocks see page 369

Chromatography columns



Material
DURAN®

Chromatography columns

Made of DURAN®. With ground glass socket and PTFE stopcock (NS 14.5).

① Without frit.

With grooves under the stopcock to apply a piece of cotton wool.

Length (mm)	Volume (ml)	Inner Ø (mm)	Standard taper (NS)	Art. No.	Pack Qty.	€
200	15	10	14/23	TK54.1	1	45,15
200	35	15	14/23	Y669.1	1	48,60
400	125	20	29/32	Y670.1	1	52,70
600	430	30	29/32	Y671.1	1	60,10
800	1000	40	29/32	TK55.1	1	94,40

② With fused-in frit (porosity 0)

Length (mm)	Volume (ml)	Inner Ø (mm)	Standard taper (NS)	Art. No.	Pack Qty.	€
100	8	10	14/23	TK56.1	1	54,95
200	15	10	14/23	Y672.1	1	58,60
200	35	15	14/23	Y674.1	1	62,35
300	23	10	14/23	Y673.1	1	60,55
400	125	20	29/32	Y675.1	1	75,25
600	430	30	29/32	HX73.1	1	79,35

③ With fused-in frit (porosity 0),

ground glass cone and extraction connection GL 18

Length (mm)	Volume (ml)	Inner Ø (mm)	Standard taper (NS)	Art. No.	Pack Qty.	€
200	35	15	14/23	TK57.1	1	118,25
400	120	20	14/23	TK58.1	1	124,70
400	280	30	29/32	TK59.1	1	130,10
600	430	30	29/32	TK60.1	1	138,70

Accessories for chromatography columns

Connectors with screw cap GL 18, for hoses with inside Ø 10.5 mm

Art. No.	Pack Qty.	€
LK73.1	2	12,30

Screw caps GL 18

Art. No.	Pack Qty.	€
E696.1	10	22,70

- Rotisol see page 499
- Glass beads see page 1106



Separating funnels

Conical form. Made of Borosilicate glass 3.3. With ground glass joint, glass or PTFE, stopcock, and plastic stopper. Acc. to DIN 12451.

① With glass stopcock

Volume (ml)	Standard ground joint	Plug NS	Hole Ø (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2,5	E646.1	1	36,90
100	19/26	12,5	2,5	E647.1	1	38,20
250	29/32	14,5	4,0	E648.1	1	45,05
500	29/32	14,5	4,0	E649.1	1	52,15
1000	29/32	18,8	6,0	E650.1	1	73,65
2000	29/32	18,8	6,0	E651.1	1	108,60

② With PTFE stopcock

Volume (ml)	Standard ground joint	Plug NS	Hole Ø (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2,5	KT70.1	1	38,30
100	19/26	12,5	2,5	KT71.1	1	41,00
250	29/32	14,5	4,0	KT72.1	1	49,25
500	29/32	14,5	4,0	KT73.1	1	59,10
1000	29/32	18,8	6,0	KT74.1	1	77,20
2000	29/32	18,8	6,0	KT75.1	1	110,75



Separating funnels

Sqibb-form, graduated. Made of borosilicate glass 3.3.

With ground glass joint, PTFE-plug, and plastic stopper.

Volume (ml)	Standard ground joint	Plug NS	Hole Ø (mm)	Art. No.	Pack Qty.	€
50	19/26	12,5	2,5	KT76.1	2	71,50
100	19/26	12,5	2,5	KT77.1	2	67,85
250	29/32	14,5	4,0	KT78.1	2	81,60
500	29/32	14,5	4,0	KT79.1	2	95,15
1000	29/32	18,8	6,0	KT80.1	2	119,35
2000	29/32	18,8	6,0	KT81.1	1	80,10

Separating and dropper funnels



Separating funnel acc. to Gilson

Made of Borosilicate glass 3.3.

With ground glass joint PTFE-plug and PE-stopper.

Volume (ml)	Standard ground glass joint	Plug NS	Hole Ø (mm)	Art. No.	Pack Qty.	€
50	19/26	12.5	2,5	LK40.1	2	130,10
100	19/26	12.5	2,5	LK41.1	2	134,40
250	29/32	14.5	4,0	LK42.1	2	145,15
500	29/32	14.5	4,0	LK43.1	2	184,90
1000	29/32	18.8	6,0	LK44.1	2	232,20
2000	29/32	18.8	6,0	LK45.1	1	170,95



Separating funnel acc. to Squibb

Made of PP, with PTFE plug PP screw cap. Graduated. Transparent (to allow easy recognition of phase transitions). Plug NS 14.5, hole Ø 4 mm. Temperature stable up to max. 135 °C. High chemical resistance, max. 60 % hydrofluoric acid. Autoclavable without stopcock and closure.

Volume (ml)	Art. No.	Pack Qty.	€
100	YA73.1	1	90,85
250	YA74.1	1	96,25



Separating funnel holder

Made of PP. For separating funnels from 125-500 ml. With clamp for attaching to stand rods with Ø 8-14 mm.

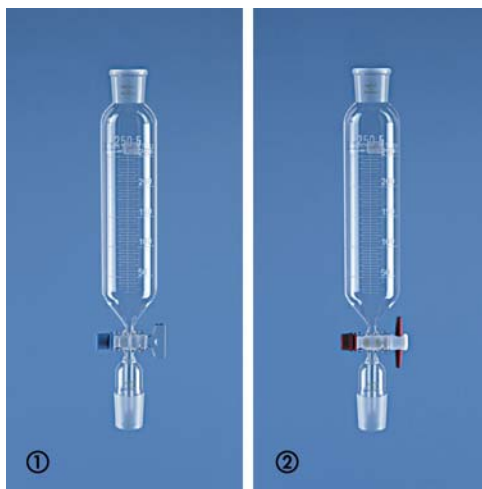
Art. No.	Pack Qty.	€
PY61.1	1	12,30



Separating funnels

Made of FEP. Highly pure, chemically inert, temperature stable from -200 to +250 °C. Hydrophobic, anti-adhesive surfaces. With fine metering tap and NS 29/32 ground glass cone made of PTFE, screw cap and integrated combination nut for easy attachment and detachment of the conical ground joint.

Volume (ml)	Art. No.	Pack Qty.	€
125	NY53.1	1	364,45
250	NY54.1	1	413,90
500	NY55.1	1	536,45



Dropping funnels

Made of Borosilicate glass 3.3. Graduated and cylindrical.

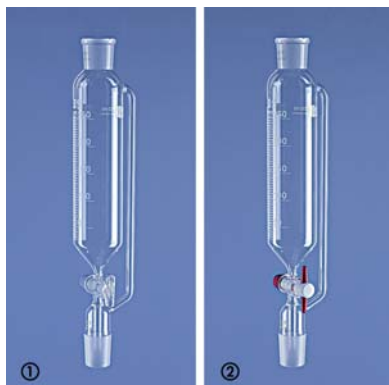
With ground glass brushed joint, standard joint core and tapered valve plugs with threaded nut retention. Acc. to DIN 12567/ISO 4800.

① With solid glass tap cocks

Volume (ml)	Graduations (ml)	Socket/cone (ground glass)	Plug NS	Hole Ø (mm)	Art. No.	Pack Qty.	€
50	1	29/32	12.5	2,5	CH30.1	1	52,05
100	2	29/32	12.5	2,5	CH31.1	1	58,00
250	5	29/32	14.5	4,0	CH32.1	1	69,25
500	10	29/32	14.5	4,0	CH33.1	1	76,35

② With PTFE-plug valve

Volume (ml)	Graduations (ml)	Socket/cone (ground glass)	Plug NS	Hole Ø (mm)	Art. No.	Pack Qty.	€
50	1	29/32	12.5	2,5	CH34.1	1	58,30
100	2	29/32	12.5	2,5	CH35.1	1	62,30
250	5	29/32	14.5	4,0	CH36.1	1	74,40
500	10	29/32	14.5	4,0	CH37.1	1	81,30



Dropper funnel with pressure compensation

Made of borosilicate glass 3.3. Graduated and cylindrical. With pressure compensation tube, NS-core, NS-sleeve and stopcock plug with threaded safety device. Acc. to DIN 12567, ISO 4800.

① With solid glass plugs

Volume (ml)	Graduations (ml)	Socket/cone (ground glass)	Plug NS	Hole Ø (mm)	Art. No.	Pack Qty.	€
50	1	14/23	12,5	2,5	E642.1	1	65,90
50	1	29/32	12,5	2,5	KL62.1	1	65,05
100	2	14/23	12,5	2,5	E643.1	1	68,30
100	2	29/32	12,5	2,5	KL63.1	1	71,10
250	5	29/32	14,5	4,0	E644.1	1	78,40
500	10	29/32	14,5	4,0	E645.1	1	87,85
1000	20	29/32	18,8	6,0	KL64.1	1	113,95

② With PTFE-plug

Volume (ml)	Graduations (ml)	Socket/cone (ground glass)	Plug NS	Hole Ø (mm)	Art. No.	Pack Qty.	€
50	1	14/23	12,5	2,5	KL65.1	1	69,90
50	1	29/32	12,5	2,5	KL76.1	1	68,30
100	2	14/23	12,5	2,5	KL77.1	1	71,50
100	2	29/32	12,5	2,5	KL78.1	1	73,05
250	5	29/32	14,5	4,0	KL79.1	1	84,60
500	10	29/32	14,5	4,0	KL80.1	1	95,70
1000	20	29/32	18,8	6,0	KL81.1	1	117,20



Ribbed funnels

Made of type 3.3 borosilicate glass. For quick filtration. Autoclavable.

Top, outer Ø (mm)	Outer stem Ø (mm)	Funnel length (mm)	Art. No.	Pack Qty.	€
105	18	80	NY75.1	1	13,95
138	22	90	NY76.1	1	17,10
170	26	120	NY77.1	1	21,00
210	38	140	NY78.1	1	34,65
250	40	155	NY79.1	1	48,50



Rotilabo®-glass funnels

Made of soda-lime glass. With short stem. Angle 60°.

Funnel-Ø outer (mm)	Outer stem Ø (mm)	Length of stem (mm)	Art. No.	Pack Qty.	€
30	6	30	EE58.1	10	27,95
35	6	35	EE59.1	10	29,35
40	6	40	EE60.1	10	30,35
45	7	45	EE61.1	10	34,65
50	7	50	EE62.1	10	37,30
55	8	55	EE63.1	10	38,95
60	8	60	EE64.1	10	40,90
70	9	70	EE65.1	10	50,35
80	9	80	EE66.1	10	55,80
100	10	100	EE67.1	10	70,75

Made of borosilicate glass 3.3. With short stem. 60° angle. Autoclavable.

Inner rim Ø (mm)	Outer stem Ø (mm)	Length of stem (mm)	For paper filter Ø (mm)	Art. No.	Pack Qty.	€
35	6	35	45-55	ACC3.1	10	28,30
45	6	45	55-70	ACC4.1	10	31,85
55	8	55	70-90	ACC5.1	10	35,70
75	8	75	125-150	ACC6.1	10	45,05
85	9	85	150	ACC7.1	10	50,50
100	10	100	150-185	ACC8.1	10	61,75
125	16	125	185	ACC9.1	1	10,70
150	16	150	240-270	ACE0.1	1	14,65
200	24	150	320-385	ACE1.1	1	25,80
250	30	175	400-450	ACE2.1	1	35,05
300	34	175	500	ACE3.1	1	59,90

- Standard ground glass joint stoppers see page 126
- Spare-taps see page 144
- Stand rods see page 197
- Stand rings see page 202
- Folded filters see page 496

Funnels



 DURAN GROUP

Material
DURAN®



Funnels

Made of DURAN®. With short stem. Acc. to ISO 4798. Autoclavable.

*Not acc. to ISO

Outer edge Ø (mm)	Outer stem Ø (mm)	Length, stem (mm)	For paper filter Ø (mm)	Art. No.	Pack Qty.	€
35	6	35	45-55	C153.1	10	85,70
45*	6	45	55-70	C154.1	10	89,10
55	8	55	70-90	C155.1	10	130,00
70*	8	70	110-125	C156.1	10	129,00
80	10	80	125-150	C157.1	10	137,00
100	10	100	150-185	C158.1	1	15,35
150	16	150	240-270	C159.1	1	26,40
200*	26	175	320-385	C160.1	1	63,10
300*	30	175	500	C161.1	1	120,00



Funnel

Made of PP. Transparent. Autoclavable.

Upper Ø (mm)	Height (mm)	Outlet Ø x L (mm)	Art. No.	Pack Qty.	€
30	45	1.5 x 25	YA44.1	1	0,90
30	47	4 x 25	YA45.1	1	1,00
40	65	4 x 35	YA46.1	1	1,10
50	85	7 x 43	YA47.1	1	1,20
75	110	6 x 55	YA48.1	1	1,30
100	155	8 x 77	YA49.1	1	1,75
120	180	11 x 90	YA50.1	1	2,15
150	220	15 x 95	YA51.1	1	2,90



Rotilabo®-disposable funnels

With aeration grooves. Angle 60°. Ø-spout, inside 4.3 mm.

Made of PS

Top inside Ø (mm)	Height (mm)	Length, stem (mm)	For paper filter Ø (mm)	Art. No.	Pack Qty.	€
55	69	25	110	HY45.1	100	23,15
65	78	30	125	HY46.1	100	23,15

Made of PP

Top inside Ø (mm)	Height (mm)	Length, stem (mm)	For paper filter Ø (mm)	Art. No.	Pack Qty.	€
55	69	25	110	HY47.1	100	23,15
65	78	30	125	HY48.1	100	23,15



Rotilabo®-plastic funnels

Made of natural coloured HDPE with smooth surface.
With lifting eye and 4 ventilation ribs (except Art. No. 0583.1).

*Incl. sieve Ø 50 mm, mesh size 0.4 mm.

Upper Ø (mm)	Height (mm)	Outlet Ø (mm)	Art. No.	Pack Qty.	€
50	60	3	0583.1	1	1,80
60	80	8	0584.1	1	1,90
80	105	11	0585.1	1	2,00
100	125	12	0586.1	1	2,10
120	145	12	0587.1	1	2,30
140	165	15	0588.1	1	2,85
164	195	17	0589.1	1	3,45
208	220*	20	A828.1	1	5,95

Rotilabo®-plastic funnel set

7 pieces, one each Art. No. 0583.1 to 0589.1

Art. No.	Pack Qty. (assortment)	€
0594.1	1	12,80



Microfunnels

Made of PP. For filling burettes and vessels with small opening.
Autoclavable.

Upper Ø (mm)	Stem Ø (mm)	Volume (ml)	Length, stem (mm)	Art. No.	Pack Qty.	€
24	4,5	2,6	16	YA66.1	12	48,05
28	6	5,2	19	YA67.1	12	42,05
35	8	8,1	23	YA68.1	12	37,85
43	8	15,7	26	YA69.1	12	80,65

Funnels



Rotilabo®-PTFE funnels

Made of **PTFE**. Chemically inert, temperature stable from - 200 to + 250 °C. With very smooth, hydrophobic inner surface. Autoclavable.

Outer Ø (mm)	Stem Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
30	8	50	NX77.1	1	13,90
50	10	85	NX78.1	1	18,75
70	12	110	NX79.1	1	27,10
100	14	170	NX80.1	1	56,45
150	16	220	NX81.1	1	102,70



Rotilabo®-stainless steel mini funnels

Made of stainless steel 18/10. Height 5 cm. Seamless, matt polished. Suitable for foodstuffs. Autoclavable.

Outlet Ø (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
4	27	YY23.1	10	25,20
6	27	YY24.1	10	25,20
7	28	YY25.1	10	25,20
8	29	YY26.1	10	25,20
10	31	YY27.1	10	25,20
11	32	YY28.1	10	25,20
12	33	YY29.1	10	25,20
13	34	YY30.1	10	25,20
14	35	YY31.1	10	25,20



Rotilabo®-lab funnels

Made of stainless steel 18/8, outlet made of non-magnetic 18/10 stainless steel. With handle and side groove for air discharge from the container (except Art. No. 0162.1). Autoclavable. Suitable for food.

Top, outer Ø (mm)	Outlet Ø (mm)	Art. No.	Pack Qty.	€
50	10	0162.1	1	11,65
100	15	0164.1	1	16,80
120	15	0166.1	1	19,15
150	25	0167.1	1	23,80
200	25	0168.1	1	30,05
250	25	0169.1	1	34,35

Rotilabo®-lab funnel set

6 pieces, one each of every size.

Art. No.	Pack Qty. (assortment)	€
5838.1	1	129,00



Powder funnels

Made of borosilicate glass 3.3 with short stem. Autoclavable.

Outer edge Ø (mm)	Outer stem Ø (mm)	Length, stem (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
50	20	20	50	X669.1	10	74,75
60	20	20	60	X670.1	10	74,75
80	25	25	75	X672.1	10	80,65
100	25	25	95	X673.1	10	97,30
120	30	25	110	X674.1	10	106,45
160	35	30	137	NX16.1	1	18,85
200	38	30	180	NX17.1	1	21,00



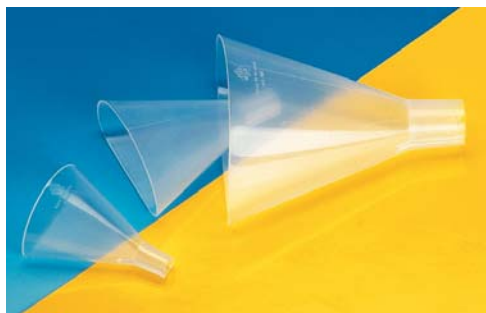
Material
DURAN®

Funnels with ground joint

Made of DURAN®. Funnel tube with 60° angle.

Cone (ground glass)	Outer edge Ø (mm)	Art. No.	Pack Qty.	€
14/23	45	KX83.1	1	18,20
29/32	80	KY11.1	1	30,00

Funnels



Rotilabo®-standard joint funnel

Made of **PP**, for clean filling of flasks and other equipment. Autoclavable.

Conical ground joint (NS)	Upper Ø (mm)	Length (mm)	Funnel length (mm)	Art. No.	Pack Qty.	€
14/23	40	75	17	2060.1	1	3,40
19/26	50	95	23	2073.1	1	4,35
29/32	75	135	30	2075.1	1	5,35

Rotilabo®-standard joint funnel assortment

3 pieces, one of each size.

Art. No.	Pack Qty. (assortment)	€
2080.1	1	12,30



Rotilabo®-powder funnels

Made of **PP** or **PE**, very light, with smooth surface, transparent. Autoclavable, with the exception of 2057.1.

*incl. sieve Ø 105 mm.

Top inside Ø (mm)	Height (mm)	Ø inner, bottom (mm)	Material	Art. No.	Pack Qty.	€
65	68	16	PP	2041.1	1	1,85
80	75	22	PP	2046.1	1	2,50
100	94	23	PP	2047.1	1	2,65
120	110	27	PP	2049.1	1	3,00
150	138	29	PP	2051.1	1	4,20
253	190*	50	PE	2057.1	1	11,10

Rotilabo®-powder funnel set

6 pieces, one of each size

Art. No.	Pack Qty. (assortment)	€
2020.1	1	22,35



Powder funnels

Made of **PP**, with ribbed exterior to avoid pressure build-up. 60° inclination angle. Autoclavable.

Outer edge Ø (mm)	Outer stem Ø (mm)	Volume (ml)	Length, stem (mm)	Art. No.	Pack Qty.	€
60	15	45	18	TT41.1	1	2,10
80	15	94	22,2	TT42.1	1	3,45
100	25	200	24,8	TT43.1	1	4,10
120	30	360	27,1	TT44.1	1	4,50
150	36	730	39,9	TT45.1	1	5,25
180	43	1290	48,8	TT46.1	1	6,35



Rotilabo®-barrel funnels

Made of **PP** or **HDPE**, transparent. With side handle (only Art. No. HY26.1 and HY27.1). Autoclavable, except Art. No. HY29.1.

Ø (mm)	Length (mm)	Outlet Ø (mm)	Material	Art. No.	Pack Qty.	€
200	200	22	PP	HY26.1	1	7,10
250	260	30	PP	HY27.1	1	10,90
350	440	35	PP	HY28.1	1	22,80
400	365	42	HDPE	HY29.1	1	54,85

Sieve insert

Made of stainless steel and aluminium. Suitable for Art. No. HY26.1 and HY27.1.

Ø (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
50	0,45	HY30.1	1	4,50

► Disposable sieves see page 497

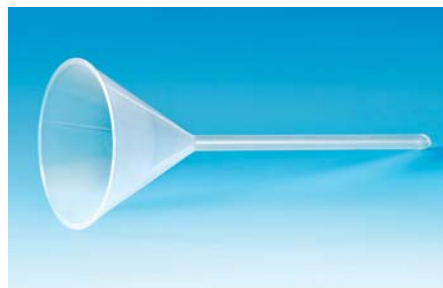
Analysis funnels and holder



Rotilabo®-analytical funnels

Made of type 3.3 borosilicate glass. According to ISO 4798. Stem Ø 8 mm. Length 150 mm. For quick filtration. Autoclavable.

Inner rim Ø (mm)	For paper filter Ø (mm)	Art. No.	Pack Qty.	€
55	70-90	NT85.1	1	12,80
75	110-125	NT86.1	1	13,95
100	150-185	NT87.1	1	14,95



Rotilabo®-analysis funnels

Made of transparent PP. Funnel length 150 mm, funnel-Ø 8 mm. Autoclavable.

Top, outer Ø (mm)	For paper filter Ø (mm)	Art. No.	Pack Qty.	€
60	70-90	9518.1	1	9,80
80	110-125	9519.1	1	10,35
100	150-185	9520.1	1	11,20

► Round and folded filters see page 490



Analysis funnels

Made of DURAN®. Ribbed. Autoclavable.

Outer edge Ø (mm)	Outer stem Ø (mm)	Length, stem (mm)	For paper filter Ø (mm)	Art. No.	Pack Qty.	€
70	8	70	110 - 125	K243.1	1	18,90
80	10	80	125 - 150	K244.1	1	20,00
100	10	100	150 - 185	K245.1	1	23,90
150	16	150	240 - 270	K246.1	1	31,40
200	26	175	320 - 385	K247.1	1	51,00



Rotilabo®-urbanti funnels

Made of TPX. Ideal for speedy filtration without a vacuum. The spiral-shaped groove inside the funnel enhances the porosity of the filter paper. With ventilation grooves. Temperature stable up to 170 °C. Autoclavable.

Top inside Ø (mm)	Ø of tube, inside (mm)	Length, stem (mm)	Art. No.	Pack Qty.	€
51	3	150	EA42.1	1	7,40
70	3	150	EA43.1	1	7,75
100	7	108	EA44.1	1	9,45
140	10	132	EA45.1	1	33,65
196	20	160	EA46.1	1	42,40



Rotilabo®-filter stand

For 2 funnels, made of white PP, can be sterilized, with adaptors for various funnel sizes, outer handle Ø max. 17 mm. Upper funnel bar can be adjusted in height. Foot plate W 140 x H 480 x L 300 mm. Weight 600 g.

Art. No.	Pack Qty.	€
1109.1	1	50,50



Rotilabo®-funnel holders

Made of PP. With stand clamp for attaching to stands with Ø 8 to 14 mm. Suitable for funnel-Ø from 50 to 120 mm. With replaceable inner ring for varying funnel sizes.

Type	Art. No.	Pack Qty.	€
For 1 funnel	9768.1	1	16,05
For 2 funnels	9769.1	1	23,45

Büchner funnels



 DURAN GROUP

Material
DURAN®



Slotted sieve filters (Büchner funnels)

Made of DURAN®. For paper-round filters and membrane filters. Autoclavable.

For filters- Ø (mm)	Volume (ml)	Plate Ø (mm)	Outer stem Ø (mm)	Art. No.	Pack Qty.	€
45	70	48	10	Y880.1	1	62,80
55	125	60	10	Y881.1	1	74,50
70	220	73	18	Y882.1	1	98,20
90	500	95	22	Y883.1	1	111,00
110	1000	120	22	Y884.1	1	155,00



Rotilabo®-Büchner funnels

Made of glazed porcelain. Excellent resistance to acids and bases. Temperature stable up to 1000 °C.

Volume (ml)	for filter paper Ø (mm)	Ø Filter plate (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
35	45	48	24	43	XX44.1	1	12,80
70	55	62	30	64	XX45.1	1	14,85
120	70	77	35	64	XX46.1	1	17,75
240	90	97	40	71	XX47.1	1	24,65
400	110	116	49	83	XX48.1	1	30,65
600	125	130	52	85	XX49.1	1	38,65
1000	150	156	59	96	XX50.1	1	51,40
2000	185	192	74	117	XX51.1	1	68,60
4000	240	248	90	117	XX52.1	1	160,20
7000	290	296	105	130	XX53.1	1	385,95
10 000	320	334	120	133	XX54.1	1	483,75



Rotilabo®-Büchner funnels

By Nalgene®. Made of PP. Robust, breakproof. Top and bottom parts can be detached for cleaning. Autoclavable.

For filters- Ø (mm)	Volume (ml)	Outer stem Ø (mm)	Hole size (mm)	Art. No.	Pack Qty.	€
55	70	5,1	1,1	HT33.1	1	9,70
70	180	6,8	2	HT34.1	1	10,25
80	285	8,1	2	HT35.1	1	11,95
90	390	9,1	2,5	HT36.1	1	15,95
110	810	14	2,5	HT37.1	1	20,10
150	2100	16,0	2,75	HT38.1	1	35,70



Büchner funnels 127 C

By Haldenwanger. With firm sieve plate. Made of porcelain acc. to DIN 60672-3, type C 110. Highly resistant to chemical and physical influences. Temperature stable up to +1000 °C.

Size	Height (mm)	Ø Filter plate (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
000	47	19	22	1578.1	1	31,15
00	64	29	30	1579.1	1	32,20
0a	95	48	35	1580.1	1	35,70
0	76	42	50	4168.1	1	34,30
1	110	59	50	1581.1	1	42,50
2	140	74	65	1582.1	1	53,15
2a	165	94	70	4177.1	1	67,10
3	195	114	75	1583.1	1	83,45
4	215	129	100	4178.1	1	111,80
4a	235	155	105	1584.1	1	149,45
5	280	190	105	XX19.1	1	246,20
6	300	248	120	XX20.1	1	389,15
6a	330	279	125	XX21.1	1	718,10
8	350	330	150	XX22.1	1	942,80

- Matching filter papers see page 490
- Filtering flasks see page 155
- Water jet pumps see page 354

Fritted filter funnel



Filter funnels

Made of borosilicate glass 3.3. Volume 25 ml, filter plate-Ø 25 mm, overall-Ø 55 mm. Height 100 mm. Autoclavable.

Porosity	Art. No.	Pack Qty.	€
3	LE70.1	1	28,20
4	LE71.1	1	30,85



Filter tubes acc. to Allihn

Made of borosilicate glass 3.3. Volume 30 ml, filter plate-Ø 20 mm. Tube outer-Ø 9 mm. Autoclavable.

Porosity	Art. No.	Pack Qty.	€
1	LE72.1	1	27,10
2	LE73.1	1	27,10
3	LE74.1	1	27,10
4	LE75.1	1	28,60



Micro filter funnels

Made of borosilicate glass 3.3. Volume 2 ml, filter plate-Ø 10 mm. Tube outer-Ø 6 mm. Autoclavable.

Porosity	Art. No.	Pack Qty.	€
0	LE65.1	1	24,95
1	LE66.1	1	24,95
2	LE67.1	1	24,95
3	LE68.1	1	26,35
4	LE69.1	1	28,20



Fritted filter funnel

Made of borosilicate glass 3.3. Autoclavable.

50 ml

Porosity	Plate Ø (mm)	Outer stem Ø (mm)	Art. No.	Pack Qty.	€
1	35	10	Y772.1	1	28,95
2	35	10	Y773.1	1	28,95
3	35	10	Y774.1	1	28,95
4	35	10	Y775.1	1	30,35
5	35	10	Y871.1	1	51,50

75 ml

Porosity	Plate Ø (mm)	Outer stem Ø (mm)	Art. No.	Pack Qty.	€
1	45	10	Y777.1	1	31,40
2	45	10	Y778.1	1	32,25
3	45	10	Y779.1	1	33,65
4	45	10	Y780.1	1	36,05
5	45	10	Y872.1	1	56,90

125 ml

Porosity	Plate Ø (mm)	Outer stem Ø (mm)	Art. No.	Pack Qty.	€
1	60	10	Y782.1	1	44,35
2	60	10	Y783.1	1	45,45
3	60	10	Y784.1	1	46,80
4	60	10	Y785.1	1	49,05
5	60	10	Y873.1	1	85,20

500 ml

Porosity	Plate Ø (mm)	Outer stem Ø (mm)	Art. No.	Pack Qty.	€
1	95	22	Y787.1	1	91,95
2	95	22	Y788.1	1	95,15
3	95	22	Y789.1	1	91,95
4	95	22	Y790.1	1	112,90
5	95	22	Y874.1	1	176,00

1000 ml

Porosity	Plate Ø (mm)	Outer stem Ø (mm)	Art. No.	Pack Qty.	€
1	120	22	Y792.1	1	138,70
2	120	22	Y793.1	1	140,85
3	120	22	Y794.1	1	141,90
4	120	22	Y795.1	1	145,15
5	120	22	Y875.1	1	302,00

4000 ml

Porosity	Plate Ø (mm)	Outer stem Ø (mm)	Art. No.	Pack Qty.	€
1	175	30	Y876.1	1	377,00
2	175	30	Y877.1	1	377,00
3	175	30	Y878.1	1	377,00
4	175	30	Y879.1	1	439,00

Filter crucibles



Filter crucibles

Made of DURAN®. Autoclavable. Temperature stable up to 450 °C.

Porosity	Pore width (µm)	Examples for use
0	160 - 250	Gas dispersion in fluids, filtration of coarse sediments
1	100 - 160	Filtration of coarse sediments, gas dispersion in fluids, liquid dispersion, coarse gas filters
2	40 - 100	Preparative fine filtration, mercury filtration, preparative work with crystalline sediments
3	16 - 40	Analytic filtration, analytic and preparative work with medium-fine sediments, fine gas filters
4	10 - 16	Analytic fine filtration, analytic and preparative work with very fine sediments e.g. BaSO ₄ , Cu ₂ O
5	1.0 - 1.6	Very fine filtration

Volume (ml)	Porosity	Plate Ø (mm)	Art. No.	Pack Qty.	€
8	2	20	E549.1	1	12,00
8	3	20	E550.1	1	12,00
8	4	20	E551.1	1	13,60
15	1	23	E552.1	1	12,00
15	2	23	E553.1	1	12,00
15	3	23	E554.1	1	12,00
15	4	23	E555.1	1	14,50
30	1	30	E556.1	1	12,65
30	2	30	E557.1	1	12,65
30	3	30	E558.1	1	12,65
30	4	30	E559.1	1	14,25
30	5	30	E560.1	1	26,80
50	1	40	E561.1	1	18,35
50	2	40	E562.1	1	18,35
50	3	40	E563.1	1	18,35
50	4	40	E564.1	1	20,90
50	5	40	E565.1	1	42,40



Rubber adapters

Made of EPDM. For vacuum-tight connection of crucibles and adapters. Temperature stable from -45 to +150 °C. Autoclavable.

Outer Ø (mm)	For filter crucibles (ml)	Art. No.	Pack Qty.	€
26	8	E566.1	10	17,70
33	15	E567.1	10	18,00
41	30	E568.1	10	18,70
49	50	E569.1	10	19,70



Crucible adapters

Made of DURAN®. For filter crucibles. Outer-Ø funnel 10 mm. Autoclavable.

Top inside Ø (mm)	Length (mm)	For filter crucibles (ml)	Art. No.	Pack Qty.	€
27	108	8	E570.1	1	18,20
34	110	15	E571.1	1	18,40
41	125	30	E572.1	1	19,20
50	132	50	E573.1	1	19,90

► Filter crucibles made of porcelain see p. 168



Hirsch funnels 126

Made of glazed porcelain.

Ø Filter plate (mm)	Upper Ø (mm)	Height (mm)	Tube Ø, bottom/top (mm)	Art. No.	Pack Qty.	€
9	30	45	5,5/7	TL75.1	1	28,50
11	40	56	6/9	TL76.1	1	31,20
13	45	61	7/12	TL77.1	1	31,00
15	52	74	8/11,5	TL78.1	1	36,05
27	72	102	11/16	TL79.1	1	41,10

Filtering flasks and seals



DURAN GROUP
Material
DURAN®

Filtering flasks

Made of DURAN®. With KECK™-connector set, consisting of plastic tubing connector made of PP, plastic-tubulature made of PP and silicone rubber seal. Heavy walled for vacuum use, fulfils the regulations of the "equipment and product safety regulations". Acc. to DIN 12 476, ISO 6556. Autoclavable.

Erlenmeyer shape

Volume (ml)	Largest outer Ø (mm)	Height (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
100	64	105	24	E575.1	1	17,35
250	85	155	34	E576.1	1	22,40
500	105	185	34	E577.1	1	27,95
1000	135	230	45	E578.1	1	41,90
2000	166	255	60	E579.1	1	86,40

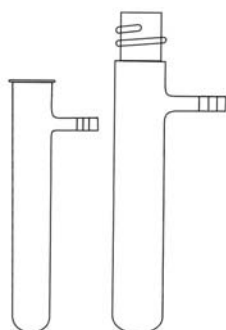
Bottle shape

Volume (ml)	Largest outer Ø (mm)	Height (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
3000	170	295	58	E580.1	1	108,00
5000	185	360	68	E581.1	1	149,00
10000	240	420	70	E582.1	1	223,00
15000	255	500	70	E583.1	1	289,00
20000	290	535	70	E584.1	1	363,00

Spare connector set

Consisting of plastic tubing connector straight Ø 9 mm and PP tubulature. Silicone rubber seal.

Art. No.	Qty. (set)	€
A389.1	1	4,55



Suction tubes

By Winzer. Made of borosilicate glass 3.3. With glass hose connection.

With heavy duty rim

Volume (ml)	Outer Ø x H (mm)	Art. No.	Pack Qty.	€
20	16 x 160	AAP7.1	1	21,85
30	18 x 180	AAP8.1	1	22,70

With GL 14 thread, screw cap with hole and silicon gasket (inner Ø 6 mm)

Volume (ml)	Outer Ø x H (mm)	Art. No.	Pack Qty.	€
10	12 x 160	AAP9.1	1	26,35



Rotilabo®-suction bottles

Made of type 3.3 borosilicate glass Ø 10 mm. With glass hose connection. Autoclavable.

Volume (ml)	Bottle Ø (mm)	Neck inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	70	24	105	NY65.1	1	24,20
250	85	35	145	NY66.1	1	28,50
500	105	35	175	NY67.1	1	32,05
1000	135	45	230	NY68.1	1	46,25
2000	165	60	255	NY69.1	1	51,60



Suction bottles

By Nalgene®. Made of PP. Moulded from a single piece. Downwards-facing hose connection reduces tilting hazard. Autoclavable.

Volume (ml)	Ø x H (mm)	Neck inside (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
500	108 x 187	29	6,4-9,5	ATL0.1	1	25,75
1000	140 x 215	32,5	6,4-9,5	ATL1.1	1	39,25
1700	162 x 272	44	9,5	ATL2.1	1	54,85



Rotilabo®-rubber tubes

Temperature range -10 to +50 °C. Red, made of natural rubber, not pressure resistant. Hardness: 45 Shore A.

Vacuum tubes

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
5	15	5,0	0678.1	5	24,65
6	16	5,0	0679.1	5	26,35
6	16	5,0	0679.2	25	104,10
8	18	5,0	0680.1	5	31,75
8	18	5,0	0680.2	25	127,95
10	20	5,0	0681.1	5	33,35
12	22	5,0	T985.1	5	47,20
15	31	8,0	T986.1	5	97,85

Filtering flasks and seals



Witt filtration apparatus

Made of DURAN®. Complete with KECK™ assembly kit and tube lid NS 29/32 ① or NS 45/40 ②. Lids are interchangeable. Autoclavable.

Nominal Ø (mm)	Socket (ground glass)	Overall height (mm)	Art. No.	Pack Qty.	€
100	29/32	236	PL01.1	1	209,00
150	29/32	302	PL02.1	1	250,00
200	29/32	426	PL03.1	1	335,00
100	45/40	244	PL04.1	1	217,00
150	45/40	312	PL05.1	1	276,00

Accessories: spare lids for Witt filtration apparatus

Nominal Ø (mm)	Socket (ground glass)	Height (mm)	Art. No.	Pack Qty.	€
100	29/32	76	PL06.1	1	108,00
150	29/32	102	PL07.1	1	133,00
200	29/32	126	PL08.1	1	157,00
100	45/40	84	PL09.1	1	154,00
150	45/40	112	PL10.1	1	208,00

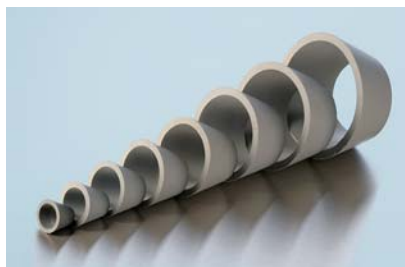


Rotilabo®-Guko sleeve adapters

Made of natural rubber. For vacuum-tight connection of suction bottles and filter funnels. Successive sizes can be stacked inside each other.

Top, outer Ø (mm)	Ø bottom, outer (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
21	12	18	2,5	9755.1	1	2,50
27	17	20	3	9756.1	1	2,80
33	21	24	3	9757.1	1	3,70
41	27,5	27	4	9758.1	1	4,20
53	33	34	5	9759.1	1	4,45
68	48	35	5,5	9760.1	1	5,05
78	58	35	6	9761.1	1	6,15
89	66	40	6,5	9762.1	1	7,50

- Tubing accessories see page 356
- Water jet pumps see page 354



DURAN GROUP
121°C

GUKO set

Made of EPDM. Conical rubber seals for suction bottle. Temperature resistant in the range -45 to +150 °C. Autoclavable. Delivery incl. 8 Gukos, size 22, 29, 36, 44, 53, 63, 73, 84 mm.

Art. No.	Qty. (set)	€
PK84.1	1	34,50



Rotilabo®-safety cuffs

Made of EPDM. For glass filtering flasks. Enables a clean, firm seal between funnels, vacuum filters, etc. and the flask. The tightness of the seal increases when flask is under vacuum.

For filtering flasks capacity (ml)	Height (mm)	Adapter inner-/outer-Ø (mm)	Art. No.	Pack Qty.	€
100	6	17/39	E349.1	1	10,25
250 - 500	15	29/54	E350.1	1	10,55
1000	20	32/66	E351.1	1	12,40
2000 - 3000	25	41/83	E352.1	1	13,45
5000 - 20000	25	55/93	E353.1	1	14,55

Set of Rotilabo®-safety adapters

Set of five adapters for filtering flasks 100 - 20 000 ml.

Art. No.	Qty. (set)	€
E354.1	1	51,60



Filter seal

Made of neoprene. For vacuum-tight connection of suction bottle and filter funnel. Suitable for funnel stems up to Ø 22 mm and suction bottles with neck inner Ø up to 60 mm. Ring Ø 76 mm, thickness 9.5 mm. Good chemical resistance.

Art. No.	Pack Qty.	€
YA77.1	1	71,50

Gas wash bottles/Woulff's bottles



Gas washing bottles

Made of borosilicate glass 3.3.
Standard ground joint 29/32, acc. to DIN 12463.
Height of bottle: 200 mm. Autoclavable.
Delivery incl. top made of DURAN® with two olives (outer-Ø approx. 10 mm).

Type	Volume (ml)	Bottle Ø (mm)	Art. No.	Pack Qty.	€
① Without filter plate	100	40	KX61.1	1	36,15
① Without filter plate	250	55	KX62.1	1	38,20
① Without filter plate	500	75	KX63.1	1	46,15
② With filter plate	100	40	KX64.1	1	52,70
② With filter plate	250	55	KX65.1	1	54,75
② With filter plate	500	75	KX66.1	1	60,20

Accessories:

Spare gas washing bottle 100 ml	KX50.1	1	18,60
Spare gas washing bottle 250 ml	KX51.1	1	21,45
Spare gas washing bottle 500 ml	KX60.1	1	30,35
Spare adapter without filter plate	KX52.1	1	17,75
Spare adapter with filter plate	KX53.1	1	39,05



Kit for Woulff's bottle

One pack of every Art. No. is required. Autoclavable.

Image	Type	Art. No.	Pack Qty.	€
①	DURAN®-pressure plus-screw thread bottle, 1000 ml	H995.1	1	12,90
②	Top without filter disc	C217.1	1	24,20
③	Replacement plastic hose connection with silicon seal, straight, GL 14, outer- Ø 8.6 mm	L992.1	2	3,10
④	Replacement screw caps, red, PBT, GL 14, hole Ø 9.5 mm	L993.1	2	3,25
⑤	Screw cap GL 45	L994.1	1	3,95
(not illustrated)	Silicone ring inner Ø 26 mm	L995.1	1	5,25



Gas wash bottles

Made of DURAN®. With top acc. to Drechsel, adjustable. Capacity 500 ml.
Porosity of filter plate 100-160 µm. Autoclavable.
Delivery incl. 2 olives for tubes with inner Ø 8 mm.
Tip: Absorption efficiency can be increased considerably when the gas is distributed into the liquid through filter plate.

Type	Volume (ml)	Art. No.	Pack Qty.	€
without filter disc	500	C215.1	1	48,60
with filter disc, porosity 1	500	C216.1	1	64,40



Drechsel spare top-insert

Total length 220 mm, screw connectors not included. Autoclavable.

Type	Art. No.	Pack Qty.	€
without filter disc	C217.1	1	24,20
with filter disc, Ø 24 mm, porosity 1	C218.1	1	37,20



Woulff's bottles

Made of DURAN®. With three ground glass joint necks. Vacuum resistant due to the wall thickness and geometry. Acc. to DIN 12480. Autoclavable.

Volume (ml)	Standard ground joint necks	Outer Ø (mm)	Art. No.	Pack Qty.	€
500	19/26	87	AK00.1	1	83,60
1000	24/29	113	AK01.1	1	89,65
2000	29/32	135	AAC2.1	1	131,00
5000	34/35	185	AAC3.1	1	198,00

Gas wash bottles/Woulff's bottles

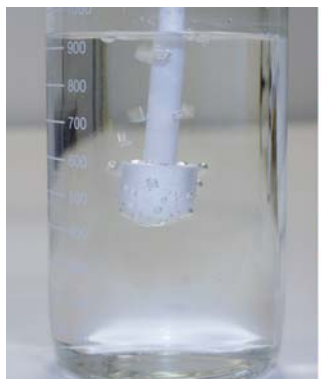


① Gas wash bottles

Made of **PFA**, attachment made of PTFE with 2 threaded connections for hoses with 6 or 8 mm outer Ø. Highly pure, chemically inert. Hydrophobic, anti-adhesive surfaces. Temperature stable from -200 °C to +250 °C.

Delivery incl. interchangeable frit made of porous PTFE (Art. No. NY24.1), pore size approx. 3 µm, M8 threaded connection.

Volume (ml)	Height (mm)	Outer Ø (mm)	For hoses with outer Ø (mm)	Art. No.	Pack Qty.	€
250	175	60	6	NY26.1	1	299,95
500	200	75	6	NY27.1	1	401,00
1000	240	95	8	NY28.1	1	456,90



① PTFE gas inlet tubes

Highly pure, chemically inert. Hydrophobic, anti-adhesive surface. Inner Ø 5 mm. With Ø 9 mm hose connector and M8 thread for connecting to a gas frit or a gas distributor (please order separately). Temperature stable from -200 to +250 °C, autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
200	NY21.1	1	15,95
400	NY22.1	1	17,45
600	NY23.1	1	19,00

Accessories for PTFE gas inlet tubes and gas wash bottles

② Gas frit

Made of porous PTFE. Pore size approx. 3 µm, M8 threaded connection.

Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	26	NY24.1	1	26,15

③ PTFE gas distributor

With ports (4 x Ø 0.4 mm) for even dispersion of the flowing gas. M8 threaded connection.

Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
28	24	NY25.1	1	40,80



Filter tubes

Made of DURAN®. For treatment of liquids for intake or for protecting downstream pumps and other apparatus against ingress of solid particles.

① Microfilter cartridges 13 x 25 mm, tube: Ø 8 mm, H 200 mm

Porosity	Art. No.	Pack Qty.	€
1	AAC7.1	10	307,00
2	AAC8.1	10	307,00
3	AAC9.1	10	307,00
4	AAE0.1	10	343,00

② Immersion filters

Micro: plate Ø 10 mm, tube: Ø 6 mm, H 100 mm

Porosity	Art. No.	Pack Qty.	€
1	AAE1.1	10	198,00
2	AAE2.1	10	198,00
3	AAE3.1	10	198,00
4	AAE4.1	10	212,00

② Standard: plate Ø 35 mm, tube: Ø 10 mm, H 210 mm

Porosity	Art. No.	Pack Qty.	€
1	AAE5.1	1	41,85
2	AAE6.1	1	41,85
3	AAE7.1	1	41,85
4	AAE8.1	1	44,10



Gas dispersion tubes

Made of DURAN®. For fine dispersion of gases in liquids, e.g. during reactions. Tube height 250 mm.

Glass tube, lateral ring

Tube outer Ø (mm)	Plate Ø (mm)	Porosity	Art. No.	Pack Qty.	€
6	22	0	AAE9.1	5	135,00
6	22	1	AAH0.1	5	135,00
6	22	2	AAH1.1	5	135,00

Glass tube, centre ring

Tube outer Ø (mm)	Plate Ø (mm)	Porosity	Art. No.	Pack Qty.	€
9	25	0	AAH2.1	5	161,00
9	25	1	AAH3.1	5	161,00
9	25	2	AAH4.1	5	161,00
11	34	1	AAH5.1	5	186,00



Rotilabo®-sample bowls

Made of stainless steel 18/10, high-gloss finish. Suitable for foodstuffs. Autoclavable.

Delivery without lid. Please order separately.

Capacity (l)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
0,25	120	35	YH20.1	1	12,60
0,4	130	40	YH21.1	1	12,40
0,65	150	45	YH22.1	1	13,05
0,85	170	45	YH23.1	1	18,10
1,25	190	50	YH24.1	1	19,90
1,4	190	55	YH25.1	1	22,55
1,6	210	55	YH26.1	1	24,75
2	225	55	YH27.1	1	26,35

Lids for Rotilabo®-sample bowls

for sample pan	Art. No.	Pack Qty.	€
YH20.1	YL03.1	1	9,05
YH21.1	YL04.1	1	10,15
YH22.1	YL05.1	1	11,50
YH23.1	YL06.1	1	15,20
YH24.1	YL07.1	1	16,05
YH25.1	YL08.1	1	17,45
YH26.1	YL09.1	1	19,15
YH27.1	YL10.1	1	23,60



Rotilabo®-tablet bowls

Made of stainless steel 18/10, high-gloss. Suitable for foodstuffs. Autoclavable.

Flat type

Ø x H (mm)	Art. No.	Pack Qty.	€
120 x 20	YX74.1	1	9,15
140 x 25	YX75.1	1	12,50

Tall type

Ø x H (mm)	Art. No.	Pack Qty.	€
65 x 20	YX76.1	1	4,25
100 x 30	YX77.1	1	7,10



Rotilabo®-aluminium bowls with lid

Moulded in one piece. Leakproof. The cardboard lids are aluminium coated on one side and can be secured by bending rim of container. The white side can be marked or labelled.

Volume (ml)	Length, top (mm)	Width, top (mm)	Height (mm)	Art. No.	Pack Qty.	€
500	140	115	40	0906.1	100	46,15
250	120	95	35	0522.1	100	38,50



Rotilabo®- general-purpose aluminium trays

Made of aluminium. Free of oil residues and coatings. Easy to stack. Highly versatile as weighing or drying dishes, as dispensing or storage containers or for covering vessels.

Volume (ml)	Height (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
20	12	44	PP65.1	100	17,10
60	17	63	PP66.1	100	16,60
75	30	62	PP67.1	100	17,75
200	35	110	PP68.1	50	17,75
500	25	181	PP69.1	50	19,90



Rotilabo®-sample bowls

Made of aluminium. Flat, without lid.

Volume (ml)	Height (mm)	Inner Ø (mm)	Top, outer Ø (mm)	Art. No.	Pack Qty.	€
28	13	55	64	5494.1	100	12,40
125	26	85	96	5496.1	100	20,35

► Aluminium foils see page 244

Sample bowls



Dappen glasses

Made of calcium soda glass. For mixing small quantities of substances.
 \varnothing 31 x H 29 mm. Can be used on both sides. Volume: approx. 1.5 or 3 ml.

Colour	Art. No.	Pack Qty.	€
clear	CKY4.1	1	5,35
green	CKY5.1	1	5,35
pink	CKY6.1	1	5,35
blue	CKY7.1	1	5,35



Glass jars

Made of DURAN®. High temperature and chemical resistance.
 Autoclavable.

Delivery incl. lid.

Volume (ml)	\varnothing x H (mm)	Art. No.	Pack Qty.	€
75	60 x 40	CCL2.1	1	29,90
175	80 x 50	CCL3.1	1	36,00
325	100 x 60	CCL4.1	1	44,95
1000	150 x 80	CCL5.1	1	81,60



Rotilabo®-specimen jars

Made of type 3.3 borosilicate glass.

① With lid with knob

Jar outer \varnothing (mm)	Lid \varnothing (mm)	Height (mm)	Art. No.	Pack Qty.	€
85	95	85	NT38.1	1	33,80
100	110	100	NT39.1	1	36,80
120	130	120	NT40.1	1	42,15
150	162	150	NT41.1	1	56,25
200	214	200	NT42.1	1	97,65
250	264	250	NT43.1	1	138,70
300	314	300	NT44.1	1	166,65

② With recessed knob

Jar outer \varnothing (mm)	Lid \varnothing (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	60	65	NT46.1	1	50,75
85	79	85	NT47.1	1	62,05
100	94	100	NT48.1	1	65,90
100	94	500	NT49.1	1	112,90
120	114	120	NT50.1	1	76,90
120	114	500	NT51.1	1	127,95
150	142	150	NT52.1	1	104,30
150	142	500	NT53.1	1	165,55



Rotilabo®-cotton and swab container

Made of stainless steel 18/10, suitable for foodstuffs. Autoclavable.

Volume (ml)	\varnothing x H (mm)	Art. No.	Pack Qty.	€
150	60 x 60	YT80.1	1	12,50
250	85 x 50	YT81.1	1	12,70
350	100 x 50	YT82.1	1	18,20
400	85 x 85	YT83.1	1	15,40
600	85 x 125	YT84.1	1	23,15
750	100 x 100	YT85.1	1	17,45
1750	150 x 100	YT86.1	1	29,70
2500	150 x 150	YT87.1	1	28,95
3000	200 x 100	YT88.1	1	43,00

Lid for Rotilabo®-cotton and swab container

Made of stainless steel 18/10,

For container \varnothing (mm)	Art. No.	Pack Qty.	€
60	YT89.1	1	6,80
85	YT90.1	1	8,55
100	YT91.1	1	9,30
150	YT92.1	1	14,60
200	YT93.1	1	15,80

► Cotton wool see page 498

Crystallization dishes and watch glasses

ROTH



Rotilabo®-crystallising dishes

Made of type 3.3 borosilicate glass. Autoclavable.

With spout. Compliant with DIN 12338.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	AYE1.1	10	39,90
40	50	30	AYE2.1	10	41,25
60	60	35	AYE3.1	10	48,40
100	70	40	AYE4.1	10	55,90
150	80	45	AYE5.1	10	78,50
300	95	55	AYE6.1	10	87,10
500	115	65	AYE7.1	10	98,90
900	140	75	AYE8.1	10	123,65
2000	190	90	AYE9.1	1	20,25
3500	230	100	AYH0.1	1	24,20

Without spout. Compliant with DIN 12337.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	AYH1.1	10	30,75
40	50	30	AYH2.1	10	31,10
60	60	35	AYH3.1	10	34,20
100	70	40	AYH4.1	10	45,05
150	80	45	AYH5.1	10	73,10
300	95	55	AYH6.1	10	76,35
500	115	65	AYH7.1	10	83,35
900	140	75	AYH8.1	10	111,80
2000	190	90	AYH9.1	1	19,15
3500	230	100	AYK0.1	1	22,05



Crystallization dishes

Made of DURAN®. Autoclavable.

With spout. Acc. to DIN 12338.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	C091.1	10	61,20
40	50	30	C092.1	10	61,70
60	60	35	C093.1	10	64,10
100	70	40	C094.1	10	71,10
150	80	45	C095.1	10	78,60
300	95	55	C096.1	10	83,50
500	115	65	C097.1	1	12,70
900	140	75	C098.1	1	18,70
2000	190	90	HX07.1	1	44,70
3500	230	100	HX08.1	1	64,80

Without spout. Acc. to DIN 12337.

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	40	25	HX09.1	10	61,20
40	50	30	HX10.1	10	61,70
60	60	35	HX11.1	10	64,10
100	70	40	HX12.1	10	71,10
150	80	45	HX13.1	10	78,60
300	95	55	HX14.1	10	83,50
500	115	65	HX15.1	1	12,70
900	140	75	HX16.1	1	18,30
2000	190	90	HX17.1	1	44,60
3500	230	100	HX18.1	1	64,70



Watch glasses

Made of soda-lime glass.

With fused edges (C090.1 and C090.2: ground edges).

Ø (mm)	Art. No.	Pack Qty.	€
40	C079.1	10	8,50
50	C080.1	10	9,05
60	C081.1	10	9,90
70	C082.1	10	11,25
80	C083.1	10	12,15
90	C084.1	10	13,25
100	C085.1	10	14,30
120	C086.1	10	16,85
125	C087.1	10	18,45
150	C088.1	10	20,75
200	C089.1	10	37,65
250	C090.2	5	29,35

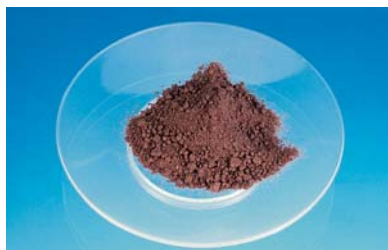


Watch glasses

Made of DURAN®. Fused edge. Acc. to DIN 12341. Autoclavable.

Ø (mm)	Art. No.	Pack Qty.	€
40	Y634.1	10	62,50
50	Y635.1	10	68,70
60	Y636.1	10	74,30
80	Y637.1	10	81,60
100	Y638.1	10	93,10
125	Y639.1	10	101,00
150	Y640.1	10	129,00
200	Y641.1	10	195,00
250	Y642.1	1	35,00

Mortars



Rotilabo®-watch glasses

Made of **PP**. Very stable. Autoclavable.

Ø (mm)	Art. No.	Pack Qty.	€
60	K842.1	10	12,40
80	K843.1	10	15,30
100	K844.1	10	18,85
125	K845.1	10	21,50



Rotilabo®-watch glasses

Made of **PTFE**. Excellent chemical resistance. Temperature stable from -200 to +260 °C. Autoclavable.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	6	K837.1	1	4,25
75	13	K838.1	1	6,25
100	20	K839.1	1	11,00
125	20	K840.1	1	11,50
150	25	K841.1	1	16,70



Rotilabo®-mortars with pestle

Made of borosilicate glass 3.3, with spout. High thermal shock resistance. Capacity specifications are approximate figures. Autoclavable.

① Coarse friction surface

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
100	60	80	TX04.1	1	33,35
200	75	100	TX05.1	1	39,05
300	90	120	TX06.1	1	48,95
650	110	150	TX07.1	1	64,40
800	135	200	NX15.1	1	90,30

② Smooth inner surface

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
100	60	80	NT80.1	1	29,60
200	75	100	NT81.1	1	31,50
300	90	120	NT82.1	1	37,10
650	110	150	NT83.1	1	48,40
800	135	200	NT84.1	1	67,65



Smooth-walled mortar and pestles

Made of **MF**, white, with spout. Smooth friction surface prevents accumulation of sample residues and cross-contamination. Microwave safe. Temperature resistant from -40 to +110 °C.

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
300	75	125	PY55.1	1	17,00
500	90	150	PY56.1	1	19,80

Pestles

Made of **MF**, white, heavy-duty version, with smooth head. Temperature resistant from -40 to +110 °C.

Head Ø (mm)	Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
30	125	55	PY57.1	1	19,05
35	145	85	PY58.1	1	20,55
40	150	120	PY59.1	1	23,10
42	215	175	PY60.1	1	47,95



Mortars and pestles, short form

Made of **agate**. Flawless, polished inner surface. Minimal abrasion. Dimensions are approximate. Autoclavable.

Outer Ø (mm)	Inner Ø (mm)	Volume (ml)	Art. No.	Pack Qty.	€
25	28	5	TL93.1	1	44,00
40	35	10	TL94.1	1	47,20
50	42	15	HC74.1	1	53,70
60	48	20	TL95.1	1	62,25
75	63	40	HC75.1	1	101,05
85	70	65	TL96.1	1	135,45
100	80	80	HC76.1	1	203,20
110	90	100	TL97.1	1	278,45
125	115	150	HC77.1	1	349,40
150	125	180	HC78.1	1	697,70
200	170	400	TL98.1	1	2202,70

Spare pestles for mortars, short form

Made of **agate**.

Head Ø (mm)	Length (mm)	For Mortar	Art. No.	Pack Qty.	€
7	28	TL93.1	TL99.1	1	11,65
9	42	TL94.1	TP00.1	1	12,85
12	52	HC74.1	TP01.1	1	13,45
14	62	TL95.1	TP02.1	1	14,55
18	77	HC75.1	TP03.1	1	19,90
20	86	TL96.1	TP04.1	1	27,95
24	104	HC76.1	TP05.1	1	41,30
22	112	TL97.1	TP06.1	1	62,70
29	128	HC77.1	TP07.1	1	76,35
35	155	HC78.1	TP08.1	1	138,70
43	203	TL98.1	TP09.1	1	321,45



Mortars and pestles, tall form

Made of **agate**. Flawless, polished inner surface. Minimal abrasion. Dimensions are approximate. Autoclavable.

Outer Ø (mm)	Inner Ø (mm)	Volume (ml)	Height (mm)	Art. No.	Pack Qty.	€
60	50	25	36	TP10.1	1	190,30
70	55	40	42	TP11.1	1	252,65
80	65	65	53	TP12.1	1	359,05
90	70	100	56	TP13.1	1	421,40
100	80	125	61	TP14.1	1	525,70
130	110	250	72	TP15.1	1	1155,65

Spare pestles for mortars, tall form

Made of **agate**.

Head Ø (mm)	Length (mm)	For Mortar	Art. No.	Pack Qty.	€
16	60	TP10.1	TP16.1	1	26,45
18	80	TP11.1	TP17.1	1	35,40
22	100	TP12.1	TP18.1	1	46,70
22	110	TP13.1	TP19.1	1	62,35
23	120	TP14.1	TP20.1	1	82,70
27	150	TP15.1	TP21.1	1	174,15



Mortar and pestle

Made of stainless steel 18/10. Smooth friction faces. Heavy design, with slip resistant feet.

Volume (ml)	Outer Ø (mm)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
165	100	90	60	LL28.1	1	80,55
330	135	125	80	LL29.1	1	99,80
450	160	150	90	LL30.1	1	123,65

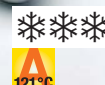


Rotilabo®-mortars

Made of stainless steel, with plastic base. Heavy duty. Suitable for foodstuffs.

Delivery incl. pestle, length 175 mm.

Top inside Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
110	80	YX96.1	1	22,60



Mortars 55, coarse

By Haldenwanger.

Made of glazed porcelain, **coarse grind surface (unglazed)**.

Suitable for use with liquid nitrogen. Temperature stable up to +1000 °C. Autoclavable.

Volume (ml)	Size	Height (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
20	00	32	50	XL89.1	1	10,65
70	0a	40	65	1567.1	1	16,10
75	1	45	70	3773.1	1	16,80
100	2	50	80	3782.1	1	22,05
170	3	55	90	1568.1	1	23,45
300	4	63	115	3820.1	1	31,15
400	5	65	130	3823.1	1	46,15
700	6a	70	150	3824.1	1	57,85
1000	8	80	180	3826.1	1	138,70
2600	11	100	240	XL90.1	1	321,45
6000	15	140	330	XL91.1	1	536,45

Pestles 56, coarse

By Haldenwanger.

Made of glazed porcelain, **coarse grind surface (unglazed)**.

Temperature stable up to +1000 °C. Autoclavable.

Head Ø (mm)	Size	Height (mm)	Art. No.	Pack Qty.	€
24	00	115	1570.1	1	10,65
28	0a	125	3831.1	1	11,70
30	1	135	1571.1	1	13,20
36	2	150	3832.1	1	18,20
42	3	175	3836.1	1	25,80
45	4	180	XL92.1	1	28,40
48	5	185	3839.1	1	30,65
55	6a	210	3841.1	1	32,90
60	8	215	XL93.1	1	47,65
74	13	262	XL94.1	1	155,90
85	15	280	XL95.1	1	209,65

Mortars 55, smooth

By Haldenwanger. Made of glazed porcelain, **smooth grind surface**

(glazed), prevents accumulation of sample residues and cross-contamination. Suitable for use with liquid nitrogen. Temperature stable up to +1000 °C. Autoclavable.

Volume (ml)	Size	Height (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
20	00	32	50	XL96.1	1	23,15
70	0a	40	65	XL97.1	1	27,45
170	3	55	90	XL98.1	1	35,45
700	6a	70	150	XL99.1	1	69,05
1000	8	80	180	XP00.1	1	152,65

Pestles 56, smooth

By Haldenwanger. Made of glazed porcelain, **smooth grind surface**

(glazed). Temperature stable up to +1000 °C. Autoclavable.

Head Ø (mm)	Size	Height (mm)	Art. No.	Pack Qty.	€
24	00	115	XP01.1	1	21,10
28	0a	125	XP02.1	1	21,70
30	1	135	XP03.1	1	23,45
42	3	175	XP04.1	1	34,65
55	6a	210	XP05.1	1	43,45
60	8	215	XP06.1	1	55,05

Evaporating bowls



Mini-Cryo mortar with pestle

Container made of stainless steel with PE insulating jacket, reaction vial holder made of stainless steel with insulated, removable handle (L 102 mm). For filling with liquid nitrogen. Allows the homogenisation of plant material or tissue directly inside the 1.5 ml reaction vial.

Dimensions: Ø 165 x H 114 mm.

Delivery incl. pestle (Ø 9 x L 127 mm) with PE handle.

Art. No.	Pack Qty.	€
CXX6.1	1	499,90



Cryo mortar

Container made of stainless steel with PE insulating jacket, mortar and pestle insert made of stainless steel with insulated, removable handle (L 102 mm). For filling with liquid nitrogen; cooling aids, for example, the shredding and homogenisation of plant material and similar samples.

Dimensions: Ø 165 x H 114 mm. Inner Ø of mortar and pestle insert 100 mm, 48 mm deep.

Delivery without pestle; can be used with porcelain pestles (Art. No. 3836.1 or XL92.1), for example.

Cryo mortars

Art. No.	Pack Qty.	€
CYH1.1	1	493,45

Cryo mortar, replacement mortar and pestle insert (without handle)

Art. No.	Pack Qty.	€
CYH2.1	1	172,00



Rotilabo®-evaporating dishes

Made of type 3.3 borosilicate glass. With spout. Autoclavable.

With round bottom

Volume (ml)	Outer edge Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	51	22	AYK1.1	10	73,35
35	64	29	AYK2.1	10	88,05
90	85	39	AYK3.1	10	90,00
180	105	49	AYK4.1	10	100,95
400	131	62	AYK5.1	10	127,95
800	166	80	AYK6.1	1	15,40
1700	206	100	AYK7.1	1	22,05
2600	235	115	AYK8.1	1	25,80

With flat bottom

Volume (ml)	Outer edge Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	40	18	AYK9.1	10	54,10
15	50	25	AYL0.1	10	62,15
45	60	30	AYL1.1	10	73,35
60	70	35	AYL2.1	10	77,00
90	80	45	AYL3.1	10	81,50
170	95	55	AYL4.1	10	85,95
320	115	65	AYL5.1	10	107,30
600	140	80	AYL6.1	1	15,60
1500	190	100	AYL7.1	1	19,80
2500	230	130	AYL8.1	1	22,50



Evaporating bowls

Made of DURAN®, with spout. Acc. to DIN 12 336. Autoclavable.

Volume (ml)	Outer edge Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	50	25	E540.1	10	63,10
45	60	30	E541.1	10	64,90
60	70	35	E542.1	10	72,90
90	80	45	E543.1	10	79,30
170	95	55	E544.1	10	84,50
320	115	65	E545.1	10	127,00
600	140	80	E546.1	1	18,50
1500	190	100	E547.1	1	45,10
2500	230	130	E548.1	1	65,40

Evaporating bowls



Evaporating dishes with snap-on lids

Made of highly transparent **PFA**, lid made of **PE**. For contamination-free sample preparation and for transporting samples.

- Temperature resistant in the range -200 to +250 °C
- Chemically inert to nearly all chemicals
- Hydrophobic and anti-adhesive
- High purity, ideal for used in trace analysis and for storage of reference solutions
- With conical recess in base, to hold small quantities of solvent for absorption of evaporated samples
- Extremely smooth surfaces allow easy cleaning, no memory effect
- Autoclavable

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
25	25	50	XY19.1	1	38,50
50	54	50	XY20.1	1	51,10



Rotilabo®-evaporating bowls

Made of 18/10 stainless steel. Cylindric. Autoclavable.

Deep dishes

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
125	35	75	C873.1	1	29,60
250	50	85	C874.1	1	37,65
500	55	110	C875.1	1	55,80
1000	75	140	C876.1	1	82,05
2000	105	160	C877.1	1	106,45
5000	160	200	C878.1	1	219,30

Shallow dishes

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
50	20	60	C879.1	1	19,90
75	20	70	C880.1	1	24,95
100	20	80	C881.1	1	34,95



Rotilabo®-evaporating bowls

Made of **PTFE**. Flat. Chemically inert.

Temperature stable from -200 to +260 °C. Anti-adhesive. Autoclavable.

Volume (ml)	Outer Ø (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
25	42	25	T654.1	1	16,45
50	65	23	T188.1	1	17,75
100	80	28	T189.1	1	23,60
180	78	46	T655.1	1	32,05
350	100	55	T190.1	1	44,20



Rotilabo®-evaporating dishes

Made of porcelain, glazed inner surface.

Semi-deep form with round bottom.

Temperature stable up to +1000 °C. Autoclavable.

Volume (ml)	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
41	26	72	XX26.1	5	26,15
62	27	83	XX27.1	5	28,60
110	30	96	XX28.1	5	41,90
160	37	110	XX29.1	5	44,55
215	41	117	XX30.1	5	45,10
240	42	127	XX31.1	5	55,70
325	46	142	XX32.1	5	56,55
420	50	154	XX33.1	5	62,05
558	55	170	XX34.1	5	76,35

Lab porcelain

Quality Lab porcelain

Acc. to DIN EN 60672-3, Type C 110.

Temperature stable up to +1000 °C.

Excellent chemical resistance.

(Exception: hydrofluoric acid and alkali salt melts).



Evaporating dishes 888

By Haldenwanger. Made of glazed porcelain, with the exception of the outer bottom surface. Flat shape, with spout. Autoclavable.

Volume (ml)	Size	Ø x H (mm)	Art. No.	Pack Qty.	€
5	000	40 x 9	XL72.1	1	8,00
10	00	50 x 11	XL73.1	1	8,55
20	0	63 x 13	XL74.1	1	9,80
40	2	80 x 20	XL75.1	1	10,90
80	4	100 x 22	XL76.1	1	14,85
270	6	125 x 27	XL77.1	1	19,25
450	6a	160 x 35	XL78.1	1	32,20
1100	8	190 x 55	XL79.1	1	68,80
1750	9	240 x 65	XL80.1	1	123,65
2500	10	300 x 60	XL81.1	1	177,40



Evaporating dishes 109

By Haldenwanger.

Made of glazed porcelain, with spout and round bottom. Autoclavable.

Volume (ml)	Size	Ø x H (mm)	Art. No.	Pack Qty.	€
10	5/0	40 x 16	XL61.1	10	55,15
20	4/0	50 x 20	3860.1	10	57,65
40	000	63 x 25	1575.1	10	66,15
50	00	70 x 26	3880.1	10	81,95
75	0	80 x 34	3933.1	10	92,70
110	1	85 x 36	3945.1	10	100,45
180	2	100 x 40	1576.1	1	12,40
220	4	110 x 45	4000.1	1	19,30
310	5	115 x 47	4004.1	1	22,05
370	6	150 x 45	4012.1	1	31,85
640	6a	160 x 64	1577.1	1	37,65
1000	7B	200 x 80	XL62.1	1	56,65
2200	9	260 x 86	XL63.1	1	96,55
3400	10	310 x 110	XL64.1	1	175,25



Evaporating dishes 131

By Haldenwanger. Made of glazed porcelain.

French style, with spout and flat bottom. Autoclavable.

Volume (ml)	Size	Ø x H (mm)	Art. No.	Pack Qty.	€
30	2	28 x 52	XL65.1	1	11,30
60	3	75 x 30	XL66.1	1	18,85
100	4	84 x 36	XL67.1	1	21,85
150	5	97 x 40	XL68.1	1	27,20
250	6	110 x 50	XL69.1	1	33,30
290	7	125 x 52	XL70.1	1	37,60
400	8	150 x 60	XL71.1	1	46,25



Evaporating dishes 130

By Haldenwanger. Made of glazed porcelain.

French style, with spout and round bottom. Autoclavable.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
70	75 x 40	TL71.1	1	20,45
190	97 x 50	TL72.1	1	32,60
270	110 x 52	TL73.1	1	41,15
350	125 x 60	TL74.1	1	44,30



Casseroles

By Haldenwanger. Made of porcelain. With handle.

Glazed with the exception of the rim. Acc. to DIN 12907. Autoclavable.

Volume (ml)	Size	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
80	4/0	36	63	HC79.1	1	26,05
140	000	46	80	HC80.1	1	31,90
290	0	69	102	HC81.1	1	38,85
500	2	70	127	HC82.1	1	57,55
1300	4	97	160	HC83.1	1	181,70
2600	4 b	110	215	HC84.1	1	188,15



Ignition dishes 33 D

By Haldenwanger. Made of glazed porcelain, with the exception of the outer bottom surface. Flat shape. Autoclavable.

Volume (ml)	Size	Ø x H (mm)	Art. No.	Pack Qty.	€
8	2	37 x 10	XL82.1	1	6,45
10	3	42 x 11	XL83.1	1	6,85
15	4	48 x 12	XL84.1	1	8,55



Ignition dishes 33

By Haldenwanger. Porcelain, glazed. Autoclavable.

Volume (ml)	Size	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
15	1	21	40	3740.1	10	58,05
30	2	25	50	1564.1	10	73,00
60	4	31	60	1565.1	10	88,15



Ignition dishes 33 C

By Haldenwanger. Made of glazed porcelain. Slightly tapered. Autoclavable.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
48	26	10	TL80.1	1	10,25
55	42	16	TL81.1	1	12,80
70	46	13	TL82.1	1	16,10
96	55	16	TL83.1	1	20,40

- Metal crucibles see p. 170
- Spoon spatulas made of porcelain see p. 181
- Lab burners see p. 884



Combustion boats

By Haldenwanger. Made of porcelain. With eyelet. Autoclavable.

Glazed. Glazing prevents build-up of sample residues and cross-contamination. Temperature stable up to +1000 °C.

L x W x H (mm)	Art. No.	Pack Qty.	€
90 x 12 x 8	L016.1	1	16,15
100 x 12 x 10	L017.1	1	17,45
130 x 20 x 13	L019.1	1	26,05

Unglazed. Temperature stable up to +1350 °C.

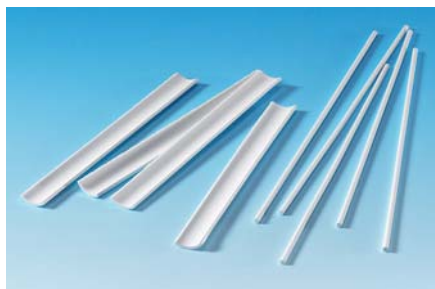
L x W x H (mm)	Art. No.	Pack Qty.	€
80 x 13 x 9	TL84.1	10	16,05



Spot test plates

By Haldenwanger. Made of glazed porcelain. Autoclavable.

No. of moulds	L x W x H (mm)	Ø of moulds (mm)	Depth of moulds (mm)	Art. No.	Pack Qty.	€
6	115 x 80 x 12	36	11	C765.1	1	17,05
12	119 x 85 x 6	20	3	C767.1	1	24,75
12	127 x 97 x 12	25	6	C768.1	1	25,40



Magnesia scoops

For annealing and incineration of samples, as well as for the production of oxygen melts for the detection of chromium, manganese etc. and for bead tests. W 9 x L 100 mm.

Art. No.	Pack Qty.	€
6537.1	25	20,40

Magnesia rods

Ideal for flame analysis of sodium, etc. For borax-bead analysis of cobalt. For bead tests. Ø 1.5 x L 140 mm.

Art. No.	Pack Qty.	€
6543.1	25	21,45

Crucibles



Gooch crucibles

By Haldenwanger. Made of glazed porcelain.
Delivery without sieve plate. Please order separately.

Wide body, type 82 A

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
25	39 x 42	TL86.1	1	18,20
35	42 x 45	TL87.1	1	19,90

High body, type 82 R

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
25	35 x 41	TL88.1	1	15,60

Sieve plates for Gooch crucibles

By Haldenwanger. Made of glazed porcelain. According to Dr. Witt.

Ø (mm)	for crucible	Art. No.	Pack Qty.	€
22	TL86.1, TL88.1	TL89.1	1	8,90
25	TL87.1	TL90.1	1	9,90



Filter crucible 84

By Haldenwanger. Made of glazed porcelain.
 Porosity of base: P2 (~5 µm). Acc. to DIN 12909.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
25	35 x 43	C760.1	1	94,60



Rotilabo®-crucibles with cover

Made of unglazed porcelain, high form. Temperature stable up to +1350 °C.
 For the determination of volatile liquids.

Volume (ml)	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
22	42	32	XX24.1	5	11,60



Rotilabo®-filter crucibles

Made of glazed porcelain. With porous bottom, unglazed.
 Temperature stable up to +1000 °C. Compliant with DIN 12909.

Volume (ml)	Pore size (µm)	Upper Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
8	6	25	28	XX64.1	2	24,30
8	7	25	28	XX65.1	2	24,30
8	8	25	28	XX66.1	2	24,30
15	6	30	35	XX67.1	2	27,75
15	7	30	35	XX68.1	2	27,75
15	8	30	35	XX69.1	2	27,75
25	6	35	40	XX70.1	2	29,90
25	7	35	40	XX71.1	2	29,90
25	8	35	40	XX72.1	2	29,90
35	6	40	43	XX73.1	2	30,25
35	7	40	43	XX74.1	2	30,25
35	8	40	43	XX75.1	2	30,25
50	6	45	50	XX76.1	2	30,65
50	7	45	50	XX77.1	2	30,65
50	8	45	50	XX78.1	2	30,65



Rotilabo®-swelling crucibles with cover

Made of unglazed porcelain, wide form.
 Temperature stable up to +1350 °C.

Volume (ml)	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
19	27	43	XX25.1	5	12,60

- Filter crucibles made of glass see p. 154
- Further burners from p. 884



① Melting crucibles 79, shallow

By Haldenwanger. Porcelain, wide, glazed.

Volume (ml)	Size	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
8	000 a	20	30	L217.1	10	40,85
11	00	23	35	L218.1	10	43,00
20	0	26	40	L219.1	10	47,30
25	1	29	45	L220.1	10	60,10
40	2	32	50	L221.1	10	79,45
65	2 a	38	60	L222.1	10	86,95
95	3	47	70	L223.1	10	111,80
180	4	55	83	L224.1	10	145,15

② Melting crucibles 79 MF, medium

By Haldenwanger. Porcelain, glazed.

Volume (ml)	Size	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
10	8	25	30	L225.1	10	42,15
13	7	28	35	L226.1	10	43,55
20	7 a	32	40	L227.1	10	47,25
38	6	36	45	L228.1	10	59,70
50	6 a	40	50	L229.1	10	67,40
60	5	43	52	L230.1	10	69,90
90	4	50	60	L231.1	10	84,85
150	2	60	70	L232.1	10	117,20
230	1	65	82	L233.1	10	154,80



Melting crucibles 79 C, high

By Haldenwanger. Porcelain, glazed.

Volume (ml)	Size	Height (mm)	Upper Ø (mm)	Art. No.	Pack Qty.	€
15	0	38	30	1572.1	10	47,85
24	1	44	35	3842.1	10	51,00
40	2	51	40	3848.1	10	60,65
50	3	53	46	1573.1	10	69,25
85	4	65	51	3859.1	10	104,20
140	5	79	60	1574.1	10	137,60

Lids for melting and filter crucibles

By Haldenwanger. Porcelain, glazed.

For crucible-Ø (mm)	for size	Art. No.	Pack Qty.	€
30	8	L234.1	10	52,35
35	7	L235.1	10	53,25
40	7a	L236.1	10	57,55
45/46	6	L237.1	10	60,15
50/52	5	L238.1	10	65,05
60	4	L239.1	10	78,15
70	2	L240.1	5	44,10
80-85	1	L241.1	5	63,75



Rotilabo®-melting crucibles, medium-high form

Made of glazed porcelain. Temperature stable up to +1000 °C.
Acc. to DIN 12904. Autoclavable.

*Not acc. to DIN

Volume (ml)	Upper Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10*	30	25	XX79.1	5	10,60
12	35	28	XX80.1	5	11,35
20	40	32	XX81.1	5	13,20
30	45	36	XX82.1	5	13,55
45	50	40	XX83.1	5	18,10
80	60	48	XX84.1	5	22,05
120	70	56	XX85.1	5	28,20
200*	80	62	XX86.1	5	34,85

Lids for Rotilabo®-melting crucibles

Made of glazed porcelain. Temperature stable up to +1000 °C.
Autoclavable.

For crucible-Ø (mm)	Lid Ø (mm)	Art. No.	Pack Qty.	€
30	34	XX87.1	5	11,15
35	39	XX88.1	5	12,00
40	44	XX89.1	5	13,15
45	49	XX90.1	5	15,80
50	54	XX91.1	5	16,60
60	64	XX92.1	5	18,10
70	74	XX93.1	5	21,65
80	84	XX94.1	5	22,60



Porcelain marker pen

For labelling glazed and unglazed lab porcelain.
Ink color: brown, temperature stable up to max. 1400 °C.

Art. No.	Pack Qty.	€
CEK7.1	1	11,30

Crucibles



Rotilabo®-melting crucibles, stainless steel

Made of 18/10 stainless steel (material-number 1.4301).
Wall thickness 1 mm. Temperature stable up to about +850 °C.

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25	35	35	8307.1	1	21,30
30	40	35	8309.1	1	27,45
70	50	45	8311.1	1	30,35

Lids for melting crucibles made of stainless steel

Type	Art. No.	Pack Qty.	€
Lid for crucible 25 ml	8313.1	1	11,30
Lid for crucible 30 ml	8314.1	1	11,85
Lid for crucible 70 ml	8315.1	1	12,80



Rotilabo®-melting crucibles nickel

Made of pure nickel 99.6 %. Wall thickness 1 mm.
Temperature stable up to about +750 °C.

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
15	30	30	8291.1	1	36,35
25	35	35	8293.1	1	44,10
30	40	40	8294.1	1	53,25
50	45	45	8296.1	1	61,10
70	50	50	8298.1	1	66,65
130	60	60	8299.1	1	89,80

Lids for melting crucibles made of pure nickel

Type	Art. No.	Pack Qty.	€
Lid for crucible 15 ml	8300.1	1	15,60
Lid for crucible 25 ml	8301.1	1	17,15
Lid for crucible 30 ml	8302.1	1	19,25
Lid for crucible 50 ml	8303.1	1	22,70
Lid for crucible 70 ml	8304.1	1	24,00
Lid for crucible 130 ml	8305.1	1	26,80



Rotilabo®-melting crucible iron

Made of iron. 2 mm wall thickness, Ø top 45 mm, height 35 mm.
Temperature stable to +800 °C, or up to +1000 °C in the absence of oxygen.

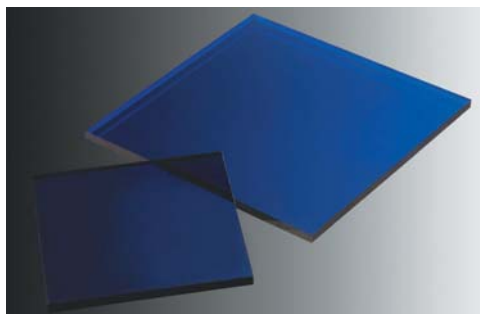
Type	Art. No.	Pack Qty.	€
Melting crucible	8316.1	1	10,40
Lid	8317.1	1	4,65



Rotilabo®-lead crucible

With lid. 3 mm wall thickness, Ø top 40 mm, height 40 mm.
Temperature stable up to max. +200 °C.

Art. No.	Pack Qty.	€
8326.1	1	10,90



Sight glasses / Cobalt glasses

Made of **cobalt glass**. With cut edges. Approx. 2.5 mm thick.

Dimensions (mm)	Art. No.	Pack Qty.	€
50 x 50	P221.1	2	13,10
75 x 75	P222.1	2	21,85
100 x 100	P223.1	2	28,20

- Laboratory burners see page 884
- Magnesia scoops and magnesia rods see page 167



Rotilabo®-weighing bottles

Made of borosilicate glass. **Tall**, with ground glass joint stoppers.

Vol. (ml)	Standard taper (NS)	Weight without stopper (g)	Height without lid (mm)	Outer Ø (mm)	Art. No.	Pack Qty.	€
1	14/22	3	20	17	1368.1	1	17,10
4	19/26	6	30	23	1367.1	1	17,10
10	24/29	12	40	28	1366.1	1	17,10
20	29/32	17	50	34	1365.1	1	17,10
50	34/35	29	70	39	1364.1	1	17,10

Rotilabo®-weighing bottles assortment

Five pieces, one of each size.

Art. No.	Pack Qty. (assortment)	€
1369.1	1	67,75

Rotilabo®-weighing bottles

Made of DURAN®. **Short** with stopper. Acc. to DIN 12605.

* not acc. to DIN

Volume (ml)	Standard taper (NS)	Height (mm)	Ø bottom, outer (mm)	Art. No.	Pack Qty.	€
5*	24/12	25	25	K614.1	1	12,40
15	34/12	30	35	K615.1	1	13,90
30	50/12	30	50	K616.2	6	80,55
80	80/12	30	80	K617.1	1	28,40



Rotilabo®-weighing cans

Made of transparent PP. With airtight lid. Upper part can be pressed together to enable easy pouring. Low weight reduces measurement adjustments. Autoclavable.

Volume (ml)	Top, outer Ø (mm)	Height (mm)	Tara (g)	Art. No.	Pack Qty.	€
20	40	30	8	K778.1	2	6,35
23	30	50	8	K779.1	2	6,45
30	50	30	10	K790.1	2	7,15
40	40	70	14	K791.1	2	7,15
50	60	35	18	K792.1	2	7,65
190	60	90	28	K793.1	2	8,55
360	70	120	40	K794.1	2	9,60



Rotilabo®-weighing bottles with ground glass caps

Made of borosilicate glass 3.3. With ground glass cap and labelling space.

Short

Volume (ml)	Height without cap (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
9	30	29/12	AA7.1	1	16,60
12	30	34/12	AA8.1	1	19,60
25	35	40/12	AA9.1	1	21,65
38	35	50/12	ACA0.1	1	26,35
100	35	80/12	ACA1.1	1	41,40

Middle

Volume (ml)	Height without cap (mm)	Standard ground glass joint	Art. No.	Pack Qty.	€
25	50	29/12	ACA2.1	1	16,60
32	50	34/12	ACA3.1	1	19,60
47	50	40/12	ACA4.1	1	21,65
70	50	50/12	ACA5.1	1	26,35
185	50	80/12	ACA6.1	1	41,40



Rotilabo®-weighing boats

Made of borosilicate glass. With spout for emptying. Autoclavable.

Size	Volume (ml)	Length (mm)	Funnel Ø (mm)	Spout Ø (mm)	Art. No.	Pack Qty.	€
A	6	100	30	15	1920.1	1	15,00
B	3	75	25	10	1921.1	1	15,00
C	1	55	20	8	1922.1	1	15,00
D	0,25	42	10	6	1923.1	1	15,00

Rotilabo®-weighing boats-set

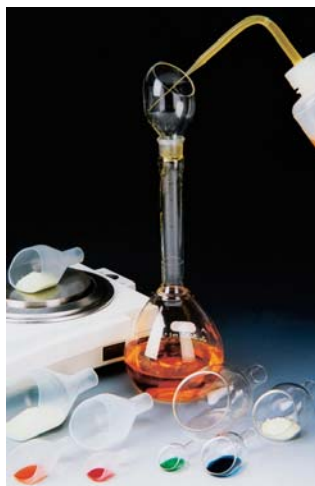
Set of 4 weighing boats all sizes A, B, C, D.

Art. No.	Pack Qty. (assortment)	€
1933.1	1	44,65

► Autoclaving information on page 5

► Balances from page 824

Weighing accessories



Rotilabo®-weighing funnels

Ideal for weighing liquid and solid samples. Sits safely and flush on the balance. Spout enables easy filling and emptying of measuring flasks, test tubes, etc. Autoclavable.

Made of PP

Volume (ml)	Length (mm)	Funnel Ø (mm)	Spout Ø (mm)	Art. No.	Pack Qty.	€
2	44	23	7	P652.1	50	38,60
7	63	35	11	P653.1	50	55,30
10	88	48	17	P654.1	20	52,60
25	117	63	20	P655.1	10	60,20

Made of Borosilicate glass

Volume (ml)	Length (mm)	Funnel Ø (mm)	Spout Ø (mm)	Art. No.	Pack Qty.	€
2	44	23	7	P656.1	6	55,30
7	63	35	11	P657.1	6	63,00
10	88	48	17	P658.1	6	73,00
25	117	63	20	P659.1	6	75,15



Weighing funnels

Made of antistatic PP, resistant to static charge. With wide mouth for easy access. Tapered neck for use with volumetric flasks in sizes from 10 to 250 ml. Extended metering neck for direct transfer of samples and liquids to flask, ventilation slot between funnel and vessel prevents accumulation of liquid.

Technical specifications:

Typical metering quantity	1 mg - 5 g
Suitable for volumetric flasks	5 (wide mouth), 10, 25, 50, 100 and 250 ml
Suitable for ground glass joints	10/19, 12/21, 14/23
Dimensions	L 75 x W 30 x H 26 mm
Nozzle outer Ø	Tapered, 9-15 mm

Art. No.	Pack Qty.	€
CET4.1	50	79,50



Rotilabo®-weighing boats

Made of borosilicate glass 3.3. With flat bottom.

Length (mm)	Art. No.	Pack Qty.	€
50	AA4.1	1	36,50
70	AA5.1	1	40,85
100	AA6.1	1	43,25



Rotilabo®-weighing boats

Made of glazed porcelain. Temperature stable up to +1000 °C. Autoclavable.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
37	17	XX55.1	10	21,95
53	23	XX56.1	10	22,80
64	29	XX57.1	10	23,90

► Volumetric flasks see page 25



Rotilabo®-weighing boats

Made of stainless steel 18/8. Width 30 mm.

Length (mm)	Art. No.	Pack Qty.	€
105	HT05.1	1	8,40
120	HT06.1	1	9,15



Rotilabo®-micro aluminium dishes

Made of **aluminium**. Free from oil residues and layers. Suitable for micro scales, micro-elementary and thermal systems. Compatible with most micro scales and analysis devices. Packed in practical plastic containers.

Round form

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
0,035	6	2,5	PP58.1	250	92,45
0,35	13	3,5	PP59.1	100	51,60

Oval form

Volume (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
0,04	6,5 x 3,5 x 2,5	PP60.1	250	83,65
0,11	10 x 4 x 4,5	PP61.1	250	75,15
0,12	12 x 4 x 2,7	PP62.1	250	90,30
0,12	12 x 2 x 4,5	PP63.1	250	99,45
1,12	25 x 7 x 7	PP64.1	50	53,65



Rotilabo®-aluminium dishes with handle

Made of **aluminium**. Free from oil residues and layers. Compressed walls for extra stability. Handles ideal for labelling or holding. Easy to stack. Variety of applications that require weighing dishes, evaporating dishes or drying dishes, to cover containers or store small items.

Volume (ml)	Ø (mm)	Height (mm)	Material thickness (mm)	Art. No.	Pack Qty.	€
8	28	10	0,11	PP54.1	500	48,30
20	43	13	0,11	PP55.1	100	10,25
60	57	16	0,09	PP56.1	100	11,30
80	70	16	0,11	PP57.1	100	13,90



Rotilabo®-disposable weighing trays

Made of **aluminium**. For solid and liquid substances. Stackable. Ø 100 mm, height 7 mm. Material thickness 0.1 mm. Temperature stable up to approx. +400 °C.

Art. No.	Pack Qty.	€
9262.1	80	40,35



Rotilabo®-weighing pans

Made of stainless steel 18/10. With rounded edges. Autoclavable.

Type	L x W x H (mm)	Weight (g)	Art. No.	Pack Qty.	€
Mat	260 x 180 x 25	266	YE43.1	1	16,05
Glossy	260 x 200 x 45	356	YE44.1	1	19,90
Glossy	310 x 245 x 50	564	YE45.1	1	23,65



Flat weighing pans

Made of **PS**, antistatic. Flexible design with wide base for even pouring and dispensing of solids and liquids. Resistant to diluted acids, bases and alcohols. Bioinert. Capacity 50 ml, dimensions: L 89 x W 89 x H 6 mm.

Art. No.	Pack Qty.	€
ATC3.1	500	32,20



Rotilabo®-hexagonal weighing pans

Made of **PS**, antistatic. For solid and liquid substances. With flat bottom. Stackable. Pans can be squeezed together in several places to form a spout. Temperature max. +80 °C.

Volume (ml)	Inner-Ø top (mm)	Inner-Ø bottom (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	38	25	10	KC03.1	500	23,55
50	64	51	20	KC04.1	500	37,10
200	102	76	23	KC05.1	500	67,75
350	127	89	27	KC06.1	500	74,20

- Balances from page 824
- Volumetric flasks see page 25

Weighing accessories



Rotilabo®-disposable weighing trays

Made of **PS**, antistatic. For solid and liquid substances. Resistant to diluted acids, alkalis, alcohols. Biologically inert. Temperature stable up to +80 °C.

Natural coloured, transparent

Volume (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	41	41	8	1878.2	500	25,30
100	89	89	25	1884.1	500	33,90
330	140	140	22	0875.2	500	67,75

Opaque blue, ideal for white substances

Volume (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	41	41	8	2149.2	500	26,35
100	89	89	25	2150.1	500	38,60
330	140	140	22	2159.2	500	72,05



Disposable weighing pans, diamond-shaped

Made of **PS**, antistatic. Flexible pans with smooth surface for thorough emptying with minimal sample loss. FDA-compliant. Temperature stable from -10 to +70 °C.

Natural colours, transparent

Volume (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
5	55 x 35 x 6	TP58.1	500	19,25
25	71 x 46 x 14	TP59.1	500	31,10
100	119 x 90 x 19	TP60.1	500	59,10

Black, optimal contrast, specially designed for white weighing material

Volume (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
5	55 x 35 x 6	TP61.1	500	21,45
25	71 x 46 x 14	TP62.1	500	32,05
100	119 x 90 x 19	TP63.1	500	63,65



Disposable weighing boats

Made of natural-coloured **PS**. For weighing solid and liquid substances. With spout for easy pouring and flat bottom. Temperature stable up to +90 °C.

Volume (ml)	Length (mm)	Width (mm)	Depth (mm)	Art. No.	Pack Qty.	€
20	57	41	8	A229.1	250	26,80
140	133	89	25	A230.1	250	42,50
270	190	120	25	ATC2.1	250	60,00



Weighing boats

Made of nitrogen-free special parchment, 0.07 mm thick, grammage 83 g m². For weighing viscous and syrupy substances. For determining nitrogen concentration using the Kjeldahl method.

L x W x H (mm)	Art. No.	Pack Qty.	€
58 x 10 x 10	EL10.1	100	75,80
70 x 23 x 15	EL11.1	100	106,00



Rotilabo®-disposable weighing pans

Made of parchment paper. For solid substances. No static charging. Brown pans for better recognition of light-colored weighing materials. Dimensions: Ø 88 mm x H 11 mm.

Art. No.	Pack Qty.	€
HX57.1	150	32,70

Weighing accessories



Rotilabo®-cards

Blank for laboratory purposes, e.g. can be used as weighing blades or scratchers.

Art. No.	Pack Qty. (kg)	€
1656.1	1	15,30



Rotilabo®-weighing tweezers

Made of stainless steel, with PVC tips. Curved. Length 90 mm. Weight 8 g.

Art. No.	Pack Qty.	€
YT63.1	1	5,95



Weighing papers

By Macherey-Nagel. Made of glassine. With smooth surface. Impervious, transparent. Booklet with 100 sheets. Dimensions: L 115 x W 90 mm.

Art. No.	Pack Qty.	€
1069.1	10	94,00
1069.2	1	10,50



Weighing brushes

With goat hair. Ideal for dusting weighing boats, scales and weights. Total length approx. 170 mm.

Art. No.	Pack Qty.	€
5481.1	3	8,10



Rotilabo®-weighing papers

Made of nitrogen-free paper. With smooth surface for optimal sample recovery.

L x W (mm)	Art. No.	Pack Qty.	€
76 x 76	TP64.1	500	20,65
102 x 102	TP65.1	500	33,90
152 x 152	TP66.1	500	49,45



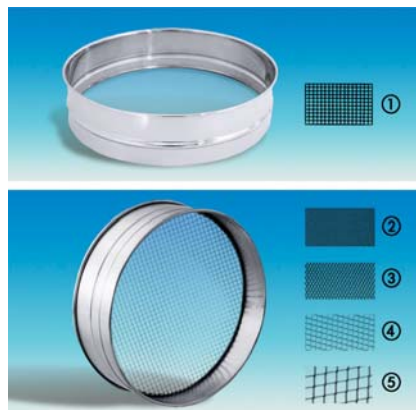
Set of brushes

Brushes made of bovine hair with nickel ferrule. With long, unlaquered handles. Ideal for cleaning sensitive equipment. Set consists of 6 brushes, sizes 2 to 12.

Art. No.	Qty. (set)	€
L242.1	1	18,10

► Balances from page 824

Sieves



Rotilabo®-flat sieves

Sieve frame and braid made of stainless steel 18/10. Suitable for separating powders, granulates and other bulk goods. Easy to clean, dishwasher safe.

① **Very fine** (8 holes/cm, mesh aperture 1 mm). Without ground clearance.

Inner Ø (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
200	60	YH29.1	1	11,05
240	63	YH30.1	1	14,30
275	67	YH31.1	1	21,30
390	77	YH32.1	1	42,50

② **Fine** (hole size: 2 x 1.3 mm). Filling height 50 mm.

Inner Ø (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
250	100	YH33.1	1	54,50
300	100	YH34.1	1	70,85
350	100	YH35.1	1	85,50

③ **Medium fine** (hole size: 4 x 2 mm). Filling height 50 mm.

Inner Ø (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
300	100	YH36.1	1	70,85
350	100	YH37.1	1	85,50

④ **Coarse** (hole size: 4 x 4 mm). Filling height 50 mm.

Inner Ø (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
250	100	YH38.1	1	53,55
300	100	YH39.1	1	70,85

⑤ **Extra coarse** (hole size: 6 x 6 mm). Filling height 50 mm.

Inner Ø (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
300	100	YH40.1	1	70,85
350	100	YH41.1	1	85,50

► Analytical sieves, see page 501



Rotilabo®-plastic sieve

Sieve frame made of PP, woven nylon braid.

Suitable for separating powders, bulk goods and granulates.

Extra fine, 7 holes/cm (hole size: 1 x 1 mm). Dimensions: inner Ø 220 mm, outer Ø 240 mm, overall height 82 mm, inner height 60 mm.

Art. No.	Pack Qty.	€
YH42.1	1	23,90



Rotilabo®-round sieves

Made of 18/10 stainless steel (1.4301). With handle and 2 eyelets for resting sieve on vessels. Autoclavable. Mesh size approx. 1.5 mm (ca. 6 holes/cm).

Ø (mm)	Art. No.	Pack Qty.	€
100	8096.1	1	10,25
120	8097.1	1	12,15
140	8098.1	1	14,55
160	8099.1	1	16,35
180	8100.1	1	17,10
200	8101.1	1	19,70
220	8102.1	1	23,60



Rotilabo®-round sieves

Made of 18/8 stainless steel (1.4112), polished.

With handle, broad rim and a big eyelet. Autoclavable.

Outer Ø (mm)	Mesh size (mm)	Art. No.	Pack Qty.	€
75	0,5	A624.1	1	13,55
120	0,8	A625.1	1	17,65
160	1,2	1359.1	1	25,40
190	1,2	A626.1	1	28,50
230	1,2	A627.1	1	32,20



Rotilabo®-sieve

Made of stainless steel 18/10. With medium-fine sieve.

Volume 100 ml, Ø 75 mm, length 180 mm. Autoclavable.

Art. No.	Pack Qty.	€
YE89.1	1	7,75

Slotted ladles and sieve spoons



Rotilabo®-sodium spoon

Copper woven with wooden handle. Total length 185 mm. Spoon-Ø 26.35 mm, mesh aperture 1 mm.

Art. No.	Pack Qty.	€
P180.1	1	10,35



Rotilabo®-embryo spoon Banivo

Made of stainless steel. To hold delicate structures. Perforated spoon allows fluid to drain. Dimensions: spoon Ø 15 mm, depth 3 mm. Overall length 145 mm. Autoclavable.

Art. No.	Pack Qty.	€
TL85.1	1	64,40



Rotilabo®-drain scoop

Made of stainless steel, perforated, with hollow handle. For taking samples from water baths, transporting agarose gels, etc. Scoop dimensions: L 100 x W 80 mm. Overall length: 255 mm. Autoclavable.

Art. No.	Pack Qty.	€
YE60.1	1	10,45



Rotilabo®-strainer spoon

Made of stainless steel 18/0, seamless, glossy. Hole Ø 4 mm. Spoon dimensions: L 90 x W 65 mm. Total length 320 mm. Autoclavable.

Art. No.	Pack Qty.	€
YH04.1	1	10,70



Rotilabo®-slotted ladles, flat

Made of stainless steel 18/10, seamless. Flat shape. Heavy duty. Hole Ø 4 mm. Autoclavable.

Ø (mm)	Handle length (mm)	Art. No.	Pack Qty.	€
80	280	YE97.1	1	7,50
100	320	YE98.1	1	9,15
120	360	YE99.1	1	11,30
140	400	YH00.1	1	13,45
160	430	YH01.1	1	16,45
180	440	YH02.1	1	20,90
200	470	YH03.1	1	26,15



Rotilabo®-slotted ladles, deep

Made of stainless steel 18/10, seamless. With hole Ø 5-6 mm. Heavy duty. Autoclavable.

Volume (ml)	Ø (mm)	Handle length (mm)	Art. No.	Pack Qty.	€
80	70	290	YE90.1	1	20,35
125	80	320	YE91.1	1	21,45
200	90	330	YE92.1	1	22,25
250	100	370	YE93.1	1	22,60
500	120	400	YE94.1	1	26,80
750	140	410	YE95.1	1	31,75
1000	160	450	YE96.1	1	36,55

Hand scoops



Rotilabo®-ladles

Made of stainless steel 18/10 (1.4301). High-gloss, seamless, made in one piece (except L006.1), heavy-duty version.

Volume (ml)	Ø (mm)	Handle length (mm)	Art. No.	Pack Qty.	€
20	45	220	L001.1	1	11,30
30	50	220	L002.1	1	12,50
60	60	230	L003.1	1	13,15
80	70	290	L004.1	1	14,45
125	80	320	L005.1	1	17,20
200	90	330	L006.1	1	18,85
250	100	360	L007.1	1	24,20
500	120	400	L008.1	1	30,10
750	140	410	L009.1	1	39,80
1000	160	450	L010.1	1	42,95



Rotilabo® hand scoops

Made of Remanit 4301. Length excluding handle. Autoclavable.

Volume (ml)	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
120	100	50	0703.1	1	13,80
450	150	75	0704.1	1	18,05
1000	200	100	PX24.1	1	18,95
1500	240	120	0705.1	1	21,95
2500	250	150	PX25.1	1	27,45

Rotilabo® hand scoop range

Three hand scoops, with capacities of 120, 450 and 1500 ml.

Art. No.	Pack Qty. (assortment)	€
0706.1	1	47,20



Pharmaceutical scoops

Made of stainless steel V4A (1.4401), high gloss finish. GMP-compliant. Seamless. Wall thickness 1.2 mm.

Volume (ml)	Dimensions of scoop L x W (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
100	100 x 50	180	CHX0.1	1	125,80
450	150 x 75	260	CHX1.1	1	134,40
1000	235 x 110	365	CHX2.1	1	152,65
2500	250 x 135	400	CHX3.1	1	175,25



Rotilabo®-multipurpose scoops

Made of stainless steel 18/10 (1.4301). Jointless connection of scoop with hollow handle. With loop to hang up. Extra strong.

Volume (ml)	Dimensions of scoop (mm)	Overall length (mm)	Weight (g)	Art. No.	Pack Qty.	€
100	120 x 59	215	145	KP45.1	1	13,95
200	140 x 75	230	190	KP46.1	1	17,00
250	155 x 85	245	223	KP47.1	1	18,50
350	180 x 100	290	280	KP48.1	1	22,05
500	220 x 130	350	415	KP49.1	1	27,95



Filling scoops with knob handle

By Hammacher. Made of Remanit 4024 stainless steel. Autoclavable.

Dimensions of scoop (mm)	Length (mm)	Art. No.	Pack Qty.	€
35/70	190	YC80.1	1	19,80
30/63	205	YC81.1	1	20,55

Hand scoops



Rotilabo®-aluminium scoops

Made of cast aluminium. Suitable for hand cleaning using mild detergents (no soda). A dark-coloured protective film may form (does not have to be removed). Autoclavable.

Volume (ml)	Dimensions of scoop (mm)	Overall length (mm)	Weight (g)	Art. No.	Pack Qty.	€
20	85 x 50	145	38	YE53.1	1	2,30
80	105 x 55	185	45	YE54.1	1	2,60
110	120 x 70	210	78	YE55.1	1	3,80
250	150 x 90	250	118	YE56.1	1	4,85
400	170 x 100	265	148	YE57.1	1	5,85
400	180 x 105	310	206	YE58.1	1	11,30
750	220 x 135	350	303	YE59.1	1	13,80



Rotilabo®-plastic scoops

Made of natural coloured HDPE with smooth surface.

Volume (ml)	Dimensions L x W (mm)	Art. No.	Pack Qty.	€
25	135 x 42	0574.1	1	1,65
65	185 x 60	0575.1	1	1,65
125	187 x 65	0576.1	1	2,70
275	250 x 90	0577.1	1	3,80
512	310 x 110	0578.1	1	5,35
857	350 x 145	0579.1	1	6,40
1520	400 x 170	0580.1	1	9,65

Rotilabo®-plastic scoop-set

Seven scoops, capacity from 25 to 1520 ml.

Art. No.	Pack Qty. (assortment)	€
0997.1	1	23,05



Plastic scoops

Made of PP. White or assorted colours (white, yellow, green, light blue, blue, red, grey, black). Also suitable as weighing scoop.

With precision moulded filling edge and comfortable, sturdy handle.

Easily legible volume quantities on the upper side of the handle.

Suitable for foodstuffs under regulation (EC) No. 10/2011.

Volume 100 ml, dimensions: L 200 x W 70 mm.

Colour	Art. No.	Pack Qty.	€
white	APH4.1	12	15,20
assorted colours.	APH5.1	8	12,40



Disposable sample scoops

Made of PS, sterile (gamma-sterilised, individually packed).

With or without lid.

- Long handle allows safe distance between sample and hand
- Flat base for upright storage
- Usable as a weighing bottle

For sampling, analysis or conveyance of substances.

With lid, white.

Lid with tab. Spoon and sample container in one.

Volume (ml)	Overall length (mm)	Scoop L x W x H (mm)	Art. No.	Pack Qty.	€
60	203	25 x 76 x 38	YC11.1	10	60,00
60	203	25 x 76 x 38	YC10.1	100	256,95
125	221	25 x 89 x 44	YC13.1	10	67,20
125	221	25 x 89 x 44	YC12.1	100	289,20

Without lid, white

Volume (ml)	Overall length (mm)	Scoop L x W x H (mm)	Art. No.	Pack Qty.	€
60	203	25 x 76 x 38	YC15.1	100	144,05
125	221	25 x 89 x 44	YC14.1	100	181,70

Without lid, red.

Suitable for light-coloured substances, aids visibility.

Volume (ml)	Overall length (mm)	Scoop L x W x H (mm)	Art. No.	Pack Qty.	€
60	203	25 x 76 x 38	YC16.1	100	183,85
125	221	25 x 89 x 44	YC17.1	100	191,35

Spoons



Sample scoops SteriPlast®

By Bürkle. Made of **PS, sterile**, with transparent lid. For sterile and contamination-free sampling, e.g. of powders, granulates and pastes. Sample scoop can be sealed with lid after taking sample. Cleanroom-manufactured (class 7), individually packed. Suitable for use with foodstuffs.

Volume (ml)	Length (mm)	Art. No.	Pack Qty.	€
25	142	CPP5.1	10	26,45
50	161	CPP6.1	10	27,90
100	206	CPP7.1	10	29,00
150	218	CPP8.1	10	29,70



SteriPlast®Bio sample scoops

By Bürkle. Made of green **PE, sterile**. For sampling powders, granulates and pastes. Sample scoop and packaging are made from renewable raw materials and fully recyclable. Cleanroom-manufactured (class 7), individually packed. Suitable for use with foodstuffs.

Volume (ml)	Length (mm)	Art. No.	Pack Qty.	€
25	141	CPP9.1	10	19,80
50	160	CPT0.1	10	20,40
100	205	CPT1.1	10	21,00
150	216	CPT2.1	10	21,45



SteriPlast®Bio sample spoon

By Bürkle. Made of green **PE, sterile**. For sampling powders, granulates, pastes and liquids. Sample spoon and packaging are made from renewable raw materials and are fully recyclable. Cleanroom-manufactured (class 7), individually packed. Suitable for use with foodstuffs.

Volume (ml)	Length (mm)	Art. No.	Pack Qty.	€
2,5	127	CPT3.1	100	44,65
10	170	CPT4.1	100	47,25



Sample spoons, sterile

Made of **PS, Sterile** (individually wrapped). For powder, granulates, pastes, liquids.

Volume (ml)	Length (mm)	Spoon width (mm)	Spoon length (mm)	Art. No.	Pack Qty.	€
2	125	25	35	X031.2	1000	255,85
8	150	35	50	X032.2	1000	255,85



Sample spoons

Made of **PS, white**. For powders, granulates, pastes and liquids. Suitable for foodstuffs.

Volume (ml)	Length (mm)	Spoon W x L (mm)	Art. No.	Pack Qty.	€
2	125	25 x 35	APC9.1	100	12,85
9	175	40 x 60	APE0.1	100	21,10



Mini sample spoon

Made of **PS**, assorted colours. For powders, granulates, pastes and liquids. Suitable for foodstuffs. Volume 0.5 ml, spoon W 20 x L 25 mm, overall length 93 mm.

Art. No.	Pack Qty.	€
APC8.1	1000	13,95

Spoons



Rotilabo®-spoons

Made of glazed porcelain. Length 237 mm. Temperature stable up to 1000 °C. Autoclavable.

Art. No.	Pack Qty.	€
XX62.1	5	83,10



Spoon spatulas

By Haldenwanger. Made of porcelain. Highly resistant against chemical and physical influences. Temperature stable up to +1000 °C. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
120	C749.1	1	13,85
160	C751.1	1	14,75
200	C753.1	1	21,85
300	C755.1	1	40,75



Set of glass spoons

Made of borosilicate glass. In 4 sizes, length from 210 to 230 mm.

Packaging	Art. No.	Pack qty. (set)	€
Pack of 4 x 2 = 8	0185.1	1	260,15



Rotilabo®-measuring spoon set

Made of 18/10 stainless steel. Set of 4 spoons.

Technical specifications:

Model	Volume (ml)	Length (mm)	Ø (mm)	Depth (mm)
①	1.25	120	24	5
②	2.5	125	28	8
③	5	130	32	10
④	15	145	48	10

Art. No.	Qty. (set)	€
HC47.1	1	14,55



Round spoon

Made of stainless steel, with ergonomic handle made of ABS. Dimensions: L 148 x W 43 x H 21 mm, spoon Ø 40 mm. Temperature stable up to max. +99 °C. Dishwasher safe.

Art. No.	Pack Qty.	€
YC43.1	1	9,15



Rotilabo®-melting spoon

Stainless steel scoop, with wooden handle. Scoop-Ø 75 mm, with spout. Length 275 mm. Weight 73 g.

Art. No.	Pack Qty.	€
YT65.1	1	5,35

Spoons



Pharmacist's spoon

Made of Remanit 4301 high-grade steel. Total length 150 mm. Spoon width 15 mm, spoon length 30 mm. Autoclavable.

Art. No.	Pack Qty.	€
K745.1	1	3,15



Open spoon

Made of Remanit 4301 high-grade steel. Length 200 mm. Spoon width 20 mm, spoon length 30 mm. Autoclavable.

Art. No.	Pack Qty.	€
K734.1	1	6,40



Spoons for chemicals

Made of 18/10 stainless steel. One-sided, with rounded handle. Autoclavable.

Overall length (mm)	Spoon Ø (mm)	Art. No.	Pack Qty.	€
120	25	A635.1	1	4,85
150	25	A636.1	1	4,85
180	25	A637.1	1	5,30
210	30	A638.1	1	6,25
250	35	A639.1	1	7,00
300	35	A640.1	1	7,45



Laboratory spoons

By Hammacher. Made of Wironit 4301 stainless steel. Autoclavable.

Overall length (mm)	Spoon W x L (mm)	Art. No.	Pack Qty.	€
195	44/60	YC90.1	1	14,95
205	55/70	YC91.1	1	25,60



Rotilabo®-Pharmacist's spoons

Made of stainless steel 18/10. Wide form. Autoclavable.

Length (mm)	Spoon W x L (mm)	W x L of spatula (mm)	Art. No.	Pack Qty.	€
150	28 x 43	17 x 60	HY05.1	1	4,85
200	36 x 60	22 x 80	HY06.1	1	5,35
240	43 x 75	25 x 90	HY07.1	1	6,40
280	50 x 85	31 x 105	HY08.1	1	8,20
320	45 x 110	32 x 115	HY09.1	1	9,80



Micro-spoon spatula

Made of stainless steel 18/10, with hexagonal handle. Autoclavable.

Length (mm)	Spoon Ø (mm)	Art. No.	Pack Qty.	€
140	5	AT18.1	1	10,70



Chemicals spoon, angled

By Hammacher. Made of Wironit 4301 stainless steel. Length 200 mm, spoon Ø 27 mm. Autoclavable.

Art. No.	Pack Qty.	€
YC82.1	1	20,55



Rotilabo®-phosphor spoon

Stainless steel scoop. Scoop-Ø 16 mm. Length 450 mm. Weight 14 g.

Art. No.	Pack Qty.	€
YT64.1	1	2,80



Double spoons, large

By Hammacher. Made of Remanit 4024 stainless steel. Autoclavable.

Length (mm)	W x L spoon 1 (mm)	W x L spoon 2 (mm)	Art. No.	Pack Qty.	€
160	22/35	30/45	YC88.1	1	7,10
230	30/60	38/75	YC89.1	1	8,50



Double spoons

By Hammacher. Made of Wironit 4301 stainless steel. Autoclavable.

Length (mm)	W x L spoon 1 (mm)	W x L spoon 2 (mm)	Art. No.	Pack Qty.	€
150	11/22	20/25	YC83.1	1	25,30
180	20/27	24/32	YC84.1	1	26,45
210	20/28	27/35	YC85.1	1	32,15
250	24/32	30/40	YC86.1	1	35,40
300	29/40	35/45	YC87.1	1	39,70



Spoons for chemicals

Made of high-grade 18/9 steel. Double-sided, with rounded handle. Autoclavable.

Length (mm)	W x L spoon 1 (mm)	W x L spoon 2 (mm)	Art. No.	Pack Qty.	€
120	17/17	25/30	K746.1	1	6,05
150	17/17	25/30	K747.1	1	6,40
180	17/17	25/30	K748.1	1	7,00
210	20/25	30/35	K749.1	1	7,35
250	20/25	35/45	K750.1	1	8,10
300	20/25	35/45	K751.1	1	8,50



Double spoon

Made of Remanit 4301 high-grade steel. Autoclavable.

Length (mm)	W x L spoon 1 (mm)	W x L spoon 2 (mm)	Art. No.	Pack Qty.	€
190	12/30	20/35	K733.1	1	6,70



Double spoons

By Hammacher. Made of Remanit 4024 stainless steel. Spoon dimensions: W 10 x L 20 mm. Stem Ø 3.5 mm. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
180	YK72.1	1	5,35
210	YK73.1	1	5,85



Rotilabo®-multi-purpose spoons

Made of stainless steel 18/10. With solid round handle.

① Handle-Ø 5 mm. Dimensions of spoon: 15 x 35 mm

Length (mm)	Art. No.	Pack Qty.	€
150	HX95.1	1	6,05
180	HX96.1	1	6,40
210	HX97.1	1	6,60
250	HX98.1	1	7,35
300	HX99.1	1	7,50

② Handle-Ø 8 mm. Dimensions of spoon: 28 x 65 mm

Length (mm)	Art. No.	Pack Qty.	€
210	HY00.1	1	8,75
250	HY01.1	1	9,05
300	HY02.1	1	9,65
400	HY03.1	1	12,30
500	HY04.1	1	13,95

Spoon spatulas



Spoon spatula

Made of 18/10 rust-proof stainless steel, Remanit 4301. Blade length 28 mm, blade width 15 mm. Spoon diameter 25 mm. Autoclavable.

① With solid round handle

Overall length (mm)	Art. No.	Pack Qty.	€
150	A641.1	1	6,15
180	A642.1	1	6,40
210	A643.1	1	7,00
250	A644.1	1	7,50

② With flat handle

Overall length (mm)	Art. No.	Pack Qty.	€
120	YP87.1	1	3,20
150	YP88.1	1	3,80
180	YP89.1	1	4,10
210	YP90.1	1	4,85
250	YP91.1	1	8,10
300	YP92.1	1	9,15



Spoon spatulas

By Hammacher. Made of Remanit 4024 stainless steel. Autoclavable.

① With micro-spoon

Dimensions of spoon: W 10 x L 20 mm.

Length (mm)	Blade width (mm)	Blade length (mm)	Stem Ø (mm)	Art. No.	Pack Qty.	€
180	10	35	3,5	YK74.1	1	5,30
210	10	35	3,5	YK75.1	1	5,70

② With flat spoon

Dimensions of spoon: W 17 x L 38 mm.

Length (mm)	Blade width (mm)	Blade length (mm)	Stem Ø (mm)	Art. No.	Pack Qty.	€
150	10	50	3,5	YK76.1	1	5,95
180	10	55	3,5	YK77.1	1	6,15
210	10	60	3,5	YK78.1	1	6,35
230	10	60	4,0	YK79.1	1	6,80



Spoon spatulas

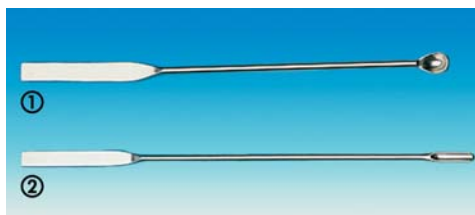
Made of stainless steel 18/10.

① Autoclavable

Length (mm)	Spoon W x L (mm)	Plate W x L (mm)	Art. No.	Pack Qty.	€
120	31 x 23	30 x 20	PH56.1	1	3,35
150	38 x 27	32 x 22	PH57.1	1	4,20
180	40 x 28	32 x 22	PH58.1	1	4,65
210	40 x 28	32 x 22	PH59.1	1	5,35
250	50 x 35	45 x 32	PH60.1	1	8,40
300	55 x 41	50 x 37	PH61.1	1	10,75

② With PTFE coating

Length (mm)	Spoon W x L (mm)	Plate W x L (mm)	Art. No.	Pack Qty.	€
180	40 x 28	32 x 22	PH62.1	1	28,40



Micro-spoon spatulas

Made of 18/10 stainless steel, Remanit 4301.

Blade length 40 mm, blade width 5 mm. Autoclavable.

① Spoon shape, spoon width 5 mm

Length (mm)	Art. No.	Pack Qty.	€
100	PX33.1	1	4,15
150	6186.1	1	5,00
185	PX34.1	1	4,60
300	PX35.1	1	5,00

① Spoon shape, spoon width 7 mm

Length (mm)	Art. No.	Pack Qty.	€
150	YP97.1	1	3,95
185	YP98.1	1	4,25
210	YP99.1	1	4,70

② Scoop shape

Length (mm)	Art. No.	Pack Qty.	€
150	3191.1	1	4,85
180	PX36.1	1	6,20

Spatulas



Spatula assortiment

In case. Made of 18/10 stainless steel. Set consists of 6 of the most commonly used double and micro-spatulas plus 1 forceps (straight with blunt tips). Autoclavable (without case).

Art. No.	Pack Qty. (assortment)	€
E286.1	1	39,55



Rotilabo®-spatulas spoon with clip

Made of stainless steel 18/10. A selection of the most commonly used spatulas for "clipping on" to your lab coat. Design protected by copyright. Autoclavable.

Type	Length (mm)	Blade length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
Micro-spoon	150	40/6	5/5	X141.1	1	8,55
Pharmacist's spoon	150	30	15	X142.1	1	7,00
Powder spatula	170	40	10	X143.1	1	7,50
Double spatula	150	35	9	X145.1	1	7,85
Double spatula, curved	150	35	9	X146.1	1	8,30



Micro-powder spatulas, straight

Made of stainless steel 18/10, with hexagonal handle. Autoclavable.

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
150	3	AT23.1	1	10,70
150	4	AT24.1	1	10,70



Micro-spatula set

4 pieces. Made of stainless steel 18/10, with black plastic handle made of PVC.

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
160	3 - 4 - 5 - 6	AT16.1	1	14,00



Micro-powder spatula set

4 pieces. Made of stainless steel 18/10, with black plastic handle made of PVC.

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
160	3 - 4 - 5 - 6	AT17.1	1	15,95



Micro-spatulas

Made of 18/10 stainless steel, antimagnetic. With handle made of PVC, Ø 6 mm.

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
160	4	6191.1	1	3,45
160	5	3119.1	1	3,20



Micro-spoon powder spatula

Made of stainless steel 1.4301. Overall length 150 mm, spoon width 5 mm, Blade L 30 x W 5 mm. Autoclavable.

Art. No.	Pack Qty.	€
CHN5.1	1	5,25

Spatulas



Mixing spatulas

By Hammacher. Made of Wironit 4301 stainless steel. Autoclavable.

Type	Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
① Double	210	6	30	YL45.1	1	32,80
① Double	210	7	30	YL46.1	1	32,80
① Double	210	8	30	YL47.1	1	33,25
② With spoon	190	10	20	YL48.1	1	31,50
③ Single	155	5	30	YL49.1	1	22,05



Spatulas

Made of stainless steel 18/10, electropolished. One end is spoon-shaped. Autoclavable.

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
130	5	3006.1	1	3,05
150	5	3066.1	1	3,15
185	5	3015.1	1	3,25
210	5	3042.1	1	3,35



Micro-spatulas, straight

Made of stainless steel 18/10, with hexagonal-handle. Autoclavable.

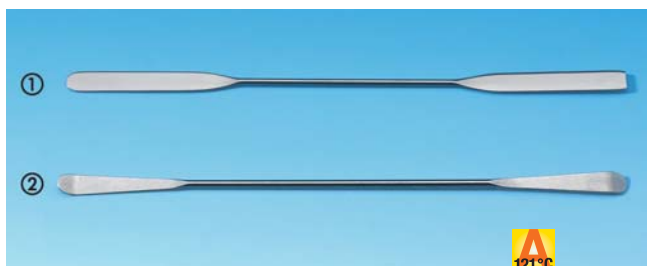
Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
140	3	AT21.1	1	10,70
140	4	AT22.1	1	10,70



Micro-spatulas, round

Made of stainless steel 18/10, with hexagonal-handle. Autoclavable.

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
140	2	AT19.1	1	10,70
140	3	AT20.1	1	10,70



Micro double spatulas

By Hammacher. Flexible, autoclavable.

① Angular type, made of Remanit 4024 stainless steel, flexible, stem Ø 2.5 mm.

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
130	6	40	YL38.1	1	4,00
150	6	40	YL39.1	1	4,20
185	6	50	YL40.1	1	4,45
210	6	55	YL41.1	1	4,75

② Trapezoidal, made of Wironit 4301 stainless steel, stem Ø 2.0 mm.

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
130	5	28	YL42.1	1	8,10
185	5	30	YL43.1	1	8,50
210	5	30	YL44.1	1	9,65



Double spatulas

By Hammacher. Made of Wironit 4301 stainless steel. Autoclavable.

① One spatula blade is rounded

Length (mm)	Blade width (mm)	Blade length (mm)	Stem Ø (mm)	Art. No.	Pack Qty.	€
120	4	25	2,0	YK51.1	1	7,15
120	6	28	2,5	YK52.1	1	8,20
150	9	36	3,5	YK53.1	1	8,40
150	11	38	4,0	YK54.1	1	8,65
180	9	38	3,5	YK55.1	1	9,60
180	11	40	4,0	YK56.1	1	10,35
210	9	40	3,5	YK57.1	1	10,90
210	11	40	4,0	YK58.1	1	11,40
240	12	60	4,0	YK59.1	1	14,85
300	13	60	5,0	YK60.1	1	20,00

② Both spatula blades are rounded

Length (mm)	Blade width (mm)	Blade length (mm)	Stem Ø (mm)	Art. No.	Pack Qty.	€
150	7	28	2,5	YK61.1	1	9,65
180	7	28	2,5	YK62.1	1	9,95

③ One spatula blade is trapezoidal

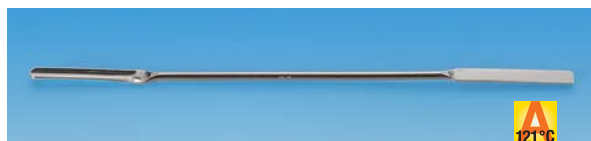
Length (mm)	Blade width (mm)	Blade length (mm)	Stem Ø (mm)	Art. No.	Pack Qty.	€
150	9	33	3,5	YK63.1	1	12,15
180	10	38	3,5	YK64.1	1	13,35
210	12	40	4,0	YK65.1	1	13,90



Micro-double spatulas

Made of stainless steel 18/10, electropolished. Autoclavable.

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
100	2	3396.1	1	3,10
130	2	3415.1	1	3,20
150	2	3433.1	1	3,25
100	3	3439.1	1	3,70
130	3	2865.1	1	4,10
150	3	2866.1	1	4,10
100	4	2867.1	1	4,10
130	4	2868.1	1	4,10
150	4	2869.1	1	4,10
185	4	2889.1	1	4,10
100	5	2901.1	1	3,70
130	5	2905.1	1	3,80
150	5	2906.1	1	4,00
185	5	2910.1	1	4,20
210	5	2912.1	1	4,25



Double spatulas, curved

Made of stainless steel Remanit 4301, electropolished. Autoclavable.

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
130	4	3194.1	1	4,85
150	4	3200.1	1	4,85
150	9	3207.1	1	4,50
185	4	3455.1	1	4,60
185	9	3472.1	1	4,85
210	9	3489.1	1	5,05



Chemist's double spatula

Made of high-grade steel. Width 6 mm, length 150 mm.

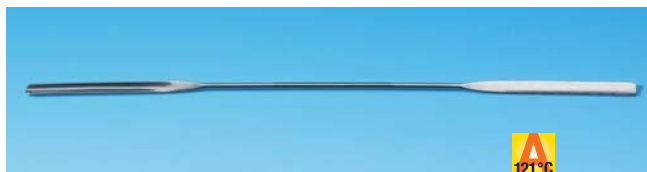
Art. No.	Pack Qty.	€
1902.1	5	18,85



Micro spatulas, US type

By Hammacher. Made of Remanit 4024 stainless steel. Autoclavable.

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
140	6	45	YL35.1	1	4,30
160	6	45	YL36.1	1	4,70
210	6	45	YL37.1	1	5,20



Micro powder spatulas

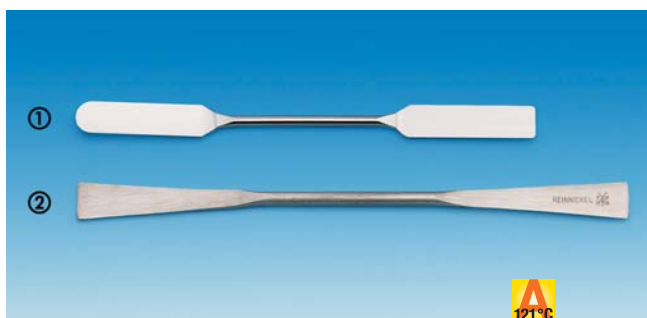
By Hammacher. Made of Remanit 4024 stainless steel, flexible. Autoclavable.

Straight

Length (mm)	Blade width (mm)	Blade length (mm)	Stem Ø (mm)	Art. No.	Pack Qty.	€
130	6	40	2,5	YL50.1	1	4,90
150	3	40	1,8	YL51.1	1	5,00
150	6	40	2,5	YL52.1	1	5,15
185	3	50	1,8	YL53.1	1	5,40
185	6	50	2,5	YL54.1	1	5,40
210	6	55	2,5	YL55.1	1	5,30

Angled

Length (mm)	Blade width (mm)	Blade length (mm)	Stem Ø (mm)	Art. No.	Pack Qty.	€
150	5	40	2,0	YL56.1	1	5,30
185	5	50	2,0	YL57.1	1	5,30
210	4	55	2,0	YL58.1	1	5,30



Double spatulas

Made of stainless steel 18/10 or pure nickel 99.5 %. Both versions electropolished. Autoclavable.

① Remanit 4301 (18/10) high-grade steel, flexible

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
130	8	3293.1	1	4,65
150	9	3294.1	1	4,75
185	9	3298.1	1	4,85
210	11	3311.1	1	5,05
250	11	3318.1	1	5,30

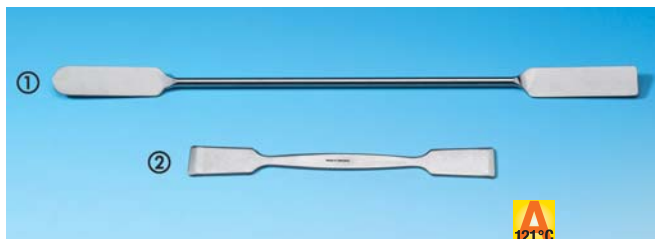
① Remanit 4301 (18/10) high-grade steel, fixed

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
300	16	3321.1	1	7,00
350	16	3335.1	1	7,40
500	20	3351.1	1	10,20

② Pure nickel, fixed

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
130	9	3361.1	1	10,25
210	11	3371.1	1	10,65
250	11	3376.1	1	12,15

Spatulas



Double spatulas

By Hammacher. Made of Remanit 4024 stainless steel. Autoclavable.

① Narrow type

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
300	15	70	YK66.1	1	7,20
350	15	70	YK67.1	1	8,40
400	20	70	YK68.1	1	9,15
500	20	70	YK69.1	1	10,90

② Wide type

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
150	15	32	YK70.1	1	4,30
210	18	36	YK71.1	1	5,35



Powder spatula

Made of 18/10 stainless steel. Scoop L 40 x W 10 mm. Total length 170 mm. Autoclavable.

Art. No.	Pack Qty.	€
C829.1	1	3,20



Weighing spatulas

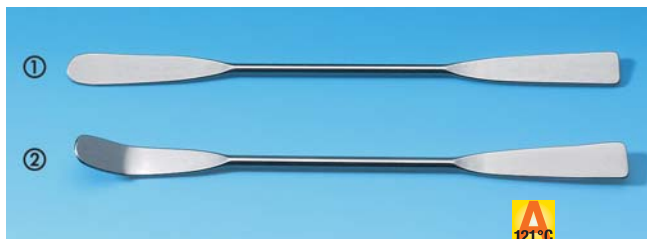
By Hammacher. Made of Wironit 4301 stainless steel. Autoclavable.

① Standard

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
120	6	28	YL14.1	1	9,25
150	9	30	YL15.1	1	10,55
180	9	35	YL16.1	1	11,10
210	9	38	YL17.1	1	12,05

② Micro

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
130	4	28	YL18.1	1	9,50
150	4	28	YL19.1	1	10,55
180	5	30	YL20.1	1	11,10



Double spatulas, Chattaway type

By Hammacher. Made of Remanit 4024 stainless steel. Autoclavable.

① Straight

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
100	7	30	YL21.1	1	3,05
125	7	40	YL22.1	1	3,45
150	7	40	YL23.1	1	3,70
180	8	50	YL24.1	1	3,90
200	9	60	YL25.1	1	4,00
235	10	70	YL26.1	1	4,10
265	11	70	YL27.1	1	4,75

② Curved

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
100	7	30	YL28.1	1	3,25
125	7	40	YL29.1	1	3,70
150	7	40	YL30.1	1	3,80
180	8	50	YL31.1	1	4,00
200	9	60	YL32.1	1	4,25
235	10	70	YL33.1	1	4,35
265	11	70	YL34.1	1	5,35



Weighing spatula

By Hammacher. Made of Remanit 4024 stainless steel. Length 170 mm, scoop L 40 x W 10 mm. Autoclavable.

Art. No.	Pack Qty.	€
YL59.1	1	4,65



Dosing spatula

Stainless steel (18/10) blade and plastic handle. For powders, granules, etc. Required dosage of sample can be obtained by turning the knurling wheel. Blade L 50 x W 12 mm. Total length 190 mm. Autoclavable.

Art. No.	Pack Qty.	€
C848.1	1	17,75

► Spatula assortment see page 185



Spatulas with knob

Made of Remanit 4301 high-grade steel. With plastic knob.

Length (mm)	Blade width (mm)	Blade length (mm)	Art. No.	Pack Qty.	€
150	9	35	K722.1	1	5,55
210	9	35	K723.1	1	5,75
250	9	40	K724.1	1	6,10
300	15	55	K725.1	1	6,80
200	20	35	K727.1	1	7,20
250	20	35	K728.1	1	7,55
300	30	60	K729.1	1	9,65
400	30	60	K730.1	1	10,75
500	30	60	K731.1	1	11,65



Rotilabo®-double spatulas

Made of glazed porcelain. Temperature stable up to 1000 °C. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
104	XX58.1	5	28,50
186	XX59.1	5	38,30
250	XX60.1	5	43,35
298	XX61.1	5	52,90



Pharmacist's spatulas

With wooden handle and flat blade made of hardened stainless chrome steel.

Overall length (mm)	Blade length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
180	70	18	A651.1	1	6,30
210	100	20	A652.1	1	6,45
235	125	20	A653.1	1	7,35
255	145	22	A654.1	1	7,80



Spatula

Flexible blade made of chromium steel 18/0. Handle made of stainless steel 18/10. Dimensions: blade L 210 x W 30 mm, total length 340 mm. Autoclavable.

Art. No.	Pack Qty.	€
CY65.1	1	8,85



Solid spatulas for easy lifting of tissue

Made of stainless steel 18/10. Flexible blade length 50 mm, total length 150 mm. Autoclavable.

Blade width (mm)	Art. No.	Pack Qty.	€
10	A645.1	1	6,80
15	A646.1	1	6,80
20	A647.1	1	6,80



Spatula

Made of PTFE. Double-sided, flexible. Chemically inert. L 150 x W 16 mm. Thickness 4 mm. Weight 19 g. Temperature stable from -200 to +250 °C. Autoclavable.

Art. No.	Pack Qty.	€
0503.1	1	15,80

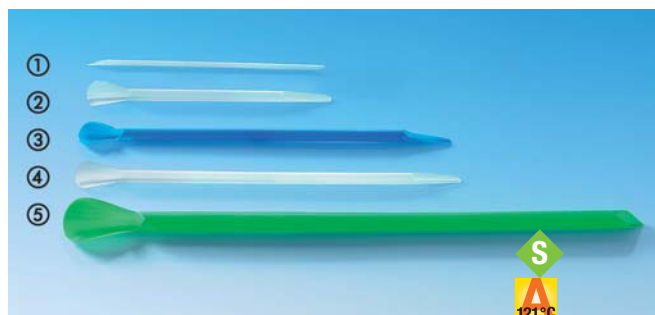


Plastic spatulas

Made of fibre reinforced PA, red. Autoclavable.

Type	Length (mm)	Spoon capacity (ml)	Art. No.	Pack Qty.	€
Double spatula	150	-	TT31.1	10	9,90
Double spatula	180	-	TT32.1	10	11,30
Spoon spatula	180	1,5	TT33.1	10	14,20
Spoon spatula	210	1,8	TT34.1	10	15,35

Spatulas



Disposable plastic spatulas

Made of **PP**. **Sterile** or non-sterile. Suitable for use as sample spoon, scraper and stirring bar. Ideal for weighing, e.g. in PCR vials, reaction vials and centrifuge tubes. FDA-compliant. Temperature stable from 0 to +121 °C. Autoclavable.

Technical specifications:

Type	For vials (ml)	Overall length (mm)	Stem width (mm)	W x L spoon (mm)
① Micro, antistatic	0.2	140	3.5	-
② Eco	15/1.5	140	7	14 x 25
③ Standard, blue	15/1.5	210	7	14 x 25
④ Standard, opaque	15/1.5	210	7	14 x 25
⑤ Macro, green	50 ml	310	10	23.5 x 42

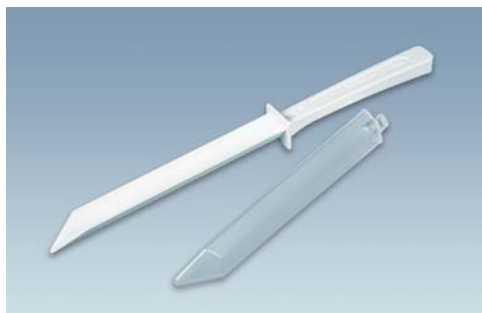
Type	Type	Art. No.	Pack Qty.	€
① Micro, antistatic	non-sterile	NL90.1	300	28,95
② Eco	non-sterile	NL91.1	300	40,80
③ Standard, blue	non-sterile	NL92.1	300	36,45
④ Standard, opaque	non-sterile	NL93.1	300	36,45
④ Standard, opaque	sterile (10 per pack.)	NL94.1	100	150,50
⑤ Macro, green	non-sterile	NL95.1	150	40,80



Plastic stirring spatula

Made of **PS**, transparent. With or without mixing plate for vertical mixing in cells or other narrow vessels. Overall length 120 mm. Sheet: L 30 x W 3 mm. Rod Ø 3 mm.

Type	Art. No.	Pack Qty.	€
With mixing plate	XL60.1	500	12,15
Without mixing plate	4893.2	500	12,85



Sample spatula SteriPlast®

By Bürkle. Made of **PS**, sterile. For sterile and contamination-free sampling, e.g. of powders, granulates and pastes. Insertion depth 150 mm. With long, sturdy handle and sharp blade for piercing paper and plastic bags etc. Sample spatula is optionally available with a lid made of **PS** which allows the sample to be sealed straight after it is taken. Cleanroom-manufactured (class 7), individually packed. Suitable for use with foodstuffs.

Type	Overall length (mm)	Art. No.	Pack Qty.	€
Without lid	263	CLT5.1	10	16,45
With lid	268	CLT6.1	10	24,70



Plastic stirring spatula

Made of **PS**, white. Dimensions: overall length 140 mm, rod width 5 mm, stirrer blade: L 30 x W 10 mm. Temperature stable from -25 to + 90 °C.

Art. No.	Pack Qty.	€
APE2.1	1000	11,00



Stirring spatula

Made of wood. Dimensions: L 140 x W 5 mm.

Art. No.	Pack Qty.	€
APE1.1	1000	5,35

Spatulas



Rotilabo®-mouth spatulas

Made wood or **PS. Sterile** (ETO gas sterilised, individually packed) or non-sterile. Dimensions: L 150 x W 20 mm.

Material	Type	Art. No.	Pack Qty.	€
Wood	sterile	XL58.1	50	12,65
Wood	non-sterile	EH10.1	100	3,20
PS, white	non-sterile	XL59.1	100	9,45



Scrapers

Made of flexible **PP**. Thickness 0.6 mm. Dimensions: L 130 x W 100 mm.

Art. No.	Pack Qty.	€
YE82.1	10	7,50



Spatula

With blade made of a stainless steel 18/0 (1.4016), with a wood handle. Blade L 115 x W 100 mm. Total length 215 mm.

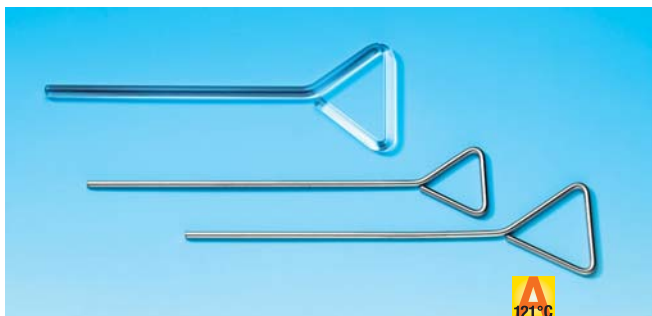
Art. No.	Pack Qty.	€
8108.1	1	12,00



Spatulas

With blade made of stainless steel 18/0 and black **PA** handle. Autoclavable.

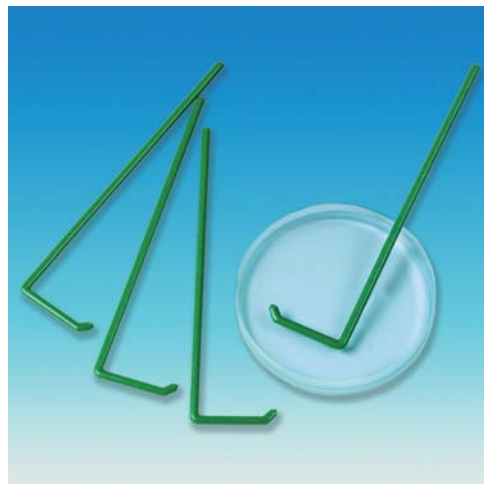
Blade L x W (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
100 x 65	260	YE83.1	1	23,65
160 x 100	285	YE84.1	1	30,10



Drigalski spatulas

Made of stainless steel (Remanit 4301) or soda-lime glass. Ideal for even distribution of bacterial substances on solid nutrient media. Also suitable as stirrer. Autoclavable.

Material	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
Stainless steel	165	30	K732.1	1	4,00
Stainless steel	165	40	AL98.1	1	4,55
Glass	145	50	T724.1	1	4,15
Glass	145	50	T724.2	10	32,40



L-shaped bacterial cell spreaders

Made of **ABS. Sterile**. With smooth surface, prevents scratching for agar surfaces. Dimensions: L 146 x W 38 x Ø 4 mm.

Packaging	Art. No.	Pack Qty.	€
individually wrapped	PC57.1	500	78,50
50 x 10	PC58.1	500	75,25

► Further Bacterial cell spreaders see p. 266

Laboratory jacks



Rotilabo®-jacks

Plates made of stainless steel. Aluminium scissors frame. Compliant with DIN 12897. Rubber feet for stable standing position. Support plates with M 10 threaded hole, e.g. for attaching the Flex clamps, art. no. YT72.1ff.

Technical specifications:

Type	L x W (mm)	Height adjustability (mm)	Operating load (kg)	Static load (kg)	Weight (kg)
①	120 x 140	60-243	5	30	1.37
②	130 x 160	60-255	7	30	1.67
③	200 x 200	60-265	7	30	2.3
④	300 x 300	130-470	12	60	8.0
⑤	400 x 400	150-670	15	60	12.4

Delivery without flex clamps, please order separately.

Standard version

Type	Art. No.	Pack Qty.	€
①	YT69.1	1	117,20
②	T458.1	1	123,65
③	T459.1	1	144,05

Heavy duty version

Gas-spring assisted for easy action.

Type	Art. No.	Pack Qty.	€
④	YT70.1	1	532,15
⑤	YT71.1	1	720,25



Rotilabo®-Flex clamps with M 10 thread

Made of die cast zinc and brass, nickel-plated. For use on jacks (art. no. YT69.1 ff.) or stand plates with M 10 thread (for ex. art. no. X072.1ff.). Length 300 mm.

Type	Span (mm)	Art. No.	Pack Qty.	€
Three finger	0-40	YT72.1	1	27,10
Round	12-25	YT73.1	1	25,30



Laboratory jacks, autoclavable

Plates, shears and rotary knob made of stainless steel 18/10. Manufactured in accordance with DIN 12897. Height adjustability 60-275 mm. Operating load 7 kg. Maximum static load 30 kg. Autoclavable.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
160	130	CHY3.1	1	181,70
200	200	CHY4.1	1	213,95
240	240	CHY5.1	1	229,00

Operating load is the greatest dynamic load at which the jack can be lifted out of any position.

Static load is the maximum static load which can be applied to the jack.

Example:

the Rotilabo® Mini jack (Art No. YT68.1) can carry a max. load of 2 kg and be moved up or down (= operating load). A maximum weight of 15 kg may be applied to the jack, but it will no longer be possible to screw the jack up or down (= static load).



Rotilabo® Mini jack

Plates made of stainless steel. Aluminium scissors frame. Compliant with DIN 12897. Rubber feet for stable standing position. Dimensions: L 75 x W 80 mm. Height adjustable 49-147 mm. Moveable load 2 kg. Static load 15 kg. Weight 415 g.

Art. No.	Pack Qty.	€
YT68.1	1	111,80



Rotilabo®-laboratory jacks

Made of light metal. Very robust. In initial position max. load approx. 60 kg. Moveable load acc. to DIN 12897.

Length (mm)	Width (mm)	Height adjustable (mm)	Moveable load (kg)	Art. No.	Pack Qty.	€
110	100	60-200	4	K578.1	1	93,55
160	130	60-250	7	K579.1	1	104,30
200	200	70-260	7	K580.1	1	124,70
200	230	70-260	7	K581.1	1	134,40
300	300	130-465	12	0483.1	1	481,60
400	400	170-615	15	K583.1	1	762,20



Rotilabo®-laboratory jacks

With compact hydraulic mechanism. Enable easy and safe lifting or lowering of goods in the laboratory. Very robust. Arms with ball bearings and parallel stabilized.

Lifting height 92 - 285 mm, movable load max. 25 kg, weight approx. 4.5 kg.

Type	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
Basic model	200	230	C341.1 *	1	722,40
Basic model	300	300	C343.1 *	1	809,50
With safety catch for lowering	200	230	C342.1 *	1	885,80
With safety catch for lowering	300	300	C344.1 *	1	972,90

Lifting height 180 - 620 mm, movable load max. 85 kg, weight approx. 22.5 kg.

Type	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
For lowering pump motor	400	450	C345.1 *	1	1976,95

* Please check with our Sales Department for delivery times of these products.



MAXI lab jacks

Manufactured in accordance with DIN 12897. Height adjustment using a hand-wheel. Increased height (30%) using extended scissor lift. **Height adjustable 75-400 mm.** Moveable load 7 kg. Maximum static load 30 kg.

Made of 18/10 stainless steel

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
160	130	YT34.1	1	194,60
200	200	YT35.1	1	231,15

Made of powder-coated aluminium, green

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
160	130	YT36.1	1	145,15
200	200	YT37.1	1	170,95



Poly-Jaque™ jack

Made of sturdy PC, weighs only 0.7 kg, with stand rod holder on back. Base plate for attaching permanently to laboratory bench using screws. The jack can be adjusted for height (from 76 to 300 mm) in an unloaded condition. Maximum static load: 6.8 kg. Base plate Ø 210 mm. Suitable for corrosive environments. Autoclavable. Stand rod is optional; please order separately.

Art. No.	Pack Qty.	€
XY82.1	1	274,15

Accessories: stand rod for Poly-Jaque™

Made of stainless steel 18/8, electrically conductive. Length 460 mm, Ø 7.9 mm.

Delivery incl. two hexagon nuts for attaching to the jack.

Art. No.	Pack Qty.	€
YA85.1	1	21,75

► Glass components see page 130

Weighting rings



Rotilabo®-weights and stabilizing rings

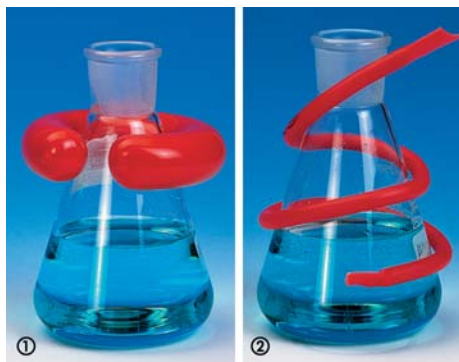
With heavy metal core and vinyl coating. Suitable for stabilizing flasks and Erlenmeyer flasks in water baths and during stirring.

Closed form

Inner Ø (mm)	for Erlenmeyer flasks (ml)	Weight (g)	Art. No.	Pack Qty.	€
48	125-500	270	CY71.1	1	32,05
51	250-1000	500	CY72.1	1	33,90
57	500-2000	700	CY73.1	1	40,45
70	1000-4000	840	CY74.1	1	43,55

Open form

Inner Ø (mm)	for Erlenmeyer flasks (ml)	Weight (g)	Art. No.	Pack Qty.	€
42	125-500	200	CY81.1	1	35,30
51	250-1000	480	CY82.1	1	40,25
54	500-2000	660	CY83.1	1	47,25
66	1000-4000	930	CY84.1	1	51,10



① Rotilabo®-weighting rings

Open. Prevent floating or tipping of Erlenmeyer and measuring flasks, etc. in waterbaths. Heavy lead core covered with PVC.

for Erlenmeyer flasks (ml)	Inner Ø (mm)	Weight (g)	Colour	Art. No.	Pack Qty.	€
-	20	95	orange	L075.1	1	35,40
25	35	240	red	L076.1	1	47,85
50 - 250	50	650	orange	L077.1	1	56,80
200 - 500	70	900	red	L078.1	1	61,85
750 - 1500	100	1200	blue	L079.1	1	69,35
2000	150	1750	orange	L080.1	1	84,50
4000 + 6000	200	3800	blue	L081.1	1	135,45

② Rotilabo®-weighting rods

Flexible, for stabilizing vessels in waterbaths, etc. Lead core with PVC coating. Pliable, can be bent to fit different shapes and sizes.

For containers	Length (mm)	Ø (mm)	Weight (g)	Art. No.	Pack Qty.	€
test tubes	470	4	70	L086.1	1	31,00
100-500 ml	490	6	177	L087.1	1	31,75
1000-2000 ml	500	12	660	L088.1	1	53,25



Rotilabo®-supports for beakers and flasks

Beakers or flasks are supported by 4 stainless steel clamps, then placed upright on a vinyl-coated lead ring. Ideal in waterbaths, circulation thermostats, etc. as water can circulate under the glass.

Ø (mm)	For cylinder (ml)	Weight (g)	Art. No.	Pack Qty.	€
60	100	165	K988.1	1	112,90
80	250	237	K989.1	1	123,65



Rotilabo®-stabilizing collars

For bottles, beakers, vacuum bottles, flasks, etc.

- Metal core with PVC coating
- Pliable, can be opened and closed
- Protect vessels from falling and support them in an upright position

For container Ø (mm)	Weight (g)	Colour	Art. No.	Pack Qty.	€
45-65	240	red	L082.1	1	48,20
55-80	460	orange	L083.1	1	53,35
65-100	600	red	L084.1	1	56,45
85-125	750	blue	L085.1	1	68,30

- For ultrasonic compact baths see p. 1054
- Glass beakers and erlenmeyer flasks see p. 10

Material for stands



H-stand

Complete with cast iron base, 3 80 cm aluminium rods, 2 50 cm aluminium rods and 6 boss heads.
Dimensions: H 80 cm x W 50 cm x D 25 cm. Stand rod \varnothing 12 mm.
Weight 6.5 kg.

Art. No.	Pack Qty.	€
CHH2.1	1	252,65

Accessories:

Hexagon wrench, 4 mm AF	CHX9.1	1	5,50
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Plate stands

With anti-slip foil on plate. The support rod is also fixed under the plate with a nut to prevent accidental removal of rod. Support rod- \varnothing : 16 mm.
Max. load: 5 kg.

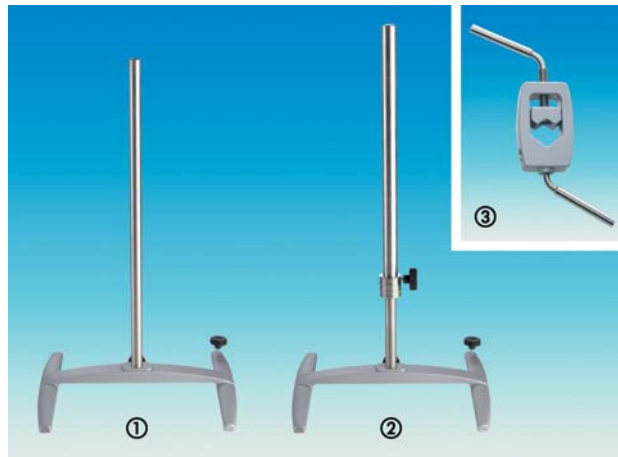
Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R1825	200	316	560	CC13.1	1	214,00
R1826	200	316	800	CC14.1	1	236,00
R1827	200	316	1000	CC15.1	1	256,00



H-stands

Suitable for large, heavy units and attachments, e.g. stirrer. With H-foot for non-tilting stand. With compensator screw for uneven workplaces. Support rod- \varnothing : 34 mm. Max. load: 10 kg. Model R 2723 also comes with pressure spring telescopic support stand for smooth moving of heavy units or attachments. Height of lift: 390 mm.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R2722	460	420	1010	CC16.1	1	550,00
R2723	460	420	620-1010	CC17.1	1	1081,00



S2 series H-stands

S2 and S2 XXL models

Made of V2A. The support rod is additionally secured with a nut which prevents it from being unscrewed accidentally. Support rod \varnothing 25 mm. With levelling screw. Max. weight load: 4 kg.

Tele S2 model

same as S2 and S2 XXL but with retractable support rod variable in length from 725 to 1025 mm. Support rod \varnothing 32 mm.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
① S2	345	420	700	TL67.1	1	233,00
S2 XXL	345	420	1000	TL68.1	1	275,00
② Tele S2	345	420	725-1025	TL69.1	1	551,00

Accessories for S2 series H-stands

③ Clamp

Made of V2A and cast aluminium. For rod \varnothing 13 to 32 mm.

Art. No.	Pack Qty.	€
TL70.1	1	102,00

Material for stands



Stand plates with rods

Made of PP, rods made of chrome-plated steel. Stand rods L 250 mm, Ø 12 mm, can be interconnected to increase overall height.

Dimensions: L 300 x W 150 x H 15 mm.

Delivery incl. two stand rods.

Type	Art. No.	Pack Qty.	€
Central insertion opening	TT24.1	1	62,60
Side insertion opening	TT25.1	1	62,60

Accessories:

Stand rods made of chrome-plated steel, L 250 mm, Ø 12 mm	TT26.1	2	53,25
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Rotilabo®-flexible stands

Manufactured from die cast zinc and brass, nickel-plated. With adhesive safety base. Length 300 mm.

Type	Span (mm)	Art. No.	Pack Qty.	€
Three-prong round	0-40	X094.1	1	34,95
	12-25	X095.1	1	35,70



Rotilabo® stand plates

Made from 18/10 stainless steel (material 1.4301-5, AISI type 304-303), antimagnetic. Acc. to DIN 12892. Wide, heavy adjusting feet with non-slip rubber surface for high stability, 1 adjustable foot to compensate for uneven surfaces. M 10 threaded hole at front centre.

Delivery without stand rod (please order separately).

Length (mm)	Width (mm)	Weight (g)	Art. No.	Pack Qty.	€
210	130	1600	C851.1	1	81,60
250	160	1900	C852.1	1	98,40
300	150	2000	C853.1	1	108,60
315	200	2400	C854.1	1	131,15



Rotilabo®-retort stand bases

Acc. to DIN 12892. Made of powder coated steel. With threaded bore hole M 10 in the centre of the front side. With four feet for extra stability.

Delivery without stand rod, please order separately.

Length (mm)	Width (mm)	Weight (g)	Art. No.	Pack Qty.	€
210	130	1800	2369.1	1	24,55
250	160	2600	2375.1	1	35,30
300	150	2900	2376.1	1	31,75
315	200	4100	2377.1	1	47,20



Rotilabo®-tripods

Made of powder coated steel. With threaded bore hole M 10. Rubber feet for secure support.

Leg length (mm)	Art. No.	Pack Qty.	€
80	X072.1	1	16,05
115	X075.1	1	17,75
150	X076.1	1	23,55
185	X077.1	1	28,50

Material for stands



Rotilabo®-tripods

Made of powder coated steel. For max. 13 mm Ø of rods. Rods are attached with locking screw M 6. Rubber feet for secure support.

Leg length (mm)	Art. No.	Pack Qty.	€
80	X078.1	1	21,20
115	X079.1	1	24,20
150	X080.1	1	30,65
185	X081.1	1	34,20



Rotilabo®-stand rods

Made of stainless steel, solid. With thread M 10.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
600	10	2378.1	1	13,05
750	12	2379.1	1	16,05
1000	12	2380.1	1	20,10
1250	12	2381.1	1	23,80
1500	15	2382.1	1	42,80



NEU
NOUVEAU
NEW

Stand base

Made of Laboral (aluminium alloy). For wall/ceiling attachment. For stand rod Ø from 12-13 mm. Secured by socket head screw. Base Ø 50 mm. With four screw holes.

Art. No.	Pack Qty.	€
CHE9.1	1	30,65

Accessories:

Hexagon wrench, 4 mm AF	CHX9.1	1	5,50
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NEU
NOUVEAU
NEW

Stand base

Made of white malleable cast iron. For wall/ceiling attachment. For up to three Ø 12 mm stand rods. Rods are secured by slotted-head screws. Base Ø 80 mm. With four screw holes.

Art. No.	Pack Qty.	€
CHE8.1	1	21,00

Rotilabo®-stand rods

Made of polished stainless steel (Remanit 4301), antimagnetic. With thread M 10. Rod Ø 12 mm.

Length (mm)	Art. No.	Pack Qty.	€
450	CHC9.1	1	14,45
500	CHE0.1	1	16,35
600	P110.1	1	21,45
750	P111.1	1	23,15
1000	P112.1	1	28,95
1250	P113.1	1	36,35
1500	P114.1	1	41,40



NEU
NOUVEAU
NEW

Rotilabo®-stand rods, unthreaded

Made of polished stainless steel (Remanit 4301), antimagnetic. Rod Ø 12 mm.

Length (mm)	Art. No.	Pack Qty.	€
450	CHE1.1	1	14,45
500	CHE2.1	1	15,50
600	CHE3.1	1	18,25
750	CHE4.1	1	20,90
1000	CHE5.1	1	26,15
1250	CHE6.1	1	32,15
1500	CHE7.1	1	36,35

Material for stands



Rotilabo®-table clamp

Manufactured from powder-coated aluminium.
For rods of max. Ø 13 mm and table tops max. 60 mm.

Art. No.	Pack Qty.	€
X082.1	1	28,95



Ball sleeves

Made of die-cast zinc, with nickel-plated hinge screws. Ø 35 mm.
For rod-Ø to 13 mm.

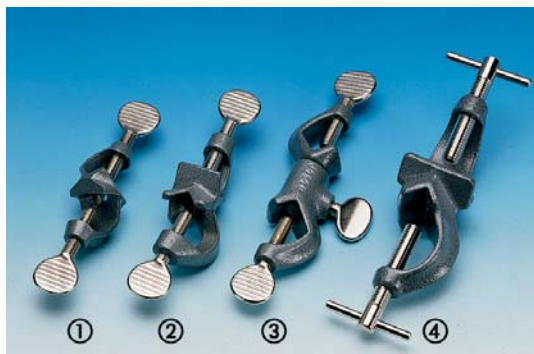
Type	Art. No.	Pack Qty.	€
Powder-coated	PH46.1	1	8,85
Uncoated	PH47.1	1	8,40
Nickel-plated	PH48.1	1	10,55



Rotilabo®-hook connectors

For stable right angle connection of rods or clamps to retort stands.
Span width 13 mm.

Type	Art. No.	Pack Qty.	€
Powder-coated steel, with nickel-plated brass clamping screw M8	E039.1	1	8,85
High grade steel 18/8, with brass thumb screw	E040.1	1	17,15



① Rotilabo®-rectangular double boss heads

Made of malleable iron. Acc. to DIN 12895.
With brass clamping screws, nickel-plated.

Type	Art. No.	Pack Qty.	€
For max. 16 mm Ø of rods	2134.1	1	10,90
For max. 20 mm Ø of rods	2135.1	1	13,45

② Rotilabo®-cross double boss head

Made of malleable iron. Acc. to DIN 12895.
With brass clamping screws, nickel-plated.

Type	Art. No.	Pack Qty.	€
For max. 16 mm Ø of rods	2194.1	1	14,55

③ Rotilabo®-rotating double boss head

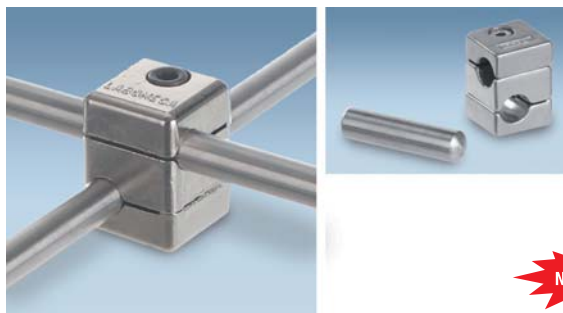
Made of malleable iron. With brass clamping screws.

Type	Art. No.	Pack Qty.	€
For max. 16 mm Ø of rods	2136.1	1	34,30

④ Rotilabo®-double boss head for large Ø

Made of malleable iron. Acc. to DIN 12895.
With brass T-screws, nickel-plated.

Type	Art. No.	Pack Qty.	€
For max. 30 mm Ø of rods	2179.1	1	26,90



Double boss heads, square

For connecting 2 stand rods Ø 12-13 mm at an angle of 90°. With hexagon socket screws. Angles from 0-360° can be set by connecting two double boss heads using a connecting rod.

Delivery without connecting rod (please order separately).

Material	Art. No.	Pack Qty.	€
High grade steel 18/10	CHX6.1	1	39,70
Laboral (aluminium alloy)	CHX7.1	1	12,40

Accessories:

Connecting rod L 50 x Ø 12 mm	CHX8.1	1	6,35
Hexagon wrench, 4 mm AF	CHX9.1	1	5,50

Material for stands



Rotilabo®-cross sleeve

Made of stainless steel 18/8 (material 1.4305), with heart-shaped safety screws. For stand rods up to Ø 16 mm.

Art. No.	Pack Qty.	€
XT63.1	1	55,90



① Rotilabo®-universal-stand clamps

Made of hardened aluminium. Max. span width 80 mm. Total length 275 mm. Handle-Ø 12 mm.

Art. No.	Pack Qty.	€
2385.1	1	19,50

② Rotilabo®-stand clamps

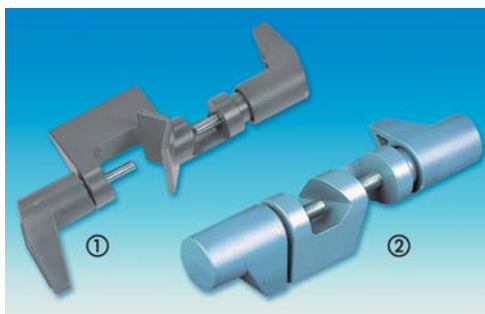
With two round jaws. Electropolished. Rod-Ø 12 mm.

Made of 18/8 steel.

Span (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
25	235	2000.1	1	17,65
40	250	2004.1	1	18,20
60	265	2007.1	1	18,75
80	280	P177.1	1	21,10

Made of malleable iron

Span (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
25	235	1993.1	1	12,70
40	250	1995.1	1	13,25
60	265	1998.1	1	17,15



Cross sleeves

Made with aluminium casting.

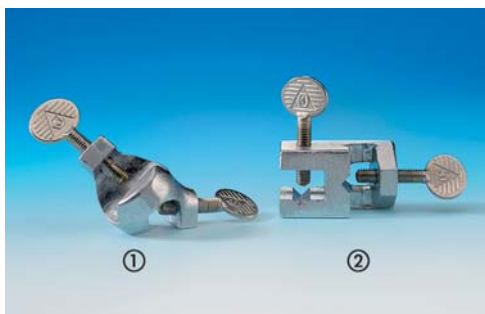
Type	for stand type	Clamping range stand (mm)	Clamping range bracket (mm)	Art. No.	Pack Qty.	€
① R 270	R 2722, R 2723	25-36	5-21	CC18.1	1	87,50
② R 182	R 1825, R 1826, R 1827	6-16	6-16	CY92.1	1	65,00



Rotilabo®-stand clamps

Made of malleable iron. Shaft length 150 mm. Handle-Ø 12 mm.

Span (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
2-16	296	P172.1	1	11,40
40	237	P174.1	1	11,65
60	268	P175.1	1	15,50



① Rotilabo®-double boss head

Made of a special light alloy. The nickel-plated brass clamping screws are easy to reach. For rods of max. 16 mm.

Art. No.	Pack Qty.	€
P179.1	1	12,80

② Rotilabo®-hook connector

Made of a special light alloy. With nickel-plated brass clamping screws. For rods of max. 16 mm.

Art. No.	Pack Qty.	€
P178.1	1	14,30



Rotilabo®-stand clamps with boss head

Manufactured from powder-coated die-cast zinc. Clamp with cork insert.

Span (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
12-25	185	X083.1	1	12,05
20-40	195	X084.1	1	13,45
38-60	200	X086.1	1	15,30

Material for stands



Universal stand clamps

4-finger jaws, with cork protection.
Span width max. 90 mm, total length 240 mm.

① Made of Remanit 4301 high grade steel

Art. No.	Pack Qty.	€
KX88.1	1	46,20

② Made of die-cast zinc

Art. No.	Pack Qty.	€
KX89.1	1	16,35



Universal-stand clamp, swivel-type

Made of die cast zinc, powder coated, 4-finger jaws with cork pads.
Clamping range 0-80 mm. Swivel range 180°.
Overall length 275 mm, rod length 150 mm, rod Ø 10 mm.

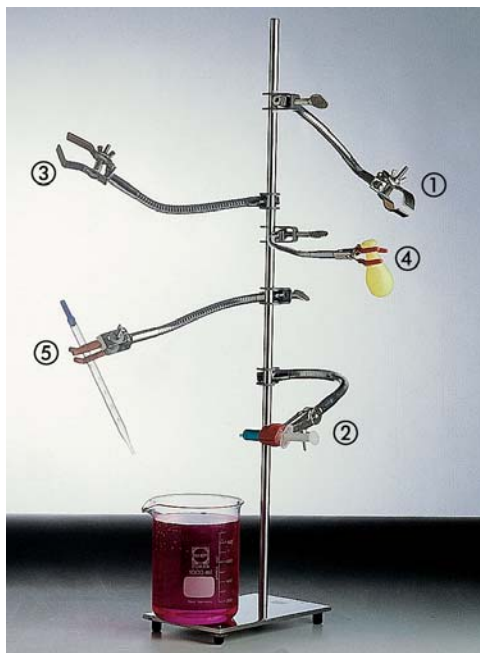
Art. No.	Pack Qty.	€
YP54.1	1	35,70



Rotilabo®-flexible clamps with rotatable boss head

Manufactured from die-cast zinc and brass, nickel-plated.
For rods of max. 16 mm Ø. Length 300 mm.

Type	Span (mm)	Art. No.	Pack Qty.	€
three prong	0-40	X087.1	1	35,05
round	12-25	X088.1	1	35,80



Rotilabo®-stand clamps

Flexible. Made of 18/8 stainless steel. With nickel-plated shaft.
Available as round, rectangular and burette shaped clamp.
Please order bossheads separately.

Type	Span (mm)	Shaft Ø (mm)	Shaft length (mm)	Art. No.	Pack Qty.	€
① round	25-40	12	250	C863.1	1	104,85
② round	15-65	12	200	C864.1	1	122,55
③ rectangular	25-40	12	250	C865.1	1	106,45
④ burette	0-20	12	250	C866.1	1	100,00
⑤ burette	0-30	8	200	C867.1	1	88,70



Rotilabo®-Flex clamps with M 10 thread

Made of die cast zinc and brass, nickel-plated. For use on jacks (art. no. YT69.1 ff.) or stand plates with M 10 thread (for ex. art. no. X072.1ff.).
Length 300 mm.

Type	Span (mm)	Art. No.	Pack Qty.	€
Three finger	0-40	YT72.1	1	27,10
Round	12-25	YT73.1	1	25,30

Material for stands



Rotilabo®-three-prong clamps

Manufactured from powder-coated die-cast zinc.
With plastic-coated prongs. Shaft length 140 mm.

Span (mm)	Bar-Ø (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
0-40	8	225	X096.1	1	9,45
0-40	10	225	X097.1	1	10,35
25-80	10	250	X098.1	1	15,80



①



②

Programme extension!

Rotilabo®-three-finger clamps

Made of stainless steel 18/10. Silicone coated fingers. Also suitable for holding irregular shaped objects. Shaft Ø 12 mm, shaft length 190 mm.

Image	Span (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
①	0-80	320	CHN3.1	1	66,15
②	0-120	340	C827.1	1	130,10



NEU
NOUVEAU
NEW

Three-finger clamps, adjustable

Made of stainless steel 18/10. Vinyl coated fingers.
Independent span adjustment by two screws for flexible use.
Delivery incl. 3 fibreglass heat protective sleeves.
Temperature stable up to +100 °C.

Span (mm)	Overall length (mm)	Shaft length (mm)	Shaft Ø (mm)	Art. No.	Pack Qty.	€
0-48	165	102	10	CHY0.1	1	97,85
0-69	220	127	13	CHY1.1	1	109,65
0-102	265	127	13	CHY2.1	1	121,50



①



②

NEU
NOUVEAU
NEW

Stand clamps, large span

Acc. to DIN 12894. Round jaws with cork pads. Shaft Ø 12 mm.
Shaft length 180 mm.

① Made of galvanised steel

Span (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
80	325	CHL5.1	1	16,05
100	345	CHL6.1	1	18,25
120	360	CHL7.1	1	20,40
150	380	CHL8.1	1	23,15

② Made of stainless steel 18/10

Span (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
80	325	CHL9.1	1	30,75
100	340	CHN0.1	1	49,25
120	360	CHN1.1	1	53,55
150	380	CHN2.1	1	70,85



NEU
NOUVEAU
NEW

Rotilabo®-four-finger clamp

Made of stainless steel 18/10. Silicone coated fingers. Also suitable for holding irregular shaped objects. Shaft Ø 12 mm, shaft length 190 mm.

Span (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
50-150	360	CHN6.1	1	90,55

Material for stands



Rotilabo®-cooler clamp

Made of galvanised iron. With movable shaft. Prongs are covered with transparent silicone. Spans from 50 to 100 mm. Shaft-Ø 10 mm, shaft length 150 mm.

Span (mm)	Art. No.	Pack Qty.	€
50-100	C826.1	1	28,85



Belt clamp

Clamping head of powder-coated aluminium and stem of nickel-plated steel. With eccentric lock and cork insert. Bar Ø 10 mm, shaft length 195 mm. Belt length 600 mm, width 12 mm. For vessel Ø 60 to 170 mm.

Art. No.	Pack Qty.	€
PH45.1	1	40,55



Rotilabo®-chain clamps

Made of malleable iron. With adjustable chain made of brass. To support flasks and other labware. Shaft-Ø 10 mm, shaft length 210 mm.

Span (mm)	Chain length (mm)	Art. No.	Pack Qty.	€
70	350	E050.1	1	23,25
120	500	E051.1	1	25,60
150	540	E052.1	1	29,15



Rotilabo®-stand rings

Made of high-grade steel 1.0304, **without boss head**.

Inner Ø (mm)	Outer Ø (mm)	Overall length (mm)	Length of stem (mm)	Art. No.	Pack Qty.	€
34	50	230	180	2205.1	1	8,85
54	70	250	180	2206.1	1	9,90
84	100	280	180	2210.1	1	10,95
114	130	310	180	2211.1	1	12,40
144	160	340	180	2262.1	1	14,10

Made of high-grade steel 1.0304, **with boss head** made of malleable iron and brass clamping screw.

*Dimension incl. boss head, without clamping screw.

Inner Ø (mm)	Outer Ø (mm)	Overall length (mm)	Length of stem (mm)	Art. No.	Pack Qty.	€
34	50	157*	107*	2263.1	1	15,30
54	70	167*	97*	2264.1	1	15,50
84	100	180*	80*	2265.1	1	17,75
114	130	199*	69*	2283.1	1	18,25
144	160	214*	54*	2336.1	1	20,65

Made of stainless steel Remanit 4301. Electropolished. Rod-Ø 8 mm. **Without boss head.**

Inner Ø (mm)	Outer Ø (mm)	Overall length (mm)	Length of stem (mm)	Art. No.	Pack Qty.	€
50	65	210	150	C882.1	1	13,95
70	85	240	150	C883.1	1	15,60
100	115	255	145	C884.1	1	16,10
130	145	290	145	C885.1	1	17,75
160	175	330	155	C886.1	1	18,95



Rotilabo®-stand rings with opening

Made of stainless steel 18/10. Shaft Ø 8 mm.

Technical specifications:

Type	Inner Ø (mm)	Outer Ø (mm)	Opening width (mm)	Overall length (mm)	Shaft length (mm)
①	50	68	35	220	160
②	70	87	50	280	200
③	100	120	70	330	220

Delivery without boss head.

Type	Art. No.	Pack Qty.	€
①	CHN7.1	1	19,30
②	CHN8.1	1	19,90
③	CHN9.1	1	21,95





Burette clamps

Made of die-cast aluminium, with roller support.
Clamping width: 0 to 20 mm.

Type	Art. No.	Pack Qty.	€
For 1 burette	PH49.1	1	25,60
For 2 burettes	PH50.1	1	33,35



Crucible forceps

By Hammacher. Made of Remanit 4301 stainless steel.
Double curved, with scissor action, notched on inside. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
200	YL62.1	1	17,75
250	YL63.1	1	17,95
400	YL64.1	1	22,60
600	YL65.1	1	26,80



Rotilabo®-burette holders

With bosshead made of pressed brass, nickel-plated.
For rods of max. Ø 16 mm. Clamping width max. 35 mm.

Type	Art. No.	Pack Qty.	€
For 1 burette	2048.1	1	24,10
For 2 burettes	2129.1	1	33,90



Rotilabo®-tongs for crucibles

Bent twice. Made of Remanit 4301. Electropolished. Autoclavable.

Riveted			
Length (mm)	Art. No.	Pack Qty.	€
200	3214.1	1	8,35
220	3221.1	1	8,85
250	3228.1	1	8,95
300	3231.1	1	9,15
400	3232.1	1	17,85
500	3236.1	1	17,85
600	3237.1	1	17,85

Screwed			
Length (mm)	Art. No.	Pack Qty.	€
200	3240.1	1	17,15
220	3241.1	1	18,60
300	3271.1	1	19,30



Burette holders

Made of PP. With non-slip rubber grips and stainless steel springs.
With stand clamp for attaching to rods with Ø 8-14 mm.
Burette stays fully readable.

Type	Art. No.	Pack Qty.	€
For 1 burette	PY63.1	1	23,05
For 2 burettes	PY64.1	1	29,25



Rotilabo®-tongs

(Sodium tongs) stainless steel, L 350 mm, W 16 mm.

Art. No.	Pack Qty.	€
0065.1	1	17,15

Tongs



All-purpose holding forceps

By Hammacher. Made of Remanit 4301 stainless steel. Inside serrated gripper jaws for better grip (production-related indentations do not influence the functionality). Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
200	YL66.1	1	44,75
280	YL67.1	1	45,60



Piston forcep

By Hammacher. Made of Wironit 4301 stainless steel. With cork pads. Length 330 mm.

Art. No.	Pack Qty.	€
YL60.1	1	63,40



Beaker tongs

Made of 18/10 stainless steel, Remanit 4301, with cork inserts.

Ø jaws (mm)	Length (mm)	Art. No.	Pack Qty.	€
30	200	YP93.1	1	19,90
40	220	YP94.1	1	20,35
50	250	YP95.1	1	21,00
60	300	YP96.1	1	21,45



Rotilabo®-flask tongs

Made of 18/8 stainless steel, plastic coated.

Span (mm)	Length (mm)	Art. No.	Pack Qty.	€
① 45-70	300	X100.1	1	17,20
② 17-60	220	X101.1	1	18,60



Rotilabo®-beaker tongs

Made of 18/10 steel. Jaws covered with ceramic fibres. For Ø 60 to 150 mm. Length 330 mm.

Art. No.	Pack Qty.	€
6150.1	1	24,70

Rotilabo®-flask tongs

Made of 18/10 steel. Electropolished. With cork inserts. For Ø 15 to 60 mm. Length 230 mm.

Art. No.	Pack Qty.	€
6160.1	1	23,40



Rotilabo®-beaker tongs

Made of 18/8 stainless steel. Plastic-coated. Span width 40-100 mm. Length 250 mm.

Art. No.	Pack Qty.	€
X099.1	1	13,15

Tongs, clips and holders



Cell forcep

By Hammacher. Made of Remanit 4301 stainless steel. Length 550 mm.

Art. No.	Pack Qty.	€
YL61.1	1	44,55



Universal spring clamps

Made of PA. For powerful clamping with constant tension force. With ergonomic, antislip handle and flexible, movable soft pads. Excellent for sensitive materials such as glass plates, wood and plastics. Extremely light and handy, but with highest stability.

Overall length (mm)	Span (mm)	Art. No.	Pack Qty.	€
60	20	LK35.1	1	4,95
90	34	LK36.1	1	5,65
120	44	LK37.1	1	6,20
160	60	LK38.1	1	7,70



Rotilabo®-mercury tongs

Made of 18/10 stainless steel. Length 220 cm, weight 140 g. Autoclavable.

Art. No.	Pack Qty.	€
1551.1	1	16,70



Rotilabo®-clips

Made of spring steel. For DC plates, x-ray films, sheets of paper, etc. Can be hung up.

Width (mm)	Span (mm)	Art. No.	Pack Qty.	€
19	7	ACY9.1	12	5,05
25	10	0826.1	12	5,60
41	18	0827.1	6	7,20
51	28	0850.1	6	11,20



Rotilabo®-tube tongs

Manufactured from die-cast zinc, nickel-plated. With plastic-coated handle. Width of bit 55 mm.

Art. No.	Pack Qty.	€
X102.1	1	29,60



Labo-Clip

For quick holding of lab instruments, temperature sensors and tubes with a Ø from 4 to 14 mm in beakers from minimum 250 ml. Plate made of foam-plastic, Ø 55 mm, thickness 12 mm. Metal parts are corrosion protected.

Art. No.	Pack Qty.	€
0510.1	1	28,95

- More tongs on page 710
- Beakers and flasks see page 10
- Test tubes see page 68
- Universal clamps see p. 711

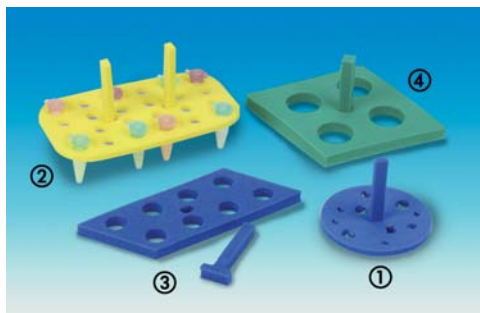
Floating racks



Rotilabo®-multi-purpose holders

Made of **PP**. Ideal for attaching or clamping probes, tubes, thermometers to beakers or Erlenmeyer flasks. White holder has additional opening. Autoclavable.

Colour	Ø of openings (mm)	L x W (mm)	Art. No.	Pack Qty.	€
orange	11, 9, 7	70 x 15	C533.1	5	16,10
white	11, 9, 7/6	100 x 15	C534.1	5	40,05
green	15, 12, 10	85 x 22	C535.1	5	21,10



Rotilabo®-floating racks

Made of foam **HDPE**. Excellent for tempering centrifuge and micro-centrifuge tubes in water baths. With handle for easier immersion and removal. The racks float fully loaded on the surface, the tubes however, remain immersed in water.

Model	①	②	③	④
for tubes	0.2/0.5/1.5/2.0 ml	1.5/2 ml	15 ml	50 ml
Number of holes	18	24	8	4
L x W x H (mm)	round, Ø 82 x H 60	150 x 82 x 69	130 x 59 x 65	105 x 105 x 65
Colour	blue	yellow	blue	green

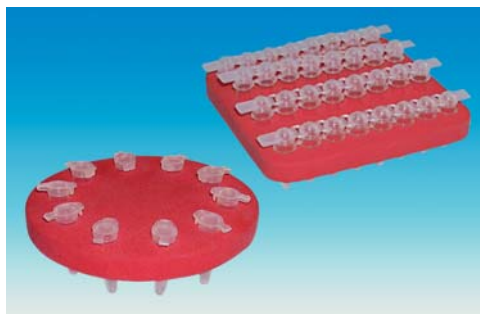
Type	Art. No.	Pack Qty.	€
①	LP92.1	5	17,35
②	P199.1	5	18,20
③	P200.1	5	18,20
④	P201.1	5	18,20



Microcentrifuge tube racks

By Nalgene®. Made of **PP**, ideal for temperature control of centrifuge tubes, size 0.5 to 2.0 ml in water bath tubs. Racks float fully loaded on the water's surface. Microcentrifuge tubes are fixed into rack and cannot float away. With handle for inserting and removing. Temperature stable from -70 to +100 °C. Autoclavable.

Type	For containers	Dimensions (mm)	Slots	Art. No.	Pack Qty.	€
round	0,5/1,5/2 ml	Ø 66	8	E072.1	1	9,80
round	0,5/1,5/2 ml	Ø 96	20	E073.1	1	9,80
square	0,5/1,5/2 ml	103 x 103	(4 x 4)	E075.1	1	9,80



Cryo floating stands

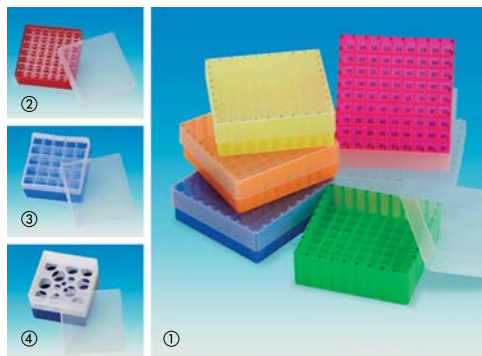
Made of foam **PE**. Ideal for keeping temperature of samples in PCR-tubes or 8 port strips. Loaded stands still float, and tubes remain fixed in the stand. Borehole Ø 5 mm, temperature stable from -80 to +80 °C.

Type	For containers	Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
round	Single tubes	10	Ø 70 x 8,5	LH39.1	10	13,90
square	8-port strips	4 x 8	80 x 80 x 8,5	LH40.1	10	23,60

► Microcentrifuge tube see page 455

► For dewar containers and ice containers see page 231

Stands for vials and micro inserts



Rotilabo®-storage boxes

Made of **PP**. For autosamplervials or other vials with suitable dimensions. With transparent lid. Stackable. Heat resistant from -80 to +100 °C. Autoclavable.

① For 1.5 ml autosamplervials:

81 slots, hole Ø 12 mm. With alphanumeric coding on all four side edges and in base cavities.

Outer dimensions: L 130 x W 130 x H 45 mm.

Colour	Art. No.	Pack Qty.	€
pink	TY99.1	1	20,40
yellow	XA00.1	1	20,40
orange	XA01.1	1	20,40
blue	XA02.1	1	20,40
green	XA03.1	1	20,40
transparent	XA04.1	1	20,40

② For 4 ml autosamplervials:

49 slots, hole Ø 15 mm. With alphanumeric coding on all four side edges and in base cavities.

Outer dimensions: L 130 x W 130 x H 52 mm.

Colour	Art. No.	Pack Qty.	€
red	XA05.1	1	25,30

③ For 5, 10 and 20 ml headspace vials:

25 slots, 25 x 25 mm.

Outer dimensions: L 130 x W 130 x H 102 mm.

Colour	Art. No.	Pack Qty.	€
blue	XA06.1	1	29,90

③ For 20 ml EPA screw top vials:

16 slots, 30 x 30 mm.

Outer dimensions: L 130 x W 130 x H 70 mm.

Colour	Art. No.	Pack Qty.	€
violet	XA07.1	1	29,90

④ For 30 ml and 40 ml EPA screw top vials:

10 slots, Ø 30 mm.

Outer dimensions: L 130 x W 130 x H 105 mm.

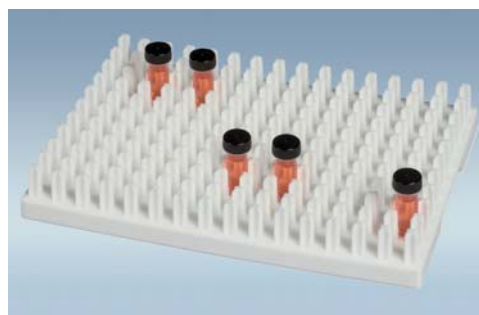
Colour	Art. No.	Pack Qty.	€
violet	XA08.1	1	33,90



Rotilabo®-stands for vials and micro inserts

Made of **acrylic**. Transparent material allows easy checking of the filling level of the vials in the stand. With silicon feet for stability and stackability. Stand for micro inserts and vials in sizes from ND8 to ND11 (Art. no. TY95.1 and TY96.1) can also hold tapered base vials.

For autosampler vials	Hole Ø (mm)	Slots	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
Micro inserts	8,5/3	5 x 10	173 x 95 x 20	TY95.1	1	67,75
ND8 to ND11	12	5 x 10	173 x 95 x 20	TY96.1	1	73,65
ND13	15,1	5 x 8	176 x 116 x 20	TY97.1	1	75,20
ND18, ND20 (up to 20 ml)	24	5 x 5	160 x 160 x 30	TY98.1	1	84,90



Racks for 5-8 ml sample vials

Made of **PP**. For 150 vials up to Ø max. 17 mm. Suitable for the storage and transportation of glass bottles, vials and reaction vials. Dimensions: L 324 x W 210 x H 48 mm. Autoclavable.

Art. No.	Pack Qty.	€
CXP5.1	1	64,45

► Sampling vials see page 54



Storing box with lid

Made of **PP**, with insert for 96 vials to max. Ø 12 mm. Dimensions: L 172.5 x W 116.5 x H 40.5 mm. Autoclavable.

Art. No.	Pack Qty.	€
A618.1	1	10,00

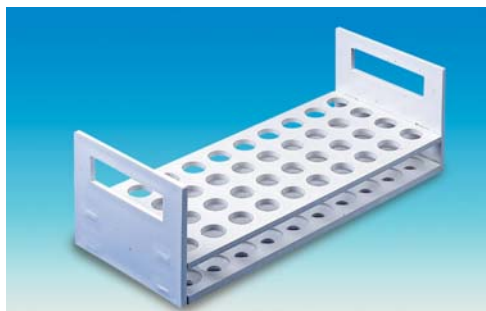


Sample vial holders

Made of **hardwood**. L 257 x W 47 x H 24 mm. Bore hole Ø 11 mm.

Art. No.	Pack Qty.	€
0403.1	1	13,95

Stands for vials and micro inserts



Racks for incubation test tubes

Made of PP, with handles. For incubation of small test tubes, serum / RIA test tubes and T3/T4 reaction vials. Suitable for most water baths.

Height of second level: 41 mm.

Temperature stable from -80 up to max. +121 °C. Autoclavable.

For test tube Ø (mm)	Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
10-13	72	238 x 111 x 89	YC06.1	1	41,95
13-16	40	254 x 111 x 89	YC07.1	1	39,45
16-20	40	254 x 111 x 89	YC08.1	1	40,75

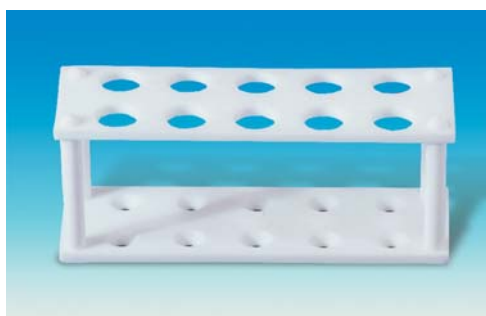


Racks for sample vials

Made of PP. For 12 vials up to Ø max. 32 mm. Suitable for the storage and transportation of glass bottles, vials and sample tubs.

Dimensions: 267 mm long x 102 mm wide x 53 mm high. Autoclavable.

Art. No.	Pack Qty.	€
CXP7.1	1	32,25



Rotilabo®-PTFE racks for test tubes

Made of PTFE. Bottom dimensions L 180 x B 60 mm. Chemically inert, temperature stable from -200 to +250 °C. Autoclavable.

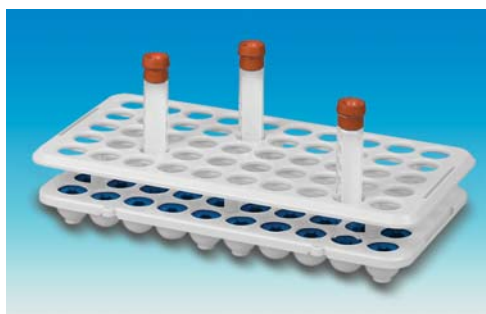
Hole Ø (mm)	Slots	Height (mm)	Art. No.	Pack Qty.	€
8	27 (3 x 9)	45	NY05.1	1	68,20
13	21 (3 x 7)	60	NY06.1	1	68,20
19	10 (2 x 5)	70	NY07.1	1	68,20
30	4 (1 x 4)	80	NY08.1	1	68,30



Rack for scintillation tubes

Made of PP, with 24 holes in 3 x 8 array. Hole-Ø 30 mm. Ideal for storing, transporting or as a rack on the laboratory bench. Dimensions: L 298 x W 127 x H 95 mm. Height to intermediate shelf 44 mm. Autoclavable.

Art. No.	Pack Qty.	€
K993.1	1	48,30



Grab Rack™ sample rack

Made of ABS. With 50 slots, Ø 18 mm. Silicon inserts hold the vials securely in place at the bottom; to empty rack, simply turn it over. Dimensions: L 259 x W 127 x H 49 mm.

Art. No.	Pack Qty.	€
NY19.1	1	21,45



Rack for sample vials

Made of acrylic, with 30 slots, hole Ø 24 mm. Transparent base for easy reading of labels. Dimensions: L 330 x W 110 x H 22 mm.

Art. No.	Pack Qty.	€
YC05.1	1	94,10

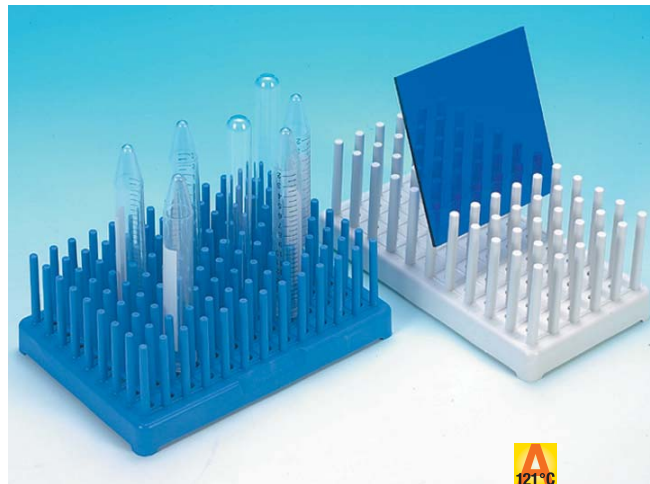
Test tube racks



Racks for test tubes and tubs

Made of epoxy-coated steel. Temperature stable up to 121 °C. Autoclavable.

For test tube Ø (mm)	Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
25	12 (2 x 6)	164 x 64 x 32	AXE5.1	1	20,45
25	50 (5 x 10)	271 x 145 x 32	AXE6.1	1	33,55
33	12 (2 x 6)	212 x 80 x 60	AXE7.1	1	20,45
33	50 (5 x 10)	355 x 189 x 60	AXE8.1	1	36,35
58	24 (6 x 4)	393 x 262 x 50	AXE9.1	1	55,40



Test tube and drying racks

By Nalgene®. Made of reinforced PP. Provides a secure hold for sample vials and centrifuge tubes, e.g. when used to secure sample while shaking. Racks allow full view of tube contents and do not float in water bath. Also excellent as drying rack for tubes, electrophoresis and chromatography plates. Autoclavable.

Colour	For test tube Ø (mm)	Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
white	10-13	96 (8x12)	179 x 127 x 64	E088.1	1	14,95
blue	10-13	96 (8x12)	179 x 127 x 64	E091.1	1	14,95
white	14-17	50 (5x10)	187 x 105 x 70	E094.1	1	16,25
blue	14-17	50 (5x10)	187 x 105 x 70	E097.1	1	16,25



Rack for NMR-test tubes

Made of PP. With 72 slots and 2 side handles for easy transportation. Stability is provided by hemispherical holes in the lower level. For NMR test tubes L 178 mm, outer Ø 5 mm. Dimensions: L 210 x W 110 x H 220 mm. Autoclavable.

Art. No.	Pack Qty.	€
YA94.1	1	52,15



Test tube racks, extra large

Made of PP. For applications involving high sample throughput. With alphanumeric coding

For vials Ø 10-13 mm

Colour	Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
white	216	327 x 267 x 91	TP51.1	1	33,90
blue	216	327 x 267 x 91	TP50.1	1	33,90
white	432	673 x 230 x 80	TP52.1	1	64,45
blue	432	673 x 230 x 80	TP53.1	1	64,45

For vials Ø 13-16 mm

Colour	Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
white	120	327 x 267 x 91	TP54.1	1	33,90
blue	120	327 x 267 x 91	TP55.1	1	33,90
white	240	521 x 260 x 89	TP56.1	1	64,45
blue	240	521 x 260 x 89	TP57.1	1	64,45

- NMR-Vials an scintillation tubes see page 64
- Autoclaving informations on page 5

Test tube racks



Test tube racks

By Nalgene®. Made of Resmer®. Moulded in one piece with 3 tiers. Easy viewing of contents. With alphanumeric marking on the top and a large labelling area on the front side. Do not float in water baths, stackable. Temperature stable from -70 to +121 °C. Autoclavable.

For tubes Ø 13 mm

Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	36 (6 x 6)	102 x 102 x 56	H529.1	1	15,95
blue	36 (6 x 6)	102 x 102 x 56	H530.1	1	15,95
red	36 (6 x 6)	102 x 102 x 56	H532.1	1	15,95
white	72 (6 x 12)	200 x 100 x 57	7390.1	1	24,00
orange	72 (6 x 12)	200 x 100 x 57	7391.1	1	24,00
yellow	72 (6 x 12)	200 x 100 x 57	7392.1	1	24,00
blue	72 (6 x 12)	200 x 100 x 57	7393.1	1	24,00
green	72 (6 x 12)	200 x 100 x 57	7394.1	1	24,00
red	72 (6 x 12)	200 x 100 x 57	H524.1	1	22,50

For tubes Ø 16 mm

Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	36 (6 x 6)	126 x 126 x 68	H533.1	1	17,90
blue	36 (6 x 6)	126 x 126 x 68	H534.1	1	17,90
green	36 (6 x 6)	126 x 126 x 68	H535.1	1	17,90
red	36 (6 x 6)	126 x 126 x 68	H536.1	1	17,90
white	72 (6 x 12)	250 x 130 x 70	7395.1	1	24,00
orange	72 (6 x 12)	250 x 130 x 70	7401.1	1	24,00
yellow	72 (6 x 12)	250 x 130 x 70	7407.1	1	24,00
blue	72 (6 x 12)	250 x 130 x 70	7431.1	1	24,00
green	72 (6 x 12)	250 x 130 x 70	7435.1	1	24,00
red	72 (6 x 12)	250 x 130 x 70	H525.1	1	22,50

For tubes Ø 20 mm

Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	20 (4 x 5)	128 x 103 x 83	H537.1	1	18,25
blue	20 (4 x 5)	128 x 103 x 83	H538.1	1	18,25
green	20 (4 x 5)	128 x 103 x 83	H539.1	1	18,25
red	20 (4 x 5)	128 x 103 x 83	H540.1	1	18,25
white	40 (4 x 10)	250 x 100 x 83	7438.1	1	24,00
orange	40 (4 x 10)	250 x 100 x 83	7441.1	1	24,00
yellow	40 (4 x 10)	250 x 100 x 83	7475.1	1	24,00
blue	40 (4 x 10)	250 x 100 x 83	7477.1	1	24,00
green	40 (4 x 10)	250 x 100 x 83	7478.1	1	24,00
red	40 (4 x 10)	250 x 100 x 83	H526.1	1	22,50

For tubes Ø 25 mm

Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	16 (4 x 4)	122 x 122 x 75	H541.1	1	18,25
blue	16 (4 x 4)	122 x 122 x 75	H542.1	1	18,25
white	40 (4 x 10)	300 x 120 x 92	7479.1	1	24,00
orange	40 (4 x 10)	300 x 120 x 92	7484.1	1	24,00
yellow	40 (4 x 10)	300 x 120 x 92	7487.1	1	24,00
blue	40 (4 x 10)	300 x 120 x 92	7488.1	1	24,00
green	40 (4 x 10)	300 x 120 x 92	7489.1	1	24,00
red	40 (4 x 10)	300 x 120 x 92	H527.1	1	25,20

For tubes Ø 30 mm

Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	9 (3 x 3)	109 x 109 x 84	H543.1	1	18,25
blue	9 (3 x 3)	109 x 109 x 84	H544.1	1	18,25
green	9 (3 x 3)	109 x 109 x 84	H545.1	1	18,25
red	9 (3 x 3)	109 x 109 x 84	H546.1	1	18,25
white	24 (3 x 8)	285 x 110 x 83	7492.1	1	24,00
orange	24 (3 x 8)	285 x 110 x 83	7493.1	1	24,00
yellow	24 (3 x 8)	285 x 110 x 83	7495.1	1	24,00
blue	24 (3 x 8)	285 x 110 x 83	7497.1	1	24,00
green	24 (3 x 8)	285 x 110 x 83	7508.1	1	24,00
red	24 (3 x 8)	285 x 110 x 83	H528.1	1	25,20



Universal test tube racks

Made of PP. Does not float in water. Alphanumerically coded holes for up to 90 test tubes. Temperature stable from -10 to +120 °C. Autoclavable.

For tubes Ø 13 mm

Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	90 (6 x 15)	250 x 105 x 60	4279.1	1	10,95
red	90 (6 x 15)	250 x 105 x 60	4283.1	1	10,95
blue	90 (6 x 15)	250 x 105 x 60	4287.1	1	10,95
yellow	90 (6 x 15)	250 x 105 x 60	4288.1	1	10,95

For tubes Ø 16 mm

Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	60 (5 x 12)	250 x 105 x 70	4299.1	1	10,95
red	60 (5 x 12)	250 x 105 x 70	4327.1	1	10,95
blue	60 (5 x 12)	250 x 105 x 70	4367.1	1	10,95
yellow	60 (5 x 12)	250 x 105 x 70	4383.1	1	10,95

For tubes Ø 20 mm

Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	40 (4 x 10)	250 x 105 x 70	4388.1	1	10,95
red	40 (4 x 10)	250 x 105 x 70	4398.1	1	10,95
blue	40 (4 x 10)	250 x 105 x 70	4399.1	1	10,95
yellow	40 (4 x 10)	250 x 105 x 70	4430.1	1	10,95

For tubes Ø 25 mm

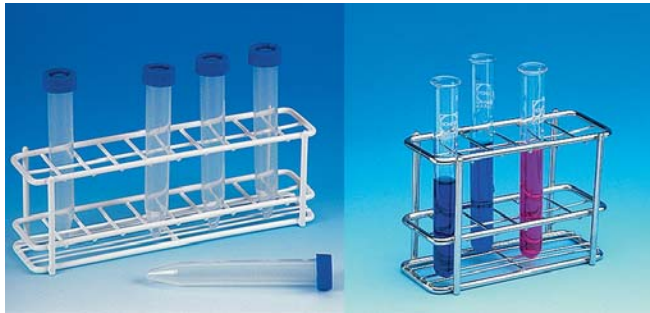
Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	40 (4 x 10)	300 x 125 x 85	4448.1	1	10,95
red	40 (4 x 10)	300 x 125 x 85	4449.1	1	10,95
blue	40 (4 x 10)	300 x 125 x 85	4450.1	1	10,95
yellow	40 (4 x 10)	300 x 125 x 85	4466.1	1	10,95

For tubes Ø 30 mm

Colour	Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
white	24 (3 x 8)	300 x 110 x 85	K833.1	1	15,90
red	24 (3 x 8)	300 x 110 x 85	K834.1	1	15,90
blue	24 (3 x 8)	300 x 110 x 85	K835.1	1	15,90
yellow	24 (3 x 8)	300 x 110 x 85	K836.1	1	15,90

► Rotilabo®-cryo boxes made of cardboard see page 225

Test tube racks



Rotilabo®-test tube racks

Made of **steel and polyamide coating**, height 70 mm.

Slots	L x W (mm)	Compartment size (mm)	Art. No.	Pack Qty.	€
2 x 6	130 x 50	18 x 18	L385.1	1	14,55
2 x 10	210 x 50	18 x 18	L386.1	1	17,15
2 x 12	250 x 50	18 x 18	L387.1	1	17,75
3 x 12	250 x 70	18 x 18	L388.1	1	18,85
4 x 6	130 x 90	18 x 18	L389.1	1	18,20
4 x 12	250 x 90	18 x 18	L390.1	1	20,40
10 x 10	210 x 210	18 x 18	L391.1	1	26,35

Made of **stainless steel**, height 70 mm, autoclavable.

Slots	L x W (mm)	Compartment size (mm)	Art. No.	Pack Qty.	€
2 x 6	101 x 44	14 x 14	H439.1	1	37,55
2 x 12	197 x 44	14 x 14	H440.1	1	43,90
4 x 12	197 x 76	14 x 14	H441.1	1	45,50
2 x 6	130 x 50	18 x 18	H442.1	1	29,35
2 x 12	250 x 50	18 x 18	H443.1	1	42,50
4 x 12	250 x 90	18 x 18	H444.1	1	40,00



Rotilabo®-test tube racks

Made of clear acrylic glass.

Hole Ø 11 mm, bottom plate with bore holes (hole Ø 6 mm).

Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
6 x 2	135 x 42 x 35	5427.1	1	50,45
12 x 2	255 x 42 x 35	5453.1	1	61,20
12 x 4	255 x 82 x 35	5457.1	1	76,90

Hole Ø 18 mm, bottom plate with bore holes (hole Ø 14 mm).

Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
6	165 x 55 x 75	CPT9.1	1	17,15
6 x 2	186 x 60 x 80	5119.1	1	50,00
8 x 3	220 x 80 x 79	CPX0.1	1	42,80
11 x 3	310 x 80 x 80	CPX1.1	1	55,90

Hole Ø 36 mm, smooth bottom plate.

Slots	L x W x H outer (mm)	Art. No.	Pack Qty.	€
6 x 2	275 x 100 x 80	5416.1	1	100,00



Racks for test tubes

Made of epoxy-coated steel. Temperature stable up to 121 °C. Autoclavable.

For test tube Ø (mm)	Slots	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
13	72 (6 x 12)	205 x 105 x 65	blue	AXH0.1	1	30,00
13	108 (9 x 12)	205 x 162 x 65	red	AXH1.1	1	30,00
16	72 (6 x 12)	241 x 127 x 65	blue	AXH2.1	1	30,00
16	108 (9 x 12)	237 x 188 x 65	red	AXH3.1	1	30,00
18	15 (3 x 5)	127 x 76 x 76	blue	AXH4.1	1	30,00
30	8 (2 x 4)	147 x 80 x 89	blue	AXH5.1	1	30,00



Test tube racks

Made of stainless steel 18/10. Autoclavable.

Slots	Hole Ø (mm)	L x W x H (mm)	Art. No.	Pack Qty.	€
2 x 6	19	155 x 55 x 90	PH51.1	1	34,85
2 x 12	19	293 x 55 x 90	PH52.1	1	38,20
4 x 12	19	298 x 100 x 90	PH53.1	1	65,60
2 x 6	20	164 x 62 x 90	PH54.1	1	44,00
2 x 12	20	333 x 60 x 90	PH55.1	1	56,95

► Test tubes see page 68

Test tube racks



Rotilabo®-test tube racks

Made of stainless steel Remanit 4301. Stackable. Autoclavable.

Slots	Hole Ø (mm)	L x W x H (mm)	Art. No.	Pack Qty.	€
50	12,5	155 x 78 x 50	X115.1	1	23,55
50	14,5	188 x 95 x 58	X116.1	1	26,35
25	17,5	110 x 110 x 40	PX26.1	1	21,45
50	17,5	220 x 115 x 63	X117.1	1	31,40
15	30	220 x 115 x 63	PX27.1	1	26,85

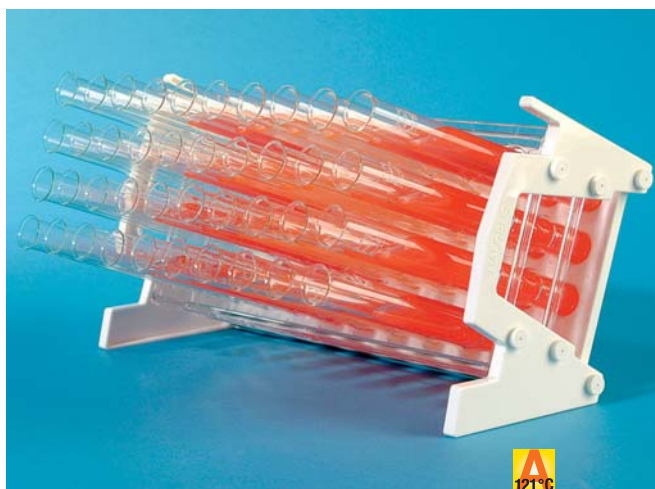


Rotilabo®-test tube racks, round

Made of 18/10 stainless steel. Hole-Ø 20 mm. Height (without handle) 165 mm. Autoclavable.

Ø (mm)	Slots	Art. No.	Pack Qty.	€
98	9	YT05.1	1	54,65
116	12	YT06.1	1	78,50
194	45	YT07.1	1	91,40

► Autoclaving informations on page 5



Slanted racks

By Nalgene®. Made of white **PC**, for simple and speedy preparation of angular agar with two different inclination angles.

The side supports on the rack enable on the one side, the preparation of a culture medium with a 5° angle of inclination, i.e. with a steep slope and therefore with a larger surface, e.g. for aerobic cultures, and on the other side with a 20° inclination angle, i.e. with a flat slope and smaller surface, e.g. for anaerobic cultures. The 20° angle helps prevent the drying out of nutrient media during long-term storage.

Also excellent for incubating liquid tissue cultures and for use in water baths - do not float. Nutrient media tubes can be autoclaved in rack in a vertical position. With 40 alphanumerically marked holes (4x10).

Dimensions: L 285 x W 115 mm.

For test tubes	Hole Ø (mm)	Art. No.	Pack Qty.	€
Ø 15-16 mm	17	E100.1	1	55,90
Ø 20 mm	20	E101.1	1	55,90



Test tube racks, wood

Made of beechwood, varnished. For test tubes with a min. height of 100 mm (Art. No. AEE3.1 for test tubes with a min. height of 160 mm). Optionally available with draining pegs for drying test tubes after cleaning.

Single level

For glass Ø (mm)	Slots	Draining pegs	L x W x H (mm)	Art. No.	Pack Qty.	€
18	6	without	210 x 55 x 120	AEE0.1	1	8,95
18	6	6	210 x 55 x 120	AEE1.1	1	10,55
22	6	without	230 x 55 x 120	AEE2.1	1	9,25
30	6	Without	270 x 55 x 180	AEE3.1	1	12,85

Two levels for simple storage of test tubes

For glass Ø (mm)	Slots	Draining pegs	L x W x H (mm)	Art. No.	Pack Qty.	€
18	12	Without	210 x 55 x 200	AEE4.1	1	11,30
18	12	6	210 x 55 x 200	AEE5.1	1	13,90
18	18	Without	290 x 55 x 200	AEE6.1	1	14,55
18	18	9	290 x 75 x 200	AEE7.1	1	15,95
18	24	Without	370 x 55 x 200	AEE8.1	1	14,85
18	24	12	370 x 75 x 200	AEE9.1	1	18,20
22	12	6	230 x 75 x 200	AEH0.1	1	13,55



Rotilabo®-test tube trays

Made from foam **PS**. Ideal for a large number of centrifuge tubes or test tubes. Holes are deep enough to keep test tubes, vials, etc. stable. Stackable. Extremely light. With finger recesses for easy lifting. K828.1 is ideal for 1.5 ml vials. Dimensions: L 218 x W 218 x H 33 mm.

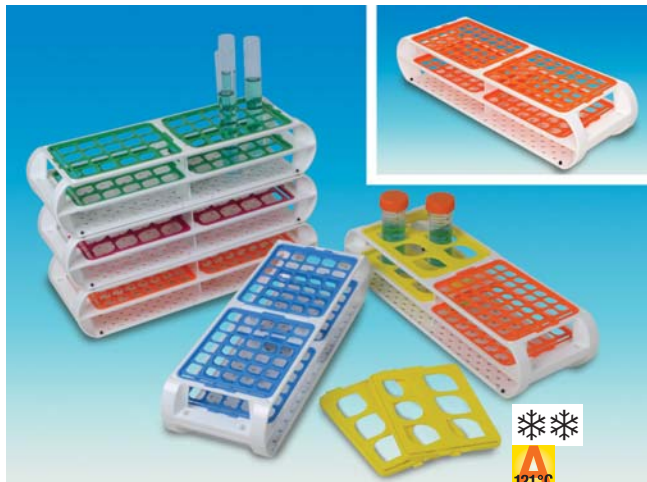
Hole Ø (mm)	Depth of holes (mm)	No. of holes	Art. No.	Pack Qty.	€
8,5	15	250	K828.1	5	26,85
14,5	18	119	K829.1	5	26,85
16,5	22	96	K830.1	5	26,85



Multi Tube Racks

Made of **POM**. 4 flexible slots for variable use, fits tube Ø 12 to 30 mm. Interconnectable. Dimensions: L 181 x W 56 x H 76 mm. Autoclavable.

Colour	Art. No.	Pack Qty.	€
blue/green	AXH9.1	2	12,85
blue/yellow	AXK0.1	2	12,85
blue	AXK1.1	2	12,85
green	AXK2.1	2	12,85
yellow	AXK3.1	2	12,85
white	AXK4.1	2	12,85
pink	AXK5.1	2	12,85



Combined test tube racks and grid inserts

Made of **POM**. Versatile frame racks with interchangeable grid inserts.

- Grid inserts in 5 colours for different test tube sizes
- 2 different test tube sizes are possible per rack
- Fast replacement of individual grids
- 3 levels for stability
- Slip-resistant rubber feet
- Stackable

Dimensions: L 318 x W 111 x H 67 mm. Temperature stable from -80 to +121 °C. Autoclavable.

Combined racks

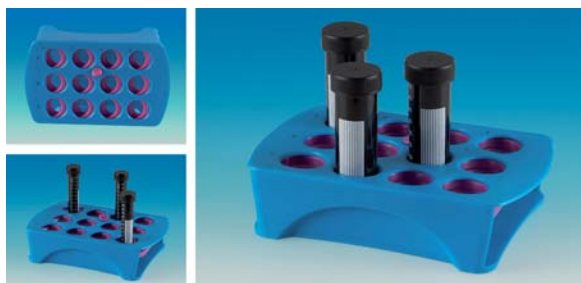
Delivery incl. frame rack and a set of 4 grids.

Colour	For test tube Ø (mm)	Slots	Art. No.	Pack Qty.	€
orange	10-13	84 (14 x 6)	YA95.1	1	25,70
blue	13-16	60 (12 x 5)	YA96.1	1	25,70
green	16-20	40 (10 x 4)	YA97.1	1	25,70
pink	20-25	24 (8 x 3)	YA98.1	1	25,70
yellow	25-30	12 (6 x 2)	YA99.1	1	25,70

Grid inserts

Additional grids (combinable).

Colour	For test tube Ø (mm)	Slots	Art. No.	Pack Qty.	€
orange	10-13	84 (14 x 6)	YC00.1	4	9,70
blue	13-16	60 (12 x 5)	YC01.1	4	9,70
green	16-20	40 (10 x 4)	YC02.1	4	9,70
pink	20-25	24 (8 x 3)	YC03.1	4	9,70
yellow	25-30	12 (6 x 2)	YC04.1	4	9,70



Universal rack for test tubes

Made of **PP**. With 12 variable-size slots, for test tube Ø 16-30 mm. Slots can be opened by inserting the vessels or by turning a knob. Dimensions: 194 mm long x 140 mm wide x 51 mm high.

Art. No.	Pack Qty.	€
NY31.1	1	45,05

Combi racks



Pop-Up™ racks

Made of PP. For centrifuge tubes 15 and/or 50 ml. Folds up to save storage space. Easy to unfold for quick access. Numbered slots for identification of samples. Robust design. Dimensions: L 255 x B 137 x H 72 mm, folded H 21 mm.

for centrifuge tubes	Holes	Colour	Art. No.	Pack Qty.	€
15/50 ml	21 x Ø 17 mm / 12 x Ø 30 mm	blue	PC54.1	2	30,65
15/50 ml	21 x Ø 17 mm / 12 x Ø 30 mm	pink	PC55.1	2	30,65
15 ml	45 x Ø 17 mm	violet	TP22.1	2	29,60
50 ml	18 x Ø 30 mm	green	TP23.1	2	29,60

- Autoclaving information on page 5
- Centrifuge tubes see page 73
- Microcentrifuge tubes see page 455



Rotilabo®-combi racks 4 in 1, oblong shape

Made of PP. Space saving and ideal for use on the laboratory bench, under a hood, in the water bath and freezer (max. -90 °C). For centrifuge tubes, test tubes, microcentrifuge tubes, PCR-tubes. Dimensions: L 180 x W 90 x H 52 mm. Autoclavable.

Four different side can be fitted:

- Bore holes-Ø 30 mm - 4 centrifuge tubes 50 ml
- Bore holes-Ø 17 mm - 12 centrifuge tubes 15 ml
- Bore holes-Ø 11 mm - 32 centrifuge tubes 1.5/2 ml
- Bore holes-Ø 8 mm - 32 centrifuge tubes 0.5/ml

Colour	Art. No.	Pack Qty.	€
neon blue	K082.1	1	17,45
neon green	K083.1	1	17,45
neon orange	K084.1	1	17,45
neon pink	K085.1	1	17,45
neon yellow	K086.1	1	17,45



Single stand for 50 ml centrifuge tubes

For tube Ø 27.5 to 29 mm, with conical or round base.

① Made of PS, Ø 92 x H 30 mm.

Art. No.	Pack Qty.	€
TP29.1	5	18,85

② Made of epoxy-coated steel, autoclavable.

Dimensions: 90 mm long x 67 mm wide x 67 mm high.

Art. No.	Pack Qty.	€
TP30.1	1	13,80



Puzzle Racks

Made of PP. Double-sided, for various vial types:

- 8 reaction vials à 1.5/2 ml + 9 centrifuge tubes à 15 ml
- 4 reaction vials à 1.5/2 ml + 4 centrifuge tubes à 50 ml

Coloured individual parts (yellow, blue, green, orange) can be assembled as a larger rack.

Dimensions: L 151 x W 135 x H 66 mm. Autoclavable.

Art. No.	Pack Qty.	€
NL89.1	4	47,25

Centrifuge tube racks



Rotilabo®-racks, revolving

Made of PP. Four colored models (violet, blue, green and yellow) are connected together, can however be turned individually, thus allowing centrifuge tubes and vials of different size to be stored and transported in one rack. Autoclavable.

Model 1 for large vials:

- Hole-Ø 29.6 mm - 2 vials 50 ml
- Hole-Ø 16.4 mm - 8 vials 15 ml
- Hole-Ø 20.5 mm - 6 vials Ø 16 to 20 mm
- Hole-Ø 13.5 mm - 10 vials Ø 10 to 13 mm

Dimensions: L 112 x W 112 x H 224 mm

Model 2 for centrifuge tubes:

- Hole-Ø 16.4 mm - 6 centrifuge tubes 15 ml
- Hole-Ø 11.2 mm - 9 centrifuge tubes 1.5 to 2 ml
- Hole-Ø 8.0 mm - 12 centrifuge tubes 0.5 ml
- Hole-Ø 6.5 mm - 32 PCR-centrifuge tubes or 4 centrifuge tube strips at 8 tubes each

Dimensions: L 100 x W 100 x H 208 mm.

Type	Art. No.	Pack Qty.	€
1	HC25.1	1	50,50
2	HC26.1	1	50,50



Rotilabo®-combi racks 4 in 1, cubical shape

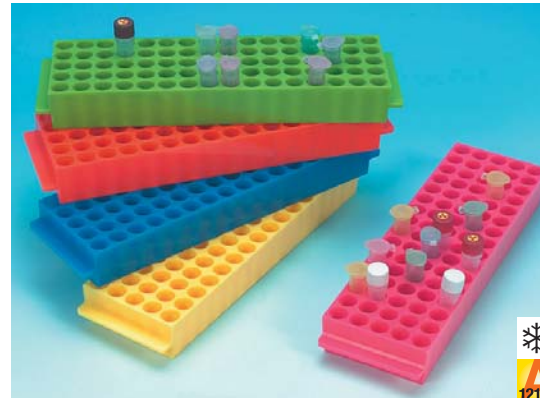
Made of PP. Can be fitted together on the open sides any way you like. For centrifuge vials, test tubes and centrifuge tubes. Autoclavable.

Dimensions: L 108 x W 108 x H 108 mm.

With four different insertion sides:

- Bore holes-Ø 30 mm - 4 centrifuge vials 50 ml
- Bore holes-Ø 17 mm - 10 centrifuge vials 15 ml
- Bore holes-Ø 13 mm - 12 test tubes Ø 12 x L 75/100 mm
- Bore holes-Ø 12 mm - 16 centrifuge tubes 1.5/2 ml

Colour	Art. No.	Pack Qty.	€
sorted (blue, yellow, green, orange, pink)	AK71.1	5	45,15



Rotilabo®-test tube racks

Made of PP. With 80 numerically labelled holes in 5 x 16 array, for 1.5/2 ml centrifuge tubes as well as screw cap vials with volumes up to 2 ml. 11 mm Ø of holes, depth 25 mm, vertically drilled. With a space for labelling. Temperature stable down to -80 °C. Autoclavable.

Dimensions: L 210 x W 65 x H 27 mm.

Colour	Art. No.	Pack Qty.	€
blue	C771.1	1	6,70
green	C772.1	1	6,70
orange	C773.1	1	6,70
pink	C774.1	1	6,70
yellow	C775.1	1	6,70



Rotilabo®-micro-centrifuge tube racks 2 in 1

Double-sided, made of PP. There are alphanumerically coded holes for 0.5/ 0.65 ml or 1.5/1.7 ml centrifuge tubes. With bore holes (Ø 8 resp. 11 mm) on both sides in an 8 x 8 or 8 x 12 array. With large spaces for labelling on all four sides of the rack and transparent lid. Autoclavable.

Dimensions 96 holes:

L 210 x W 115 x H 25 mm without lid/with lid 50 mm;

Dimensions 64 holes:

L 134 x W 134 x H 30 mm without lid/with lid 50 mm.

Colour	Slots	Art. No.	Pack Qty.	€
natural	64	E815.1	1	14,10
blue	64	E816.1	1	14,10
green	64	E817.1	1	14,10
orange	64	E818.1	1	14,10
yellow	64	E819.1	1	14,10
natural	96	E271.1	1	29,05
blue	96	E272.1	1	31,00
green	96	E273.1	1	31,00
red	96	E274.1	1	31,00
yellow	96	E275.1	1	31,00

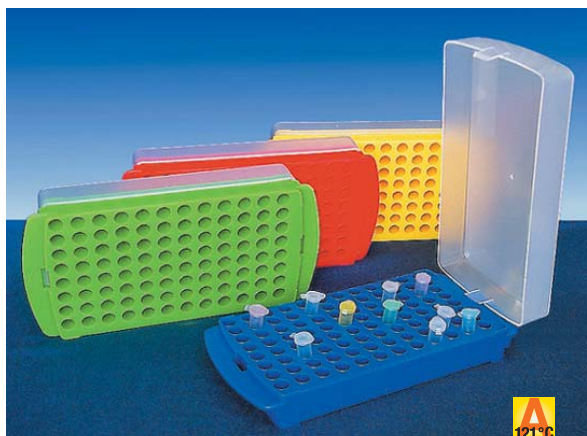
Centrifuge tube racks



Rotilabo®-centrifuge tube racks 2 in 1

Double-sided, made of **PP**, with lid. Handy and compact size of 158 x 79 mm. With 32 holes for 0.5/0.65 ml centrifuge tubes and 8 holes for 1.5/1.7/2 ml vials on one side as well as 32 holes for 1.5/1.7/2 ml vials and 8 holes for 0.5/0.65 ml vials on the other. Hole-Ø 8 or 11 mm. Alphanumerically coded on both sides. Can be stacked. Autoclavable.

Colour	Art. No.	Pack Qty.	€
natural	K133.1	1	15,80
pink	K134.1	1	15,70
yellow	K135.1	1	15,70
blue	K136.1	1	15,70
green	K137.1	1	15,70



2 in 1 Rotilabo®-racks for microcentrifuge tubes

Double-sided, made of **PP**. With 96 holes for 1.5/2 ml centrifuge tubes on one side and 96 holes for 0.5 ml centrifuge tubes on the other. Alphanumerically coded holes in a 8 x 12 array. Hole-Ø 8 or 11 mm. Transparent slip lid with latch and large labelling area. Dimensions: L 246 x W 121 x H 25 mm without lid (with lid 50 mm). Autoclavable.

Colour	Art. No.	Pack Qty.	€
natural	T216.1	1	12,90
blue	T217.1	1	12,90
green	T218.1	1	12,90
pink	T219.1	1	12,90
yellow	T220.1	1	12,90
sorted (blue, green, pink, yellow, orange)	NY18.1	5	56,25

► Autoclaving information on page 5



NEU
NOUVEAU
NEW

Mini reaction vial racks 2 in 1

Made of **PP**. With 25 slots for 1.5 / 2 ml reaction vials or screw vials up to 2 ml on one side and 16 slots for 0.2 / 0.5 ml PCR vials on the other side. Dimensions: 75 mm long x 65 mm wide x 22 mm high. Autoclavable.

Colour	Art. No.	Pack Qty.	€
blue	CXN7.1	10	25,30
red	CXN8.1	10	25,30
yellow	CXN9.1	10	25,30



Multi®-ultra racks

Made of **PP**. With 48 alphanumerically coded holes for centrifuge tubes with 0.65, 1.7 and 2 ml volume. Colour grey. Autoclavable.

For vials (ml)	Hole Ø (mm)	Art. No.	Pack Qty.	€
0.65	8	A775.1	1	22,25
1.5 / 1.7 / 2	11	A777.1	1	22,25



Rotilabo®-microcentrifuge tube racks

Made of **PP**. 20 numerically coded holes Ø 10 mm for 1.5 ml centrifuge tubes on 2 levels. Racks can be attached side by side or one behind the other with special clips. Dimensions: L 210 x W 90 x H 49 mm. Autoclavable.

Type	Art. No.	Pack Qty.	€
Rack	K831.1	1	10,25
Clips	K832.1	6	7,15

Centrifuge tube racks



Rotilabo®-centrifuge tube racks

Made of **PP**, for 1.5 and 2 ml centrifuge tubes. 20 holes, \varnothing 10.5 mm, arranged in two levels. Large, easy-to-read numbers on the individual holes. Can be clipped together on the sides. With recessed grip for easy handling. Dimensions: L 210 x W 90 x H 50 mm. Autoclavable.

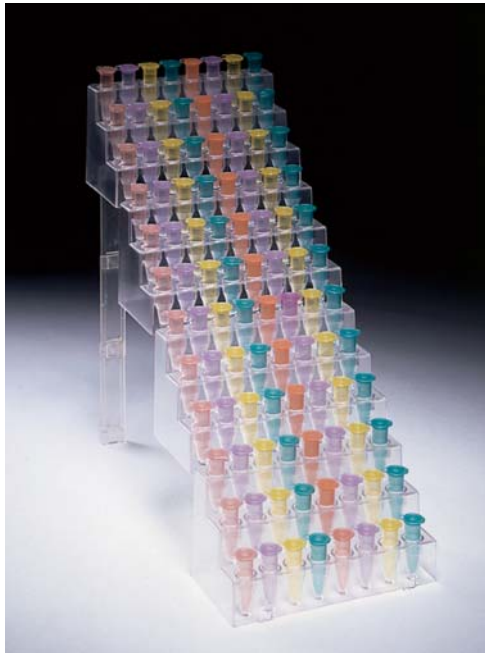
Colour	Art. No.	Pack Qty.	€
blue	N390.1	1	6,45



Racks for micro-centrifuge tubes

Made of **PP**. With alphanumerically labelled holes \varnothing 11 mm for 100 centrifuge tubes with 1.5 - 2 ml volume. Does not float in water. Stackable. Temperature stable from -15 to +130 °C. Dimensions: L 265 x W 110 x H 45 mm. Autoclavable.

Colour	Art. No.	Pack Qty.	€
white	4562.1	1	14,75
blue	4563.1	1	14,75
red	4575.1	1	14,75
yellow	4581.1	1	14,75



Rotilabo®-micro-centrifuge tube rack

Made of highly transparent **PS**. With 24 holes in 3 rows, for 1.5/2 ml centrifuge tubes as well as test tubes and vials up to a \varnothing of 12 mm. Each row is numbered from 1 to 8. Temperature stable from -40 to +70 °C. L 155 x W 76 mm. Set consists of 4 attachable racks.

Art. No.	Qty. (set)	€
P166.1	1	32,20



Reaction vial racks for 5 ml tubes

Made of **PP**. For 5 ml centrifuge vials as well as tubes with \varnothing 13-16 mm. With side handles for transporting and stacking. Dimensions: 260 mm long x 113 mm wide x 105 mm high. Autoclavable.

Art. No.	Pack Qty.	€
CXP6.1	1	38,70

► Microcentrifuge tubes see page 455

Centrifuge tube racks



Racks for reaction vials with screw cap

Made of **POM**. For 50 screw top vials. Hole Ø 10.75 mm, locking system in base as well as ribbed holes allowing single-handed opening of most standard reaction vials with screw cap and cryogenic vials. Suitable for use in a water bath, non floating, retains stability even when stored under water. Stackable. Temperature stable from -196 to +121 °C. Dimensions: L 293 x W 115 x H 39 mm.

Colour	Art. No.	Pack Qty.	€
blue	AEN2.1	10	102,15
green	AEN3.1	10	102,15
violet	AEN4.1	10	102,15
orange	AEN5.1	10	102,15
yellow	AEN6.1	10	102,15



Work2Store™ storage boxes

Variable all-in-one rack and storage boxes: Can be pulled apart for easy sample handling with large distances between rows. Can be stored flat to save space.

- Alphanumeric numbering
- Stackable
- Temperature stable from -80 to +121 °C.
- Autoclavable

Technical specifications:

	Work2Store™	Work2Store™ Micro
For reaction vials	1.5/2 ml or cryo vials up to 2 ml	0.2/0.5 ml or PCR strips
Slots	64 x Ø 12 mm; holes with locking function for cryo vials	Double-sided rack: side 1: 64 x Ø 7.99 mm side 2: 96 x Ø 6.30 mm
Dimensions with lid / open	L 133 x W 133 x H 53 / L 310 x W 128 x H 33.5 mm	L 133 x W 133 x H 48 mm / L 310 x W 128 x H 31 mm

Type	Art. No.	Pack Qty.	€
Work2Store™	NL88.1	1	30,95
Work2Store™ Micro	AXH8.1	1	31,15



Rotilabo®-cryogenic vial racks

Made of **PP**. With 50 alphanumerically coded holes (Ø 12.5 mm) in a 5 x 10 array. Latch system on the bottom allows one-handed opening and closing of the cryo vials. Rubber knobs prevent slipping. Stackable. Dimensions: L 200 x W 100 x H 25 mm. Autoclavable.

Colour	Art. No.	Pack Qty.	€
blue	K551.1	1	16,05
red	K552.1	1	16,05
violet	K554.1	1	16,05



Cryo vials racks

By Nalgene®. Made of white **PC**. The snap-in attachment in the base stops the vials from turning when opening and closing the box and also enables speedy and convenient one-hand operation. With alpha-numerical coding for easy sample identification. Rubber knobs on base prevent slipping. 50 holes in a 5 x 10 array (Ø 12.5 mm). Dimensions: L 197 x W 102 x H 28 mm. Autoclavable.

Art. No.	Pack Qty.	€
H615.1	1	41,30

► Cryo-vials see page 460

PCR-stands



PCR-racks

Made of **PP**, with lid. With 96 holes Ø 6 mm for 0.2 ml PCR-tubes. Come in standard 8 x 12 micro-titre plate array. Are therefore excellent for PCR-plates, 8 or 12 tube strips or for individual PCR-tubes. PCR-racks can be easily mounted over the 32 x 0.2 ml holes of PCR-workstation. By securing them with 4 clips, the racks can be removed or inserted easily when required. Dimensions: L 126 x W 86 mm. Height 33 mm with lid, 11 mm without lid. Autoclavable.

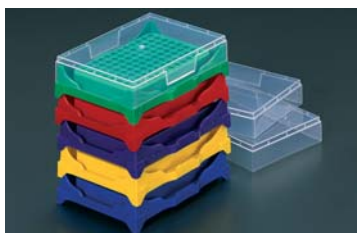
Colour	Art. No.	Pack Qty.	€
neon blue	K823.1	1	10,80
neon green	K824.1	1	10,80
neon orange	K825.1	1	10,80
neon pink	K826.1	1	10,80
neon yellow	K827.1	1	10,80



PCR-workstations

Made of **PP**, with lid. With 32 holes for PCR-vials 0.2 ml, 24 holes for 1.5/2 ml centrifuge tubes and 16 holes for 0.5 ml centrifuge tubes. Alphanumerically coded holes and large label space on all 4 sides for easy identification. Holes-Ø 6.5/8/12 mm. Dimensions: L 215 x W 120 x H 50 mm. Can be combined with PCR-racks, Art. No. K823.1-K827.1. Autoclavable.

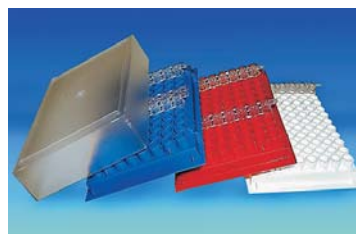
Colour	Art. No.	Pack Qty.	€
neon blue	K818.1	1	27,55
neon green	K819.1	1	27,55
neon orange	K820.1	1	27,55
neon pink	K821.1	1	27,55
neon yellow	K822.1	1	27,55



Rotilabo®-PCR-racks

Made of **PP**, with transparent slip lid. Stackable. For PCR-vials, strips and plates with a volume of 0.2 ml. 96 holes. Array 8 x 12. Bore hole Ø 5.5 mm. Temperature stable from -80 to +121 °C. Dimensions: L 138 x W 98 x H 39 mm. Height without lid: 30 mm.

Colour	Art. No.	Pack Qty.	€
assorted (blue, yellow, green, red, purple)	HX25.1	5	53,00



Rotilabo®-PCR-stands

Made of **PP**, lid Art. No. P769.1 made of **SBS**. With 96 holes Ø 6 mm in 8 x 12 array, for vials 0.2 ml, individual vials, on strips or plates. Dimensions L 127 x W 85 x H 16 mm.

Type	Colour	Art. No.	Pack Qty.	€
PCR-racks	white	P765.1	2	4,25
PCR-racks	blue	P766.1	2	4,25
PCR-racks	red	P767.1	2	4,25
Lid flat (14 mm)	colourless	P768.1	2	3,90
Lid high (28 mm)	colourless	P769.1	2	4,25

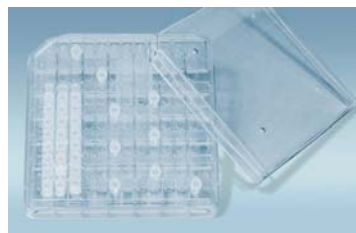


Rotilabo®-PCR-racks

Made of **PP**. With attached, removable lid. 96 alphanumerically coded holes Ø 6 mm for PCR-vials, -plates and -strips 0.2 ml. 8 x 12 array in microtitre plate format. Dimensions: L 130 x W 100 x H 30 mm. Height without lid: 15 mm. Autoclavable.

Colour	Art. No.	Pack Qty.	€
natural	T098.1	1	8,15
blue	T099.1	1	8,15
green	T100.1	1	8,15
sorted (blue, green, pink, yellow, orange)	NY17.1	5	34,00

► PCR-vials see page 453

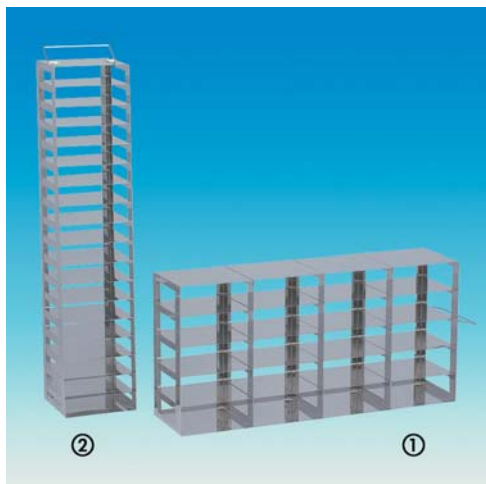


PCR box

Made of **PC**. With 144 alphanumerically numbered slots for 0.2 ml PCR vials. Dimensions: L 132 x W 132 x H 25 mm. Temperature stable to -86 °C.

Art. No.	Pack Qty.	€
CXP1.1	1	10,60

Cryo racks



Cryo racks for cryo boxes

Made of polished stainless steel. Corrosion resistant, very robust and easy to clean. For storing cryo-boxes in freezers. With handles. Suitable for cryo boxes in sizes from 130 x 130 to 136 x 136 mm.

① Horizontal racks for upright freezers

For box height (mm)	Length (mm)	Width (mm)	Height (mm)	Compartmentments	Art. No.	Pack Qty.	€
50	424	140	274	3 x 5	LH44.1	1	127,95
50	566	140	219	4 x 4	LH43.1	1	127,95
50	566	140	274	4 x 5	LH42.1	1	151,60
50	566	140	328	4 x 6	LH41.1	1	155,90

② Vertical racks for chest style freezers

For box height (mm)	Length (mm)	Width (mm)	Height (mm)	Compartmentments	Art. No.	Pack Qty.	€
50	140	140	495	1 x 9	LH49.1	1	88,70
50	140	140	550	1 x 10	T440.1	1	84,95
50	140	140	604	1 x 11	LH47.1	1	89,15
50	140	140	659	1 x 12	LH48.1	1	85,50
50	140	140	713	1 x 13	LH46.1	1	92,40
75-77	140	140	641	1 x 8	LH50.1	1	82,70
75-77	140	140	720	1 x 9	LH51.1	1	103,75

Cryogenic racks for cryogenic boxes, aluminium

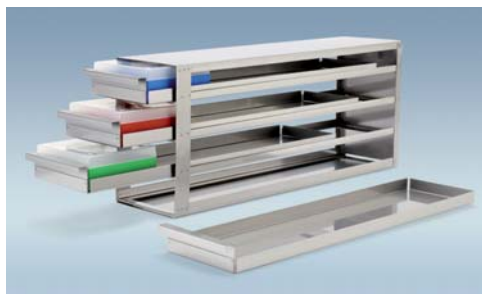
Made of aluminium, with carry handle. At least 30 % lighter than stainless steel racks. For the storage of cryogenic boxes in deep freezer chests or deep freezers, less effort is required for removal and insertion. Improved design for faster cooling rate. Suitable for cryogenic boxes in sizes from 130 x 130 to 136 x 136 mm.

① Wide version for deep freezers

For box height (mm)	Length (mm)	Width (mm)	Height (mm)	Compartmentments	Art. No.	Pack Qty.	€
50	566	140	274	4 x 5	CLL6.1	1	203,20
50	566	140	328	4 x 6	CLL7.1	1	213,95

② High version for deep freezer chests

For box height (mm)	Length (mm)	Width (mm)	Height (mm)	Compartmentments	Art. No.	Pack Qty.	€
50	140	140	550	1 x 10	CLL8.1	1	127,95



Cryogenic racks for cryogenic boxes, cabinet modules

Made of stainless steel with polished surface, easy to clean. For the storage of cryogenic boxes in deep freezers, less effort is required for removal and insertion. Cabinet modules without pull-out stop. Suitable for cryogenic boxes in sizes from 130 x 130 to 136 x 136 mm.

For box height (mm)	Length (mm)	Width (mm)	Height (mm)	Compartmentments	Art. No.	Pack Qty.	€
50	556	141	225	4 x 4	CLL9.1	1	148,35
50	556	141	280	5 x 4	CLN0.1	1	152,65
50	556	141	335	6 x 4	CLN1.1	1	166,65
75	556	141	250	3 x 4	CLN2.1	1	141,90
75	556	141	335	4 x 4	CLN3.1	1	159,10



Rotilabo®-laboratory tower

Made of PC. Flexible, multistage storage system for use in chest freezers, and on the workbench, and for transporting. Trays and handles can be assembled individually, which enables the structure to have varied height. Once it has been put together, the tower is, for stability reasons, very difficult to take apart again. Dimensions: Platform inside: L 142 x W 142 x H 65 mm, Platform outside: L 160 x W 155 x H 80 mm. Temperature stable from -196 to +121 °C. Autoclavable.

Type	Art. No.	Pack Qty.	€
Tray	X628.1	1	16,80
Handle	X629.1	1	5,35

Rotilabo®-storage boxes

Made of PC. Suitable for Rotilabo®-laboratory tower X628.1. With 9 x 9 holes (Ø 12 mm) for cryo vials 1/2 ml to max. 55 mm height. With specially constructed hollows for upright storage of conical 0.5 to 1.5 ml centrifuge tubes. Height adjustable push-on lid, stackable. Temperature stable from -196 to +121 °C. Autoclavable. Dimensions: L 142 x W 142 x H 48 mm.

Art. No.	Pack Qty.	€
X630.1	1	11,65

Cryo boxes / storage boxes



Rotilabo®-stainless steel rack

Ideal for storing and transporting 6 storage boxes with 200 holes (P786.1), 12 boxes with 100 holes (N195.1ff/N200.1) or a combination of both. Very sturdy. Dimensions: L 285 x W 159 x H 439 mm. Shed height: 69 mm.

Art. No.	Pack Qty.	€
P959.1	1	263,40



Rotilabo®-cryo storage boxes

Made of PP. With 100 holes (12.4 x 12.4 mm). For 0.5 and 1.5/2 ml centrifuge tubes and for cryo vials. Max. tube height 53.3 mm. Transparent lid with alphanumerically coded index card for speedy identification. Stackable. Dimensions: L 140 x W 140 x H 60 mm. Suitable for Rotilabo®-stainless steel rack P959.1. Temperature stable from -90 to +121 °C. Autoclavable.

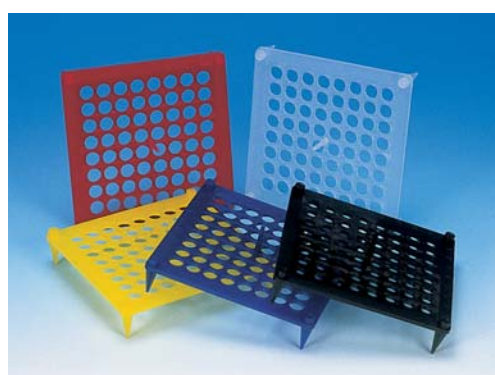
Colour	Art. No.	Pack Qty.	€
transparent	N195.1	1	12,85
red	N196.1	1	12,85
blue	N197.1	1	12,85
green	N198.1	1	12,85
yellow	N199.1	1	12,85



Rotilabo® storage boxes

Made of PP. For 0.5 ml to 2 ml reaction vials and cryo vials. With two tabs on the front for inserting tags.
 • 200 slots (12 x 12 mm)
 • For tube Ø up to 12 mm, heights up to 53.5 mm
 • Hinged lid with alphanumeric coding
 • Stackable
 • Suitable for Rotilabo® stainless steel rack P959.1
 Dimensions: L 275 x W 151 x H 64 mm.
 Temperature stable from -80 to +135 °C. Autoclavable.

Colour	Art. No.	Pack Qty.	€
transparent	P786.1	1	21,40
black	ACN1.1	1	22,60



Rotilabo®-box inserts

Made of PP. With 64 holes for 0.5/1.5 ml centrifuge tubes. Suitable for storage boxes N195.1ff as well as N200.1. Can be used as a free-standing rack on the laboratory bench or as an insert in the storage boxes. Can be inserted and removed quickly. Stackable. Alphanumerically coded in 8 x 8 configuration. Temperature stable up to -85 °C. Autoclavable.

Hole Ø (mm)	for Tubes (ml)	Colour	Art. No.	Pack Qty.	€
8	0,5	transparent	N912.1	1	3,50
8	0,5	red	N913.1	1	3,50
8	0,5	green	N914.1	1	3,50
8	0,5	blue	N915.1	1	3,50
8	0,5	yellow	N916.1	1	3,50
11	1,5	transparent	N917.1	1	3,50
11	1,5	red	N918.1	1	3,50
11	1,5	green	N919.1	1	3,50
11	1,5	blue	N920.1	1	3,50
11	1,5	yellow	N921.1	1	3,50

Cryo boxes / storage boxes



Rotilabo®-cryo storage boxes

Made of black PP. Ideal for storing light-sensitive samples. With **100 holes** (12 x 12 mm), for 0.5 and 1.5/2 ml centrifuge tubes and for cryo vials. Max. tube height 53.3 mm. Stackable. Dimensions: L 140 x W 140 x H 60 mm. Suitable for Rotilabo®-stainless steel rack P959.1. Temperature stable from -90 to +121 °C. Autoclavable.

Art. No.	Pack Qty.	€
N200.1	1	11,65



Storage boxes

Made of PP, with transparent lid. With **81 slots** (13 x 13 mm). For the storage of 1.5/2 ml reaction vials or cryo vials up to 2 ml. Alphanumeric numbering of slots (9 x 9 arrangement). With outlet holes on the base. Black box with black lid for the storage of light-sensitive samples. Dimensions: L 130 x W 130 x H 47 mm. Autoclavable.

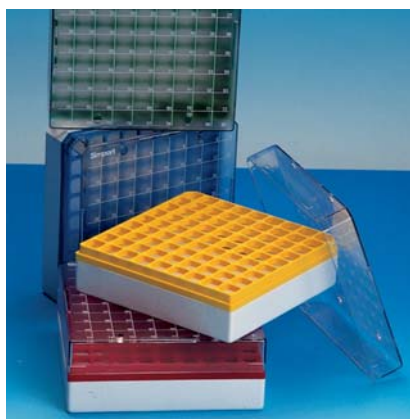
Colour	Art. No.	Pack Qty.	€
transparent	NL80.1	5	34,95
blue	NL81.1	5	34,95
green	NL82.1	5	34,95
pink	NL83.1	5	34,95
yellow	NL84.1	5	34,95
orange	NL85.1	5	34,95
black	NL86.1	5	34,95
assorted colours (blue, green, pink, yellow, orange)	NL87.1	5	34,95



Rotilabo®-cryo boxes

Made of PP. **81 holes** in 9 x 9 array for cryo vials. Other features include a hinged lid and spring-loaded latch. Numerically coded, **contains removable grid**, slots 13 x 13 mm. Outlet on the base and corners for stacking ensure safe transport. Dimensions: L 133 x W 133 x H 52 mm. Suitable for Cryo-racks Art. No. LH44.1ff. Temperature stable from -90 to +121 °C. Autoclavable.

Colour	Art. No.	Pack Qty.	€
transparent	T435.1	1	5,35
red	T436.1	1	5,35
blue	T437.1	1	5,35
green	T438.1	1	5,35
yellow	T439.1	1	5,35



Rotilabo®-cryo boxes

Made of robust PC. With transparent lid and removeable coloured insert. **81 holes** (12.2 x 12.2 mm) numerically coded for cryo vials with an outer thread of 1 to 5 ml, depending on the design of the box. Lid is also numerically coded corresponding to the bottom part. With outlet holes on the base, and with a large labelling field on the box and lid. Stackable. Boxes K585.1-K588.1 suitable for cryo-racks LH44.1ff. Temperature stable from -196 to +121 °C. Autoclavable.

For cryo vials (ml)	Colour	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
1 to 2 ml	blue	133	133	52	K585.1	1	13,05
1 to 2 ml	green	133	133	52	K586.1	1	13,05
1 to 2 ml	red	133	133	52	K587.1	1	13,05
1 to 2 ml	yellow	133	133	52	K588.1	1	13,05
3 to 5 ml	blue	133	133	95	K589.1	1	16,05
3 to 5 ml	green	133	133	95	K590.1	1	16,05
3 to 5 ml	red	133	133	95	K591.1	1	16,05
3 to 5 ml	yellow	133	133	95	K592.1	1	16,05

Cryo boxes / storage boxes



Rotilabo®-cryoboxes

Coloured bottom part made of **PC** and transparent lid. With **100 holes** for 1 to 2 ml cryo-vials with female thread. Holes are numerically coded in bottom and on the lid. With outlet holes on the base. Large field for labelling on the side. Stackable. Dimensions: L 133 x W 133 x H 52 mm. Suitable for cryo-racks LH44.1ff. Temperature stable from -196 to +121 °C. Autoclavable.

Colour	Art. No.	Pack Qty.	€
blue	K593.1	1	12,50
green	K594.1	1	12,50
red	K595.1	1	12,50
yellow	K596.1	1	12,50



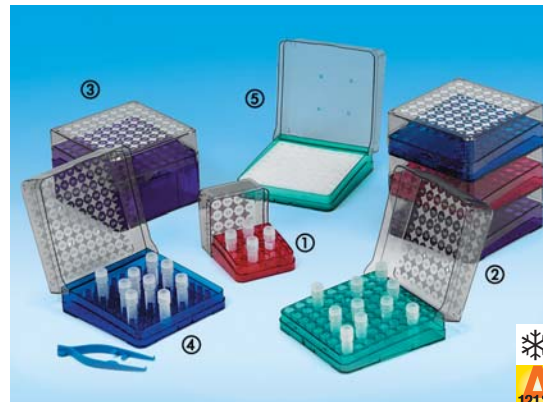
Rotilabo®-cryo storage box

Made of **PC**, transparent, with hinged lid and coloured insert. For cryo vials, screw vials and reaction vials up to 5 ml. Also suitable for storage of larger vials thanks to removable insert.

- 81 slots
- For vial Ø 12-13 mm, heights up to 93 mm
- With embossed numeric coding
- Stackable

Dimensions: L 145 x W 142 x H 97 mm. Temperature stable to -196 °C. Autoclavable.

Art. No.	Pack Qty.	€
ACL7.1	1	9,05



Rotilabo®-cryo storage boxes

Made of **PC**, transparent color. Hinged lid with alphanumeric coding attached. (HE00.1 with loose lid). Stackable. For 1.2 to 5.0 ml cryo vials. With outlet holes on the base. Temperature resistant from -196 to +121 °C. Autoclavable. Reaction vial boxes with removable melamine foam insert. Foam insert is temperature resistant from -90 to +90 °C, not autoclavable. Art. No. HE01.1 comes with extraction aid.

Technical specifications:

Model	Spaces	Dimensions L x W x H (mm)	Vessels
① Small box	5 x 5	76 x 76 x 53	Cryo vials 1.2 / 2.0 ml
② Standard box	9 x 9	133 x 133 x 53	Cryo vials 1.2 / 2.0 ml
③ Tall box	9 x 9	133 x 133 x 96	Cryo vials 3.0 / 5.0 ml
④ Standard box with pin raster	10 x 10	133 x 133 x 53	Cryo vials 1.2 / 2.0 ml
⑤ Centrifuge tube box	9 x 9	133 x 133 x 53	Centrifuge tubes max 1.5 ml

Type	Colour	Ø hole (mm)	Art. No.	Pack Qty.	€
①	red	12,5	HE00.1	1	9,20
②	assorted by color (blue, red, green, violet)	12,5	HE01.1	4	53,70
③	violet	12,5	HE02.1	1	19,60
④	blue	12,5 x 12,5	HE03.1	1	13,55
⑤	green	12,5	HE04.1	1	18,85



Rotilabo® storage box, slim version

Made of black **PP**. For 0,5 ml to 2 ml reaction vials and cryo vials

- 100 slots (12 x 12 mm)
- For tube Ø up to 12 mm, heights up to 50 mm
- Slip lid with alphanumeric coding
- Loose fitting lid, height-adjustable
- Stackable

Dimensions: L 287 x W 76 x H 38-52 mm. Temperature stable from -80 to +135 °C. Autoclavable.

Art. No.	Pack Qty.	€
ACN0.1	1	7,75

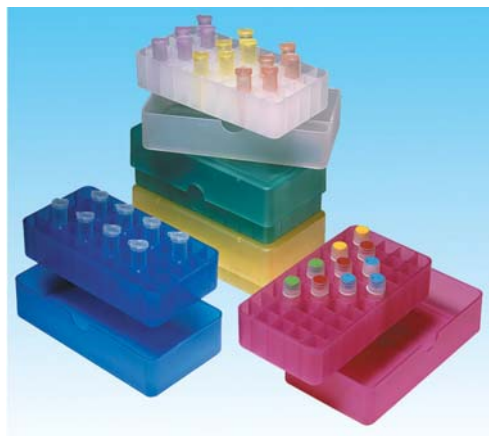
Cryo boxes / storage boxes



Cryo storage boxes

Made of **PP**. With **50 slots** (13 x 13 mm) and hinged lid. For the storage of 1.5/2 ml reaction vials or cryo vials up to 2 ml. Alphanumeric coding of slots. Dimensions: 142 mm long x 92 mm wide x 56 mm high. Autoclavable.

Colour	Art. No.	Pack Qty.	€
transparent	NY15.1	5	20,65
sorted (blue, green, violet, yellow, orange)	NY16.1	5	20,65



Rotilabo®-cryo storage boxes

Made of **PP**. With **50 holes** (12.5 x 12.5 mm). For storage of 0.5 and 1.5/2 ml microcentrifuge tubes or cryo-vials. Height-adjustable lid enables height of tube to be varied up to 55 mm. Dimensions: L 144 x W 75 x H 35-55 mm (variable). Temperature stable from -90 to +121 °C. Autoclavable.

Colour	Art. No.	Pack Qty.	€
transparent	N201.1	1	8,10
pink	P184.1	1	8,40
yellow	P185.1	1	8,40
blue	P186.1	1	8,40
green	P187.1	1	8,40



Storage boxes with variable partitioning

Made of **PP**, transparent, with slip lid. For storage of reaction vials, cryo vials and other sample containers. Please order variable dividers separately. Temperature stable to -196 °C. Autoclavable.

Storage boxes

- 4 to 81 slots
- Variable partitioning, by using between 2 and 16 dividers
- Height-adjustable lid, locks at 43 mm, 50 mm and 55 mm

Dimensions: L 130 x W 130 x H 43-55 mm.

Art. No.	Pack Qty.	€
ACL8.1	5	18,20

Dividers

Made of **PP**, for flexible partitioning of ACL8.1 storage boxes. Dimensions: L 121 x H 30 mm, thickness 1 mm.

Technical specifications:

Number of dividers	Slots	Compartment size (mm)
2	4	50 x 55 to 65 x 65
3	6	40 x 50 to 40 x 65
4	9	40 x 40
6	12	25 x 40
8	16	25 x 25
10	27	12 x 40
12	36	12 x 25
16	81	12 x 12

Art. No.	Pack Qty.	€
ACL9.1	16	6,40



Rotilabo®-storage box

Stackable, made of **PS**. Ideal for storing ampoules, sample vials, etc. in the refrigerator. Removable insert for **49 tubes**. Array size 14 x 14 mm. Suitable for vessels of max height 53 mm. Inside dimensions of container L 115 x W 115 x H 55 mm. Wallthickness 1 mm. Temperature stable from -10 to +70 °C. Colour of bottom part: transparent.

Art. No.	Pack Qty.	€
C648.1	5	48,60

Cryo boxes / storage boxes



Rotilabo®-cryogenic boxes

Made of PP. With hinged lid and drain holes in base. Flexible storage of cryogenic vials and other sample containers through variable configurations using different dividers. Also suitable for larger contains without grid dividers.

Dimensions: L 133 x W 133 mm.

Temperature stable from -90 to +121 °C. Autoclavable.

Delivery without grid dividers. Please order separately.

Cryogenic box height 52 mm

Colour	Art. No.	Pack Qty.	€
natural	CLH7.1	5	18,10
yellow	CLH8.1	5	18,10
red	CLH9.1	5	18,10
green	CLK0.1	5	18,10
blue	CLK1.1	5	18,10
black	CLK2.1	5	18,10

Cryogenic box height 75 mm

Colour	Art. No.	Pack Qty.	€
natural	CLK3.1	5	18,95
yellow	CLK4.1	5	18,95
red	CLK5.1	5	18,95
green	CLK6.1	5	18,95
blue	CLK7.1	5	18,95
black	CLK8.1	5	18,95

Grid dividers, H 30 mm

Slots	For vial Ø (mm)	Art. No.	Pack Qty.	€
6 x 6	20,5	CLK9.1	5	11,65
7 x 7	17,3	CLL0.1	5	12,90
8 x 8	15,8	CLL1.1	5	14,00
9 x 9	12,8	CLL2.1	5	15,05
10 x 10	11,2	CLL3.1	5	17,20



Cryogenic boxes, foldable

Made of corrugated PP. With **81 slots** in 9 x 9 layout for tube Ø up to 12 mm. Dimensions: L 133 x W 133 x H 51 mm. Temperature stable to -80 °C. **Delivery incl.** dividers.

Art. No.	Pack Qty.	€
AXE4.1	10	38,50



Rotilabo®-mini cryo boxes made of cardboard

Made of frost-resistant, water-repellent cardboard. Boxes are suitable for labelling, space-saving and environmentally friendly. Ideal for storing cryo vials and other sample vessels.

Delivery without cardboard inserts, please order separately.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
75	75	50	LH31.1	10	36,55
136	68	50	LH33.1	10	32,20

Partition inserts made of cardboard, H 30 mm

Suitable for cardboard boxes L x W (mm)	For vial Ø (mm)	Slots	Art. No.	Pack Qty.	€
75 x 75	11,0	5 x 5	LH32.1	10	18,25
136 x 68	14,5	8 x 4	LH34.1	10	19,25
136 x 68	11,0	10 x 5	LH35.1	10	18,20



Rotilabo®-freezing box

Made of special, water repellent cardboard. Easy to write on, space-saving and, depending on the application, can be reused. 50 individual spaces.

5 x 10 array. Space size 13 x 13 mm. Suitable for shipping and storing e.g. freeze-drying vials, micro-centrifuge tubes and cryo vials up to max. 80 mm height. Outer dimensions: L 142 x W 72 x H 85 mm. Empty weight 78 g. Temperature stable down to a minimum of -150 °C over a couple of months.

Art. No.	Pack Qty.	€
1625.1	1	17,15

Cryo boxes / storage boxes



Rotilabo®-cryogenic boxes made of cardboard

Made of low temperature resistant cardboard. Flexible storage of cryo vials and other sample containers through variable configurations using different dividers. Also suitable for larger contains without grid dividers. Dimensions: L 136 x W 136 mm.

Delivery without dividers, please order dividers separately.

Fitting table for Rotilabo®-cryo boxes:

Sample vessel type	Cryobox	Divider
0.5 ml reaction vial	Y054.2	Y050.2
1.5/2 ml reaction vials	P895.3	P900.2
Cryo vials up to 2 ml	P895.3	P900.2
5 ml cryo vials	P897.2	Y046.2
15 ml centrifuge tubes	Y055.2	Y042.2
50 ml centrifuge tubes	Y055.2	Y038.2

With water repellent standard coating

Height (mm)	Colour	Art. No.	Pack Qty.	€
32	white	Y054.2	10	33,90
50	white	P895.3	10	27,95
50	white	P895.2	50	96,65
50	blue	XP98.1	10	35,40
50	red	XP99.1	10	35,40
50	green	XT00.1	10	35,40
50	yellow	XT01.1	10	35,40
75	white	P896.2	10	40,35
100	white	P897.2	10	60,75
130	white	Y055.2	10	63,45

With waterproof plastic coating

Height (mm)	Colour	Art. No.	Pack Qty.	€
32	white	CLE8.1	10	49,40
50	white	CLE9.1	10	32,20
50	blue	CLH0.1	10	53,55
50	red	CLH1.1	10	53,55
50	green	CLH2.1	10	53,55
50	yellow	CLH3.1	10	53,55
75	white	CLH4.1	10	40,80
100	white	CLH5.1	10	61,20
130	white	CLH6.1	10	68,30

Partition inserts made of cardboard

Made of cardboard for partitioning cryo boxes.

Slots	Hole L x W (mm)	Height (mm)	Art. No.	Pack Qty.	€
4 x 4	31 x 31	30	Y037.2	10	31,20
4 x 4	31 x 31	65	Y038.2	10	31,20
5 x 5	24 x 24	30	Y039.2	10	21,00
5 x 5	24 x 24	65	Y040.2	10	24,75
6 x 6	20 x 20	30	Y041.2	10	24,75
6 x 6	20 x 20	65	Y042.2	10	26,80
7 x 7	17 x 17	30	Y043.2	10	19,90
7 x 7	17 x 17	65	Y044.2	10	26,85
8 x 8	15 x 15	30	P898.2	10	16,10
8 x 8	15 x 15	65	Y045.2	10	26,85
9 x 9	13,5 x 13,5	30	P899.2	10	16,10
9 x 9	13,5 x 13,5	65	Y046.2	10	26,85
10 x 10	12,5 x 12,5	30	P900.2	10	16,10
10 x 10	12,5 x 12,5	65	Y047.2	10	26,85
12 x 12	10 x 10	25	Y048.2	10	26,85
12 x 12	10 x 10	30	Y049.2	10	26,85
13 x 13	9 x 9	25	Y050.2	10	28,50
13 x 13	9 x 9	30	Y051.2	10	28,50
14 x 14	8 x 8	25	Y052.2	10	28,50
14 x 14	8 x 8	30	Y053.2	10	28,50



Rotilabo®-maxi cryogenic boxes made of cardboard

Made of low temperature resistant cardboard. For the storage of samples from 15 or 50 ml centrifuge vials. Can also be used for larger vessels without grid dividers. Temperature stable up to -80 °C.

Dimensions: L 148 x W 148 x H 130 mm.

Delivery incl. grid dividers.

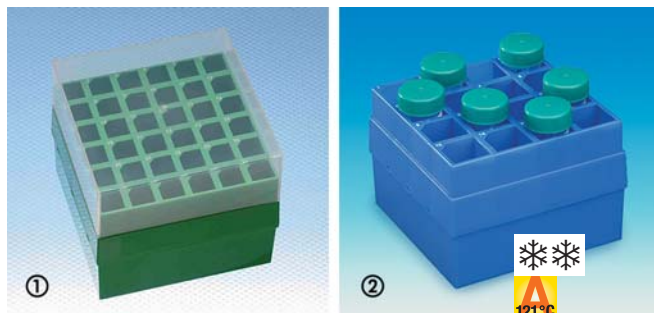
With water repellent standard coating

For vial Ø x H (mm)	Grid dividers	Art. No.	Pack Qty.	€
30 x 115	4 x 4	CLE4.1	5	48,95
17 x 120	6 x 6	CLE5.1	5	52,50

With waterproof plastic coating

For vial Ø x H (mm)	Grid dividers	Art. No.	Pack Qty.	€
30 x 115	4 x 4	CLE6.1	5	59,05
17 x 120	6 x 6	CLE7.1	5	61,85

Cooling racks



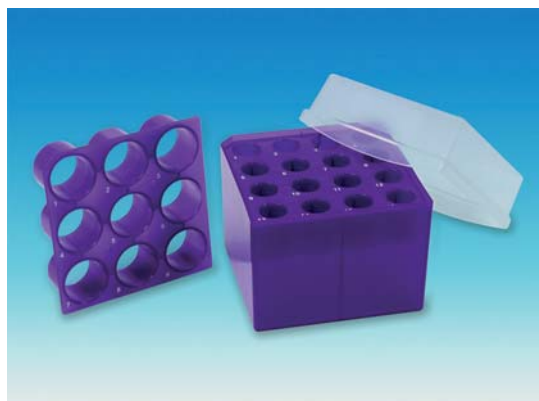
Rotilabo®-deep freeze boxes

Made of PP, with transparent slip lid. For 15 and 50 ml centrifuge tubes. With labelling area on two sides. Dimensions: L 144 x W 144 x H 127 mm. Height without lid: 102 mm. Temperature resistant from -90 to +121 °C. Autoclavable.

Technical specifications:

	Type ①	Type ②
For centrifuge tubes (ml)	15	50
Tubes max. Ø x H (mm)	18 x 121	30 x 121
Spaces	36 (6 x 6)	16 (4 x 4)
Inner hole size (mm)	18 x 18	30 x 30
Colour	green	blue

Type	Art. No.	Pack Qty.	€
①	HX01.1	2	46,25
②	HX02.1	2	46,25



Storage boxes

Made of PP. For centrifuge vials 15 and 50 ml. Replaceable, with quick-action inserts that offer ample depth for stable, upright vials storage. Translucent lid and numbered inserts for fast identification of samples. Temperature resistant in the range -80 to +121 °C. Dimensions: L 132 x W 132 x H 129 mm. Autoclavable.

Art. No.	Pack Qty.	€
PC60.1	5	64,20



Rotilabo®-polystyrene boxes with lid

With 50/100 holes in 5 rows for 1.5 and 2 ml micro-centrifuge tubes and for 1.2 ml cryo vials (max. height 44 mm). Ideal for long-term storage in refrigerators and freezing chambers or as a working rack on the lab benchtop. Space-efficient and stackable.

Slots	Ø (mm)	L x W x H (mm)	Art. No.	Pack Qty.	€
50	13	210 x 110 x 71	N443.2	10	45,70
100	12	338 x 95 x 63	K496.2	10	47,45



Laptop freezing boxes

By Nalgene®. Made of PC. For cooling heat-sensitive samples in the laboratory.

- Usable up to -20 °C (min. -40 °C)
- Protects against temperature fluctuation and power failure
- Markable grid surface on lid
- Breakproof and stackable, with non-slip feet
- With white PC lid with non-toxic gel filling or with transparent PC lid without gel filling

Laptop box -20 °C:

Bottom part made of blue, gel-filled PC.

Laptop freezer boxes 0 °C:

Bottom part made of green, gel-filled PC.

*Delivery incl. 16 adapters for remodelling the 1.5 ml holes into 0.5 ml holes for 0.5 ml tubes.

For 12 vials (3 x 4), lid without gel filling

Temp. constancy	For test tubes	L x W x H (mm)	Art. No.	Pack Qty.	€
< -15 °C to 1 hour	0.5-2 ml*	151 x 108 x 125	L243.1	1	160,20
< 1 °C to 3,5 hours	0.5-2 ml*	151 x 108 x 125	L245.1	1	160,20
< 1 °C to 5 hours	Ø 12-13 mm	197 x 140 x 190	L247.1	1	289,20
< 1 °C to 5 hours	Ø 16-17 mm	197 x 140 x 190	L248.1	1	289,20

For 32 vials (4 x 8), lid with gel filling

Temp. constancy	For test tubes	L x W x H (mm)	Art. No.	Pack Qty.	€
< -15 °C to 2 hours	0.5-2 ml*	243 x 157 x 146	L244.1	1	299,95
< 1 °C to 5 hours	0.5-2 ml*	243 x 157 x 146	L246.1	1	327,90

Cooling racks



Cooling boxes

Made of PC, gel-filled. For cooling heat-sensitive samples such as PCR reagents or enzymes in the laboratory.

- With non-slip rubber feet
- Type 0.2 ml is also suitable for PCR plates

Technical specifications:

Lid	Temp. constancy	For vial type	Number of vials	Art. No.
Transparent	-15 °C to 2.5 hrs.	0.5-2 ml*	12 (3 x 4)	NY09.1
Transparent	-15 °C to 3.5 hrs.	0.5-2 ml*	32 (4 x 8)	NY10.1
Gel-filled	-15 °C to 5 hrs.	0.5-2 ml*	32 (4 x 8)	NY11.1
Transparent	-15 °C to 3.5 hrs.	0.2 ml	96 (8 x 12)	NY12.1

Delivery incl. adapter for 0.5 ml reaction vials

For test tubes	L x W x H (mm)	Art. No.	Pack Qty.	€
12 (0.5-2 ml)	145 x 105 x 100	NY09.1	1	82,70
32 (0.5-2 ml)	245 x 105 x 100	NY10.1	1	82,70
32 (0.5-2 ml)	245 x 105 x 100	NY11.1	1	156,95
96 (0.2 ml)	225 x 165 x 110	NY12.1	1	156,95



Freezing box

By Nalgene®. Made of PC, with non-toxic insulating liquid. Excellent for speedy and repeated cooling of samples. Can be used repeatedly for max. 45 min. Cools up to 2 ml alcohol-based solution in less than 3 min to -20 °C or up to 2 ml water-based solution in less than 4 min to 0 °C. 12 holes for 0.5 ml tubes (with adapters) to 2 ml. Holes have 3 x 4 array. Labels and markings do not dissolve as there is no direct contact between tube and dielectric liquid. Breakproof and stackable. Rubber feet on base prevent slipping. Comes with 16 adapters. Dimensions: L 151 x W 108 x H 125 mm.

Art. No.	Pack Qty.	€
L249.1	1	181,70



Rotilabo®-cooling boxes

Double-sided, made of PC, for 20 centrifuge tubes 0.5 ml on one side and 20 vials 1.5 or 2 ml on the other. Ideal for cooling heat-sensitive samples on the lab benchtop. Also excellent for transporting frozen samples or as a storage box in refrigerators to protect against temperature fluctuation or power failure. Holes (Ø 8/12 mm) are alphanumericly coded on both sides. Comes with gel filling and transparent lid. Once they have been removed from the refrigerator, the boxes maintain a temperature of 0 °C (white box) for 5 hours or -15 to -20 °C (blue box) for approx. 2 hours. Dimensions of boxes (with lid): L 170 x W 110 x H 105 mm.

Colour	Fit for	Art. No.	Pack Qty.	€
white	0 °C	K087.1	1	179,55
blue	-20 °C	K088.1	1	179,55



Rotilabo®-ice boxes for PCR-plates

Made of PP. Filled with non-toxic gel filling. 96 slots Ø 6 mm in 8 x 12 array. Ideal for cooling heat-sensitive samples on the laboratory desk.

Suitable for 0.2 ml PCR-vials, plates and centrifuge tube strips.

- Keeps the temperature at 4-7 °C for approx. 3 hours
- The rack changes its colour at approx. 7 °C
- Recommended storage temperature: -20 °C

Dimensions: with lid: L 141 x W 99 x H 44 mm, without lid: L 141 x W 99 x H 38 mm.

Colour change	Art. No.	Pack Qty.	€
violet to pink	EX48.1	2	111,80
green to yellow	EX49.1	2	111,80

Cooling racks



Rotilabo®-Aluminium racks

Aluminium stands for cooling samples in ice baths.

Technical specifications:

Model	Slots	For centrifuge tubes
Aluminium rack	24 (4 x 6)	2.0 ml
Aluminium rack 1.5	24 (4 x 6)	1.5 ml
Aluminium rack 2	96 (8 x 12) / 6	0.2 ml (single / strips / 96 hole plates) / 1.5 ml
Aluminium rack 5	36 / 11	0.5 ml / 1.5 ml

Type	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
Rotilabo®-Aluminium rack	115 x 90 x 30	KH56.1	1	74,10
Rotilabo®-Aluminium rack 1.5	115 x 90 x 30	EP69.1	1	74,10
Rotilabo®-Aluminium rack 2	115 x 90 x 15	N470.1	1	74,10
Rotilabo®-Aluminium rack 5	180 x 80 x 15	N548.1	1	74,10



Ice container racks

Made of PS, for filling with ice or water. Exact-fit rack holds samples securely in ice. Stackable.

For vials (ml)	Number of vials	L x W x H (mm)	Art. No.	Pack Qty.	€
1,5/2	50	271 x 142 x 56	NY13.1	1	36,55
15/50	15	276 x 164 x 134	NY14.1	1	36,55



Cooling racks

Made of heat-conductive metal, anodised for improved corrosion resistance. Suitable for cooling samples on ice, dry ice or in the vapour phase of liquid nitrogen as well as for heating samples in water baths and incubators. Slots are numbered alphanumerically. Temperature stable to -150 °C. Autoclavable.

Cooling racks for reaction vials

For 1.5/2 ml reaction vials and screw vials in sizes from 0.5 to 2 ml.

Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
6 (2 x 3)	60 x 43 x 32	CXK6.1	1	71,50
15 (3 x 5)	96 x 60 x 32	CXK7.1	1	155,90
30 (5 x 6)	114 x 96 x 32	CXK8.1	1	261,25
90 (6 x 15)	274 x 114 x 32	CXK9.1	1	370,90
96 (8 x 12)	221 x 149 x 32	CXL0.1	1	485,90

Cooling racks for cryo vials

For cryo vials in sizes up to 2 ml. Rack CXL2.1 includes a locking mechanism for one-handed opening of vials.

Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
15 (3 x 5)	128 x 85 x 32	CXL1.1	1	165,55
24 (4 x 6)	96 x 60 x 32	CXL2.1	1	299,95
30 (5 x 6)	114 x 96 x 32	CXL3.1	1	305,30
45 (5 x 9)	173 x 96 x 32	CXL4.1	1	274,15

Cooling racks for PCR plates

SBS dimensions, compatible with automated systems.

Slots	L x W x H (mm)	Art. No.	Pack Qty.	€
96	128 x 85 x 25	CXL5.1	1	321,45
384	128 x 85 x 23	CXL6.1	1	364,45



Cooling / Insulating



Cooling platforms

Made of heat-conductive metal, anodised for improved corrosion resistance. Suitable for placement in ice, dry ice, in the vapour phase of liquid nitrogen as well as in water baths and incubators. Keeps racks dry for cooling. Temperature stable to -150 °C. Autoclavable.

L x W x H (mm)	Art. No.	Pack Qty.	€
279 x 140 x 86	CXL7.1	1	306,40
279 x 140 x 63	CXL8.1	1	284,90



Ice containers True North®

Made of PU. Excellent insulation properties for deep-freeze applications using ice, liquid nitrogen, ice-salt mixtures or other cooling media.

Tight-fitting cover for minimum evaporation loss (can be stored below ice container while not in use).

Nozzle for easy pouring out of melted ice.

Conical shape and recessed cover for space-saving stacking.

Delivery incl. cover.

Capacity (l)	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
1	turquoise	267 x 196 x 114	TP25.1	1	59,05
4	black	Ø 234 x 181	TP24.1	1	74,20
4	blue	381 x 254 x 182	TP26.1	1	80,65
9	red	521 x 292 x 163	TP27.1	1	112,90



Ice containers and ice tubs

Made of foam PS. Sturdy thick-walled design provides ideal cooling and prevents condensation. Suitable for ethanol and refrigerant mixtures, dry ice or liquid nitrogen. Temperature stable to -196 °C.

① Ice containers

Close fitting cover minimises evaporation losses.

Delivery incl. cover.

Capacity (l)	Colour	Ø x H (mm)	Art. No.	Pack Qty.	€
2,5	blue	300 x 110	TE08.1	1	38,70
2,5	green	300 x 110	TE09.1	1	38,70
5	blue	300 x 160	TE10.1	1	48,40
5	green	300 x 160	TE11.1	1	48,40

② Ice tubs

Capacity (l)	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
1	blue	155 x 155 x 95	TE12.1	1	17,75
1	green	155 x 155 x 95	TE13.1	1	17,75
4	blue	220 x 310 x 125	TE14.1	1	38,70
4	green	220 x 310 x 125	TE15.1	1	38,70
9	blue	335 x 435 x 130	TE16.1	1	53,65
9	green	335 x 435 x 130	TE17.1	1	53,65



Rotilabo®-ice bucket

Made of stainless steel, double walled, with handle. Capacity 2 l, Ø 150 mm, height 210 mm.

Delivery incl. cover.

Art. No.	Pack Qty.	€
YE46.1	1	32,90



Cryo-freezing device Mr. Frosty

By Nalgene®. Made of **PC**, lid and vial holder made of HDPE. With foamed lining.
Simple application: only 100 % isopropylalcohol and a freezer are required. For 18 cryo-vials 1.2 / 2 ml. For reproducible, repeated cooling of specimens by approx. -1 °C/min. Optimal cellular yield after storage at very low temperatures. The vial holder prevents direct contact of the vials to the alcohol, the writing on the vials remains readable. The vial holder can be used additionally as a floating stand to defrost the samples in the water bath. Dimensions: H 86 x Ø 112 mm. Lid-Ø 120 mm.

Art. No.	Pack Qty.	€
AC96.1	1	111,80



Dewar ice containers

By KGW. With silver-coated glass insert, lid and handle. Suitable for storage and transportation of heat sensitive goods, such as dry ice (CO₂). A hole must be drilled in the lid when using gassing coolants.

Capacity (l)	Inner Ø (mm)	Filling height (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
10	200	350	475	0443.1	1	522,45
14	200	500	610	1100.1	1	610,60
28	250	620	750	0444.1	1	933,10



Cold jugs

Made of **PP**. Colour blue/white. **PU**-foam insulation. With large pouring hole and screw cap. Easy to fill and clean. Robust handle. Spout can be lowered and raised.

Capacity (l)	Weight (g)	Outer dimensions Ø x H (mm)	Art. No.	Pack Qty.	€
1,8	400	130 x 270	KL14.1	1	21,00
3,7	750	190 x 300	KL15.1	1	31,20

► Isopropylalcohol see chapter chemicals!



Bowl shaped Dewar vessels

By KGW. With silver plated glass inlet and aluminium housing. Ideal for tempering flasks in heating or cooling baths. Not magnetic.

Volume (ml)	Inner Ø (mm)	Filling height (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
80	67	40	75	LH06.1	1	111,80
120	77	50	90	C610.1	1	117,20
400	110	70	115	C611.1	1	195,65
680	138	80	125	C612.1	1	231,15
1600	170	110	145	C613.1	1	323,60
3000	200	125	160	LH07.1	1	510,65

Cooling / Insulating



Dewar insulating containers

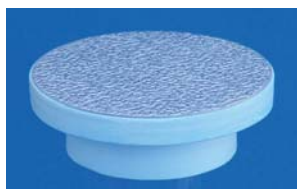
By KGW. Cylindric. With silvered borosilicate glass insert 3.3, metal jacket, blue-coated. Suitable for storage and on-site transportation of specimens in coolants, such as liquid nitrogen.

① without handle

Type	Volume (ml)	Inner Ø (mm)	Filling height (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
00C	100	40	90	135	LE85.1	1	68,30
3C	500	57	210	260	0440.1	1	96,25
9C	1000	77	235	290	0441.1	1	112,90
12C	1500	90	245	300	LE86.1	1	145,15
13C	2000	90	340	390	LE87.1	1	170,95
18C	2500	110	290	345	1003.1	1	192,45
S21C	4000	138	310	375	LE88.1	1	278,45

② with side handle

Type	Volume (ml)	Inner Ø (mm)	Filling height (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
G0C	200	40	170	215	LE89.1	1	97,85
G3C	500	57	210	260	LE90.1	1	127,95
G9C	1000	77	235	290	LE91.1	1	141,90
G12C	1500	90	245	300	LE92.1	1	166,65
G13C	2000	90	340	390	LE93.1	1	192,45
G18C	2500	110	290	345	LE94.1	1	211,80
GS21C	4000	138	310	375	LE95.1	1	299,95
GS22C	8000	138	600	660	LE96.1	1	413,90



Stoppers for Dewar-insulation containers

Made of PU. Lie loosely on top. For Dewar-insulation containers LE85.1ff.

For Dewar containers with Volume (ml)	Art. No.	Pack Qty.	€
100	LE97.1	1	33,25
200	LE98.1	1	33,25
500	LE99.1	1	33,25
1000	LH00.1	1	35,45
1500	LH01.1	1	35,45
2000	LH02.1	1	35,45
2500	LH03.1	1	41,85
4000	LH04.1	1	41,85
8000	LH05.1	1	41,85



Dewar containers

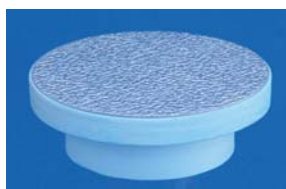
By KGW. Cylindric. Made of stainless chrome-nickel steel. For safe handling of cooling agents and freezing mixtures, e.g. liquid nitrogen. No danger of implosion.

① Type DSS. 1 litre and up come with removeable handle.

Volume (ml)	Inner Ø (mm)	Filling height (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
500	65	180	203	3628.1	1	246,20
1000	85	206	231	3635.1	1	299,95
1000 W	100	157	177	3651.1	1	327,90
2000	100	285	312	3653.1	1	378,40
3000	185	160	190	3655.1	1	542,90
6000	185	270	300	3669.1	1	686,95

② Type GSS. With handles on side and top.

Volume (ml)	Inner Ø (mm)	Outer Ø (mm)	Inner height (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1000	85	107	206	231	A632.1	1	335,40
2000	100	122	285	312	A633.1	1	411,75
3000	185	200	160	190	A634.1	1	568,70



Stoppers for Dewar containers

Made of PU. Lie loosely on top. For Dewar containers 3628.1ff. and A632.1ff.

For Dewar containers with Volume (ml)	Art. No.	Pack Qty.	€
500	XX13.1	1	38,65
1000	XX14.1	1	38,65
1000W, 2000	XX15.1	1	39,00
3000, 6000	XX16.1	1	42,95

► Sekuroka®-safety gloves CRYO see page 618



Dewar transporting containers

By KGW. Suitable for storage and transportation of heat-sensitive specimens in coolants, such as liquid nitrogen. With silver coated glass insert made of borosilicate glass 3.3, insulated plastic lid and aluminium handle. **A hole must be made in the lid when using a gassing coolant (in the centre; Ø approx. 2 mm).**

Technical specifications:

Model	Volume (l)	Ø inner (mm)	Ø outer (mm)	Filling height (mm)	Total height (mm)	Evaporating rate liq. N ₂ (l/day)
26 B / 26 BE	1	100	132	150	215	1.1
27 B / 27 BE	2	138	170	170	245	1.7
28 B / 28 BE	3	138	170	230	305	1.5
29 B / 29 BE	4	138	170	310	385	1.3

① With blue metal cover

Type	Art. No.	Pack Qty.	€
26 B	0442.1	1	135,45
27 B	HT39.1	1	195,65
28 B	1098.1	1	238,65
29 B	1099.1	1	295,65

② With stainless steel cover

Type	Art. No.	Pack Qty.	€
26 BE	HT40.1	1	155,90
27 BE	HT41.1	1	220,40
28 BE	HT42.1	1	284,90
29 BE	HT43.1	1	326,80



Temperature-control containers

By KGW. Double-walled, made of stainless high-grade steel. Ideal for keeping samples warm or cold in the range of -30 to +120 °C. Quick adaption to change of temperature. Features connector for tubing with inner Ø 6 mm. The cold or hot tempering medium is pumped with the aid of a thermostat through the space between the double walls.

Capacity (l)	Inner Ø (mm)	Outer Ø (mm)	Inner height (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
1	85	107	206	231	A628.1	1	381,65
2	100	122	285	312	A629.1	1	461,20
3	185	200	160	190	A630.1	1	622,45
6	185	200	270	300	A631.1	1	757,90



Dewar vessels

By KGW. For storing liquid nitrogen. The vessels consist of a robust metal casing with handle and bulb-form, silver-plated glass insert. The glass inlet is wrapped in foam rubber to prevent breaking. An insulation lid put on loosely prevents evaporation.

Technical specifications:

Model	Volume (l)	Outer-Ø (mm)	Inner-Ø opening (mm)	Filling height (mm)	Total height (mm)	Evaporating rate liq. N ₂ (l/day)
21 AL	1	175	30	235	300	0.2
22 AL	3	225	60	305	380	0.4
23 AL	5	260	60	350	450	0.4
24 AL	10	330	65	380	480	0.6

Type	Art. No.	Pack Qty.	€
21 AL	C369.1	1	246,20
22 AL	C370.1	1	385,95
23 AL	C371.1	1	456,90
24 AL	C372.1	1	633,20



Dewar containers

By Nalgene®. Made of **HDPE**. Chemical-resistant with double walls filled with polyurethane foam. Vented, insulated lid. With moulded-in ribs, metal clips for fastening the lid, pour spout, and bottom grip area. Canister with carrying strap (except for 10 l). Suitable for safe short-term handling and storage of liquid nitrogen, dry ice, freezing mixtures and iced water. Shatter-proof. With stands temperatures from -196 to +100 °C.

Capacity (l)	Inner Ø (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
1	96	195	PP15.1	1	149,45
2	122	231	PP16.1	1	163,40
4	158	295	PP17.1	1	176,30
10	198	396	PP18.1	1	310,70

► Tongs for crucibles see page 203

Cooling / Insulating



Ice boxes Xtreme®

Made of **HDPE/PP**, with full foam insulation made of **PU**. With attached lid and snap closure for tight closing. Watertight and rust resistant drainage. Cooling capacity max 47 h. Suitable for food.

Capacity (l)	L x W x H outer (mm)	L x W x H inner (mm)	Weight (kg)	Art. No.	Pack Qty.	€
49	700 x 380 x 440	520 x 220 x 310	6,0	LT01.1	1	92,45
66,2	800 x 470 x 410	610 x 250 x 310	7,4	LT02.1	1	141,90
94,6	920 x 410 x 440	750 x 300 x 300	8,2	LT03.1	1	188,15



Ice boxes

Made of **PP**, with fully insulated with **PU**-foam. The lid can be tightly closed via the handle. 28 and 32 litres boxes come discharge outlet for condensation water. 24, 28 and 32 litres boxes come with removable insert and grid. Max. load capacity 250 kg. Load-bearing capacity 20 kg. With rubber gasket for airtight closing.

Capacity (l)	L x W x H outer (mm)	L x W x H inner (mm)	Art. No.	Pack Qty.	€
10	350 x 225 x 310	265 x 165 x 250	P252.1	1	36,35
17	410 x 245 x 355	320 x 195 x 275	P253.1	1	64,40
24	450 x 295 x 370	355 x 215 x 280	P254.1	1	42,80
28	470 x 320 x 375	380 x 220 x 350	P255.1	1	53,65
32	480 x 315 x 410	355 x 235 x 380	P256.1	1	66,15



Dry ice machines

To make a block of -79 °C cold dry ice

- A weight of 50 g in ~0.5 min
- A weight of 250 g in ~1 min

Multi-range unit, e.g. for lowering temperature in cooling baths or traps, precooling of tissue samples, transporting or storing biological substances, freezing blood or tissue samples, research in chemistry and physics, etc. Fits all standard short CO₂-gas bottles with top valve (W 21,80 x 1/14" acc. to DIN 477 Nr. 6).

Instructions:

Fit ice machine to CO₂-bottle, open valve, allow CO₂ to enter ice machine, close valve, open fastener and take out ice block.

Dry ice machine for 50 g blocks

H 30 x Ø 50 mm. Productiveness with 22 kg gas canister for approx. 90 blocks.

Art. No.	Pack Qty.	€
9282.1	1	213,95

Dry ice machine for 250 g blocks

H 60 x Ø 80 mm. Productiveness with 22 kg gas canister for approx. 16 blocks.

Art. No.	Pack Qty.	€
9285.1	1	276,30



Thermal and ice box

- With two-way plug for heating or cooling
- Can be operated with a 230 V power supply or in the car with a 12 V cigarette lighter
- Capacity 28 litres
- Features integral ventilator to accelerate cooling process
- Cools to 16 °C below outside temperature and heats to max +65 °C (not adjustable)

Outer dimensions: L 390 x W 270 x H 490 mm, inner: L 345 x W 220 x H 380 mm.

Delivery incl. extra lid and 12 V plug. 230 V transformer can be ordered separately.

Type	Art. No.	Pack Qty.	€
Thermal and ice box	P272.1	1	96,55
Transformer	P273.1	1	36,90

Cooling / Insulating



Ice boxes

Made of **PP**, with **PU**-foam insulation. Can be tightly closed with handle. Lid can be used as a tray.

Capacity (l)	L x W x H outer (mm)	L x W x H inner (mm)	Art. No.	Pack Qty.	€
26	390 x 275 x 410	350 x 220 x 380	AA46.1	1	32,20
30	390 x 275 x 460	350 x 220 x 430	AA47.1	1	39,75



Cooling vessel

Made of **PE**, filled with propylene glycol. For cooling beakers and bottles up to Ø 70 mm. Precooled vessels can also be used to quickly cool down agarose or other warm fluids. Dimensions: Ø 105 x H 90 mm, inner height 65 mm.

Art. No.	Pack Qty.	€
AXA9.1	1	89,25



Cooler bags Fold'N Cool™

Made of **polyester**, with PU coating on back. PEFA lining, suitable for foodstuffs, easy to clean. High-performance EPE foam insulation. Collapsible for space-saving storage. With adjustable shoulder strap, hanger loop and separate front bag.

Art. No. LP94.1 with 2 additional carry handles.

Image	Capacity (l)	L x W x H outer (mm)	Weight (g)	Art. No.	Pack Qty.	€
①	5	230 x 155 x 190	310	LP95.1	1	16,70
②	20	320 x 200 x 370	610	LP93.1	1	26,35
③	30	390 x 250 x 380	765	LP94.1	1	29,00



Rotilabo®-cooling jacket

Insulating cooling pack in black microfibre sleeve. Maintains a temperature of 10 °C for approx. 8 hours. For cooling and keeping cool bottles with a Ø of approx. 70-100 mm. Adapts to bottle shape. Also suitable for angled containers. Can be reused any number of times. Foldable for space-saving storage.

Dimensions: L 450 x W 200 mm, folded approx. L 200 x W 150 mm.

Art. No.	Pack Qty.	€
CY97.1	1	30,25



Cooler bags Freez'Box™

Made of **PP** with airtight lid. Textile casing made of polyester, PVC-coated inside. Insulation made of EPE. Lid with handle and holder for cooling element (Art. No. E447.1 or LT04.1, please order separately). Approved for foodstuffs. **Delivery incl.** matching box insert and one cooling element.

Capacity (l)	L x W x H outer (mm)	L x W x H (Box) inside (mm)	Weight (g)	Art. No.	Pack Qty.	€
1	205 x 145 x 100	165 x 115 x 70	260	LP98.1	1	19,30
3	240 x 180 x 140	200 x 150 x 100	420	LT00.1	1	26,35



Rotilabo®-cooling packs

Made of environmental-friendly **PE**. Filled with coolant. Dimensions: 169 x 75 x 19 mm. Weight 220 g each.

Art. No.	Pack Qty.	€
E447.1	5	6,70
E447.2	50	46,80

Sample bags



Rotilabo®-cooling packs

Made of suitable for food-safe PA/PE, with gel filling. Outstanding cooling properties. Multifunctional.

Length (mm)	Width (mm)	Weight (g)	Art. No.	Pack Qty.	€
140	137	230	PX99.1	60	42,95
190	137	460	PY00.1	32	33,35



Cooling elements Flexi Freez'Pack®

With individual cooling segments for extreme flexibility, even when frozen. Suitable for food.

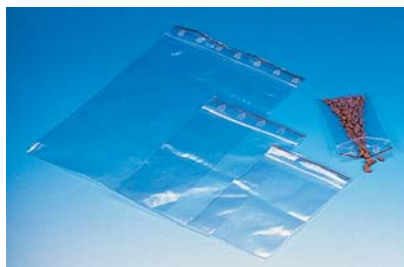
L x W x H outer (mm)	Cooling segments	Weight (g)	Art. No.	Pack Qty.	€
145 x 160 x 18		2 x 3	LT04.1	10	48,40
195 x 240 x 18	4 x 3	300	LT05.1	10	59,05
375 x 240 x 18	8 x 3	600	LT06.1	10	68,80



Insulating bags, Frozen Food Bag

Made of PE. With EPE foam insulation. Cooling capacity max 3 h. Suitable for food.

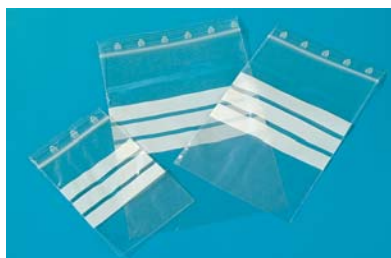
Capacity (l)	L x W x H outer (mm)	Weight (g)	Art. No.	Pack Qty.	€
19	500 x 465 x 7	110	LP96.1	10	38,20
26	585 x 475 x 7	120	LP97.1	10	42,95



Rotilabo®-sample bags

Made of glass-transparent LDPE. Press down on strip to seal. 50 µm thick.

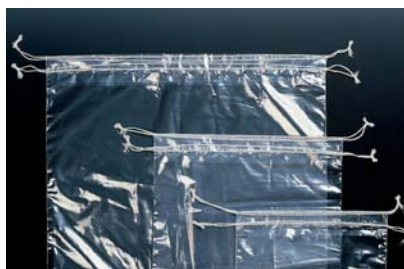
Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	80	P277.2	1000	25,70
80	120	P278.2	1000	32,15
100	150	P279.2	1000	36,45
120	170	P280.2	1000	38,60
150	220	P281.2	1000	42,90
180	250	P282.2	1000	55,50
200	300	P283.2	1000	68,70
300	400	P284.1	100	13,95



Rotilabo®-sample bags

Made of glass-transparent LDPE. Press down on strip to seal. Also feature white write-on lines for labelling on one side. 50 µm thick.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
70	100	0638.1	100	7,50
100	150	0639.1	100	8,55
120	170	0640.1	100	9,65



Rotilabo®-bags with string-tie closure

Made of 50 µm thick LDPE.

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
160	240	1510.1	100	15,00
200	300	1511.1	100	17,10
300	500	1512.1	100	24,65

Sample bags



Paper bags

For storage of small parts, plant seeds etc.

Made of cellulose

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	90	TK02.1	1000	25,60
95	132	TK03.1	1000	34,95
130	180	TK04.1	1000	51,60

Made of glassine

Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
65	90	XC52.1	100	4,55
95	132	XC53.1	100	6,70
130	180	XC54.1	100	10,55



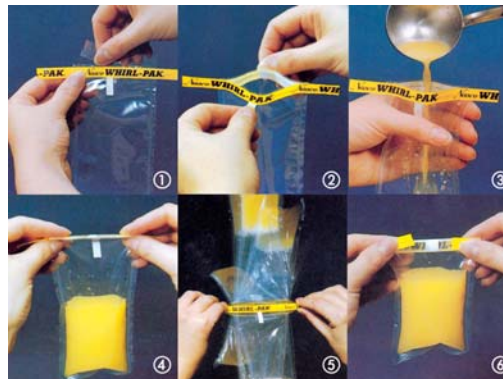
Liquid sample bags, black

WhirlPak®. Made of **LDPE**. **Sterile**. For saving and storing light-sensitive liquid and solid samples. With imprinted, white labelling area. Dimensions: L 115 mm x W 230 mm, 64 µm thick. Volume 532 ml.

Art. No.	Pack Qty.	€
HT83.2	100	28,95

Sample bags Whirl-Pak®

- Made of LDPE
- Sterile
- With wire-tie closure for leakproof and airtight seal of bags
- Temperature stable from -196 to +80 °C
- FDA-approved



Programme extension!



Liquid sample bags

Whirl-Pak®. Made of **LDPE**. **Sterile**.

Ideal for storing liquid and solid samples.

Procedure:

1. Whirl Paks® can be opened easily by simply tearing the plastic along the perforation. The bag interior is therefore protected against contamination, as long as the bag is not used.
2. Practical pull-open loops enable easy opening of bag, without contact to the interior. The bag remains open when filling.
3. The wide-neck opening of the bag makes filling easier. Hold the bag as indicated and fill approx. 2/3 full.
4. The bags are closed by pulling on the outer loops.
5. Hold the bag at a distance and spin it at least 3 times (bag with volume >2500 ml, fold 4-5x to seal).
6. The bags are sealed tightly by bending the loops.

With labelling space

Volume (ml)	Wall thickness (µm)	W x H (mm)	Art. No.	Pack Qty.	€
30	57	65 x 125	E252.2	500	73,65
60	57	75 x 125	E253.2	500	75,25
120	57	75 x 185	1611.2	500	82,80
210	64	95 x 180	CEE1.1	500	83,35
530	64	115 x 230	1612.2	500	107,45
710	76	150 x 230	CEE2.1	500	126,85
800	76	125 x 305	CEE3.1	500	145,15
1650	102	190 x 300	E255.2	500	225,75
2720	102	254 x 380	CEE5.1	250	186,85
5440	102	380 x 508	CEE6.1	100	141,90

Without labelling space

Volume (ml)	Wall thickness (µm)	W x H (mm)	Art. No.	Pack Qty.	€
120	57	75 x 185	T252.2	500	69,90
210	76	95 x 180	CEE7.1	500	78,45
530	64	115 x 230	T253.2	500	107,00
710	76	150 x 230	T254.2	500	138,70
800	76	125 x 305	CEE8.1	500	122,55
1080	76	125 x 380	T255.2	500	153,75
1630	76	190 x 300	CEE9.1	500	184,90
2070	76	190 x 380	T256.2	500	203,20

► Waste disposal bags see page 677

Sample bags



Liquid sample bags, free-standing

Whirl-Pak®. Made of **LDPE**. **Sterile**. Stand-Up specially formed base allows bags to stand completely free and without support. Suitable for liquids and solids. With large labelling area. Thickness 64 µm.

Volume (ml)	Filling quantity (ml)	W x H (mm)	Art. No.	Pack Qty.	€
120	80	75 x 185	T261.2	500	105,35
540	360	115 x 230	T262.2	500	149,45



Liquid sample bags with sponge

Whirl-Pak®. Made of **LDPE**, sponge and bag. **Sterile**. Speci-Sponge® for sample taking from laboratory benches, furniture, equipment and all other areas which must be tested for listeria, salmonella, *E.coli* and other pathogens. Sponge and bags are sterile. Sponge is free from bacteria and not growth-inhibiting. After "wiping" the sample, return the sponge to the bag. Add medium and if required incubate directly in the bag.

Bags come with wire ties and large labelling area.
Dimensions of sponge when wet: L76 x W 38 x H 16 mm.

Volume (ml)	Filling quantity (ml)	W x H (mm)	Art. No.	Pack Qty.	€
540	360	115 x 230	T263.2	100	120,40
1650	1100	190 x 300	T265.2	100	164,50



Liquid sample bags with sodium thiosulphate

Whirl-Pak®. Made of **LDPE**. **Sterile**. Thio-Bag® for collecting and neutralizing chlorinated water samples. Are lighter, less fragile, and more space efficient than bottles. The bag, depending on its size, contains 1 to 3 non-toxic tablets with 10 mg each of active sodium sulphate for neutralizing. With large labelling area and marking at 100/300 ml.

Type	W x H (mm)	Art. No.	Pack Qty.	€
For water samples up to 100 ml	75 x 185	T259.1	100	34,85
For water samples up to 300 ml	115 x 230	T260.1	100	70,75



Liquid sample bags with sponge tester

Whirl-Pak®. Bag made of **LDPE**, material thickness 3 mm, with labelling space. Stem and holder made of PP, sponge made of non-growth-inhibiting cellulose. Overall length (holder + sponge) 20.3 cm. **Sterile**. For collecting surface samples in hard-to-reach areas.

Procedure:

Moisten sponge, squeeze off excess liquid, wipe across surface, place sponge back in bag. Hold stem on outside, unscrew and dispose of. Allow sponge to drop into bag and seal bag.

Volume (ml)	Filling quantity (ml)	W x H (mm)	Art. No.	Pack Qty.	€
710	480	150 x 230	ACP7.1	50	149,45

Homogenizing bags



Sample bags

Whirl-Pak®. Made of **PE, sterile**. Suitable for use with lab blenders.

Programme extension!



Homogenizing bags

Made of **PE, γ-sterile**, 70 µm thick. Suitable for use in homogenizers. Available with and without filter. The filter holds back solid particles and stops the pipettes from becoming blocked.

Volume (ml)	W x H (mm)	Filter type	Art. No.	Pack Qty.	€
80	105 x 150	without	AYY6.1	1500	100,00
400	180 x 300	without	EP15.1	500	46,25
400	190 x 300	over whole surface	EP16.1	500	220,40
400	190 x 300	side filters	EP17.1	500	220,40
3500	380 x 510	without	AYY7.1	100	33,65

Without labelling space

Volume (ml)	Wall thickness (µm)	W x H (mm)	Art. No.	Pack Qty.	€
380	76	130 x 190	T257.2	500	107,30
710	102	150 x 230	T258.2	500	163,40

With labelling space

Volume (ml)	Wall thickness (µm)	W x H (mm)	Art. No.	Pack Qty.	€
710	102	150 x 230	E254.2	500	165,55
1650	102	190 x 300	E255.2	500	225,75

With labelling space and round bottom

Round bottom prevents sample fragments from getting caught in the corners of the bag.

Volume (ml)	Wall thickness (µm)	W x H (mm)	Art. No.	Pack Qty.	€
1540	102	185 x 330	CEC2.1	500	213,95

With labelling space and full-surface filter

Contains a third layer of finely perforated PE which filters out solids in the sample when used in lab blenders.

Volume (ml)	Wall thickness (µm)	W x H (mm)	Art. No.	Pack Qty.	€
200	76	95 x 180	CEC3.1	250	149,45
710	102	150 x 230	P310.2	250	204,25
1650	102	190 x 300	P311.2	250	242,95
2040	102	190 x 380	CEC4.1	250	246,20
2720	102	254 x 380	CEC5.1	250	181,70



Homogeniser bag stand BagOpen®

For opening and holding bags.

For single 400-ml bags. Self-adhesive pads adhere to the outer walls of the bag and to the side walls of the stand and hold the bag open. Reduces risk of sample contamination. Dimensions: W 80 x D 150 x H 250 mm.

Delivery incl. 2 adhesive pads.

Art. No.	Pack Qty.	€
XX17.1	1	115,05

► Homogenizers see page 997

Portable racks and Clips



Rotilabo®-portable racks

Ideal for sample bags, especially Whirl-Paks®. For transport and storage of bags filled with liquid. Made of plastic-coated metal. With second wire netting, approx. 2.5 cm below the upper edge to hold the bag in an upright position and to prevent it from slipping in the rack. Autoclavable.

Matching bags	Rotilabo®-portable racks				
	N225.1	N226.1	N227.1	N228.1	N229.1
1611.2	x	x			
1612.2			x	x	
E252.2	x	x			
E253.2	x	x			
E254.2			x		x
E255.2					x
P310.2			x		x
P311.2					x
T252.2	x	x			
T253.2			x	x	
T254.2			x		x
T255.2					x
T256.2					x
T257.2			x	x	x
T258.2			x		
T259.1	x	x			
T260.1			x	x	
T261.2	x	x			
T262.2			x	x	
T263.2			x	x	
T265.2					x
HT83.2			x	x	

Number of compartments	Compartment size (mm)	L x W x H (mm)	Art. No.	Pack Qty.	€
15	40 x 50	230 x 165 x 76	N225.1	1	35,50
30	38 x 50	270 x 248 x 76	N226.1	1	42,75
12	76 x 60	254 x 254 x 90	N227.1	1	45,70
20	64 x 64	340 x 270 x 102	N228.1	1	47,10
6	114 x 114	350 x 235 x 114	N229.1	1	56,55

Universal handle

For portable racks. Enables easy transport of full racks. Made of plastic and metal. Plastic part L 305 x W 25 mm, metal part L 70 mm.

Art. No.	Pack Qty.	€
N230.1	1	39,60



Rotilabo®-all-purpose rounded ties

Made of PE. Ideal for closing bags or sacks, for tying cables, replacing wires, for attaching and hanging up equipment, etc. With practical snap-on closure, can be opened repeatedly.

Length (mm)	Closure holes	Type	Art. No.	Pack Qty.	€
140	1	reinforced	H720.1	100	6,60
180	2	standard	H721.1	100	7,00
240	2	standard	H722.1	100	9,15



Rotilabo®-soft ties

Made of highly flexible material (TPU). With extremely high tensile strength and high flexibility. UV- and weather resistant. Enables binder to be opened and closed repeatedly. Resistant to oils, fats and solvents.

Technical specifications:

Material	TPU
Temperature range	from -40 to +80 °C
Breakdown voltage	20 kV/mm
Elongation at tear	approx. 400 %

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
180	7	K150.1	50	10,25
260	7	K151.1	50	12,85
260	11	K152.1	50	16,80
340	11	K153.1	50	21,30



Roll holder

With cutter. With holding devices for 2 rolls of foil and 1 paper towel rolls up to 35 cm width. Colour whitegrey.

Art. No.	Pack Qty.	€
0661.2	1	34,35

Rotilabo®-roll holder, refillable rolls

Rotilabo®-aluminiumfoil, 13 µm, W 30 cm, L 20 m.

Art. No.	Pack Qty. (roll)	€
0192.1	6	27,45

Paper towels Rotizell® T, 64 perforated tissues 26 x 25 cm per roll.

Art. No.	Pack Qty. (roll)	€
0264.1	28	37,60



Rotilabo®-dispenser box

Made of clear 5 mm thick acrylic glass with 5 mm thick PC lid. With safety cutting device. For clean storage and cutting of Parafilm® and Dura Seal®. For max. roll width 10 cm.

Art. No.	Pack Qty.	€
H413.1	1	134,40

- Roll holder and dispenser cart for large rolls, see page 1089



Foil bag sealer

With sight glass, double weld seam and automatic air evacuation. Dimensions: W 35 x H 9 x D 13 cm. Power approx. 160 watt. Delivery incl. sample roll of foil.

Art. No.	Pack Qty.	€
K279.1	1	48,20

Roll of foil

Made of opaque HDPE. Width 285 mm, length 10 m. Approx. 30 µm strong. One side wall open. Temperature stable from -40 to +100 °C.

Art. No.	Pack Qty.	€
0278.1	3	11,80



Rotilabo®-dispenser boxes

Made of ABS. For speedy and clean cutting of Parafilm® and Dura Seal® (only Art. No. E364.1) or also Tough Tags®. Handling width up to max. 10 cm. With safety cutting device. Dimensions: L 171 x W 120 x H 144 mm.

Type	Art. No.	Pack Qty.	€
Dispenser, blue	EE82.1	1	53,25
Dispenser, green	HY13.1	1	51,10
Dispenser, red	HY14.1	1	51,10

Accessories:

Spare blades	EE83.1	5	8,25
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Foil Overview

Foil Overview

Foil type	Parafilm®	Dura Seal®	Sarogold®-Foil
Art. No.	H666.1 f.	E364.1 f.	9068.1
Material	primarily polyolefine and paraffin wax	on a LDPE-base	on a vinyl chloride-base
Starch (µm)	approx. 120	100	11.5
Temp. stability	45 to +50 °C	up to approx. +100 °C	-20 to +100 °C
Elasticity	200 %	500-800 %	60 %
Anti-adh. paper	yes	no	no
Suitable for microwave	no	yes	yes
Transparency	semi	yes	yes



Programme extension!



PARAFILM® M

Ideal for sealing vessels, petri dishes, cells etc. High flexible (stretches up to 200 %). Clings even around irregular shapes and surfaces.

- The sealing film is free of plasticisers, and consists largely of polyolefin's and paraffin waxes
- PARAFILM® M complies with the general requirements of the FAD (Food and Drug Administration) for use under 55 °C, as well as satisfying GMP (Good Manufacturing Practice)
- PARAFILM® is resistant up to 48 hours against many polar substances, e.g. saline solutions, inorganic acids and alkaline solutions
- After this period embrittlement may occur

Gas permeability in 24 hours at 23 °C with 50 % relative humidity for:

Oxygen: 350 cm³/m²

Nitrogen: 105 cm³/m²

Carbon dioxide: 1100 cm³/m²

Water vapor permeability in 24 hours at 37 °C and 90 % relative humidity for: 0.8 g/m².

Technical specifications:

Film thickness	120 µm
Temperature stability	-45 to +50 °C
Melting point	60 °C
Elasticity	200 %

Width (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
50	75	H951.1	1	36,45
100	38	H666.1	1	36,15
100	75	CNP8.1	1	69,85
500	15	PC00.1	1	101,40

Accessories:

Cutter for rolls, widths 50/100 mm	CNP9.1	1 Stück	149,45
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Dura Seal®

Highly transparent stretch cling film on a LDPE-base. Ideal for covering beakers, Erlenmeyer flasks, test tubes, etc. Chemically resistant against most aliphatic, aromatic and chlorinated solvents as well as acids and alkaline solutions.

Excellent heat resistance (softening point at approx. 110 °C). Approved for microwave.

Application: Stretch the film and pull it over the container rim. The film clings automatically to the rims.

Technical specifications:

Foil thickness	100 µm
Temperature stability	up to approx. +100 °C
Elasticity	500-800 %

Delivery on rolls in a roll-off carton without layers of paper.

Width (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
102	150	E364.1	1	90,20
127	45	Y701.1	1	61,25



Sarogold®-foil

Made with a base of vinylidene chloride. With excellent protecting qualities. Excellent for covering gel-electrophoresis plates, particularly with DNA- and RNA-sequencing gels. Foil does not stick and is easy to unroll.

Foil does not burn, is self-extinguishing. Approved for foodstuffs and microwaves.

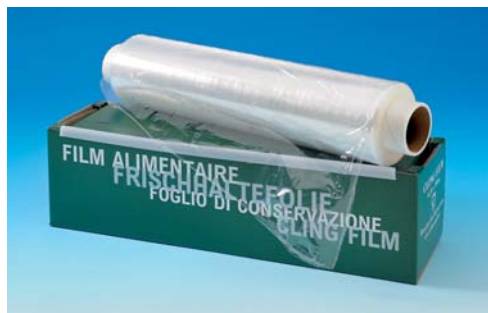
Technical specifications:

Foil thickness	11.5 µm
Permeability in visible range	90 %
UV-filtering	3000 Å
IR-permeability	88 %
Temperature stability	-20 to +100 °C
Elasticity	60 %

Delivery incl. cutter, with box.

Width (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
300	300	9068.1	1	58,00

Foils



Clear cling foil

Highly transparent. For wrapping and covering containers. Very flexible. Inert to odour and taste. Water and greaseproof. Approx. 14 µm strong. On rolls: Width 30 cm, length 300 m. In tear-off box. Temperature stable from -20 to +70 °C.

Art. No.	Pack Qty. (roll)	€
1255.1	1	17,20



Filmolux 609 protective films

Made of **soft PVC**. Thickness 70 µm, self-adhesive. For protecting labels, laminating books, warning signs, instructions and the like. High-gloss, transparent, non-yellowing. On siliconised paper with grid (20 mm) for easy cutting to size.

Width (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
40	50	C327.1	1	23,45
100	50	C328.1	1	51,10
240	25	YY17.1	1	50,00
420	10	0484.1	1	45,05



Rotilabo®-cover foil

Made of **LDPE**. Transparent. Heavy-duty version, very strong and tear resistant. Dimensions: L 4 x W 6 m.

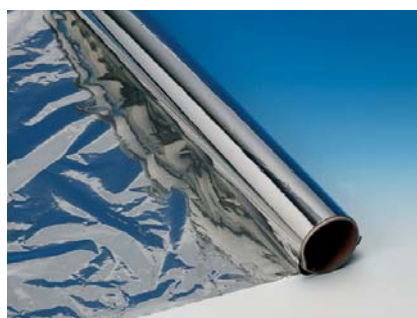
Type	Thickness (mm)	Art. No.	Pack Qty.	€
heavy	0,16	0828.1	1	40,75
standard	0,08	0833.1	1	28,95



Pre-cut aluminium foil pieces with dispenser box

Easy removal from dispenser box. Material thickness 13 µm. Measurements: 230 x 270 mm.

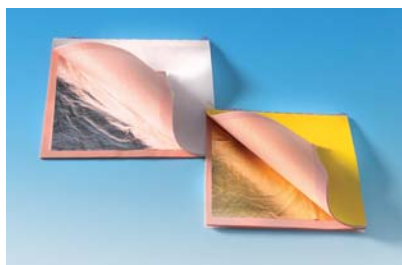
Art. No.	Pack Qty.	€
EE77.1	1 box with 200 pieces	15,40



Tin foil

(Tin foiling) 98 %. 8 µm thick. Very soft and adaptable. Mostly resistant against chemicals. On rolls of 40 cm width. Length about 11 m. 250 g net weight.

Art. No.	Pack Qty. (roll)	€
9296.1	1	63,45



Sheets of gold

22 carat, block of 25 sheets 80 x 80 mm.

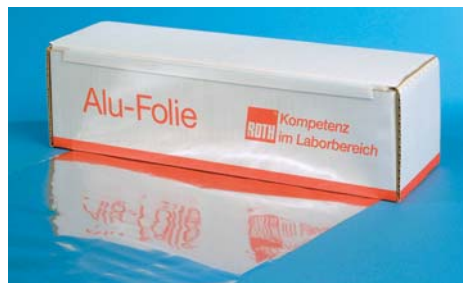
Art. No.	Pack Qty.	€
7605.1	1	100,55

Sheets of silver

Strength 4 µm, block of 25 sheets 95 x 95 mm.

Art. No.	Pack Qty.	€
9367.1	1	34,10

Foils



Rotilabo®-aluminium foils

Ideal for covering up, wrapping and insulating. Approved for food handling. Al-content over 99.0 %. In carton with cutter edge.

*four refill rolls without tear-off box

Thickness (µm)	Width (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
12	295	150	1399.1	1	24,20
13	300	20	0192.1	6	27,45
15	300	150	AA76.1	1	24,20
15	450	150	AA77.1	1	40,35
16	300	100	1770.1	1	21,45
16	300	100	1770.2	4*	79,55
18	440	150	1502.1	1	47,20
20	450	150	0954.1	1	55,80
30	500	100	2596.1	1	62,35



Rotilabo®-aluminium foil pre-cut pieces

In a carton, 1000 foils, separated by silk paper. Thickness 25 µm.

Type	Length (mm)	Width (mm)	Art. No.	Pack Qty. (box)	€
Z7	245	177	5473.1	1	92,35
Z12	290	235	5474.1	1	124,70



Rotilabo®-aluminium foil disks

In a box, 1000 sheets separated with a layer of tissue paper. Aluminium foil 30 µm strong.

Type	Ø (mm)	Art. No.	Pack Qty. (box)	€
R 80	80	E723.1	1	51,10
R 100	100	0953.1	1	64,00
R 120	120	E724.1	1	81,50
R 130	130	E725.1	1	90,30
R 150	150	0196.1	1	102,15



Foil Cover-ALLS™ aluminium foil cover

Pre-moulded aluminium foil cover, 25 µm thick. For quick covering of various laboratory vessels. Suitable for sterilisation of Erlenmeyer flasks, beakers and measuring cylinders. Autoclavable.

Height (mm)	Basic Ø (mm)	Art. No.	Pack Qty.	€
19	25	YA86.1	252	31,65
25	38	YA87.1	252	34,95
32	51	YA88.1	256	38,30
44	51	YA89.1	252	41,00



Polyfoil™ covers

Thermoplastic aluminium foils, polyester-coated. Square blanks. Easy to fold, adapts well to surfaces. Resistant to mechanical influences. **Resistant to most organic solvents as well as corrosive media.** Suitable for sterilisation of laboratory vessels, incubation of cultures or temporary sterile storage of laboratory materials. FDA-compliant. Autoclavable.

Size (mm)	Art. No.	Pack Qty.	€
102 x 102	YA90.1	100	48,60
130 x 130	YA91.1	100	60,85
203 x 203	YA92.1	100	82,45

Sterilisation



Rotilabo®-sterile indicator strips

Self-adhesive, for labelling or sealing sterilisation vessels. Labellable.
Roll length 55 m, strip width 19 mm, core inner Ø 76 mm. Autoclavable.

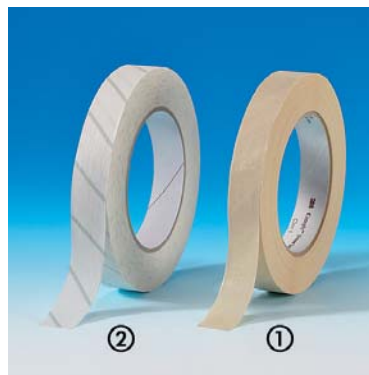
① Steam sterilisation:

Changes colour from yellow to brown after 10 min. at 121 °C or after 2 min. at 135 °C.

② Hot air sterilisation (Poupinel method):

The V imprint changes colour from green to brown after 30 min at 155 °C.

Type	Art. No.	Pack Qty. (roll)	€
① For steam sterilisation	XC20.1	1	11,05
② For hot air sterilisation	XC21.1	1	20,35



Sterile indicator tapes

By 3M. For marking or sealing sterilisation vessels. Labellable.
Inner core Ø 76 mm. Autoclavable.

Technical specifications:

Type	① steam sterilisation (Comply™)	② hot air sterilisation (Indair™)
Specification	Changes colour from beige to dark brown after 10 min at 121 °C (after 2 min at 134 °C). Process indicator in compliance with EN ISO 11140-1:2005.	Changes colour from green to brown after approx. 30 min at 155 °C.
Roll length (m)	55	50
Strip width (mm)	18	19

Type	Art. No.	Pack Qty. (roll)	€
① For steam sterilisation	8221.1	1	17,00
② For hot air sterilisation	H590.1	1	28,95

Sterilisation monitoring

Machine monitoring

System-independent function test for air extraction and steam penetration. Must be performed once per steriliser every day according to DIN EN 17665.
Not a direct indicator of sterilisation performance (= Performance Test).

Treatment monitoring

Sterilisable materials are labelled with external indicators to allow differentiation between sterilisable materials and sterile materials.
This minimises the risk of using non-sterilised goods.

Load/batch monitoring

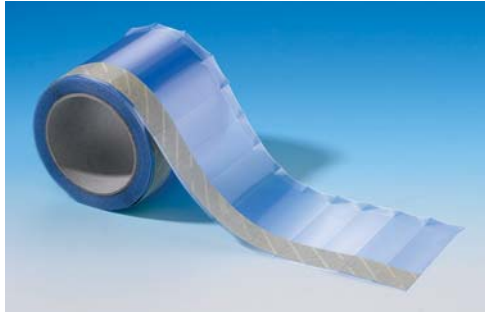
A meaningful chemo-indicator is treated together with the load. This may be inserted in a special test piece.

Indicator selection aid

Monitoring step	Class*	Application	Product type	Art. No.
Treatment monitoring	1	Process indicators (treatment indicators) for differentiating between treated goods and untreated goods	Sterile indicator strips	XC20.1 XC21.1 8221.1 H590.1
			Sterile indicator labels	T033.1 ANX6.1
Machine monitoring	2	Indicators for daily air extraction and steam penetration testing	Bowie-Dick disposable test pack	ANX4.1
Batch monitoring	5	Integrators for reaction to all critical variables in a series of defined sterilisation processes	SteriGage™ Integrator	ANX5.1

*Indicator classes according to DIN EN ISO 11140

Sterilisation



Comply™ indicator labels

By 3M. Simple identification labels for steam sterilisation, with treatment indicator, lead-free. Can be labelled with an indelible pen, easily removable without residues, especially from metal containers. Dimensions: L 100 x W 25 mm.

Art. No.	Pack Qty.	€
ANX6.1	500	192,45



Comply™ SteriGage™ chemo-indicators

By 3M. Class 5 integrating indicators (integrators) for monitoring the sterilisation process within individual packaging. "Moving Front" technology ensures clear results: As the sterilisation process progresses, a dark strip forms, stopping either within the "Accept" band (pass) or within the "Reject" band (fail). The result can be read directly off the indicator without any need for interpretation. Suitable for steam sterilisation at +121 °C and +134 °C. High performance: reaction is identical to that of an bioindicator strip in the sterilisation process.

Art. No.	Pack Qty.	€
ANX5.1	100	90,85



Sterile indicator label

Heat-resistant labels with sterilisation indicator field. Size 29 x 27.6 mm. Labels can be printed on either by hand or with a stamp. Colour change of indicator point from yellow to red at steam sterilisation after 5 to 10 minutes at 116 to 135 °C, depending on temperature. Free from lead, copper and bismuth. 700 labels on roll.

Art. No.	Pack Qty. (roll)	€
T033.1	1	18,85



Indicators for autoclave monitoring

By 3M. Bowie-Dick disposable test pack. Heavy-metal-free indicators for daily air extraction and water vapour permeability test according to DIN EN 17665. Meets EN 867-1 1997, EN 867-4:2000, ISO 11140-1:1995 and ISO 11140-4:2001. Simple interpretation and fault detection through colour change from blue to pink, as well as non-reflective surface. No subsequent change of colour for safe storage and transparency of results. Reproducible.

Art. No.	Pack Qty.	€
ANX4.1	20	241,90

Sterilisation



DuraPorter™ safety containers

Made of PC, with watertight silicon seal. Ideal for in-house transportation of biological and chemical samples, instruments or for storage. Transparent box with hinged lid, three snap locks and carry handle, stackable. Partitionings for smaller samples can be removed to make use of the entire interior. Lid can be fully opened for easy filling and cleaning. Dimensions: outer L 380 x W 196 x H 160 mm, inner L 335 x W 155 x H 135 mm. Autoclavable.

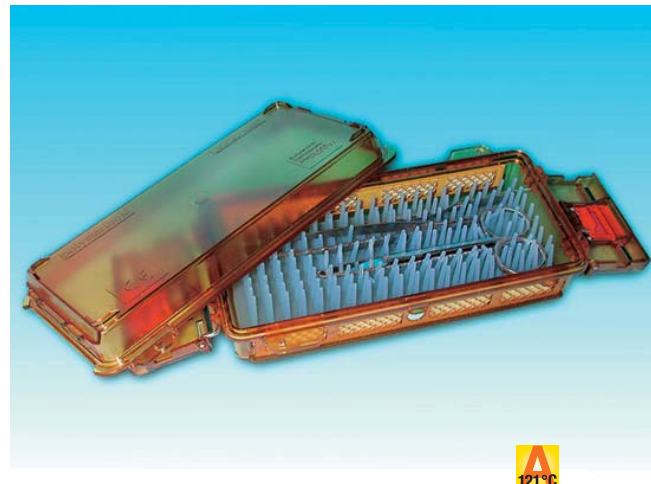
Colour	Art. No.	Pack Qty.	€
transparent/blue	AAA0.1	1	80,65
red	AAA1.1	1	80,65
yellow	AAA2.1	1	80,65



Rotilabo®-safety container

Made of PC. For dustfree storage of samples and reagents or for safe transport of test tubes and other vessels with dangerous substances. Features tightly sealing lid and 4 catches. Plus two side-handles and a main one made out of high-grade steel. Break- and leakproof. Dimensions: outer L 330 x W 175 x H 180 mm, inner L 300 x W 125 x H 160 mm. Autoclavable.

Type	Art. No.	Pack Qty.	€
Safety container	8331.1	1	93,10
Spare clips	LK68.1	4	18,20



Sterilisation containers polysteribox®

Transparent special plastic, can be used for approx. 1250 sterilization cycles. **For the sterilization and storage of instruments.** Suitable for steam, gas and plasma sterilization. Hydrophobic PTFE filter stops germs and bacteria (replace after approx. 250 sterilizations, includes date insert). A sterilization mark and protective seal can be used to check the sterility of the contents. Safety seal for safe transportation. Stackable. Dishwasher safe.

Acc. to DIN 58952, 58953, EN 868-1/868-8/554, ISO 11607 and DIN EN ISO 17664 and 11137-1. CE certified. Autoclavable up to 134 °C. **Delivery incl.** PTFE filter (12-month filter, polysteribox M with permanent filter). Permanent filter set is optional. Please order separately.

Type	Outer dimensions: L x W x H (mm)	Inner dimensions: L x W x H (mm)	Art. No.	Pack Qty.	€
polysteribox® SH	208 x 111 x 55	177 x 76 x 44	X616.1	1	108,60
polysteribox® M	185 x 145 x 59	156 x 124 x 48	KP96.1	1	127,95
polysteribox® L	290 x 184 x 74	261 x 163 x 64	KP97.1	1	151,60
polysteribox® XL	497 x 122 x 65	465 x 90 x 54	TA78.1	1	209,65

Accessories:

Seal with indicator strip	X617.1	1000	46,55
Protective seals	H653.1	500	46,70
Non-slip silicon mat for polysteribox® SH	H654.1	1	26,35
Non-slip silicon mat for polysteribox® M	TA79.1	1	30,05
Non-slip silicon mat for polysteribox® L	TA80.1	1	41,95
Support insert for polysteribox® XL, small	TA81.1	1	7,00
Support insert for polysteribox® XL, large	TA82.1	1	7,00
12-month filter set: 2 filters + date sets for polysteribox® SH	H657.1	1	13,20
12-month filter set: 2 filters + date sets for polysteribox® L/XL	TA84.1	1	12,85
Permanent filter set for polysteribox® SH	TA85.1	1	19,15
Permanent filter set for polysteribox® M	TA86.1	1	22,60
Permanent filter set for polysteribox® L/XL	TA87.1	1	27,90
Replacement clamping strips for polysteribox® SH	H656.1	10	60,00

► Instrument trays made of stainless steel see page 113

► Waste disposal bags see page 677

Sterilisation



Sterilisation baskets, rectangular

Made of stainless steel 18/10, electrolytically polished. For storage, transportation, cleaning and sterilisation of labware. Mesh size 8 x 8 x 1 mm. Autoclavable.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
150	100	100	YT41.1	1	48,50
200	150	150	YT42.1	1	61,25
250	150	150	YT43.1	1	108,60
500	300	250	YT44.1	1	212,85
600	400	300	YT45.1	1	224,70



Baskets

By Nalgene®. Made of PP. Ideal for storing, sterilising and cleaning labware. Smooth surface prevents any scratching of glass and plastic. Baskets are stackable. Autoclavable.

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
123	154	105	L068.1	1	22,05
168	178	156	L069.1	1	24,10
230	239	233	L070.1	1	31,95

► Steam sterilizers CertoClav see page 873



①



②



Rotilabo®-sterilisation baskets

Made of stainless steel 1.4301, electropolished. Mesh baskets spot-welded, 8 x 8 x 1 mm. Ideal for storing, transporting, cleaning and sterilising labware. Autoclavable.

① Quadratic and rectangular

Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	100	100	L040.1	1	37,55
120	120	120	L041.1	1	42,80
140	140	140	L042.1	1	49,40
160	160	160	L043.1	1	54,85
180	180	180	L044.1	1	64,10
200	200	200	L045.1	1	75,20
300	200	200	L046.1	1	95,70
400	200	200	L047.1	1	117,20

② Round With handle.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
120	100	L050.1	1	54,85
150	120	L051.1	1	55,90
180	160	L052.1	1	70,95
210	180	L053.1	1	81,65
240	180	L054.1	1	89,25
270	180	L055.1	1	107,30
300	200	L056.1	1	125,80

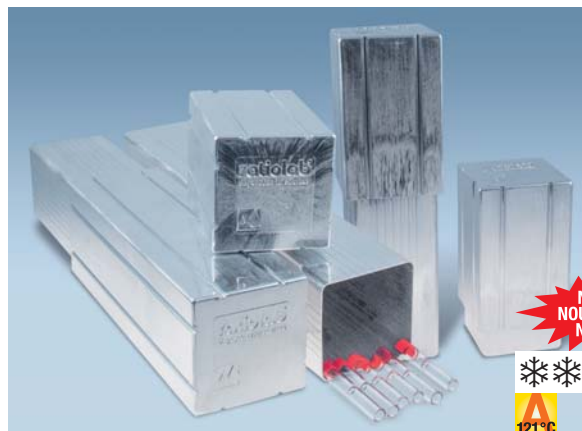


Rotilabo®-sterilisation containers for petri dishes

Made of 18/8 stainless steel. With holder for dishes with max. Ø 100 mm. Can be sterilised up to max. +150 °C.

Ø (mm)	Height (mm)	Capacity	Art. No.	Pack Qty.	€
120	250	10 Petri dishes	C846.1	1	138,70
120	500	20 Petri dishes	C847.1	1	235,45

Sterilisation



Pipette container

Made of aluminium. For the storage of plastic pipettes and glassware between 150 and 480 mm in length, e.g. stirring bars, serological, Pasteur pipettes, volumetric pipettes and graduated pipettes. With silicone inner padding and lid for protection of the stored glass pipettes. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
150-200	CLN4.1	1	32,15
235-305	CLN5.1	1	37,45
315-385	CLN6.1	1	40,55
315-485	CLN7.1	1	42,80



Varicon variable pipette containers

Made of aluminium. Round. Ideal for sterilising pipettes of different volume and size. Consists of two aluminium parts, which can be pushed inside each other. Ø 60 mm.

Only one container size required for:

all standard pipettes 280 to 420 mm and for all short- or Pasteur pipettes 145 to 235 mm.

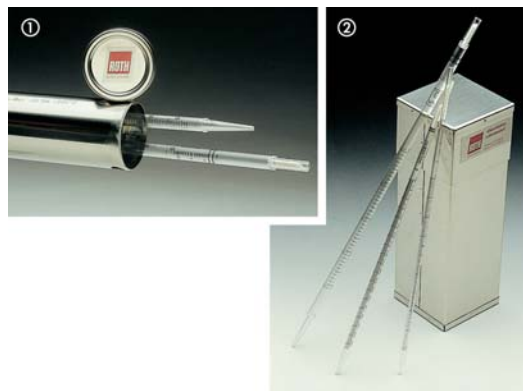
Type	Art. No.	Pack Qty.	€
Varicon RK 145-235 mm	P978.1	1	50,00
Varicon RK 280-420 mm	P979.1	1	36,05

Silicone insert

For laying in Varicon pipette container. Prevents damage to pipettes. Made of 2 mm thick silicone rubber. Ø 58 mm.

Art. No.	Pack Qty.	€
P980.1	1	7,50

- Pipettes see page 396
- Sterilizing bags see page 678



Rotilabo® sterilising container for pipettes

Made of stainless steel. With silicone coated base and lid. Sterilisable up to +205 °C.

① Round

The holes in the lid can be opened and closed by twisting the lid.

Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
380	50	C839.1	1	78,50
420	50	C840.1	1	78,50
380	65	C841.1	1	81,70
450	65	C842.1	1	83,85
380	80	C843.1	1	90,30
500	80	C844.1	1	97,85

② Angular

Stackable. Tube size 70 x 70 mm.

Overall length (mm)	Effective length (mm)	Art. No.	Pack Qty.	€
210	180	C868.1	1	118,25
290	257	C869.1	1	125,80
340	307	C870.1	1	149,45
430	412	C871.1	1	155,90
490	458	C872.1	1	181,70



Rack for pipette containers

Made of stainless steel. With fixed tilt. Ideal for convenient storage of round and rectangular pipette containers at the workplace or in safe storage. Max. Ø of round containers 74 mm, and max. edge length of rectangular ones 71 mm. Minimum length of containers 250 mm.

For	W x D x H (mm)	Art. No.	Pack Qty.	€
4 containers	195 x 235 x 229	P982.1	1	115,05
6 containers	195 x 235 x 315	P983.1	1	124,70
8 containers	195 x 235 x 405	P984.1	1	169,85

Cell culture bottles



Tissue culture bottles

Made of **PS**. Lid made of **PE**. **Sterile**. Ideal for cultivating and storing cell cultures. Very high optical clarity. Non toxic. Bottom of bottle has been surface-treated for optimum cell growth. Slanting neck and large opening enable entire culture surface to be accessed.

Variable closure: Screw cap can be closed tightly for anaerobic cultures, or screwed into vent position for defined ventilation. Bottles are graduated and have a labeling area. Stackable.

Useable area (cm ²)	Volume (ml)	L x W x H (mm)	Packaging	Art. No.	Pack Qty.	€
25	60	90 x 50 x 25	36 x 10	X845.1	360	360,15
75	270	150 x 85 x 35	20 x 5	X846.1	100	212,85
150	690	205 x 120 x 45	12 x 3	X847.1	36	165,55



Cell culture bottles

By Greiner Bio-One. **Made of PS. Sterile**. Screw cap can be used in two positions: ventilation position or gastight cap. High, angled bottle neck reduces the risk of media contact with the inside of the cap.

- Cell layers are easy to reach with the cell scraper
- Optimal access with pipette
- Graduations and labelling space on side
- Improved cell adherence through physical surface treatment
- **DNase, RNase and human DNA free**
- Endotoxin free, free of cytotoxic substances

*With grid.

Max. filling cap. (ml)	Working capacity (ml)	Growth surface (cm ²)	Art. No.	Pack Qty.	€
50	5-10	25	CNA9.1	200 (20 x 10)	130,10
50	5-10	25*	CNC0.1	200 (20 x 10)	160,20
250	15-38	75	CNC1.1	120 (24 x 5)	98,90
550	20-45	175	CNC2.1	50 (10 x 5)	97,85
650	20-85	175	CNC3.1	40 (10 x 4)	80,65



Programme extension!

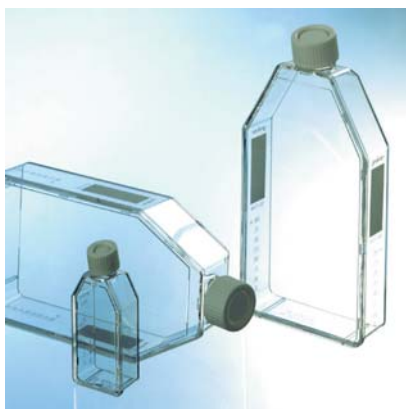


Cell culture bottles with filter screw cap

By Greiner Bio-One. Made of **PS. Sterile**. Hydrophobic membrane (pore size 0.2 µm) for minimal risk of contamination and optimal gas exchange. Angled neck reduces the risk of media contact with the inside of the screw cap and thus provides an additional layer of protection against contamination.

- Cell layers are easy to reach with the cell scraper
- Optimal access with pipette
- Graduations and labelling space on side
- Improved cell adherence through physical surface treatment
- Optimal gas exchange thanks to high air flow rate of membrane
- Additional standard screw caps (without filter) in every box
- **DNase, RNase and human DNA free**
- Endotoxin free, free of cytotoxic substances

Max. filling cap. (ml)	Working capacity (ml)	Growth surface (cm ²)	Art. No.	Pack Qty.	€
50	5-10	25	CE48.1	200 (20 x 10)	140,85
250	15-38	75	CE49.1	120 (24 x 5)	149,45
550	20-45	175	CLY2.1	50 (10 x 5)	107,40
650	20-85	175	CE50.1	40 (8 x 5)	90,30



Suspension culture bottles

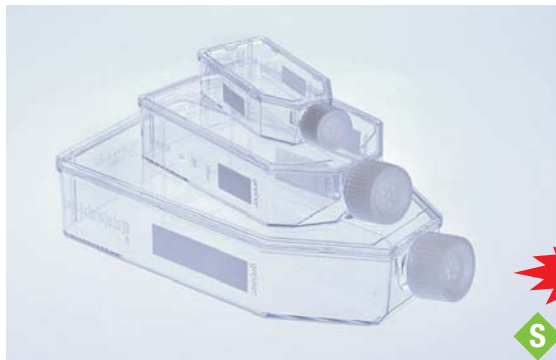
By Greiner Bio-One. Made of **PS. Sterile**. With white screw cap. Ideal for suspension cultures through strongly hydrophobic surfaces. High, slanting bottle neck protects cap interior from contamination through medium. Bottles are graduated on the side and have a labeling area.

DNase-, RNase- and human DNA-free.

Endotoxin free, free of cytotoxic substances.

Max. filling cap. (ml)	Art. No.	Pack Qty.	€
50	CE51.1	200	130,10
250	CE52.1	120	131,15
650	CE53.1	40	88,80

Cell culture bottles



Suspension culture bottles with filter screw cap

By Greiner Bio-One. Made of **PS**. **Sterile**. Hydrophobic membrane (pore size 0.2 µm) for minimal risk of contamination and optimal gas exchange. High, angled neck reduces the risk of media contact with the inside of the screw cap and thus provides an additional layer of protection against contamination.

- Hydrophobic surface
- Ideal for suspension cultures, hybridoma cells and embryonal stem cells
- Optimal access with pipette
- Graduations and labelling space on side
- Optimal gas exchange thanks to high air flow rate of membrane
- Additional standard screw caps (without filter) in every box
- **DNase, RNase and human DNA free**
- Endotoxin free, free of cytotoxic substances

Max. filling cap. (ml)	Art. No.	Pack Qty.	€
50	CNA6.1	200 (20 x 10)	130,10
250	CNA7.1	120 (24 x 5)	105,90
650	CNA8.1	40 (8 x 5)	81,30



Cell scrapers

By Greiner Bio-One. Made of **PS**. Swivel blade, made of **HDPE**, for gentle scraping of cells on difficult to reach surfaces. Individually **sterile** wrapped.

Length (mm)	Blade width (mm)	Art. No.	Pack Qty.	€
280	18	CE60.1	100	222,55
400	18	CE61.1	100	258,00



Plastic roller bottles

By Greiner Bio-One. Made of **PS**. **Sterile**. Graduated. TC-surface treatment improves cell adhesion and increases the yield. **DNase-, RNase- and human DNA-free**. Non-pyrogenic. HDPE-screw closure available as a standard screw closure or as a filter screw closure with hydrophobic membrane (PET/PTFE) for optimal gas exchange.

Max. filling cap. (ml)	Ø x H (mm)	Growth surface (cm²)	Screw closure	Art. No.	Pack Qty.	€
2550	122 x 271	850	standard	CE58.1	24	138,70
2100	122 x 271	850	with filter	CE59.1	24	152,65



CELLreaktor™-tubes CELLSTAR®

By Greiner Bio-One. Made of **PP**, filter screw cap with PTFE-coated capillary pore filter membrane (USP Class VI certified, pore size 0.2 µm). **Sterile**. Temperature stability - tube: from -196 to +121 °C, screw cap: from -80 to +100 °C. Tubes are autoclavable (without screw cap).

- Conical tube design facilitates direct cell harvesting
- With graduations and labelling space
- Excellent gas exchange
- Free of detectable DNase, RNase and human DNA
- Pyrogen free, non-cytotoxic

Uses:

- Miniaturisation of large scale test set-ups
- Maximises the number of parallel experiments
- Bioreactors for the cultivation of suspension cells and spheroid cells
- Expansion of aerobic bacteria, yeasts and micro-organisms
- Storage of substances which require gas exchange

Volume (ml)	Max. centrifugability	Dimensions: Ø x H (mm)
15	Oscillating rotor: 4000 x g Fixed angle rotor: 15 000 x g	17 x 120
50	Oscillating rotor: 3200 x g Fixed angle rotor: 9500 x g	30 x 115

Volume (ml)	Art. No.	Pack Qty.	€
15	CLY4.1	300 (15 x 20)	203,20
50	CLY3.1	500 (25 x 20)	371,95

Cell culture plates, pans + vials



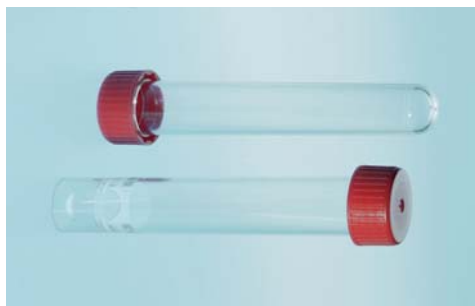
Cell strainer EASYstrainer™

By Greiner Bio-One. Housing made of **PP**, filter diaphragm made of **PET**. **Sterile**, individually packed (single blister pack). For the filtration of cell suspensions and primary cell isolates, e.g. after organ digestion, for use in primary cell extraction or cell preparation for flow cytometry.

- Fits all standard 50 ml tubes
- With handle and mantle surface for improved aseptic handling
- Venting slot for rapid filtration, no overflowing of the cell strainer

Aids aseptic work: the mantle surface and handle protect against unintentional contact with the sterile filter material. The single blister pack allows for convenient and aseptic removal of the strainer. Venting slot between fitted cell strainer and tube allows the air in the tube to escape quickly during filtration and ensures that liquid does not accumulate between the strainer and the tube or that the strainer cannot overflow.

Mesh size (µm)	Colour	Art. No.	Pack Qty.	€
40	green	CLY9.1	50	95,60
70	blue	CNA0.1	50	95,60
100	yellow	CNA1.1	50	96,25



Cell culture vials CELLSTAR®

By Greiner Bio-One. Made of **PS**, with HDPE screw cap. **Sterile**. Volume 12 ml, dimensions: Ø 17 x H 100 mm.

- Improved cell adherence through physical surface treatment
- **Free of detectable DNase, RNase and human DNA**
- **Free of detectable endotoxins, free of cytotoxic substances**

Technical specifications:

Type	Max. centrifugability (g)	
	Fixed angle rotor	Oscillating rotor
Conical bottom, with screw cap	5000	3000
Self-standing, with support skirt and bayonet cap (opens with 1/3 turn)	5000	5000

Type	Art. No.	Pack Qty.	€
Conical bottom	CNC4.1	1000 (200 x 5)	252,65
Self-standing	CNC5.1	1000 (200 x 5)	256,95



Cell culture dishes

Made of **PS**. **Sterile** (gamma-sterilised). Optically clear for microscopy. Plasma-treated for optimal cell growth conditions, both for adherent cells and for cell suspensions. With vents to ensure optimal gas exchange. Stackable. The circular elevation on the edge prevents accidental opening of dishes during transit. Non-pyrogenic.

Working capacity (ml)	Growth surface (cm²)	Ø x H (mm)	Art. No.	Pack Qty.	€
3	9,4	35 x 10	PK37.1	500 (25 x 20)	139,75
5	21,5	60 x 15	PK38.1	500 (50 x 10)	170,95
12,5	60,8	100 x 20	PK39.1	200 (20 x 10)	106,45

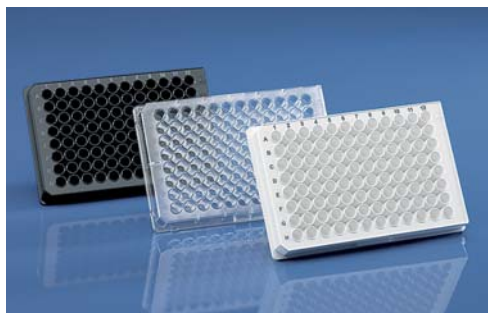


FourWell Plate™ CELLSTAR®

By Greiner Bio-One. Made of **PS**. **Sterile**. Four-well plate for microscopic applications, for cultivation and processing of cells on microscope slides. Can also be used as incubation tray for blotting membranes. Dimensions: L 127,8 x W 85,5 x H 14,4 mm (plate footprint conforms to ANSI standard).

- 4 individual chambers, each with a max. volume of 18.6 ml per well
- Numbered wells for secure sample identification
- Bevelled edges on the left-hand side of the plates serve as a guide
- Vents
- With cover panel
- **Free of detectable DNase, RNase and human DNA**
- **Free of detectable endotoxins, free of cytotoxic substances**

Art. No.	Pack Qty.	€
CNA2.1	32 (4 x 8)	115,05



Programme extension!



Microtitration plates BRANDplates®

By Brand. Manufactured according to ANSI/SBS standards 1 to 4 - 2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.

- 96 well standard format
- Clearly distinguishable by embossed alphanumeric colour code: grey for standard plates, blue for immunology, orange for the cell culture
- Free of endotoxins, DNase, DNA, RNase, non-cytotoxic

Microtiter plates pureGrade™ S

Made of transparent PS. Untreated surface.

- Sterile (individually packed, with cover) or non-sterile
- Chimney shaped 96 well cavities, with alphanumeric labelling
- F profile (flat bottom shape) for precision optical measurements
- Sterile type is ideal for bacteriological assays
- Non-sterile type designed, in particular, for homogeneous assays, screenings and storage

Volume per well (µl)	Type	Art. No.	Pack Qty.	€
350	F-profile, sterile	XT64.1	50	118,25
350	F-profile, non-sterile	CNP7.1	100	92,45

Microtitration plates cellGrade™

Made of PS.

- Sterile (individually packed, with cover)
- Standard plate for cultivating adherent cell cultures
- PS surface with various freely accessible chemical groups, e.g. carboxyl and hydroxyl groups
- Surface is hydrophilic (untreated PS is non-hydrophilic)
- Serum constituents are bound to the free chemical groups which allow indirect adhesion of cells

Volume per well (µl)	Type	Art. No.	Pack Qty.	€
350	transparent, F-Boden	CNP6.1	50	127,95
350	white, F-bottom	XT72.1	50	237,60
350	black, F-bottom	XT73.1	50	237,60
330	white, with transparent F-bottom	XT74.1	50	583,75
330	black, with transparent F-bottom	XT75.1	50	583,75

Microtitration plates, inertGrade™

Made of PS.

- Sterile (individually packed, with cover)
- Suitable for cultivating suspension cell cultures
- Ideal for cell cultures if cell adhesion is to be avoided
- Optimised surface properties minimise cell binding, protein absorption, enzyme activation and cellular activation
- This allows, for example, premature differentiation of stem cells to be inhibited

Volume per well (µl)	Type	Art. No.	Pack Qty.	€
330	96 well, transparent, U-bottom	XT76.1	40	437,55
350	96 well, transparent, F-bottom	XT77.1	40	437,55

- For further information on Brand microtiter plates see page 446



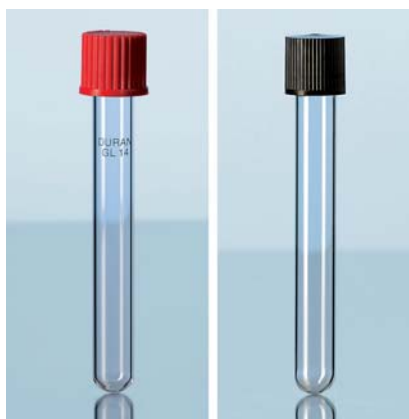
Cell culture Multiwell plates

By Greiner Bio-One. Made of PS. Sterile (individually packed, cover plate for adherent cell cultures). TC-surface treated. Non-pyrogenic.

DNase-, RNase- and human DNA-free. Alphanumeric well coding.

F-bottom. Max. centrifuging: 4800 x g.

Wells	Growth surface per well (cm²)	Working volume per well (ml)	Art. No.	Pack Qty.	€
6	9,6	2-5	CE54.1	100	177,40
12	3,9	2-4	CE55.1	100	224,70
24	1,9	0,5-1,5	CE56.1	100	198,90
48	1,0	0,5-1	CE57.1	100	263,40
96	0,34	0,025-0,34	KL43.1	100	213,95



DURAN GROUP
Material DURAN®

Culture tubes with screw caps

Made of DURAN®, with DIN-thread, screw caps made of PBT, gaskets PTFE-coated. Hot air sterilization to max. 180 °C. Autoclavable.

Volume (ml)	Outer Ø (mm)	Length (mm)	Thread	Art. No.	Pack Qty.	€
6	12	100	GL 14	K248.1	50	151,00
9	13	100	GL 14	PY94.1	50	151,00
20	16	150	GL 18	PY95.1	50	151,00
20	16	160	GL 18	K249.1	50	196,00
20	20	150	GL 18	PY96.1	50	223,00
30	18	180	GL 18	K250.1	50	213,00

Made of AR®-glass, with DIN-thread, screw caps made of PP, white rubber gasket. Not autoclavable.

Volume (ml)	Outer Ø (mm)	Length (mm)	Thread	Art. No.	Pack Qty.	€
6	12	100	GL 14	K251.1	100	37,95
12	16	100	GL 18	K252.1	100	40,70
20	16	160	GL 18	K253.1	100	50,00
30	18	180	GL 18	K254.1	100	58,40

Culture vials



Sterile culture vials

- Made of transparent **PS** or translucent **PP**
- With two-position **PE** closure for anaerobic and aerobic bacteria cultures
- **Sterile**
- With or without graduations and labelling space
- Available in space-saving box or economy-priced bag

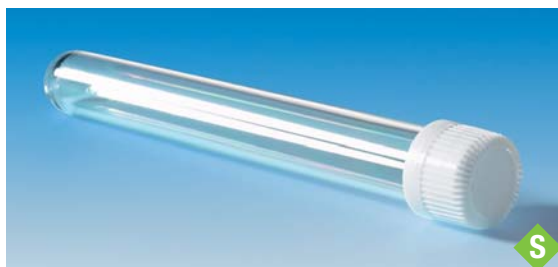
	PS vials	PP vials
Temperature stability	up to +70 °C	-190 to +121 °C
Centrifugable up to	1400 x g	3000 x g

Made of PS

Volume (ml)	Ø (mm)	Height (mm)	Graduations	Packaging	Art. No.	Pack Qty.	€
4	12	75	yes	individual	EA97.1	500	127,95
4	12	75	yes	25/box	EA98.1	500	106,45
4	12	75	no	Loose in bag	AEX8.1	500	65,05
12	17	95	yes	individual	EA99.1	500	174,15
12	17	95	yes	25/box	EC00.1	500	131,15
12	17	95	no	Loose in bag	AEX9.1	500	77,95

Made of PP

Volume (ml)	Ø (mm)	Height (mm)	Graduations	Packaging	Art. No.	Pack Qty.	€
4	12	75	yes	individual	EC01.1	500	127,95
4	12	75	yes	25/box	EC02.1	500	106,45
4	12	75	no	25/bag	AEY0.1	500	62,60
12	17	95	yes	individual	EC03.1	500	174,15
12	17	95	yes	25/box	EC04.1	500	131,15
12	17	95	no	25/bag	AEY1.1	500	95,70



Sterile culture vials with screw cap

Made of **PS**. Cap made of **HDPE**. **Sterile**. Centrifugable to 3000 x g. Coloured lid inserts for identification are optional (CK72.1ff). Volume 8 ml. Dimensions: Ø 13 x L 100 mm. Temperature resistant in the range -80 to +80 °C.

Art. No.	Pack Qty.	€
AE13.1	1000 (8 x 125)	246,20



Drosophila vials

By Greiner Bio-One. Made of **PS**. Ideal for the cultivation of *Drosophila melanogaster*.

Volume (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
16	22 x 63	CLY5.1	1500	100,85
28	27 x 64	CLY6.1	1500	140,85

Plug for Drosophila vials

By Greiner Bio-One. Made of water repellent Ceapren, permeable to air.

For vial vol. (ml)	Ø (mm)	Art. No.	Pack Qty.	€
16	22	CLY7.1	1500	170,95
28	26	CLY8.1	1500	119,35



Drosophila cultivation tubes

Made of **PP**. Ideal for cultivating *drosophila* and other insects. Straight-walled for easy storage in racks, filling and sealing. Autoclavable.

Ø x H (mm)	Art. No.	Pack Qty.	€
28 x 85	PK10.1	550	82,25
50 x 100	PK11.1	225	82,25

Plug for drosophila cultivation tubes

Made of multiple-embossed foam (PU), air permeable and mite safe.

Ø x H (mm)	Art. No.	Pack Qty.	€
28 x 25	PK13.1	100	47,65
50 x 25	PK15.1	100	84,50

Culture bottles



Medium bottles

By Greiner Bio-One. Made of **PET**. **Sterile**.

- With graduations
- Square shaped
- **Free of detectable DNase, RNase and human DNA**
- **Free of detectable endotoxins, free of cytotoxic substances**

Volume (ml)	L x W x H (mm)	Art. No.	Pack Qty.	€
100	77 x 77 x 177,3	CNA3.1	100	125,80
500	53 x 53 x 108,3	CNA4.1	50	93,00
1000	92 x 92 x 218,8	CNA5.1	24	89,80

- To purchase nutrient media, go to the Life Science chapter part Microbiology!



Nutrient media bottles

By Nalgene®. Bottle made of **PETG**, screw cap made of **HDPE**. **Sterile** (y-sterilized). Square. Break-resistant and robust, transparent. **Leakproof**. The 2 l-bottle has moulded handles to enable easier handling. Low permeation of CO₂ and O₂ enables storage of nutrient media up to 6 months. Bottles and caps are non-pyrogenic. Sealed with a heat-shrink band sealing around cap and neck: Sterility is ensured as long as band is intact.

Volume (ml)	Cap Ø (mm)	L x W x H (mm)	Art. No.	Pack Qty.	€
30	20	38 x 38 x 63	C481.1	24	58,70
60	24	41 x 41 x 82	C482.1	24	76,35
125	38	52 x 52 x 108	C483.1	24	122,55
250	38	58 x 58 x 147	C484.1	24	143,00
500	38	73 x 73 x 177	C485.1	12	109,65
1000	38	93 x 93 x 218	C486.1	12	149,45
2000	53	116 x 116 x 270	C487.1	6	125,80



①



②

DURAN GROUP

Material DURAN®



① Nutrient media bottles with beaded rim

Made of DURAN®. Autoclavable.

Volume (ml)	Ø (mm)	Neck Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	50	29	115	T955.1	1	14,15
300	70	42	168	T956.1	1	18,70
1000	105	46	237	T958.1	1	29,30
2500	150	50	315	T959.1	1	57,90

② Nutrient media bottles with straight neck

Made of DURAN®. Neck-Ø 38 mm, suitable for Erlenmeyer-CAP-caps K395.1-K397.1. Autoclavable.

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	50	125	T961.1	1	29,50
300	70	170	T962.1	1	32,30
500	83	208	T963.1	1	37,90
1000	105	243	T964.1	1	48,80



DURAN GROUP

Material DURAN®



Breed-Demeter square bottle

Made of DURAN®. Capacity 180 ml. Neck Ø 28 mm. Dimensions: W 48 x H 148 mm. Autoclavable.

Art. No.	Pack Qty.	€
T954.1	1	14,70

Culture bottles



Bottle rest

Made of **PMMA**. For comfortable working beneath the clean bench due to angled positioning of the bottle during the pipetting. The 45° angle keeps the contents of the bottle sterile because no foreign particles can drop into the bottle. The pipette can be left in the bottle in between pipetting operations. Suitable for bottles with a diameter of up to 96 mm. Dimensions: W 110 x L 180 x H 117 mm.

Art. No.	Pack Qty.	€
AXC0.1	1	101,05



DURAN® YOUTILITY laboratory bottles

- Made of DURAN®. With Retrace Code. Autoclavable.
- Specially shaped recessed grips for easier and safer handling.
 - Slim bottle shape allows more space-saving use
 - Scale indicating total volume
 - Predefined labelling space
 - Ergonomically shaped screw cap with leak-proof sealing system for optimal handling, even by users with small or gloved hands
 - Optimised thread (compatible with DIN GL 45 closures) for faster bottle opening and closing

Delivery incl. pouring ring and optimised screw caps made of PP.

DURAN® YOUTILITY bottles, clear glass

Volume (ml)	Thread GL	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
125	45	55	124	AEY2.1	4	26,90
250	45	66	158	AEY3.1	4	28,90
500	45	78	193	AEY4.1	4	35,70
1000	45	93	253	AEY5.1	4	50,50

Accessories:

Replacement DURAN® YOUTILITY pouring rings	AEY8.1	16	8,35
Replacement DURAN® YOUTILITY screw caps	AEY7.1	10	16,40
DURAN® bottle tags made of silicone, eight colours	AEY9.1	16	22,60



① Culture bottles

Made of DURAN®. Straight rim, for LABOCAP-caps (neck Ø 18 mm). Autoclavable.

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
50	40	107	T951.1	1	11,80
100	40	150	T952.1	1	13,50
200	50	175	T953.1	1	16,50

② Roller bottles for cell cultures

Made of DURAN®. With DIN-thread GL 45. With screw cap and pouring ring made of PP (blue). Autoclavable.

Volume (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2000	110	285	T966.1	1	148,00
3500	110	450	T967.1	1	181,00



Fernbach culture flask

Made of DURAN®. Volumen 1800 ml. Large liquid surface, ideal for cultivating micro-organisms in liquid nutrient media, with improved ventilation for faster growth. Conical form with straight neck for Erlenmeyer-CAP-caps K395.1-K397.1. Capacity 1800 ml. Neck Ø 38 mm, base Ø 200 mm, height 175 mm. Autoclavable.

Art. No.	Pack Qty.	€
T965.1	1	57,50

► Erlenmeyer-Cap-caps see page 258

Culture flasks



Rotilabo®-wide neck Erlenmeyer flasks

Made of **PP**. With screw cap, also usable for ground glass stoppers. Autoclavable at 121 °C.

Volume (ml)	Graduations (ml)	Thread	Standard ground glass joint	Art. No.	Pack Qty.	€
50	10	GL 40	34	8338.1	1	4,05
100	20	GL 40	34	8339.1	1	4,55
250	50	GL 52	45	8341.1	1	6,30
500	100	GL 52	45	8342.1	1	7,30
1000	200	GL 52	45	8344.1	1	9,80



DURAN GROUP

Material
DURAN®



Flasks for culture media, Erlenmeyer shape

Made of **DURAN®**. One-sized, straight neck with Ø 38 mm, for metal caps. Autoclavable.

Volume (ml)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	64	114	L182.1	10	141,00
200	79	138	L183.1	10	151,00
250	85	149	L184.1	10	154,00
300	87	161	L185.1	10	76,90
500	105	183	L186.1	10	96,20
1000	131	229	L187.1	1	20,20
2000	166	302	L188.1	1	26,30



Sterile disposable Erlenmeyer flasks

By Nalgene®. Made of crystal-clear **PETG**, screw caps made of **HDPE**. **Sterile** (individually packed), SAL 10⁻⁶, non-pyrogenic, non-cytotoxic. With graduations. **No chicanes**. Suitable for agitation and suspension cultures, for making culture media or storage. **Leak-proof**.

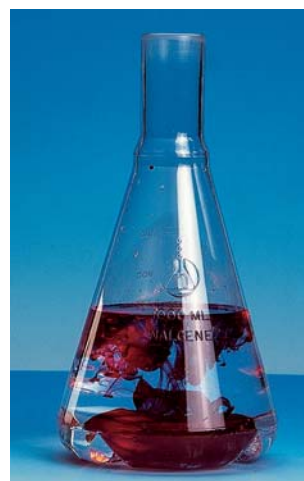
With white screw cap without ventilation filter, can be opened a quarter turn for ventilation purposes.

Volume (ml)	Art. No.	Pack Qty.	€
125	PX68.1	24	168,80
250	PX69.1	12	94,10
500	PX70.1	12	111,80
1000	PX71.1	6	69,35
2000	PX72.1	4	73,10

With blue screw cap, ventilated

The ventilation filter made of hydrophobic PTFE membrane, pore size 0.2 µm allows sterile ventilation and reduces risk of contamination.

Volume (ml)	Art. No.	Pack Qty.	€
125	PX73.1	24	195,65
250	PX74.1	12	107,30
500	PX75.1	12	126,85
1000	PX76.1	6	77,20
2000	PX77.1	4	76,15



Baffled Erlenmeyer flasks

By Nalgene®. Made of breakproof **PC**. Ideal as an alternative to glass flasks, with comparable growth rate for *E.coli* and *S.cerevisiae*. The four incorporated baffles increase the mixing during trypsinizing, aeration or fermentation in cell culture or genetic engineering. Autoclavable.

* Straight neck for closing with Erlenmeyer-CAP-caps K395.1; K396.1; K397.1

Volume (ml)	Type	Art. No.	Pack Qty.	€
250	neck with beaded rim	E104.1	1	16,70
500*	straight neck	E105.1	1	21,45
1000*	straight neck	E106.1	1	37,20
2000	neck with beaded rim	E107.1	1	50,45

► Autoclaving information on page 5

Culture flasks



Material
DURAN®
 121°C

Rotilabo®-baffled flasks with straight neck

Made of DURAN®. Neck-Ø 38 mm, for Erlenmeyer CAP caps K395.1-K397.1. Flask for culture media with three integrated baffles for better mixing. Ideal for cultivating *S. cerevisiae* and aerobic bacteria cultures. Autoclavable.

*Narrow neck flask with flanged edge, cannot be used with Erlenmeyer CAP caps.

Volume (ml)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	64	114	LY94.1	1	34,30
250	85	149	LY95.1	1	37,75
500	105	183	LY96.1	1	35,95
1000	131	232	LY97.1	1	49,80
2000	166	305	LY98.1	1	67,65
5000*	220	365	PK29.1	1	124,70



 121°C

Erlenmeyer-CAP-caps

Made of aluminium, colour anodized. For Erlenmeyer and culture flasks with straight neck, Ø 38 mm. Springs grip the outer wall of vessel. Use a neutral cleaner only. Temperature stable up to 140 °C. Autoclavable.

for glasses with Ø (mm)	Colour	Art. No.	Pack Qty.	€
37/39	silver	K395.1	10	37,65
37/39	blue	K396.1	10	37,65
37/39	red	K397.1	10	37,65

► RBS®-Neutral T for cleaning, see p. 1064



Material
DURAN®
 121°C

Rotilabo®-erlenmeyer flasks with baffles

Made of DURAN®. With screw caps made of PBT and PTFE-coated sealings. Flask for culture media with three integrated baffles for better mixing. Particularly excellent for cultivating *S. cerevisiae* (do not close cap tightly).

Volume (ml)	Largest outer Ø (mm)	Thread	Height (mm)	Art. No.	Pack Qty.	€
100	64	GL 25	109	LK17.1	1	34,20
250	85	GL 32	149	LK18.1	1	34,10
500	105	GL 32	180	LK19.1	1	36,45
1000	131	GL 32	225	LK20.1	1	51,10

Membrane screw caps

Made of PP. With welded PTFE-membrane. Nominal pore size 2.5 µm. The caps can be screwed tightly on the laboratory glass bottles while autoclaving. Steam autoclavable to max. +140 °C.

Thread	Art. No.	Pack Qty.	€
GL 32	LY43.1	5	22,30




Material
DURAN®
 121°C

Erlenmeyer baffled flasks

Made of DURAN®. With diaphragm screw caps (GL 45 thread) and graduations. Four baffles on the bottom create a turbulent flow, enlarge gas exchange surface area and thus increase oxygen intake. Automated production ensures a reproducible flask geometry and consistent results. High wall thickness for tagged mechanical stability. With retrace code. Temperature stable up to +140 °C. Autoclavable.

Volume (ml)	Largest outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
250	81	145	PK16.1	4	64,60
500	105	180	PK17.1	4	72,40
1000	136	221	AEP1.1	1	23,10

Culture stoppers and caps



Programme extension!



Rotilabo®-culture plugs

Made of cellulose. Air permeable, bacteria filtering plug, ideal for the incubation of plant or bacteria cultures and for the sterilisation of culture media. Autoclavable up to 200 °C.

Fitting chart for Rotilabo®-culture plugs:

Vial type	Matching Rotilabo®-culture plug
Narrow neck Erlenmeyer flask, 25 - 100 ml	PC22.1
Narrow neck Erlenmeyer flask, 200 - 500 ml	PC24.1
Narrow neck Erlenmeyer flask, 1000 ml	PC29.1
Narrow neck Erlenmeyer flask, 2000 - 5000 ml	PC31.1
Wide neck Erlenmeyer flask, 25 ml	PC25.1
Wide neck Erlenmeyer flask, 50 - 100 ml	PC24.1
Wide neck Erlenmeyer flask, 200 - 1000 ml	PC31.1
Straight neck culture flask Ø 38 mm	PC27.1
Erlenmeyer flask, NS 14/23	PC17.1
Erlenmeyer flask, NS 19/26	PC20.1
Erlenmeyer flask, NS 29/32	PC23.1
Erlenmeyer flask, NS 45/40	PC29.1

Size	for inner Ø (mm)	Bottom Ø (mm)	Upper Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
8 P	7,5-11,0	7,5	12,5	30,0	PC16.1	1000	33,80
9 P	9,0-10,5	8,5	12	31,0	CTC8.1	2000	61,85
13	12,0-14,5	11,0	16,0	36,5	PC17.1	1000	33,00
14	13,0-14,5	11,5	16,5	40,0	PC18.1	1000	33,00
14 P	12,0-14,0	11,0	17,0	37,0	CTC9.1	1000	37,45
15 P	14,0-16,5	13,0	20,0	39,0	PC19.1	1000	39,60
16	16,5-18,0	15,5	20,0	39,0	PC20.1	1000	52,15
17	13,0-16,0	11,5	18,5	34,0	CTE0.1	1000	47,85
18 D	17,5-19,5	16,5	22,0	36,5	PC21.1	1000	43,55
20 P	19,0-22,5	18,5	25,0	39,0	PC22.1	500	53,25
26	25,0-27,0	24,0	27,5	42,0	PC23.1	2000	179,55
27	27,0-32,5	24,0	35,0	54,0	PC24.1	1500	197,80
29	28,5-31,0	27,5	33,0	63,0	PC25.1	1200	174,15
32 P	31,0-33,5	31,0	45,5	55,5	PC26.1	850	176,30
32	32,5-35,0	31,0	36,0	61,0	PC27.1	1000	177,40
34	33,5-36,0	33,0	37,0	61,5	PC28.1	900	167,70
37	37,5-41,5	38,0	47,0	60,0	CTE1.1	400	106,45
38	40,0-45,5	38,0	49,0	61,0	PC29.1	650	159,10
40 P	43,0-46,0	42,0	52,0	50,0	PC30.1	650	241,90
45 P	44,0-48,0	44,0	60,0	65,0	PC31.1	370	172,00
60 P	58,0-66,0	56,0	71,0	68,0	PC32.1	250	231,15



Silicone sponge plugs

Made of silicone rubber with regular pores, ideal for the preparation and sterilization of culture media, as well as the cultivation of aerobic micro-organisms. Good air permeability with low evaporation, ideal for long-term culture tests. Washable and reusable. Dry sterilizable up to 180 °C, autoclavable.

Bottom Ø (mm)	Upper Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
9	12	30	NN15.1	10	29,15
11	15	20	NN16.1	10	35,05
13	17	40	0599.2	10	35,30
15	19	42	0606.2	10	38,85
18	22	45	0607.2	10	41,30
22	32	60	0615.2	10	55,80
30	42	90	NN17.1	10	203,20
40	52	100	0616.2	10	170,95



Rotilabo®-ready-to-use cellulocotton stoppers

For test tubes, flasks, smoothing coiled.

Bottom Ø (mm)	Upper Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
6,5	9,5	18,5	E336.1	1000	22,05
8	12	23	4512.1	1000	25,50
8	13,5	31	E337.1	1000	31,75
10,5	15	29	E338.1	1000	34,20
14	16	23	E339.1	1000	32,25
13	19	35	4514.1	1000	45,90
13,5	17	37,5	E340.1	1000	47,45
18	22	32	4515.2	500	29,35
14,8	21,5	41	E341.2	800	52,05
14	22	34,5	E342.1	1000	56,90
27	30	35	E343.1	500	64,50
21,5	32	60	E344.2	200	40,45
34	44	60	E345.1	250	95,15
41	49,5	79	E346.1	100	53,55

Culture stoppers and caps



LABOCAP-caps without handle

Made of aluminium, colour anodized. Chrome-nickel steel springs clamp against the outer wall of the vessel. Use a neutral cleaner only. Temperature stable up to 140 °C. Autoclavable.

Silver

for glasses with Ø (mm)	Art. No.	Pack Qty.	€
9/10	LL88.1	100	80,65
12/13	K375.1	100	84,95
14/15	K376.1	100	102,15
15/16	K377.1	100	91,40
17/18	K378.1	100	95,70
19/20	K379.1	100	102,15
21/23	LN27.1	100	166,65
24/26	K381.1	100	203,20
28/30	K382.1	100	213,95

Blue

for glasses with Ø (mm)	Art. No.	Pack Qty.	€
12/13	K385.1	100	84,95
14/15	LN10.1	100	102,15
15/16	K387.1	100	91,40
17/18	K388.1	100	95,70
19/20	K389.1	100	102,15
21/23	LN28.1	100	166,65
24/26	LN30.1	100	203,20

Red

for glasses with Ø (mm)	Art. No.	Pack Qty.	€
12/13	K390.1	100	84,95
15/16	K392.1	100	91,40
17/18	K393.1	100	95,70
19/20	LN21.1	100	102,15
24/26	LN31.1	100	203,20

Yellow

for glasses with Ø (mm)	Art. No.	Pack Qty.	€
12/13	LL91.1	100	84,95
15/16	LN11.1	100	91,40
17/18	LN16.1	100	95,70
19/20	LN22.1	100	102,15

Green

for glasses with Ø (mm)	Art. No.	Pack Qty.	€
12/13	LN06.1	100	84,95
15/16	LN12.1	100	91,40
17/18	LN17.1	100	95,70
19/20	LN23.1	100	102,15

Brown

for glasses with Ø (mm)	Art. No.	Pack Qty.	€
15/16	LN13.1	100	91,40
17/18	LN18.1	100	95,70
19/20	LN24.1	100	102,15

Black

for glasses with Ø (mm)	Art. No.	Pack Qty.	€
12/13	LN08.1	100	84,95
15/16	LN14.1	100	91,40
17/18	LN19.1	100	95,70

Violet

for glasses with Ø (mm)	Art. No.	Pack Qty.	€
12/13	LN09.1	100	84,95
15/16	LN15.1	100	91,40
17/18	LN20.1	100	95,70

► RBS®-Neutral T for cleaning, see p. 1064



LABOCAP-caps with gripping knob

Made of aluminium, colour anodized. Chrome-nickel steel springs grip the outer wall of the vessel. Use a neutral cleaner only. Temperature stable up to 140 °C. Autoclavable.

for glasses with Ø (mm)	Colour	Art. No.	Pack Qty.	€
15/16	silver	K363.1	100	117,20
17/18	silver	K364.1	100	123,65
15/16	blue	K367.1	100	117,20
17/18	blue	K368.1	100	123,65
15/16	red	K371.1	100	117,20
17/18	red	K372.1	100	123,65



Plastic caps

Made of PP. For test tubes, culture vials and straight-neck Erlenmeyer flasks. Autoclavable.

Outer Ø (mm)	Art. No.	Pack Qty.	€
13	CXK0.1	1000	87,10
16	CXK1.1	1000	89,70
18	CXK2.1	1000	93,20
20	CXK3.1	1000	85,50
25	CXK4.1	500	134,40
38	CXK5.1	250	145,15



Petri dish revolving tables

For smoothing out liquids evenly on agar surfaces in Petri dishes.

Technical specifications:

Model	① Petriturn-M	② Petriturn-E
Operation	manual	electric drive
Housing material	-	Stainless steel
Special features	- Strong drive and long running due to high mass of the rotary disc - Can be used on both sides	- Non-contact operation of rotary disc via sensor with automatic switch-off (3 s to 2 min) - Continuous operation possible
Foot switch-control	-	Can also be operated via foot switch (please order separately ③)
Suitable for petri dishes up to:	Ø 100 mm, or to Ø 150 mm by simply turning over	to Ø 100 mm (Please order attachment for up to Ø 150 mm separately ④)
Speed control	-	10 to 100 min ⁻¹ , continuously variable
Voltage supply	-	Power unit 12 V DC / 5 VA
Dimensions Ø x H (mm)	160 x 45	160 x 70
Weight	2.3 kg	approx. 1 kg

Type	Art. No.	Pack Qty.	€
① Petriturn-M	N962.1	1	181,70
② Petriturn-E	HT52.1	1	381,65

Accessories:

③ Foot switch (Petriturn-E)	HT53.1	1	57,95
④ Rotary disc attachment for petri dishes Ø 150 mm (Petriturn-E)	HT54.1	1	61,30



Petri dish revolving tables sensorturn

By WLD-TEC. Sensor-controlled. For uniform and individual inoculation / plating of Petri dishes. Stainless steel enclosure. Stainless steel revolving plate with silicone insert, for Petri dishes with a diameter of max 103 mm (optional max Ø 150 mm, not included in delivery, please order separately). Revolving plate can be switched on/off with hand movement via non-contact IR-sensor technology or optionally with foot switch (not included in delivery, please order separately). UV-resistant. Can be burnt.

Technical specifications:

Type	① sensorturn	② sensorturn pro
Speed control, infinitely variable	14 to 120 min ⁻¹	14 to 210 min ⁻¹
Detection range IR-sensor	5 to 50 mm, adjustable	
Revolving time	adjustable from 1 m 1 to 25 s or permanent operation	
Power supply	10 V DC / 6 VA	
Protection class	II	
Dimensions (L x W x H)	103 x 60 x 150 mm	

Delivery incl. power unit.

Type	Art. No.	Pack Qty.	€
① Petri dish revolving table sensorturn	AP09.1	1	284,90
② Petri dish revolving table sensorturn pro	KA27.1	1	330,05

Accessories:

Foot switch made of stainless steel (cable length 3 m)	AN88.1	1	42,70
Stainless steel revolving plate for Petri dishes Ø 150 mm	KA28.1	1	49,70
Cordless radio-controlled foot switch made of stainless steel	KA29.1	1	116,10
Tray e.g. for 3 inoculating loops or Drigalski spatulas	KA30.1	1	28,50



Tissue culture/Microbiology



Colony counter SC6 PLUS

By Stuart. For fast and exact counting of bacterial colonies in Petri dishes.

- Counting is initiated by pressing down on the Petri dish with any pen
- Pressure sensitivity is individually adjustable
- Confirmation of count by audible signal (optional)
- With integrated average counter for evaluating up to 99 Petri dishes
- Optional light or dark background (dark background aids counting translucent colonies)
- With non-reflective LED lighting
- Three-digit LED display
- Connectivity to PC or printer
- With antimicrobial BioCote® surface coating

Technical specifications:

Digital display	0-999
Ambient temperature range	+5 to +40 °C
Dimensions (W x D x H)	310 x 300 x 140 mm
Weight	1.5 kg
Power supply	230 V, 50 Hz

Delivery incl. 2 Wolffhügel grids and 2 reducer rings (centring aids) for Petri dishes 50-90 mm in diameter, USB cable (1 m long). Please order magnifying glasses for counting microscopic colonies and printer separately.

Type	Art. No.	Pack Qty.	€
Colony counter SC6 PLUS	EN38.1	1	749,00

Accessories:

Printer for colony counter SC6 PLUS	TK05.1	1	529,00
Printer paper	TK06.1	1	26,60
Magnifying glass, 1.7x magnification (with flexible swan neck stand)	EN39.1	1	81,50
Magnifying glass, 3x magnification (with fixed stand arm)	EN40.1	1	103,00
Clear protective covers	EN43.1	5	41,70
Replacement Wolffhügel grid	EN41.1	10	69,50
Replacement Petri dish holder	TK07.1	1	31,70
Replacement reducer rings (centring aids)	EN42.1	2	26,20

► Manual counters see page 822



Hand-held colony counters

Battery-operated pen for counting and marking colonies.

- Acoustic or visual signal registers counting process
- Count up/down function
- Locking key to switch off counting function
- For counting up to 32 plates
- With totalling function

Delivery incl. pen, stand and battery (3 V, Type: CR 1220).

Art. No.	Pack Qty.	€
KN08.1	1	310,70

Accessories:

Spare pens, black	KN09.1	12 per pack	37,55
Spare pens, sorted	XT85.1	8	32,15
Button cell battery CR 1225 (3 V)	AEC3.1	1	5,35



Stand magnifier and mini light panel

Stand magnifier

With swivel-mounted plastic lens, **magnification 1.75x**. Lens size 140 x 100 mm, frame height 185 mm. Use with mini light panel NL24.1 is optional.

Art. No.	Pack Qty.	€
NL23.1	1	92,45

Mini light panel

Battery-operated. Dimensions: housing L 161 x W 135 x H 44 mm, illuminated surface L 127 x W 100 mm.

Use with stand magnifier NL23.1 is optional.

Delivery incl. 4 Mignon (1.5 V) batteries.

Art. No.	Pack Qty.	€
NL24.1	1	130,10

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Petri dishes and accessories



Rotilabo®-stands for petri dishes

Made of PP. For Petri dishes with Ø 90-94 mm. Robust, stable design with rounded edges. Clips on the end rods of the stand enable a card to be attached to identify the stand. Dimensions: L 294 x W 100 x H 172 mm. Autoclavable.

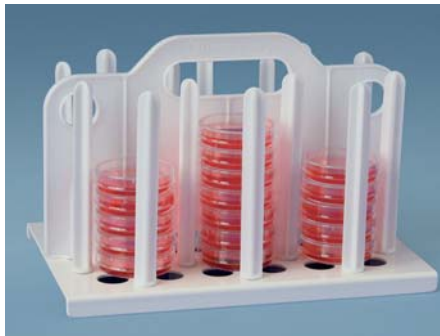
Number of Petri dishes	Colour	Art. No.	Pack Qty.	€
3 x 10	natural	K120.1	1	52,65
3 x 10	red	K121.1	1	59,05
3 x 10	blue	K122.1	1	59,05



Rotilabo®-stands for petri dishes

For petri dishes with 100 mm Ø. Stacking height 230 mm, overall height 250 mm, inner Ø 102 mm, outer Ø 120 mm excl. handle, 137 mm incl. handle. Stand made of high grade steel are autoclavable.

Material	Art. No.	Pack Qty.	€
Steel, PE-coated (not autoclavable)	L057.1	1	20,40
High grade steel, electropolished	L058.1	1	27,35



Stand for Ø 60 mm Petri dishes

Made of PP, powder coated steel base. With carry handle. For Petri dishes with Ø max. 60 mm. Capacity: max. 54 Petri dishes in 6 stacks. Dimensions: L 267 x W 171 x H 171 mm. Autoclavable.

Art. No.	Pack Qty.	€
CXP2.1	1	83,85



Stand for Ø 60 mm Petri dishes

Made of powder coated steel. For Petri dishes with Ø max. 72 mm. Autoclavable.

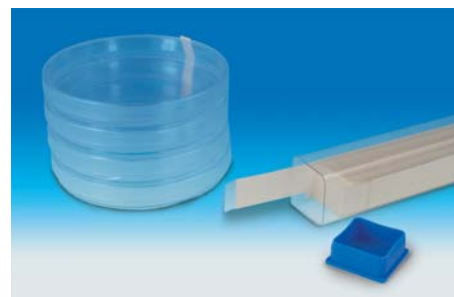
Number of Petri dishes	L x W x H (mm)	Art. No.	Pack Qty.	€
1 x 10	82 x 82 x 140	CXP3.1	1	32,80
3 x 10	82 x 246 x 140	CXP4.1	1	73,10



Sealing tape for petri dishes

Elastic, self-adhesive. As well for microtest plates, bottles, cans, etc. Excellent alternative to heat-shrinkable sleeves. Prevents water loss, gas diffusion and contamination. Waterproof and resistant to most solvents. Flexible even under low temperatures (-30 °C). Temperature stable from -40 to +77 °C (for a short time stable to +100 °C). Thickness 0.13 mm, width of roll 13 mm, length of roll 33 m.

Colour	Art. No.	Pack Qty.	€
transparent	K427.1	1	50,45
white	K428.1	1	50,45
red	K429.1	1	50,45
yellow	K430.1	1	50,45
blue	K431.1	1	50,45



Sealing tapes for petri dishes, gas permeable

Polyurethane based, elastic, self-adhesive. Ideal for cultivating aerobic bacteria, yeast cultures or plant seedlings.

- Safe sealing of Petri dishes
- Prevents contamination
- Even exchange of oxygen and carbon dioxide

Temperature stable from -80 to +100 °C.
Dimensions: L 282.58 x W 15.88 mm.

Art. No.	Pack Qty.	€
AEA2.1	100	79,50

Petri dishes and accessories



Rotilabo®-petri dishes

Two pieces. Manufactured from hydrolytic class 3 soda-lime-glass using a countersinking process. Dimensions: Ø 100 x H 20 mm. Autoclavable.

Art. No.	Pack Qty.	€
0690.1	18	36,50



DUROPLAN® petri dishes

Two pieces. Acc. to DIN 13132. Made from DURAN® in a special production process, microscopically flat and free from bubbles and streaks. Dishes enable an even distribution of culture media and have a distortion-free transparency. Autoclavable.

Outer Ø (mm)	Height (mm)	Height incl. lid (mm)	outer Ø base (mm)	Art. No.	Pack Qty.	€
60	20	22	54,5	K608.1	10	98,70
80	20	22	74	K609.1	10	101,00
100	15	17	94	K610.1	10	107,00
100	20	22	94	K611.1	10	105,00
120	20	22	114	K612.1	10	113,00
150	27	32	143	K613.1	10	178,00

STERIPLAN® petri dishes

Two pieces. Made of soda-lime glass. Autoclavable.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
40	12	T937.1	10	12,30
60	15	T938.1	10	12,30
80	15	T939.1	10	12,85
90	15	PY88.1	10	13,15
100	10	T940.1	10	13,85
100	15	T941.1	10	13,85
100	20	T942.1	10	13,85
120	20	T943.1	10	21,60
150	25	T944.1	10	34,00
180	30	T945.1	10	70,30
200	30	T946.1	10	93,10
200	45	T947.1	10	104,00



Petri dishes, standard version

By Greiner Bio-One. Made of **PS**, transparent. **Sterile** or non-sterile. Flat stacking surfaces ensure high dimensional stability. Versatile: has a wide range of uses in microbiology and bacteriology. Ideal for microscopy.

Available in two versions:

- With vents to ensure optimal gas exchange.
- Without vents, for long incubation periods at 37 °C

Sterile (gamma-sterilised)

Ø (mm)	Height (mm)	Type	Art. No.	Pack Qty.	€
35	10	with vents	XH88.1	740 (74 x 10)	178,45
60	15	with vents	XH89.1	600 (30 x 20)	137,60
94	16	without vents	EN16.1	480 (24 x 20)	85,60
94	16	with vents	ALA5.1	480 (24 x 20)	70,95
145	20	with vents	XH90.1	120 (8 x 15)	89,05

Produced under aseptic conditions

Ø (mm)	Height (mm)	Type	Art. No.	Pack Qty.	€
35	10	with vents	EL46.1	740 (74 x 10)	145,15
60	15	with vents	EL47.1	600 (30 x 20)	77,65
94	16	with vents	EL48.1	480 (24 x 20)	55,40
94	16	without vents	EL45.1	480 (24 x 20)	51,85
145	20	with vents	EL49.1	120 (8 x 15)	57,65

Petri dishes, heavy-duty version

By Greiner Bio-One. Made of **PS**, transparent. **Sterile** or non-sterile. Flat stacking surfaces ensure high dimensional stability. Versatile: has a wide range of uses in microbiology and bacteriology. Optimised for use in automatic systems and higher temperature stability when working with hot agar. Ideal for microscopy.

Available in two versions:

- With vents to ensure optimal gas exchange.
- Without vents, for long incubation periods at 37 °C

Sterile (gamma-sterilised)

Ø (mm)	Height (mm)	Type	Art. No.	Pack Qty.	€
94	16	with vents	PX81.1	480 (24 x 20)	107,30
94	16	without vents	PX82.1	480 (24 x 20)	122,55

Produced under aseptic conditions

Ø (mm)	Height (mm)	Type	Art. No.	Pack Qty.	€
94	16	with vents	PX83.1	480 (24 x 20)	61,20
94	16	without vents	PX84.1	480 (24 x 20)	67,75

Petri dishes and accessories



Petri dishes

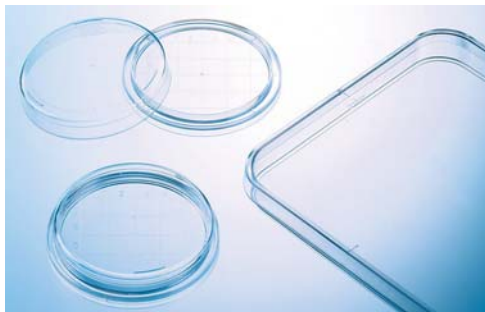
Made of **PS**, transparent. **Sterile** (gamma-sterilised). Flat surfaces for reproducible agar filling levels. Temperature stable up to 55 °C. Versatile: has a wide range of uses in microbiology and bacteriology. 25 mm high Petri dishes are ideal for the germination of plant seeds.

Available in two versions:

- With vents to ensure optimal gas exchange
- Without vents, for long incubation periods at 37 °C

Ø (mm)	Height (mm)	Type	Art. No.	Pack Qty.	€
90	14	with vents	N221.2	825 (25 x 33)	113,95
90	14	without vents	TA19.1	825 (25 x 33)	123,65
90	25	with vents	NP90.1	500 (50 x 10)	238,65
55	15	with vents	N223.2	1620 (108 x 15)	172,00
55	15	without vents	N224.2	1620 (108 x 15)	170,95

► Nutrient media see chapter Life Science!



Contact dishes

By Greiner Bio-One. Made of **PS**, transparent. **Sterile** (gamma-sterilised). For detecting microorganisms and testing the effectiveness of cleaning and disinfection on flat surfaces using contact cultures.

Dimensions: Ø 65 x H 15 mm.

- Optimised dish design produces a meniscus on the surface of the agar when the contact dish is filled
- Optionally available with vents for improved gas exchange, or without vents
- Graduated and divided into 10 mm squares to allow quick and easy analysis

Type	Filling capacity (ml)	Art. No.	Pack Qty.	€
with vents	12,5	PX85.1	600 (30 x 20)	181,70
without vents	13,5	PX86.1	600 (30 x 20)	153,75

► Sterile ready-to-use agar carrier Roti®-DipSlides see section Life Science!



Quadratic petri dishes

By Greiner Bio-One. Made of **PS**, transparent. **Sterile** or unsterile. For multi-purpose use in microbiology and bacteriology. Can be stacked easily. With ventilation cams. Dimensions: L 120 x W 120 x H 17 mm.

Sterile (gamma-sterilised)

Art. No.	Pack Qty.	€
PX67.1	240 (24 x 10)	160,20

Produced under low-germ conditions

Art. No.	Pack Qty.	€
EL50.1	240 (24 x 10)	156,95



Square petri dishes with grid

Made of **PS**. **Sterile**. Ideal for phage typing, colony counting etc. With 13 mm grid on bottom, alphanumeric identification markings. With vents to avoid condensation.

Dimensions: L 100 x W 100 x H 15 mm, volume 110 ml.

Art. No.	Pack Qty.	€
AEL9.1	500 (50 x 10)	206,40



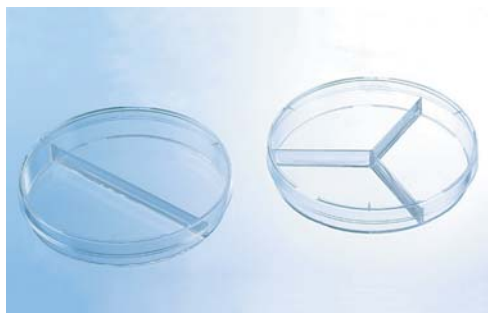
Petri dishes

Made of **PS**. **Sterile**. Stackable, tight-sealing and therefore suitable for long incubation times without drying out. Lid with matt white labelling space and projecting edge for single-handed opening. For use with filter paper Ø 47 mm. Optionally available with absorptive paper, e.g. for cultivating plant seedlings.

Dimensions: Ø 50 mm x H 9 mm.

Type	Art. No.	Pack Qty.	€
without absorptive paper	AEN0.1	500 (25 x 20)	106,45
with absorptive paper	AEN1.1	500 (25 x 20)	117,20

Petri dishes and accessories



Subdivided petri bowls

By Greiner Bio-One. Made of **PS**, transparent. Produced under almost germ-free conditions. For multi-purpose use in microbiology and bacteriology labs. Can be stacked easily. With ventilation cams. Dimensions: Ø 94 x H 15 mm.

Type	Volume/Well (ml)	Art. No.	Pack Qty.	€
subdivided in 2 sections	20	EP50.1	480 (24 x 20)	87,00
subdivided in 3 sections	12	EP51.1	480 (24 x 20)	88,90



Petri dishes with partitions

Made of **DURAN®**. Pressed. Acc. to DIN 12339. Dimensions: Ø 100 x H 20 mm. Autoclavable.

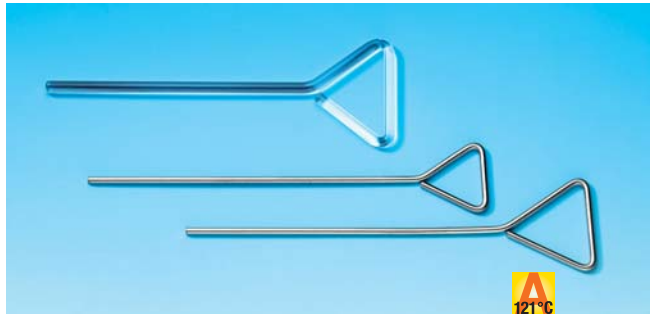
Type	Art. No.	Pack Qty.	€
with 2 partitions	T948.1	10	86,00
with 3 partitions	T949.1	10	86,00
with 4 partitions	T950.1	10	86,00



Rotilabo®-petri dishes, stainless steel

Made of 18/10 stainless steel. Autoclavable.

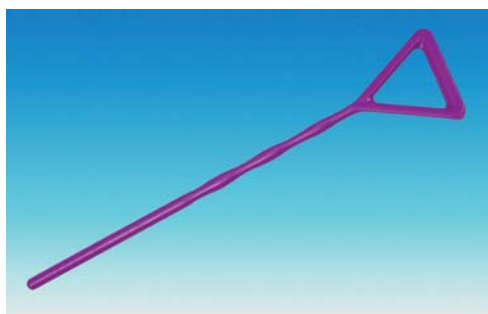
Outer Ø (mm)	Height without lid (mm)	Art. No.	Pack Qty.	€
60	20	YT00.1	1	11,30
75	20	YT01.1	1	13,45
90	20	YT02.1	1	16,10
100	15	YT03.1	1	33,25
120	20	YT04.1	1	24,65



Drigalski spatulas

Made of stainless steel (Remanit 4301) or soda-lime glass. Ideal for even distribution of bacterial substances on solid nutrient media. Also suitable as stirrer. Autoclavable.

Material	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
Stainless steel	165	30	K732.1	1	4,00
Stainless steel	165	40	AL98.1	1	4,55
Glass	145	50	T724.1	1	4,15
Glass	145	50	T724.2	10	32,40



Bacterial cell spreaders Delta™

Made of **ABS**. **Sterile** (packed individually). With smooth surface, prevents scratching of agar surfaces. Delta-shaped head distributes the contact pressure evenly for a smooth application. Dimensions: L 172 x W 37 x Ø 4 mm.

Art. No.	Pack Qty.	€
PC59.1	500	87,10



Bacterial cell spreaders

Made of **PS**. **Sterile** (packed individually). To easily spread out cells on agar plates. Dimensions: L 171 x W 36 mm.

Art. No.	Pack Qty.	€
AY19.1	100	84,95



L-shaped bacterial cell spreaders

Made of **ABS. Sterile**. With smooth surface, prevents scratching for agar surfaces. Dimensions: L 146 x W 38 x Ø 4 mm.

Packaging	Art. No.	Pack Qty.	€
individually wrapped	PC57.1	500	78,50
50 x 10	PC58.1	500	75,25



①



②

① Needle holder

Acc. to Kolle. With aluminium upper part and plastic handle. Length 240 mm.

Art. No.	Pack Qty.	€
6189.1	1	9,60

② Inoculating loops, needles and lancets

Made of heat conducting Ni Cr 80 20 wire. Temperature stable up to 1200 °C. Length 50 mm, wire Ø 0.6 mm. Autoclavable.

Type	Art. No.	Pack Qty.	€
loops-Ø 1.5 mm	6163.1	10	10,25
loops-Ø 2.5 mm	6173.1	10	10,65
loops-Ø 4.0 mm	6174.1	10	11,75
needles	6183.1	10	8,10
lancets	6181.1	10	9,90



Rotilabo®-inoculating loop holder

Made of stainless steel. Loops are fixed with union nut. For inoculating loops with wire-Ø 0.6-1.0 mm. Set sorted by colour: blue, yellow, red, black. Length: 245 mm. Autoclavable at 121 °C.

Type	Art. No.	Pack Qty.	€
Inoculating loop holder set	KL97.1	4	50,45

Accessories: Rotilabo®-inoculating loops

Made of **special stainless steel**. Wire-Ø 0.6 mm.

Delivery without inoculating loop holder, please order separately.

Type	Art. No.	Pack Qty.	€
Loop Ø inside 1 mm	KL98.1	10	25,30
Loop Ø inside 3 mm	KL99.1	10	25,30
Loop Ø inside 5 mm	KN00.1	10	25,30

Made of **platinum/iridium**. Wire-Ø 0.6 mm.

Delivery without inoculating loop holder, please order separately.

Type	Art. No.	Pack Qty.	€
Loop Ø inside 1 mm	KN01.1	1	96,75
Loop Ø inside 3 mm	KN02.1	1	96,75
Loop Ø inside 5 mm	KN03.1	1	96,75

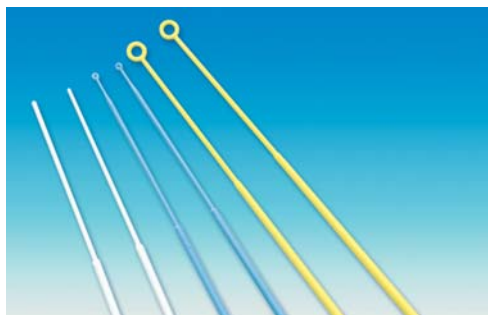


Disposable inoculation loops

Made of **PS. Sterile**. With flat, grooved handle for safe handling. Inoculation loop volume 1 µl or 10 µl, each with inoculation needle on other end. Length 195 mm.

Type	Colour	Art. No.	Pack Qty.	€
1 µl	neutral	CPX4.1	500 (25 x 20)	41,40
10 µl	blue	CPX5.1	500 (25 x 20)	41,40

Tissue culture/Microbiology - accessories



Disposable inoculation loops and needles

Precision-moulded from **PS. Sterile**. The loops are smooth, flexible and enable inoculation in clear streaks. Needles can be used for intradermal inoculation in all types of culture media as well as colony picking. Length 227 mm. Subpacked in resealable pressure lock bags, individually packed inoculation loop in disposable packaging made of paper/plastic.

Type	Colour	Packaging	Art. No.	Pack Qty.	€
Inoculation loop, 1 µl	blue	250 x 1	AEL0.1	250	101,05
Inoculation loop, 1 µl	blue	100 x 10	EA88.1	1000	85,80
Inoculation loop, 1 µl	blue	40 x 25	EA89.1	1000	72,60
Inoculation loop, 10 µl	yellow	250 x 1	AEL1.1	250	101,05
Inoculation loop, 10 µl	yellow	100 x 10	EA90.1	1000	85,95
Inoculation loop, 10 µl	yellow	40 x 25	EA91.1	1000	72,60
Needles	white	250 x 1	AEL2.1	250	101,05
Needles	white	100 x 10	EA92.1	1000	85,95
Needles	white	40 x 25	EA93.1	1000	72,60

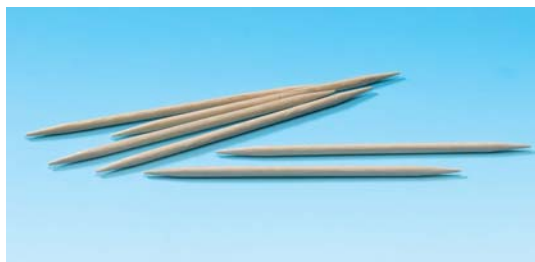
- To purchase nutrient media, go to the Life Science chapter part Microbiology!



Rotilabo®-cotton buds

With cotton tip. **Sterile** (ETO-gas sterilized, individually wrapped) or unsterile. Ideal for hygiene, cleaning or laboratory applications.

Supports	Type	Head Ø (mm)	Handle L x Ø (mm)	Art. No.	Pack Qty.	€
Wood	unsterile	4-5,5	150 x 2,2	EH11.1	100	3,45
Wood	sterile	4-5,5	150 x 2,2	EH12.1	100	11,30
Wood	unsterile	10-12	200 x 3	XL54.1	50	8,55
Aluminium	sterile	2	150 x 1	XL55.1	100	24,20
PP	sterile	4-5,5	150 x 2,5	XL56.1	100	13,95
PP	sterile	10-12	150 x 4,7	XL57.1	100	21,45



Toothpicks

Made of polished wood with two tips. Come loose in dispenser. Dimensions: Length 78.4 mm, Ø 2.2 mm, Ø at tip 0.8 mm.

Art. No.	Pack Qty.	€
EC48.1	1000	4,00



Sterile applicators

Made of wood, with cotton tip. **Sterile**. Fitted in **PP** tubes, with **HDPE** screw cap. Volume 13 ml. Dimensions: Ø 16 x H 100 mm.

Art. No.	Pack Qty.	€
XC10.1	100	21,00



Plastic applicators

Sterile, individually packed Mounted in tube, with stopper plug and label. Dimensions: Ø 12 x L 165 mm.

Lid colour	Art. No.	Pack Qty.	€
white	CHC3.1	100	21,30
red	CHC4.1	100	21,10

Tissue culture/Microbiology - accessories



Electroporation cuvettes

Cuvette made of **PC**, electrodes made of **aluminium**. Manufactured under clean-room conditions, individually packed. In 3 column widths, 1, 2 and 4 mm. Colour-coded lids according to column width. Compatible with most electroporation systems (Bio-Rad®, BTX®, Invitrogen®, Eppendorf and Kodak®/IBI®), and many more.

Column width (mm)	Lid colour	Art. No.	Pack Qty.	€
1	orange	PP38.1	50	160,20
2	green	PP39.1	50	160,20
4	black	PP40.1	10	37,65



Clone Transfer Disks

Made of filter paper, round. **Sterile** (gamma-sterilised). RNases and DNase free. For quick and easy transfer of clones to 24-well microtitration plates. Minimise cross-contamination and drying-out of clones. Packed into colour-coded tubes.

Ø (mm)	Colour code	Art. No.	Pack Qty.	€
3.2	white	YA82.1	100 (2 x 50)	54,85
4.8	blue	YA83.1	100 (2 x 50)	54,85
6.4	red	YA84.1	100 (2 x 50)	54,85



Clone cylinders

Made of **PS**, **sterile**. For isolating clones or for singling out cells or cell groups. Conical cylinder flared at lower edge for good contact with dish surface.

To isolate a clone, the base of the cylinder is coated with a thin grease film (e.g. sterile silicone oil) in order to ensure better sealing. The silicone side cylinder is placed over the selected clone. After adding a small quantity of Trypsin/EDTA and a short incubation period at 37 °C, the cells separate and can be transferred to other vessels.

Clone cylinders – S/M/L

Size	Inner Ø (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
Small	4,7	7 x 8	YA78.1	50 (5 x 10)	76,90
Medium	6,4	8.5 x 9,5	YA79.1	50 (5 x 10)	80,30
Large	9,5	12 x 13	YA80.1	50 (5 x 10)	101,95

Clone cylinder assortment

All sizes, sorted into bags of 10.

Art. No.	Pack Qty.	€
YA81.1	120 (4 x 30)	32,05



Quick-change chuck and pestle

Cone-shaped pestle made of autoclavable **PP**, quick change chuck made of stainless steel. Fits all standard laboratory-stirrers. Reusable.

Pestle-dimensions: Overall length 70 mm. Shaft-Ø 4.9 mm. Cone can reduce from 6 to 2.5 mm, cone length 10 mm.

Pestle can be changed when motor is running:

Vessel can be held with one hand and pestle changed with the other.

Quick-change chuck suitable for all chucks that fit an 8 mm clamp.

Type	Art. No.	Pack Qty.	€
Quick-change chuck	P986.1	1	74,75
PP-pestle	P987.1	10	30,65



Micro-homogenizers

Made of **PP**. Conical form. Autoclavable. For homogenizing cells and tissue in centrifuge tubes and test tubes. Overall length 206 mm. Shaft-Ø 5 mm. Cone can reduce from 8.2 to 2.9 mm, cone length 18 mm. Rounded base.

Art. No.	Pack Qty.	€
K994.1	6	25,20

Homogenisers and pestles



Micro pestles

Made of PP. For homogenising cells and tissue in reaction vials by hand or using laboratory stirrers. Length 70 mm. Autoclavable.

For reaction vials	Type	Art. No.	Pack Qty.	€
0.5 ml	Standard	CXH6.1	100	93,50
1.5 ml	Standard	CXH7.1	100	94,55
0.5 ml	RNase/DNase-free, pyrogen free, individually packed	CXH8.1	100	130,10
1.5 ml	RNase/DNase-free, pyrogen free, individually packed	CXH9.1	100	130,10



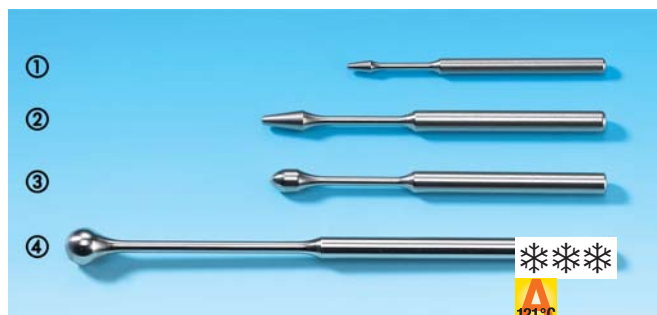
Rotilabo®-macro pestle

Made of stainless steel 1.4301. For the homogenisation of cells, tissue, foodstuffs samples and much more, manually or using laboratory stirrers. Suitable for 15 ml centrifuge tubes (e.g. Art. No. AN76.1f).

- Made from one piece and polished for a perfect fit
- Transitions are optimally designed for easy disinfection
- Tapered shank for minimal homogenate displacement
- Autoclavable

Dimensions: overall length 185 mm, handle length 100 mm. Shank Ø 8 mm (tapering to 4.5 mm), taper Ø 12 mm (tapering to 4 mm). Weight 60 g.

Art. No.	Pack Qty.	€
NH32.1	1	61,85



Rotilabo®-micro pestles

Made of stainless steel 1.4301. For homogenising cells, tissue, foodstuff samples and much more in reaction vials or reagent test tubes manually or using laboratory stirrers. Tailored from a single block and polished, perfect transitions, easy to disinfect. Tapered shank for minimal homogenate displacement. Autoclavable.

Technical specifications:

For vessels	Overall length (mm)	Handle length (mm)	Stem length (mm)	Taper length (mm)	Weight (g)
0.5 ml	94	60	26.3 (tapered from 6.0 to 3.0)	10 (tapered from 6.0 to 2.9)	16
1.5 ml	124	69	40 (tapered from 7.9 to 3.5)	17 (tapered from 7.9 to 3.5)	34
2.0 ml	120	67	40 (tapered from 8.0 to 3.5)	11.2 (tapered from 8.6 to 1.7)	35
13 ml	190	100	75 (tapered from 8.0 to 4.4)	10 (round head, Ø 15 mm)	60

Type	Art. No.	Pack Qty.	€
① For 0.5 ml vessels	YE13.1	1	25,30
② For 1.5 ml vessels	YE14.1	1	30,00
③ For 2.0 ml vessels	YE15.1	1	30,55
④ For 13 ml vessels	YE16.1	1	33,90



Rotilabo®-micro-pestle

Made of stainless steel. Ideal for homogenizing cells and tissues in 1.5 ml microcentrifuge tubes. Manufactured in one piece, no joints, no entrainment. Easy to disinfect. Minimal homogenate displacement through offset shaft. Conical shape.

Length 100 mm. Ø of shank 5 mm. Cones tapers from 8 to 4 mm over a length of 16 mm. Can be cooled to -196 °C. Autoclavable.

Art. No.	Pack Qty.	€
P985.1	1	67,75



Micro-tissue grinders

Made of borosilicate glass. With pestle. For pulverizing and homogenizing minute amounts, e.g. in histology. Autoclavable.

Type	Height (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
G 1, 10 - 25 µl	30	~4	0296.1	1	90,30
G 2, 25 - 100 µl	40	~6	0297.1	1	90,30
G 3, 100 - 1000 µl	50	~8	0298.1	1	90,30

Homogenisers and pestles



Potter-Elvehjlm homogenisers

Made of glass. For gentle disruption of soft tissue, e.g. for the extraction of cell organelles. Suitable for motor drive by laboratory stirrers.
Distance between mortar and pestle: 0.1 to 0.15 mm.

Size	Volume (ml)	Pestle L x Ø (mm)	Mortar L x Ø (mm)	Art. No.	Pack Qty.	€
19	1	145 x 5	95 x 13	CXH1.1	1	105,25
21	5	205 x 6	140 x 16	CXH2.1	1	83,10
22	8	215 x 8	150 x 18	CXH3.1	1	92,25
23	17	265 x 10	175 x 25	CXH4.1	1	96,00
24	45	315 x 10	220 x 32	CXH5.1	1	102,35



Dounce homogenisers

Made of glass. For grinding of cellular material while preserving the cell nucleus.

Delivery incl. two pestles, pestle A for coarse grinding, pestle B for fine grinding.

Volume (ml)	Length (mm)	Art. No.	Pack Qty.	€
0,5	37	CXC8.1	1	122,55
1	88	CXC9.1	1	122,55
2	60	CXE0.1	1	141,90
7	125	CXE1.1	1	127,95
15	157	CXE2.1	1	140,85
40	215	CXE3.1	1	127,95
100	232	CXE4.1	1	332,20



Homogenisers

Made of borosilicate glass.

Distance between mortar and pestle: 0.15 to 0.25 mm.

Effective capacity (ml)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2	8	120	TT57.1	1	30,65
5	12	135	TT58.1	1	34,10
10	15	150	TT59.1	1	36,35
15	16	155	TT60.1	1	37,60
30	25	175	TT61.1	1	43,65
50	32	195	TT62.1	1	52,15

Accessories: pestles for homogenisers

Head made of **PTFE**, rod made of stainless steel.

Grooves on the lower edge. Rod Ø 6.5 mm.

Effective capacity (ml)	Height (mm)	Art. No.	Pack Qty.	€
2	230	TT63.1	1	21,55
5	235	TT64.1	1	22,05
10	270	TT65.1	1	22,70
15	270	TT66.1	1	28,70
30	270	TT67.1	1	33,65
50	270	TT68.1	1	43,65



Dual homogenisers

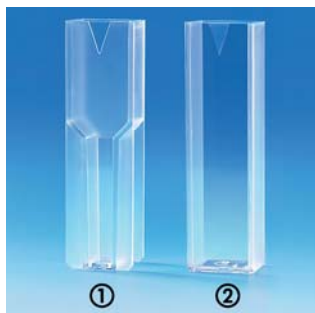
Made of glass. With tapered and cylindrical areas, for effective grinding and consistent homogenisation of tissue. Ideal for cellular tissue such as muscle, heart and lungs.

Distance between mortar and pestle: 0.1 to 0.15 mm.

Volume (ml)	Pestle L x Ø (mm)	Mortar L x Ø (mm)	Art. No.	Pack Qty.	€
1	155 x 4,5	80 x 13	CXE5.1	1	118,25
3	210 x 6	120 x 16	CXE6.1	1	118,25
5	228 x 6	150 x 18	CXE7.1	1	118,25
15	268 x 6	175 x 25	CXE8.1	1	134,40
30	305 x 10	215 x 32	CXE9.1	1	143,00
50	330 x 10	225 x 38	CXH0.1	1	182,75

- Homogenizers see page 997
- Laboratory stirrers see page 985

Cuvettes / Cuvette racks



Rotilabo®-single-use cuvettes

Made of **PS**, **PMMA** or special plastic.

- Extremely low deviation in absorbance values
- Outstanding optical transmission values
- Cavity-sorted production

Layer thickness 10 mm. Dimensions: L 12.5 x W 12.5 x H 45 mm.

Polystyrene (PS)

Range of application: 340 to 900 nm.

Type	Volume (ml)	Packaging	Art. No.	Pack Qty.	€
① Semi-micro	1,6	10 x 100	XK20.1	1000	73,05
② Macro	4,0	10 x 100	XK21.1	1000	74,15

Polymethylacrylate (PMMA)

Range of application: 300 to 900 nm.

Type	Volume (ml)	Packaging	Art. No.	Pack Qty.	€
① Semi-micro	1,6	10 x 100	XK23.1	1000	84,90
② Macro	4,0	10 x 100	XK24.1	1000	84,90

Single-use UV

For photometric measurements into the UV range.

Range of application: 220 to 900 nm.

Type	Volume (ml)	Packaging	Art. No.	Pack Qty.	€
① Semi-micro	1,6	1 x 100	XK26.1	100	28,95
② Macro	4,0	1 x 100	XK27.1	100	25,75

Single-use, solvent resistant

For substances containing polar solvents.

Range of application: 220 to 900 nm.

Type	Volume (ml)	Packaging	Art. No.	Pack Qty.	€
① Semi-micro	1,6	1 x 100	XK28.1	100	28,95
② Macro	4,0	1 x 100	XK29.1	100	25,75

Lids for single-use cuvettes

Made of **PP**. Suitable for all single-use cuvettes macro and semi-micro.

Art. No.	Pack Qty.	€
XK25.1	1000	32,05



Disposable cuvettes

By Brand. Made of **PS** or **PMMA**.

- Optically perfect transparency
- Sorted according to nest numbers to minimize extinction deviation
- Recessed windows to protect against scratching
- Arrow marks direction of irradiation

Standard-layer thickness 10 mm. Dimensions: 12.5 x 12.5 x 45 mm.

Passband: PS: 340-900 nm. PMMA: 300-900 nm.

Standard deviation:

- PS at 360 nm ≤ 0.005 extinction units.
- PMMA at 320 nm ≤ 0.004 extinction units.

Polystyrol (PS)

Type	Volume (ml)	Art. No.	Pack Qty.	€
Macro	2,5 - 4,5	Y194.1	100	11,30
Semi-micro	1,5 - 3,0	Y195.1	100	11,80

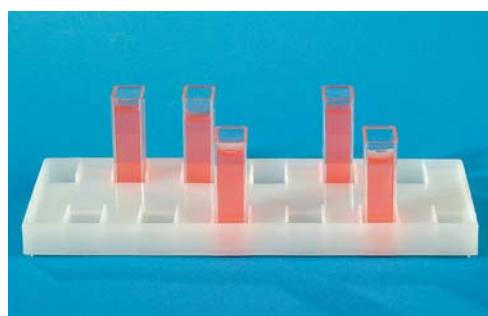
Polymethylmethacrylate (PMMA)

Type	Volume (ml)	Art. No.	Pack Qty.	€
Macro	2,5 - 4,5	Y196.1	100	13,05
Semi-micro	1,5 - 3,0	Y197.1	100	14,20

Lids for single-use cuvettes

Made of **PP**. Suitable for all single-use cuvettes macro and semi-micro.

Art. No.	Pack Qty.	€
XK25.1	1000	32,05



Rotilabo®-cuvette stand

Made of **PE**. For 12 cuvettes 10 mm thick. With staggered arrangement of holders. Low stand-depth for better observation of cuvette contents. Dimensions: L 170 x W 50 x H 15 mm.

Art. No.	Pack Qty.	€
9663.1	1	6,80



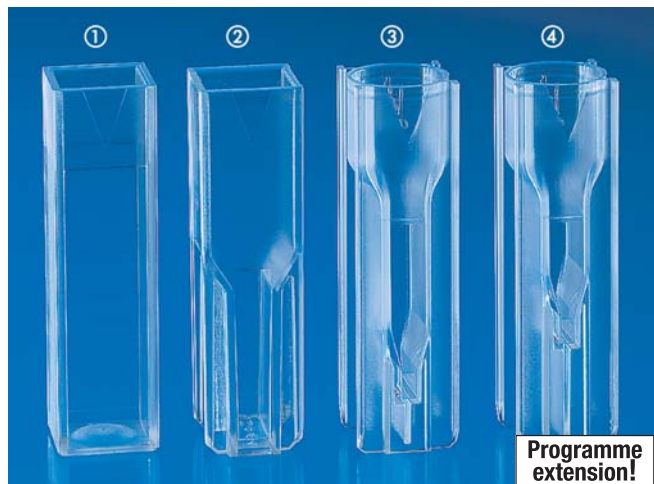
Cell stand

By BRAND. Made of **PP**. For 16 cells with a light path of 10 mm. Numbered slots. Dimensions: L 210 x W 70 x H 38 mm. Autoclavable.

Art. No.	Pack Qty.	€
CNP5.1	1	13,10



Cuvettes / Cuvette racks



UV-cuvettes

By Brand. Made of plastic.

For UV-measurement in **wave range 230-900 nm**. Specially developed for the photometrical determination of proteins, ssDNA, dsDNA, RNA and oligonucleotides in the UV-range.

- Disposable cuvettes - no danger of contamination during cleaning
- High chemical stability
- Optically perfect transparency
- Sorted according to nest numbers to minimize extinction deviation
- Recessed windows to protect against scratching
- Arrow marks direction of irradiation

Micro-cuvettes are ideal specially for small sample volumes from 70 µl and available in two different centric heights (8.5 and 15 mm).

Standard thickness: 10 mm, dimensions 12.5 x 12.5 x 45 mm

Standard deviation:

240 nm $\leq \pm 0.007$ extinction units

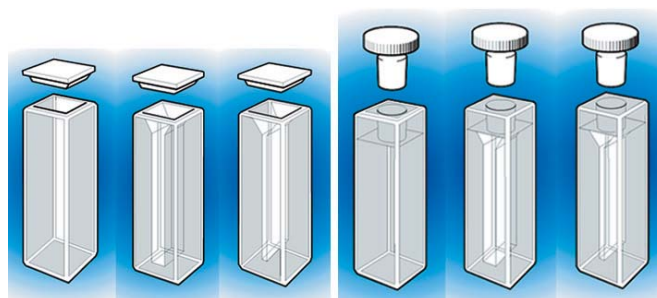
300 nm $\leq \pm 0.005$ extinction units

Type	Volume	Art. No.	Pack Qty.	€
① Macro	2,5-4,5 ml	Y198.1	100	32,15
② Semi-micro	1,5-3,0 ml	Y199.1	100	34,55
③ Micro (z = 8.5 mm)	70-850 µl	Y200.1	100	23,30
③ Micro (z = 8.5 mm), individually packed, DNase, DNA and RNase-free	70-850 µl	CNT6.1	100	58,70
④ Micro (z = 15 mm)	70-550 µl	Y201.1	100	23,30
④ Micro (z = 15 mm), individually packed, DNase, DNA and RNase-free	70-550 µl	CNT7.1	100	58,70

Accessories:

Round cover made of **PE** for UV micro cells by Brand. Provides a secure seal and allows the storage of samples at temperatures down to -20 °C.

Colour	Art. No.	Pack Qty.	€
blue	Y202.1	100	12,45
yellow	CNT8.1	100	13,10
green	CNT9.1	100	13,10
orange	CNX0.1	100	13,10



Rotilabo®-precision glass cuvettes

Made of special optical glass or UV-permeable Spectrosil®-quartz glass. Supplied either with PTFE-seamed lid or liquid tight PTFE-stopper.

- Gauged spectral
- 10 mm thick, tolerance ± 0.01 mm
- 2 polished sides
- Transmission ≥ 80 %

Dimensions:

Model, double seam lid: L 12.5 x W 12.5 x H 45 mm

Model, stopper: L 12.5 x W 12.5 x H 48 mm

Passband:

- Special-purpose optical glass: 320 - 2500 nm
- Spectrosil®-quartz glass 190 - 2700 nm

Macro, capacity 3.5 ml, inner width 10 mm

Type	Cover	Art. No.	Pack Qty.	€
Optical special-purpose glass	seamed lid	X851.1	1	40,80
Optical special-purpose glass	stopper	Y030.1	1	79,05
Quartz glass	seamed lid	X852.1	1	79,45
Quartz glass	stopper	Y031.1	1	130,10

Semi-micro, capacity 1.4 ml, inner width 4 mm

Type	Cover	Art. No.	Pack Qty.	€
Optical special-purpose glass	seamed lid	X853.1	1	62,15
Optical special-purpose glass	stopper	Y032.1	1	107,45
Quartz glass	seamed lid	X854.1	1	107,45
Quartz glass	stopper	Y033.1	1	155,90

Micro, capacity 0.7 ml, inner width 2 mm

Type	Cover	Art. No.	Pack Qty.	€
Optical special-purpose glass	seamed lid	X855.1	1	70,35
Optical special-purpose glass	stopper	Y034.1	1	120,40
Quarz glass	seamed lid	X856.1	1	117,20
Quarz glass	stopper	Y035.1	1	159,10



Rotilabo®-cuvette rack

Made of **PP**. For 12 cuvettes 10 mm thick. Extremely robust design.

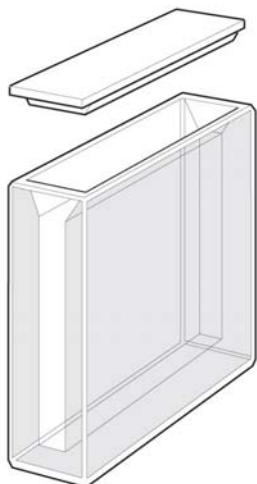
The special design of the rack eliminates scratching of cuvette surface.

Stackable. Dimensions: L 115 x W 110 x H 105 mm.

Temperature stable to 130 °C. Autoclavable.

Art. No.	Pack Qty.	€
9664.1	1	46,80

Cuvettes / Cuvette racks



Rotilabo®-precision glass cells

Made of special optical glass. With PTFE seamed lid.

- Spectrally calibrated
- Layer thickness 50 mm, tolerance ± 0.02 mm
- Two polished sides
- Transmission ≥ 80 %

Dimensions: L 52.5 x W 12.5 x H 45 mm.

UV transmittance range: 320-2500 nm.

Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
17,5	9,5	AHA7.1	1	112,90
7	4	AHA8.1	1	136,55
3,5	2	AHA9.1	1	141,90



Rotilabo®-precision glass cells, black

Made of UV-transmittant Spectrosil® quartz glass with sturdy black walls.

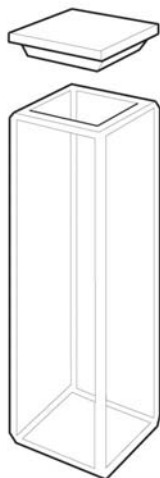
With PTFE seamed lid.

- Spectrally calibrated
- Layer thickness 10 mm, tolerance ± 0.01 mm
- Two polished sides
- Transmission ≥ 80 %

Dimensions: L 12.5 x W 12.5 x H 45 mm.

UV transmittance range: 320-2500 nm.

Type	Volume (ml)	Inner width (mm)	Art. No.	Pack Qty.	€
Semi-micro	1,4	4	AHA5.1	1	192,45
Micro	0,7	2	AHA6.1	1	213,95



Rotilabo®-glass fluorescence cell

Made of UV-transmittant Spectrosil® quartz glass, for fluorimetry.

With PTFE seamed lid.

- Spectrally calibrated
- Layer thickness 10 mm, tolerance ± 0.01 mm
- Four polished sides and polished base
- Transmission ≥ 80 %

Dimensions: L 12.5 x W 12.5 x H 45 mm.

UV transmittance range: 190-2700 nm.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Macro	3,5	AHC0.1	1	155,90

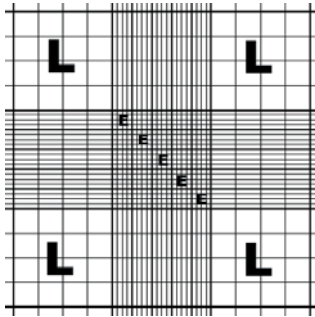


Single-use cells for fluorescence measurements

- Made of **PS** or **PMMA**, with 4 optical windows
- Volume 4 ml
- **PS** for measurements starting from 340 nm, **PMMA** for measurements starting from 300 nm
- Cavity-sorted production
- Layer thickness 10 mm
- Dimensions: L 12.5 x W 12.5 x H 45 mm

Material	Art. No.	Pack Qty.	€
PS	NK49.1	100	16,70
PMMA	NK50.1	100	18,85

Counting chambers



Neubauer counting chamber improved

By Marienfeld. Made of **special optical glass**, CE-certified, double graticule division.

For leucocyte, thrombocyte and erythrocyte counting.

Chamber depth: 0.1 mm, large square: 1 mm², group square: 0.04 mm², smallest square: 0.0025 mm².

Counter grating with 9 large squares. The four corner squares are for leucocyte counting. The large square in the centre is subdivided into 25 group squares and these in turn into 16 mini squares. Five group squares are for erythrocyte counting.

Delivery incl. 2 haemocytometer cover slips (20 x 26 mm).

Type	Art. No.	Pack Qty.	€
without spring clamps	T729.1	1	45,05
with 2 spring clamps	PC72.1	1	67,65

Neubauer counting chamber improved, bright-lined

By Marienfeld. Made of **special optical glass**, CE-certified, double graticule division.

Same as Neubauer improved but with rhodium-plated chamber base. Therefore bright counter grating during standard setting of microscope.

Delivery incl. 2 haemocytometer cover slips (20 x 26 mm).

Type	Art. No.	Pack Qty.	€
without spring clamps	T735.1	1	78,70

Neubauer counting chamber improved, with special depth

By Marienfeld. Made of **special optical glass**, CE-certified, double graticule division.

Same as Neubauer improved but chamber depth: 0.01 mm.

Delivery incl. 2 haemocytometer cover slips (20 x 26 mm).

Type	Art. No.	Pack Qty.	€
without spring clamps	PC73.1	1	149,45

► Haemocytometer-cover slips see page 276



C-Chip Neubauer improved

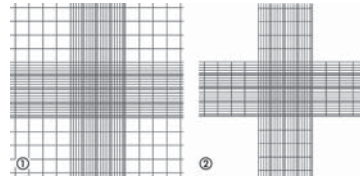
Disposable counting cell **made of optical plastic**, lightweight and unbreakable. Precise quantification, high reproducibility.

Same cell configuration as Neubauer improved glass counting cells.

Double net ruling. Cell thickness 0.1 mm. Cell volume 10 µl.

Dimensions: L 75 x W 25 x H 1.6 mm. Cover slips are not required.

Art. No.	Pack Qty.	€
PK36.1	50	147,30



① Neubauer counting chamber

By Marienfeld. Made of **special optical glass**, CE-certified, double graticule division. Same as Neubauer improved.

But the large square in the centre is subdivided into 16 group squares.

Delivery incl. 2 haemocytometer cover slips (20 x 26 mm).

Type	Art. No.	Pack Qty.	€
without spring clamps	T728.1	1	46,25
with 2 spring clamps	PC74.1	1	68,70

① Neubauer counting chamber, bright-lined

By Marienfeld. Made of **special optical glass**, CE-certified, double graticule division. Same as Neubauer but with rhodium-plated chamber base. Therefore bright counter grating during standard setting of microscope. **Delivery incl.** 2 haemocytometer cover slips (20 x 26 mm).

Type	Art. No.	Pack Qty.	€
without spring clamps	T734.1	1	80,85

② Thoma counting chamber

By Marienfeld. Made of **special optical glass**, CE-certified, double graticule division. **For thrombocyte and erythrocyte counting.**

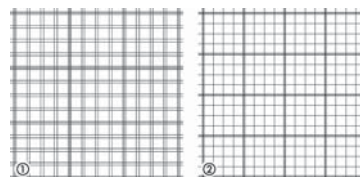
Chamber depth: 0.1 mm, smallest square: 0.0025 mm², counter grating with 5 large squares (without corner sections). The large centre square is subdivided into 16 group squares which, in turn, are divided into 16 mini squares. **Delivery incl.** 2 haemocytometer cover slips (20 x 26 mm).

Type	Art. No.	Pack Qty.	€
without spring clamps	T732.1	1	47,85

② Thoma new counting chamber

By Marienfeld. Made of **special optical glass**, CE-certified, double graticule division. Same as Thoma. But without any lines in the boundary areas. **Delivery incl.** 2 haemocytometer cover slips (20 x 26 mm).

Type	Art. No.	Pack Qty.	€
without spring clamps	T733.1	1	50,75



① Bürkner counting chamber

By Marienfeld. Made of **special optical glass**, CE-certified, double graticule division.

For leucocyte and erythrocyte counting.

Chamber depth: 0.1 mm, large square: 1 mm², group square: 0.04 mm². Counter grating with 9 large squares. They are used for leucocyte counting. Each large square is subdivided into 16 group squares for erythrocyte counting. The group squares have no subdivisions.

Delivery incl. 2 haemocytometer cover slips (20 x 26 mm).

Type	Art. No.	Pack Qty.	€
without spring clamps	T730.1	1	48,40

② Fuchs-Rosenthal counting chamber

By Marienfeld. Made of **special optical glass**, CE-certified, double graticule division.

For cell counting in liquor.

Chamber depth: 0.2 mm, total surface: 16 mm².

Counter grating with 16 large squares. The total area is counted.

Delivery incl. 2 haemocytometer cover slips (20 x 26 mm).

Type	Art. No.	Pack Qty.	€
without spring clamps	T731.1	1	47,55

Cover slips



Cover slips

Acc. to ISO 8255-1, made of transparent borosilicate glass, hydrolytic class 1. Thickness no. 1 (0.13-0.16 mm).

- The visible spectral region is absorption-free
- Optically clean and free from smears, bubbles or streaks
- High chemical stability
- No interference from natural fluorescence even when working within short UV-range (e.g. 365 nm)
- Refractive index 1.5230

Dimensions L x W (mm)	Packaging	Art. No.	Pack Qty.	€
18 x 18	5 x 200	0657.2	1000	19,90
20 x 20	5 x 200	H873.2	1000	21,30
22 x 22	5 x 200	H874.2	1000	22,60
24 x 24	5 x 200	H875.2	1000	27,55
21 x 26	10 x 100	H876.2	1000	29,00
24 x 32	10 x 100	H877.2	1000	38,50
24 x 40	10 x 100	1870.2	1000	44,10
24 x 50	10 x 100	1871.2	1000	49,35
24 x 60	10 x 100	H878.2	1000	56,45
Ø 12	10 x 100	P231.1	1000	57,95
Ø 15	10 x 100	P232.1	1000	57,95
Ø 18	10 x 100	P233.1	1000	57,55
Ø 20	10 x 100	P234.1	1000	69,35
Ø 22	10 x 100	P235.1	1000	69,35



Precision coverslips

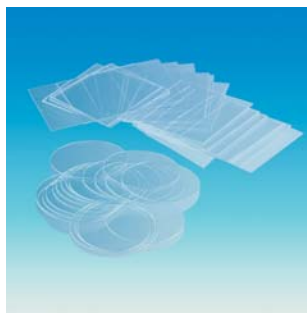
Made of hydrolytic class 1 borosilicate glass. **With defined thickness of 0.17 ± 0.005 mm**, specially for high-resolution precision instruments. Refractive index 1.524 to 1.527 at 546.07 nm.

- Absolutely colourless, completely clear, suitable for fluorescence microscopy

Ideal for lenses with a high numeric aperture and high resolving power, e.g.:

- Dry lens (air immersion): N.A. > 0.7
- Water immersion lens: N.A. > 1.0
- Glycerine immersion lens: N.A. > 1.2
- Oil immersion lens: N.A. > 1.3

Dimensions L x W (mm)	Art. No.	Pack Qty.	€
18 x 18	LH22.1	200	10,75
22 x 22	LH24.1	200	14,55
24 x 50	LH25.1	100	16,60
24 x 60	LH26.1	100	19,90
Ø 10 mm	YX02.1	100	16,80
Ø 12 mm	YX03.1	100	17,65
Ø 18 mm	LH23.1	100	19,90
Ø 24 mm	PK26.1	100	26,05
Ø 25 mm	YX04.1	100	27,35



Siliconised cover slips

Made of hydrolytic class 1 borosilicate glass (0.13 to 0.16 mm thick). Colourless, clear, with hydrophobic surfaces, siliconised on both sides. Suitable for protein crystallisation and for fluorescence microscopy. CE-certified to IVD Directive 98/97/EC.

Dimensions L x W (mm)	Packaging	Art. No.	Pack Qty.	€
12 x 12	10 x 100	TX71.1	1000	263,40
18 x 18	10 x 100	TX72.1	1000	263,40
22 x 22	10 x 100	TX73.1	1000	283,80
Ø 12	10 x 100	TX74.1	1000	306,40
Ø 18	10 x 100	TX75.1	1000	317,15
Ø 22	10 x 100	TX76.1	1000	333,25



Plastic cover slips

Made of **vinyl**. Individual cover slips are separated from one another by paper sheets. Dimensions: 22 x 22 mm, thickness 0.157 mm.

Art. No.	Pack Qty.	€
PK27.1	1000	88,05



Haemacytometre cover slips

For counting chambers. CE certified, faces have been polished to the same plane. 0.4 mm thick.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
20	26	L189.1	10	18,10
22	22	L190.1	10	18,95
24	24	L191.1	10	19,60

► Cover slip forceps see page 300

Microscope slides



DG microscope slides

Produced from hydrolytic class 3 high-quality float glass (soda-lime glass). Planarity and thickness distribution lie within very a tight tolerance band and are therefore ideally suited to microscopy applications (readjustment of the microscope is not necessary).

- Virtually free from surface defects, inclusions, streaks and bubbles
- The edges of the glass slides are uniform and crystal clear, reducing the risk of breakage along the edges
- Excellent wettability
- Dimensions 26 x 76 mm (to ISO 8037/1)
- Glass thickness 1.0 ±0.05 mm

Type	Art. No.	Pack Qty.	€
Cut	NK72.1	50	3,15
Cut edges, with matt strip	NK73.1	50	3,65
Edges ground to 90°, with white labelling surface	NK74.1	50	5,10

DG cover slips

Produced from hydrolytic class 1 borosilicate glass D263.

- Virtually free from surface defects, inclusions, streaks and bubbles and unwanted striation thanks to high optical homogeneity
- Highly transparent, colourless and nearly free from colour impurities
- Absorption-free within the visible spectrum
- Also suitable for fluorescence microscopy thanks to UV absorption
- High planarity
- High quality is assured through optimal cooling process
- Refractive indices matched to microscopy applications

Length (mm)	Width (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
18	18	No. 1 (0.13-0.16)	NK75.1	10 x 100	13,30
22	22	No. 1 (0.13-0.16)	NK76.1	10 x 100	20,35
24	50	No. 1 (0.13-0.16)	NK77.1	10 x 100	42,30
24	50	No. 1.5 (0.16-0.19)	NK78.1	10 x 100	47,30
24	60	No. 1 (0.13-0.16)	NK79.1	10 x 100	48,50
24	60	No. 1.5 (0.16-0.19)	NK80.1	10 x 100	55,00



Wash-N-Dry™ Coverslips rack

Made of PP. For 10 square or round coverslips from 18 to 25 mm. With grooves on the base for securing the coverslips, e.g. using rubber bands. Dimensions: L 39 x W 31 x H 24 mm. Autoclavable.

Art. No.	Pack Qty.	€
TH51.1	1	38,65

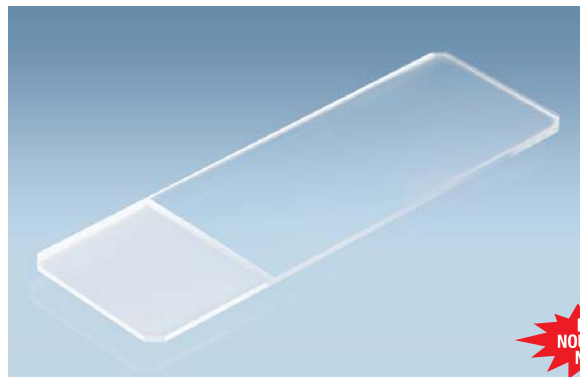


Standard microscope slides

By Menzel. Made of soda-lime glass, 76 x 26 mm, 1 mm thick, acc. to ISO 8037/1. Partly with frosted edge of 20 mm width.

The standard composition is SiO₂ 72.2 %, Al₂O₃ 1.2 %, Fe₂O₃ 0.03 %. Different edge styles serve different purposes: slides with cut edges are preferable for normal microscopy, and slides with 45° and 90° cut angles are better for use in pathology, and histology, because they reduce risk of cutting injury. They are also good for use in automatic machines.

Type	Art. No.	Pack Qty.	€
cut	0656.1	50	3,10
cut / frosted edge	H868.1	50	3,80
ground 90°	H869.1	50	4,20
ground 90° / frosted edge	H870.1	50	4,85
ground 45°	H871.1	50	4,25
ground 45° / frosted edge	H872.1	50	5,20



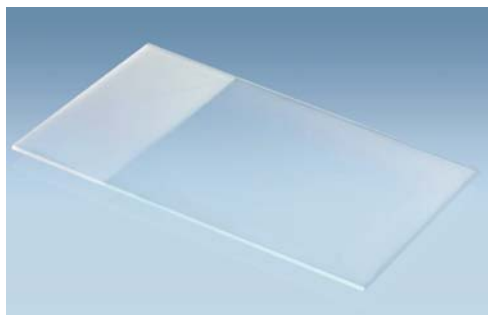
Microscope slides with 45° ground corners

By Marienfeld. Made of soda lime glass, 76 x 26 mm, 1 mm thick, i.a.w. DIN ISO 8037/1. Ground edges with 45° or 90° angle, 4 ground corners to reduce risk of injury. Ideal for use in automatic systems. With CE marking, i.a.w. IVD directive 98/79/EC.

Type	Art. No.	Pack Qty.	€
without frosted edge	CEX3.1	50	4,85
with frosted edge (20 mm)	CEX4.1	50	5,35

► Microscopes and stereo-microscopes see page 717

Microscope slides



Programme extension!

Microscope slide in special size 76 x 52 mm

By Marienfeld. Made of calcium soda glass.
With cut or ground edges, pre-cleaned. Thickness 1 mm.
With CE mark, i.a.w. IVD directive 98/79/EC.

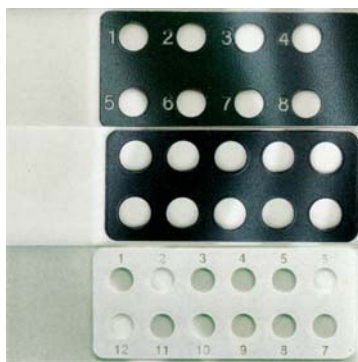
Edges	Type	Art. No.	Pack Qty.	€
cut	without frosted edge	TX69.1	50	29,00
cut	with frosted edge	CEX1.1	50	30,75
ground to 90°	without frosted edge	TX70.1	50	35,45
ground to 90°	with frosted edge	CEX2.1	50	33,80

Special size cover slips 75 x 50 mm

By Marienfeld. Made of borosilicate glass of hydrolytic class 1.
Thickness 1 (0.13-0.16 mm).

Art. No.	Pack Qty.	€
XT62.1	100	58,50

- We recommend our Lab Markers for labelling microscope slides, see page 464



Diagnostic microscope slides

By Menzel. 75 x 25 x 1 mm, made of extra-white glass with permanent epoxy or PTFE-coating. Can withstand extreme stress conditions without losing their hydrophobic properties. With white frosted edge for labelling. 90° ground edges minimize possible injury risks. Autoclavable.

Type Epoxy

No. of chambers	Ø (mm)	Colour coating	Art. No.	Pack Qty.	€
8	6	black	L197.1	100	63,25
10	6,7	black	L198.1	100	63,25
12	5	white	L199.1	100	63,25

Type PTFE

No. of chambers	Ø (mm)	Colour coating	Art. No.	Pack Qty.	€
10	6,7	black	L203.1	100	84,95



Microscope slides SuperFrost®

By Menzel. Made of soda-lime glass. The various coloured labelling areas (L 26 x W 19 mm) allow discrimination according to priority, research methods, staining techniques etc. The solvent resistant coating (thickness 0.013 mm) of the labelling areas prevents the slides from being scratched and from sticking together.

Dimensions, acc. to ISO 8037/1: L 76 x W 26 mm, thickness 1 mm.

Cut edges

Colour	Art. No.	Pack Qty.	€
white	1879.1	50	3,80
blue	2101.1	50	3,80
pink	2105.1	50	3,80
yellow	2106.1	50	3,80
green	2109.1	50	3,80
orange	L192.1	50	3,80

Edges ground 90°

Colour	Art. No.	Pack Qty.	€
white	1880.1	50	5,35
blue	2111.1	50	5,35
pink	2116.1	50	5,35
yellow	2119.1	50	5,35
green	2121.1	50	5,35
orange	L193.1	50	5,35

Edges ground 45°

Colour	Art. No.	Pack Qty.	€
white	H879.1	50	5,35
blue	H880.1	50	5,35
pink	H881.1	50	5,35
yellow	H882.1	50	5,35
green	H883.1	50	5,35



Flexistrip spreading spatulas

Made of PS, for uniform spreading of blood smears on lens carriers.
Usable on both sides. Dimensions: L 75 x W 26 mm.

Art. No.	Pack Qty.	€
L430.1	50	32,20

Adhesion slides

Adhesion slides

Made of soda-lime glass, with special adhesives for anchoring cells and tissues. Complex and expensive application of adhesives or protein layers is not necessary. No undesirable background staining. Ground edges 90° (except for ET08.1). With labelling area.



SuperFrost®/Plus adhesion microscope slides

By Menzel. Freshly frozen tissue sections and cytology preparations are attracted electrostatically to the microscope slides. Dimensions: L 75 x W 25 mm, thickness 1 mm.

Suitable for:

- Fixed tissue sections, embedded in paraffin (2-5 µm)
- Cell adhesions for cyto-centrifugal preparations in standard Papanicolaou smears
- Immuno-peroxidase hybridisation
- In-situ DNA hybridisation

Art. No.	Pack Qty.	€
H867.1	72	21,85



SuperFrost Ultra Plus®-adhesion microscope slides

By Menzel. Formaldehyde-fixed paraffin or resin tissue sections (2-5 µm), frozen sections and delicate cytologic samples are electrostatically attracted.

Dimensions: L 75 x W 25 mm, thickness 1 mm.

Suitable for:

- Difficult cytologic samples
- Microwave staining
- Immunoperoxidase processes when applying heat-induced antigen/epitope retrieval (HIER, HMAR or HTAR)
- Optimized tissue adhesion for in-situ hybridisation
- Improved standardization and reproducibility of diagnostic routine staining processes
- 45° ground edges particularly well-suited for automatic processing

Edges	Art. No.	Pack Qty.	€
cut 90°	ET07.1	72	22,80
cut 45°	ET08.1	72	22,80



Programme extension!

Histobond®+ adhesion microscope slides

By Marienfeld. The silanized glass surface has a permanent positive charge which ensures that all types of tissue sections attach securely to the glass. Coloured labelling spaces offer potential uses in routine histology. Dimensions: L 76 x W 26 mm, thickness 1 mm.

Suitable for:

- In-situ hybridisation
- Problematic tissue samples, such as brain or spinal cord
- Multiple washing cycles, sections adhere firmly to the glass
- Microwave cooking

Colour	Art. No.	Pack Qty.	€
neutral	CEX0.1	100	25,95
white	PC66.1	100	30,75
yellow	PC67.1	100	30,65
green	PC68.1	100	30,65
blue	PC69.1	100	30,65
pink	PC70.1	100	30,65
orange	PC71.1	100	30,65



Polysine®-adhesion microscope slides

By Menzel. The samples are initially attracted electrostatically and then bound biochemically. The permanent adhesive provides excellent cell and tissue adhesion on the microscope slides. Polysine® microscope slides are not affected by enzyme predigestion or heating. Dimensions: L 75 x W 25 mm, thickness 1 mm.

Ideally suitable for:

- Fresh frozen sections
- Paraffin-embedded (2-5 µm, fixed with alcohol, formalin, bouins or non-crosslinking sections)
- Extended staining process
- Extended in-situ DNA hybridisation and immunocytochemical methods
- Cyto-centrifuge preparations

Art. No.	Pack Qty.	€
ET10.1	72	20,00

Adhesion slides



SuperFrost® Plus Gold adhesion microscope slides

By Menzel. Fresh frozen sections or frozen section fixed in formalin are attracted to the slide and then chemically fixed onto the glass surface.
Dimensions: L 75 x W 25 mm, thickness 1 mm.

Suitable for:

- Special staining methods (toluidine blue staining, hematoxylin staining and quick-freeze eosin section staining)
- Tissue sections up to 20 µm
- Bone, frozen heart, brain, skin and other tissue sections that are normally difficult to bind
- Immunocytochemical and in-situ DNA-hybridisation of frozen tissue sections
- Selection counting for immunofluorescence analysis in the event of low tissue quantities

Art. No.	Pack Qty.	€
ET09.2	72	64,30



Roti®-Bond Adhesion Slides

Fast and highly efficient immobilisation of cellular material with optimal structure conservation.

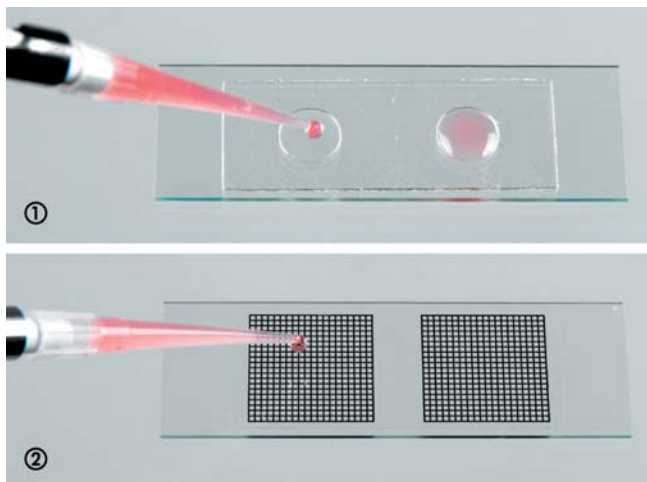
The new adhesive coating of the Roti®-Bond adhesion slides reacts to natural surface structures of cells and tissues, anchoring them securely to the glass surface. Due to this procedure, based on different binding principles, the cells do not lose their antigenicity, their cell functionality and their three-dimensional structure.

- Assays using only several hundred cells possible
- No cell loss even during harsh incubation procedures
- Excellent recovery rate
- Compatible with all standard and modern assay systems and all fluorescent dyes
- Particularly adapted to assays using stem cells

Dimensions: L 75 mm x W 25 mm, thickness 1 mm

Roti®-Bond adhesion slides 50 and 100 are delivered in Rotilabo®-slide boxes.

Art. No.	Pack Qty.	€
CL20.1	5	11,75
CL20.2	50	84,85
CL20.3	100	118,25



Self-adhesive marking films for microscope slides

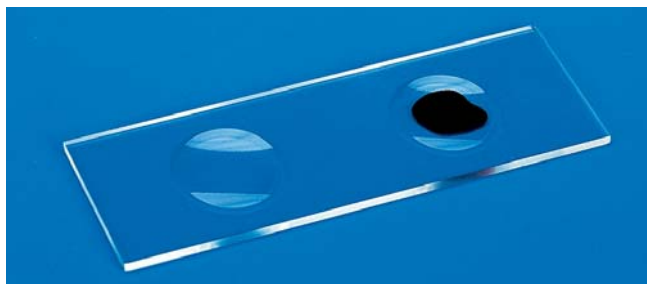
Made of polyester. For microscopic examination or counting of cell cultures, yeasts, bacteria and other samples. Recesses and grids can also be used in combination. Depressions are made through recesses in the foil carrier.

① With two Ø 10 mm recesses

Depth (mm)	Art. No.	Pack Qty.	€
0,25	AXC3.1	25	60,20
0,50	AXC4.1	25	73,10

② With two 20 x 20 mm grids, line spacing 1 mm

Art. No.	Pack Qty.	€
AXC5.1	40	40,65



Slides with moulds

By Menzel. Made of soda-lime glass, 76 x 26 mm. 1.2-1.5 mm thick with ground edges 90°. Ø of mould 15 mm, depth approx. 0.6-0.8 mm.

No. of moulds	Art. No.	Pack Qty.	€
1	H884.1	100	124,70
2	H885.1	100	199,95
3	H886.1	100	278,45

► Lab Markers for labelling microscope slides on page 464

Microscopy accessories



Staining plates

Made of pressed glass. With rounded corners and frosted surface. 12 recesses, Ø approx. 16 mm, depth approx. 2 mm. Dimensions: 79 mm long x 63 mm wide x 4 mm high.

Art. No.	Pack Qty.	€
CET6.1	10	94,95



Boerner staining plates

Made of pressed glass. With optically polished, pressed and numbered recesses. 10 recesses, Ø approx. 14 mm, depth approx. 2 mm. Dimensions: L 107 x W 57 x H 4 mm.

Art. No.	Pack Qty.	€
CET7.1	6	63,65



Microscopy bowls

Made of calcium soda-lime glass. With semicircular recess, Ø 30 mm x depth 10 mm. Dimensions: L 40 x W 40 x H 16 mm.

Delivery incl. 40 x 40 x 2 mm cover plate.

Type	Art. No.	Pack Qty.	€
Clear glass	TK76.1	1	6,05
Black glass	TK77.1	1	8,55



Rotilabo®-Canada balsam bottle

60 ml, with loose ground cap and glass rod.

Art. No.	Pack Qty.	€
0708.1	1	29,60

Cedar wood oil bottle

Volume 30 ml.

Art. No.	Pack Qty.	€
0709.1	1	30,25

- Canada balsam, oil of cedar wood etc., see chapter histology/microscopy!

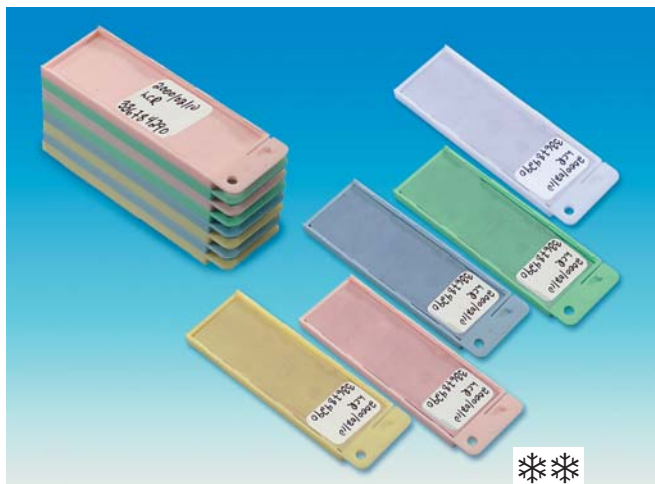


Microscope slides dispenser

Made of ABS. For 50 slides 76 x 26 mm. The slides can be stored protected from dust and taken out one after another by turning the knob.

Colour	Art. No.	Pack Qty.	€
white	2298.1	1	32,45
blue	P836.1	1	22,35

Transport boxes for microscope slides



Mailing boxes for microscope slides

Made of **PS**. Ideal as a mailing box for individual microscope slides 75 x 25 mm. Also suitable for storage, as boxed can be stacked to any height. Can be closed easily and safely. Tilting mechanism enables easy removal of the slide. Temperature stable from -80 to +80 °C. Dimensions: L 89 x W 29 x H 6 mm.

Colour	Art. No.	Pack Qty.	€
blue	AH01.1	50	16,05
yellow	AH02.1	50	16,05
green	AH03.1	50	16,05
pink	AH04.1	50	16,05
white	AH05.1	50	16,05



① Mailing and storage boxex

Made of **PP**, for 5-10 microscope slides 76 x 26 mm, stable version. The microscope slides are easy to remove. Autoclavable.

Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
90	40	2306.1	10	44,75

② Transport boxes

Made of **PP**, for microscope slides 76 x 26 mm, excellent for sending by mail. Autoclavable.

Number of microscope slides	L x W (mm)	Art. No.	Pack Qty.	€
1	50 x 100	2304.1	10	21,85
1-3	84 x 99	2305.1	10	25,50



Rotilabo®-mailing boxes

Made of **PP**. For 5 microscope slides 76 x 26 mm. Ideal for storing, transport, mailing, etc. With 4 guiding rail inside the can to separate the slides and prevent them from sticking to each other. Tightly closing lid. Dimensions: L 80 x W 17 x H 30 mm.

Art. No.	Pack Qty.	€
T208.1	25	15,30



Carrier buckets with tamper evident closure

PP bucket and **HDPE** screw cap. Colour: transparent/light-pink. For storage, shipping or for staining of 4 standard lens carriers 75 x 25 mm. Guide rails prevent lens carriers from sticking. Bucket can be opened and closed several times. Tamper evident closure is activated by snapping a tab into place. Buckets can be colour-coded using coloured cap inserts. Please order separately. Dimensions: Ø 35 x H 87 mm, volume 12 ml.

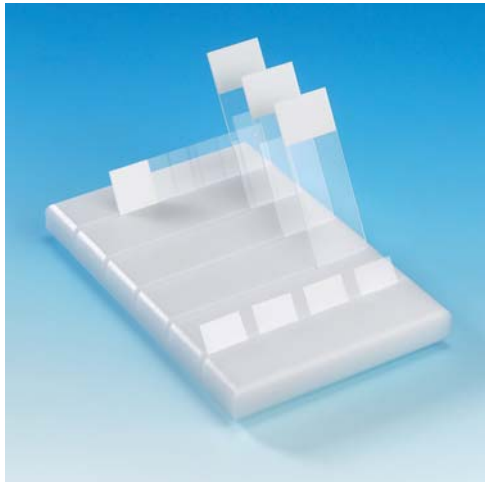
Art. No.	Pack Qty.	€
KL89.1	100	44,65

Lid inserts

Made of **PP**. For colour-coded, easy identification of reaction vials (Art. No. CK47.1 ff, CK57.1 ff and ATC4.1) or microscope slide tubs with tamper evident closure (Art. No. KL89.1), as well as sample tubs (Art. No. AYT6.1ff).

Colour	Art. No.	Pack Qty.	€
blue	CK72.1	500	14,55
yellow	CK73.1	500	14,55
red	CK74.1	500	14,55
white	CK75.1	500	14,55
green	CK76.1	500	14,55
assorted colours.	CK77.1	500	14,55

Slide magazines



Slide holders

Made of **PE**. For microscope slides 76 x 26 mm. For storing, cleaning, drying microscope slides. Robust design with anti-slip rubber feet. Temperature resistant in the range -50 to +80 °C.

Number of microscope slides	L x W x H (mm)	Art. No.	Pack Qty.	€
15	153 x 102 x 21	PC63.1	1	34,75
40	298 x 105 x 24	PC64.1	1	40,85
78	299 x 178 x 21	PC65.1	1	51,75



Microscope slide magazines

Made of **PS**. For vertical storage of 76 x 26 mm microscope slides. Easy retrieval of preparations through option for tilting microscope slides inside slots.

- Coloured box with large labelling space
- Contents are easily recognisable through transparent hinged lid
- Removable insert with individually numbered slots
- Incl. numbered index card
- Stackable
- Temperature stable from -80 to +80 °C

Microscope slide magazine, large

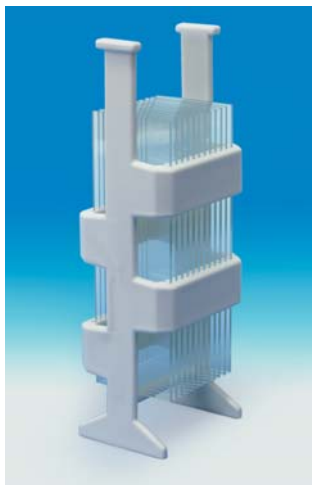
For 100 microscope slides. Up to 200 microscope slides can be stored by double use of slots. Up to 400 microscope slides can be stored in 3 rows by removing the insert. Dimensions: L 245 x W 82 x H 86 mm.

Colour	Art. No.	Pack Qty.	€
blue	X021.1	1	11,70
green	X022.1	1	11,70
pink	X023.1	1	11,70
white	X024.1	1	11,70
yellow	X025.1	1	11,70

Microscope slide magazine, small

For 50 microscope slides. Up to 100 microscope slides can be stored by double use of slots. Up to 200 microscope slides can be stored in 3 rows by removing the insert. Dimensions: L 140 x W 82 x H 86 mm.

Colour	Art. No.	Pack Qty.	€
blue	AEL4.1	1	8,50
green	AEL5.1	1	8,50
pink	AEL6.1	1	8,50
white	AEL7.1	1	8,50
yellow	AEL8.1	1	8,50



Wash-N-Dry™-microscope slide holder

Made of **PP**. For staining, washing and drying up to 12 microscope slides of size 76 x 26 mm. Ideal for 150 ml beakers, high form. Distance to stage 10 mm below the microscope slide for the use of magnetic stir bars. Dimensions: L 31.5 x W 38.4 x H 110 mm. Autoclavable.

Art. No.	Pack Qty.	€
AXC6.1	1	48,05

► Microscopes see page 717

Slide magazines



Drawer container

Made of **ABS**. With 5 drawers for the storage of up to 5000 microscope slides. Each drawer holds 10 containers for microscope slides (Art. No. 2299.2 + 2300.2). Optionally available with rollers for mobile use. Can be upgraded by adding drawers.

Delivery incl. 5 drawers and cover. Please order rollers separately.

Type	Art. No.	Pack Qty.	€
Drawer container	CPY1.1	1	241,90

Accessories:

Rollers	CPY2.1	4	16,10
Drawer (L 420 x W 420 x H 140 mm)	CPY3.1	1	69,90
Cover for drawer (L 420 x B 420 x H 25 mm)	CPY4.1	1	24,20



Containers for microscope slides

Container made of **ABS**, lid made of **PS**.
For 100 microscope slides 76 x 26 mm.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
Container	360 x 38 x 100	2299.2	2	32,05
Lid for 2299.2	345 x 35 x 40	2300.2	2	17,10



Rotilabo®-microscope slide tray

Made of **ABS**. For 20 microscope slides 76 x 26 mm. With slightly slanted base for easy removal of slides. Temperature stable from -80 to +100 °C. Dimensions: L 299 x W 206 x H 18 mm.

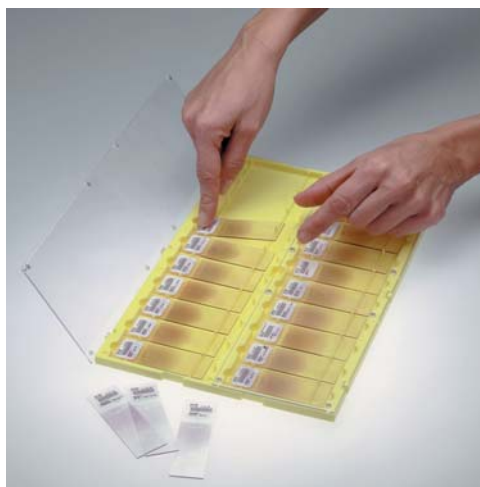
Art. No.	Pack Qty.	€
AH09.1	1	6,15



Storage and transport trays

Made of **PVC**, white, for microscope slides 76 x 26 mm. The white bottom emphasized the staining.

Number of microscope slides	L x W (mm)	Art. No.	Pack Qty.	€
20	340 x 190	2296.1	1	11,50
40	680 x 190	2297.1	1	20,35



Programme extension!



Rotilabo®-microscopic slide folders

Made of **PS**. Stackable.
For 20 microscope slides 76 x 26 mm. With numerical marking. The transparent protective flaps can be turned backwards. Simple removal of slides. Temperature stable from -80 to +80 °C. Dimensions: L 295 x W 192 x H 11 mm.

*For light-sensitive applications.

Colour	Art. No.	Pack Qty.	€
blue	AH10.1	1	14,95
yellow	AH11.1	1	14,95
green	AH12.1	1	14,95
grey	CXN4.1	1	14,95
sorted (2 x blue, yellow, green, grey and white)	CXN5.1	10	134,40
white, opaque protective flaps*	CXN6.1	1	14,95
white	AH13.1	1	14,95

Slide magazines



Programme extension!

Preparation folders

Made of cardboard. With two-piece cover, centre-folding. Coloured edges allow easier identification. For microscope slides 76 x 26 mm.

Number of microscope slides	Colour	L x W x H (mm)	Art. No.	Pack Qty.	€
20	black	208 x 341 x 9	AXK6.1	1	7,50
20	blue	208 x 341 x 9	AXK7.1	1	7,50
20	green	208 x 341 x 9	AXK8.1	1	7,50
20	red	208 x 341 x 9	AXK9.1	1	7,50
20	yellow	208 x 341 x 9	AXL0.1	1	7,50
30	black	281 x 328 x 10	AXL1.1	1	11,00

Preparation folders and boards

Made of sturdy cardboard, with punched grid. Base is covered with white chromo paper. For microscope slides 76 x 26 mm.

Folders come with a hinged cover and pasted list of contents
Two piece cover, centre hinged; or one piece cover, side hinged.

Cover	Number of microscope slides	L x W (mm)	Weight (g)	Art. No.	Pack Qty.	€
two piece, with lock	20	340 x 205	250	K326.2	10	120,40
one piece	20	340 x 205	220	K327.2	10	76,35
one piece	6	215 x 105	70	K329.2	10	64,00
one piece	2	100 x 90	30	K331.1	10	23,45

Preparation boards, without cover

With punched grid (for 20 microscope slides) or without individual subdivisions (with continuous edge and central divider).

Cover	Number of microscope slides	L x W (mm)	Weight (g)	Art. No.	Pack Qty.	€
without	20	342 x 204	125	P957.2	10	59,05
without	-	342 x 204	110	CPT8.1	10	7,20



Rack for preparation folders

Made of ABS. For 5 preparation folders each with 20 slides. Easy and safe storage and removal of folders. Clamps with labelling area for quick identification also serve as a handle. Temperature resistant in the range -10 to +90 °C. Stackable. Dimensions: L 340 x W 226 x H 125 mm. Suitable for Art. No. K326.2, K327.2 and AXK6.1ff.

Art. No.	Pack Qty.	€
PC61.1	1	41,90



Rotilabo®-slide box

For 100 microscope slides 26 x 76 mm. Base and lid are attached to a wooden frame and the outside is covered with black paper. Wooden serrated strip with black printed numbers, the index card is loosely enclosed. The inside is made of moulded plastic (PS) with 2 tilting slats for easy removal of the microscope slides. 380 g net weight. Dimensions: L 275 x W 185 x H 40 mm.

Art. No.	Pack Qty.	€
K335.1	1	19,25

Slide magazines



Rotilabo®-microscope slide boxes

Made of **PS**, coloured. For 100 microscope slides 76 x 26 mm. With hinged lid, nickel-plated lock and cork insert, to prevent damage to the slides inside. Affixed index card in lid. The numbers on the index card correspond to those embossed on the bottom of the box. Stackable.
Dimensions: L 208 x W 175 x H 34 mm.

Colour	Art. No.	Pack Qty.	€
blue	K532.1	1	7,45
green	K533.1	1	7,45
red	K534.1	1	7,45
yellow	K535.1	1	7,45
white	K536.1	1	7,20



True North® microscope slide box

Made of **PC**. For 100 microscope slides 76 x 26 mm. With tilting lid, foam insert and stainless steel closure. Index card integrated in the lid. Numbering on the index card matches the numbers stamped on the base of the box and on the labelling on the foam insert. Stackable.
Temperature resistant in the range -80 to +121 °C.
Dimensions: L 208 x W 175 x H 34 mm.

Art. No.	Pack Qty.	€
PC56.1	1	25,55



Storage boxes

Made of **PS**, with separate lid. For microscope slides 76 x 26 mm, stackable, breakproof, easy to clean. The slots are individually numbered. With index card (loosely inserted).

Number of microscope slides	L x W x H (mm)	Art. No.	Pack Qty.	€
25	98 x 83 x 38	2301.2	4	40,00
50	230 x 97 x 35	2302.1	1	19,15
100	230 x 180 x 35	2303.1	1	27,10



Storage rack for microscope slide boxes

Made of acrylic. With 15 spaces for 50 or 100-slot microscope slide boxes. Compartment dimensions: L 214 x W 171 x H 38 mm, Overall dimensions: L 711 x W 171 x H 228 mm.

Art. No.	Pack Qty.	€
TP32.1	1	264,45



Rotilabo®-slide boxes

Made of **PS/ABS**, coloured, for 25 or 50 microscope slides 76 x 26 mm. Push-on lid, cork inlet for protection of microscope slides from damaging. Affixed index card in lid. The numbers on the index card correspond to the embossed numbers on the base of the box. Stackable.

25 slots, box made of PS, dimensions: L 141 x W 88 x H 35 mm

Colour	Art. No.	Pack Qty.	€
blue	K540.1	1	7,10
green	K541.1	1	7,10
red	K542.1	1	7,10
white	K544.1	1	7,10

50 slots, box made of ABS, dimensions: L 209 x W 86 x H 35 mm

Colour	Art. No.	Pack Qty.	€
blue	N952.1	1	7,65
red	N953.1	1	7,65
white	N954.1	1	7,65

Staining racks/Staining chambers



Microscope slide box for large microscope slides

Made of **ABS**. For 100 microscope slides of size 76 x 52 mm. With hinged lid, nickel-plated catch and cork inlay. Index card integrated in the lid. The numbering of the index card matches the numbering embossed on the base of the box. Stackable. Dimensions: L 208 x W 175 x H 60 mm.

Art. No.	Pack Qty.	€
TP28.1	1	26,10



Disposable staining chambers

Made of **PP** and **PE**. For staining, washing and drying up to eight microscope slides of size 76 x 26 mm.

- Chamber volume 38 ml
- With moulded handles for easy transportation and two nozzles
- Dark cover for light-sensitive applications
- Dimensions: L 305 x W 127 x H 30 mm

Delivery incl. four staining chambers and a cover.

Art. No.	Pack Qty.	€
TP31.1	1	36,25



FourWell Plate™ CELLSTAR®

By Greiner Bio-One. Made of **PS**. **Sterile**. Four-well plate for microscopic applications, for cultivation and processing of cells on microscope slides. Can also be used as incubation tray for blotting membranes. Dimensions: L 127,8 x W 85,5 x H 14,4 mm (plate footprint conforms to ANSI standard).

- 4 individual chambers, each with a max. volume of 18.6 ml per well
- Numbered wells for secure sample identification
- Bevelled edges on the left-hand side of the plates serve as a guide
- Vents
- With cover panel
- **Free of detectable DNase, RNase and human DNA**
- **Free of detectable endotoxins, free of cytotoxic substances**

Art. No.	Pack Qty.	€
CNA2.1	32 (4 x 8)	115,05



Staining chambers Stain Tray™

Made of **ABS**, lid available either in **ABS** or **PETG**. Suitable as staining chamber or as moisture chamber in immunohistology, haematology, cytology and microbiology.

- Microscope slides stick securely on the rubber strips
- Floor drain with stopper for simple emptying of chamber
- Stackable
- Transparent lid for sample observation
- Black lid for applications in fluorescence microscopy

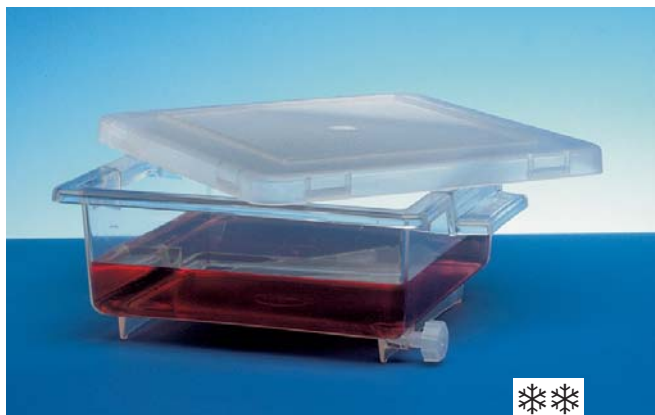
① **For up to 20 microscope slides:**
Dimensions: L 380 x W 240 x H 45 mm.

Lid material	Temperature resistance	Art. No.	Pack Qty.	€
PETG, transparent	-20 to +60 °C	HA50.1	1	231,15
ABS, black	-20 to +80 °C	HA51.1	1	231,15

② **For up to 10 microscope slides:** Dimensions: L 240 x W 240 x H 45 mm

Lid material	Temperature resistance	Art. No.	Pack Qty.	€
PETG, transparent	-20 to +60 °C	HL97.1	1	192,45
ABS, black	-20 to +80 °C	HL98.1	1	192,45

Staining racks/Staining chambers

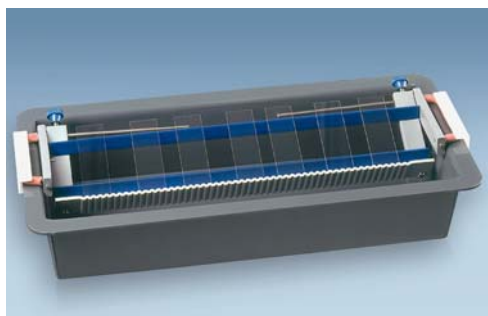


Staining chamber

By Nalgene®. Made of **PMP** for staining, fixing, and bleaching membranes, electrophoresis gels etc. With lid made of **PP**-copolymer and leakproof drain plug made of **LDPE** for problem-free draining of liquid without gel manipulation. Chamber with handles on both side for easy transport. Capacity with gel under shaking conditions: 500 to 750 ml. Temperature stable from -70 to +70 °C.

Not UV-transparent.

L x W x H (mm)	Art. No.	Pack Qty.	€
125 x 125 x 50	H591.1	1	31,75



Staining rack and tray

Made of **PVC**. Staining rack for custom adaptation to a variety of dishes and tanks. With 2 fixing clips and 2 handles, each extendable by 115 mm. For tilting and fixing in horizontal position. When used in combination with staining tray CEX6.1, a locking bolt holds the tray securely in the tilted position. The tray can also be fixed in the horizontal position using the second locking bolt. Overall length of staining rack: approx. 380 mm, inner dimensions of staining tray: L 380 x W 145 x H 75 mm.

Type	Art. No.	Pack Qty.	€
Staining rack	CEX5.1	1	66,55
Staining tray	CEX6.1	1	35,80



Universal microscope slide cuvettes

For histology, cuvettes made of black **POM**.

- Clip on lid makes structure impermeable to light. There is a compartment in the lid for drying agent (for example bluegel), which can be closed with a plate that also serves as a note board for labelling slides. Easy to transport racks for 25 microscope slides of standard format, slots for slides are numbered. For volume approx. 250 ml, only 150 ml are needed. Closes airtight, important for volatile solutions.
- Contains no metal, no danger of corrosion when using aggressive solvents
- Easy to clean
- The exposition, development and second stain of samples can be done in a time saving way without changing microscope slides by transporting the slides in the rack.

① Staining cuvette

consisting of staining trough 2286.1 and staining rack 2287.1.

L x W x H (mm)	Material	Art. No.	Pack Qty.	€
100 x 87 x 51	POM	2285.1	1	18,60

② Staining trough

and/or storage container for 25 microscope slides.

L x W x H (mm)	Material	Art. No.	Pack Qty.	€
100 x 87 x 51	POM	2286.1	1	13,20

③ Staining rack

(insert) for serial staining of 25 microscope slides.

L x W x H (mm)	Material	Art. No.	Pack Qty.	€
91 x 79 x 38	POM	2287.1	1	5,40



Staining boxes and inserts

Staining boxes for microscope slides, made of **PMP**, clear, comes with two lids, one of which closes tightly, the other has a small opening for attaching the insert during staining. Insert made of **PP**, with handle, for 20 microscope slides 76 x 26 mm. Suitable for microwaves.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
Box	101 x 81 x 70	2290.2	4	59,10
Insert	86 x 70 x 21	2291.2	2	13,55

► Microscope slides and cover slips on page 276

Staining racks/Staining chambers



Rotilabo®-staining boxes

Made of **acetal-polymer** (POM). Volume 80 ml. Resistant against most staining reagents, however irreversible discoloration possible. Temperature resistant from -170 to +121 °C. Autoclavable. Dimensions: L 64 x W 76 x H 92 mm.

Delivery incl. connector clips.

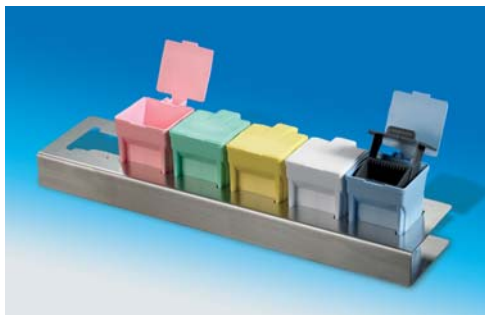
Without microscopic slide holder (please order separately).

Colour	Art. No.	Pack Qty.	€
blue	HA44.1	1	13,25
yellow	HA45.1	1	13,25
green	HA46.1	1	13,25
pink	HA47.1	1	13,25
white	HA48.1	1	13,25

Rotilabo®-microscope slide holders

Microscopic slide holders for 12 microscope slides 75 x 25 x 1 mm. Grey. Vertical storage of microscope slides prevents the labelling areas from coming in contact with the staining solution. Temperature resistant from -170 to +121 °C. Autoclavable. Dimensions: 60 x 64 x 97 mm.

Type	Art. No.	Pack Qty.	€
Microscope slide holders	HA49.1	1	14,55



Rack for Rotilabo®-staining boxes

Made of aluminium. Holds up to six Rotilabo®-staining boxes HA44.1ff. Dimensions: L 425 x W 105 x H 38 mm. Autoclavable.

Art. No.	Pack Qty.	€
AEK9.1	1	75,15



Staining boxes acc. to Coplin

Made of **PP**. For 10 microscope slides 76 x 26 mm. Opening Ø 53 mm for easy loading.

Dimensions: Ø 60 x H 114 mm. Autoclavable.

Art. No.	Pack Qty.	€
YC09.1	1	10,70



Staining boxes

Made of **PMP**, with lid, for eight microscope slides 76 x 26 mm. Dimensions: L 58 x W 54 x H 86 mm. Suitable for microwave.

Art. No.	Pack Qty.	€
2292.2	4	51,60



Staining boxes acc. to Schiefferdecker

Made of **PMP**. Staining boxes with lid for 20 microscope slides (10 pairs) 76 x 26 mm. Dimensions: L 89 x W 70 x H 50 mm. Microwave safe.

Art. No.	Pack Qty.	€
XC73.1	4	46,95

Staining racks/Staining chambers



Staining boxes with lid

Made of glazed porcelain. For the protection of light-sensitive staining solutions. For 6 microscope slides of size 76 x 26 mm. Lid dimensions: L 75 x W 48 x H 5 mm. Temperature stable up to 1000 °C. Microwave safe. Autoclavable.

L x W x H (mm)	Art. No.	Pack Qty.	€
70 x 40 x 86	XX63.1	2	42,05



Staining box acc. to Coplin

Made of SMG glass. For 10 microscope slides of size 76 x 26 mm. Dimensions: Ø 72 x H 116 mm. Dishwasher safe, microwave safe. Autoclavable.

Art. No.	Pack Qty.	€
TX86.1	1	19,70



Staining box acc. to Coplin

Made of lime-soda-glass. For 10 microscope slides 76 x 26 mm. Outer Ø 66 mm. Height 108 mm.

Art. No.	Pack Qty.	€
H548.1	1	14,00



①



②

Staining boxes acc. to Hellendahl

For 8 microscope slides, 76 x 26 mm.

Made of lime-soda-glass

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
① without extension	93 x 43 x 97	H549.1	1	19,15
② with extension	63 x 58 x 98	H550.1	1	13,25

Made of SMG glass

Dishwasher proof, microwave safe. Autoclavable.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
① without extension	93 x 43 x 97	TX84.1	1	37,55
② with extension	63 x 58 x 98	TX83.1	1	28,85

Staining boxes and troughs made of soda-lime glass have a maximum usage temperature of approx. 100 °C. It is very important to avoid sudden changes in temperature as this type of glass does not have good thermal shock resistance. The temperature should not exceed 60 °C during cleaning. The use of neutral to slightly alkaline cleaning agents is recommended.



Programme extension!



Staining system

Made of SMG-glass. For 10 microscope slides 76 x 26 mm or for all widths to 52 mm. Dishwasher proof, microwave safe. Autoclavable.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
Staining box with lid	105 x 85 x 70	TX87.1	1	17,75
Staining rack	92 x 68 x 49	TX88.1	1	14,95
Staining tray made of stainless steel	80 x 55 x 53	CET8.1	1	21,10

Accessories:

Wire hanger made of stainless steel for glass staining rack	H553.1	1	2,30
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Staining racks/Staining chambers



Staining box and rack

Made of soda-lime glass. For 10 microscope slides 76 x 26 mm or for all widths to 52 mm.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
Staining box with lid	105 x 85 x 70	H554.1	1	15,20
Staining rack	85 x 60 x 45	H552.1	1	18,70

Accessories:

Wire hanger made of stainless steel for glass staining rack	H553.1	1	2,30
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Staining boxes acc. to Schiefferdecker

For 20 microscope slides (10 pairs) 76 x 26 mm.
Dimensions: L 89 x W 71 x H 46 mm.

Made of lime-soda-glass

Art. No.	Pack Qty.	€
H551.1	1	13,55

Made of SMG glass

Dishwasher proof, microwave safe. Autoclavable.

Art. No.	Pack Qty.	€
TX85.1	1	19,05



Hauser staining troughs

Made of lime-soda-glass. For 60 microscopic slides 76 x 26 mm.
Staining insert made of stainless steel.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
Glass box	130 x 93 x 121	T725.1	1	34,95
Lid	130 x 93 x 3	T726.1	1	6,05
Staining insert	-	T727.1	1	76,65



DURAN GROUP

Material
DURAN®

Preparation boxes

Made of DURAN®. With cut glass sheet. Extremely versatile, can be used as a storage box for preparations, TLC-separating chambers, etc.

L x W x H (mm)	Art. No.	Pack Qty.	€
60 x 50 x 100	T067.1	1	32,35
100 x 50 x 120	T068.1	1	38,30
130 x 50 x 130	T069.1	1	51,00
150 x 50 x 150	T070.1	1	63,20
120 x 60 x 180	T071.1	1	52,50
210 x 100 x 210	T072.1	1	107,00
250 x 140 x 250	T073.1	1	155,00

Staining boxes and troughs made of soda-lime glass have a maximum usage temperature of approx. 100 °C. It is very important to avoid sudden changes in temperature as this type of glass does not have good thermal shock resistance. The temperature should not exceed 60 °C during cleaning. The use of neutral to slightly alkaline cleaning agents is recommended.



Glass boxes

Made of calcium soda glass. Ground rim.

L x W x H (mm)	Art. No.	Pack Qty.	€
100 x 100 x 100	NY95.1	1	10,15
100 x 150 x 150	NY96.1	1	14,65
220 x 300 x 150	NY97.1	1	45,05
180 x 250 x 220	NY98.1	1	42,95
230 x 360 x 260	NY99.1	1	93,35

Embedding cassettes and accessories



Embedding cassettes

Made of special polymer with a high density. Suitable for holding tissue samples during embedding or storage. Solvent-proof. Large labelling area on front and sides.

① **Without lid**, fits standard metal lids.
Outer dimensions: L 40.5 x W 30 x H 6 mm.

Colour	Art. No.	Pack Qty.	€
white	H579.1	500	42,90
pink	H580.1	500	42,90
green	H581.1	500	42,90
yellow	H582.1	500	42,90
blue	H583.1	500	42,90
grey	AA79.1	500	42,95
orange	EH20.1	500	42,90

② **For biopsies**, with lid attached (the surface is penetrated with holes). To close cassettes break off lid and secure it on the bottom. The cassettes can be opened repeatedly from the back and closed again securely.
Outer dimensions: L 40.5 x W 28.5 x H 7 mm.

Colour	Art. No.	Pack Qty.	€
white	E478.1	500	55,90
pink	AA78.1	500	52,70
green	E481.1	500	55,90
yellow	E480.1	500	55,90
blue	E479.1	500	55,90
grey	E483.1	500	55,90
orange	E482.1	500	55,90



Rotilabo®-embedding cassettes

Made of **POM**. Ideal for routine embedding. With lid and labelling space. Outer dimensions: 40 x 28 x 6.8 mm.

Colour	Art. No.	Pack Qty.	€
white	K113.1	500	55,85
red	PX06.1	500	55,85
blue	K114.1	500	55,85
yellow	K115.1	500	55,85
green	K116.1	500	55,85
pink	K117.1	500	55,85



Swingsette™ biopsy embedding cassettes

Made of **Acetal Polymer**. Cassette and lid with small square compartments for processing, embedding and storage of tissue specimens.

- With hinged lid for easy use
- Lid can be opened and closed any number of times
- Textured labelling area on the front
- 45° angle for automated labelling systems
- Resistant to standard histological solvents

Colour	Art. No.	Pack Qty.	€
white	XY22.1	500	64,45
pink	XY23.1	500	64,45
green	XY24.1	500	64,45
yellow	XY25.1	500	64,45
blue	XY26.1	500	64,45
purple	XY27.1	500	64,45
orange	XY28.1	500	64,45
turquoise	XY29.1	500	64,45



NEU
NOUVEAU
NEW

Biopsy embedding cassettes Micromesh™

Made from **Acetal Polymer**. Surface with 1676 square openings each offset by 0.38 mm, for improved fluid exchange and complete drainage. Compartment size 27 mm.

- With hinged lid for easy use
- Lid can be opened and closed any number of times
- Textured labelling area on the front
- 45° angle for automated labelling systems
- Resistant to standard histological solvents

Colour	Art. No.	Pack Qty.	€
white	CXN2.1	250	67,65
blue	CXN3.1	250	67,65

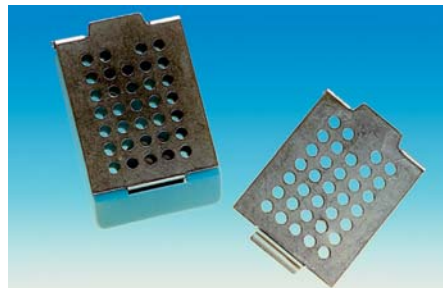
Embedding cassettes and accessories



Embedding cassettes Macro

Made of special high-density polymer. **Extra high (12 mm)**, ideal for **holding oversized tissue samples** during the embedding process or for storage. Solvent-proof. With lid and labelling area. Easy to open and can be closed repeatedly. Outer dimensions: L 41 x W 27.5 x H 12 mm. Autoclavable.

Colour	Art. No.	Pack Qty.	€
white	EE16.1	250	84,40



Rotilabo®-metal lids

Reusable, made of high-grade stainless steel. Ideal for closing standard embedding cassettes. With perforation for optimal liquid diffusion.

Art. No.	Pack Qty.	€
H950.1	5	20,35



Metal embedding moulds

Made of stainless steel, with glossy finish, suitable for histology. Aids removing paraffin embeddings and allows ideal centring of findings in the paraffin block.

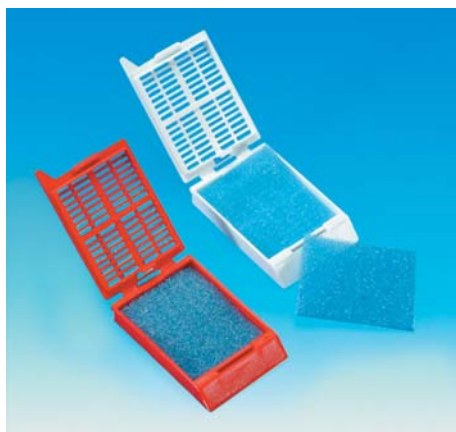
Type	L x W x H outer (mm)	Inner L x W (mm)	Art. No.	Pack Qty.	€
Standard	52 x 35 x 11	23 x 36	TT29.1	10	46,05
For biopsies	52 x 35 x 11,6	7 x 7	TT30.1	10	46,35



Macro embedding moulds

Made of **PVC**. With smooth inner surface and rounded corners for easy sampling. Suitable for Macro embedding cassettes (EE16.1). Volume 5 ml. Dimensions: L 37 x W 24 x H 20 mm.

Art. No.	Pack Qty.	€
AEK8.1	500	70,45



Sponges for embedding cassettes

Synthetic sponge, for embedding in Rotilabo®-embedding cassettes. Colour: blue. With controlled porosity. Can easily be placed in embedding cassettes. Suitable for the preparation of biopsies. Dimensions: L 32 x W 26 x H 2.5 mm.

Art. No.	Pack Qty.	€
TT56.1	500	21,20



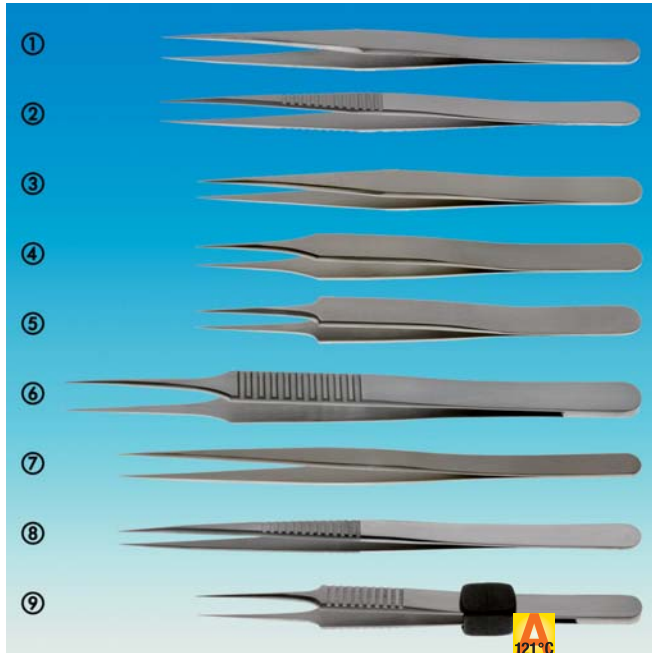
Rotilabo®-storage systems

For keeping and storing up to 250 embedding cassettes. With large labelling area. Dimensions: L 405 x W 230 x H 51 mm.

- Type ①: Made of PS. Can be stacked easily.
- Type ②: Made of coated, water-resistant carton

Type	Art. No.	Pack Qty.	€
① Drawer	HT97.1	6	134,40
② Box	HT98.1	12	76,35

Precision tweezers



Precision tweezers, straight with fine tips

By DUMONT®. Made of Inox, Dumoxel® and Dumostar®, autoclavable.
LH57.1 and types 5XL and L5 have a serrated outer surface for extra grip.

*Inox02 is not autoclavable.

Technical specifications:

Fig.	Type	Material (polished)	Tip		Length (mm)	Art. No.
			Thickness (mm)	Width (mm)		
①	3	Dumoxel®	0.04	0.08	120	LH71.1
①	3	Inox02*	0.1	0.17	120	K339.1
①	3	Dumostar®	0.1	0.17	120	LH76.1
②	3	Inox08	0.1	0.17	120	LH57.1
③	3C (type 3, short)	Inox02*	0.1	0.17	110	K340.1
④	4	Inox02*	0.08	0.13	110	K341.1
④	4	Dumoxel®	0.02	0.06	110	LH68.1
⑤	5	Inox08	0.06	0.1	110	K342.1
⑤	5	Dumoxel®	0.06	0.1	110	LH79.1
⑥	5XL (type 5, long)	Inox08	0.06	0.1	150	LH56.1
⑦	SS135	Inox02*	0.12	0.2	135	TE68.1
⑦	SS135	Inox08	0.06	0.1	135	TE69.1
⑧	SS	Inox08	0.12	0.2	135	LH59.1
⑨	L5	Inox08	0.06	0.1	110	LH55.1

Fig.	Type	Art. No.	Pack Qty.	€
①	3	LH71.1	1	29,00
①	3	K339.1	1	26,80
①	3	LH76.1	1	39,70
②	3	LH57.1	1	29,70
③	3C (type 3, short)	K340.1	1	24,70
④	4	K341.1	1	26,45
④	4	LH68.1	1	30,25
⑤	5	K342.1	1	28,85
⑤	5	LH79.1	1	26,35
⑥	5XL (type 5, long)	LH56.1	1	43,55
⑦	SS135	TE68.1	1	28,50
⑦	SS135	TE69.1	1	30,75
⑧	SS	LH59.1	1	28,70
⑨	L5	LH55.1	1	50,50



Precision tweezers, straight with extra fine tips

By DUMONT®. Made of Inox, Dumoxel® and Dumostar®, autoclavable.

Technical specifications:

Fig.	Type	Material (polished)	Tip		Length (mm)	Art. No.
			Thickness (mm)	Width (mm)		
①	5SPSF	Inox08, unpolished	0.005	0.025	110	LH52.1
①	5	Inox08	0.01	0.05	110	LH53.1
①	5	Dumoxel®	0.01	0.05	110	LH66.1
①	5	Dumostar®	0.01	0.05	110	LH75.1
②	55 (type 5, lightweight grips)	Inox08	0.01	0.05	110	TE70.1
②	55 (type 5, lightweight grips)	Dumostar®	0.01	0.05	110	TE71.1
③	M5 (type 5, small)	Dumoxel®	0.01	0.05	85	TE72.1

Fig.	Type	Art. No.	Pack Qty.	€
①	5SPSF	LH52.1	1	75,20
①	5	LH53.1	1	33,55
①	5	LH66.1	1	31,15
①	5	LH75.1	1	47,85
②	55 (type 5, lightweight grips)	TE70.1	1	34,20
②	55 (type 5, lightweight grips)	TE71.1	1	48,95
③	M5 (type 5, small)	TE72.1	1	31,50



Precision tweezers, Eco

By DUMONT®. Basic version, e.g. for student courses or routine applications.

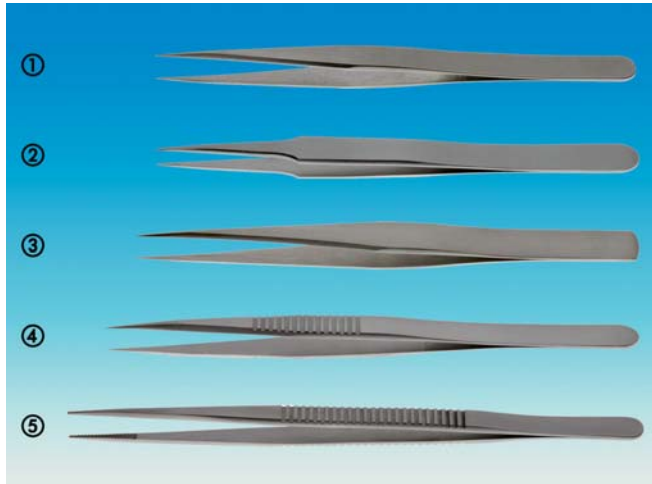
Made of Inox02.

Fig.	Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
①	5	0.06	0,10	110	PK78.1	1	22,50
②	3	0.10	0,17	120	TE62.1	1	22,40
③	7	0.10	0,17	115	TE63.1	1	25,30

Antimagnetic steel, epoxy coated.

Fig.	Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
①	5	0.06	0,10	110	LH63.1	1	20,25
③	7	0.10	0,17	115	LH65.1	1	22,15

Precision tweezers



Precision tweezers, straight with thick tips

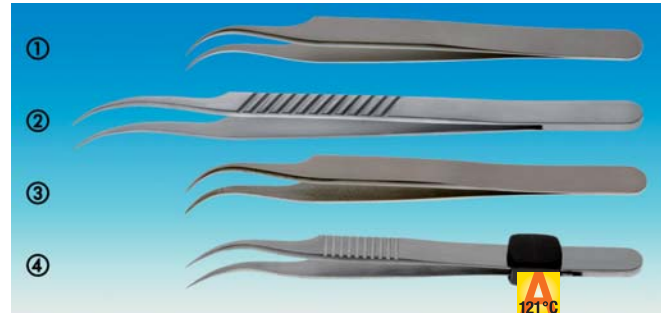
By DUMONT®. Made of Inox, autoclavable.
Types PP and 24 have a serrated outer surface and cross-ribbing on the inside of the tip for extra grip.

*Inox02 is not autoclavable.

Technical specifications:

Fig.	Type	Material (polished)	Tip		Length (mm)	Art. No.
			Thickness (mm)	Width (mm)		
①	1	Inox02*	0.12	0.2	120	K337.1
②	2	Inox02*	0.14	0.34	120	K338.1
③	AA	Inox02*	0.2	0.4	125	TE66.1
③	AA	Inox02, epoxy coated*	0.2	0.4	125	TE67.1
④	PP	Inox08	0.14	0.24	135	LH61.1
⑤	24	Inox08	0.5	0.5	150	LH62.1

Fig.	Type	Art. No.	Pack Qty.	€
①	1	K337.1	1	25,95
②	2	K338.1	1	25,30
③	AA	TE66.1	1	22,25
③	AA	TE67.1	1	26,05
④	PP	LH61.1	1	35,80
⑤	24	LH62.1	1	32,20



Precision tweezers, curved

By DUMONT®. Made of Inox, Dumoxel® and Dumostar®, autoclavable.
Types 7XL and 7B have a serrated outer surface and cross-ribbing on the inside of the tip for extra grip.

*Inox02 is not autoclavable.

Technical specifications:

Fig.	Type	Material (polished)	Tip		Length (mm)	Art. No.
			Thickness (mm)	Width (mm)		
①	7	Inox02*	0.1	0.17	115	K344.1
①	7	Dumoxel®	0.1	0.17	115	LH81.1
①	7	Dumostar®	0.1	0.17	115	LH78.1
②	7XL (type 7, long)	Inox08	0.14	0.24	150	TE76.1
③	7B	Inox02*	0.1	0.17	115	TE77.1
④	L7	Inox08	0.1	0.17	115	LH58.1

Fig.	Type	Art. No.	Pack Qty.	€
①	7	K344.1	1	30,65
①	7	LH81.1	1	28,10
①	7	LH78.1	1	43,25
②	7XL (type 7, long)	TE76.1	1	57,55
③	7B	TE77.1	1	30,55
④	L7	LH58.1	1	57,20

Information on the various alloys in DUMONT® precision tweezers

Alloy	Antimagnetic	Temperature stability	Autoclavable	Special features
Steel (C, Mn, Si)	No	n. a.	No	Very hard for thick tips, not corrosion resistant
Inox02 (C, Mn, Cr, Si)	No	up to 400 °C (DIN 50914)	No	Standard stainless steel
Inox08 (C, Mn, Cr, Mo, V)	No	up to 400 °C (DIN 50914)	Yes (up to 180 °C)	Medical stainless steel, corrosion resistant, good resistance to salts
Antimagnetic steel (C, Cr, Ni, Mo)	80 %	up to 400 °C (DIN 50914)	Yes (up to 270 °C)	Corrosion resistant
Dumoxel® (C, Cr, Ni, Mo, Cu)	95 %	up to 400 °C (DIN 50914)	Yes (up to 270 °C)	Good resistance to corrosion, including mineral and organic acids
Dumostar® (C, Cr, Mo, Mn, Co, Ni, Si)	100 %	up to 500 °C	Yes	Elastic, high resistance to corrosion, including mineral and organic acids, as well as salts
Titanium (C, Fe, O, H, N, Ti)	100 %	up to 430 °C	Yes	Highest corrosion resistance to chemicals such as nitric acid, chlorides and salt water. More flexible and 40 % lighter than stainless steel

Precision tweezers



Precision tweezers, angled

By DUMONT®. Made of Inox08 and Dumoxel®, autoclavable.
Type SS/45 has a serrated outer surface for extra grip.

Technical specifications:

Fig.	Type	Material (polished)	Tip		Length (mm)	Art. No.
			Thickness (mm)	Width (mm)		
①	5/15 (type 5, 15°)	Inox08	0.06	0.1	105	TE73.1
②	5/45 (type 5, 45°)	Inox08	0.06	0.1	109	K343.1
②	5/45 (type 5, 45°)	Inox08	0.01	0.05	109	LH54.1
②	5/45 (type 5, 45°)	Dumoxel®	0.01	0.05	109	LH67.1
③	5/90 (type 5, 90°)	Inox08	0.06	0.1	106	TE74.1
④	SS/45 (type SS, 45°)	Inox08	0.12	0.2	133	LH60.1
⑤	6	Dumoxel®	0.1	0.17	115	TE75.1
⑥	5AC (type 5, antipillary)	Dumoxel®	0.02	0.07	115	LH69.1

Fig.	Type	Art. No.	Pack Qty.	€
①	5/15 (type 5, 15°)	TE73.1	1	32,20
②	5/45 (type 5, 45°)	K343.1	1	32,15
②	5/45 (type 5, 45°)	LH54.1	1	35,70
②	5/45 (type 5, 45°)	LH67.1	1	33,00
③	5/90 (type 5, 90°)	TE74.1	1	33,90
④	SS/45 (type 55, 45°)	LH60.1	1	34,10
⑤	6	TE75.1	1	38,95



Precision tweezers, made of titanium

By DUMONT®. Extra lightweight. With fine tips, autoclavable.

Fig.	Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
①	5	0,01	0,05	110	TE59.1	1	37,85
②	3	0,10	0,17	120	TE60.1	1	33,90
③	7	0,10	0,17	115	TE61.1	1	41,10



Precision tweezers, self-closing

By DUMONT®. Made of Dumoxel®, autoclavable.

Fig.	Type	Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
①	N5 (type 5)	0.01	0,05	108	TE64.1	1	41,00
②	N7 (type 7)	0.03	0,07	115	TE65.1	1	45,70
③	N5AC (type 5, antipillary)	0.02	0,07	113	LH72.1	1	48,20
④	N7AC (type 7, antipillary)	0.04	0,09	115	LH73.1	1	45,70



Precision tweezers, special

By DUMONT®. Made of Dumoxel® and steel, epoxy coated.
Dumoxel® autoclavable.

Technical specifications:

Fig.	Type	Material (polished)	Tip		Length (mm)	Art. No.
			Thickness (mm)	Width (mm)		
①	2E1/2 (tip Ø 12.7 mm)	Dumoxel®	-	-	118	LH74.1
②	15A ESD (cutting)	steel, epoxy coated	8.5	10.5	115	TE78.1

Fig.	Type	Art. No.	Pack Qty.	€
①	2E1½ (tip Ø 12.7 mm)	LH74.1	1	36,35
②	15A ESD (cutting)	TE78.1	1	47,20



Precision tweezer with wooden tips

By DUMONT®. Made of antimagnetic steel, with boxwood tips.
For gentle handling of delicate materials.

Tip thickness (mm)	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
0,5	0,5	110	AHA0.1	1	53,70

Precision tweezers



Micro forceps

By Hammacher. Made of Remanit 4024 stainless steel. Autoclavable.

Image	Type	Tip width (mm)	Length (mm)	Art. No.	Pack Qty.	€
①	No. 3, straight	0,3	115	YE36.1	1	33,90
②	No. 4, straight	0,4	110	YE37.1	1	37,20
③	No. 5, straight	0,15	110	YE38.1	1	38,70
④	No. 5-45, angled 45° to the side	0,3	110	YE39.1	1	38,70
⑤	No. 7, curved	0,2	115	YE40.1	1	40,65



Fine forcep

By Hammacher. Made of stainless steel Remanit 4024. With guide pin and long tip (inside serrated). Length 200 mm. Autoclavable.

Art. No.	Pack Qty.	€
YE29.1	1	36,50



Tweezers with fine tip

Made of Remanit 4301. Precision ground tips. Autoclavable.

Type	Length (mm)	Art. No.	Pack Qty.	€
① straight	120	PX37.1	1	7,00
② curved	120	PX39.1	1	10,25
③ straight, tower tip	110	PX38.1	1	9,65



Microscopic forceps

By Hammacher. Made of Remanit 4024 stainless steel. With guide pin. Inside serrated tips. Autoclavable.

① Straight

Length (mm)	Art. No.	Pack Qty.	€
105	YK30.1	1	24,30
115	YK31.1	1	25,30
130	YK32.1	1	25,60

② Bent

Length (mm)	Art. No.	Pack Qty.	€
105	YK33.1	1	24,85
115	YK34.1	1	25,50

③ Strongly bent

Length (mm)	Art. No.	Pack Qty.	€
115	YK35.1	1	25,75



Dissecting forceps

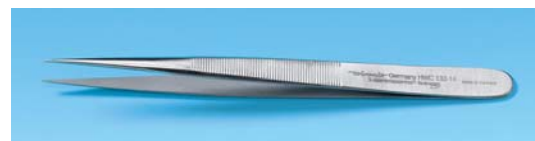
By Hammacher. Made of Remanit 4024 stainless steel. Fine tips, inside serrated. Autoclavable.

① Straight

Length (mm)	Art. No.	Pack Qty.	€
80	YK39.1	1	16,35
105	YK40.1	1	17,95
115	YK41.1	1	19,25
130	YK42.1	1	21,85
145	YK43.1	1	23,15

② Bent

Length (mm)	Art. No.	Pack Qty.	€
105	YK44.1	1	18,20
115	YK45.1	1	20,45
130	YK46.1	1	22,40
145	YK47.1	1	23,45



Laboratory forceps, sharp tipped

By Hammacher. Made of stainless steel Remanit 4301. Tips smooth on inside. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
120	YE33.1	1	22,70
140	YE34.1	1	24,20
160	YE35.1	1	25,50

Forceps



Rotilabo®-tweezers set

Four stainless steel tweezers (Remanit 4301) in a case.

Contents:

- 1 tweezer with fine tip, curved, 120 mm
- 1 straight tweezer, blunt tip, 130 mm
- 1 tweezer with guide pin, straight, 130 mm
- 1 coverslipper tweezer, curved, 115 mm

Art. No.	Pack Qty.	€
PX40.1	1	32,20



Forceps with guide pin

Made of Remanit 4301. Fine model. Autoclavable.

① Straight

Length (mm)	Art. No.	Pack Qty.	€
105	LT35.1	1	7,00
130	LT36.1	1	7,50

② Bent

Length (mm)	Art. No.	Pack Qty.	€
105	LT37.1	1	8,10
130	LT38.1	1	8,55



Adson anatomic forceps

By Hammacher. Made of Remanit 4024 stainless steel. With fine tips, inside serrated. Autoclavable.

Type	Length (mm)	Art. No.	Pack Qty.	€
Adson, fine	120	YK36.1	1	25,70
Adson, fine	150	YK37.1	1	29,25
Micro Adson	120	YK38.1	1	27,20



Forceps

Made of Remanit 4301. Inside of tip is fluted for secure grip. Autoclavable.

① Straight, blunt, anatomical

Length (mm)	Art. No.	Pack Qty.	€
105	2687.1	1	5,50
115	2688.1	1	5,85
130	2689.1	1	6,35
145	2690.1	1	6,60
160	2691.1	1	6,95
200	2692.1	1	10,70
250	2693.1	1	12,50

② Straight, pointed

Length (mm)	Art. No.	Pack Qty.	€
105	2695.1	1	7,05
115	2801.1	1	8,55
130	2802.1	1	9,10
145	2851.1	1	8,75
160	2852.1	1	9,55
200	2853.1	1	15,60

③ Bent, pointed

Length (mm)	Art. No.	Pack Qty.	€
105	2854.1	1	7,30
115	2855.1	1	7,45
130	2856.1	1	8,75
145	2857.1	1	9,65
160	2858.1	1	10,25
200	2859.1	1	15,50

Bent, blunt (without fig.)

Length (mm)	Art. No.	Pack Qty.	€
115	PX28.1	1	5,50
130	PX29.1	1	5,85
145	PX30.1	1	6,65
160	PX31.1	1	7,00
200	PX32.1	1	10,70



Long forceps

Made of Remanit 4301, blunt, length 300 mm. With 25 mm corrugated handles. Autoclavable.

Art. No.	Pack Qty.	€
0951.1	1	16,05

Forceps



Rotilabo®-tweezers stand

Made of Remanit 4301, ESD coated. For safe storage of sensitive tweezers as well as for drying of tweezers after cleaning. Tweezers holder can be screwed upside down under a shelf for space-saving storage. Dimensions: L 185 x W 60 x H 135 mm. **Delivery without tweezers.**

Art. No.	Pack Qty.	€
PX20.1	1	53,25



Rotilabo®-forceps with clip

Made of stainless steel 18/8. A selection of the most commonly used laboratory instruments for "clipping on" to your lab coat. Design protected by copyright. Autoclavable.

Type	Length (mm)	Tips	Art. No.	Pack Qty.	€
Forceps	130	straight, blunt	X147.1	1	10,25
Forceps	145	straight, blunt	X148.1	1	10,65
Forceps	130	straight, pointed	X149.1	1	11,65
Forceps for cover slips	115	curved	X151.1	1	11,80



Splinter forceps

By Hammacher. Made of Remanit 4024 stainless steel. Autoclavable.

Type	Length (mm)	Art. No.	Pack Qty.	€
①	80	YK48.1	1	21,75
②	105	YK49.1	1	24,20



Hooked tip forceps

Surgical.

Made of Remanit 4301. With teeth 1 : 2 for securely fixing tissue pieces. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
115	2860.1	1	10,00
130	2861.1	1	10,00
145	2862.1	1	10,00
160	2863.1	1	10,25



Adson micro hooked forcep

By Hammacher. Made of stainless steel Remanit 4024. With 2:1 fine serrations for secure grip. Length 120 mm. Autoclavable.

Art. No.	Pack Qty.	€
YE32.1	1	27,45



Hooked forceps, fine

By Hammacher. Made of stainless steel Remanit 4301. With 2:1 fine serrations for secure grip. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
105	YE30.1	1	39,25
115	YE31.1	1	39,80

Forceps



Forceps for handling cover slips

Acc. to Kühne. Made of Remanit 4301. Autoclavable.

Type	Length (mm)	Art. No.	Pack Qty.	€
straight	115	K717.1	1	6,25
curved	115	K718.1	1	6,40
curved	130	K719.1	1	7,65
curved	145	K720.1	1	8,20



Cutting forcep

By Hammacher. Made of Remanit 4301 stainless steel. Length 105 mm. Autoclavable.

Art. No.	Pack Qty.	€
YK50.1	1	62,30



Forceps for filter paper

Made of 18/10 stainless steel. For handling filter papers, cover slips and other flat objects. Width 12 mm, length 125 mm. Autoclavable.

Art. No.	Pack Qty.	€
C828.1	1	9,80



Automatic tensioning tweezers

Made of high-grade stainless steel 18/8. Automatic tensioning. Autoclavable.

Type	Length (mm)	Art. No.	Pack Qty.	€
① curved	105	HL63.1	1	6,25
② straight, pointed	120	HL64.1	1	7,35



Forceps with ring-shaped tip

By Hammacher. Made of Remanit 4301. For handling soft tissue and fragile specimens. Autoclavable.

Length (mm)	Outer Ø (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
90	3	2,2	LL00.1	1	28,50
90	6	4,8	LL01.1	1	28,95



Wafer tweezers

Made of stainless steel 18/10. Autoclavable.

Model	Type	Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
①	PTFE-coated	120	7	LX39.1	1	40,35
②	non-coated	125	9	LX40.1	1	23,55
③	non-coated	125	12	LX41.1	1	22,50



Forceps with ring-shaped tip

Made of stainless steel 18/10. Dimensions of tip: W 6.5 x Ø 3.5 mm. Length 120 mm. Autoclavable.

Art. No.	Pack Qty.	€
LX48.1	1	17,10

- Filter papers see page 492
- Cover slips see page 276

Forceps



Forceps made of spring steel

Leightweight.

Type	Length (mm)	Art. No.	Pack Qty.	€
pointed	105	AL99.1	1	9,65
blunt	115	AN00.1	1	9,65



Long tweezer

Made of nylon, handle made of 18/10 stainless steel.
Heat resistant from -20 to +150 °C. Length 300 mm.

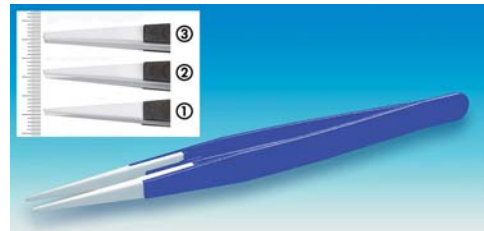
Art. No.	Pack Qty.	€
PT95.1	1	11,80



Rotilabo®-weighing tweezers

Made of stainless steel, with PVC tips. Curved.
Length 90 mm. Weight 8 g.

Art. No.	Pack Qty.	€
YT63.1	1	5,95



Ceramic forceps

With ceramic tip and PAA handle. Stabilised for higher breaking strength.
Metal-free and antimagnetic. Length 125 mm.

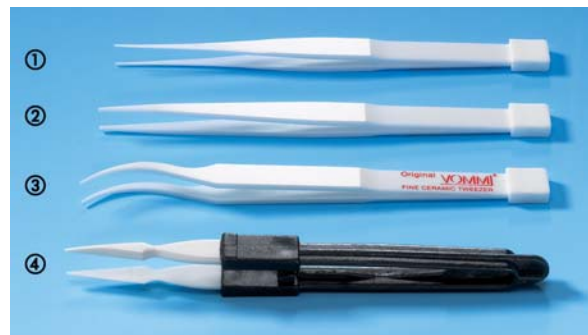
Image	Type	Tip width (mm)	Art. No.	Pack Qty.	€
①	Superfine	0,5	PE65.1	1	21,45
②	Fine	1,0	PE66.1	1	21,45
③	Universal	2,0	PE67.1	1	21,45



Forceps with PTFE-coating

Made of stainless steel 18/10 (Remanit 4301), with resistant PTFE coating.
Suitable for liquids such as acids, bases and solvents as long as coating is intact. Non adhesive. Black. Temperature stable from -200 to +260 °C. Autoclavable.

Type	Length (mm)	Art. No.	Pack Qty.	€
blunt	115	C830.1	1	25,05
blunt	130	C831.1	1	25,05
blunt	145	C832.1	1	25,05
pointed	115	C833.2	1	25,05
pointed	130	C834.2	1	25,05
pointed	145	C835.2	1	25,05
pointed/curved	115	C836.2	1	25,05
pointed/curved	130	C837.2	1	25,05
pointed/curved	145	C838.2	1	25,05



Ceramic forceps

Solid ceramics

Heat resistant up to +700 °C. Resists acids and bases (except for HF).
Anti-magnetic. With non-adhesive surface. Low friction factor.
Low susceptibility to electrostatic charging.

Type	Length (mm)	Art. No.	Pack Qty.	€
① very sharp, straight tip	120	LX49.1	1	154,80
② sharp, straight tip	120	5327.1	1	127,95
③ sharp, curved tip	125	5328.1	1	155,90

With plastic grip made of POM

Enhanced grip with notched tip interior.

Type	Length (mm)	Art. No.	Pack Qty.	€
④ Lancet	130	LX50.1	1	143,00

Forceps



Tweezers

Made of **POM**, yellow. Flexible, with rounded tips. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
118	TT35.1	5	12,60
147	TT36.1	5	15,30
253	TT37.1	5	39,70



Plastic forceps

Made of glass fibre reinforced **POM** with carbon fibres. Good chemical resistance. Antistatic. Very robust by glass fibre reinforcement. Length 110 mm. Temperature stable up to +90 °C.

Type	Tip width (mm)	Art. No.	Pack Qty.	€
① Flat tips	3,0	C317.1	3	32,60
② Very fine tips	0,3	C318.1	3	32,60
③ Fine tips	1,0	C319.1	3	32,60
④ Curved	2,0	C320.1	3	32,60



Rotilabo®-disposable tweezers

Sterile (individually packed) or unsterile. Anatomical shape.

Technical specifications:

Type	① sterile	② unsterile
Material	ABS	PP, glass-fibre reinforced
Length (mm)	120	125
Width of tip (mm)	4	3

Type	Art. No.	Pack Qty.	€
① sterile	KL05.1	100	36,50
② unsterile	KL06.1	100	15,05



Plastic forceps

Made of **CTFE**. High chemical resistance, resistant to acids. Suitable for chemical labs and in electronic workshops. Length 112 mm. Temperatures up to +200 °C.

Type	Tip width (mm)	Art. No.	Pack Qty.	€
Smooth tips	3,0	C321.1	1	20,55
Corrugated tips	3,0	C322.1	1	21,00



Plastic forceps

Made of **PTFE**. Extremely chemically and thermally stable. Flexible, with smooth tips. Length 150 mm, weight 30 g. Autoclavable.

Art. No.	Pack Qty.	€
0504.1	1	22,60



aspirette® battery powered vacuum forceps

By Hirschmann. With vacuum pump. Ideal for handling small objects up to 70 g in weight. With one-button operation. Ergonomically designed. Suitable for handling membrane filters, optical lenses, microchips, cover slips, slides, etc. Rechargeable up to 1000 x. **Delivery incl.** battery charger 230 V, 3 suction cups and 3 needles with Ø 3.2 / 6 and 10 mm.

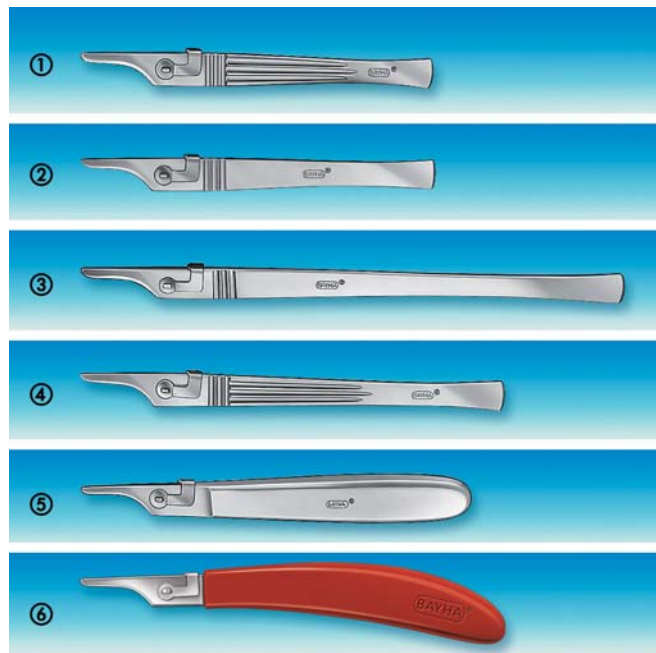
Art. No.	Pack Qty.	€
A247.1	1	183,85

Spare suction parts for aspirette®

Consists of 3 suction nozzles and cups Ø 3.2 / 6 and 10 mm.

Art. No.	Pack Qty.	€
N178.1	1	28,20

Scalpels/blades



Scalpel handles

By BAYHA®. Made of stainless steel.

- With locking mechanism
- Replaceable blades
- Safe to handle since the blades are inserted into the handle at the side
- Type 3 is particularly well suited to sterile work due to its length
- Type 6 with ergonomic handle made of **PA** (non-sterilisable)
- Fits BAYHA® scalpel blades (Art. No. EX68.1ff)

Type	Length (mm)	Art. No.	Pack Qty.	€
①	130	EX64.1	1	15,40
②	130	XP07.1	1	16,05
③	200	EX66.1	1	33,35
④	160	EX65.1	1	17,10
⑤ (hollow handle)	150	EX67.1	1	34,95
⑥ (with plastic handle)	160	XP08.1	1	29,90



Scalpel blades

Made of carbon steel. For Art. No. EX64.1 to EX67.1.

Sterile (individually wrapped in special foil) or **unsterile** (individually wrapped in paper foil).

Model	Art. No.	Sterile		Art. No.	Unsterile	
		Pack Qty.	€		Pack Qty.	€
11	EX68.1	12	6,40	EX82.1	12	5,85
15	EX69.1	12	6,40	EX83.1	12	5,85
16	EX70.1	12	6,40	EX84.1	12	5,85
18	EX71.1	12	6,40	EX85.1	12	5,85
19	EX72.1	12	6,40	EX86.1	12	5,85
20	EX73.1	12	6,40	EX87.1	12	5,85
21	EX74.1	12	6,40	EX88.1	12	5,85
22	EX75.1	12	6,40	EX89.1	12	5,85
23	EX76.1	12	6,40	EX90.1	12	5,85
24	EX77.1	12	6,40	EX91.1	12	5,85
26	EX78.1	12	6,40	EX92.1	12	5,85
27	EX79.1	12	6,40	EX93.1	12	5,85
28	EX80.1	12	6,40	EX94.1	12	5,85
29	EX81.1	12	6,40	EX95.1	12	5,85



Scalpel protective cap

Made of **PP**. For BAYHA® scalpels (Art. No. EX64.1ff). Dimensions: L 80 x W 20 x H 11 mm.

Art. No.	Pack Qty.	€
XP09.1	1	3,90



Rotilabo®- special blades, blunt

Made of carbon steel. For scalpel handles by Bayha® (Art. No. EX64.1ff). Blunt scalpel blades for special applications, e.g. cutting DNA strands from agarose gels without scratching the transilluminator. Individually packed in paper film. No CE mark.

Type	Art. No.	Pack Qty.	€
26	ATA9.1	12	5,50

Scalpels/blades

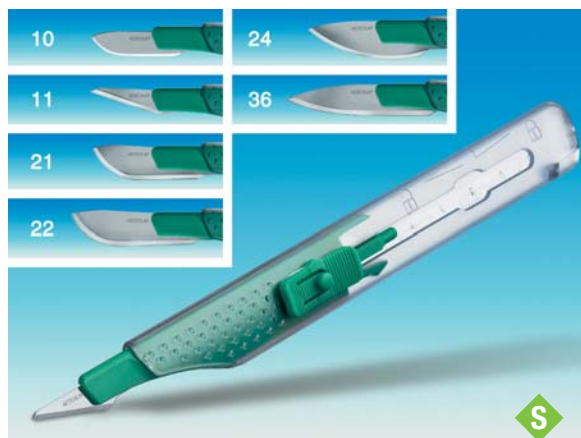


Cutfix®-disposable scalpels

By B. Braun. **Sterile** (γ-sterilized and individually wrapped).

- With ergonomically formed handle made of plastic
- Double precision grinding of blade for a smooth, clean cut
- Tight blade for precision cutting
- With easy to remove protective cover

Figure	Art. No.	Pack Qty.	€
10	T997.1	10	6,25
11	T998.1	10	6,25
12	T999.1	10	6,25
15	X001.1	10	6,25
20	X002.1	10	6,25
21	X003.1	10	6,25
22	X004.1	10	6,25
23	X005.1	10	6,25
24	X006.1	10	6,25



Aesculap®-safety scalpels

By B. Braun. **Sterile** (individually packed). Locks securely in the disposal position to prevent cutting and piercing injuries. The mechanism is activated automatically by pushing back the blade with one hand.

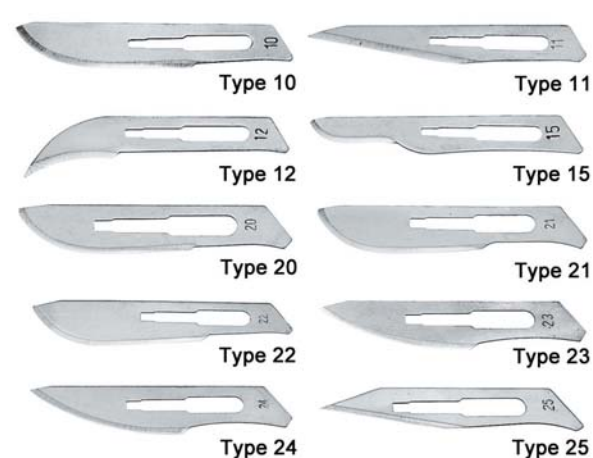
Figure	Art. No.	Pack Qty.	€
10	XC14.1	10	18,85
11	XC15.1	10	18,85
21	XC16.1	10	19,50
22	XC17.1	10	19,50
24	XC18.1	10	19,50
36	XC19.1	10	19,50



Rotilabo®-scalpel handles

Made of stainless steel, mat finished. Autoclavable. Suitable for scalpel blades CE20.1 ff and 3607.1 ff.

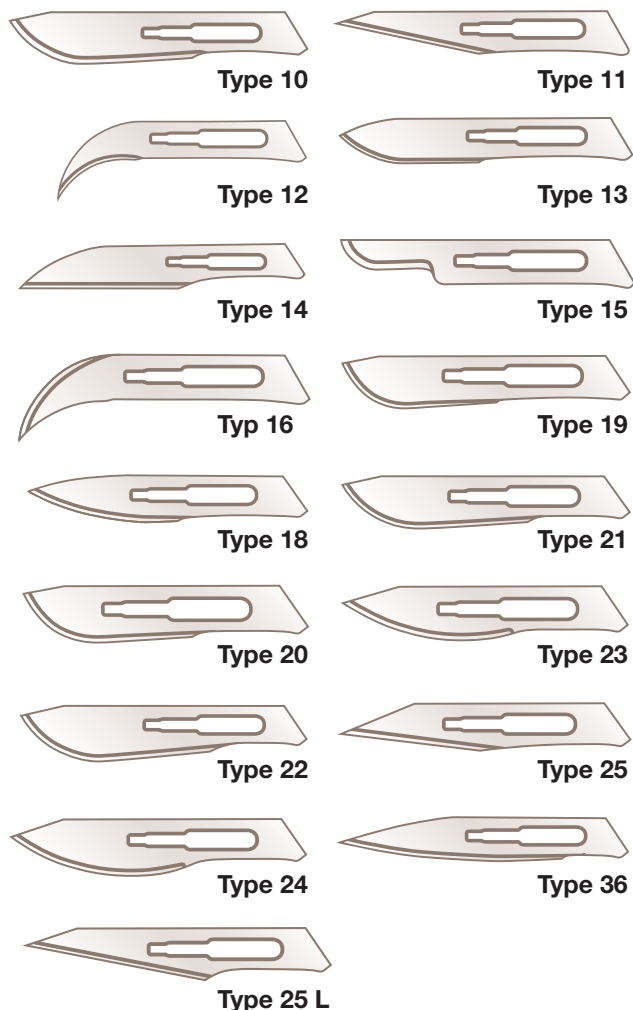
Type	for blade-type	Type	Length (mm)	Art. No.	Pack Qty.	€
① Nr. 3	10-16	short	125	CE16.1	1	6,35
② Nr. 3 L	10-16	long	208	CE17.1	1	16,10
③ Nr. 4	18-36	short	135	CE18.1	1	6,35
④ Nr. 4 L	18-36	long	218	CE19.1	1	16,10



Rotilabo®-scalpel blades

Made of carbon steel (material 1.1545). **Sterile** (γ-sterilised and individually packed). Suitable for scalpels CE16.1 ff and 3607.1 f or H752.1 f.

Type	for scalpel handle	Art. No.	Pack Qty.	€
10	No. 3	CE20.1	100	13,15
11	No. 3	CE21.1	100	13,15
12	No. 3	CE22.1	100	13,15
15	No. 3	CE23.1	100	13,15
20	No. 4	CE24.1	100	13,15
21	No. 4	CE25.1	100	13,15
22	No. 4	CE26.1	100	13,15
23	No. 4	CE27.1	100	13,15
24	No. 4	CE28.1	100	13,15
25	No. 4	CE29.1	100	13,15



Scalpels

For exchangeable blades. **Metal handle** (glossy) made of forged steel, chrome-plated. For heavy duty work. **Plastic handle** made of shock-resistant PS. For light work. Suitable for scalpel blades CE20.1ff and 3608.1 ff.

For blade types 10 to 16

Material	Scope of supply	Art. No.	Pack Qty.	€
Steel, chrome-plated	includes blade type 13	3607.1	1	12,05

For blade types 18 to 36

Material	Scope of supply	Art. No.	Pack Qty.	€
Steel, chrome-plated	includes blade type 21	H753.1	1	10,55
Polystyrene	includes blade type 24	H752.1	1	3,20



Scalpel blades

Suitable for scalpels CE16.1ff and 3607.1 or H752.1f.

Type	For scalpels	Art. No.	Pack Qty.	€
10	3607.1/3596.1/no. 3	3608.1	10	8,40
11	3607.1/3596.1/no. 3	3621.1	10	8,40
12	3607.1/3596.1/no. 3	3613.1	10	8,40
13	3607.1/3596.1/no. 3	3609.1	10	8,40
14	3607.1/3596.1/no. 3	H754.1	10	8,65
15	3607.1/3596.1/no. 3	H755.1	10	8,40
16	3607.1/3596.1/no. 3	H756.1	10	8,40
18	H752.1/H753.1/no. 4	H758.1	10	10,70
19	H752.1/H753.1/no. 4	H759.1	10	8,40
20	H752.1/H753.1/no. 4	H760.1	10	8,40
21	H752.1/H753.1/no. 4	H761.1	10	8,40
22	H752.1/H753.1/no. 4	H762.1	10	8,40
23	H752.1/H753.1/no. 4	H763.1	10	8,65
24	H752.1/H753.1/no. 4	H764.1	10	8,40
25	H752.1/H753.1/no. 4	H765.1	10	8,40
25L	H752.1/H753.1/no. 4	H766.1	10	8,40
36	H752.1/H753.1/no. 4	H767.1	10	11,00

TRIMMEX CUTTOGRAF scalpel blade

Plastic scalpel handle with fitted blade No. 11. User-friendly blade clamp holds the blade at any desired cutting depth. On completion of work, the blade retracts safely into the handle. Easy blade replacement.

Art. No.	Pack Qty.	€
XK01.1	1	8,55

Accessories:

Scalpel blades, type 10	3608.1	10	8,40
Scalpel blades, type 11	3621.1	10	8,40
Scalpel blades, type 12	3613.1	10	8,40
Scalpel blades, type 13	3609.1	10	8,40
Scalpel blades, type 14	H754.1	10	8,65
Scalpel blades, type 15	H755.1	10	8,40
Scalpel blades, type 16	H756.1	10	8,40

Scalpels/blades



Scalpel blades with finger guide

Ergonomic shape with rubber coated grip on handle for comfortable handling, can be guided precisely with the forefinger. Ideal for delicate dissection work and preparation. With protective cap for safe storage. Assorted colours (yellow, pink, green).
Dimensions: L 104 x W 35 x H 20 mm, length without protective cap 98 mm.

Art. No.	Pack Qty.	€
ANY6.1	3	16,40



Scalpels

With replaceable steel blades. With aluminium handle. For precise cutting in paper, cardboard and foil. Length 148 mm. Incl. 3 spare blades, type 1.

Art. No.	Pack Qty.	€
AH88.1	1	4,85

Spare blades

For scalpel order Art. No. AH88.1.

Image	Type	Art. No.	Pack Qty.	€
①	sharp	AH89.1	10	3,35
②	Machete	AH90.1	10	4,10



Scalpel

Length 125 mm. Autoclavable.

Made of chrome steel 1.4034

Type	Art. No.	Pack Qty.	€
① anatomic	PX21.1	1	8,40

Made of chrome steel 1.4021

Type	Art. No.	Pack Qty.	€
② pointed tip	PX23.1	1	7,50
③ round tip	PX22.1	1	7,50



Razors

Blade length 64 mm, incl. 10 spare blades (ground on both sides, 64 x 22 mm).

Type	Art. No.	Pack Qty.	€
Plastic handle	KX90.1	1	45,50
Metal handle	KX91.1	1	51,10

Accessories:

Spare blades	KX92.1	10	14,85
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Microtome blades

Premium Surgipath® DB80-series

By Leica®. Disposable microtome blades with chrome plating and finely honed edge along the full length of the blade for extra-thin sections of the highest quality. Extra-sharp, durable blades ensure consistently precise sectioning from the 1st to the 25th time. Cutting angle 35°.

DB80 LS - with narrow blade profile for routine sectioning in all types of tissue. Extra-thin sections for diagnostic analysis. Dimensions: L 80 x W 8 mm.

DB80 LX - with narrow blade profile for extremely hard and thick tissue as well as routine sectioning. Extremely durable. Dimensions: L 80 x W 8 mm.

DB80 HS - with wide blade profile for all paraffin-embedded tissue specimens and for routines sectioning in all types of tissue.

Suitable for in situ specimen preparation. Dimensions: L 80 x W 14 mm.

Type	Art. No.	Pack Qty.	€
DB80 LS	PX78.1	50	137,60
DB80 LX	PX79.1	50	137,60
DB80 HS	PX80.1	50	137,60

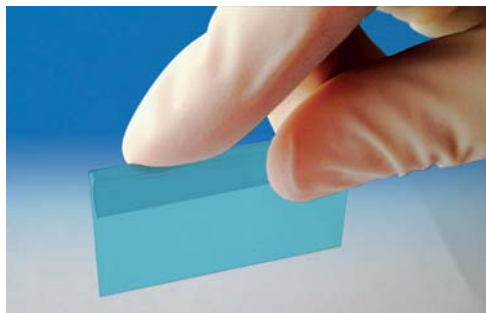
Scissors



Stirrup-shaped blades

By Apollo. Blades with practical handle made of chromium-plated steel. Suitable for cutting and scraping.

Image	Length (mm)	Height (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
①	57	24,8	0,28	CK08.1	5	7,50
②	39	19,0	0,30	CK07.1	5	3,70



Safety blades

Made of PET, thickness 0.22 mm. For cutting strips of agarose gel without scratching the transilluminator. Also suitable for cutting soft animal and plant tissue and for other applications where blunt blades reduce the risk of cutting injury. Blade length can be shortened by trimming.

Length (mm)	Height (mm)	Art. No.	Pack Qty.	€
38	19	AXH6.1	100	28,70
50	38	AXH7.1	100	30,45



Bone scissors

Made of 18/0 nickel-free stainless steel. Length 250 mm. Blade length 80 mm.

① **Curved handle. With buffer spring. Autoclavable.**

Weight (g)	Art. No.	Pack Qty.	€
295	LT13.1	1	26,90

② **Black POM handles with stainless steel rivets. With inner spring.**

Weight (g)	Art. No.	Pack Qty.	€
233	LT14.1	1	13,95



Scissors

Made of steel, polished.

① **Pointed-blunt**

*Made of high grade steel, nickel plated.

Length (mm)	Cutting length (mm)	Art. No.	Pack Qty.	€
130*	37	3543.1	1	12,15
145	38	3545.1	1	11,10
160	50	3551.1	1	11,10

② **Pointed-pointed**

Length (mm)	Cutting length (mm)	Art. No.	Pack Qty.	€
130	37	3569.1	1	11,10
140	38	3576.1	1	11,10
160	48	3577.1	1	11,10

③ **Blunt-blunt**

Length (mm)	Cutting length (mm)	Art. No.	Pack Qty.	€
130	37	3581.1	1	11,10
145	38	3582.1	1	11,10
160	48	3592.1	1	11,10



Special scissor

Made of stainless steel 18/0. Suitable for cutting solid materials such as plant stems. Length 160 mm. Blade length 45 mm. Autoclavable.

Art. No.	Pack Qty.	€
YE81.1	1	15,60



Utility scissor

Made of stainless steel 18/0, with lacquered handle. Serrated counter blade ensures good cutting quality. Hygienic cleaning - shears are easy to disassemble. Length 220 mm. Blade length 100 mm. Autoclavable.

Art. No.	Pack Qty.	€
YE80.1	1	16,70

Microscopy/Dissecting scissors



Microscopy scissors

Pointed-pointed. Made of high-grade steel.

Length (mm)	Type	Cutting length (mm)	Art. No.	Pack Qty.	€
100	straight	30	3534.1	1	14,55
100	curved	28	3539.1	1	15,80



Special scissors

Made of stainless steel. Autoclavable.

Type	Type	Length (mm)	Art. No.	Pack Qty.	€
① BEE-BEE	straight	110	LX66.1	1	7,50
② SPENCER	straight	120	LX67.1	1	9,30
③ KNOWLES	straight	140	LX68.1	1	9,60
④ LISTER	offset	110	LX69.1	1	8,40



Microscopy scissors, buttoned

Made of stainless steel, material number 1.4117. Ball-ended on one side. Length 115 mm. Autoclavable.

Art. No.	Pack Qty.	€
LX78.1	1	30,55



Dissecting scissors for microscopy

By Hammacher. Made of stainless steel, straight, sharp. Autoclavable. Illustration shows TE27.1.

With smooth blade

Scissors blade	Length (mm)	Cutting length (mm)	Art. No.	Pack Qty.	€
angular	90	18	TE25.1	1	33,65
angular	105	23	TE26.1	1	30,85
round	115	26	TE27.1	1	38,60

With serrated blade for easier cutting without slipping.

Scissors blade	Length (mm)	Cutting length (mm)	Art. No.	Pack Qty.	€
angular	90	18	TE28.1	1	33,90
angular	105	23	TE29.1	1	30,85
round	115	26	TE30.1	1	38,60



Dissecting scissors

Made of corrosion-free stainless steel 18/8. Autoclavable.

① Microscopy scissors

Angled. Cutting length 27 mm. Length 115 mm.

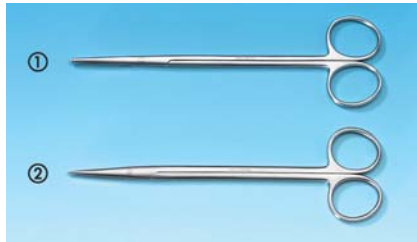
Type	Art. No.	Pack Qty.	€
sharp-sharp	LT18.1	1	10,25

② Incision scissors

Probe-pointed tip. Length 145 mm.

Type	Art. No.	Pack Qty.	€
sharp probe-pointed	LT19.1	1	9,60

Micro scissors



Dissecting and suture scissors

By Hammacher. Made of stainless steel, straight, fine. Autoclavable.

Type	Type	Length (mm)	Cutting length (mm)	Art. No.	Pack Qty.	€
① Baby-Metzenbaum	blunt-blunt	145	32	TE31.1	1	50,45
① Baby-Metzenbaum	blunt-blunt	180	33	TE32.1	1	80,60
② Metzenbaum fino	sharp-sharp	145	34	TE33.1	1	85,80
② Metzenbaum fino	sharp-sharp	180	33	TE34.1	1	89,90



Micro scissors

Autoclavable.

① By Hammacher. Made of stainless steel 18/8. Very fine. Length 115 mm.

Art. No.	Pack Qty.	€
LT28.1	1	47,55

② Made of rustfree steel, material number 1.4117. Straight. Length 105 mm. Type STEVENS.

Art. No.	Pack Qty.	€
LX77.1	1	53,70



Dissecting scissors with microsection

By Hammacher. Made of stainless steel, sharp. For extra sharp cutting. Autoclavable.

Type	Length (mm)	Cutting length (mm)	Art. No.	Pack Qty.	€
① straight	105	24	TE35.1	1	50,10
① curved	105	23	TE36.1	1	56,25
① offset	105	28	TE37.1	1	58,60
② straight, type Joseph	140	31	TE38.1	1	60,95
③ straight, type Kelly	160	29	TE39.1	1	64,45



Micro scissors, type Mikro-Iris

By Hammacher. Made of stainless steel, sharp. Length 90 mm. Cutting length 19 mm. Autoclavable. Illustration shows TE45.1.

Type	Art. No.	Pack Qty.	€
straight	TE45.1	1	33,15
curved	TE46.1	1	34,85



Dissecting scissors with carbide inserts

By Hammacher. Made of stainless steel, straight, sharp. For consistent cuts. Autoclavable.

Type	Length (mm)	Cutting length (mm)	Art. No.	Pack Qty.	€
① Standard	115	26	TE40.1	1	160,20
② Standard	145	47	TE41.1	1	175,25
③ Metzenbaum fino	145	38	TE42.1	1	203,20



Cutting forcep

By Hammacher. Made of Remanit 4301 stainless steel. Length 105 mm. Autoclavable.

Art. No.	Pack Qty.	€
YK50.1	1	62,30

Forceps



Micro scissor, type IRIS

Made of stainless steel. Length 110 mm. Autoclavable.

Art. No.	Pack Qty.	€
LX76.1	1	64,45



Micro scissors, high precision

By Hammacher. Made of stainless steel, straight, tapered ends. With very fine blades for precise and clean cuts. Autoclavable.

Type	Length (mm)	Cutting length (mm)	Art. No.	Pack Qty.	€
① Standard	105	15	TE44.1	1	178,45
② Standard	90	10	TE43.1	1	175,25
③ Vannas	80	8,5	TE48.1	1	213,95



Micro scissor, Tübingen model

By Hammacher. Made of stainless steel, straight, tapered ends. With very fine blades for precise and clean cuts. Length 85 mm. Cutting length 7 mm. Autoclavable.

Art. No.	Pack Qty.	€
TE47.1	1	221,45



Bone-cutting forceps

By Hammacher.

Made of steel, nickel plated and chrome plated.

Length (mm)	Art. No.	Pack Qty.	€
120	TC36.1	1	29,00
130	TC37.1	1	29,00

Made of stainless steel. Autoclavable. Illustration shows TC38.1.

Length (mm)	Art. No.	Pack Qty.	€
120	TC38.1	1	47,30
130	TC39.1	1	49,25



Bone forceps, fine

By Hammacher.

Made of steel, nickel plated and chrome plated. Non-autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
105	TC40.1	1	33,35
115	TC41.1	1	45,15

Made of stainless steel. Autoclavable. Illustration shows TC42.1.

Length (mm)	Art. No.	Pack Qty.	€
105	TC42.1	1	58,05
115	TC43.1	1	64,45



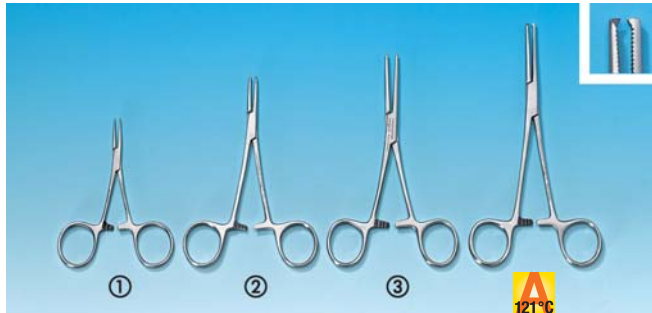
Gouge forceps, type Friedmann

By Hammacher. Made of stainless steel. Autoclavable.

Illustration shows TC44.1.

Type	Jaw width (mm)	Length (mm)	Art. No.	Pack Qty.	€
Mini, straight	1,2	150	TC44.1	1	166,65
Mini, curved	1,2	150	TC45.1	1	170,95
curved	2,0	140	TC46.1	1	159,10

Needles/clamps



Artery and hose clamps

By Hammacher. Made of stainless steel. Autoclavable.

① Type Baby-Mosquito

Type	Length (mm)	Art. No.	Pack Qty.	€
straight	90	TC89.1	1	45,90
curved	90	TC90.1	1	45,90

② Type Halsted-Mosquito

Type	Length (mm)	Art. No.	Pack Qty.	€
straight	90	TC93.1	1	40,85
straight	120	TC94.1	1	43,25
curved	90	TC95.1	1	41,90
curved	120	TC96.1	1	43,35

③ Type Pean

Type	Length (mm)	Art. No.	Pack Qty.	€
straight	130	TC97.1	1	41,50
straight	140	TC98.1	1	43,30
curved	130	TC99.1	1	44,65
curved	140	TE00.1	1	45,40

④ Type Kocher (Ochsner)

With 1:2 teeth for securing tissue.

Type	Length (mm)	Art. No.	Pack Qty.	€
straight	140	TE01.1	1	46,45
straight	160	TE02.1	1	54,20
curved	140	TE03.1	1	48,85
curved	160	TE04.1	1	57,00



Micro clamps, type Micro-Halsted

By Hammacher. Made of stainless steel, super fine. Length 125 mm. Autoclavable.

Type	Art. No.	Pack Qty.	€
① straight	TC91.1	1	41,85
② curved	TC92.1	1	45,40



Needle holder

Made of stainless steel. Autoclavable.

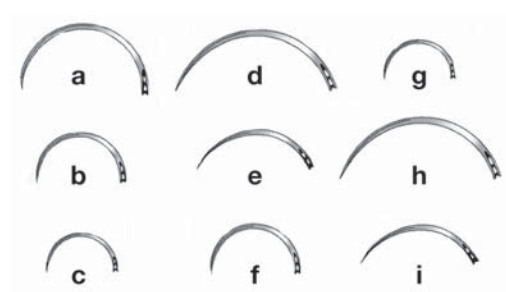
Type	Length (mm)	Art. No.	Pack Qty.	€
① MAYO-HEGAR	160	LX64.1	1	10,70
② MATHIEU	140	LX65.1	1	15,00



Artery clamps, type Dieffenbach

By Hammacher. Made of stainless steel. Autoclavable.

Type	Length (mm)	Art. No.	Pack Qty.	€
① straight	28	TC83.1	1	43,25
② straight	35	TC84.1	1	41,95
straight	50	TC85.1	1	41,95
curved	28	TC86.1	1	45,90
curved	35	TC87.1	1	45,90
③ curved	50	TC88.1	1	45,90



Surgical needles

By Hammacher. Made of corrosion-free stainless steel 18/8. Autoclavable. Figures drawn to scale.

Image	Needle shape	Type	Type	Art. No.	Pack Qty.	€
a	rectangular	Fig. 11	½ circular	LX55.1	12	15,00
b	rectangular	Fig. 14	½ circular	LX56.1	12	15,00
c	rectangular	Fig. 16	½ circular	LX57.1	12	15,00
d	rectangular	Fig. 11	¾ circular	LX58.1	12	15,00
e	rectangular	Fig. 14	¾ circular	LX59.1	12	15,00
f	Round	Fig. 14	½ circular	LX60.1	12	15,00
g	Round	Fig. 16	½ circular	LX61.1	12	15,00
h	Round	Fig. 11	¾ circular	LX62.1	12	15,00
i	Round	Fig. 14	¾ circular	LX63.1	12	15,00

Suture material



Needle-suture combinations

By B. Braun. Absorbable and non-absorbable suture materials, 300 grade stainless steel needles. **Sterile**, individually packed.

Atraumatic needle-suture combination: smooth transition between needle and suture ensures minimal wound trauma.

Technical specifications of suture material:

Suture type	Suture design	Material	Coating	Loss of tensile strength	Material absorption
Safil®	braided	Polyglycolic acid	Poly-glyconate	18 days 50 %	approx. 60-90 days
Monosyn®	Monofilament	Glyconate	none	14 days 50 %	approx. 60-90 days
Dafilon®	Monofilament	Polyamide 6/6.6	none	n.a.	non-absorbable
Silkam®	braided	Silk	Wax and silicone rubber	n.a.	non-absorbable

Technical specifications of needles:

Needle type	Curvature	Body	Bow length* (mm)
DS16	3/8 circle	Cutting	16
DS19	3/8 circle	Cutting	19
HR17	1/2 circle	Round	17

*Distance between needle tip and end of needle, measured along the outer curve of the needle.

Needle-suture combinations

Type	Colour	USP	metric	Length (cm)	Art. No.	Pack Qty.	€
Safil® / DS16	violet	5/0	1	45	XC22.1	36	353,70
Safil® / DS19	uncoloured	4/0	1,5	45	XC23.1	12	123,65
Monosyn® / DS16	violet	5/0	1	45	XC24.1	36	381,65
Monosyn® / HR17	violet	4/0	1,5	70	XC25.1	12	146,20
Dafilon® / DS16	blue	4/0	1,5	45	XC26.1	36	177,40
Dafilon® / DS16	blue	5/0	1	45	XC27.1	12	71,85
Dafilon® / DS19	blue	4/0	1,5	45	XC28.1	36	170,95
Silkam® / DS16	black	4/0	1,5	45	XC29.1	36	246,20
Silkam® / DS16	black	5/0	1	75	XC30.1	36	246,20
Silkam® / DS19	black	3/0	2	75	XC31.1	36	229,00

Short sutures (PreCuts)

Without needle. **Sterile**. Can be removed individually.

Type	Colour	USP	metric	Length (cm)	Art. No.	Pack Qty.	€
Safil®	violet	4/0	1,5	3 x 45	XC32.1	36	256,95
Monosyn®	violet	4/0	1,5	6 x 45	XC33.1	36	557,95
Silkam®	black	3/0	2	3 x 45	XC34.1	36	209,65
Silkam®	black	4/0	1,5	3 x 45	XC35.1	36	209,65
Silkam®	black	5/0	1	10 x 45	XC36.1	36	278,45

Overview of suture and needle types

Recommendations for use:

Type	Properties	Indications
Safil®	<ul style="list-style-type: none"> - High tensile strength - Minimal tissue trauma - Smooth suture - Low memory effect - Ease to handle 	Safil® is indicated for surgical applications requiring a braided, synthetic and absorbable suture material, particularly for procedures in the gastrointestinal tract area, in gynaecology and urology, in ophthalmic surgery, microsurgery, subcutaneous suturing and ligature.
Monosyn®	<ul style="list-style-type: none"> - Excellent handling properties - Longitudinal elasticity - Minimal tissue trauma - High initial tensile strength - High knot security 	Monosyn® is used for adapting soft tissue and/or ligatures, as well as for subcutaneous and intracutaneous closure of the skin and episiotomies.
Dafilon®	<ul style="list-style-type: none"> - Soft and supple - Excellent knot security - Minimal tissue trauma - Low memory effect 	Dafilon® is indicated for skin closure as interrupted or intracutaneous suture, and for securing drains and catheters, as well as dental procedures. It is used in microsurgery, ophthalmology and neurosurgery. Dafilon is not suitable for permanent placement in the body.
Silkam®	<ul style="list-style-type: none"> - Excellent handling properties - Good knot security 	Silkam® is indicated for surgical applications requiring the use of a non-absorbable suture material. Applications include general surgery, skin closure, dental surgery, neurosurgery and ligatures.
Cutting needles (DS)	Three edges run along the entire length of the needle to provide an effective and gentle piercing action.	Skin needles: the three-edged, outer-cutting needle body is indicated for suturing of coarse tissue.
Round body needles (HR)	The round body of the needle tapers to a fine, sharp needle tip. In the midsection of the needle, the body is flattened to ensure secure fit in the needle holder.	Round body needles pierce the tissue only - they do not cut and, therefore, are ideal for suturing soft tissue.

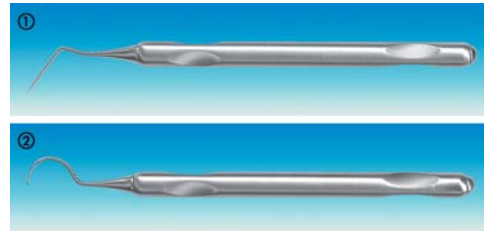
Dissecting needles and probes



Dissecting probes

Made of stainless steel. Ø 5 mm. Autoclavable.

Model	Type	Art. No.	Pack Qty.	€
①	rectangular	LX45.1	1	21,10
②	angled	LX44.1	1	21,10
③	curved	LX43.1	1	21,10
④	straight	LX42.1	1	21,10



Dissecting probes

By Hammacher. Handle made of stainless steel 1.4571. Tip made of stainless steel 1.4310. Dimensions: Ø 9 mm, length 135 mm. Autoclavable.

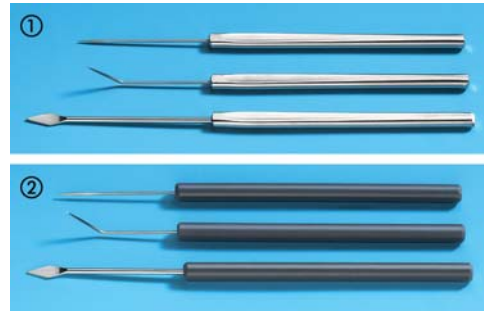
Type	Type	Art. No.	Pack Qty.	€
①	offset	LX53.1	1	31,75
②	curved	LX54.1	1	32,20



Micro dissecting probes

By Hammacher. Made of stainless steel. Autoclavable.

Type	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
①	4,5	150	LX51.1	1	10,75
②	5,5	155	LX52.1	1	10,75
③	4,5	160	PT69.1	1	15,30



Dissecting needles

Made of Remanit 4301.

① With stainless steel handle

Type	Art. No.	Pack Qty.	€
straight	KX98.1	10	44,65
curved	KX99.1	10	47,30
Lancets	KY00.1	10	56,90

② With plastic handle

Type	Art. No.	Pack Qty.	€
straight	KX93.1	10	21,00
curved	KX94.1	10	23,15
Lancets	KX95.1	10	30,65

With wooden handle (not shown)

Type	Art. No.	Pack Qty.	€
straight	KX96.1	10	17,75
curved	KX97.1	10	20,35



Solofix® blood lancets

Made of stainless steel. **Sterile.** Puncturing lancets for capillary blood collection, optimal puncture depth.

Art. No.	Pack Qty.	€
ATK9.1	500	15,30



Probes, blunt

Made of stainless steel, material number 1.4301. Autoclavable.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
1	130	LX79.1	1	7,50
1,5	160	LX80.1	1	7,50

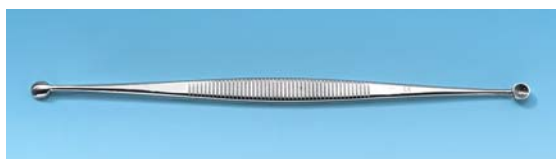
Further Instruments



Micro dissecting chisel

By Hammacher. Made of stainless steel. Length 125 mm. Autoclavable.

Art. No.	Pack Qty.	€
TC35.1	1	38,50



Martini sharp double spoon

By Hammacher. Made of stainless steel. Spoon, round. Length 135 mm. Autoclavable.

Ø (mm)	Art. No.	Pack Qty.	€
3/3,5	TC28.1	1	46,80
3,5/4	TC29.1	1	46,80
4/4,5	TC30.1	1	46,80



Retractor

By Hammacher. Made of stainless steel. Tines blunt. Length 160 mm. Autoclavable.

Type	Type	Art. No.	Pack Qty.	€
①	Single-tine, one-sided	TC31.1	1	33,25
②	Double-tine, one-sided	TC32.1	1	42,25
③	Triple-tine Senn-Mueller, double-sided	TC33.1	1	49,40



Retractor

By Hammacher. Made of stainless steel. Length 100 mm. Autoclavable.

Art. No.	Pack Qty.	€
TC34.1	1	96,65



Mouse Restrainer

Made of **PMP**, transparent. With large opening to hold mice weighing from 18-35 g. The mouse can be inserted forwards or backwards. The mouse can be immobilised in two positions in the restrainer by a gate. When the mouse is in the restrainer, its dorsal skin is easily accessible from above, e.g. for performing subcutaneous injections. With tail first entry, the tail of the mouse can be conveniently positioned outside the restrainer for taking blood samples.

The restrainer mounted to a lab worktop or other surface (fastening material not included).

Dimensions: L 174 x W 100 x H 67 mm. Autoclavable.

Art. No.	Pack Qty.	€
PK28.1	1	68,30



Rotilabo®-embryo spoon Banivo

Made of stainless steel. To hold delicate structures. Perforated spoon allows fluid to drain. Dimensions: spoon Ø 15 mm, depth 3 mm. Overall length 145 mm. Autoclavable.

Art. No.	Pack Qty.	€
TL85.1	1	64,40



Mini mirror

Plastic handle made of **POM**, white. Autoclavable.

Length (mm)	Mirror Ø (mm)	Art. No.	Pack Qty.	€
165	14	LX47.1	1	16,25



Telescope rods

Chrome-plated. Form and size of rotatable pencil. With pocket clip.

Type	max. length (mm)	Art. No.	Pack Qty.	€
Telescope magnet, very powerful	600	0407.1	1	17,15
Telescope mirror, 32 mm Ø, rotatable	610	0408.1	1	16,10

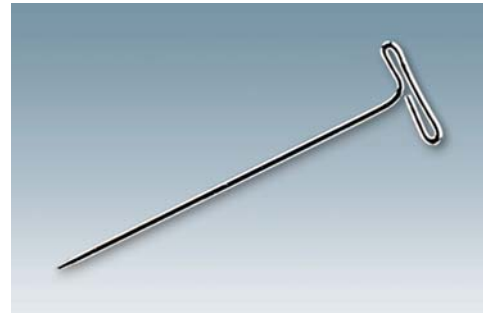
Further Instruments



Ear punches

By Hammacher. Made of stainless steel. For marking mice, rats and other small animals. Marking Ø: 2 mm. Autoclavable.

Type	Art. No.	Pack Qty.	€
Large	TE89.1	1	46,05



T-shaped dissecting needles

Made of stainless steel, nickel plated. Length 51 mm. Approx. 375 needles per box.

Art. No.	Pack Qty. (box)	€
CEC6.1	1	29,60



Ear punch, variable

By Hammacher. Made of 1.4021 stainless steel. For marking mice, rats and other small animals. Rugged design with rotatable disc for setting different hole sizes. (Ø 0,8 to 2 mm). Total length 170 mm. Autoclavable.

Art. No.	Pack Qty.	€
ANP2.1	1	159,10



Dissecting dishes

Made of HDPE, with flexible PVC dissecting mat. With slip-resistant base, non-corrosive, breakage-resistant and leak-proof. Dissecting mats are washable, durable and have a smooth surface.

Type	Outer L x B (mm)	Inner L x W (mm)	Height (mm)	Art. No.	Pack Qty.	€
Small	320 x 227	265 x 180	41	CEC7.1	1	18,85
Large	363 x 273	315 x 220	48	CEC8.1	1	25,75

Covers for dissecting dishes

Made of transparent plastic. Tight sealing to avoid loss of moisture, for samples up to a height of 76 mm.

for dissecting dish type	Art. No.	Pack Qty.	€
Small	CEC9.1	1	7,35
Large	CEE0.1	1	8,20



Dissecting needles

With plastic handle made of PS. Length 30 mm, head Ø 3 mm. Assorted colours.

Art. No.	Pack Qty.	€
PK47.1	100	2,80

Further Instruments



Preparation surfaces

Made of HDPE. Can be used on both sides, with a large preparation surface on one side and two smaller surfaces on the other side. Printed with helper lines and straight edges, as well as circles with diameters from 4 to 14 mm. With all-round drip channel and anti-slip rubber feet.

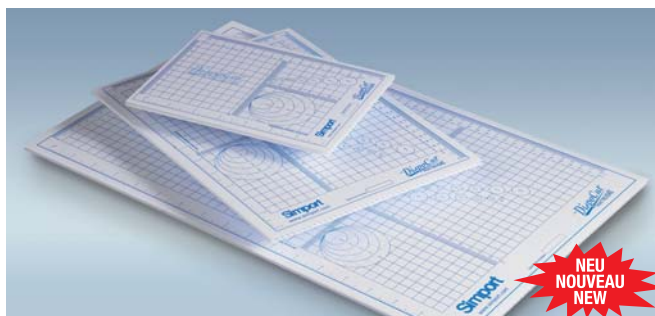
L x W x H (mm)	Art. No.	Pack Qty.	€
330 x 279 x 12,5	CXL9.1	1	91,30
575 x 400 x 12,5	CXN0.1	1	146,20



Tray for preparation surfaces

Made of PS. Suitable for use with preparation surfaces CXN0.1. Collects liquid overflow as required. Slip-resistant. Can be stacked to elevate the preparation surfaces to a comfortable working height. Dimensions: L 656 x W 481 x H 91 mm.

Art. No.	Pack Qty.	€
CXN1.1	1	120,40



Disposable preparation surfaces

Made of corrugated plastic, suitable for use on both sides. Printed with helper lines and rulers, as well as circles with diameters from 4 to 16 mm and 2 to 6 cm. Temperature stable from -27 to +71 °C.

L x W (mm)	Art. No.	Pack Qty.	€
152 x 203	CKP5.1	24	67,40
229 x 305	CTY6.1	12	51,10
305 x 483	CTY7.1	12	95,15



Rotilabo®-tweezers set

Four stainless steel tweezers (Remanit 4301) in a case.

Contents:

- 1 tweezer with fine tip, curved, 120 mm
- 1 straight tweezer, blunt tip, 130 mm
- 1 tweezer with guide pin, straight, 130 mm
- 1 coverslipper tweezer, curved, 115 mm

Art. No.	Pack Qty.	€
PX40.1	1	32,20



Chemist's instruments

Consists of four instruments made of high-grade steel (Remanit 4301). In case W 90 x L 150 mm.

Contents:

- 1 precision scissors, pointed/blunt 130 mm
- 1 forceps, pointed 130 mm
- 1 micro-double spatula 130 mm, blade width 4 mm
- 1 chemist's double spatula, 150 mm, blade width 9 mm

Art. No.	Pack Qty.	€
1863.1	1	22,50

Dissecting sets for anatomy



Dissecting set

In zip-up case, with elastic loops to hold instruments.

Contents:

- 1 pair of scissors, sharp-blunt, L 140 mm
- 1 pair of small scissors, L 110 mm
- 1 pair of tweezers, blunt, L 140 mm
- 1 pair of tweezers, sharp, L 110 mm
- 1 scalpel handle No. 4
- 5 scalpel blades, type 23
- 2 dissecting needles, sharp

Art. No.	Pack Qty.	€
CAL6.1	1	24,70



Dissecting set

In case, W 85 x L 195 x H 30 mm.

Contents:

- 1 scalpel handle No. 4 with 6 blades (type 21 + 23)
- 1 dissecting needle with plastic handle
- 1 self-closing tweezers, angled tip L 140 mm
- 1 coverslipper tweezers, L 160 mm
- 1 anatomic tweezers, blunt tip, L 140 mm
- 1 small scissors L 115 mm
- 1 scissors, blunt tip, L 130 mm
- 1 double spatula, L 170 mm
- 10 dissecting needles

Art. No.	Pack Qty.	€
0829.1	1	44,65

► Microscopes from page 720



Dissecting sets for microscopy

In wooden box.

Small. Dimensions: L 195 x W 85 x H 32 mm.

Contents:

- All-metal scalpel, 35 mm
- Dissecting needle, pointed
- Dissecting needle, lance shaped
- Splinter forceps, 110 mm
- Section lifter, 45 x 8 mm
- Dissecting scissors, 110 mm, straight

Art. No.	Pack Qty.	€
LX82.1	1	32,20

Large. Dimensions: L 195 x W 95 x H 35 mm.

Contents same as LX82.1, plus:

- Razor
- Dissecting probe, curved
- Dissecting scissors, 110 mm, curved

Art. No.	Pack Qty.	€
LX83.1	1	39,25



Dissecting set for anatomy, Premium

By Hammacher. Instruments made of stainless steel, autoclavable.

*Instruments with wooden handle are non-autoclavable.

In wooden box, dimensions: L 190 x B 100 x H 35 mm.

Contents:

- 1 scissors, buttoned, 145 mm
- 1 cartilage knife with scraper, wooden handle*, 180 mm
- 5 scalpel* with wooden handle, ball shaped, blade length 25-45 mm
- 1 tweezers, 105 mm, blunt
- 1 tweezers, 105 mm, sharp
- 1 muscle retractor, 100 mm
- 1 tube, double, straight
- 1 blunt probe, 130 mm, Ø 1 mm
- 2 surgical needles, ½ circle

Art. No.	Pack Qty.	€
TE19.1	1	321,45

Dissecting sets for anatomy



Animal testing set, Premium

By Hammacher. Instruments made of stainless steel. Autoclavable. In zip-up case, dimensions: L 220 x B 145 x H 30 mm.

Contents:

- 1 micro scissor, 90 mm
- 1 dissecting scissor for microscopy, 105 mm
- 1 bone forceps, fine, 105 mm
- 1 microscopic tweezer, straight, sharp, 115 mm
- 1 scalpel handle, 125 mm
- 10 scalpel blades, type 11, non sterile
- 1 needle holder, Mathieu, 140 mm
- 2 vascular clamps, straight, 35 mm

Art. No.	Pack Qty.	€
TE18.1	1	510,65



Dissecting set for microscopy, Premium

By Hammacher. Instruments made of stainless steel, autoclavable. In wooden case, dimensions: L 192 x B 127 x H 34 mm.

Contents:

- 1 tweezers, fine, straight, sharp, 100 mm
- 1 tweezers, fine, curved, sharp, 100 mm
- 1 tweezers, fine, crossed, sharp, 100 mm
- 1 dissecting scissors for microscopy, extra fine, straight, 150 mm
- 1 retractor, 100 mm
- 1 micro scalpel, 125 mm
- 1 micro dissecting chisel, 125 mm
- 1 micro dissecting needle, hook shaped, 130 mm
- 1 micro dissecting needle, fine, 130 mm
- 1 micro dissecting needle, curved, 130 mm

Art. No.	Pack Qty.	€
TE21.1	1	747,15



Chemist set, large

By Hammacher. Instruments made of stainless steel, autoclavable.

*Scissors made of steel, nickel plated and coated, non-autoclavable.

In plastic box, dimensions: L 214 x W 102 x H 27 mm.

Contents:

- 1 micro double spatula, 130 mm
- 1 micro spoon spatula, spoon 5 x 7 mm
- 1 micro powder spatula, flexible, 185 mm
- 1 double spatula, rigid, 185 mm
- 1 tweezers, straight, sharp, 160 mm
- 1 scissors*, straight, serrated, 170 mm
- 1 Poly spoon, 180 mm
- 1 weighing spoon
- 1 double spatula, wide, round on both sides, 150 mm

Art. No.	Pack Qty.	€
TE20.1	1	67,70



Glass instrument trays

Made of soda-lime glass with stainless steel lid. Autoclavable and hot air sterilisable up to +180 °C. **Note:** do not expose glass trays to abrupt changes of temperature. Trays must be heated and cooled slowly as soda-lime glass has limited thermal shock resistance. Do not sterilise with lid attached.

L x W x H (mm)	Art. No.	Pack Qty.	€
120 x 60 x 40	CYY9.1	1	31,00
170 x 90 x 45	EAA0.1	1	37,55
200 x 100 x 50	EAA1.1	1	41,90
220 x 150 x 55	EAA2.1	1	48,40
275 x 150 x 60	EAA3.1	1	57,00
350 x 220 x 70	EAA4.1	1	109,65
200 x 100 x 100	EAA5.1	1	48,40



Instrument holders

Made of stainless steel 1.4301. For storage or precleaning of forceps, instruments and thermometers. Autoclavable.

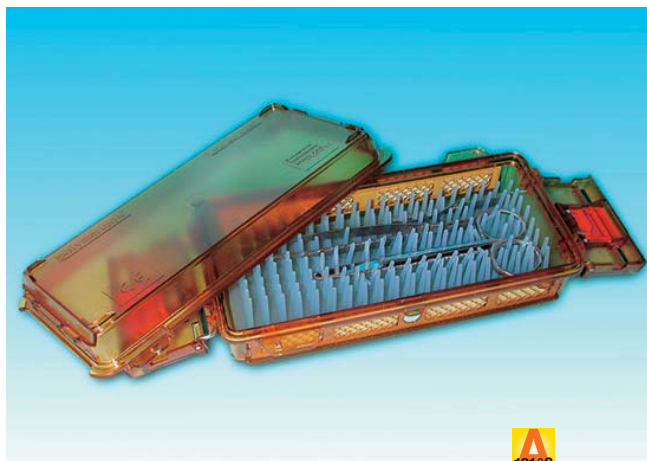
Ø x H (mm)	Ø Standfuß (mm)	Art. No.	Pack Qty.	€
30 x 90	70	YP55.1	1	19,15
50 x 130	90	YP56.1	1	25,75
80 x 175	125	YP57.1	1	39,00
100 x 200	135	YP58.1	1	47,05



Instrument holders

Made of PP, white. For storage or precleaning of instruments and thermometers. Autoclavable.

Volume (ml)	Inner height (mm)	Outer height (mm)	Inner Ø (mm)	Base Ø (mm)	Art. No.	Pack Qty.	€
230	100	107	60	98	TT27.1	5	39,80
1100	190	200	89	147	TT28.1	5	53,75



Sterilisation containers polysteribox®

Transparent special plastic, can be used for approx. 1250 sterilization cycles. **For the sterilization and storage of instruments.** Suitable for steam, gas and plasma sterilization. Hydrophobic PTFE filter stops germs and bacteria (replace after approx. 250 sterilizations, includes date insert). A sterilization mark and protective seal can be used to check the sterility of the contents. Safety seal for safe transportation. Stackable. Dishwasher safe.

Acc. to DIN 58952, 58953, EN 868-1/868-8/554, ISO 11607 and DIN EN ISO 17664 and 11137-1. CE certified. Autoclavable up to 134 °C.

Delivery incl. PTFE filter (12-month filter, polysteribox M with permanent filter). Permanent filter set is optional. Please order separately.

Type	Outer dimensions: L x W x H (mm)	Inner dimensions: L x W x H (mm)	Art. No.	Pack Qty.	€
polysteribox® SH	208 x 111 x 55	177 x 76 x 44	X616.1	1	108,60
polysteribox® M	185 x 145 x 59	156 x 124 x 48	KP96.1	1	127,95
polysteribox® L	290 x 184 x 74	261 x 163 x 64	KP97.1	1	151,60
polysteribox® XL	497 x 122 x 65	465 x 90 x 54	TA78.1	1	209,65

Accessories:

Seal with indicator strip	X617.1	1000	46,55
Protective seals	H653.1	500	46,70
Non-slip silicon mat for polysteribox® SH	H654.1	1	26,35
Non-slip silicon mat for polysteribox® M	TA79.1	1	30,05
Non-slip silicon mat for polysteribox® L	TA80.1	1	41,95
Support insert for polysteribox® XL, small	TA81.1	1	7,00
Support insert for polysteribox® XL, large	TA82.1	1	7,00
12-month filter set: 2 filters + date sets for polysteribox® SH	H657.1	1	13,20
12-month filter set: 2 filters + date sets for polysteribox® L/XL	TA84.1	1	12,85
Permanent filter set for polysteribox® SH	TA85.1	1	19,15
Permanent filter set for polysteribox® M	TA86.1	1	22,60
Permanent filter set for polysteribox® L/XL	TA87.1	1	27,90
Replacement clamping strips for polysteribox® SH	H656.1	10	60,00

Sterilisation and cleaning containers



Rotilabo®-instrument trays

Made of stainless steel 18/10, suitable for foodstuffs. Autoclavable.

With lid with knob

L x W x H (mm)	Art. No.	Pack Qty.	€
100 x 60 x 40	YX87.1	1	62,00
160 x 100 x 30	YX88.1	1	49,05
200 x 100 x 50	YX89.1	1	53,25
300 x 200 x 50	YX90.1	1	79,90
400 x 200 x 80	YX91.1	1	111,80

With flat lid, deep-drawn with rounded edges

L x W x H (mm)	Art. No.	Pack Qty.	€
180 x 80 x 50	YX92.1	1	19,80
200 x 90 x 50	YX93.1	1	21,95
250 x 100 x 50	YX94.1	1	33,65
300 x 125 x 60	YX95.1	1	35,50



Rotilabo®-instruments trays with lid

Made of 18/10 stainless steel. Tray is moulded in one piece. Special lid with handle. Tray is moulded in one piece for easy cleaning and disinfection. Stackable. Autoclavable.

L x W x H outer (mm)	L x W x H inner (mm)	Art. No.	Pack Qty.	€
230 x 133 x 55	210 x 120 x 45	C849.1	1	44,95
315 x 215 x 65	295 x 195 x 55	C850.1	1	69,15



Rotilabo®-kidney pans

Made of stainless steel 18/10, high-gloss. Suitable for foodstuffs. Autoclavable.

Volume (ml)	Dimensions L x W (mm)	Art. No.	Pack Qty.	€
250	170 x 40	YT76.1	1	8,20
350	205 x 40	YT77.1	1	10,25
500	250 x 40	YT78.1	1	11,65
750	275 x 45	YT79.1	1	12,80



Kidney dish

Made of PP, white. Capacity approx. 850 ml. Dimensions: L 260 x H 55 mm. Autoclavable.

Art. No.	Pack Qty.	€
TT75.1	1	8,95



Rotilabo®-instrument trays, square

Made of 18/10 stainless steel, high-gloss finish. Suitable for foodstuffs. Autoclavable.

L x W x H (mm)	Art. No.	Pack Qty.	€
220 x 170 x 10	YH57.1	1	17,50
260 x 200 x 20	YH58.1	1	22,60
310 x 240 x 20	YH59.1	1	26,85
340 x 260 x 20	YH60.1	1	29,60
365 x 280 x 20	YH61.1	1	32,25
420 x 320 x 20	YH62.1	1	38,70
470 x 365 x 20	YH63.1	1	43,65
520 x 400 x 20	YH64.1	1	53,70
600 x 470 x 24	YH65.1	1	76,35

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Gas equipment



① Rotilabo®-gas bag

Made of natural rubber. Egg-shaped, ideal for mixing or short-term storage of gases. Max. circumference approx. 85 cm. Assorted colours.

Art. No.	Pack Qty.	€
0933.1	100	13,95

② Rotilabo®-gas bags maxi

Made of Latex. Ideal for testing air or gas intake and/or release from apparatus. Also for short-term storage of gases. When empty 22 cm long. Assorted colours.

Art. No.	Pack Qty.	€
TA08.1	10	21,45



Plastigas®-bags

Made of multiple laminated aluminium foil, thermoplastically welded with inner polyethylene layer. Ideal for storing small amounts of gas under low pressure.

Bag 2.5 l with connection nozzle for bubble tubing.

Also with taped septum for removing samples with syringe.

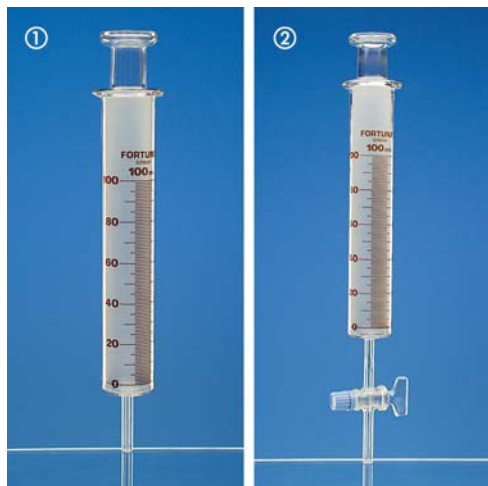
Bag 27.0 l with screw-on valve and metal hose nozzle.

Also with septum for removing samples with syringe.

Bubble tubing, 80 cm long.

Accessories for Art. No. 0848.1, please order separately.

Type	Capacity (l)	Art. No.	Pack Qty.	€
① Plastigas®-bags	2,5	0848.1	1	26,15
② Plastigas®-bags	27,0	0847.1	1	80,10
③ Bubble tubing	-	H547.1	1	16,90



Piston samplers

Made of Durobax®-glass. For carrying out gasometric experiments. Graduated. Acid and alkali resistant.

Applications: Analysis of air and breathable air, identification of respiratory quotient, indirect water analysis, qualitative gas combustion, illuminating gas analysis etc.

With capillary attachment,

without spigot, inner Ø approx. 2.5 mm, outer Ø approx. 6.5 mm

Type	Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
①	25	0.5	HT27.1	1	54,85
①	50	0.5	HT28.1	1	59,15
①	100	1.0	HT29.1	1	64,40

With capillary spigot,

NS 12.5; 2.5 mm bore hole

Type	Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
②	50	0.5	HT30.1	1	87,65
②	100	1.0	HT31.1	1	96,25



Gas leak detector testo 316-1

By Testo. Ideal for tracing leaks in pipes, flanges, screw connectors, gas pipes etc. For methane. With visual and acoustic alarm. Sensor has extremely short reaction time.

Technical specifications:

Range	0 to 10.000 ppm CH ₄
Alarm threshold	>200 ppm LED yellow / >10.000 ppm LED red
Battery life	>5 h
Working temperature	4 to 45 °C
Dimensions (L x W x H)	190 x 57 x 42 mm
Weight	300 g

Delivery incl. battery (9 V).

Art. No.	Pack Qty.	€
P757.1	1	215,00



Bottle pressure regulators, single-stage

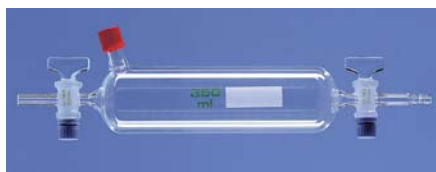
By Kayser. Made of brass. Manufactured acc. to EN ISO 2503. For safe emptying of gas from steel cylinders to max. 200 bar, with simultaneous reduction to required working pressure of 10 bar. With safety valve (is triggered at 12 bar). Graduated in 0.5 bar increments.

Technical specifications:

Type of gas	Connection for bottle	Connection for tube
Compressed air	G 5/8" pressure screw	G 1/4" right
Hydrogen	W 21.8 x 1/4" left	G 3/8" left
Oxygen	G 3/4" right	G 1/4" right
Nitrogen	W 24.32 x 1/4" right	G 1/4" right
Calibrating gas	M 19 x 1.5 left	G 3/8" left
Inert gases/CO ₂	W 21.8 x 1/4" right	G 1/4" right
Inert gases/CO ₂ - vol.-strom 0-28/30 l/min*	W 21.8 x 1/4" right	G 1/4" right
Purging gases - vol.-strom 0-50 l/min	W 21.8 x 1/4" left	G 3/8" left

* Work manometer with double scale (l/min and bar)

Type of gas	Connection for bottle	Art. No.	Pack Qty.	€
For compressed air	G 5/8" pressure screw	0270.1	1	78,45
For hydrogen	W 21.8 x 1/4" left	0284.1	1	78,45
For oxygen	G 3/4" right	0285.1	1	78,45
For nitrogen	W 24.32 x 1/4" right	0288.1	1	78,45
For calibrating gas	M 19 x 1.5 left	0280.1	1	78,45
For inert gases/CO ₂	W 21.8 x 1/4" right	0286.1	1	78,45
For inert gases/CO ₂ volume flow 0-28/30 l/min	W 21.8 x 1/4" right	0290.1	1	78,45
For forming gas volume flow 0-50 l/min	W 21.8 x 1/4" left	0289.1	1	78,45



Material
DURAN®

Gas sampling tubes

Made of DURAN®. Acc. to DIN 12473-1, with two one-way cocks, standard ground joint 14.5 and sampling nozzle (Thread GL 14). Capillary tube (Inner-Ø 2.7 mm, outer-Ø 8 mm) on the one side and olive (outer-Ø 8 mm) on the other side. With labelling area.

Volume (ml)	Art. No.	Pack Qty.	€
350	KX55.1	1	84,85
500	KX56.1	1	94,55
1000	KX57.1	1	136,55



Gas pressure regulators, two stage

By Air Liquide. Made of chrome-plated brass. Ideal for all high-purity gases and gas compounds except acetylene and corrosive gases. Excellent for use wherever constant outlet pressure is required.

Technical specifications:

Max. inlet pressure	200 bar
Working temperature	-20 to +50 °C
Weight	1.6 kg
Dimensions (L x W x H)	180 x 98 x 135 mm
Contact inlet	bottle attachment acc. to DIN 477
Contact outlet	clamping ring connection for 6 mm tube
Overall leakage rate	3 x 10 ⁻⁷ mbar l/s

Back pressure 0.05-1 bar. Graduated in 0.1 bar-increments.

Type of gas	Connection for bottle	Art. No.	Pack Qty.	€
Inert gases	W 21.8 x 1/4" right	C286.1	1	697,70
Hydrogen	W 21.8 x 1/4" left	C287.1	1	697,70
Oxygen	R 3/4" right	C288.1	1	697,70
Nitrogen	W 24.32 x 1/4" right	C289.1	1	697,70
Calibrating gas	M 19 x 1.5 left	C290.1	1	697,70

Back pressure 0.1-3 bar. Graduated in 0.1 bar-increments.

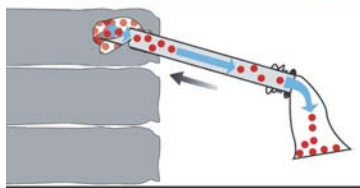
Type of gas	Connection for bottle	Art. No.	Pack Qty.	€
Inert gases	W 21.8 x 1/4" right	C291.1	1	697,70
Hydrogen	W 21.8 x 1/4" left	C292.1	1	697,70
Oxygen	R 3/4" right	C293.1	1	697,70
Nitrogen	W 24.32 x 1/4" right	C294.1	1	697,70
Calibrating gas	M 19 x 1.5 left	C295.1	1	697,70

Back pressure 0.5-10 bar. Graduated in 0.5 bar-increments.

Type of gas	Connection for bottle	Art. No.	Pack Qty.	€
Inert gases	W 21.8 x 1/4" right	C296.1	1	697,70
Hydrogen	W 21.8 x 1/4" left	C297.1	1	697,70
Oxygen	R 3/4" right	C298.1	1	697,70
Nitrogen	W 24.32 x 1/4" right	C299.1	1	697,70
Calibrating gas	M 19 x 1.5 left	C300.1	1	697,70

- For Sekuroka®-gas bottle supports, see page 689
- For steel cylinder transport trolley, see page 689
- Flow meters, see page 502
- Gas tubes see page 355

Sampling for powders / granulates



Tubus sampler

By Bürkle. Made of stainless steel (1.4404). Suitable for use with foodstuffs. For pourable bulk goods up to approx. 10 mm in diameter, e.g. hazel nuts, cereals, granulates, crystalline solids (e.g. sugar).

Insert Tubus into a sack to the desired sampling depth.

The sample flows directly through the open tube into the sampling bag. Tube Ø 40 mm. Autoclavable.

Length (cm)	Art. No.	Pack Qty.	€
40	EP04.1	1	127,95
80	EP05.1	1	160,20



QuickPicker samplers

By Bürkle. Made of transparent PP or stainless steel 1.4404, suitable for foodstuffs. For removal of bulk goods from bags and direct transfer into original sampling bottles. Insertion depth 300 mm. Total length 500 mm. Volume 75 ml. Tube Ø 25 mm. Sampler is autoclavable (without bottle).

Delivery incl. two 250 ml LDPE sampling bottles and cleaning brush.

Material	Art. No.	Pack Qty.	€
PP	YK99.1	1	134,40
Stainless steel	YL00.1	1	213,95

Accessories:

Sampling bottle, LDPE, 250 ml	YL01.1	1	2,85
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Powder and granulate sampler

By Bürkle. Made of stainless steel 1.4404. Suitable for use with foodstuffs. Conforms to EN ISO 707 and IDF (International Dairy Federation).

Suitable for sampling milk powder. The sampler is inserted into bags and the sample is removed using a semicircular profile lance.

Insertion depth 385 mm. Volume 150 ml. Total length 480 mm.

Outer Ø approx. 28 mm. Autoclavable.

Art. No.	Pack Qty.	€
YL02.1	1	166,65



SiloPicker

By Bürkle. Made of stainless steel (1.4404). For sampling bulk goods from silos, tanks, BigBags or other large containers.

Chamber volume: 100 ml. Length: 130 cm. Outer Ø 50 mm. Autoclavable.

Application:

- Insert SiloPicker into bulk goods
- The closure sleeve automatically closes the collection container
- When the sampling depth has been reached, briefly pull back the SiloPicker
- The bulk goods flow into the collection container
- Pull out the SiloPicker
- Empty the sampler

Art. No.	Pack Qty.	€
YX85.1	1	381,65

Accessories:

Extension rod, 100 cm	YX86.1	1	63,45
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Sampling for powders / granulates



Zone samplers

By Bürkle. Made of aluminium, stainless steel (1.4404) or stainless steel (1.4404)/PTFE. For sampling bulk goods, e.g. from bags, drums, bins, BigBags and silos. Tube Ø 25 mm. Suitable for use with foodstuffs. Autoclavable.

Application:

- Close the chambers by turning the handle
- Insert the sampler to the desired depth
- Open the chambers to allow the bulk goods to flow into the collector
- Close the chambers
- Withdraw the sampler
- Reseal the puncture using an adhesive seal

① All-layer samplers

Open inner tube for large sample volumes. Meets ISTA standard for seed lengths of 10 mm (wheat, oats) and 5 mm (flax, vetch).

Technical specifications:

Material	Total length (cm)	Insertion depth (cm)	Number of chambers	Chamber volume (ml)
Aluminium	55	43	3	70
Aluminium	85	71	3	130
Aluminium	150	135.5	5	260
Stainless steel	55	43	3	70
Stainless steel	85	71	3	130
Stainless steel	150	135.5	5	260

Material	Length (cm)	Art. No.	Pack Qty.	€
Aluminium	55	YH96.1	1	188,15
Aluminium	85	YH97.1	1	198,90
Aluminium	150	YH98.1	1	258,00
Stainless steel	55	YH99.1	1	564,40
Stainless steel	85	YK00.1	1	650,40
Stainless steel	150	YK01.1	1	783,70

② Multi-samplers

Inner tube with separate chambers. For multi-taking target-point samples from various sample depths.

Technical specifications:

Material	Total length (cm)	Insertion depth (cm)	Number of chambers	Chamber volume (ml)
Aluminium	55	43	3	14
Aluminium	85	71	3	17
Aluminium	150	135.5	5	17
Stainless steel/PTFE	55	43	3	14
Stainless steel/PTFE	85	71	3	17
Stainless steel/PTFE	150	135.5	5	17

Material	Length (cm)	Art. No.	Pack Qty.	€
Aluminium	55	YK02.1	1	204,25
Aluminium	85	YK03.1	1	224,70
Aluminium	150	YK04.1	1	292,40
Stainless steel/PTFE	55	YK05.1	1	403,15
Stainless steel/PTFE	85	YK06.1	1	456,90
Stainless steel/PTFE	150	YK07.1	1	661,15

③ Uno-samplers

One closed sampling chamber. For taking target-point samples from a specific sample depth.

Technical specifications:

Material	Total length (cm)	Insertion depth (cm)	Number of chambers	Chamber volume (ml)
Stainless steel/PTFE	55	43	1	17
Stainless steel/PTFE	85	71	1	17
Stainless steel/PTFE	150	135.5	1	17

Material	Length (cm)	Art. No.	Pack Qty.	€
Stainless steel/PTFE	55	YK08.1	1	409,60
Stainless steel/PTFE	85	YK09.1	1	461,20
Stainless steel/PTFE	150	YK10.1	1	671,90



Accessories for zone samplers, emptying device

Emptying device for multi- and uno-samplers

By Bürkle. Made of stainless steel (1.4301).

Type	Art. No.	Pack Qty.	€
Rack with 3 funnels, length 1 m	YK11.1	1	332,20
Funnel, single	YK12.1	1	51,90

Cleaning brush

By Bürkle. Made of PVC and stainless steel. Ø 25 mm. Length 100 cm.

Art. No.	Pack Qty.	€
EE50.1	1	43,55



Control seals



Control seals

Ideal for **airtight sealing** of pierced bags, carton boxes, etc.
Made of aluminium foil with extra strong adhesive layer.
Roll with 1000 pieces, Ø 95 mm.

Label	Art. No.	Pack Qty. (roll)	€
QUALITÄTSKONTROLLE	T457.1	1	117,20
QUALITY CONTROL	T513.1	1	117,20
CONTRÔLE QUALITE - PRELEVE LE	T514.1	1	117,20



Control closure-seal, suitable for foodstuffs

Made of opaque finished **HDPE** film, blue. Adhesive meets the requirements of the German BfR (Federal Institute for Risk Assessment) with regard to direct contact with dry, damp or non-greasy food supplies. According to FDA specifications, the adhesive may come into contact with dry food supplies. Temperature range -40 to 70 °C. Min. Adhesion temperature -5 °C. Ø 95 mm, thickness approx. 0.2 mm. Rolls of 1000 pieces.

Label	Art. No.	Pack Qty. (roll)	€
QUALITÄTSKONTROLLE	KN17.1	1	145,15
QUALITY CONTROL	KN18.1	1	145,15
CONTROLE QUALITE	KN19.1	1	145,15

- Sampling bags from page 236
- Bottles from page 86
- For scoops, see page 180



Security control seals, coloured

By Bürkle. Aluminium barrier layer. Foodstuff-compatible adhesive. Prevents products from leaking out after sampling. Suitable for foodstuffs, pharmaceuticals, cosmetics, dietary supplements and frozen food. Sealed gastight. Can be labelled indelibly. Temperature stable from -20 up to max. +40 °C. Label dispenser is optional, please order separately.

Close-it food

Label size: W 95 x H 95 mm. 500 labels per roll.

Colour	Art. No.	Pack Qty.	€
red	YC60.1	500	61,85
black	YC61.1	500	61,85
yellow	YC62.1	500	61,85
blue	YC63.1	500	61,85
green	YC64.1	500	61,85
white, unprinted	YC65.1	500	61,85

Label size: W 150 x H 150 mm. 250 labels per roll.

Colour	Art. No.	Pack Qty.	€
red	YC66.1	250	85,95
black	YC67.1	250	85,95
yellow	YC68.1	250	85,95
blue	YC69.1	250	85,95
green	YC70.1	250	85,95
white, unprinted	YC71.1	250	85,95

Security seal, coloured

close-it tape food

Continuous label roll, for cutting out. Colour: white. Roll length 50 m.

Width (mm)	Art. No.	Pack Qty.	€
95	YC72.1	1	62,35
150	YC73.1	1	85,95

Security seal, coloured

Label dispenser

Suitable for label width (mm)	Art. No.	Pack Qty.	€
95	YC74.1	1	87,10
150	YC75.1	1	122,55

Sampling for pasty / compound substances



Plunge borers, conical

By Bürkle. Made of stainless steel 1.4301. Conically shaped with sharp edges and a solid handle. Suitable for use with foodstuffs. Acc. to EN ISO 707. For sampling soft and paste-like substances, such as cheese, butter, mud, clay, soap and wax. Insert the borer into the substance and turn it to cut out the sample material. Autoclavable.

Insertion depth (mm)	Total length (cm)	Pipe diameter (mm)	Art. No.	Pack Qty.	€
120	18	10-15	YP34.1	1	63,45
170	22	11-18	YP35.1	1	93,55



Plunge borer, cylindrical

By Bürkle. Made of stainless steel 1.4301. With sharp cutting crown. Suitable for use with foodstuffs. For sampling paste-like and semi-solid substances. Use the suction piston to push out the bored samples from the cylinder. Insertion depth 200 mm. Total length 260 mm. Inner diameter approx. 8 mm. Outer diameter approx. 10 mm. Autoclavable.

Art. No.	Pack Qty.	€
YP36.1	1	127,95



Pigment samplers

By Bürkle. Made of stainless steel 1.4404. With half-open groove for very adhesive substances or quarter-open groove for less adhesive substances. For sampling pigments, pastes and agglomerating bulk goods. Insert the lance to the desired depth. Turn the handle so that the sample is collected in the open groove. Withdraw the lance. Remove the sample. Tube diameter 30 mm. Autoclavable.

Length (mm)	Groove opening (%)	Volume (ml)	Art. No.	Pack Qty.	€
300	25	145	YP37.1	1	192,45
300	50	85	YP38.1	1	213,95
600	25	312	YP39.1	1	281,65
600	50	179	YP40.1	1	304,25



Mini visco samplers

By Bürkle. Made of stainless steel 1.4404. For sampling viscous substances such as pastes, muds, creams and oils. Ideal for the pharmaceutical and cosmetics industry. Samples are sucked and ejected via a suction piston. Suction point with 2 mm suction hole. Suction points available with a larger diameter for more viscous mediums, please order separately. Autoclavable.

Length (cm)	Volume (ml)	Art. No.	Pack Qty.	€
60	30	YP41.1	1	267,70
100	50	YP42.1	1	307,45
150	75	YP43.1	1	373,05

Accessories:

Suction point, 4 mm suction hole	YP44.1	1	42,50
Suction point, 6 mm suction hole	YP45.1	1	42,50
Drip tray safety wall bracket	TL59.1	1	51,50

Liquid sampling



Samplers for viscous and liquid mediums

By Bürkle. Made of PP or PTFE/FEP (chemically inert). Suitable for use with foodstuffs. Tube-Ø 25 mm.

① Visco sampler

Very strong suction power for sampling viscous, non-self-flowing substances such as mud, slime, watery clay and soil samples, oils, emulsions, creams. Samples are sucked and ejected via a suction piston.

② Liqui sampler

For liquid mediums. Compliant with DIN 53 242. Practical push-button one-handed operation. For all-layer and target-point/soil sampling. For **all-layer sampling**, slowly plunge the liqui sampler into the liquid with the button pressed (valve open). Release the button, the valve closes. Withdraw the sampler and remove the sample.

For **target-point/soil sampling**, plunge the liqui sampler down to the target point/soil with the valve closed. Press the button, the valve opens and liquid flows in. Release the button, the valve closes. Withdraw the sampler and remove the sample.

Type	Material	Length (cm)	Contents (ml)	Art. No.	Pack Qty.	€
①	PP	60	160	YP46.1	1	242,95
①	PP	100	300	YP47.1	1	285,95
①	PP	200	650	YP48.1	1	424,65
①	PTFE/FEP	60	160	YP49.1	1	324,65
①	PTFE/FEP	100	300	EE48.1	1	396,70
①	PTFE/FEP	200	650	EE49.1	1	557,95
②	PP	60	150	YP50.1	1	156,95
②	PP	100	250	YP51.1	1	208,55
②	PP	200	500	YP52.1	1	313,90
②	PTFE/FEP	60	150	YP53.1	1	242,95
②	PTFE/FEP	100	250	EE46.1	1	349,40
②	PTFE/FEP	200	500	EE47.1	1	482,70

Accessories:

Cleaning brush, length 100 cm	EE50.1	1	43,55
Drip tray safety wall bracket	TL59.1	1	51,50



Plunging siphon made of PP

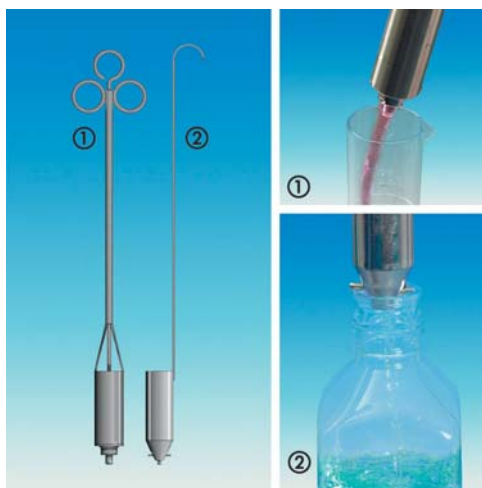
For easy removal of liquid samples. The top end features a stopcock and the bottom end has a ball valve. With transparent pipe for good visibility. For drums with a minimum opening Ø of 22 mm. Suitable for foodstuffs. Ideal for all-layer and target point sampling.

All-layer sampling: Plunge the siphon slowly into the liquid with the open stopcock. Close the valve. Withdraw the siphon and remove the sample. Empty sample into container via handle.

Target point sampling: Plunge the siphon with the closed stopcock down to the target point. Open the stopcock - the liquid will flow in. Close the stopcock. Withdraw the siphon and remove the sample.

Empty sample into container via handle. Model 3 is infinitely variable from 100 to 200 cm.

Type	Volume (ml)	Length (cm)	Art. No.	Pack Qty.	€
1	140	50	EN97.1	1	46,15
2	280	100	EN98.1	1	48,35
3	560	200	EN99.1	1	57,95



Liquid samplers

By Bürkle. Made of stainless steel (1.4404). For sampling thin to viscous liquids. With discharge funnel for safe filling of sampling bottles. One-handed operation. Container Ø 32 mm. Autoclavable.

Image	Type	Overall length (mm)	Volume (ml)	Art. No.	Pack Qty.	€
①	Thumb hole	460	50	YX81.1	1	167,70
①	Thumb hole	540	100	YX82.1	1	180,60
②	Open by placing onto bottle	455	50	YX83.1	1	201,05
②	Open by placing onto bottle	535	100	YX84.1	1	224,70

Liquid sampling



Rotilabo®-sampling containers

For use with Rotilabo® telescope rods (please order separately).
Delivery incl. beaker holder.

① Rotilabo®-swing beaker

For sampling liquids, e.g. out of deep tanks, pans or narrow shafts.
Vessel swings into the horizontal position.
For opening Ø from 150 mm (Art. No. NH30.1 from 130 mm).

Volume (ml)	Material	Art. No.	Pack Qty.	€
600	PP	NH29.1	1	48,40
1000	PP	9244.1	1	48,65
2000	PP	9251.1	1	58,60
1000	Stainless steel (1.4301)	NH30.1	1	179,55

② Rotilabo®-angle beaker

Tilt angle is adjustable to 90° through quick adjustment of the joint.

Volume (ml)	Material	Art. No.	Pack Qty.	€
600	PP	N104.1	1	49,70
1000	PP	N105.1	1	50,80
2000	PP	N106.1	1	55,45

③ Rotilabo®-beaker with digging edge

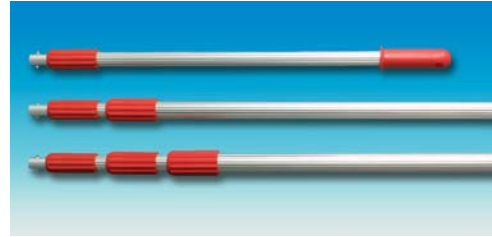
For sampling of powders, granulates, pastes and sludge.

Volume (ml)	Material	Art. No.	Pack Qty.	€
1000	Stainless steel (1.4301)	NH31.1	1	134,40

④ Rotilabo® bottle holder

Fits bottles up to max. Ø 88 mm. With quick-release clamp. Inclination angle is adjustable by up to 90° through quick adjustment of the joint.
Delivery incl. bottle with screw cap.

Volume (ml)	Material	Art. No.	Pack Qty.	€
750	Holder made of PP Release clamp made of PA Bottle made of PE	N107.1	1	57,70



Rotilabo®-telescope rods

Made of aluminium and PP.

Can be combined with Rotilabo®-sampling containers.
Not suitable for aggressive liquids.

Adjustable length	Art. No.	Pack Qty.	€
from 0.6 to 1.2 m	9254.1	1	26,15
from 1.25 to 2.5 m	9255.1	1	33,35
from 1.0 to 3.0 m	9257.1	1	52,15
from 1.65 to 4.5 m	T251.1	1	73,30



Rotilabo®-sample scoops

With solid handle bar, made of transparent PP.

For taking specific samples from tanks, tubs, galvanic baths, lakes, etc.
Length of handle 100 cm, Ø 20 mm.

Capacity (ml)	Art. No.	Pack Qty.	€
250	9220.1	1	60,90
600	9225.1	1	63,10
1000	9236.1	1	65,05



Rotilabo®-chemo-sampler

Made of PP, grey. Length 100 cm. For safe sampling of aggressive liquids.
The sample is drawn up directly in the unscrewed bottle.

Delivery incl. sample bottle 1000 ml.

Accessories: Sample bottle made of PE, with screw-on cap.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Chemo-Sampler	-	T273.1	1	72,05
Sample bottles	500	T274.1	5	13,55
Sample bottles	1000	T275.1	5	15,25

Liquid sampling



Sampling pumps

Ideal for obtaining liquid samples even from difficult to reach areas. Liquid only comes in contact with the PE-tube and the sample vessel. Also suitable for viscous samples (e.g. oils). The sample vessel is screwed into the pump and can be sealed tightly after taking the sample. Tube is easy to change and can be replaced quickly. Procedure: a vacuum is produced by pulling up the pump. The liquid is drawn off and collected in the PE-bottle.

Type	Art. No.	Pack Qty.	€
Connector 22	C001.1	1	64,30
Connector 28	E514.1	1	59,35

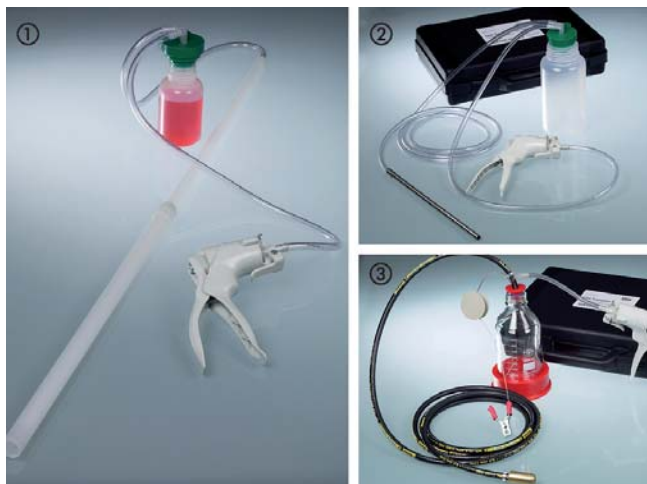
Accessories:

PE-bottle round, 250 ml (connector 22)	C003.1	10	22,60
PE-bottle round, 500 ml (connector 28)	E515.1	10	24,20
PE-bottle flat, 150 ml (connector 22)	E517.1	10	24,55
PE-bottle flat, 150 ml (connector 22)	E517.2	220	363,35
PE-bottle round, 50 ml (connector 22)	E516.1	10	17,65
PE-tube Ø inner 4.5 mm, Ø outer 6 mm, length 13 m	C004.1	1	17,15

Sampling set

Delivery incl. the model 22 sampling pump, 5x50 ml bottles, 2x250 ml bottles, 15 m of PE-tubing, and a transporting case (Art. No. CYX1.1).

Art. No.	Qty. (set)	€
C005.1	1	105,35



Liquid samplers UniSampler

By Bürkle. Easy to use: The sample is taken directly into the sample tube via a vacuum. There is no danger of contamination.

① UniSampler with telescope lance

For sampling liquids from specific depths. Telescopic suction pipe can be pulled out variably from 100 cm to 150 cm. Suction pipe made of PP, tube made of PVC.

Delivery incl. 5x250 ml and 5x500 ml sample vials made of PP and an adapter for all bottle sizes from 100 ml to 1 litre.

Procedure:

1. Pull out the suction lance to the desired sampling depth.
2. Fit the sample bottle onto the adapter.
3. Lower the suction lance into the medium.
4. Create a vacuum with the hand pump and take a sample.
5. Remove the filled sample bottle, close and label it.

② UniSampler with hose

Sampling system for deep, narrow and winding areas. The tube is pulled downwards by the heavy stainless steel pipe. PVC-tube, length 2.50 m.

Delivery incl. 1000 ml PP-bottle and adapter for all bottle sizes from 100 to 1000 ml, comes in a case for easy transport.

Function:

1. Lower suction tube to the desired depth.
2. Fit the sample bottle onto adapter.
3. Create a vacuum with the hand pump and take a sample.
4. Remove the filled sample bottle, close and label it.

③ UniSampler Ex

For sampling combustible liquids, Hazard Class A I (e.g. petrol).

The glass bottle and tube are electro-conductively connected and are grounded with an grounding cable. PTB-approval D-333-009 618/00.

Delivery incl. 4 m-tube and 1000 ml-glass bottle, in transport case.

Function:

1. Ground device.
2. Lower suction tube to the desired depth.
3. Fit the adapter onto the sample vial.
4. Create a vacuum with the hand pump, take a sample.
5. Remove the filled sample vial, close and mark it.

Type	Art. No.	Pack Qty.	€
① UniSampler with telescopic lance	AH45.1	1	241,90
② UniSampler with tube	AH46.1	1	177,40
③ UniSampler Ex	AH47.1	1	335,40

Liquid sampling



Rotilabo®-dipping bottle Ex

Made from non-sparking brass, nickel-plated. For sampling of group A petroleum products, explosion groups IIA, IIB and IIC. Approved for use in EX safety zone 0. Removable bottle top for easy cleaning. High weight for rapid lowering. Dimensions: outer Ø 89 mm, height 443 mm. Weight 3.2 kg. Capacity 1000 ml.

Delivery without manual rope spool and lowering rope (please order separately).

Art. No.	Pack Qty.	€
T267.1	1	456,90

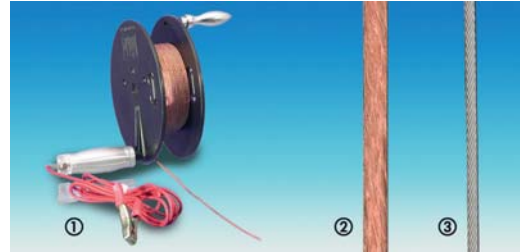


Rotilabo®-glass dipping bottle

Made from non-sparking materials. Nickel-plated brass dipping frame, closure made from electrically conductive polyamide, clear glass bottle, autoclavable. For taking sludge and water samples as well as samples of group A petroleum products, explosion groups IIA and IIB. Approved for use in EX safety zone 0. Safe closure for rapid bottle exchange. High weight for rapid lowering. Dimensions: outer Ø 148 mm, height 330 mm. Weight 3.3 kg. Capacity 1000 ml.

Delivery without manual rope spool and lowering rope (please order separately).

Art. No.	Pack Qty.	€
T266.1	1	446,15



Accessories for dipping bottles, for highly flammable solutions

① **Manual rope spool** with earthing cable, without rope, made entirely from conductive plastic. Explosion groups II A and II B. Spool Ø 100 mm, total Ø 180 mm, 55 mm wide.

Art. No.	Pack Qty.	€
EP11.1	1	212,85

② **Lowering rope** made of electrically conductive **4.5 copper**, 10 m long.

Art. No.	Pack Qty.	€
EP10.1	1	115,05

③ **Lowering rope** made of **V2A**, Ø 1.25 mm, 10 m long.

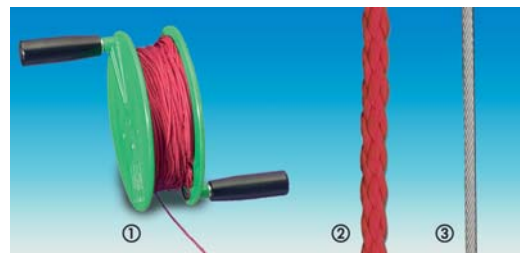
Art. No.	Pack Qty.	€
T271.1	1	29,80

Use of dipping bottles

- Lower the dipping bottle to the desired depth.
- To open the plug pull lowering rope with a short and powerful tug.
- After filling the bottle pull back the lowering rope.
- With T267.1, open the closure and drain the bottle.
- With T266.1, open the closure and remove the bottle.

Notes on explosion protection

Only electrically conductive manual rope spools with an earth connection and electrically conductive lowering ropes made of non-sparking materials for sampling flammable and highly flammable liquids.



Accessories for dipping bottles

① **Manual rope spool** made of **PP**, excluding rope. Spool Ø 100 mm, total Ø 180 mm, 55 mm wide.

Art. No.	Pack Qty.	€
T269.1	1	87,65

② **Lowering rope** made of **PP**, Ø 2.3 mm, 10 m long.

Art. No.	Pack Qty.	€
T272.1	1	11,65

③ **Lowering rope** made of **V2A**, Ø 1.25 mm, 10 m long.

Art. No.	Pack Qty.	€
T271.1	1	29,80

Disposable sampling systems



Disposable sample scoops

Made of **PS, sterile** (gamma-sterilised, individually packed).
With or without lid.

- Long handle allows safe distance between sample and hand
- Flat base for upright storage
- Usable as a weighing bottle

For sampling, analysis or conveyance of substances.

With lid, white.

Lid with tab. Spoon and sample container in one.

Volume (ml)	Overall length (mm)	Scoop L x W x H (mm)	Art. No.	Pack Qty.	€
60	203	25 x 76 x 38	YC11.1	10	60,00
60	203	25 x 76 x 38	YC10.1	100	256,95
125	221	25 x 89 x 44	YC13.1	10	67,20
125	221	25 x 89 x 44	YC12.1	100	289,20

Without lid, white

Volume (ml)	Overall length (mm)	Scoop L x W x H (mm)	Art. No.	Pack Qty.	€
60	203	25 x 76 x 38	YC15.1	100	144,05
125	221	25 x 89 x 44	YC14.1	100	181,70

Without lid, red.

Suitable for light-coloured substances, aids visibility.

Volume (ml)	Overall length (mm)	Scoop L x W x H (mm)	Art. No.	Pack Qty.	€
60	203	25 x 76 x 38	YC16.1	100	183,85
125	221	25 x 89 x 44	YC17.1	100	191,35



Sample scoops SteriPlast®

By Bürkle. Made of **PS, sterile**, with transparent lid. For sterile and contamination-free sampling, e.g. of powders, granulates and pastes. Sample scoop can be sealed with lid after taking sample. Cleanroom-manufactured (class 7), individually packed. Suitable for use with foodstuffs.

Volume (ml)	Length (mm)	Art. No.	Pack Qty.	€
25	142	CPP5.1	10	26,45
50	161	CPP6.1	10	27,90
100	206	CPP7.1	10	29,00
150	218	CPP8.1	10	29,70



SteriPlast®Bio sample scoops

By Bürkle. Made of green **PE, sterile**. For sampling powders, granulates and pastes. Sample scoop and packaging are made from renewable raw materials and fully recyclable. Cleanroom-manufactured (class 7), individually packed. Suitable for use with foodstuffs.

Volume (ml)	Length (mm)	Art. No.	Pack Qty.	€
25	141	CPP9.1	10	19,80
50	160	CPT0.1	10	20,40
100	205	CPT1.1	10	21,00
150	216	CPT2.1	10	21,45

- Spoons see page 180
- Pharmaceutical spoons made of stainless steel see page 178

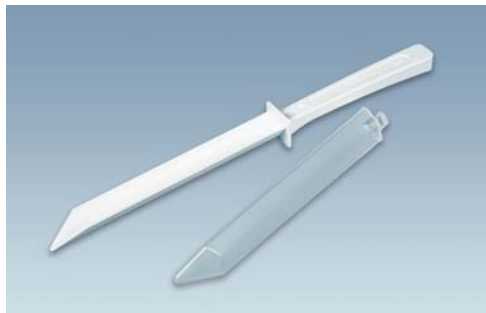


SteriPlast®Bio sample spoon

By Bürkle. Made of green **PE, sterile**. For sampling powders, granulates, pastes and liquids. Sample spoon and packaging are made from renewable raw materials and are fully recyclable. Cleanroom-manufactured (class 7), individually packed. Suitable for use with foodstuffs.

Volume (ml)	Length (mm)	Art. No.	Pack Qty.	€
2,5	127	CPT3.1	100	44,65
10	170	CPT4.1	100	47,25

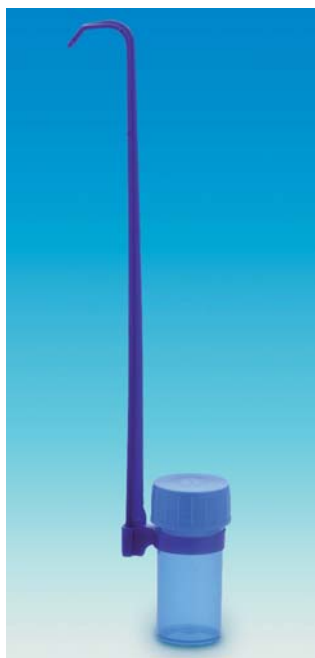
Disposable sampling systems



Sample spatula SteriPlast®

By Bürkle. Made of PS, sterile. For sterile and contamination-free sampling, e.g. of powders, granulates and pastes. Insertion depth 150 mm. With long, sturdy handle and sharp blade for piercing paper and plastic bags etc. Sample spatula is optionally available with a lid made of PS which allows the sample to be sealed straight after it is taken. Cleanroom-manufactured (class 7), individually packed. Suitable for use with foodstuffs.

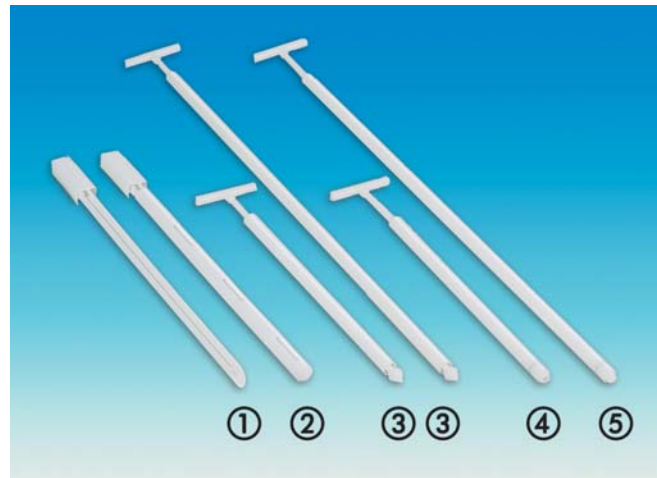
Type	Overall length (mm)	Art. No.	Pack Qty.	€
Without lid	263	CLT5.1	10	16,45
With lid	268	CLT6.1	10	24,70



PP-sampling scoops with handle

Made of break-proof, transparent PP. Screw cap made of PE. **Sterile** (packed individually). Blue, suitable for the food industry. For sterile sampling and subsequent analysis, reduces cross-contamination. Handle removable, L 240 mm.

Volume (ml)	Height of container (mm)	Container-Ø (mm)	Overall height (mm)	Art. No.	Pack Qty.	€
40	70	30	275	HL41.1	250	213,95
125	74	52	275	HL42.1	100	117,20
180	102	52	305	HL43.1	100	110,75



One-way DispoSampler samplers

By Bürkle. Made of HDPE. For sampling bulk materials, viscous media and liquids. Advantages: no contamination by other samples, no complicated and time-consuming cleaning. Manufactured under cleanroom conditions. Dustfree and individually packed in film.

① PowderDispo

All-layer sampler. For cohesive, powdery substances. Insertion depth 500 mm.

Length (mm)	Volume (ml)	Ø (mm)	Art. No.	Pack Qty.	€
500	100	22	NH28.1	10	74,20

② ZoneDispo

For pourable bulk goods up to 2 mm particle size.

Length (mm)	Volume (ml)	Ø (mm)	Art. No.	Pack Qty.	€
500	100	25	HC58.1	10	181,70

③ MicroDispo

Target point sampler, for small quantities. For pourable bulk goods up to 0.5 mm particle size.

Length (mm)	Volume (ml)	Ø (mm)	Art. No.	Pack Qty.	€
500	10	21	HC55.1	10	66,50
1000	10	21	HC57.1	10	95,70

④ ViscoDispo

For high-viscosity media up to max. 100 000 cP.

Length (mm)	Volume (ml)	Ø (mm)	Art. No.	Pack Qty.	€
500	100	21	HC52.1	10	74,20
1000	190	21	HC53.1	10	84,95

⑤ LiquiDispo

For low-viscosity liquids up to approx. 10 000 cP.

Length (mm)	Volume (ml)	Ø (mm)	Art. No.	Pack Qty.	€
500	100	21	HC50.1	10	74,20
1000	190	21	HC51.1	10	84,95

- Sampling bags from page 236
- Bottles from page 86

Centrifugal pumps



Rotary pumps

With magnetic clutch for circulating water. Complete with 1.5 m cable and plug. Protective system IP 67.

Please note:

- Pumps must not be allowed to run dry
- Pumps are not self-priming and must always be installed below liquid level when used externally
- Temperature stable from -10 to +40 °C
- Can be used inside the pumping medium
- Output is non-adjustable

Technical specifications:

Model	①	②	③	④
Flow rate max. (l/min)	4.5	40	10	20
Lift of pump max. (m)	0.75	3.7	1.5	2.0
Power input (W)	4	65	10	28
Tube connections:				
Press. side (mm)	13	18	13	13
Thread (inch)		3/4	1/4	3/8
Suction side (mm)	17	28	13	17
Thread (inch)		3/4	3/8	1/2
Dimensions L x W x H (mm)	87 x 48 x 88	218 x 116 x 161	147 x 75 x 119	178 x 96 x 121
Weight (kg)	0.45	2.5	1.0	1.6
Current	230 V, 50 Hz			
Comments	Pressure pipe joints are rotatable	Universal pump, variable assembly possible, with safety tube connector.		

Model	Art. No.	Pack Qty.	€
1	A908.1	1	63,45
2	Y492.1	1	224,70
3	E234.1	1	112,90
4	A906.1	1	145,15

► Hoses see page 355



Centrifugal pump

Medium contacting parts made of **PP**, **EPDM** and **ceramic**. With magnetic clutch. Continuous running for transferring and circulating chemicals and gaseous liquids possible. Adapter, outer thread 1/4". Magnetic resistance to fracture protects the motor against external interference. Economical in use of electricity, long-life due to low friction. Not self-priming.

Technical specifications:

Flow rate	max. 13,8 l/min
Lift of pump	max. 2.3 m
Power input	51 W
Power output	10 W
Ideal for temperatures	from -20 to +85 °C
Dimensions (H x L x W)	100 x 150 x 112 mm
Weight	ca. 1.7 kg
Current	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
A902.1	1	267,70



Centrifugal pump

Medium contacting parts made of **PP**, **EPDM** and **ceramic**. With magnetic clutch. For aggressive chemicals, acids, alkalis and gaseous liquids. Adapter, outer thread 1/2". Continuous running possible. No shaft sealing ring, therefore little friction and long-life of pump. Not self-priming.

Technical specifications:

Flow rate	max. 52 l/min
Lift of pump	max. 6.0 m
Ideal for temperatures	from -20 to +85 °C
Power input	95 W
Dimensions (H x L x W)	143 x 214 x 102 mm
Weight	ca. 3.0 kg
Current	230 V, 50 Hz

Art. No.	Pack Qty.	€
A903.1	1	568,70

Membrane liquid pumps



Membrane liquid pumps LIQUIPORT®

By KNF. Ideal for delivering neutral and aggressive liquids.

- Flow rate can be adjusted from 10-100 % via knob with LED-display
- Standby-mode
- Maximum pressure control
- Selfpriming
- Dry running
- Long-life
- Protective system: IP65 (hoseproof)
- Permissible liquid temperature max. 80 °C
- Main supply 100-230 V, 50/60 Hz
- Membranes PTFE-coated, valves FFPM

All models are also available with external control, please check with our Sales Department.

Technical specifications:

Model	NF 100	NF 1.100	NF 300	NF 1.300
Output (ml/min)	200-1300		500-3000	
Suction lift (mWC)	3			
Pressure lift (mWC)	10	60	10	60
Tube connection Ø inner (mm)	8		12	
Output P ₁ (W)	12	18	24	
Weight (kg)	1.0		1.5	
Dimensions W x D x H (mm)	99 x 130 x 177		190 x 160 x 190	

Model	Pump head	Art. No.	Pack Qty.	€
NF 100 KT.18 S	PP	EL62.1 *	1	578,35
NF 100 TT.18 S	PVDF	EL63.1 *	1	710,60
NF 100 FT.18 S	PTFE	EL64.1 *	1	1713,55
NF 1.100 KT. 18 S10	PP	EL65.1 *	1	675,10
NF 1.100 TT. 18 S10	PVDF	EL66.1 *	1	805,20
NF 1.100 FT. 18 S10	PTFE	EL67.1 *	1	1809,25
NF 300 KT.18 S	PP	EL68.1 *	1	737,45
NF 300 TT.18 S	PVDF	EL69.1 *	1	935,25
NF 300 FT.18 S	PTFE	EL70.1 *	1	2193,00
NF 1.300 KT.18 S	PP	EL71.1 *	1	796,60
NF 1.300 TT.18 S	PVDF	EL72.1 *	1	992,25
NF 1.300 FT.18 S	PTFE	EL73.1 *	1	2251,05

* Longer delivery times possible. Please check with our Sales Department.



SIMDOS® chemical resistant diaphragm metering pumps

By KNF. Suitable for pumping neutral and aggressive liquids.

- Optimised pump head geometry with safety feature prevents fluids from leaking into the pump drive.
- Operating modes: continuous pumping (unlimited time), continuous pumping with timed switch-off, volumetric metering and series metering
- With calibration function for better accuracy
- Adjustable pump characteristics (e. g. for vaporous, viscous liquids)
- Pause function without loss of data
- Dry-run safe, self-priming and maintenance-free
- EPDM diaphragm, PTFE-coated, valve plate/seals made of FFKM

All models are also available with external control, please check with our Sales Department.

Technical specifications:

Delivery rate	1-100 ml/min
Metering capacity	1-1000 ml
Metering time	1 s - 99 h 59 min
Max. suction head	3 mWS
Max. pressure	6 bar
Allowable medium temperatures	+5 to +80 °C
Connection for ID/AD hose	4 / 6 mm
Power requirement	24 W
Protection class	IP 65
Noise level	<40 dBA
Dimensions W x D x H	93 x 134 x 144 mm
Weight	0.9 kg
Power supply	100-240 V, 50/60 Hz

Delivery incl. connection kit (hose and screw fitting) and intake filter.

Model	Pump head	Art. No.	Pack Qty.	€
FEM 1.10 KT.18 S2	PP	PA27.1	1	1335,15
FEM 1.10 TT.18 S2	PVDF	PA28.1	1	1429,75
FEM 1.10 FT.18 S2	PTFE	PA29.1	1	2459,60

Peristaltic pumps



Membrane dosing pumps

Powerful, speed-controlled stepper motor. Constant, continuous dosing performance. Adjustment range up to 1:1000.
Traffic lights concept to indicate pump status.
PTFE membrane, universally resistant to chemicals.

Technical specifications:

Model	DDE 6-10	DDE 15-4
Max. flow rate (l/h)	6	15
Suction lift (mWS)		6
Max. pressure (bar)	10	4
Ambient temperature (°C)		0 to 45
Temperature of medium (°C)		-10 to 45
Parts with media contact	PVC/FKM/ceramics	
For tubes ID/AD (mm)	4/6	6/9
Max. sound pressure level (dB(A))		60
Degree of protection (housing)		IP 65
Dimensions W x D x H (mm)	102 x 251 x 196	102 x 251 x 200.5
Weight (kg)		2.4
Mains connection	100-240 V, 50/60 Hz	

Delivery incl. assembly plate as base or for wall mounting.

Type	Art. No.	Pack Qty.	€
DDE 6-10	PE71.1	1	493,45
DDE 15-4	PE72.1	1	643,95

Accessories: multifunction valve for diaphragm metering pump

Made of PVDF. To maintain the necessary counterpressure and vent the pump at start-up. Compact valve for connecting directly to the pump.
Dimensions: L 139 x H 92 mm.

Art. No.	Pack Qty.	€
PE73.1	1	206,40

Conversion table for delivery rates

m³/s	m³/h	l/min	l/s
1	3600	60000	1000
0.28 x 10 ⁻³	1	16.6667	0.2778
16.67 x 10 ⁻⁶	0.06	1	0.0167
1 x 10 ⁻³	3.6	60	1



Roth Cyclo II pericyclic pumps

Pumps for all applications in the laboratory, in chemical analysis and biotechnology.

- 1- or 2-channel head pumps (Ø 62 mm)
- 3- or 6-roll pump head for lower pulsation
- Simple operation with two knobs:
Infinitely variable speed setting from 0 to 100 %
adjustable left-hand/right-hand motion
- Tube can be changed easily in a few seconds
- Variable tube pressure
- With easy to disassemble pump head for problem-free cleaning
- Pump head can be turned by 90°
- Matching tube cassettes for 3 different tube sizes
- Temperature and current limiter for maximum reliability
- Stackable
- Tube with 1.6 mm wall thickness can be used

Technical specifications:

Safe delivery pressure	1 bar
Voltage	110-230 V
Drive / Power	DC-motor / 10 W
Weight	1.7 kg
Dimensions (W x D x H)	134 x 190 x 131 mm

Tube ID (mm) / Tube cassette	1.6 / 1.6 (Y375.1)	3.2 / 3.2 (Y376.1)	4.8 / 4.8 (incl. in delivery)
3-roll head: Pumping capacity (ml/min)	1.5-30	6-110	12-240
6-roll head: Pumping capacity (ml/min)	1.2-24	4.4-88	9.6-192

Standard model:

Delivery incl. tube cassette for tube with inner-Ø 4.8 mm and wall thickness 1.6 mm.

Type	Art. No.	Pack Qty.	€
Cyclo II with 1-channel pump head, 3 rolls	Y374.1	1	1213,70
Cyclo II with 1-channel pump head, 6 rolls	EP74.1	1	1230,90
Cyclo II with 2-channel pump head, 3 rolls	EP75.1	1	1338,40
Cyclo II with 2-channel pump head, 6 rolls	EP76.1	1	1467,40

Accessories:

Tube cassette for tube inner-Ø 1.6 mm	Y375.1	1	97,85
Tube cassette for tube inner-Ø 3.2 mm	Y376.1	1	97,85



Peristaltic pumps set Hei-FLOW

By Heidolph. For conveying liquids.

- Analog speed adjustment
- Constant speed even under varying load
- Reversible direction of rotation (ccw/cw)
- Stackable housing (max. 2 pump drives)
- Pump drives Hei-FLOW Advantage 01 with maximum speed button for faster filling and drainage of tubing

Characteristics of the pump head:

- For tubing wall thickness of 1.6 mm
- Tubing outer diameters of between 4 mm and 9.5 mm are freely selectable
- Low pulsation is ensured by 5 rollers
- Easy and quick tubing replacement
- Stainless steel rollers and roller mounts

Technical specifications:

Type (Hei-FLOW)	① Value 01	② Advantage 01
Delivery rate (ml/min)	0.8-413	0.4-409
Speed (rpm)	10-120	5-120
Control accuracy (%)	±2	±0.5
Analog interface	no	yes
Motor power (W)	71	100
Weight excluding pump head (kg)	6.8	8.2
Dimensions W x D x H (mm)	166 x 256 x 225	

Flow rates are dependent on tubing size (wall thickness 1.6 mm):

Inner Ø (mm)	0.8	1.7	3.1	4.8	6.3
Outer Ø (mm)	4.0	4.9	6.3	8.0	9.5
Delivery rate Value 01 (ml/min)	0.8-9	3-41	11-134	25-292	36-413
Delivery rate Advantage 01 (ml/min)	0.4-9	2-40	5-126	12-233	17-409

Delivery incl. pump head SP quick 1.6 and 1 m of Tygon® and silicone rubber tubing (CH22.1 with inner Ø 3.1 mm, EL51.1 with inner Ø 0.8 mm).

Type	Art. No.	Pack Qty.	€
① Hei-FLOW Value 01	CH22.1 *	1	1817,00
② Hei-FLOW Advantage 01	EL51.1 *	1	2476,00

* Delivery times may apply to these products. Please ask our sales staff.



Tube Pumps Sci-Q 323

By Watson-Marlow. Particularly suitable for applications in the laboratory and for research.

- Expansion and end pump head with 4 rolls for lower pulsation is available as an accessory
- Flow rate up to 2000 ml/min with 3 rolls
- Flow rate up to 1600 ml/min with 4 rolls
- Can be expanded with additional pump heads to up to 6 parallel channels
- Hose can be inserted quickly and easily with the flip-top-pump head
- Digital speed control
- Manually steerable
- Easy to read display and wipeable membrane keyboard
- Chemically stable housing
- Maintenance-free, quiet motor
- For use with 1.6 mm thick hoses (please order separately)

Technical specifications:

Hose-ID (mm)	0.5	0.8	1.6	3.2	4.8	6.4	8.0
3-Roll-head: Flow rate (ml/min)	0.45-12	1.1-28	4.1-110	15-400	33-880	54-1400	75-2000
4-Roll-head: Flow rate (ml/min)	0.45-12	0.90-24	3.8-100	13-340	29-760	45-1200	60-1600
Max. number of pump heads (at 0.5 bar)	6	6	4	2	2	1	1

rpm	15-400 min ⁻¹ (adjustable in increments of 5)
Ideal for temperatures	5-40 °C
Noise level	<70 dBA
Weight	4.7 kg
Dimensions (H x L x W)	225 x 230 x 132 mm
Current	230 V, 50/60 Hz - change-over to 120 V

Delivery incl. one 3-roll-end-pump head.

Art. No.	Pack Qty.	€
Y545.1 *	1	3288,45

* Longer delivery times possible. Please check with our Sales Department.

Accessories:

Extension pump head, 3-roll	Y546.1	1	383,80
Extension pump head, 4-roll	Y547.1	1	383,80
End-piece pump head, 4-roll	Y548.1	1	383,80

► Silicone pump tubes see page 357

Peristaltic pumps



NEU
NOUVEAU
NEW

Hei-FLOW Precision peristaltic pumps

By Heidolph.

For conveying and metering liquids.

Pump drives

- Digital display
- Dispensing volume 0.1-9999 ml
- Intermittent dispensing
- Simple calibration of delivery and dispensing volumes
- With maximum speed button for faster filling and drainage of tubing
- Constant speed even under varying load
- Reversible direction of rotation (ccw/cw)
- Stackable housing (max. 2 pump drives)
- Analog and digital (RS 232) interfaces
- Hei-FLOW Precision 01 pump drive suitable for multichannel operation

Technical specifications of the pump drives:

Hei-FLOW model	Precision 01	Precision 06
Delivery rate in single-channel mode (ml/min)	0.02-409	2-2072
Speed (rpm)	5-120	24-600
Control accuracy (%)	±0.5	
Multichannel operation possible	yes	no
Motor power (W)	100	
Weight excluding pump head (kg)	8.3	7.7
Dimensions W x D x H (mm)	166 x 256 x 225	

Modular design:

pump drive, pump head and pump hose are freely combinable (please order separately).

Type	Art. No.	Pack Qty.	€
Hei-FLOW Precision 01 pump drive	CYC4.1	1	2691,00
Hei-FLOW Precision 06 pump drive	CYC5.1	1	2598,00

Pump heads for Hei-FLOW Precision

1-channel pump head SP quick for Hei-FLOW Precision 01 and 06

- For standard tubing with a wall thickness of 1.6 mm
- Tubing outer diameters of between 4 mm and 9.5 mm are freely selectable
- Low pulsation is ensured by 5 rollers
- Easy and quick tubing replacement
- Stainless steel rollers and roller mounts

Flow rates are dependent on tubing size (wall thickness 1.6 mm):

Inner Ø (mm)	0.6	1.7	3.1	4.8	6.3
Delivery rate (ml/min)					
Precision 01	0.38-9	2-40	5-126	12-233	17-409
Precision 06	2-33	8-186	26-653	59-1529	89-2072

Type	Art. No.	Pack Qty.	€
1-channel pump head SP quick (SWS 1.6 mm)	CYC6.1	1	431,00

4-channel pump head for Hei-FLOW Precision 01

- For use with up to 4 hose cassettes, with snap lock for easy insertion during operation
- Low pulsation is ensured by 8 rollers
- For 2 stopper hoses with a wall thickness of 0.9 mm
- Tubing outer diameters of between 0.2 mm and 2.8 mm are freely selectable
- To feed and convey different volumes, hoses of different diameter can be inserted into the hose cassette
- Roller pressure can be adjusted using an adjustment screw

Flow rates are dependent on tubing size (wall thickness 0.9 mm):

Inner Ø (mm)	0.2	0.5	0.9	1.4	2.8
Delivery rate (ml/min)					
Precision 01	0.02-0.49	0.08-2	0.24-6	0.60-14	2-36

For multichannel operation of Hei-FLOW Precision 01, an adapter for multichannel pump heads and 1 to 4 hose cassettes (please order separately) are required in addition to the 4-channel pump head.

Type	Art. No.	Pack Qty.	€
① Adapter for multichannel pump heads	CYC7.1	1	154,00
② 4-channel pump head	CYC8.1	1	718,00
③ Hose cassette	CYC9.1	1	229,00

Accessories for Hei-FLOW Precision 01 in multichannel operation

2-stopper hoses (2 105 stoppers)

Type	Art. No.	Pack Qty.	€
PharMed®, ID 0.2 mm, L 400 mm	CYE0.1	1	27,40
PharMed®, ID 0.5 mm, L 400 mm	CYE1.1	1	27,40
PharMed®, ID 0.9 mm, L 400 mm	CYE2.1	1	27,40
PharMed®, ID 1.4 mm, L 400 mm	CYE3.1	1	27,40
PharMed®, ID 2.8 mm, L 400 mm	CYE4.1	1	27,40

Extension hoses for stopper hoses

Type	Art. No.	Pack Qty.	€
PharMed®, ID 0.2 mm, L 2 m	CYE5.1	1	31,70
PharMed®, ID 0.5 mm, L 2 m	CYE6.1	1	23,50
PharMed®, ID 0.9 mm, L 2 m	CYE7.1	1	23,50
PharMed®, ID 1.4 mm, L 2 m	CYE8.1	1	44,00
PharMed®, ID 2.8 mm, L 2 m	CYE9.1	1	23,50

Hose connector made of PTFE for connecting stopper and extension hoses

Type	Art. No.	Pack Qty.	€
For hoses with ID 0.2 to 2.8 mm	CYH0.1	1	45,00

► Hoses for single-channel pump heads, see page 359

► Hoses for multi-channel pump heads, see page 359



HiClass rotarus® peristaltic pumps

By Hirschmann. The stainless-steel housing makes this pump ideal for use in pharmaceuticals and food production.

Choose from two different motor versions: 50i series for low flow rates or high viscosity media and 100i series for high flow rates.

Available with single-channel pump head or multichannel pump head.

Alternatively, up to 3 single-channel pump heads can be connected in a daisychain for multichannel operation.

- Control panel directly on pump housing for quick and easy input of basic functions
- Quick-change pump heads
- Reversible direction of rotation (CW / CCW)
- Load-based speed control
- Suitable for continuous duty
- Stackable
- PC connectivity via USB and RS 232 ports

Technical data on pump drives:

Motor version	50i series	100i series
Motor power (W)	50	85
Speed range (RPM)	0.2-100	5.0-500
Delivery rate depending on pump head (ml/min)	0.0005-1200	0.025-6900
Steps (RPM)	0.1	
Total power consumption (W)	60	90
Protection rating	IP 65	
Weight (kg)	approx. 7.3	approx. 10.1
Dimensions (H x W x D) mm	220 x 100 x 205	220 x 100 x 270
Power supply	115-240 V/ 50-60 Hz	

Technical data on pump models:

rotarus® model	Standard	flow	volume
Control panel on pump housing	x	x	x
External control panel with touchscreen	-	x	x
Memory for 20 methods	-	x	x
Calibration function	-	x	x
Pumps by speed	x	x	x
Pumps by flow rate	-	x	x
Pumps by target volume (feeding)	-	-	x
Autom. pump head detection	-	x	x
Autom. hose detection	-	x	x
Hose lifetime monitoring	-	x	x
Autom. hose leak and blockage detection	-	x	x

Characteristics of pump heads:

1-channel pump head	- 3 stainless steel rollers - Hose dimensions inner Ø 0.8-12 mm, wall thickness 1.6 mm - Cascadable - Head and hose data recognition by RFID
4-channel pump head	- 8 Polysulfon rollers - Hose dimensions inner Ø 0.19-2.79 mm, variable wall thickness - Variable contact pressure - Head and hose data recognition by RFID

Delivery rates in dependence on hose size:

- 1-channel pump head (with standard pump hoses, wall thickness 1.6 mm):

Inner Ø (mm)	Delivery rate 50i series per channel (ml/min)	Delivery rate 100i series per channel (ml/min)
1.6	0.08-40	1.9-200
3.2	0.32-160	0.8-850
8.0	1.7-840	42-3900
11.1	2.8-1500	69-5400

- 4-channel pump head (with stopper hoses):

Inner Ø (mm)	Delivery rate 50i series (ml/min)	Delivery rate 100i series (ml/min)
0.19	0.001-0.40	0.021-0.90
0.25	0.0017-0.85	0.043-2.1
1.42	0.026-13.0	0.66-32.0
2.79	0.048-22.7	1.7-82.1

Modular design:

pump drive, pump head and pump hose are freely combinable (please order separately). Pump hoses are fitted with a chip which allows for automatic detection and lifetime monitoring of the rotarus® flow and rotarus® volume models. Alternatively, hoses can be used without a chip, in which case, however, the "automatic hose detection" and "hose lifetime monitoring" functions will not be available.

Pump drives

Type	Art. No.	Pack Qty.	€
rotarus® standard 50i	AXN5.1	1	2128,50
rotarus® standard 100i	AXN6.1	1	2666,00
rotarus® flow 50i	AXN7.1	1	2773,50
rotarus® flow 100i	AXN8.1	1	3096,00
rotarus® volume 50i	AXN9.1	1	3311,00
rotarus® volume 100i	AXP0.1	1	3526,00

Pump heads

Type	Art. No.	Pack Qty.	€
① 1-channel pump head rotarus® PK 10-16	AXP1.1	1	1058,90
② 4-channel pump head rotarus® MFK 4-8	AXP2.1	1	1128,75

Accessories for HiClass rotarus® peristaltic pumps

Standard pump hoses with chip for single-channel pump heads

Type	Art. No.	Pack Qty.	€
PharMed® BPT, ID 1.6 mm, L 7.5 m	AXP3.1	1	123,65
PharMed® BPT, ID 3.2 mm, L 7.5 m	AXP4.1	1	143,00
PharMed® BPT, ID 8.0 mm, L 7.5 m	AXP5.1	1	149,45

Stopper hoses (2 104 stoppers) with chip for multichannel pump heads

Type	Art. No.	Pack Qty.	€
PharMed® BPT, ID 0.25 mm, L 381 mm	AXP6.1	6	63,90
PharMed® BPT, ID 1.42 mm, L 381 mm	AXP7.1	6	63,90
PharMed® BPT, ID 2.79 mm, L 381 mm	AXP8.1	6	63,90

Extension hoses for stopper hoses

Type	Art. No.	Pack Qty.	€
PharMed® BPT, ID 0.25 mm, L 3 m	AXP9.1	1	42,50
PharMed® BPT, ID 1.42 mm, L 3 m	AXT0.1	1	42,50
PharMed® BPT, ID 2.79 mm, L 3 m	AXT1.1	1	42,50

Footswitch

Type	Art. No.	Pack Qty.	€
For starting and stopping	AXT2.1	1	80,65

Vacuum pumps



Rotilabo®-piston pump CR-KP292

Compact pump for vacuum and pressure applications. Suitable for pumping air and neutral gases.

Applications:

Pressure filtration of aqueous solutions, use in vacuum ovens, vacuum drying and gas sampling.

Technical specifications:

Delivery rate	9.2 l/min
End vacuum (abs.)	292 mbar
Pressure	3.3 bar
Motor power	25 W
Connections for hose ID	6 mm
Dimensions (L x W x H)	194 x 114 x 191 mm
Weight	2.0 kg
Power supply	230 V, 50 Hz

Art. No.	Pack Qty.	€
CYA9.1	1	299,95



Rotilabo®-diaphragm vacuum pump CR-MV100

For conveying and compressing neutral and aggressive gases and vapours in accordance with the resistance of the given materials. Continuous manual vacuum adjustment.

Application areas: suitable for vacuum filtration, vacuum drying and solid phase extraction.

Technical specifications:

Delivery rate	10 l/min
End vacuum (abs.)	100 mbar
Motor power	48 W
Connections for hose ID	6 mm
Vacuum regulators	Needle valve
Measurement range / scaling	1000 to 1 bar / 100 mbar
Dimensions (W x D x H)	144 x 198 x 244 mm
Weight	2.7 kg
Power supply	90-260 V; 50/60 Hz

Materials of pump parts in contact with media:

Seal	EPDM
Hose nozzle / connecting part	PP
Valve	FKM
Diaphragm	PTFE-coated
Hose / separator	PVC
Connector head / pump head	Ryton

Delivery incl. vacuum metering block with pressure gauge and exhaust silencer.

Art. No.	Pack Qty.	€
ECK4.1	1	751,45

Membrane controlled vacuum pumps



LABOPORT®-membrane vacuum pumps

By KNF. Ideal for pumping and evacuating **air and neutral or slightly aggressive or corrosive gases and vapours**.

- Thermal switch and power fuse
- Gas and ambient temperature limit: 40 °C
- Suitable for continuous operation
- Very quiet and has minimal vibration
- Voltage frequency: 230 V, 50 Hz

Optional accessories:

- Fine regulator head: For adjustment of the vacuum.
Scale: 50/100 mbar increments
- Silencer for all pump types to be assembled on delivery side
- Suction filter for K517.1, Y371.1 and L110.1, to be assembled on intake side

Technical specifications:

Type	Output (l/min)	Vacuum abs. (mbar)	Overpress. (bar)	Power (W)	Weight (kg)	Connectors for hose ID (mm)
N86KN.18	6.0	100	2.4	60	1.9	4
N86KT.18	5.5	160	2.5	60	1.9	4
N811KN.18	11.5	240	2.0	65	2.5	6
N816.3KN.18	16	15	0.5	100	3.95	6
N816.3KT.18	16	20	0.5	100	3.95	6
N816.1.2KT.18	30	160	0.5	100	3.95	6

Materials:

Type	Pump head	Membrane	Valves
N86KN.18	PPS	EPDM	FPM
N86KT.18	PPS	PTFE-coated	FFPM
N811KN.18	PPS	EPDM	FPM
N816.3KN.18	PPS	EPDM	EPDM
N816.3KT.18	PPS	PTFE-coated	FFPM
N816.1.2KT.18	PPS	PTFE-coated	FFPM

Type	Art. No.	Pack Qty.	€
N86KN.18	K517.1	1	319,30
N86KT.18	Y371.1	1	383,80
N811KN.18	L110.1	1	419,25
N816.3KN.18	EH52.1	1	643,95
N816.3KT.18	Y372.1	1	719,20
N816.1.2KT.18	Y373.1	1	733,15

Accessories:

Silencer	C557.1	1	17,15
Suction filter for K517.1, Y371.1 and L110.1	C558.1	1	14,55
Hose stems for hose inner Ø 8 mm	EL44.1	1	5,55
Fine control valve for K517.1, Y371.1, L110.1	HC49.1	1	68,95
Fine control valve for EH52.1 and Y372.1	NP66.1	1	79,80



Membrane controlled vacuum pumps and compressors

By KNF. Ideal for pumping, evacuating and compressing **air and neutral or slightly aggressive and/or corrosive gases and vapours**. Generates oil-free air pressure and vacuum. Assists in the analysis and measurement of gasses.

- Pump head made of aluminium
- All AN models have a neoprene diaphragm, AT models (T789.1) are PTFE coated
- Max. gas and ambient temperature: 40 °C
- Units have been designed for continuous operation
- Very quiet
- Gas tight
- Non-corroding
- Following order numbers come with noise absorption and hose support C561.1, T356.1
- Power supply: 230 V/50 Hz

Technical specifications:

Type	Output (l/min)	Vacuum abs. (mbar)	Overpress. (bar)	Power (W)	Weight (kg)	Connection for tube ID (mm)
N022AN.18	15	100	4	100	4.0	6
N026.3AN.18	22	20	-	170	5.8	9
N035.3AN.18	30	13	-	300	11.3	9
N026.1.2AN.18	39	100	2	170	5.8	9
N035.1.2AN.18	55	100	4	300	11.3	9
N035.1.2AT.18	50	100	4	300	11.3	9

Type	Art. No.	Pack Qty.	€
N022AN.18	C559.1 *	1	591,25
N026.3AN.18	C561.1 *	1	861,10
N035.3AN.18	T356.1 *	1	918,05
N026.1.2AN.18	C560.1 *	1	884,75
N035.1.2AN.18	T357.1 *	1	950,30
N035.1.2AT.18	T789.1 *	1	1196,50

Accessories:

Noise absorption for C560.1, T357.1, T789.1	T842.1 *	1	19,30
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* Longer delivery times possible. Please check with our Sales Department.

Membrane controlled vacuum pumps



LABOPORT®- chemical stable membrane controlled vacuum pumps

By KNF. Ideal for pumping and evacuating **aggressive gases and vapours**.

- Pump head/membrane made of PTFE, valves FFPM
- Max. gas and ambient temperature: 40 °C
- Units have been designed for continuous operation
- Gas tight
- Connection for tube ID 10 mm
- Power supply: 230 V/50 Hz

Technical specifications:

Type	Output (l/min)	Vacuum abs. (mbar)	Power (W)	Weight (kg)
N810FT.18	10	100	100	5.9
N810.3FT.18	10	8	90	6.9
N820FT.18	20	100	130	7.1
N820.3FT.18	20	8	120	9.3
N840FT.18	34	100	180	10.3
N840.3FT.18	34	8	245	13.6

Type	Art. No.	Pack Qty.	€
N810FT.18	T350.1 *	1	856,80
N810.3FT.18	T351.1 *	1	1281,40
N820FT.18	N149.1 *	1	1081,45
N820.3 FT18	C563.1 *	1	1594,25
N840FT.18	T352.1 *	1	1316,90
N840.3 FT18	C564.1 *	1	1744,75

* Please check with our Sales Department for delivery period for these items.



LABOPORT® SD automatic drying vacuum pumps for humid gases

By KNF. Chemically consistent, **for highly aggressive and corrosive gases and steam**.

The pump blows condensed fluid out of the pump heads at a high speed during evacuation. The vacuum in the vessel remains constant.

Application:

Ideal for e.g. steam sterilizers or for vacuum drying on vacuum drying cabinets to accelerate evacuation time considerably.

- With PTFE pump heads, PTFE-coated membranes, FFPM valves
- Two heads
- High steam and condensate compatibility
- Gas tight, leak rate approx. 6×10^{-3} mbar x l/s
- Max. gas and ambient temperature: +40 °C
- With thermal switch and main fuse
- Hose connection ID 10 mm
- Power supply: 230 V/50 Hz

Technical specifications:

Type	N820.3FT.40.18	N840.3FT.40.18
Flow rate (l/min)	20	34
Final vacuum (mbar)		10
Overpressure (bar)		1
Weight (kg)	9.6	12.9

Type	Art. No.	Pack Qty.	€
N820.3FT.40.18	Y369.1 *	1	1887,70
N840.3FT.40.18	Y370.1 *	1	2272,55

* Please check with our Sales Department for delivery period for these items.

Membrane controlled vacuum pumps



Membrane controlled vacuum pumps N920

By KNF. For all applications which require **high suction speed at low pressure**.

For delivering and sucking air, gases and vapours, for withdrawing and evacuating samples from containers or systems.

Properties:

- **Flow rate can be adjusted** by regulating the speed with the potentiometer
- Very quiet and low on vibration
- Membrane stabilizing system for high suction speed at low vacuum range
- Max. gas and ambient temperature 40 °C
- Adapters for hose with inner-Ø 9 mm
- Power supply: ~90-264 V, 50/60 Hz

Application range:

For a variety of procedures and processes, e.g. in laboratories, which need to be performed under vacuum conditions. Can also be used in the semiconductor and pharmaceutical industry, chemical and analytic engineering.

Technical specifications:

Type	N 920 AP.29.18	N 920 KT.29.18
Output (l/min)		21
Final vacuum (abs.mbar)		<1.5
Max. working overpressure (bar)		0.5
Power output (W)		120
Weight (kg)	10.5	9.1
Pump head	aluminium	PPS
Membrane	EPDM	PTFE-coated
Valves	EPDM	FFPM

Type	Art. No.	Pack Qty.	€
N 920 AP.29.18	EP18.1 *	1	1874,80
N 920 KT.29.18	EP19.1 *	1	2283,30

Accessories:

Muffler/suction filter	EP20.1 *	1	22,40
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* Longer delivery times possible. Please check with our Sales Department.



Membrane controlled pumps

By Ilmvac. Ideal for conveying and compressing **neutral and aggressive gases and vapours**.

Application range: In physical and chemical laboratories for vacuum-filtration, -distillation, -drying, etc.

- Connection-/pump head made of PTFE with carbon fiber reinforcement
- Gasket EPDM, Screw connectors PVDF, valves PEEK, membrane disk NBR, connecting elements PP
- Max. supply pressure / max. outlet pressure 1 bar
- Inlet-/Outlet side for tube interior-Ø 8 mm
- Max. ambient level 40 °C
- Max. operating gas-temperature 80 °C
- Main supply 230 V, 50/60 Hz

Technical specifications:

Type	MPC 101 Z (2-stage)	MPC 301 Z (2-stage)	MPC 601 T (3-stage)
Pumping capacity (l/min)	16.7	38.3	75
Final vacuum (mbar)	<8	<8	<2
Power (kW)	0.06	0.18	0.37
Weight (kg)	6.5	11.2	18.3
Dimensions W x D x H (mm)	195 x 235 x 145	230 x 265 x 169	230 x 380 x 169

Type	Art. No.	Pack Qty.	€
MPC 101 Z	CE38.1 *	1	1155,65
MPC 301 Z	CE39.1 *	1	1617,90
MPC 601 T	CE40.1 *	1	3187,40

* Longer delivery times possible. Please check with our Sales Department.

- For Woulff' bottles see page 157
- For tubes see page 354
- Vacuum regulators on page 348

Membrane controlled vacuum pumps



ME 1 and ME 1C vacuum membrane pumps

By Vacuubrand. Ideal for pumping and evacuating gases and vapours. High specific resistance (especially ME 1C).

Applications:

Vacuum filtration for sample preparation in chemical, microbiology, waste water and other analytical processes.

- Simple to use with central power switch mounted on pump housing
- Whisper quiet and very low vibration
- Requires minimal benchtop space
- Long membrane lifetime
- Weight 5 kg
- Dimensions: L 247 x W 121 x H 145 mm
- Finely adjustable vacuum regulation valves are optionally available for ME 1 and ME 1C with manual vacuum control via leakage air. Regulation valve rotates in different directions for optimal visibility.

Technical specifications:

Model	ME 1	ME 1C
Number of heads / stages	1/1	
Max. pumping speed at 50/60 Hz (m³/h) or (l/min)	0.7/0.85 or 11.7/14.2	
Vacuum abs.(mbar)	100	
Max. abs. back pressure (EX) (bar)	1.1	
Connection suction side (mm)	Hose nozzle DN 6/10	Hose nozzle DN 10
Connection pressure side (mm)	Silencer / G 1/8"	Hose nozzle DN 10
Rated motor power (kW)	0.04	
Parts contacting media	Aluminium, PTFE	ETFE, PTFE

Type	Art. No.	Pack Qty.	€
ME 1	NA17.1	1	591,25
ME 1C	NA18.1	1	779,40

Accessories:

Vacuum regulation valve with manometer for ME 1	NA19.1	1	110,75
Vacuum regulation valve with manometer for ME 1C	NA20.1	1	231,15



Membrane controlled pump ME 4 NT

By Vacuubrand. Ideal for analytic applications with **non-aggressive gases**, for the laboratory and industrial use.

- Continuous, oil-free pumping of gases
- Very low leakage rate due to extremely tight coupling technology
- Highly flexible **FPM**-double membranes with tissue reinforcement for long membrane life
- Compact drive system for extremely quiet and smooth running
- High life-cycle
- Easy changing of membrane and valve

Technical specifications:

Max. suction speed 50/60 Hz (m³/h) or (l/min)	4.0/4.4 or 67/73
Final pressure (mbar abs.)	70
Max. pressure difference between intake and outlet (bar)	2
Connection at suction side, hose shaft (mm)	10
Pressure side	Sound absorbers
Motor output (kW)	0.18
Dimensions L x W x H (mm)	243 x 239 x 198
Weight (kg)	11

Type	Art. No.	Pack Qty.	€
ME 4 NT	KH50.1	1	1247,00

Conversion table for delivery rates

m³/s	m³/h	l/min	l/s
1	3600	60000	1000
0.28 x 10 ⁻³	1	16.6667	0.2778
16.67 x 10 ⁻⁶	0.06	1	0.0167
1 x 10 ⁻³	3.6	60	1



Membrane controlled pump MD 1C

By Vacuubrand. Applications: For emptying and transferring **aggressive gases**, or for use generating a vacuum in the rotary evaporator, drying gels etc.

- **Three-stage**, high suction speed even at low pressure
- Continuous, oil-free pumping of gases
- Very quiet and low vibration
- Long service life
- Membranes and valves are easy to change
- Chemically resistant materials: PTFE and ETFE
- Connection for tube with ID 8 mm

Technical specifications:

Number of stages	3
Suction speed 50/60 Hz (m³/h) or (l/min)	1.3/1.5 or 22/25
Final pressure (mbar abs.)	2
Final pressure with gas ballast (mbar)	4
Max. counterpressure at outlet (mbar abs.)	1.1
Connection at suction side, hose shaft (mm)	10
Connection at pressure side, hose shaft (mm)	8
Motor output (kW)	0.08
Dimensions without handle L x W x H (mm)	316 x 143 x 223
Weight (kg)	6.9

Type	Art. No.	Pack Qty.	€
MD 1C	HC95.1 *	1	2273,65

* Longer delivery times possible. Please check with our Sales Department.



Rotary vane pumps PK

By Ilmvac.

Advantages:

- High suction speed
- Extremely quiet-running
- Integral oil level gauge glass (P4, 6, 8)
- Protected against overload and splashing, IP54

Application range:

- Coarse and fine vacuum range
- Chemical laboratory
- As a forepump
- Freeze drying
- Chemical engineering

Technical specifications:

Type	PK 2 DC	P4Z	P6Z	P8Z
Model	double-stage			
Suction speed 50/60 Hz (m³/h)	1.8/2.2	4.6/5.5	5.8/6.6	7.2/8.6
Partial final pressure (mbar)	<1 x 10 ⁻³	1 x 10 ⁻⁴		
Ultimate pressure total without gas ballast (mbar)	<1 x 10 ⁻²	2 x 10 ⁻³		
Ultimate pressure total with gas ballast (mbar)	0.5	1 x 10 ⁻²		
Maximum tolerable water vapour inlet pressure (mbar)	33	60		
Oil filling (l)	0.25	0.53	0.55	0.6
Connection flange	DN 16 KF			DN 25 KF
Dimensions W x D x H (mm)	330 x 165 x 170	415 x 150 x 235	430 x 150 x 235	445 x 150 x 235
Weight (kg)	8.0	17.5	19.5	21.5
Power output (W)	120	200		
Current	230 V, 50/60 Hz			

Delivery incl. pump filled with oil, centering tension ring, motor circuit switch, main switch and power supply lead with plug.

Type	Art. No.	Pack Qty.	€
PK 2 DC	EL37.1 *	1	1392,15
P4Z	EL38.1 *	1	1983,40
P6Z	EL39.1 *	1	2262,90
P8Z	EL40.1 *	1	2649,90

Accessories:

Pump oil 1 l	EL41.1 *	1	36,05
Hose shaft for PK 2 DC, P4Z, P6Z; outer-Ø 12 mm	EL42.1 *	1	50,50
Hose shaft for PK 8; outer-Ø 16 mm	EL43.1 *	1	66,65

* Longer delivery times possible. Please check with our Sales Department.

Rotary vane pumps



XS rotary vacuum pumps

By Vacuubrand. For pressure ranges up to 10^{-3} mbar.

Advantages:

- High suction capacity, even at low ultimate pressure
- High water vapour tolerance
- Active corrosion protection against ingress of corrosive gases and oil components at standstill through vacuum-tight oil circuit
- New circulation lubrication system
- Compact design and low weight
- Starts reliably even at low temperatures
- Long oil change intervals thanks to high usable oil volume
- Easy maintenance thanks to telescopic design

① Single-stage version

Technical specifications:

Type	RE 2.5
Suction capacity	2.3 / 2.8 m ³ /h
Ultimate total pressure	
- without gas ballast	3×10^{-1} mbar
- with gas ballast	8×10^{-1} mbar
Water vapour tolerance	40 mbar
Min./max. oil fill	0.18 / 0.51 l
Connection	
- Suction side	DN 16 small flange
- Pressure side	DN 10 hose nozzle
Dimensions (L x W x H)	308 x 125 x 190 mm
Weight	10.2 kg
Motor power	0.18 kW
Power supply	230 V, 50/60 Hz

Delivery incl. oil fill, thermal motor circuit-breaker, power cord (2 m long), clamping and centring ring for suction piece.

Type	Art. No.	Pack Qty.	€
RE 2.5	CE14.1 *	1	1402,90

* Delivery times may apply to these products. Please ask our sales staff.

② Two-stage version

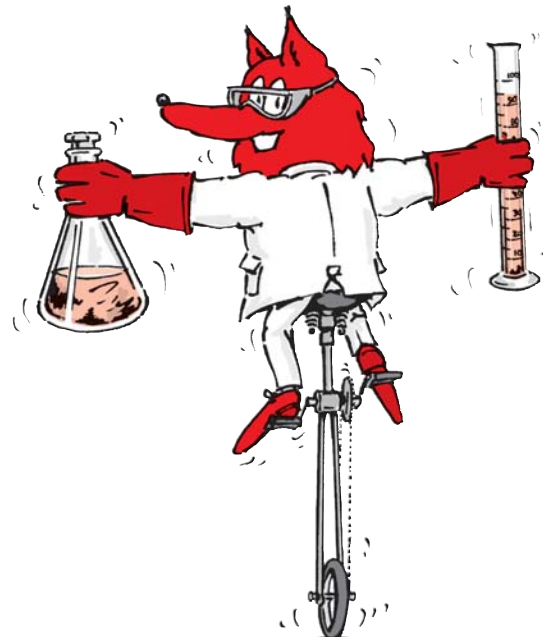
Technical specifications:

Type	RZ 2.5	RZ 6	RZ 9
Suction capacity (m ³ /h)	2.3 / 2.8	5.7 / 6.8	8.6 / 9.9
Ultimate total pressure			
- without gas ballast (mbar)	3×10^{-1}	2×10^{-3}	1×10^{-1}
- with gas ballast (mbar)	8×10^{-1}	1×10^{-2}	6×10^{-1}
Water vapour tolerance (mbar)	40		
Min./max. oil fill (l)	0.1 / 0.28	0.34 / 0.73	0.2 / 0.8
Connection			
- Suction side	DN 16 small flange		DN 25 small flange
- Pressure side	DN 10 hose nozzle		DN 25 hose nozzle
Dimensions L x B x H (mm)	308 x 125 x 190	370 x 142 x 207	460 x 152 x 232
Weight (kg)	11.4	16.4	24,2
Motor power (kW)	0.18	0.3	0.37
Power supply	230 V, 50/60 Hz		

Delivery incl. oil fill, thermal motor circuit-breaker, power cord (2 m long), clamping and centring ring for suction piece - can also be used for exhaust port with RZ 9.

Type	Art. No.	Pack Qty.	€
RZ 2.5	CE15.1 *	1	1913,50
RZ 6	HC94.1 *	1	2456,40
RZ 9	CTL2.1 *	1	3192,75

* Delivery times may apply to these products. Please ask our sales staff.





XS rotary pumps packages

By Vacuubrand.

Package 1 + 2

Delivery incl.:

- Two-stage pump with oil fill
- Exhaust filter FO for removing oil mist
- Butterfly valve VS 16 with extremely low leakage rate and low gas release
- PP adapter, small flange DN 16 on DN 10 hose nozzle. Clamping and centring rings

Package 3

Delivery incl.:

- Two-stage pump with oil fill
- Exhaust filter FO for removing oil mist
- Butterfly valve VS 16 with extremely low leakage rate and low gas release
- PP adapter, small flange DN 16 on DN 10 hose nozzle. Clamping and centring rings
- Set comprising vacuum meter DCP 3000 with pressure transducer VSK 3000

Type	Art. No.	Pack Qty.	€
Package 1: RZ 2.5 + FO + VS 16 + SW DN 10	NA10.1 *	1	2203,75
Package 2: RZ 6 + FO + VS 16 + SW DN 10	NA11.1 *	1	2644,50
Package 3: RZ 6 + FO + VS 16 + SW DN 10 + set comprising DCP 3000 and VSK 3000	CTL3.1 *	1	3542,15

* Delivery times may apply to these products. Please ask our sales staff.



Accessories for XS rotary pumps

By Vacuubrand.

① Exhaust filter FO

Provides optimal protection against oil-polluted air in the laboratory. Receptacle made of PMP, highly resistant to chemicals.

Type	Art. No.	Pack Qty.	€
FO for RE 2.5, RZ 2.5 and RZ 6	N404.1 *	1	288,10
FO for RZ 9	CTL4.1 *	1	337,55

② VS butterfly straight way valves

Made of stainless steel.

Type	Art. No.	Pack Qty.	€
VS 16, KF DN 16	CTL5.1 *	1	327,90
VS 25, KF DN 25	CTL6.1 *	1	381,65

PP adapter from small flange (KF) to hose nozzle (SW)

For connecting hoses with inner Ø 10 or 15 mm to the pumps.

*1 The smaller inner Ø may result in a loss of suction.

Type	Art. No.	Pack Qty.	€
PP adapter from KF 16 to SW 10	CTL7.1 *	1	20,10
PP adapter from KF 25 to SW 10*1	CTL8.1 *	1	27,45
PP adapter from KF 25 to SW 15	CTL9.1 *	1	28,85

AK suction side separator

Retains particles and liquid droplets, e.g. when used on drying cabinets. Fits directly onto suction port. Clear catch tank allows optimal condensate control. Single condensate outlet.

Type	Art. No.	Pack Qty.	€
③ AK for RE 2.5, RZ 2.5	CTN0.1 *	1	251,55
AK for RZ 6	CTN1.1 *	1	301,00
④ AK for RZ 9	CTN2.1 *	1	313,90

⑤ Main flow oil filter for RZ 9

Filters microparticles out of the oil. This extends oil life and reduces servicing requirements. The maintenance indicator saves unnecessary filter changes.

Type	Art. No.	Pack Qty.	€
Main flow oil filter for RZ 9	CTN3.1 *	1	418,20

Clamping and centring rings

For attaching valves, hose nozzles etc. A single clamping ring and a single centring ring of the same size are required to ensure that a proper connection is made.

Type	Art. No.	Pack Qty.	€
Aluminium clamping ring KF DN 10/16	CTN4.1 *	1	16,70
Outer centring ring KF DN 10/16 with NBR seal	CTN5.1 *	1	8,10
Aluminium clamping ring KF DN 20/25	CTN6.1 *	1	19,60
Outer centring ring KF DN 20/25 with NBR seal	CTN7.1 *	1	9,15

Pump oil

Type	Art. No.	Pack Qty.	€
1 l pump oil	N406.1 *	1	32,20

* Delivery times may apply to these products. Please ask our sales staff.

Vacuum meter



Vacuum regulator VAR and vacuum meter VAC

The units are connected to an vacuum pump in series on the pressure side.

- Connections for hose with inside Ø 8 mm
- Stand mounting possible (using spring clamps on the back of the device)

① Vacuum regulator VAR

With regulator for controlling and maintaining the vacuum.
Continuously variable for variable vacuum level.

② Vacuum meter VAC

Ideal for displaying the current vacuum level.

Technical specifications:

Scale	1020 to 0 mbar
Graduation	10 mbar
Dimensions (W x D x H)	80 x 80 x 150 mm

Type	Art. No.	Pack Qty.	€
Vacuum regulator VAR	Y457.1	1	203,20
Vacuum meter VAC	NA03.1	1	145,15



Vacuum meter DVR 2

By Vacuubrand. With integrated pressure transducer made of aluminium oxide ceramics. Digital pressure indicator, with analogue illustration. Different units (mbar, hPa, Torr) can be set. Battery-powered meters. Adjustable on-time (1 to 1000 min) or permanent run settings. Battery change display. Mercury- and cadmium-free. With switch-on/off. With thread for support rod.

Technical specifications:

Measuring range	1080 to mbar (hPh) 810 to 1 Torr
Measuring accuracy	<1 mbar (0.75 Torr)
Vacuum connection	Small flange DN 16 and screw-on staged tube shaft DN 6/10 (for tube with ID 6 or 10 mm)
Measuring principle	capacitive, absolute pressure measuring independent of gas type
Dimensions (L x W x H)	115 x 115 x 66 mm
Weight	375 g

Delivery incl. 9 V lithium battery and support rod.

Art. No.	Pack Qty.	€
L111.1	1	591,25



NEU
NOUVEAU
NEW

Vacuum meter for coarse and fine vacuum

By Ilmvac. Digital multi-range vacuum meter for measuring absolute pressure in the coarse and fine vacuum ranges. With chemically resistant combined sensor (PIEZO/PIRANI) for corrosive and aggressive gases and vapours.

- Automatic changeover between capacitive and PIRANI measurement ranges
- Temperature compensated for operating temperatures from 0 to +60 °C
- Calibration of individual measured values
- With clamp for attaching to stand rods Ø 8-12 mm.
- Battery or mains operation

Technical specifications:

Measurement range	1050 to 10 ⁻³ mbar absolute pressure
Resolution	1 mbar (1050 to 100 mbar) 0.5 mbar (99 to 1 mbar) 0.1 mbar (0.9 to 0.1 mbar) 0.01 mbar (0.09 to 0.01 mbar) 0.001 mbar (0.009 to 0.001 mbar)
Measuring principle	capacitive acc. to PIRANI
Measurement accuracy capacitive acc. to PIRANI	0.8 % full scale (5 to 1050 mbar) ±20 % of displayed value
Reproduction uncertainty	<0.5 %
Measuring lead	3 m
Dimensions L x W x H (mm)	80 x 36 x 125 mm
Display unit	80 x 40 x 40 mm
Sensor	
Weight	0.7 kg
Power supply	90-260 V, 50/60 Hz

Delivery incl. power adapter (9 V/200 mA), hose nozzle DN 8-10, clamp and 9 V battery.

Art. No.	Pack Qty.	€
CNL1.1	1	824,55

Vacuum meter



Vacuum meter DCP 3000 with pressure transducer

By Vacuubrand. LCD graphic display with digital pressure indicator and bar graph representation. Different units (mbar, hPa, Torr) can be set. Separate pressure transducer with measurement cable for flexible positioning of meter (cable length 2 m). Can be used as a tabletop unit or with a support.

Technical specifications:

Model	① Pressure transducer VSK 3000	② Pressure transducer VSP 3000
Measuring ranges	1080 to 0.1 mbar 810 to 0.1 Torr	1×10^3 to 1×10^{-3} mbar 75×10^2 to 1×10^{-3} Torr
Measuring accuracy	± 1 mbar	± 15 % of displayed value within the 0.01 to 10 mbar range
Resolution	0.1 mbar	10 % of displayed decade
Vacuum connection	for hoses with IDs 6, 8 or 10 mm	
Measuring principle	capacitive	Heat conduction according to PIRANI
Sensor material, contacting medium	Aluminium oxide ceramic	
Dimensions of display unit (L x W x H)	124 x 124 x 114 mm	
Weight	440 g	
Mains connection	100-230 V, 50/60 Hz	

Delivery incl. DCP 3000 vacuum meter with desired pressure transducer, measuring cable and support.

Type	Art. No.	Pack Qty.	€
Vacuum meter DCP 3000 with pressure transducer VSK 3000	LY74.1	1	1072,85
Vacuum meter DCP 3000 with pressure transducer VSP 3000	LY75.1	1	1053,50

Accessories:

Replacement/additional pressure transducer VSK 3000	LY76.1	1	397,75
Replacement/additional pressure transducer VSP 3000	LY77.1	1	368,75
Extension leads for pressure transducers VSK 3000 and VSP 3000, 10 m	LY78.1	1	89,35



Vacuum controllers CVC 3000 detect

By Vacuubrand. Two-point vacuum regulator with integrated ceramic diaphragm vacuum sensor.

- Backlit LCD graphic display with bargraph
- "detect" function for automatic boiling pressure detection
- Vacuum measurement is integrated within the valve block - direct connection of CVC 3000 detect between pump and vacuum application
- Ten programs with vacuum and time presets, each storable in ten program steps
- Process time is adjustable from 1 to 1440 min
- Integrated venting valve - easy pressure equalisation or ventilation with inert gas at the end of the process
- Non-return valve - no interference with adjacent applications using a shared vacuum source

Technical data:

Measurement ranges	1081 to 0.1 mbar 810 to 0.1 Torr
Measurement accuracy	± 1 mbar
Resolution	0.1 mbar
Vacuum connection	For hoses with ID 6/10 mm
Venting valve, connection	For hoses with ID 4-5 mm
Measuring principle	Capacitive, absolute pressure measurement independent of gas type
Display unit dimensions (L x W x H)	181 x 162 x 174 mm
Weight	1.5 kg
Power supply	100-230 V, 50/60 Hz

Delivery incl. vacuum controller CVC 3000 detect with vacuum valve, venting valve, non return valve, power supply and ① bench stand or ② stand mount.

Type	Art. No.	Pack Qty.	€
① CVC 3000 detect benchtop unit	AEP6.1	1	1908,15
② CVC 3000 detect stand-mounted unit	AEP7.1	1	1908,15

Vakuum systems



Chemical-resistant LABOXACT®-SEM vacuum systems

By KNF. Ideal for application with rotary evaporators.

Design:

- **Digital-vacuum meter**, shows the current pressure in the system
- **Fine control valve** for infinitely adjustable vacuum regulation
- **Safety ventilation valve** enables the piston to be aired at any time to stop evaporation
- **Separate On/Off-switch** for pump
- **Inert gas supply**
- Connection for hose-ID 10 mm
- Power supply 230 V, 50 Hz
- Comes completely assembled

Advantages:

- Safe monitoring of evaporation
- High recovery rate, even when using low boiling solvents
- The closed system allows for gentle distillation
- Infinitely variable regulation of vacuum via fine control valve
- Once the desired vacuum has been achieved, the fine regulator valve can be closed and the pump switched off
- Maintenance-free and quiet

Delivery incl. base plate, separator, condenser, fine control valve, vacuum meter (digital), safety ventilation valve, cables and tubes.



Chemical-resistant LABOPORT®-SC vacuum systems

By KNF. With separator, condenser and vacuum-controller. For laboratories which require a clean and controlled vacuum.

Examples of applications:

- Vacuum distillation and -filtration
- Rotary evaporators
- Vacuum drying
- Vacuum impregnation
- Gel drying, etc.

Design:

- **Vacuum-Controller** for controlled vacuum processes
- The control unit switches the pump off or closes it, when the required vacuum has been achieved or exceeded
- Connection for hose-ID 10 mm
- Power supply 230 V, 50 Hz
- Comes completely assembled

Advantages:

- Automatic control of vacuum
- Controlled solvent recovery through high-performance condenser (delivery side)
- Collecting of particles in the system (suction side)
- Maintenance-free and quiet

Delivery incl. base plate, separator, condenser, vacuum-controller with control unit, cables and tubes.

System	Flow rate capacity (l/min)	Vacuum abs (mbar)	Overpressure (bar)	Weight (kg)	L x W x H (mm)	Integral pump type	Art. No.	Pack Qty.	€
SEM 810	10	8	-	12,1	442 x 305 x 481	N 810.3 FT.18	AY11.1 [*]	1	2594,00
SEM 820	20	8	-	14,5	442 x 305 x 481	N 820.3 FT.18	AY12.1 [*]	1	2782,10
SEM 840	34	8	-	17,8	442 x 305 x 481	N 840.3 FT.18	AY13.1 [*]	1	3121,80
SEM 842	34	2	-	18,6	442 x 305 x 481	N 842.3 FT.18	AY14.1 [*]	1	4000,10
SC 810	10	8	1	13,6	397 x 289 x 506	N 810.3 FT.18	AY15.1 [*]	1	4025,90
SC 820	20	8	1	16,0	397 x 289 x 506	N 820.3 FT.18	AY16.1 [*]	1	4211,85
SC 840	34	8	1	19,3	417 x 289 x 506	N 840.3 FT.18	AY17.1 [*]	1	4291,40
SC 842	34	2	1	20,1	417 x 289 x 506	N 842.3 FT.18	AY18.1 [*]	1	5456,70

^{*} Longer delivery times possible. Please check with our Sales Department.

Vakuum systems



Chemical-resistant LABOXACT®-SEM vacuum systems

By KNF. Ideal for application with rotary evaporators.

Design:

- **Digital-vacuum meter**, shows the current pressure in the system
- **Fine control valve** for infinitely adjustable vacuum regulation
- **Safety ventilation valve** enables the piston to be aired at any time to stop evaporation
- **Separate On/Off-switch** for pump
- **Inert gas supply**
- Connection for hose-ID 10 mm
- Power supply 230 V, 50 Hz
- Comes completely assembled

Advantages:

- Safe monitoring of evaporation
- High recovery rate, even when using low boiling solvents
- The closed system allows for gentle distillation
- Infinitely variable regulation of vacuum via fine control valve
- Once the desired vacuum has been achieved, the fine regulator valve can be closed and the pump switched off
- Maintenance-free and quiet

Delivery incl. base plate, separator, condenser, fine control valve, vacuum meter (digital), safety ventilation valve, cables and tubes.



Chemical-resistant LABOPORT®-SC vacuum systems

By KNF. With separator, condenser and vacuum-controller. For laboratories which require a clean and controlled vacuum.

Examples of applications:

- Vacuum distillation and -filtration
- Rotary evaporators
- Vacuum drying
- Vacuum impregnation
- Gel drying, etc.

Design:

- **Vacuum-Controller** for controlled vacuum processes
- The control unit switches the pump off or closes it, when the required vacuum has been achieved or exceeded
- Connection for hose-ID 10 mm
- Power supply 230 V, 50 Hz
- Comes completely assembled

Advantages:

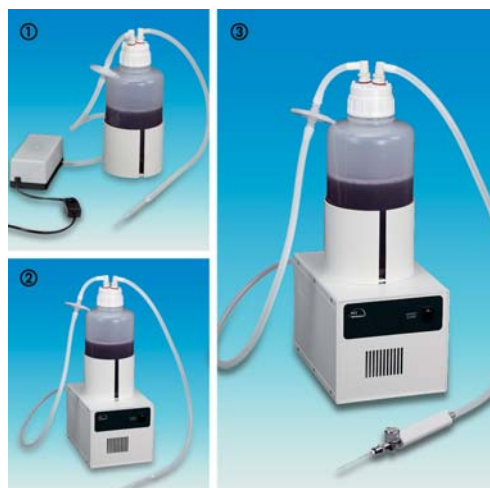
- Automatic control of vacuum
- Controlled solvent recovery through high-performance condenser (delivery side)
- Collecting of particles in the system (suction side)
- Maintenance-free and quiet

Delivery incl. base plate, separator, condenser, vacuum-controller with control unit, cables and tubes.

System	Flow rate capacity (l/min)	Vacuum abs (mbar)	Overpressure (bar)	Weight (kg)	L x W x H (mm)	Integral pump type	Art. No.	Pack Qty.	€
SEM 810	10	8	-	12,1	442 x 305 x 481	N 810.3 FT.18	AY11.1 [*]	1	2594,00
SEM 820	20	8	-	14,5	442 x 305 x 481	N 820.3 FT.18	AY12.1 [*]	1	2782,10
SEM 840	34	8	-	17,8	442 x 305 x 481	N 840.3 FT.18	AY13.1 [*]	1	3121,80
SEM 842	34	2	-	18,6	442 x 305 x 481	N 842.3 FT.18	AY14.1 [*]	1	4000,10
SC 810	10	8	1	13,6	397 x 289 x 506	N 810.3 FT.18	AY15.1 [*]	1	4025,90
SC 820	20	8	1	16,0	397 x 289 x 506	N 820.3 FT.18	AY16.1 [*]	1	4211,85
SC 840	34	8	1	19,3	417 x 289 x 506	N 840.3 FT.18	AY17.1 [*]	1	4291,40
SC 842	34	2	1	20,1	417 x 289 x 506	N 842.3 FT.18	AY18.1 [*]	1	5456,70

^{*} Longer delivery times possible. Please check with our Sales Department.

Suction systems



Vacuum safety extraction systems AZ, AC, AA

By Hettich Benelux. For safe vacuum extraction of liquid residues.

Basic equipment:

- Vacuum pump
- Collecting bottle made of PP, vacuum resistant, autoclavable
- Screw cap with 2 quick release couplings for right sealing of the collecting bottle after the hoses are disconnected
- Aeration insert for pressure equalisation during autoclaving of collecting bottle
- Safety filter to protect the vacuum pump and environment
- 3 m silicone rubber hose for placing extraction system away from the workbench

Technical specifications:

Type	① AZ02 / AZ04	② AC02 / AC04	③ AA02 / AA04
Suction capacity (l/min)	8	25	17
End vacuum (abs.) (mbar)	700	250	100
Additional sampling points (optional)	-	1	1 to 3
Housing dimensions W x D x H (mm)	75 x 170 x 60	170 x 220 x 155	170 x 220 x 155
Weight (kg)	1.5	4.5	5.5
Power supply	230 V, 50 Hz		

① Type AZ

- Simple system for extraction of small volumes
- Attachment of Pasteur pipettes or aspiration pipettes directly to the hose
- Please order metal stand for the collecting bottle separately

② + ③ Type AC/AA

- Lacquered aluminium housing
- Compact design, safety bottle holder mounted on high-performance vacuum pump
- Suitable for multiple sampling points

③ Additional features of type AA

- Handle with trumpet valve AH 01 for attaching various suction instruments and a mechanical flow rate control system; incl. adapter for Pasteur pipettes, adapter for 1 ml pipette tips and angle adapter
- Vacuum pump with automatic cut-out. The pump cuts out automatically on completion of extraction and when the terminal vacuum is reached

Image	Type	Capacity of collecting bottle (l)	Art. No.	Pack Qty.	€
①	AZ 02	2	CE30.1 *	1	407,45
①	AZ 04	4	CE31.1 *	1	428,95
②	AC 02	2	HA39.1 *	1	944,95
②	AC 04	4	HA40.1 *	1	966,45
③	AA 02	2	CE32.1 *	1	1374,95
③	AA 04	4	CE33.1 *	1	1385,70

* These products may be subject to delivery times. Please consult our sales department.



Accessories for extraction systems AZ, AC and AA

By Hettich Benelux.

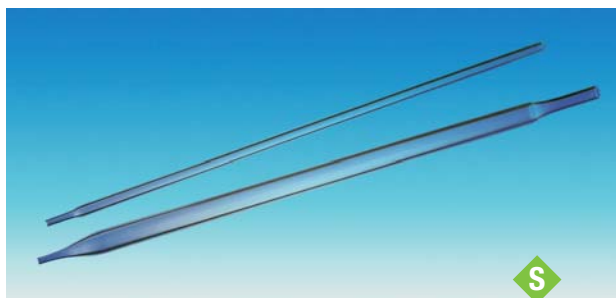
*1 Recommended for AZ system

*2 Included with AA system

*3 Recommended for AZ/AC systems

Image	Type	Art. No.	Pack Qty.	€
-	Metal stand for 2 l bottle *1	EA38.1	1	139,75
-	Metal stand for 4 l bottle *1	EA39.1	1	145,15
①	Handle with trumpet valve AH 01, incl. adapter for Pasteur pipettes, adapter for 1 ml pipette tips, angle adapter *2	HA41.1 *	1	188,15
-	Footswitch AF 01 for switching pump on and off *3	EA40.1	1	209,65
②	Adapter for pipette tips	CE34.1	1	48,40
③	Adapter incl. suction rake	CE35.1	1	59,15
④	Suction rake	CE36.1	1	14,05
-	Rotilabo® Y-pieces for connecting additional sampling point	E772.1	10	12,50
⑤	Spare cover for EA36.1	PL94.1	1	107,50
⑤	Spare cover for EA37.1	PL95.1	1	118,25
-	2 l spare bottle with quick closures	EA36.1	1	172,00
-	4 l spare bottle with quick closures	EA37.1	1	188,15
⑥	Spare elbow hose nozzle with quick closures	KA53.1	1	19,15
-	Spare safety filter (Millex®-FG)	CY06.1	10	122,55

* These products may be subject to delivery times. Please consult our sales department.



Aspiration pipettes

Made of **PS. Sterile**. Pipettes without cotton stopper, without graduation. Suitable for vacuum applications and liquid handling where high precision is not required. Safe alternative to pasteurizing pipettes made of glass, since there is no risk of injury.

Volume (ml)	Type	Packaging	Length (mm)	Art. No.	Pack Qty.	€
2	sterile	individually wrapped	271	NA41.1	500	50,00
10	sterile	individually wrapped	295	NA42.1	200	58,60

Suction systems



Programme extension!

BioChemVacuuCenter BVC liquid extraction stations

By Vacuubrand. Safe, exact and effective extraction of liquids in all laboratory areas (chemistry, biochemistry and biology).

- Anatomically shaped VHC extraction handle with continuous tube, mechanism does not come into contact with fluids
- With swivelling pipette holder, for left and right handed users
- Lockable button for continuous extraction, µl precision extraction using thumbwheel
- Simultaneous extraction at 2 workstations is possible by connecting an optional second extraction handle
- Hydrophobic protective filter with 0.2 µm pore size for protection of the pump unit and the environment

① BVC Basic

- Without vacuum pump, for connecting to external vacuum sources
- With mechanical vacuum control for optimal working volume

② + ③ BVC Control and BVC Professional

- With high-performance, chemical resistant diaphragm pump ME 1C
- Continuous fine adjustment of vacuum/suction power electronically via touch panel
- Continuous vacuum with minimised pumping times by automatic pump activation/deactivation
- Very low noise level for a comfortable working environment

③ BVC Professional

- Also included: non-contact level sensor for electronic monitoring of the fluid level in the collection bottle
- Self-closing PVDF quick couplings for safe bottle changing

Note: when the quick couplings are fitted, unscrew the cap before autoclaving and place it on the bottle.

Technical specifications of diaphragm pump ME 1C:

Max. vacuum abs.	150 mbar (shutoff vacuum)
Max. suction capacity at 50/60 Hz	0.7/0.85 m³/h or 11.7/14.2 l/min
Motor rating	0.04 kW

Delivery incl.:

BVC Basic

Housing, 4 l PP collection bottle (vacuum resistant, autoclavable), sterilisable protective filter (0.2 µm pore size), extraction handle VHC^{pro} (autoclavable), 3 adaptors to hold various pipettes and tips, silicone rubber tube (2 m long).

BVC Control and BVC Professional

Also included: diaphragm pump and operating unit

BVC Professional

Also included: level sensor and quick couplings.

Optional

2 l borosilicate glass bottle for working with chemically aggressive solutions, plastic casing protects against mechanical damage and minimises loss of fluid in the event of glass breakage. An adaptor is available to securely hold the glass bottle in the BVC Control and BVC Professional pump units. Self-closing quick couplings, made for PVDF for convenient and safe bottle changing.

Type	Art. No.	Pack Qty.	€
BVC Basic	XE35.1 *	1	721,35
BVC Control	XE36.1 *	1	1472,75
BVC Professional	XE37.1 *	1	1945,75

Accessories:

4 l PP collection bottle	XE38.1	1	263,40
2 l borosilicate glass collection bottle	XE39.1 *	1	294,55
Adaptor for 2 l glass bottle	XE40.1 *	1	44,20
Replacement/second VHC extraction handle	KA16.1	1	66,15
Replacement/second suction handle VHC ^{pro} (incl. suction hose L 2.5 m, adapter for various pipettes/tips, wall mounting bracket)	CYA7.1	1	135,45
Add-on kit for second VHC (hose clamp and inlet tube)	XE41.1	1	38,00
VHC ^{pro} 8-channel adapter for pipette tips with ejector (tip size 2-200 µl or 5-300 µl, suitable for 96-well microtiter plates)	CYA8.1	1	310,70
Millex®-FG	CY06.1	10	122,55
Quick coupling for connecting the VHC extraction handle to the collection bottle	XE42.1 *	1	101,05
Quick coupling for connecting the pump to the collection bottle	XE43.1 *	1	86,55

* Longer delivery times possible. Please check with our Sales Department



Aspirator

By Brand. Bottle-top suction device, e.g. for cell culture. For safe and quick suction of liquid residue from bottles, test tubes and other storage. Items that touch the sample are made of **PP, PE and EPDM**.

- A vacuum pump is not required
- A vacuum is generated by pressing down the piston
- Suction volume per piston stroke max 25 ml
- Vacuum can be regulated with hand regulator
- GL 45 thread (with GL 45/32 and GL 45/S 40 thread adapters)
- Adapter and suction tube are autoclavable
- Can be disassembled easily for cleaning and maintenance
- Can also be used with pipettor tips, pasteur pipettes or capillary pipettes
- Incl. spare dosing unit

Art. No.	Pack Qty.	€
Y526.1	1	203,20

Water jet pumps



Water jet pump

Made of **PP**, ideal for sucking up liquids and vapours and for producing a vacuum. With integral non-return valve. Can be detached for easy cleaning.

Tap connection via:

Coupling nut R $\frac{3}{4}$ " or
reducing adapter R $\frac{1}{2}$ " or
hose connection (olive) with outer- \varnothing 10-12 mm
Vacuum connection: Olive with outer- \varnothing 6-9 mm

Please order following accessories separately:
Adapters from R $\frac{3}{4}$ " on M22 x 1 (perlator thread), with seal.

Technical specifications:

Water consumption	approx. 190 l/h at 3.5 bar flow pressure
Pump capacity	approx. 400 l air/h at 3.5 bar flow pressure
Max. vacuum at 3.5 bar water pressure	approx. 16 mbar at +12 °C approx. 24 mbar at + 20 °C
Length of water jet pumps at R $\frac{3}{4}$ "-connection	approx. 210 mm

Type	Art. No.	Pack Qty.	€
Water jet pump	7366.1	1	47,30
Adapter with Perlator thread	N876.1	1	11,10



Rotilabo®-PE tubes

Temperature range -40 to +80 °C, hard, odorless, transparent.

Inner \varnothing (mm)	Outer \varnothing (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1	1,8	0,4	9583.1	25	11,30
2	4	1	9584.1	25	19,90
3	5	1	9585.1	25	30,65
4	6	1	9586.1	25	25,30
5	7	1	9587.1	25	26,15
6	8	1	9589.1	25	27,90
7	9	1	9591.1	25	32,80
8	10	1	9593.1	25	36,45
9	11	1	9594.1	10	18,75
10	12	1	9595.1	10	20,25
12	14	1	9596.1	10	22,90



Low pressure-water jet pumps

Made of nickel-plated brass with plastic sleeve. With vacuum strength 16 mbar (at 0.5 bar and +14 °C). Water consumption 4-12 l/min. With integral no-return valve. Dimensions: H 185 x W 80 mm. Weight approx. 250 g. Pump capacity at 5 bar water pressure 2.5 l/min. Connection suction nozzle 9-14 mm.

Model	Art. No.	Pack Qty.	€
With tubing connection and 2 hose clips	9660.1	1	152,00
With $\frac{1}{2}$ " thread connection (20 mm)	9661.1	1	162,00
With $\frac{3}{4}$ " thread connection (26 mm)	9662.1	1	162,00



Flex-tubes

Temperature range from -270 to +260 °C. Made of **PFA**, transparent. Resistant to chemicals, suitable for vacuums, pore-free. Autoclavable. Flexible, therefore ideal for narrow spaces and thermal extensions of length. The 40 mm long cylindrical endpieces can be connected e.g. to olives.

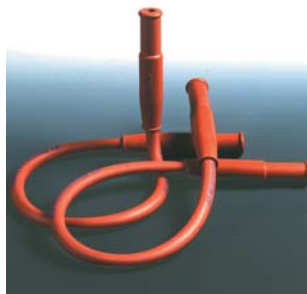
Connection inner- \varnothing (mm)	Connection outer- \varnothing (mm)	Art. No.	Pack Qty. (m)	€
6	8	Y484.1	1	74,20
8	10	Y485.1	1	77,20
10	12	Y486.1	1	85,90
14	16	Y487.1	1	107,00
16	18	Y488.1	1	141,40
18	20	Y489.1	1	147,30



Rotilabo®-FEP-tubes

Temperature range -270 to +205 °C. Flexible, pore-free, gasproof. Hardness: 55-60 Shore D. Transparent. Autoclavable.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
0,8 (1/32")	1,58 (1/16")	0,4	C022.1	10	19,90
1,58 (1/16")	3,18 (1/8")	0,8	Y504.1	5	30,45
2,0	4,0	1,0	C023.1	10	50,00
3,96 (5/32")	6,35 (1/4")	1,2	Y505.1	5	52,90
4,0	6,0	1,0	C024.1	10	80,10
4,35 (1 1/16")	6,35 (1/4")	1,0	Y506.1	5	45,70
6,0	8,0	1,0	C025.1	5	55,40
6,35 (1/4")	9,52 (3/8")	1,59	Y507.1	5	103,20
8,0	10,0	1,0	C026.1	5	67,20
9,52 (3/8")	12,7 (1/2")	1,59	Y508.1	5	129,00
10,0	12,0	1,0	C027.1	5	84,75

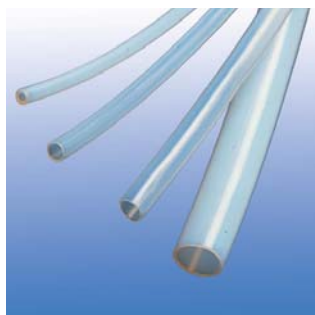


Rotilabo®-safety gas tubes

For supplying Bunsen burners that operate using gas in accordance with DIN 30665. With non-buckling, elastic coupling sleeve, suitable for all three gas groups acc. to DVGW-Worksheet G 260, controlled and tested as per DIN-DVGW-Reg.-No. DG - 4607 AU 2366.

Not suitable for connection to gas cylinders. Inner-Ø 9 mm.

Length (cm)	Art. No.	Pack Qty.	€
50	1716.1	1	34,35
60	A268.1	1	35,75
75	1717.1	1	40,00
100	1718.1	1	46,25
125	A269.1	1	50,00
150	1719.1	1	54,75
200	A270.1	1	67,60
300	A271.1	1	100,95



Rotilabo®-PTFE tubes

Temperature range -200 to +260 °C, rigid, anti-adhesive, with low water absorption, chemical-proof, gas permeant. Hardness: 55 Shore D. Autoclavable.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
2	3	0,5	1173.1	5	14,95
2	4	1	1174.1	5	20,35
4	6	1	1175.1	5	23,60
5	7	1	1176.1	5	27,90
6	8	1	1177.1	5	33,35
8	10	1	1178.1	5	40,85
10	12	1	1179.1	5	42,95
12	14	1	XX06.1	5	49,45



Rotilabo®-gas tubing

For laboratory gas burners that operate using gas in acc. with DIN 30665. Ideal for all 3 gas types, which are describe in the German Municipal Services (DVGW). Pamphlet G260. Acc. to DIN 30664 Part 1, without casing and armouring.

Suitable for pressures up to 100 mbar.

Tested as per DIN-DVGW- Reg.- No. NG - 4607 AU 2362. Not suitable for connection to gas cylinders! Ø-inner 10 mm, Ø-outer 14 mm.

Length (m)	Art. No.	Pack Qty.	€
5	E485.1	1	46,80

Tubing



Rotilabo®-rubber tubes

Temperature range -10 to +50 °C. Red, made of natural rubber, not pressure resistant. Hardness: 45 Shore A.

Standard tubes

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
5	8	1,5	0674.1	10	14,55
6	10	2,0	0675.1	10	19,60
6	10	2,0	0675.2	25	41,90
8	12	2,0	0676.1	10	23,35
8	12	2,0	0676.2	25	50,35
10	14	2,0	0677.1	10	25,70
12	17	2,5	T981.1	12	41,40
14	20	3,0	T982.1	12	56,95
16	22	3,0	T983.1	12	74,10
20	28	4,0	T984.1	5	49,35

Vacuum tubes

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
5	15	5,0	0678.1	5	24,65
6	16	5,0	0679.1	5	26,35
6	16	5,0	0679.2	25	104,10
8	18	5,0	0680.1	5	31,75
8	18	5,0	0680.2	25	127,95
10	20	5,0	0681.1	5	33,35
12	22	5,0	T985.1	5	47,20
15	31	8,0	T986.1	5	97,85

Rotilabo®-rubber tubing set

The set contains the following rubber tubes:

Standard lab tubes, each 10 m long:

Inner Ø 6 mm, outer Ø 10 mm
Inner Ø 8 mm, outer Ø 12 mm

Vacuum tubes, each 5 m long:

Inner Ø 6 mm, outer Ø 16 mm
Inner Ø 8 mm, outer Ø 18 mm

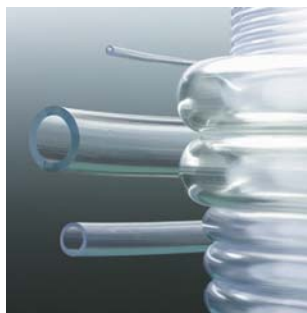
Art. No.	Pack Qty. (assortment)	€
H279.1	1	90,30



Rotilabo®-tubing gauge

Ideal for determining inner or outer Ø of hoses, glass tubes, etc. For inner Ø from 1-25 mm. For outer Ø from 1.5-21 mm. With easy-to-read engraved numbers. Dimensions: W 90 x L 165 mm.

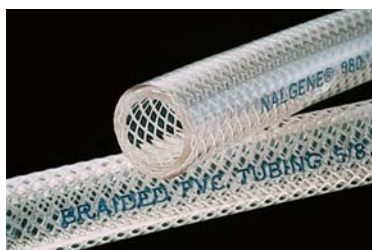
Art. No.	Pack Qty.	€
4892.1	1	6,90



Rotilabo®-PVC tubes

Temperature range -20 to +60 °C, flexible, fully transparent. Hardness: 75 ±5 Shore A. Free of DEHP.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1	1,8	0,4	9724.1	100	33,30
2	4	1	9725.1	100	24,70
3	5	1	9726.1	100	28,10
4	7	1,5	9727.1	100	43,65
5	8	1,5	9730.1	100	52,25
6	10	2	9732.1	50	47,85
7	11	2	9733.1	50	60,00
8	12	2	9736.1	50	61,20
12	16	2	XX05.1	50	77,40



PVC-pressure tubes with tissue insert

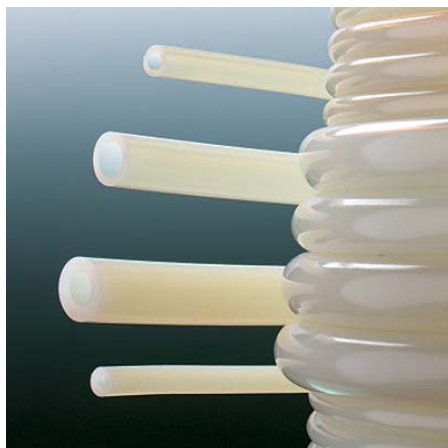
By Nalgene®. Max. working temperature -21 to +82 °C. Clear, shore-hardness 65. Gas- or chemically sterilisable. Very good flexibility and pliable. Tasteless and approved for the food industry (FDA-approval). Suitable when working under pressure, for weak acids, alkaline solutions and salt solutions. Inner-Ø and maximum working pressure are marked on tube.

Ø inside (mm (inch))	Wall thickness (mm)	Max. pressure at 23 °C (bar)	Max. pressure at 52 °C (bar)	Art. No.	Pack Qty. (m)	€
4,8 (3/16)	2,4	19	9,5	CA88.1	15	79,55
6,4 (1/4)	2,4	19	9,5	CA89.1	15	83,35
7,9 (5/16)	2,4	19	9,5	CA90.1	15	85,60
9,5 (3/8)	2,4	17	8,6	CA91.1	15	88,15
12,7 (1/2)	3,2	15,8	7,9	CA92.1	15	118,25
15,9 (5/8)	3,2	15,8	7,9	CA93.1	15	180,60
19,0 (3/4)	3,2	12	6	CA94.1	15	203,20
25,4 (1)	4,0	9,6	4,8	CA95.1	15	292,40

Tygon®-hoses DR (B-44-4x I.B.)

By Saint-Gobain. Max. working temperature +74 °C, transparent (braided), hardness 65 shore. Can be gas sterilized in ethene oxide. Textile insert allows tube to bear extremely high pressure loads.

Ø inside (mm (inch))	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
9,5 (3/8)	15,9	3,2	H180.1	5	75,80
19,0 (3/4)	25,4	3,2	H183.1	5	145,15



Rotilabo®-silicone tubes

Temperature range -60 to +200 °C (for short periods up to +260 °C).
Hardness: 60 Shore A, soft, flexible, slightly opaque.
Suitable for peristaltic pumps. Autoclavable.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
0,5	2,5	1	9554.1	25	19,05
1	1,8	0,4	9555.1	25	14,00
1	3	1	9556.1	25	18,30
1,5	3,5	1	9557.1	25	16,90
2	4	1	9559.1	25	19,05
2	6	2	9560.1	25	42,95
2,5	4,5	1	9561.1	25	24,85
3	5	1	9562.1	25	25,20
3	6	1,5	9563.1	25	36,75
3	7	2	9565.1	25	53,55
4	6	1	9566.1	25	29,25
4	7	1,5	9568.1	25	43,00
4	8	2	N874.1	25	64,00
4	8	2	N875.1	5	15,00
5	7	1	9569.1	25	40,55
5	8	1,5	9571.1	25	53,25
6	9	1,5	9572.1	25	58,05
6	10	2	9573.1	10	35,05
7	10	1,5	9574.1	10	28,70
7	11	2	9575.1	10	38,30
8	11	1,5	9576.1	10	33,45
8	12	2	9577.1	10	43,45
9	12	1,5	9578.1	10	38,60
9	13	2	9580.1	10	47,85
10	14	2	9581.1	10	49,45
12	16	2	T975.1	5	26,70
14	20	3	T976.1	5	47,25
16	21	2,5	T977.1	5	42,90
18	24	3	T978.1	5	48,95
20	26	3	T979.1	5	62,15

Rotilabo®-vacuum silicone tubes

Temperature range -60 to +180 °C (for short periods up to +260 °C).
Hardness: 55 Shore A, thick-walled, opaque. Autoclavable.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
3	9	3	9737.1	5	30,35
4	12	4	9738.1	5	37,55
5	15	5	9740.1	5	54,30
6	12	3	9742.1	5	35,85
7	15	4	9744.1	5	59,25
8	16	4	9746.1	5	65,60
10	20	5	9747.1	5	81,40
12	22	5	T980.1	5	87,65



Silicone tubes Versilic®

By Saint-Gobain. Temperature range from -50 to +200 °C (short-term to +220 °C). Transparent, hardness 60 Shore A. Autoclavable. With peroxide cross-linked silicone. Biologically inert (USP XXIII Class 6), have no inhibitory effect on cell cultures. In compliance with following standards:

- Ph. Eur. (2. Edition)
- Biological tests, US-Pharmacopeia Class VI
- Biocompatibility requirements of Standard ISO 10993, (General toxic irritation and sensitization, cytotoxicity, haemocompatibility)
- FDA- and BfR-Lists as well as in compliance with EU guidelines for quality tests conducted on foodstuffs
- Produced under GMP-conditions, ISO 9001 and EN 13485

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1,0	3,0	1.0	HC61.1	50	38,20
2,0	4,0	1.0	HC62.1	50	52,65
3,0	5,0	1.0	HC63.2	10	33,55
3,0	5,0	1.0	HC63.1	50	59,10
3,0	6,0	1.5	HC64.2	10	37,10
3,0	6,0	1.5	HC64.1	50	88,15
4,0	6,0	1.0	HC65.2	10	34,35
4,0	6,0	1.0	HC65.1	50	66,65
5,0	8,0	1.5	HC66.2	10	44,10
5,0	8,0	1.5	HC66.1	25	57,00
6,0	9,0	1.5	HC67.2	10	51,50
6,0	9,0	1.5	HC67.1	25	65,60
6,0	12,0	3.0	HC68.2	10	121,50
6,0	12,0	3.0	HC68.1	25	151,60
7,0	10,0	1.5	HC69.2	10	58,40
7,0	10,0	1.5	HC69.1	25	74,75
8,0	12,0	2.0	HC70.2	10	89,90
8,0	12,0	2.0	HC70.1	25	112,90
8,0	14,0	3.0	HC71.2	10	143,00
8,0	14,0	3.0	HC71.1	25	181,70
10,0	14,0	2.0	HC72.2	10	106,00
10,0	14,0	2.0	HC72.1	25	134,40
10,0	18,0	4.0	HC73.2	10	240,80
10,0	18,0	4.0	HC73.1	25	299,95

► Hose brushes see page 1093

Tubing



Silicone pump tubes

Working temperature -20 to +80 °C. Clear. Hardness 60 ±5 Shore A. Autoclavable. **Platinum-treated silicone hose for hose pumps.** Ultra-smooth surface prevents bacterial growth and sediments or residue from sticking. Acc. to USP Category VI, Eur.Ph. 6.5: 3.1.9 and FDA-Regulations 21 CFR 177.2600.

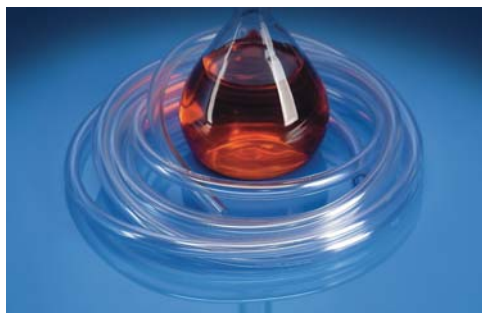
Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
0,5	3,7	1.6	CH23.1	5	36,45
0,8	4,0	1.6	CH24.1	5	36,45
1,6	4,8	1.6	CH25.1	5	52,60
3,2	6,4	1.6	CH26.1	5	52,60
4,8	8,0	1.6	CH27.1	5	60,10
6,4	9,6	1.6	CH28.1	5	67,65
8,0	11,2	1.6	CH29.1	5	87,10



Tygon®-hoses F-4040-A

Max. operating temperature +74 °C. For conveying petrol, kerosine, fuel oil and glycol-based coolants. No swelling and hardening. Ozone and UV resistant. Yellowish, transparent. Hardness: 57 Shore A.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
3,2 (1/8")	6,4 (1/4")	1.6 (1/16")	AEC4.1	15	69,70
4,8 (3/16")	8,0 (5/16")	1.6 (1/16")	AEC5.1	15	86,00
6,4 (1/4")	9,6 (3/8")	1.6 (1/16")	AEC6.1	15	103,20
8,0 (5/16")	11,2 (7/16")	1.6 (1/16")	AEC7.1	15	122,55
9,6 (3/8")	12,7 (1/2")	1.6 (1/16")	AEC8.1	15	143,00
12,7 (1/2")	15,9 (5/8")	1.6 (1/16")	AEC9.1	15	174,15



Tygon®-hoses S3™ E-3603

By Saint-Gobain. Temperature range from -46 to +74 °C. Transparent. DEHP-free. FDA-compliant. Hardness 56 shore A.

Very smooth, polished inner wall. Good chemical resistance. Autoclavable.

Standard tubes

For normal laboratory applications; also suitable for coolers, incubators and peristaltic pumps.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1,6 (1/16")	3,2 (1/8")	0.8 (1/32")	YL81.1	15	18,85
1,6 (1/16")	4,8 (3/16")	1.6 (1/16")	YL82.1	15	37,10
3,2 (1/8")	4,8 (3/16")	0.8 (1/32")	YL83.1	15	27,75
3,2 (1/8")	6,4 (1/4")	1.6 (1/16")	YL84.1	15	54,85
4,8 (3/16")	6,4 (1/4")	0.8 (1/32")	YL85.1	15	37,10
4,8 (3/16")	8,0 (5/16")	1.6 (1/16")	YL86.1	15	77,40
6,4 (1/4")	9,6 (3/8")	1.6 (1/16")	YL87.1	15	87,85
6,4 (1/4")	11,2 (7/16")	2.4 (3/32")	YL88.1	15	145,15
9,6 (3/8")	12,7 (1/2")	1.6 (1/16")	YL89.1	15	124,70
9,6 (3/8")	14,3 (9/16")	2.4 (3/32")	YL90.1	15	160,20
9,6 (3/8")	15,9 (5/8")	3.2 (1/8")	YL91.1	15	231,15
12,7 (1/2")	15,9 (5/8")	1.6 (1/16")	YL92.1	15	149,45
12,7 (1/2")	17,5 (11/16")	2.4 (3/32")	YL93.1	15	204,25
12,7 (1/2")	19,1 (3/4")	3.2 (1/8")	YL94.1	15	275,20
19,0 (3/4")	25,4 (1")	3.2 (1/8")	YL95.1	15	353,70

Vacuum tubes

For use with, for example, dessicators, filtration systems and vacuum pumps.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
4,8 (3/16")	14,4 (9/16")	4,8 (3/16")	YL96.1	15	274,15
6,4 (1/4")	15,9 (5/8")	4,8 (3/16")	YL97.1	15	321,45
9,6 (3/8")	22,3 (7/8")	6,4 (1/4")	YL98.1	15	526,75
12,7 (1/2")	28,7 (1-1/8")	8,0 (5/16")	YL99.1	15	857,85

Tygon®-hoses E-1000 Ultra-Soft

By Saint-Gobain. Transparent, DEHP-free. Operating temperature -55 to +52 °C. Hardness: 40 Shore A. Soft, pliable, stays flexible even at low temperatures (-55 °C). Good alternative to silicone tubing with good chemical resistance. Suitable for general laboratory applications and peristaltic pumps.

Ø inside (mm (inch))	Ø outside (mm (inch))	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1,6 (1/16)	4,8 (3/16)	1.6	TP79.1	15	76,90
3,2 (1/8)	6,4 (1/4)	1.6	TP80.1	15	109,65
4,8 (3/16)	8,0 (5/16)	1.6	TP81.1	15	116,10
6,4 (1/4)	9,6 (3/8)	1.6	TP82.1	15	112,90
6,4 (1/4)	12,7 (1/2)	3.2	TP83.1	15	225,75
8,0 (5/16)	11,2 (7/16)	1.6	TP84.1	15	164,50
9,6 (3/8)	12,7 (1/2)	1.6	TP85.1	15	192,45
12,7 (1/2)	15,9 (5/8)	1.6	TP86.1	15	224,70



Tygon®-hoses LMT-55

By Saint-Gobain. Temperature range from -50 to +74 °C. Transparent, DEHP-free, hardness 55 (Shore A). Smooth, polished inner wall. Good chemical resistance to many inorganic solutions. Autoclavable.

Standard tubing

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1,6 (1/16")	3,2 (1/8")	0,8 (1/32")	CAN7.1	15	17,95
1,6 (1/16")	4,8 (3/16")	1,6 (1/16")	CAN8.1	15	35,80
2,4 (3/32")	5,6 (1/4")	1,6 (1/16")	CAN9.1	15	44,95
3,2 (1/8")	6,4 (1/4")	1,6 (1/16")	CAP0.1	15	52,70
4,8 (3/16")	7,9 (5/16")	1,6 (1/16")	CAP1.1	15	75,65
6,4 (1/4")	9,6 (3/8")	1,6 (1/16")	CAP2.1	15	87,10
6,4 (1/4")	11,1 (7/16")	2,4 (3/32")	CAP3.1	15	139,75
7,9 (5/16")	11,1 (7/16")	1,6 (1/16")	CAP4.1	15	103,20
7,9 (5/16")	12,7 (1/2")	2,4 (3/32")	CAP5.1	15	152,65
9,6 (3/8")	12,7 (1/2")	1,6 (1/16")	CAP6.1	15	121,50
9,6 (3/8")	15,9 (5/8")	3,2 (1/8")	CAP7.1	15	224,70
12,7 (1/2")	19,0 (3/4")	3,2 (1/8")	CAP8.1	15	267,70

Vacuum tubing

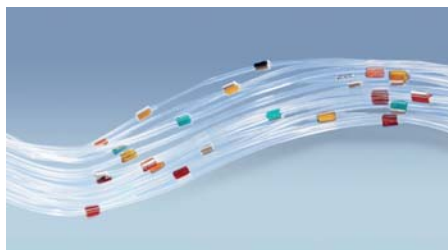
Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
6,4 (1/4")	15,9 (5/8")	4,8 (3/16")	CAP9.1	15	317,15
9,6 (3/8")	22,2 (7/8")	6,4 (1/4")	CAT0.1	15	536,45



Pharmed®-tubes

By Saint-Gobain. Max. working temperature +135 °C, yellowish-brown, made of TPE, hardness 64 Shore. Excellent for fermentative processes, cultivation of cell cultures etc. Special tube for peristaltic pumps. Good chemical resistance. Low gas permeability and high ageing stability. Autoclavable.

Ø inside (mm (inch))	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
0,5 (0,02)	3,7	1,6	Y534.1	7,5	71,95
0,8 (1/32)	4,0	1,6	Y535.1	7,5	84,95
1,6 (1/16)	4,8	1,6	H191.1	7,5	112,90
3,2 (1/8)	6,4	1,6	H192.1	7,5	112,90
4,8 (3/16)	8,0	1,6	H193.1	7,5	113,95
6,4 (1/4)	9,5	1,6	H194.1	7,5	134,40
8,0 (5/16)	11,2	1,6	H195.1	7,5	139,75
9,5 (3/8)	15,9	3,2	H196.1	7,5	220,40
12,7 (1/2)	19,0	3,2	H197.1	7,5	270,90



Tygon® LMT-55 stopper hoses for peristaltic pumps

By Saint-Gobain. Temperature range from -50 to +74 °C. Transparent, DEHP-free, hardness 55 Shore A. Smooth, polished inner wall. Good chemical resistance to many inorganic solutions. Autoclavable.

Stopper hoses

- 2 stoppers
- Stopper spacing: 152 mm
- Overall length: 381 mm

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Colour code	Art. No.	Pack Qty.	€
0,51	2,31	0,90	orange/yellow	CYP9.1	12	39,60
0,76	2,46	0,85	black/black	CYT0.1	12	39,60
0,89	2,56	0,85	orange/orange	CYT1.1	12	39,60
1,52	3,22	0,85	yellow/blue	CYT2.1	12	39,60
2,06	3,76	0,85	violet/violet	CYT3.1	12	39,60
2,79	4,49	0,85	violet/white	CYT4.1	12	39,60

Extension hoses for stopper hoses

- Length: 10 m

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0,51	2,31	0,90	CYT5.1	1	49,35
0,76	2,46	0,85	CYT6.1	1	49,35
0,89	2,56	0,85	CYT7.1	1	49,35
1,52	3,22	0,85	CYT8.1	1	49,35
2,06	3,76	0,85	CYT9.1	1	49,35
2,79	4,49	0,85	CYX0.1	1	49,35

Pharmed® BPT stopper hoses for peristaltic pumps

By Saint-Gobain. With biocompatible fluid surface specially for microbiological applications. Temperature stable from -50 to +135 °C. Natural colours. Impervious to UV rays and light. Low gas permeability. In accordance with USP class VI, ISO 10993 and FDA. Hardness: 64 Shore A. Autoclavable.

Stopper hoses

- 2 stoppers
- Stopper spacing: 152 mm
- Overall length: 381 mm

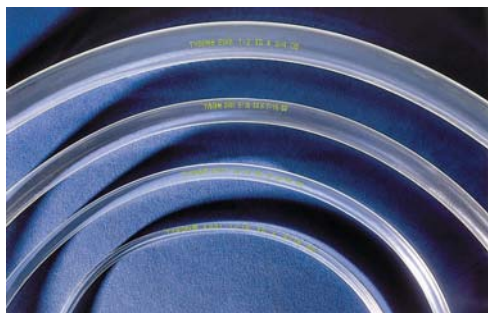
Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Colour code	Art. No.	Pack Qty.	€
0,51	2,31	0,90	orange/yellow	CYN7.1	6	65,40
0,76	2,46	0,85	black/black	CYN8.1	6	65,40
0,89	2,56	0,85	orange/orange	CYN9.1	6	65,40
1,52	3,22	0,85	yellow/blue	CYP0.1	6	65,40
2,06	3,76	0,85	violet/violet	CYP1.1	6	65,40
2,79	4,49	0,85	violet/white	CYP2.1	6	65,40

Extension hoses for stopper hoses

- Length: 3 m

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
0,51	2,31	0,90	CYP3.1	1	33,25
0,76	2,46	0,85	CYP4.1	1	33,25
0,89	2,56	0,85	CYP5.1	1	33,25
1,52	3,22	0,85	CYP6.1	1	33,25
2,06	3,76	0,85	CYP7.1	1	33,25
2,79	4,49	0,85	CYP8.1	1	33,25

Tubing



Tygon®-hoses 2001 ultra-pure

By Saint-Gobain. Temperature range -78 to +57 °C, transparent, made of **TPO**. Hardness 69 Shore A. Autoclavable.

Doesn't contain plasticizers and oils.

Very flexible, extremely good chemical resistance, durable.

Increased durability when used in **peristaltic pumps**.

Acc. to FDA-requirements.

Ø inside (mm (inch))	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1,6 (1/16)	4,8	1,6	EL12.1	15	93,00
3,2 (1/8)	6,4	1,6	EL13.1	15	124,70
4,8 (3/16)	8,0	1,6	EL14.1	15	137,60
6,4 (1/4)	9,6	1,6	EL15.1	15	260,15
8,0 (5/16)	11,2	1,6	EL16.1	15	287,05
9,5 (3/8)	12,7	1,6	EL17.1	15	315,00



Norprene®-hoses (A-60-G)

By Saint-Gobain. Temperature range -60 to 135 °C.

From **TPE**, Hardness 61 shore A. Black. Suitable for **peristaltic pumps** and for chemical and industrial applications. Ozone-stable.

Long service life, extremely weatherproof. Lower gas permeability than rubber tubes. Very high resistance to anorganic liquids.

Ø inside (mm (inch))	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1,6 (1/16)	4,8	1,6	AH61.1	15	53,70
3,2 (1/8)	6,4	1,6	AH62.1	15	50,10
4,8 (3/16)	8,0	1,6	AH63.1	15	64,50
6,4 (1/4)	9,6	1,6	AH64.1	15	59,15
6,4 (1/4)	11,2	2,4	AH65.1	15	90,85
8,0 (5/16)	11,2	1,6	AH66.1	15	81,70
9,5 (3/8)	12,7	1,6	AH67.1	15	87,10
11,1 (7/16)	14,3	1,6	AH68.1	15	176,30
12,7 (1/2)	17,5	2,4	AH69.1	15	192,45



Tygon®-hoses 2375

By Saint-Gobain. Temperature range from -59 to +54 °C.

Flexible, made of **TPO**. Hardness 75 Shore, transparent, without plasticizer.

Suitable for extreme chemical applications. Resists acids, bases, ketones (methyl ethyl ketone), salts and alcohols. The smooth inside wall minimise particle deposits.

Ø inside (mm (inch))	Ø outside (mm (inch))	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1,6 (1/16)	4,8 (3/16)	1,6	NA64.1	15	148,35
3,2 (1/8)	6,4 (1/4)	1,6	NA65.1	15	183,85
4,8 (3/16)	8,0 (5/16)	1,6	NA66.1	15	203,20
6,4 (1/4)	9,6 (3/8)	1,6	NA67.1	15	220,40
8,0 (5/16)	11,2 (7/16)	1,6	NA68.1	15	247,25
9,5 (3/8)	12,7 (1/2)	1,6	NA69.1	15	274,15
12,7 (1/2)	19,1 (3/4)	3,2	NA70.1	15	573,00



Rotilabo®-Viton®-tubes

Temperature range -10 to +200 °C. **Fluorocautchouc (FPM)**, black.

Highly resistant to ozone and weather as well as to benzene and mineral oils. Hardness approx. 75 Shore A.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
4	6	1	EX14.1	5	37,45
5	7	1	EX15.1	5	47,20
6	8	1	EX16.1	5	51,10
7	9	1	EX17.1	5	75,15
8	11	1,5	EX18.1	5	102,15
9	13	2	EX19.1	5	138,70
10	14	2	EX20.1	5	148,35

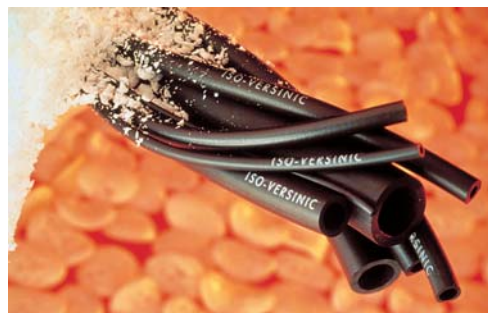
Rotilabo®-butyl hoses

Made of **butyl rubber (IIR)**, black, without inlay. Approx. 8x less air diffusion than other natural rubber hoses. Good chemical resistance.

Durometer: 60 Shore A. Temperature resistant up to 100 °C.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
3	7	2	TE85.1	5	24,20
6	10	2	TE86.1	5	30,00
6	14	4	TE87.1	5	44,95

Tubing accessories



Iso-Versinic® Fluoroelastomer-tubes

By Saint-Gobain.

Temperature range from -20 to +200 °C (short-term to +300 °C).

Fluor caoutchouc, black, hardness 60 Shore A (HC36.1 and HC37.1), hardness 70 Shore A (HC38.1 to HC42.1). Suitable for delivering very aggressive chemicals and for demanding applications in the laboratory and industry. Good resistance against hydrocarbons, oils, strong acids, oxidants, aromatic and chloric solvents. Non-aging and weatherproof. Flameproof.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
3,0	5,0	1,0	HC36.1	5	70,85
4,0	6,0	1,0	HC37.1	5	74,00
5,0	8,0	1,5	HC38.1	5	110,75
6,0	9,0	1,5	HC39.1	5	126,85
7,0	10,0	1,5	HC40.1	5	144,05
8,0	12,0	2,0	HC41.1	5	216,10
10,0	14,0	2,0	HC42.1	5	255,85



FLURAN®-tubes F-5500-A

By Saint-Gobain. Temperature range -51 to +204 °C, **fluor caoutchouc**, black, hardness 60 Shore A.

Excellent resistance against caustic chemicals, oils, benzenes, solvents and most acids. Resistant to ozone, sunlight and weather, tearproof and hard-wearing. Their pliability and elasticity make them suitable for **peristaltic pumps**.

Ø inside (mm (inch))	Ø outside (mm (inch))	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
1,6 (1/16)	3,2 (1/8)	0,8	EY77.1 *	15	167,70
3,2 (1/8)	6,4 (1/4)	1,6	EY78.1 *	15	471,95
4,8 (3/16)	8,0 (5/16)	1,6	EY79.1 *	15	622,45
6,4 (1/4)	9,6 (3/8)	1,6	EY80.1 *	15	790,15
8,0 (5/16)	11,2 (7/16)	1,6	EY81.1 *	15	1041,70
9,5 (3/8)	12,7 (1/2)	1,6	EY82.1 *	15	1009,45

* Please check with our Sales Department for delivery period of this product.



Fastening tool

Made of metal. For fastening and cutting cable ties. The corrugated cable ties or fasteners are secured in a single operation and then cut.

The required tension can be individually set.

Colour: blue or red.

Assorted ties Art. No. 1729.1 and 1735.1.

Art. No.	Pack Qty.	€
H977.1	1	85,95

Rotilabo®-ties

Made of **PA**. Temperature stable from -40 to +85 °C.

Suitable for fastening tool H977.1.

Length (mm)	Width (mm)	For binding to max	Art. No.	Pack Qty.	€
180	4,5	Ø 50 mm	1729.1	100	9,65
102	2,5	Ø 22 mm	1735.1	100	4,85



Tube cutter

For all tubes with Ø max. 13 mm.

Type	Art. No.	Pack Qty.	€
Tube cutter	6737.1	1	19,30
Spare blades for tube cutter	6738.1	5	34,40



Rotilabo®-hose- and tube-cutter

Made of stainless steel 18/10, with high gloss finish. Ideal for cutting hoses and centrifuge tubes of max. outer Ø 10 mm. Blade length 2.5 cm.

Total length 10 cm.

Delivery incl. artificial leather case.

Art. No.	Pack Qty.	€
CK56.1	1	19,35

► Scissors see page 307

► Knives see page 702

Tubing accessories



Rotilabo®-tube clamps

Made of **POM**. Resistant against UV-rays and with good chemical properties. Temperature stable from -40 to +90 °C (and short-term up to +110 °C).

Suitable for hose Ø (mm)	Art. No.	Pack Qty.	€
6.0 - 6.5	EX50.1	10	3,90
9.0 - 10.0	EX51.1	10	3,90
10.0 - 11.0	EX52.1	10	3,90
11.0 - 12.0	EX53.1	10	3,90
12.0 - 14.0	EX54.1	10	3,90
13.0 - 15.0	EX55.1	10	3,90
15.0 - 17.0	EX56.1	10	3,90
17.0 - 19.0	EX57.1	10	3,90
18.0 - 20.0	EX58.1	10	4,50
20.0 - 22.0	EX59.1	10	4,50
23.0 - 25.0	EX61.1	10	4,50



Worm drive hose clamps

Stainless steel band (1.4016), galvanised screw.

Suitable for hoses with outer Ø (mm)	Art. No.	Pack Qty.	€
8-12	AEH1.1	10	11,50
10-16	AEH2.1	10	11,75
12-20	AEH3.1	10	13,25
16-27	AEH4.1	10	13,45
20-32	AEH5.1	10	13,90



Rotilabo®-clamping scissors

Made of fibre-glass reinforced **PA**. Ideal for clamping and holding tubing, etc. Mostly resistant to chemicals, highly robust and heat stable to +130 °C.

Length (mm)	Type	Art. No.	Pack Qty.	€
110	with fine concrete edges	LH90.1	10	11,65
130	with offset jaws	N141.1	10	9,80



Rotilabo®-tube clips

Ideal for securing hoses on pipes and stopcocks. With phosphor bronze band, anti-magnetic and mostly resistant to aggressive liquids and vapours. Conductive.

Span range (mm)	Art. No.	Pack Qty.	€
5-10	N042.1	10	23,55
7-12	N043.1	10	23,55
9-14	N044.1	10	23,55
12-17	5252.1	10	23,55
17-22	0784.1	10	23,55
22-27	N045.1	10	23,55
25-30	0785.1	10	23,55



Hose clamps, coloured

Made of **PVDF**. Steel band, galvanised. Continuously variable flow control for flexible hoses. Temperature stable up to max. 160 °C.

For hoses with outer Ø up to 10 mm

Colour	Art. No.	Pack Qty.	€
red	YE68.1	1	3,05
yellow	YE69.1	1	3,05
blue	YE70.1	1	3,05
green	YE71.1	1	3,05

For hoses with outer Ø up to 15 mm

Colour	Art. No.	Pack Qty.	€
red	YE72.1	1	4,25
yellow	YE73.1	1	4,25
blue	YE74.1	1	4,25
green	YE75.1	1	4,25

For hoses with outer Ø up to 20 mm

Colour	Art. No.	Pack Qty.	€
red	YE76.1	1	5,35
yellow	YE77.1	1	5,35
blue	YE78.1	1	5,35
green	YE79.1	1	5,35



Rotilabo®-tube clamps

Made of nickel-plated steel, with pressed knurled screw.
Temperature stable to +150 °C.

Span (mm)	Art. No.	Pack Qty.	€
10	0564.1	6	14,55
15	0565.1	6	24,10
20	0566.1	6	30,35

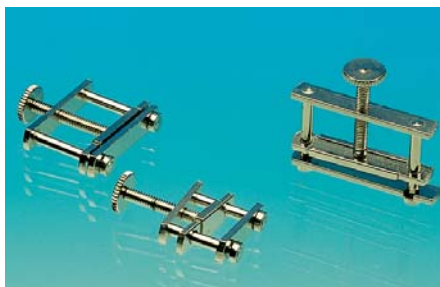


Rotilabo®-pinchcock

Made of **high-grade steel** with spring clip. Excellent for closing elastic tubes with an outer Ø of 10 to 15 mm. Variably adjustable clamp for permanent opening if necessary. Tube is fixed securely to pinchcock via clamp. Single-handed operation possible.

Delivery incl. silicon tube 20 cm.

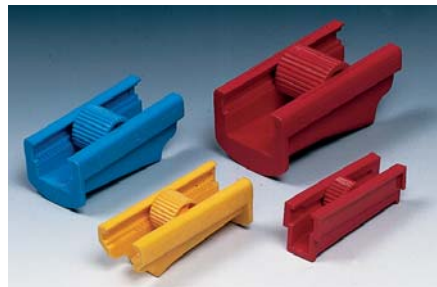
Art. No.	Pack Qty.	€
H452.1	1	10,55



Rotilabo®-tube clamping screws

Acc. to Hoffmann. Made of chrome-plated metal, for fine regulation.
Hinged bottom bar can be swing open.

Width/height of outlet approx. (mm)	Art. No.	Pack Qty.	€
13/13	1585.1	5	15,00
17/16	1586.1	5	15,70
20/16	1587.1	5	16,10
25/16	1588.1	5	17,75
30/16	1589.1	5	18,25



Rotilabo®-tube clamps

Made of **PBT**. One-hand operation, can be operated with one hand.
Variably adjustable up to total closing of tube.
Easy on tubes, can be sterilized to +160 °C.

for hose Ø (mm)	Colour	Art. No.	Pack Qty.	€
14	red	1158.1	12	51,95
10	blue	1159.1	12	50,20
6	yellow	1160.1	12	48,30
4,5	red	1161.1	12	30,10
Set of 3 clamps of each size	-	1162.1	12	46,25



Pinchcocks according to Mohr

Made of nickel-plated brass. One-hand operation.
Ideal for shutting off flexible hoses.

Length (mm)	for hose Ø (mm)	Art. No.	Pack Qty.	€
50	20	KY01.1	5	27,75
60	25	KY02.1	5	29,00
70	30	KY03.1	5	30,10
80	35	KY04.1	5	31,20



Rotilabo®-tube clamps

For cut-off or setting flexible hoses with outer Ø of up to 15 mm.
Width of clamping jaws 20 mm.

Material	Art. No.	Pack Qty.	€
① Polysulfone (autoclavable)	T764.1	5	42,90
② Delrin	T765.1	5	38,60

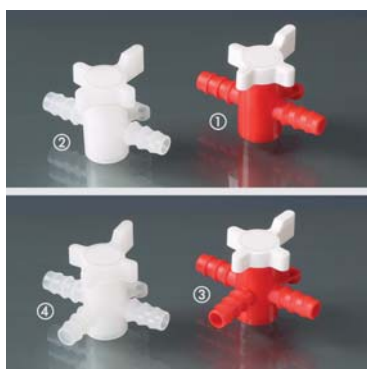
Tubing connectors



Metal stopcocks

Made of high-quality brass, nickel-plated and bright chromium-plated. Can be autoclaved at 134 °C. Luer-Lock female (LLF) to male (LLM), 3-way cocks female on the side. Suitable or pressures to max. 3 bar.

Type	Art. No.	Pack Qty.	€
① 2-way cock	P339.1	1	37,65
② 3-way cock	P340.1	1	45,15



Programme extension!

Rotilabo® hose valves

For the transfer of liquids or gases. Max. pressure 1 bar. Operating temperature +5 to +40 °C. Available in various materials: PVDF (natural colours) offers better chemical resistance than PP/PE (red/white).

2-way valves

Material	Outlet Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
① PP/PE	4	5-7	1015.1	1	7,45
① PP/PE	6	7-9	1016.1	1	8,55
① PP/PE	8	9-11	1017.1	1	9,65
① PP/PE	8	11-13	CPH6.1	1	9,65
② PVDF	4	5-7	1761.1	1	13,25
② PVDF	6	7-9	1762.1	1	15,25
② PVDF	8	9-11	1763.1	1	18,40
② PVDF	8	11-13	CPH7.1	1	16,10

3-way valves

Material	Outlet Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
③ PP/PE	4	5-7	1018.1	1	12,70
③ PP/PE	6	7-9	1019.1	1	14,55
③ PP/PE	8	9-11	1020.1	1	16,30
③ PP/PE	8	11-13	CPH8.1	1	16,10
④ PVDF	4	5-7	1766.1	1	20,70
④ PVDF	6	7-9	1767.1	1	22,55
④ PVDF	8	9-11	1768.1	1	24,75
④ PVDF	8	11-13	CPH9.1	1	21,45

- Single way stopcocks made of glass see page 144



Rotilabo®-tubing connectors

Made of natural coloured PE.

Stopcock connectors, pressure load to 0.3 bar.

Connection	Outer Ø (mm)	Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
Both sides 3/8" (outer-Ø 10 mm)	10	70	6	1622.1	5	19,70
Both sides 1/2" (outer-Ø 14 mm)	14	95	17	1623.1	5	24,20



Rotilabo®-check valves

Made of PP, natural/transparent. Ideal for liquids. Consists of 2 parts. Prevents pressure drop or backflow. With conical ends. Temperature stable to +100 °C.

Length (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
60	7,8-10	E804.1	5	16,70
70	9,5-12,5	E805.1	5	25,20



Lab safety filter

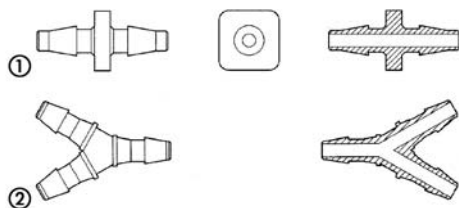
With integral regulation and ventilation tap. Suitable for use as alternative to a Woulffe's bottle, as a check valve for a water jet pump, and as a moisture barrier between a test apparatus and vacuum source. Hydrophobic membrane prevents aqueous liquid return. For tubes with inner Ø from 6-12 mm.

Technical specifications:

Pore size	0.2 µm
Effective filtering surface	20 cm²
Casing/Membrane material	PP/PTFE
Working pressure	max. 3.0 bar
Temperature stable	to max. +80 °C
Dimensions	L 100 mm, Ø 62 mm

Art. No.	Pack Qty.	€
A806.1	1	63,45

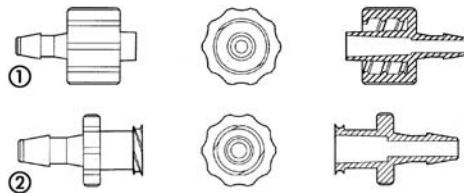
Tubing connectors



Rotilabo®-mini-tubing connectors

Made of PP, transparent.

Model	Type	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
①	straight	1,6	CT33.1	10	15,40
①	straight	2,4	CT34.1	10	15,40
①	straight	3,2	CT35.1	10	15,40
②	Y-shape	1,6	CT36.1	10	16,70
②	Y-shape	2,4	CT37.1	10	16,70
②	Y-shape	3,2	CT38.1	10	17,45



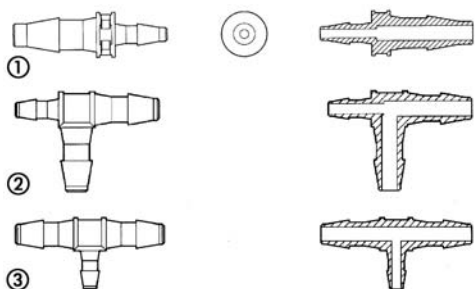
Rotilabo®-Luer-tubing connectors

Made of PP, transparent.

LLM: Luer Lock male

LLF: Luer Lock female

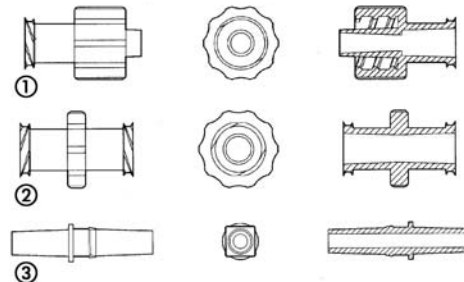
Model	Luer-fitting	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
①	LLM	1,6	CT58.1	10	12,80
①	LLM	2,4	CT59.1	10	12,80
①	LLM	3,2	CT60.1	10	12,80
①	LLM	4,0	CT61.1	10	12,80
②	LLF	1,6	CT62.1	10	12,80
②	LLF	2,4	CT63.1	10	12,80
②	LLF	3,2	CT64.1	10	12,80
②	LLF	4,0	CT65.1	10	12,80



Rotilabo®-mini tubing reducers

Made of PP, transparent.

Model	Type	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
①	straight	1,6 - 4,0	CT42.1	10	16,70
①	straight	2,4 - 4,0	CT43.1	10	16,70
①	straight	3,2 - 4,0	CT44.1	10	16,70
①	straight	1,6 - 4,8	CT45.1	10	16,70
①	straight	2,4 - 4,8	CT46.1	10	16,70
①	straight	3,2 - 4,8	CT47.1	10	19,80
①	straight	4,0 - 4,8	CT48.1	10	20,10
②	T-shape	1,6 - 2,4 - 2,4	CT49.1	10	21,95
②	T-shape	1,6 - 3,2 - 3,2	CT50.1	10	23,15
②	T-shape	2,4 - 3,2 - 3,2	CT51.1	10	23,15
③	T-shape	1,6 - 2,4 - 1,6	CT52.1	10	21,95
③	T-shape	1,6 - 3,2 - 1,6	CT53.1	10	23,15
③	T-shape	2,4 - 1,6 - 2,4	CT54.1	10	21,95
③	T-shape	2,4 - 3,2 - 2,4	CT55.1	10	23,15
③	T-shape	3,2 - 1,6 - 3,2	CT56.1	10	23,15
③	T-shape	3,2 - 2,4 - 3,2	CT57.1	10	23,15



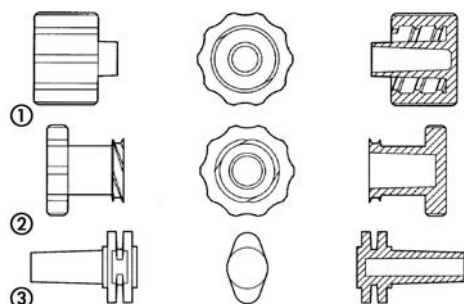
Rotilabo®-Luer-connectors

Made of PP, transparent.

LLM: Luer Lock male; LM: Luer male

LLF: Luer Lock female LF: Luer female

Model	Luer-fitting	Art. No.	Pack Qty.	€
①	LLM on LF	CT66.1	10	14,95
②	LLF on LLF	CT67.1	10	14,95
③	LM on LM	CT68.1	10	14,95



Rotilabo®-Luer-stoppers

Made of PP, transparent.

LLM: Luer Lock male; LM: Luer male

LLF: Luer Lock female LF: Luer female

Model	Luer-fitting	Art. No.	Pack Qty.	€
①	LLM for LLF	CT69.1	10	9,45
②	LLF for LLM	CT70.1	10	11,30
③	LM-slip for LF	CT71.1	10	11,30

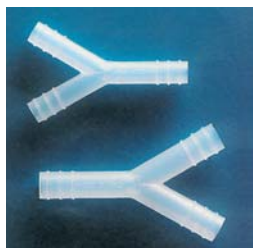
Tubing connectors



Rotilabo®-T-shapes

Made of PP, natural, transparent. Autoclavable.

Outer Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
4	3	E763.1	10	8,25
6	4-5	E764.1	10	9,15
8	6-7	E765.1	10	7,80
10	8-9	E766.1	10	10,00
12	10-11	E767.1	10	11,10
14	12-13	E768.1	10	14,55
16	14-15	E769.1	10	17,65



Rotilabo®-Y-pieces

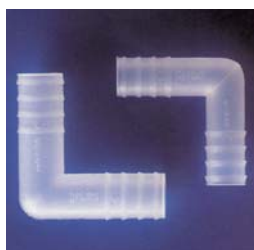
Made of PP. Autoclavable.

Natural, translucent, with straight ends.

Outer Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
4	3	E770.1	10	8,20
6	4-5	E771.1	10	10,40
8	6-7	E772.1	10	12,50
10	8-9	E773.1	10	14,75
12	10-11	E774.1	10	18,10
14	12-13	E775.1	10	18,50
16	14-15	E776.1	10	21,85

White, with conical ends.

Outer Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
4 / 5	3-5	TT50.1	10	12,55
5,5 / 7	5-7	TT51.1	10	14,35
7 / 9	7-9	TT52.1	10	16,60
10 / 11,5	9-11	TT53.1	10	17,10
12 / 14	11-13	TT54.1	10	19,55
14 / 15,5	13-15	TT55.1	10	22,90



Rotilabo®-L-shapes 90°

Made of PP, natural, transparent. Autoclavable.

Outer Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
4	3	E784.1	10	6,10
6	4-5	E785.1	10	6,60
8	6-7	E786.1	10	9,10
10	8-9	E787.1	10	10,05
12	10-11	E788.1	10	12,10
14	12-13	E789.1	10	14,65
16	14-15	E790.1	10	19,25

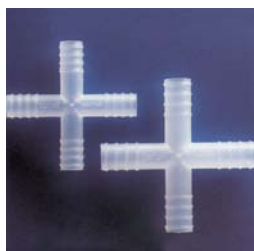


Rotilabo®-tubing connectors assortment

Consists of the most commonly used tube connectors (PP/PE) in different sizes.

Delivery incl. T-shape, Y-shape, straight connectors (mm, inches) and straight reduction connectors. Includes 25 individual parts.

Art. No.	Pack Qty. (assortment)	€
H975.1	1	21,30



Rotilabo®-cross pieces

Made of PP, natural, transparent. Autoclavable.

Outer Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
4	3	E777.1	10	14,65
6	4-5	E778.1	10	15,20
8	6-7	E779.1	10	15,60
10	8-9	E780.1	10	18,60
12	10-11	E781.1	10	19,60
14	12-13	E782.1	10	21,95
15	14-15	TT77.1	10	21,75



Rotilabo®-tubing connectors

Made of HDPE. Solid design, white.

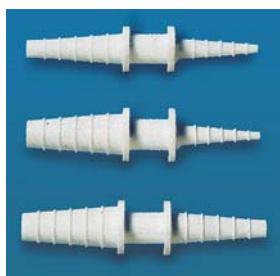
Outlet Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
7	10	E797.1	10	12,20
9	12	E798.1	10	13,35
15	19	E799.1	10	14,55
20	25	E800.1	10	10,25



Rotilabo®-tubing connectors

Made of PP, white with conical ends. Autoclavable.

Outlet Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
2	4-5	E791.1	10	7,85
3	5-7	E792.1	10	9,15
4	8-10	E793.1	10	9,65
6	10-12	E794.1	10	11,15
8	12-14	E795.1	10	12,15
10	14-16	E796.1	10	14,95



Rotilabo®-reducing connectors

Made of PP, white with conical ends.

Length 87 mm, temperature stable to max. +130 °C. Autoclavable.

Connector I outer-Ø (mm)	Connector II outer-Ø (mm)	Outlet (mm)	Art. No.	Pack Qty.	€
8-12	4-8	4,6/1,6	E801.1	10	14,55
12-16	4-8	7,5/1,6	E802.1	10	16,60
12-16	8-12	7,5/4,6	E803.1	10	18,40



Universal tubing connectors

Suitable for tubes with inner Ø from 4 / 8 to 17 mm. With conical ends. Autoclavable.

Model	Material	Art. No.	Pack Qty.	€
①	PP	Y523.1	10	20,00
②	PVDF	Y524.1	10	28,25



Metal tube connectors

Made of high-quality nickel-plated and bright chromium-plated brass.

Can be autoclaved at 134 °C. Ideal for connecting needles, syringes and stopcocks with tubing. Extensions for Luer-Lock female (LLF) and male (LLM) fittings.

Tube connection inner-Ø	Art. No.	Pack Qty.	€
① 1,5 mm LLF	P334.1	1	12,20
④ 3,0 mm LLF	P335.1	1	10,35
② 1,5 mm LLM	P336.1	1	13,95
③ 3,0 mm LLM	P343.1	1	11,40



Metal tube extensions, conical

Made of high-quality nickel-plated and bright chromium-plated brass.

Can be autoclaved at 134 °C. Ideal for connecting needles, syringes and stopcocks with tubing. Extensions for Luer-Lock female (LLF) and male (LLM) fittings.

Tube connection inner-Ø	Art. No.	Pack Qty.	€
① 2-6 mm LLF	P337.1	1	23,60
③ 5-9 mm LLF	P338.1	1	23,60
② 2-6 mm LLM	P341.1	1	23,65
④ 5-9 mm LLM	P342.1	1	25,40



Rotilabo®-tubing quick disconnectors

Made of PE, natural/transparent. High sealing quality.

Easy to disconnect. With conical ends. Temperature stable to +100 °C.

Outlet Ø (mm)	For hoses with inner Ø (mm)	Art. No.	Pack Qty.	€
2	4-5	E806.1	10	14,70
3	6-7	E807.1	10	16,70
4	8-9	E808.1	10	18,60
6	9-12	E809.1	10	20,10
7	11-14	E810.1	10	22,70

► For different tubes, see page 354

Stop-cocks



Rotilabo®-tubing connectors system Keck

Made of **PBT** with **EPDM** flat seal. Ideal for fast, safe and leakproof connections of tubing to glass hose connectors and glass threads. High chemical resistance. Temperature stable to max. +130 °C.

For glass olives (clamp. ring, thread cap, tubing sleeve connector, seals)

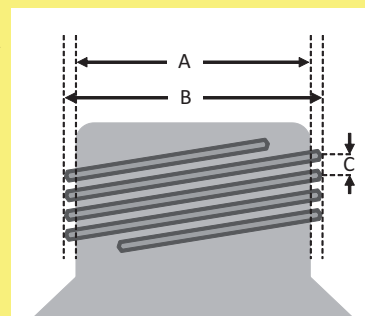
suitable for	Tubing sleeve connector outer-Ø (mm)	Art. No.	Pack Qty.	€
GL 14 (Schott) yellow	9	H072.1	10	79,55
GL 14 (Schott) yellow	4,5	H073.1	10	79,55

For glass thread (thread cap, tubing sleeve connector, seals)

suitable for	Tubing sleeve connector outer-Ø (mm)	Art. No.	Pack Qty.	€
GL 14 (Schott) yellow	9	H075.1	10	61,40
GL 14 (Schott) yellow	4,5	H076.1	10	61,40

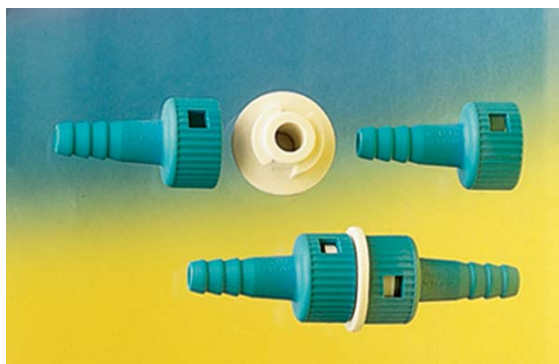
Information on threads

The thread on a drum is defined, among other things, by diameter (A and B) and thread pitch (C). The values given in the table give a rough indication of the thread type, however this cannot reliably be determined by measuring the thread using a sliding caliper alone. Manufacturer-specific threads are also available in addition to the standard threads. The drum supplier can generally provide information on the thread type.



We will be happy to provide you with information on containers which you purchase through us.

Thread	Diameter excl. thread A (mm)	Diameter incl. thread B (mm)	Thread pitch C (mm)
DIN 38	34.6	36.6	9
DIN 40	38.8	42.2	4
DIN 45	41.1	44.7	4
DIN 50	46.1	50.1	4
DIN 51	50.2	54.8	5
DIN 60	55.3	60.3	6
DIN 61	55.6	60.5	5
DIN 71	67.0	72.3	7



Rotilabo®-tubing sleeve connectors

Keck system, made of **PBT**, with **EPDM** seal. Outer Ø 9 mm, length 43 mm. Lightblue. Adapters for tubing sleeve connectors - Keck system, white. Outlet 8 mm.

Type	Art. No.	Pack Qty.	€
Rotilabo®-tubing sleeve connectors	0354.1	10	30,25
Rotilabo®-tubing connectors	0343.1	5	18,60



Spouts

Flexible **PE** pouring tube with snap lid, screwed into a screw cap. With Alkozell seal and riser tube for smooth pouring.

Lock	Art. No.	Pack Qty.	€
DIN 45	TE90.1	2	15,40
DIN 51	TE91.1	2	16,45
DIN 61	TE92.1	2	17,45

Stop-cocks



Draincocks

Made of **PE**, with separate air vent canal. With variable speed regulation of flow. Sealing made of aveolite. Not suitable for glass threads.

Screw cap	Art. No.	Pack Qty.	€
DIN 51	5665.1	3	21,00
DIN 61	5666.2	4	27,95
DIN 45	X530.1	3	22,60
DIN 50	X531.1	3	27,95



Compact draincock

Made of **PP**, seals made of **PE/PTFE**. Tightly closing. Connection with R $\frac{3}{4}$ " cap nut. Easy to open and close. Can be operated single-handed. Space-efficient design: tap does not protrude beyond base of the container and need not be removed when storing the container. Optimized drainage spout for uniform, non-splashing flow.

Art. No.	Pack Qty.	€
PE42.1	1	14,70



FLUXX®-dispensing taps

Made of **PE**. The patented ventilation system allows easy, clean and fast filling and transfer of fluids without gurgling.

- Dispenses fluids cleanly and empties containers completely
- High leak tightness

Not suitable for glass threads.

For bottles

Cap size	Outlet Ø (mm)	Art. No.	Pack Qty.	€
DIN 38	13	XP70.1	10	23,25

For canisters

Cap size	Outlet Ø (mm)	Art. No.	Pack Qty.	€
DIN 45	13	T360.1	3	9,90
DIN 51/DIN 40	13	T358.1	3	10,70
DIN 61/DIN 40	13	T359.1	3	12,40

For drums with $\frac{3}{4}$ " or 2" internal threads

Cap size	Outlet Ø (mm)	Art. No.	Pack Qty.	€
$\frac{3}{4}$ " (BSP) external thread	23	XP74.1	2	9,60
2" Tri-Sure® coarse-pitch thread	23	XP75.1	2	17,15
2" Tri-Sure® fine-pitch thread	23	XP76.1	2	17,15



Drain cocks

By Bürkle. Tightly closing. With $\frac{3}{4}$ "-internal screw thread. Easy to open and close. Can be operated single-handed. With rotatable anti-drip and dosing scale.

Delivery incl. smaller drainage spout (outer-Ø 6-8 mm) for narrow bottle mouths. Adapter for $\frac{3}{4}$ "-internal screw thread (only for Art. No. LP75.1).

Image	Material	Seal	Conductivity	Art. No.	Pack Qty.	€
①	PP	PE/PTFE	no	2683.1	1	24,10
②	PA	PTFE	yes	LP75.1	1	24,85

Adapters

For	Art. No.	Pack Qty.	€
Inner thread coarse, Ø approx. 2.2 cm (e.g. Bürkle, Hünersdorf)	P215.1	1	5,95
Inner thread coarse, Ø approx. 2.05 cm (e.g. Bürkle, Kautex)	P216.1	1	5,95
Barrel inner thread, cylindric, R $\frac{3}{4}$ " Ø 2.55 cm	P217.1	1	5,95
Coarse thread, inner, Tri-Sure® 2"	P218.1	1	13,80
Fine thread, inner, 2"	P219.1	1	13,80

- PTFE-thread tape see page 1103
- Rotilabo®-space-saving canister see page 82

Canister pumps



Air drum draincock

Made of **PE**. Self-venting. Thread connector outside $\frac{3}{4}$ ". NW 13 mm. Suitable for Rotitainer®-cans in combination with adapter P944.1.

Colour	Art. No.	Pack Qty.	€
white/red	Y496.1	3	20,00



Drum ball valve

Made of **PP**. For drums in horizontal position with threaded connection. Inlet thread $\frac{3}{4}$ " inside, outlet thread $\frac{3}{4}$ " outside. Sealing with threading tape. Supplied without hose nozzle, please order separately.

Type	Art. No.	Pack Qty.	€
Drum ball valve	P943.1	1	50,55
Hose nozzle, curved 90°, Ø 12 mm	P946.1	1	3,00
Hose nozzle, straight, Ø 12 mm	P947.1	1	2,15
Thread adapter Tri-Sure® fine-pitch thread, suitable for Rotitainer®	P944.1	1	10,25
Thread adapter Tri-Sure® 2", coarse-pitch thread	P945.1	1	2,75



Spigot extension set

Extends the distance between the spigot and the wall of the container. Suitable for air drum draincock Art.-No. Y496.1 and barrel ball valve P943.1.

A set consists of:

- 1 Pipe extension 150 mm, material **PP**, 2 x $\frac{3}{4}$ "
- 1 Bosshead, material **PP**, inner thread 2 x $\frac{3}{4}$ "
- 2 Flat gaskets for inner thread $\frac{3}{4}$ "

Art. No.	Qty. (set)	€
AH28.1	2	21,45



Dosing pumps with screw cap

Made of **HDPE**. For canisters 10 to 30 l with matching DIN-closure.

Lock	Delivery rate (ml/stroke)	Length lifting tube (mm)	Art. No.	Pack Qty.	€
DIN 50	30	175	P241.1	1	13,20
DIN 60	100	398	P242.1	1	57,55



Mini-dispensing pump

Made of **PP**. With standard stopper for openings of Ø 20 to 36 mm. Ideal for filling smaller amounts. Flow rate max. 4 l/min. Transporting tube: length 45 cm, Ø 10 mm.

Art. No.	Pack Qty.	€
E335.1	1	53,05



Plastic suction pump

For water and other harmless liquids. Transporting tube, made of **PP**, L 64 cm, Ø 13 mm. Tube made of **vinyl**, L 100 cm. Suction capacity approx. 15 ml per pumping cycle.

Art. No.	Pack Qty.	€
0732.1	1	23,15



Acid and alkali pumps

Made of **PP, PTFE, Hastelloy**. Battery operated. Ideal for safe emptying and transferring of water-like liquids (for most acids and alkalis etc.). General purpose and easy-to-use. High flow rate (up to 6 l/min) and light (weight approx. 500 g including batteries). Ø of dip tube 25 mm. 2 rechargeable batteries (Mono 1.5 V) are recommended for use. **Delivery without Akku** (please order separately).

Suction pipe length (mm)	Art. No.	Pack Qty.	€
400	E490.1	1	317,15
600	E491.1	1	349,40

Accessories:

Akku Mono D	X228.2	2	18,25
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Pump-it® canister pump

By Bürkle. Ideal for rapid and clean emptying of canisters and small barrels. Exact dosing, no dripping. Please order matching thread adapter separately. For liquids up to a maximum viscosity of 500 mPa · s at 20 °C.

Technical specifications:

Flow rate	max. 6 l/min
Material pump	PP
Material seals	FKM
Thread	64 mm (BSI)
Weight	310 g
Size	60 cm
Lifting tube length	100 cm

Art. No.	Pack Qty.	€
1601.1	1	123,65



Siphon with stopcock

By Bürkle. Made of **LDPE/PVC**. Stopcock made of **PP**. For rapid filling of aqueous fluids. Delivery rate: 9 l/min, immersion depth: 100 cm, hose inner Ø: 15 mm. **Delivery incl.** hose with kink protection and lifting eye.

Art. No.	Pack Qty.	€
YC59.1	1	49,05



Accessories for Pump-it®-canister pump

By Bürkle. Made of **PP**.

Thread adapters for inner threads

Image	Thread	Art. No.	Pack Qty.	€
①	2" steel-fine thread	1603.1	1	14,55
②	2" Mauser-coarse thread	1604.1	1	14,55
③	2" Tri-Sure®-coarse thread	1606.1	1	14,10

Thread adapters for outer threads

Image	Thread	Art. No.	Pack Qty.	€
④	DIN 60	1605.1	1	20,35
⑤	DIN 51	H071.1	1	20,75
⑥	DIN 61	T236.1	1	20,75

Thread adapter set, consists of one each of 1603.1 (blue), 1604.1 (green), 1606.1 (brown), 1605.1 (black) and H071.1 (black).

Art. No.	Pack Qty.	€
1602.1	1	55,90

Telescope transporting tube 52 - 104 cm

Art. No.	Pack Qty.	€
1607.1	1	12,80

Canister pumps



OTAL®-Dispensing pumps

By Bürkle. Foot/hand pumps work on using air pressure. Foot pumps with bellows and air hose for filling containers standing at a distance. Stoppers made of **PVC**.

- Foot or hand pumps available in different designs:
- Telescope feed tube made of **PP** or **PVDF**; PVDF has better chemical resistance than PP
- With outlet pipe or with flexible hose with stopcock

Technical specifications:

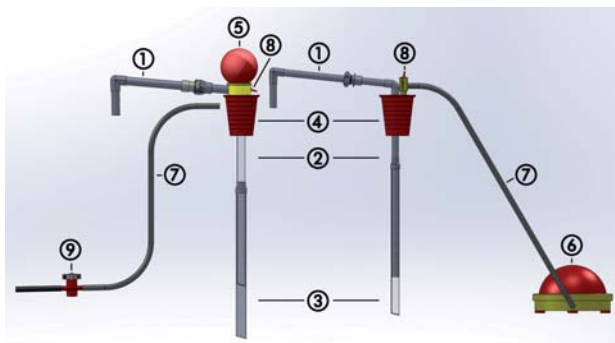
Model	Foot pumps	Hand pumps
For containers max.	approx. 120 l	approx. 60 l
Flow rate	26 or 12 l/min	
Telescope feed tube, max. immersion depth	70 cm	
Air hose, length	1.5 m	-
Outlet pipe, length	20 cm	
PVC-stoppers for bung width from	Ø 30 to 70 mm	

Foot pumps

Type	Feed tube	Flow rate capacity (l/min)	Art. No.	Pack Qty.	€
① with bent outlet pipe	PP, Ø 18 mm	26	1847.1	1	92,45
② with bent outlet pipe	PVDF, Ø 16 mm	16	HT03.1	1	149,45
③ Hose with stopcock	PP, Ø 12 mm	12	AN74.1	1	91,95

Hand pumps

Type	Feed tube	Flow rate capacity (l/min)	Art. No.	Pack Qty.	€
④ with bent outlet pipe	PP, Ø 18 mm	26	1720.1	1	79,45
⑤ with bent outlet pipe	PVDF, Ø 16 mm	20	HT04.1	1	141,90
⑥ Hose with stopcock	PP, Ø 12 mm	12	AN75.1	1	78,40



Spare parts for OTAL® filling pumps

By Bürkle.

*A pipe set consists of an outlet elbow, riser tube, draw tube (330 mm) and connecting pieces.

Image	Type	Art. No.	Pack Qty.	€
①	Outlet elbow Ø 18 mm	K630.1	1	17,55
①	Outlet elbow Ø 12 mm	ANX7.1	1	15,80
②	Riser tube Ø 18 mm, L 410 mm	K628.1	1	17,55
②	Riser tube Ø 12 mm, L 410 mm	ANX8.1	1	15,80
③	Draw tube Ø 18 mm, L 330 mm	K629.1	1	9,45
③	Draw tube Ø 18 mm, L 900 mm	K631.1	1	17,10
③	Draw tube Ø 12 mm, L 330 mm	ANX9.1	1	7,85
-	Pipe set Ø 18 mm*	H983.1	1	40,80
-	Pipe set Ø 16 mm, all-PVDF*	ANY0.1	1	44,95
-	Pipe set Ø 12 mm*	ANY1.1	1	29,15
④	PVC plug for Ø 18 mm, red	N553.1	1	16,80
④	PVC plug for Ø 16 mm, red	ANY2.1	1	18,75
④	PVC plug for Ø 12 mm, red	ANY3.1	1	18,75
⑤ + ⑧	Hand pump ball with stop valve	P675.1	1	41,30
⑥	Foot pump (without PVC hose and stop valve)	P677.1	1	42,95
⑦	PVC hose, L 1.5 m	P676.1	1	13,35
⑧	Stop valve for hand pumps and foot pumps	P678.1	1	17,55
⑨	2-way valve	1017.1	1	9,65



Gas-tight barrel and container pump

By Bürkle. Made of **PP**, with tubing made of **PVC**. Pump capacity 200 ml/stroke. Gases emerging from the container are led back to the main container with the aid of a gas dispensing tube, preventing contamination of surroundings while pumping. Also attach a stopcock to the gas and liquid line. Universal adapter for openings from 30 to 70 mm. Ideal for container heights from 40 to 70 cm. Tubing length approx. 120 cm.

Art. No.	Pack Qty.	€
E013.1	1	231,15

Barrel pumps



Barrel pumps made of PP

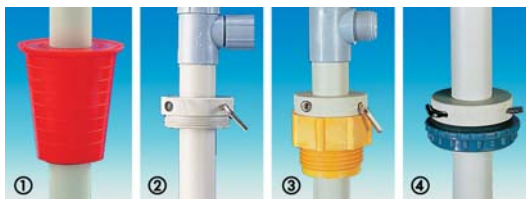
By Bürkle. For safe dispensing of liquids from barrels, canisters and tanks. Available either with rigid funnel or with flexible dispensing tube (PVC) with stopcock. Immersion tube Ø 32 mm. Barrel screw connections must be ordered separately.

With curved nozzle

Immersion depth (mm)	Overall length (mm)	Delivery rate (ml/stroke)	Art. No.	Pack Qty.	€
500	600	200	Y958.1	1	148,35
650	740	230	Y959.1	1	148,35
800	900	260	Y960.1	1	153,75
1000	1090	300	Y961.1	1	169,85
1250	1340	300	Y962.1	1	187,05
1500	1590	300	Y963.1	1	192,45

With dispensing tube and stopcock

Immersion depth (mm)	Overall length (mm)	Delivery rate (ml/stroke)	Art. No.	Pack Qty.	€
500	600	200	Y964.1	1	149,45
650	740	230	Y965.1	1	149,45
800	900	260	Y966.1	1	153,75
1000	1090	300	Y967.1	1	169,85
1250	1340	300	Y968.1	1	187,05
1500	1590	300	Y969.1	1	192,45



Accessories for barrel pumps PP and PTFE

Image	Type	Art. No.	Pack Qty.	€
-	Discharge tube for barrel pumps PP Y958.1 ff	Y970.1	1	32,60
-	Discharge hose, PVC, 1.2 m with stopcock; for barrel pumps PP Y964.1 ff	1788.1	1	27,90
①	Barrel plug, PVC, for hole-Ø 40 to 70 mm	9276.1	1	22,55
②	Barrel screw joint made of PP, for 2" fine steel thread	1789.1	1	28,85
③	Barrel screw joint made of PP, for 2" internal fine steel thread and adapter for Tri-Sure® internal coarse thread	T243.1	1	36,45
④	Container screw joint with locknut (2" fine steel thread); for attaching in any position; 60 mm mounting hole	T244.1	1	35,40
-	Barrel adapter made of PP, internal thread DIN 51-2"BSP	YK28.1	1	19,35
-	Barrel adapter made of PP, internal thread DIN 61-2"BSP	YK29.1	1	15,75



PTFE barrel pumps

By Bürkle. Made of PTFE and FEP. Excellent chemical resistance for safe filling of ultrapure and aggressive liquids. Stopcock stops liquids from dripping and prevents hazardous vapours from escaping. Immersion tube Ø 32 mm. Please order barrel screw fittings separately.

① With discharge tube

Immersion depth (mm)	Delivery rate (ml/stroke)	Art. No.	Pack Qty.	€
600	270	LY53.1	1	360,15
950	400	AH27.1	1	380,55

② With outlet hose

Immersion depth (mm)	Delivery rate (ml/stroke)	Art. No.	Pack Qty.	€
600	270	NH33.1	1	364,45
950	400	NH34.1	1	396,70



Drip tray safety wall bracket

For safe collection of residual liquids from pump tubes or samplers. Resistant to diluted alkalis and acids. The collecting tank can be filled with a neutralisation medium which dilutes and neutralises the residual liquid. The upright tube is securely mounted to the wall using sturdy tube clamps. The tube clamps can easily be opened to take out the safety stand. The collecting tank can be used to drain off the liquid. Dimensions: length 1000 mm. Inner Ø 35 mm. Suitable for barrel pumps Y958.1ff, Y964.1ff, AH27.1f and NH33.1f.

Delivery incl. safety stand, collecting tank, tube clamps, mounting hardware.

Art. No.	Pack Qty.	€
TL59.1	1	51,50

Solvent pumps



Mini solvent pump

By Bürkle. Hand pump for small drums up to 5 l.

- For high-purity fluids as well as flammable media
- Parts in contact with media are made from **PTFE** and **stainless steel**
- Delivery rate: approx. 1.8 l/min
- Earthing cable connection for dissipating electrostatic charge
- Works on the over-pressure principle, pressure relief valve protects against excessive pressure build-up
- Transfer of medium at the touch of a button
- Integrated spout (outer Ø 7 mm) prevents dripping and allows for hose attachment
- With GL 45 thread

Delivery incl. earthing cable and PTFE riser tube (inner Ø 6 mm, wall thickness 1 mm, length 400 mm).

Art. No.	Pack Qty.	€
APE4.1	1	385,95

Accessories:

Threaded adaptor, PTFE, GL 45 / S 40	APE5.1	1	30,65
Threaded adaptor, ETFE, GL 45 / GL 38	APE6.1	1	30,65
Threaded adaptor, ETFE, GL 45 / GL 32	APE7.1	1	30,65

Warning:

Corrosion through acidification can occur when using chlorinated solvents. If the required safety precautions are taken (immediate washing and removal from drum), the pump can be carefully used, with such solvents. Not for use with acids. To prevent crystallization, pump should be rinsed with water after use with alkalis.



Solvent pump

For filling of high-purity liquids.

- **Delivery incl.** two immersion tubes for 10 l and 25 l stainless steel drums with 2" steel fine pitch thread
- Fixed drainage elbow with stopcock
- Pump can be shut off hermetically by two ball valves
- Works according to excess pressure principle

Note: the drum and the pump must be grounded using the Roth antistatic set (Art. No. 0213.1) during filling of flammable liquids.

Technical specifications:

For drum sizes	10 l and 25 l
Immersion depths	275 mm and 435 mm
Overall length incl. pump ball	450 mm and 600 mm
Weight	approx. 1.2 kg
Compression gland thread type	2" steel fine pitch thread
Parts with media contact	Stainless steel (1.4301) and PTFE

Art. No.	Pack Qty.	€
N103.1	1	385,95





Sekuroka® stainless steel safety pumps

For filling of flammable liquids.

- Immersion tube is infinitely adjustable to drum depth
- Near-complete emptying of drums
- Works according to piston stroke principle
- Removable drainage elbow for connecting a drainage hose with stopcock (please order separately)

Note: the drum and the pump must be grounded using the Roth antistatic set (Art. No. 0213.1) during filling of flammable liquids.

Technical specifications:

Model	Type I	Type II
For drum size (l)	up to 50	up to 200
Delivery rate (ml/stroke)	140	200
Immersion depth (mm)	570	910
Overall length (mm)	680	1020
Weight (kg)	1.2	1.8
Compression gland thread type	2" steel fine pitch thread	
Parts with media contact	Stainless steel (1.4301, 1.4305) and PTFE	

Type	Art. No.	Pack Qty.	€
I	N502.1	1	209,65
II	N503.1	1	224,70

Accessories for stainless steel safety pump

Drainage hose with stopcock .

DN 8 ball valve made of stainless steel, 12.8 mm bushing.

Art. No.	Pack Qty.	€
T276.1	1	198,90

Drum plug made of PVC for openings from 40 to 70 mm.

Art. No.	Pack Qty.	€
9276.1	1	22,55

Replacement parts set : knurled bush, two O-rings, guide bush, stop neck, disc

Art. No.	Pack Qty.	€
9599.1	1	26,70



Solvent pumps, foot operated

By Bürkle. For filling drums with high purity liquids such as solvents.

- A compression gland and stopcock allow the drum and pump to be hermetically sealed
- Immersion tube is infinitely adjustable to drum depth
- Available in two types:
 - ① With discharge tube
 - ② With outlet hose and stopcock

Technical specifications:

Delivery rate	approx. 30 l/min
Immersion depth	950 mm
Overall length	1485 mm
For drum sizes up to	220 l
Weight	Type ① approx. 3.5 kg / ② approx. 4.4 kg
Compression gland thread type	2" steel fine pitch thread
Parts with media contact	Stainless steel (1.4301) and PTFE

Type	Art. No.	Pack Qty.	€
① With discharge tube	CPT5.1	1	446,15
② With outlet hose and stopcock	CPT6.1	1	596,65



Roth antistatic-set

Prevents fire and explosion caused by electrostatic charge. Consists of two insulated cables 3 mm / 3 m with vice grip wrenches on both sides and a blank copper wire 2 mm / 3 m with a vice grip wrench on one side.

Art. No.	Pack Qty.	€
0213.1	1	53,70

Electro barrel pumps



Barrel pumps AccuOne and EnergyOne

By Bürkle. • Parts in contact with medium are made of **Hastelloy C**, **PP**, **PVDF** and **PTFE**

- Unique hybrid system allows fast and versatile filling of liquids, the supply units can be changed to use either with battery or power pack.
- The drive can be disconnected easily via a clip lock. This makes it possible to use one drive for filling at several stationary pump stations.
- Flow rate 12 l/min. Can be regulated continuously via TouchPanel from 0.4 l/min to 12 l/min
- Please order barrel screw fittings separately
- Drainage hose with nozzle is optionally available.
Drainage hose connection 3/4"

AccuOne

- Barrel pump driven by rechargeable battery (offers versatility and independence from the power supply)
- Lithium-ion rechargeable battery, 14.4 V, 1.5 Ah
- Up to 600 litres of delivery volume per battery charge
- Weight 750 g

Delivery incl. fixed drainage elbow, rechargeable battery and power outlet adapter.

Immersion depth (mm)	Art. No.	Pack Qty.	€
500	PL80.1	1	439,70
700	PL81.1	1	451,50
1000	PL82.1	1	464,40

EnergyOne

- Outlet operated barrel pump (offers versatility and independence from the battery charge)
- Power outlet adapter 230 V
- Unlimited filling duration
- Weight 580 g

Delivery incl. fixed drainage elbow, power outlet adapter and international socket adapter.

Immersion depth (mm)	Art. No.	Pack Qty.	€
500	PL83.1	1	370,90
700	PL84.1	1	383,80
1000	PL85.1	1	396,70

Accessories:

Rechargeable battery without outlet adapter	PL86.1	1	111,80
Outlet adapter	PL87.1	1	61,50
Outlet adapter incl. plug	PL88.1	1	125,80
Outlet hose with nozzle	PL89.1	1	69,90
Pump station with immersion pipe length 500 mm	PL90.1	1	127,95
Pump station with immersion pipe length 700 mm	PL91.1	1	131,15
Pump station with immersion pipe length 1000 mm	PL92.1	1	135,45
Barrel screw joint made of PP, for 2" fine steel thread	1789.1	1	28,85
Container screw joint with locknut (2" fine steel thread); for attaching in any position; 60 mm mounting hole	T244.1	1	35,40
Barrel plug, PVC, for hole-Ø 40 to 70 mm	9276.1	1	22,55
Mauser 2", coarse thread, inside	PL93.1	1	36,35
Barrel screw joint made of PP, for 2" internal fine steel thread and adapter for Tri-Sure® internal coarse thread	T243.1	1	36,45



Electro barrel pumps

By Lutz. For pumping liquid media out of bulk storage containers.

Application:

- **Set 1 and 2: aqueous liquids**, diluted acids and alkaline solution, hydrogen peroxide etc.
- **Set 3: low-viscosity alkaline solution**, sodium hydroxide, potassium hydroxide, ammonia water, formic acid, acetic acid, etc.
- **Set 4: most concentrated acids and alkaline solutions** such as hydrochloric acid, sulphuric acid, hydrofluoric acid etc.
- **Set 5 Explosion-proof: highly flammable hydrocarbons** such as ethanol, gasoline, isopropanol, kerosene, methanol, crude petroleum, etc.
- **Set 6 Explosion-proof: explosive liquids** such as acetone, concentrated Formic acid, ethyl acetate, buthyl acetate, concentrated Acetic acid, nicotine, toluene, styrene, etc.

Technical specifications:

Set	1	2	3	4	5 Explosion- proof	6 Explosion- proof
Motor explosion-proof	no				yes	
Output (W)	200		500	575	460	
Immersion depth of pipe (mm)	650	1000				
Material of nozzle	PP		PP/FEP	PVDF	Brass / PTFE	Niro / FEP
Material of immersion pipe	PP			PVDF	Stainless steel	
Flow rate max (l/min)	75		85	80	95	
Delivery height max (mWs)	7		19	17	14	
Density max (kg/dm³)	1.3		1.4	1.8	1.6	
Viscosity max (mPas)	300			800	350	
Cable length (m)	3		5			
Mains supply	230 V AC / 50 Hz					

Set 1 and 2:

Delivery incl. 1.5 m PVC-tube 3/4", one-hand nozzle valve PP, hanging device.

Set 3:

Delivery incl. 2.0 m PVC-coil tube 3/4" (DN 19), nozzle PP, barrel adapter (PP).

Set 4:

Delivery incl. 2.0 m special chemical tube 3/4" (DN 19), nozzle PVDF, barrel adapter (PP).

Set 5 explosion-proof:

Delivery incl. 2.0 m solvent tube 3/4" (DN 19) conductive hose attachments, nozzle brass/PTFE, potential equalization cable, barrel adapter PP, safety plug not explosion-proof. All-purpose motor, explosion-proof in compliance with type of protection II 2 G EEx de IIC T6 (ATEX), stainless steel pumping station, explosion-proof Ex II 1/2 G IIB T4 (ATEX).

Set 6 explosion-proof:

Delivery incl. 2.0 m chemical tube 3/4" (DN 19) conductive hose attachments, nozzle Niro/FEP, potential equalization cable, barrel adapter PP, safety plug not explosion-proof, all-purpose motor, explosion-proof in compliance with type of protection II 2 G EEx de IIC T6 (ATEX), stainless steel pumping station, explosion-proof Ex II 1/2 G IIB T4 (ATEX).

Model	Art. No.	Pack Qty.	€
Set 1	KH51.1 *	1	596,65
Set 2	KH52.1 *	1	628,90
Set 3	KA12.1 *	1	987,95
Set 4	X352.1 *	1	1951,15
Set 5 ex	KA13.1 *	1	2181,20
Set 6 ex	KA14.1 *	1	2821,90

* Longer delivery times possible. Please check with our Sales Department.



Rotilabo®-dispensers

- Variable volume setting, with easy-to-use screw mechanism for speedy and precise dispensing
- Direct displacing piston with PFA-seal reduces crystallizing of liquids and prevents the piston from sticking
- Easy to dismantle for cleaning without tools
- Can be autoclaved without dismantling at 121 °C / 2 bar
- Supplied with 3 adapters for all standard bottle sizes
- Certificate of Conformity as per DIN 12600
- Quality Certificate with tested values

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Thread	Adapter	Art. No.	Pack Qty.	€
0,5-2,5	0,05	0,02	GL 32	GL 28, 40, 45	Y837.1	1	209,65
1-5	0,10	0,035	GL 32	GL 28, 40, 45	Y838.1	1	209,65
2-10	0,20	0,07	GL 32	GL 28, 40, 45	Y839.1	1	209,65
5-25	0,50	0,175	GL 45	GL 32, 38, S40	Y840.1	1	267,70
10-50	1,00	0,35	GL 45	GL 32, 38, S40	Y841.1	1	299,95
20-100	2,00	0,7	GL 45	GL 32, 38, S40	Y842.1	1	407,45



Mini-Dispenser Piccolo

With two fixed volumes. Ideally suited to dispensing long series. Manual push-button delivery, automatic refilling. Good chemical resistance thanks to high-quality materials, but not suitable for vaporous media.

- Precise media delivery
- Freely rotatable discharge tube on the bottle
- Choice of 2 fixed volumes
- Thread GL 28
- **Parts in contact with media:** PTFE, FEP, ETFE, PFA, borosilicate glass, Pt-Ir

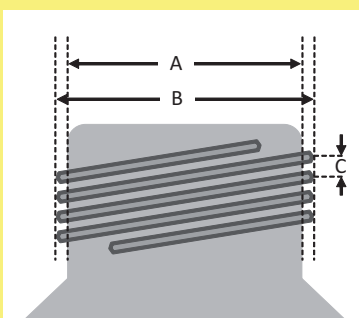
Volume (µl)	Accuracy (%)	Precision (%)	Art. No.	Pack Qty.	€
100 / 250	2.0	0.4	Y697.1	1	209,65
500 / 1000	1.0	0.2	Y698.1	1	209,65
1000 / 2000	1.0	0.2	Y699.1	1	209,65

Accessories:

Threaded adaptor, PP, GL 28/32	Y700.1	1	14,15
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Information on threads

The thread on a drum is defined, among other things, by diameter (A and B) and thread pitch (C). The values given in the table give a rough indication of the thread type, however this cannot reliably be determined by measuring the thread using a sliding caliper alone. Manufacturer-specific threads are also available in addition to the standard threads. The drum supplier can generally provide information on the thread type.



We will be happy to provide you with information on containers which you purchase through us.

Thread	Diameter excl. thread A (mm)	Diameter incl. thread B (mm)	Thread pitch C (mm)
DIN 38	34.6	36.6	9
DIN 40	38.8	42.2	4
DIN 45	41.1	44.7	4
DIN 50	46.1	50.1	4
DIN 51	50.2	54.8	5
DIN 60	55.3	60.3	6
DIN 61	55.6	60.5	5
DIN 71	67.0	72.3	7



Material
DURAN®

Automatic pipettes

Dispenser made of DURAN®, adjusted to „Ex“. Neck NS 29/32. Inscription in green overglaze colour. Ideal for dosing suspensions. Please order bottle separately.

Volume (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
5	1,0	Y446.1	1	48,60
10	1,0	Y447.1	1	50,50
20	2,0	Y448.1	1	53,70
25	2,5	Y449.1	1	56,55
50	5,0	Y450.1	1	75,80
100	10	Y451.1	1	78,80

Accessories:

Narrow neck storage bottles of soda-lime glass, clear, acc. to DIN 12036, ISO 4796. With glass stopper NS 29/32.

Volume (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
1000		H058.1	1	13,35

Dispensers



Dispensette® S / Dispensette® S Organic

By BRAND. For accurate dispensing aggressive and non-aggressive media. Suitable for sterile dispensing.

Models:

- ① **Digital** - Easy-to-read digital display via mechanical counting mechanism; Easy Calibration technology for quick calibration
- ② **Analog** - Quick adjustment of dispensing volume, safe and reliable volume setting through internal rack
- ③ **Fix** - Non-adjustable dispensing volume for routine applications

Features:

- Easy dispensing and quick ventilation through floating piston
- Rapid ventilation through improved fluid mechanics
- Valves without additional seals for easier cleaning
- Rotates through 360°, valve block with GL 45 thread
- Dispensing syringe with swivel-mounted screw cap for protection against media contact
- Telescopic suction tube adjustable to different bottle sizes
- Recirculation valve prevents loss of reagent and allows quick, bubble-free ventilation
- DE-M approved
- Suitable for calibration in conjunction with measuring instrument inspection according to ISO 9011 and GLP
- Alteration of factory calibration is indicated
- Easy to disassemble for cleaning
- Fully autoclavable at 121 °C
- Microfilter can be connected for sterile dispensing

Limits of use:

Max. vapour pressure 600 mbar; max. viscosity 500 mm²/s; max. temperature 40 °C; max. density 2.2 g/cm³.

Delivery incl.: certificate of quality, telescopic suction tube, recirculation valve and recirculation tube, assembly spanner and threaded adapter made of PP.

Specifications of supplied threaded adapters and suction tubes:

Nominal capacity (ml)	Bottle thread adapter	Suction tube length (mm)
1, 2, 5, 10	GL 24-25, GL 28/S, GL32-33, GL 38, S 40	125-240
25, 50, 100	GL 32-33, GL 38, S 40	170-330

Dispensette® S

Range of applications:

Colour code: red. For dispensing aggressive reagents directly from the supply bottle: e.g. concentrated alkalis and acids such as H₃PO₄, H₂SO₄ (excluding, e.g., HCl, HNO₃ and HF), saline solutions and a wide range of organic solvents.

Materials in contact with media:

Borosilicate glass, Al₂O₃ ceramics, platinum-iridium, ETFE, FEP, PFA, PTFE and PP.

Dispensette® S, Digital

Volume (ml)	Graduations (ml)	Accuracy (±µl)	Art. No.	Pack Qty.	€
0,2-2	0,01	10	ECL4.1	1	360,15
0,5-5	0,02	25	ECL5.1	1	360,15
1-10	0,05	50	ECL6.1	1	360,15
2,5-25	0,1	125	ECL7.1	1	448,30
5-50	0,2	250	ECL8.1	1	479,45

Dispensette® S, analog

Volume (ml)	Graduations (ml)	Accuracy (±µl)	Art. No.	Pack Qty.	€
0,2-2	0,05	10	ECL9.1	1	319,30
0,5-5	0,1	25	ECN0.1	1	319,30
1-10	0,2	50	ECN1.1	1	319,30
2,5-25	0,5	125	ECN2.1	1	405,30
5-50	1,0	250	ECN3.1	1	432,15
10-100	1,0	500	ECN4.1	1	573,00

Dispensette® S, non-adjustable

Volume (ml)	Accuracy (±µl)	Art. No.	Pack Qty.	€
1	6	ECN5.1	1	319,30
2	10	ECN6.1	1	319,30
5	25	ECN7.1	1	319,30
10	50	ECN8.1	1	319,30

Dispensette® S Organic

Range of applications:

Colour code: yellow. Ideal for dispensing organic solvents, e.g. chlorinated and fluorinated hydrocarbons such as trichlorofluoroethane and dichloromethane, acids such as concentrated HCl and HNO₃ (excluding HF) as well as trifluoroacetic acid (TFA), tetrahydrofuran (THF) and peroxides.

Materials in contact with media:

Borosilicate glass, Al₂O₃-ceramics, tantalum, ETFE, FEP, PFA, PTFE and PP.

Dispensette® S Organic, analog

Volume (ml)	Graduations (ml)	Accuracy (±µl)	Art. No.	Pack Qty.	€
0,5-5	0,1	25	ECN9.1	1	319,30
1-10	0,2	50	ECP0.1	1	319,30
2,5-25	0,5	125	ECP1.1	1	405,30
5-50	1,0	250	ECP2.1	1	432,15
10-100	1,0	500	ECP3.1	1	573,00

Telescopic suction tubes

By Brand. For Dispensette®, seripettor® pro and Titrette®. Made of FEP, individually adjustable length.

Nominal capacity (ml)	Outer Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
0,5 / 1 / 2 / 5 / 10	6	70-140	PP81.1	1	12,80
0,5 / 1 / 2 / 5 / 10	6	125-240	PP82.1	1	16,90
0,5 / 1 / 2 / 5 / 10	6	195-350	PP83.1	1	24,65
0,5 / 1 / 2 / 5 / 10	6	250-480	PP84.1	1	19,05
25 / 50 / 100	7,6	170-330	PP85.1	1	24,65
25 / 50 / 100	7,6	250-480	PP86.1	1	25,50



Dispensette® S Trace Analysis, analog

By BRAND.

Range of applications:

- For accurate dispensing of highly pure media in trace analysis
- Dispensing of metal traces, usually in the low ppb range - or even in the ppt range, depending on application
- The established cleaning process for use in trace analysis is explained in the operating instructions
- Usable as a hydrofluoric acid dispenser with platinum-iridium valve spring

Models:

- Dispensing needle with recirculation valve: prevents loss of reagent and allows fast, bubble-free ventilation
- Dispensing needle without recirculation valve: prevents contamination of the bottle contents

Features:

- Depending on requirements, the spring material is made of platinum-iridium or tantalum
- Valves without additional ring seals for easier cleaning
- Dispensing plunger with snug fitting seal
- Complete dispensing unit is easy to replace in case of wear (see Accessories)
- Reliable volume control through inner rack mechanism
- Rotates through 360°, valve block with GL 45 thread
- Dispensing needle with swivel-mounted screw cap for protection against media contact
- Telescopic suction tube adjustable to different bottle sizes
- DE-M approved
- Suitable for calibration in conjunction with measuring instrument inspection according to ISO 9011 and GLP
- Alteration of factory calibration is indicated
- Microfilter can be connected for sterile dispensing

Materials in contact with media:

High-purity plastics (PTFE, ETFE, PCTFE, FEP and PFA), sapphire valves, platinum-iridium or tantalum spring material.

Limits of use:

Max. vapour pressure 600 mbar; max. viscosity 500 mm²/s; max. temperature +40 °C; max. density 3.8 g/cm³.

Delivery incl. certificate of quality, telescopic suction tube, assembly spanner and threaded adapter GL 28 / S 28 (ETFE), GL 32 (ETFE) and S 40 (PTFE). Version with recirculation valve also includes a recirculation tube.

Type	Vol. (ml)	Graduations (ml)	Accuracy (±ml)	Art. No.	Pack Qty.	€
Platinum-iridium, without recirculation valve	1-10	0.2	50	ECX1.1	1	645,00
Platinum-iridium, with recirculation valve	1-10	0.2	50	ECX2.1	1	686,95
Tantalum, without recirculation valve	1-10	0.2	50	ECX3.1	1	645,00
Tantalum, with recirculation valve	1-10	0.2	50	ECX4.1	1	686,95

Accessories for Dispensette® S Trace Analysis, analog

Replacement dispensing unit with retaining ring

Easy replacement with no need for additional tools. Nominal capacity 10 ml. Calibrated, including certificate of quality.

Art. No.	Pack Qty.	€
ECX5.1	1	351,55



seripettor®/seripettor® pro dispenser

By Brand.

- Dispensing: push plunger down, fills automatically
- Suitable for serial dispensing by means of flexible dispensing hose made of PTFE with safety handle, length approx. 800 mm (please order separately)
- **Suitable for dispensing sterile media:** screw the valve block with suction tube onto the filled bottle, seal the valve block with the cap, attach the autoclavable sterile filter (0.2 µm) at the side and autoclave at 121 °C. Remove the cap from the valve block under clean bench conditions, screw in the sterile dispensing unit and attach the actuating unit
- If the snug fitting plunger seal is worn, the dispensing unit can be interchanged
- GL 45 thread
- Maintenance without tools
- **Parts in contact with media:**
seripettor®: FEP, PP, PE, EPDM
seripettor® pro: PP, PE, Borosilicate glass, Al₂O₃-ceramic, ETFE, PFA, FEP, PTFE, Pt-Ir
- **Conditions of use:** 15 to 40 °C, vapour pressure max. 500 mbar, max. density 2.2 g/cm³, viscosity 300 mm²/s (2 ml device), 150 mm²/s (10 ml device) or 75 mm²/s (25 ml device)

Delivery incl. dispensing syringe, suction tube, replacement dispensing unit and PP adapter (GL 32, S 40).

seripettor®

For dispensing aqueous solutions, buffer solutions, culture media, diluted, non-oxidising acids and agars up to max. 60 °C.

Volume (ml)	Graduations (ml)	Accuracy (±ml)	Art. No.	Pack Qty.	€
0,2-2	0,04	0,024	PP91.1	1	131,15
1-10	0,2	0,21	PP92.1	1	131,15
2,5-25	0,5	0,3	PP93.1	1	155,90

seripettor® pro

For dispensing aqueous solutions, buffer solutions, culture media, acids (e.g. concentrated HCl), polar solvents (e.g. acetone), etheric oils and UV-sensitive media.

Volume (ml)	Graduations (ml)	Accuracy (±ml)	Art. No.	Pack Qty.	€
0,2-2	0,04	0,024	PP94.1	1	235,45
1-10	0,2	0,12	HX64.1	1	261,25
2,5-25	0,5	0,3	HX65.1	1	332,20

Accessories:

① 2 ml dispensing unit, non-sterile	PP95.1	3	26,20
① 10 ml dispensing unit, non-sterile	HX66.1	3	28,10
① 25 ml dispensing unit, non-sterile	HX67.1	3	40,00
① 2 ml dispensing unit, sterile	PP96.1	7	63,35
① 10 ml dispensing unit, sterile	HX68.1	7	70,45
① 25 ml dispensing unit, sterile	HX69.1	5	74,10
② 2 + 10 ml dispensing hose, flexible with handle	HX70.1	1	76,80
② 25 ml dispensing hose, flexible with handle	HX71.1	1	78,95
Syringe filter "RC", 0.2 µm pore size	EE80.1	100	125,00

Dispensers



Dispenser FORTUNA® POLYFIX®

By Poulten & Graf.

- Conformity certified
- Precision dispensing plunger
- Quick adjustment with easy action
- Rotatable fine adjustment
- GL 32 thread

Delivery incl. dispensing syringe set, suction hose made of PTFE, two GL 40 and GL 45 threaded adaptors made of PP.

With glass plunger and clear glass cylinder.

For dispensing aqueous media.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
2-10	0,2	0,04	P312.1	1	122,55
10-50	1,0	0,2	P313.1	1	138,70

With PTFE-encased plunger and clear glass cylinder.

For dispensing weak acids and alkalis.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
2-10	0,2	0,04	PK97.1	1	163,40
10-50	1,0	0,2	PK98.1	1	180,60

With glass plunger and brown glass cylinder.

For dispensing light-sensitive media.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
2-10	0,2	0,04	PK99.1	1	164,50
10-50	1,0	0,2	PL00.1	1	181,70



Bottle holder for dispensers

By BRAND. **Made of PP.** For secure attachment of bottle top dispensers or digital burettes during work with small storage bottles.

Completely made from plastic and therefore ideal for trace analysis and use in aggressive environments (e.g. acid vapours in extractor).

Base plate L 220 x W 160 mm, length of stand rod 325 mm.

Weight: approx. 1.1 kg.

Art. No.	Pack Qty.	€
CNN2.1	1	160,20



① FORTUNA® OPTIFIX® BASIC dispensers

By Poulten & Graf. Suitable for dosing **aqueous media, acids and effloresced substances**. With solid PTFE sleeve surrounding the dosing flask. Autoclavable.

Properties:

- Ergonomic design with double-sided precision graduation on the scale bar (laser-printed)
- Resistant to abrasion, UV-rays, acids and acid vapours
- No metal springs in the valve block - no contamination of the dispensing fluid
- Easy to shift volume quick adjustment with additional turnable fine adjustment
- Precision-glass cylinder
- Vacuum-calibrated and plastic coated
- Diffused in brown graduation
- Visible dosing run
- GL 32 thread
- Certificate of conformity

Delivery incl. dosing cannula-set, suction tube made of PTFE, two thread adapters GL 40 and GL 45 made of PP.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
0,4-2	0,1	0,008	E821.1	1	277,35
1-5	0,1	0,02	E822.1	1	277,35
2-10	0,2	0,04	E823.1	1	277,35
6-30	0,5	0,12	E824.1	1	381,65
10-50	1,0	0,2	E825.1	1	418,20
20-100	2,0	0,4	E826.1	1	704,15
40-200	5,0	0,8	E827.1	1	1091,15
60-300	5,0	1,2	E828.1	1	1525,45
100-500	5,0	2	E829.1	1	1703,90

② Dispenser FORTUNA® OPTIFIX® SOLVENT

By Poulten & Graf. For properties, see FORTUNA® OPTIFIX® BASIC dispensers. Ideal for dispensing **solvents and viscous media**.

With glass dosing flask. Autoclavable.

Delivery incl. dosing cannula-set, suction tube made of PTFE, two thread adapters GL 40 and GL 45 made of PP.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
0,4-2	0,1	0,008	E833.1	1	277,35
1-5	0,1	0,02	E834.1	1	277,35
2-10	0,2	0,04	E835.1	1	277,35
6-30	0,5	0,12	E836.1	1	381,65
10-50	1,0	0,2	E837.1	1	418,20
20-100	2,0	0,4	E838.1	1	704,15
40-200	5,0	0,8	E839.1	1	1091,15
60-300	5,0	1,2	E840.1	1	1525,45
100-500	5,0	2	E841.1	1	1703,90

Dispensers



Dispenser FORTUNA® OPTIFIX® SAFETY and SAFETY S

By Poulten & Graf. Features: see FORTUNA® OPTIFIX® BASIC Dispenser.

For dispensing **strong acids and aggressive chemicals**. With glass dispensing plunger (PTFE encased) and additional lip seal on plunger. **Delivery incl.** dispensing syringe set, PTFE suction hose, two GL 40 and GL 45 threaded adaptors made of PTFE.

① FORTUNA® OPTIFIX® SAFETY

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
0,4-2	0.1	0,008	E842.1	1	361,20
1-5	0.1	0,02	E843.1	1	361,20
2-10	0.2	0,04	E844.1	1	361,20
6-30	0.5	0,12	E845.1	1	496,65
10-50	1	0,2	E846.1	1	542,90
20-100	2	0,4	E847.1	1	768,65

② FORTUNA® OPTIFIX® SAFETY S

With safety stopcock and additional safety valve in the ventilation tube. For dispensing **strong fuming acids** and other abrasive chemicals as well as odorous media.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
0,4-2	0.1	0,008	PL11.1	1	445,05
1-5	0.1	0,02	PL12.1	1	445,05
2-10	0.2	0,04	PL13.1	1	445,05
6-30	0.5	0,12	PL14.1	1	600,95
10-50	1	0,2	PL15.1	1	647,15
20-100	2	0,4	PL16.1	1	874,00



Thread adapter for dispenser

Material	Thread (drum)	Thread (Dispenser)	Art. No.	Pack Qty.	€
Brass	2" Tri-Sure®-finethread	GL 32	1751.1	1	48,20
Fluororubber	GL 40	GL 45	P321.1	1	21,45
PTFE	GL 40	GL 45	KY92.1	1	84,50
PTFE	S38-430, suitable for ex. for AE00.3, HN44.3, HN60.3, HN54.1	GL 45	KY68.1	1	47,85



Dispenser FORTUNA® OPTIFIX® HF

By Poulten & Graf. With robust PTFE-encased dispensing plunger, dispensing cylinder made of PTFE. For dispensing highly aggressive and toxic chemicals (e.g. hydrofluoric acid).

- Ergonomic design
- Resistant to abrasion, UV radiation, acids and acid vapours
- Valve block made of PTFE, additional safety valve
- No metal springs are used in the valve block to prevent contamination of the dispensing fluid
- Quick volume adjustment with easy action and additional rotatable fine adjustment
- Vacuum calibrated
- Thread GL 32
- Conformity certified

Delivery incl. dispensing syringe set, suction hose made of PTFE, two GL 40 and GL 45 threaded adaptors made of PTFE.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
1-5	0.1	0,02	PL17.1	1	648,25
2-10	0.2	0,04	PL18.1	1	648,25
6-30	0.5	0,12	PL19.1	1	962,15
10-50	1	0,2	PL20.1	1	1439,45



Thread-adapters for all FORTUNA® OPTIFIX® dispensers

For dispensers with thread GL 32.

Thread (drum)	Material	Art. No.	Pack Qty.	€
¾"	PTFE	C243.1	1	122,55
2"	PTFE	C244.1	1	122,55
GL 25	PTFE	L900.1	1	48,40
GL 38	PTFE	L901.1	1	48,40
GL 40	PTFE	L902.1	1	70,45
GL 45	PTFE	L903.1	1	70,45
GL 25	PP	L896.1	1	11,40
GL 38	PP	L897.1	1	12,70
GL 40	PP	L898.1	1	13,90
GL 45	PP	L899.1	1	14,75

► Further thread adapters see p. 43

Dispensers



Dispensers ceramus® classic

By Hirschmann.

- **Ceramic piston:** no wear by friction, no swelling, no thermal problems, high chemical stability
- Variable volume setting
- Suction tube is screwed on tightly, therefore completely leakproof
- Absolutely reproducible work
- Quick and safe setting of volume
- Parts can be replaced easily
- Thread A32
- Without dismantling, steam sterilizable at 121 °C/2 bar

Delivery incl. 3 thread adapters (A28/S40/A45), 1 installation wrench, certificate of quality, certificate of conformity.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
0,2-1	0,05	0,01	1591.1	1	264,45
0,4-2	0,05	0,02	1592.1	1	264,45
1-5	0,10	0,05	1593.1	1	264,45
2-10	0,25	0,10	1594.1	1	264,45
5-30	0,50	0,30	1595.1	1	349,40
10-60	1,00	0,60	1596.1	1	382,70



ceramus® dispenser

By Hirschmann.

- **Media backflow system**
- **Ceramic piston:** no wear by friction, no swelling, no thermal problems, high chemical stability
- Suction tube is screwed on tightly, therefore completely leakproof
- The dispenser on the bottle is freely rotatable
- Luer-Lock connection on the back
- Ergonomic grip
- Quick and safe setting of volume
- Absolutely reproducible work
- Parts can be replaced easily
- A45 thread
- Without dismantling, steam sterilizable at 121 °C / 2 bar

Delivery incl. 3 thread adapters (A32/A38/S40), 1 assembly wrench, with certificate of quality, certificate of conformity.

Variable volume setting

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
0,2-1	0,05	0,01	T300.1	1	305,30
0,4-2	0,05	0,02	T301.1	1	305,30
1-5	0,10	0,05	T302.1	1	305,30
2-10	0,25	0,10	T303.1	1	305,30
5-30	0,50	0,30	T304.1	1	392,40
10-60	1,00	0,60	T305.1	1	425,70

Fixed volume setting

Volume (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
1	0,01	T326.1	1	296,70
2	0,02	T327.1	1	296,70
5	0,05	T328.1	1	296,70
10	0,10	T329.1	1	296,70
25	0,25	T330.1	1	378,40
50	0,5	T331.1	1	403,15

Special version for problematic media

For dosing hydrofluoric acid and other problematic media. Pistons, cylinders, valve seats and balls made of ceramic, valve springs made of plating/iridium.

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
2-10	0,25	0,1	T306.1	1	767,55



Dispensers made of PP

By Hirschmann. With glass flask for dosing aqueous and organic media. Sterilisable up to 121 °C, with A32 screw thread. Certificate of quality, certificate of conformity.

Delivery incl. 3 thread adapters (A28, S40, A45).

Volume (ml)	Graduations (ml)	Tolerance (±ml)	Art. No.	Pack Qty.	€
2-10	0,25	0,10	P207.1	1	195,65
10-60	1,00	0,60	P208.1	1	283,80



Digital dispenser opus® dispenser

By Hirschmann. For motor-driven dosing directly from the lab bottle. Microprocessor-controlled piston stroke system guarantees highest accuracy and precise, reproducible results.

- Safe and easy handling via external touch screen with clearly arranged menu keys; with quick-cal function for simple calibration of other temperatures or other media
- High media flexibility thanks to highly resistant, inert materials (ECTFE, borosilicate glass 3.3, Hastelloy, FEP, PTFE)
- Media carrying parts are steam sterilisable (121 °C)
- Time-controlled serial dosing up to 9999 reruns, enables integration in automated process runs
- Methods memory for 9 different procedures
- Media feedback system for ventilation without loss of reagent
- Universal Luer-connection for dry pipes, filters etc.
- Can be battery or socket operated (storage batteries not included in the delivery; please order separately)
- Stepper function for delivery of up to 10 different partial quantities
- Sucking and draining speeds can be set
- 4 languages (G, E, F, S) integrated by default
- Optional system platform for secure standing, please order separately

Technical specifications:

Model	10 ml	20 ml	50 ml
Basic unit			
Volume range	0.010 to 99.999 ml	0.10 to 200 ml	1.00 to 500 ml
Resolution	<1 µl		<2 µl
Maximum piston stroke	10 ml	20 ml	50 ml
Dispenser accuracy	R = 0.6 %, CV = 0.2 %		
Stepper accuracy	R = 0.5 % CV = 0.2 %		R = 0.5 %, CV = 0.2 %
Working temperature range	+4 to +40 °C		
Connection voltage	230 V, plug-in power pack 15 V, 850 mA		
Dimensions (W x D x H)	63 x 80 x 320 mm		
Weight	660 g		
Control panel:			
Touch screen	3.5" with 320 x 240 pixels		
PC interface	USB or RS 232		
Dimensions (W x D x H)	110 x 130 x 55 mm		
Weight without storage battery	230 g		

Delivery incl. digital dispenser opus® dispenser with A 45 internal thread, thread adapters A 32, A 38 and S 40, suction hose, feedback hose, output unit dispenser, spanner for fixing valve, touch screen panel, power supply unit, data power cable, certificate of quality according to DIN EN ISO 8655.

Model	Art. No.	Pack Qty.	€
10 ml	PA71.1 *	1	1674,85
20 ml	LK06.1 *	1	1674,85
50 ml	LK07.1 *	1	1674,85

* Longer delivery times possible. Please check with our Sales Department.

Accessories:

Battery	LK16.1	1	95,70
Touch screen film (protective film for display)	PA72.1	2	7,10
System platform	LK15.1	1	117,20



Digital burettes opus® titration

By Hirschmann. For motor-driven titration directly from the lab bottle. Microprocessor-controlled piston stroke system guarantees highest accuracy and precise, reproducible results.

- Safe and easy handling via external touchscreen with clearly arranged menu keys; with quick-cal-function for simple calibration of other temperatures or other media
- High media flexibility thanks to highly resistant, inert materials (ECTFE, borosilicate glass 3.3, Hastelloy, FEP, PTFE)
- Media carrying parts are steam sterilisable (121 °C)
- Serial dosing function enables integration in automated process runs
- Methods memory for 9 different titration procedures
- Media feedback system for ventilation without loss of reagent
- Universal Luer-connection for dry pipes, filters etc.
- Can be battery or power operated (storage batteries not included in the delivery; please order separately)
- Possible to choose between volume pre-selection, quick and drop titration
- Sucking and draining speeds can be set
- 4 languages (G, E, F, S) integrated by default

Technical specifications:

Model	10 ml	20 ml	50 ml
Basic unit			
Volume range	0.010 to 99.999 ml	0.10 to 200 ml	1.00 to 500 ml
Resolution	<1 µl		<2 µl
Maximum piston stroke	10 ml	20 ml	50 ml
Accuracy	R = 0.2 %, CV = 0.07 %		R = 0.2 % CV = 0.07 %
Working temperature range	+4 to +40 °C		
Mains voltage	230 V, universal AC adaptor 15 V, 850 mA		
Dimensions (W x D x H)	63 x 80 x 320 mm		
Weight	660 g		
Operating panel:			
Touchscreen	3.5" with 320 x 240 pixel		
PC-interface	USB or RS 232		
Dimensions (W x D x H)	110 x 130 x 55 mm		
Weight without storage battery	230 g		

Delivery incl. digital burette opus® titration with A 45 internal thread, thread adapters A 32, A 38 and S 40, suction hose, feedback hose, output unit titration, spanner for fixing valve, touchscreen panel, power supply unit, data power cable, certificate of quality according to DIN EN ISO 8655.

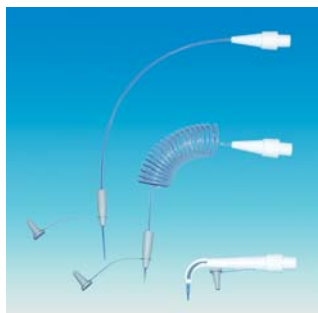
Model	Art. No.	Pack Qty.	€
10 ml	PA73.1 *	1	1364,20
20 ml	LK08.1 *	1	1364,20
50 ml	LK09.1 *	1	1364,20

* Please check with our Sales Department for delivery period of these products.

Accessories:

Battery	LK16.1	1	95,70
Touch screen film (protective film for display)	PA72.1	2	7,10
System platform	LK15.1	1	117,20

Digital burettes



Ejection units for opus® titration and opus® dispenser

By Hirschmann. Even finer tip for extremely precise droplet titration. Variable ejection unit and spiral ejection unit with fine tip for on-demand use in almost any area of application.

Type	Art. No.	Pack Qty.	€
Ejection unit, fine	PA74.1	1	34,85
Flexible ejection unit, spiral shaped, inside Ø 1.5 mm	PA75.1	1	68,30
Ejection unit for titration, variable	PA76.1	1	42,90



Electronic digital burettes

Excellent for precise liquid titration. With spout protection and clear borosilicate piston for continuous control of liquid being sucked. Precision valves prevent liquid from flowing back into container. Accuracy 0.2, precision 0.1 %, due to a specially designed precision piston and electronic 0.01 ml resolving digital display. A simple press of the button enables permanent display of titration volume and zero setting. Burette head can be rotated by 360°. Battery capacity is sufficient for about 60 000 titrations at 3 minutes each. The parts which have contact with media can be autoclaved for sterile titration and a biological 0.45 µm sterile filter can be used.

Delivery incl. 3 adapters for thread joints 33, 38 and 45 mm. Glass bottle please order separately!

Type	Art. No.	Pack Qty.	€
Digital burette, 30 ml	N511.1	1	548,25
Digital burette, 50 ml	N512.1	1	548,25

Glass bottles, amber with separate refill nozzle.

Type	Art. No.	Pack Qty.	€
Capacity 1.4 l	E231.1	1	131,15
Capacity 2.5 l	E232.1	1	201,05



Digital burettes continuous E and RS

Pulse-free dispensing. Continuous delivery of desired volume without drawing up reserves. Easy and fatigue-free operation of the control elements. Volume dispensed per turn of the handwheels: 2.5 ml (continuous E) or 5.0 ml (continuous RS).

- Patented return dispensing system for ventilation with no loss of reagent
- Power supply with longlife, easy-to-change 1.5 V micro batteries and charge indicator
- Electronics removable as a unit, service friendly modular design
- Dispensing range 0.01 ml to 999.9 ml
- Discharge tube rotatable through 360°
- Vertically and horizontally adjustable discharge tube
- Digital burette with safety valve
- Telescopic suction tube for different bottle sizes from 200 to 350 mm
- Simple calibration program
- Connection for drying tube
- The defined limits of error according to DIN EN ISO 8655-3 are not exceeded even when dispensing partial volumes
- Not suitable for crystallising media

Delivery incl. 1 continuous E or RS digital burette (GL 45 standard thread), 3 PP adaptor (GL 45/S 40, GL 45/38, GL 38/32), certificate of quality containing test values, 1 telescopic suction tube, 1 discharge tube, 2 1.5 V micro/AAA batteries.

Type	Volume/turn (ml)	Art. No.	Pack Qty.	€
Digital burette continuous E	2,5	AA89.1	1	679,40
Digital burette continuous RS	5,0	AA90.1	1	679,40

Accessories for digital burettes continuous E / RS

Type	Art. No.	Pack Qty.	€
Dry pipe (without filling)	AA91.1	1	33,55
Telescopic suction pipe made of FEP/ETFE, L 200-350 mm	AA92.1	1	29,25
Ejection cannula incl. reverse dosing valve	AA93.1	1	26,15

► Glass bottles see page 31

Digital burettes



Titrette®-digital burettes

By Brand. Bottle-top burette for quick and reliable titration. High accuracy provides results within class A accuracy limits to DIN EN ISO 385.

- Smooth-acting gear for accurate trickle titration
- Lightweight and stable thanks to compact design
- Freely rotatable valve block, GL 45 thread
- Titrating tube is horizontally and vertically adjustable for flexible positioning
- Easy to use, no switching over between filling and titrating
- Can be removed for cleaning
- Can be calibrated without tools
- The next calibration due date can be stored
- The current displayed value can be stored with automatic stop
- Adjustable up to 20 ml to three decimal places
- Parts in contact with media are made of borosilicate glass, Al₂O₃, ETFE, PFA, FEP, PTFE, platinum-iridium, PP
- DE-M
- **Permissible conditions of use:** temperature +15 to +40 °C, vapour pressure up to max. 500 mbar, viscosity up to 500 mm²/s
- Optionally available with PC interface

Technical specifications:

Capacity (ml)	Partial volume (ml)	Correctness (≤%)	Variation coefficient (≤%)
10	10	0,10	0.05
	5	0,20	0.10
	1	1,00	0.50
25	25	0.07	0.025
	12.5	0.14	0.05
	2.5	0.70	0.25
50	50	0.06	0.02
	25	0.12	0.04
	5	0.60	0.20

Delivery incl. certificate of quality, telescopic suction tube made of FEP (170-330 mm), recirculation tube, 2 micro batteries, 3 PP threaded adapters (GL 32, S 40 and NS 29/32), 2 coloured light screens.

Type	Volume (ml)	Art. No.	Pack Qty.	€
Standard Titrette®	10	NN43.1	1	722,40
Standard Titrette®	25	PP87.1	1	722,40
Standard Titrette®	50	PP88.1	1	722,40
Titrette® with RS 232 port	10	NN44.1	1	927,75
Titrette® with RS 232 port	25	PP89.1	1	927,75
Titrette® with RS 232 port	50	PP90.1	1	927,75

Accessories:

Telescopic suction tube 170-330 mm	PP85.1	1	24,65
Telescopic suction tube 250-480 mm	PP86.1	1	25,50
Micro/AAA 1.5 V battery	1021.2	4	6,35



Digital burettes solarus®

By Hirschmann.

- Solar cell power, i.e. no batteries, no storage batteries, no recharging
- Large display, readings from 0.01 to 99.99 ml
- 2 key operator's control
- "Quick-Cal"- function for individual calibration
- Bidirectional RS 232-interface
- Hand wheels with soft touch surface
- Feedback system means no reagent loss
- Parts in contact with media are made of extremely resistant fluoroplastics: valve block and housing made of ECTFE, suction and output hose made of FEP
- Media carrying parts incl. output unit are steam sterilizable at 121 °C / 2 bar

Delivery incl. base unit with screw thread A45 and output unit, 3 thread adapters A32, A38, S40, suction hose (L 310 mm), feedback hose. Comes with certificate of quality according to DIN EN ISO 8655.

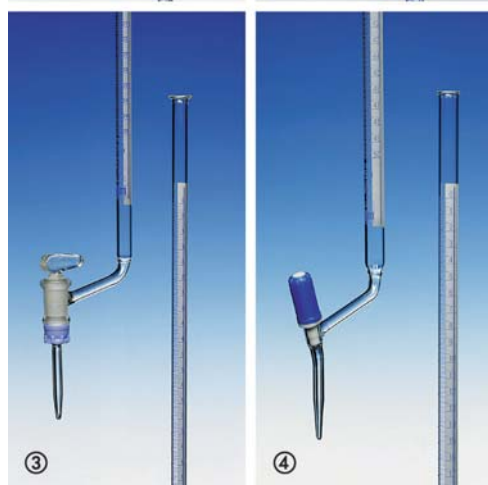
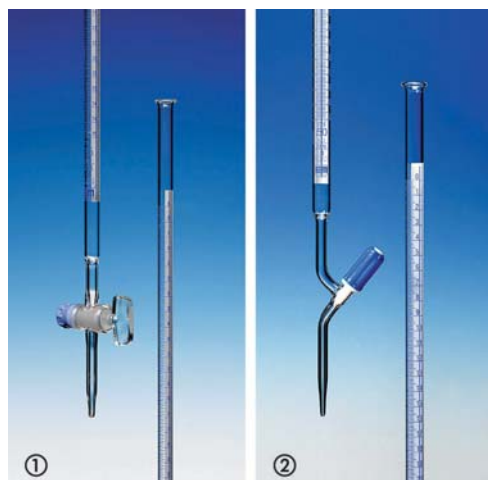
Type	Art. No.	Pack Qty.	€
Base unit 20 ml	Y063.1 *	1	751,45
Base unit 50 ml	Y064.1 *	1	751,45

* Please check with our Sales Department for delivery period of this products.

Accessories:

Output unit titration	X607.1	1	24,65
Spare return tube	X609.1	1	7,40
Spare suction tube 310 mm	L477.1	1	12,10
Spare suction tube 400 mm	L478.1	1	15,30

Burettes



Material
DURAN®

Burettes with Schellbach stripes, Class B

By Hirschmann. Made of DURAN®. With line graduations.
Scale length 500 mm.

Blue graduations.

① **With straight glass stopcock NS 12.5/28.** Acc. to DIN EN ISO 385.

Volume (ml)	Graduations (ml)	Limit of error (\pm ml)	Art. No.	Pack Qty.	€
10	0,02	0,03	ET57.1	2	74,75
25	0,05	0,045	ET58.1	2	74,75
50	0,1	0,075	ET59.1	2	74,75

② **With straight valve spout and PTFE-spindle.** Acc. to DIN EN ISO 385.

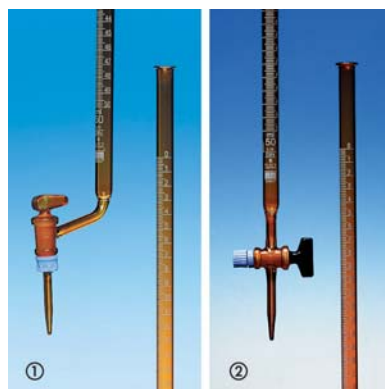
Volume (ml)	Graduations (ml)	Limit of error (\pm ml)	Art. No.	Pack Qty.	€
10	0,02	0,03	ET60.1	2	98,40
25	0,05	0,045	ET61.1	2	98,40
50	0,1	0,075	ET62.1	2	98,40

③ **With glass stopcock on the side NS 12.5/28.** Acc. to DIN EN ISO 385.

Volume (ml)	Graduations (ml)	Limit of error (\pm ml)	Art. No.	Pack Qty.	€
10	0,02	0,03	ET78.1	2	82,80
25	0,05	0,045	ET79.1	2	82,80
50	0,1	0,075	ET80.1	2	82,80

④ **With valve spout on the side and PTFE-spindle.**
Acc. to DIN EN ISO 385.

Volume (ml)	Graduations (ml)	Limit of error (\pm ml)	Art. No.	Pack Qty.	€
10	0,02	0,03	ET81.1	2	119,35
25	0,05	0,045	ET82.1	2	119,35
50	0,1	0,075	ET83.1	2	119,35



Material
DURAN®

Burettes, Class B

By Hirschmann. Made of DURAN®. **Brown glass.** With line graduations.
Scale length 500 mm. **White graduations.**

① **With side glass stopcock.** Acc. to DIN EN ISO 385.

Volume (ml)	Graduations (ml)	Limit of error (\pm ml)	Art. No.	Pack Qty.	€
10	0,02	0,03	ET84.1	2	111,80
25	0,05	0,045	ET85.1	2	111,80
50	0,1	0,075	ET86.1	2	111,80

② **With straight glass stopcock.** Acc. to DIN EN ISO 385.

Volume (ml)	Graduations (ml)	Limit of error (\pm ml)	Art. No.	Pack Qty.	€
10	0,02	0,03	ET63.1	2	104,20
25	0,05	0,045	ET64.1	2	104,60
50	0,1	0,075	ET65.1	2	91,35



Material
DURAN®

Burettes

By Hirschmann. Made of DURAN®. **Certificate of Conformity**, with dated
charge identification. **Brown glass.** Principal point ring graduation. Scale
length 500 mm. Acc. to DIN EN ISO 385. **Graduated with white markings.**

① **With straight glass stopcock.**

Volume (ml)	Graduations (ml)	Limit of error (\pm ml)	Art. No.	Pack Qty.	€
10	0,02	0,02	ET72.1	2	145,15
25	0,05	0,03	ET73.1	2	145,15
50	0,1	0,05	ET74.1	2	145,15

② **With straight valve spout and PTFE-spindle.**

Volume (ml)	Graduations (ml)	Limit of error (\pm ml)	Art. No.	Pack Qty.	€
10	0,02	0,02	ET75.1	2	167,70
25	0,05	0,03	ET76.1	2	167,70
50	0,1	0,05	ET77.1	2	167,70



Material
DURAN®

Burettes with Schellbach stripes, Class AS

By Hirschmann. Made of DURAN®. **Certificate of Conformity**, with dated batch identification and principal point ring graduation. Adjusted to ex.

Blue graduations. Scale length 500 mm.

① **With glass stopcock on the side NS 12.5/28.** Acc. to DIN EN ISO 385.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Art. No.	Pack Qty.	€
10	0,02	0,02	T736.1	2	115,05
25	0,05	0,03	T737.1	2	115,05
50	0,1	0,05	T738.1	2	115,05

② **With valve spout on the side and PTFE-spindle.** Acc. to DIN EN ISO 385.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Art. No.	Pack Qty.	€
10	0,02	0,02	T739.2	2	148,35
25	0,05	0,03	T740.2	2	148,35
50	0,1	0,05	T741.2	2	148,35

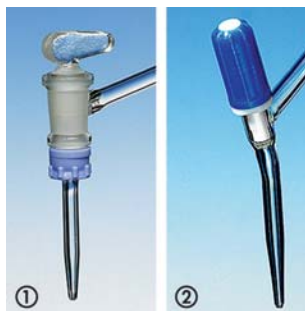
③ **With straight glass stopcock NS 12.5/28.** Acc. to DIN EN ISO 385.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Art. No.	Pack Qty.	€
10	0,02	0,02	ET66.1	2	91,35
25	0,05	0,03	ET67.1	2	91,35
50	0,1	0,05	ET68.1	2	91,35

④ **With straight valve spout and PTFE-spindle.** Acc. to DIN EN ISO 385.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Art. No.	Pack Qty.	€
10	0,02	0,02	ET69.1	2	126,85
25	0,05	0,03	ET70.1	2	126,85
50	0,1	0,05	ET71.1	2	126,85

- Material for stands and burette holders on page 195
- Greases see page 1096



Material
DURAN®

Spare spouts for burettes

By Hirschmann. Made of DURAN®. Clear glass.

① **Side burette stopcocks with glass plugs.**

For burettes (ml)	Art. No.	Pack Qty.	€
10	AC73.1	1	23,30
25	AC74.1	1	23,30
50	AC75.1	1	23,30

② **Side valve spouts with PTFE-spindle.**

For burettes (ml)	Art. No.	Pack Qty.	€
10	AC76.1	1	33,00
25	AC77.1	1	33,00
50	AC78.1	1	33,00



Automatic titrating burettes

Acc. to Schilling. Made of PE, burette made of borosilicate glass 3.3, with Schellbach stripes. No danger of breakage and high chemical resistance. With feet on bottle for enhanced stability. With blue ring graduation, calibrated to "Ex". Press button for precise dosing, fine titration with micro-screw and exact spout tip, finest droplets. Graduation corresponds to Class B (tolerances acc. to DIN ISO 385). The burette is a universal helper in laboratories, electroplating applications, water processing stations, sewage plants and in field tests, etc.

Volume (ml)	Graduations (ml)	Accuracy (±ml)	Volume bottle (ml)	Art. No.	Pack Qty.	€
5	0.05	0.015	500	8226.1	1	47,85
10	0.05	0.030	500	8227.1	1	47,85
15	0.10	0.045	500	8228.1	1	47,85
25	0.10	0.045	1000	8229.1	1	47,85
50	0.10	0.045	1000	8230.1	1	56,20

Accessories:

Spare bottle 500 ml	PK05.1	1	3,70
Spare bottle 1000 ml	PK06.1	1	5,55
Spare outlet nozzle	PK07.1	1	3,40
Spare tubing made of PE	YT74.1	1	7,00
Spare hose made of latex, 1 m, for lever tap	YT75.1	1	5,35

Burettes



Material
DURAN®

Pellet titrating apparatus, Class B

By Hirschmann. Made of DURAN®. **Brown glass.** With line graduation. Scale length 500 mm. According to DIN EN ISO 385.

Delivery incl. 2 l glass bottle. Please order rubber pump separately.

With glass stopcock on side and intermediate valve cock. White graduation.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Art. No.	Pack Qty.	€
10	0,02	0,03	ET87.1	1	220,40
25	0,05	0,045	ET88.1	1	220,40
50	0,1	0,075	ET89.1	1	220,40



Rubber pump

Made of soft **PVC**. For titrating apparatus. Tube length 25 cm. Total length 34 cm.

Art. No.	Pack Qty.	€
ET98.1	1	11,30



Burette bottles

By Hirschmann. For titrating apparatus. Made of soda-lime glass. With ground glass joint 29/32. Capacity 2000 ml.

Type	Volume (ml)	Art. No.	Pack Qty.	€
clear glass	2000	ET96.1	1	26,05
brown glass	2000	ET97.1	1	28,70



①



②

Material
DURAN®

Pellet titrating apparatus, Class AS

By Hirschmann. Made of DURAN®. **Certificate of Conformity**, with dated batch identification. With axial ring division. Scale length 500 mm. Acc. to DIN EN ISO 385.

Delivery incl. 2 l glass bottle. Please order rubber pump separately.

① **With glass stop-cock on the side and intermediate stop-cock. Blue graduations.**

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Art. No.	Pack Qty.	€
10	0,02	0,02	ET90.1	1	216,10
25	0,05	0,03	ET91.1	1	216,10
50	0,1	0,05	ET92.1	1	216,10

② **With PTFE-spindle stop-cock on the side and intermediate stop-cock. Brown glass, white graduations.**

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Art. No.	Pack Qty.	€
10	0,02	0,02	ET93.1	1	317,15
25	0,05	0,03	ET94.1	1	317,15
50	0,1	0,05	ET95.1	1	317,15



Plastic burettes

Acc. to DIN 12700. Class B. With 0.1 ml line graduations. Burette tube of transparent **PVC**. Burette stopcock of clear **PMP**, with self-lubricating **FEP** plugs. Reduced risk of breakage and injury. Suitable for routine use.

Volume (ml)	Schellbach stripes	Height (mm)	Art. No.	Pack Qty.	€
10	yes	550	9715.1	1	69,35
25	no	570	9717.1	1	73,65
50	no	740	XC74.1	1	78,15

Syringes/needles



Disposable syringes Inject®

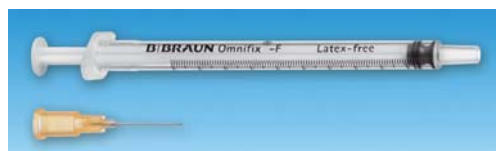
By B. Braun. Acc. to ISO 7886-1. 2-piece, cylinder made of **PP**, piston rod made of **PE**. **Sterile** (EO-sterilised, individually wrapped). Smudge-proof, black graduation. The scale goes beyond the nominal volume. Safe piston stopper for smooth filling up to maximum volume. Latex-, PVC- and silicone-free.

① Luer-connection

Nominal capacity (ml)	Max. volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
2	3	0,1	0056.1	100	7,00
5	6	0,2	0057.1	100	9,15
10	12	0,5	0058.1	100	14,75
20	24	1,0	0059.1	100	20,10

② Luer-Lock-connection, suitable for zytostatica

Nominal capacity (ml)	Max. volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
2	3	0,1	EP95.1	100	22,40
5	6	0,2	EP96.1	100	26,80
10	12	0,5	EP97.1	100	38,10
20	24	1,0	EP98.1	100	83,85



Disposable syringes Omnifix®-F

By B. Braun. 3-piece fine dosage syringes. Volume 1 ml, graduation 0.01 ml.

Made of **PP/PS**, **sterile** (individually wrapped), latex-free and PVC-free. Piston stopper made of synthetic rubber, black graduation, smudge-proof. Centric Luer-attachment.

Smooth-running with double gasket, for dosing very small volumes. Ideal for extremely slow filling and injecting. Minimal rest volume. Outer- Ø 0.5 mm, length 16 mm.

Type	Art. No.	Pack Qty.	€
With needle 25 G	0053.1	100	36,50
Without needle	H999.1	100	17,45



Omnican®-insulin syringes

By B. Braun. Acc. to EN ISO 8537. **Sterile** (EO-sterilised). Three piece syringe with integrated plunger stop. Latex and PVC free. Integrated stainless steel cannula for minimal loss of fluid. With triple facet bevel and silicone coating. Ø 0.30 mm (30 G), L 12 mm. **Delivery incl.** protective caps.

For insulin	Volume (I.E.)	Graduations (I.E.)	Art. No.	Pack Qty.	€
U-40	40	1,0	AKN8.1	10 x 10	34,95
U-50	50	1,0	AKN9.1	10 x 10	34,95
U-100	100	2,0	AKP0.1	10 x 10	34,95



Omnifix® disposable syringes

By B. Braun. Acc. to ISO 7886-1. 3-part, made of **PP**. **Sterile** (EO-sterilised, individually wrapped). Black graduation, smudge-proof. Reliable piston stopper prevents accidental removal of piston rod.

Smooth-running piston with double sealing ring for slow and bubble-free filling and injecting. Particularly ideal for dosing smaller volumes. Made of synthetic rubber, latex-free, acc. to ISO 10993 and DIN EN 90993. PVC-free.

① Luer-fitting

Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
3	0,1	LY22.1	100	9,60
5	0,2	C537.1	100	15,95
10	0,5	C538.1	100	21,30
20	1,0	C539.1	100	33,55
30	1,0	T548.1	100	88,70
50	1,0	T549.1	1	2,55
50	1,0	T549.2	100	168,80

② Luer-Lock fitting

Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
3	0,1	LY21.1	100	36,25
5	0,2	C541.1	100	41,85
10	0,5	C542.1	100	46,90
20	1,0	T550.1	100	78,30
30	1,0	T551.1	100	100,85
50	1,0	T552.1	1	2,45
50	1,0	T552.2	100	177,40



Disposable syringes Inject®-F

By B. Braun. 2-piece fine dosage syringes. Volume 1 ml, graduation 0.01 ml.

Made of **PP/PE**. **Sterile** (individually wrapped), latex-free and PVC-free. Green piston rod, black graduation, smudge-proof.

With efficiency pin on piston rod for reducing rest volume. Centric Luer-attachment.

Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
1	0,01	T987.1	100	18,85

Syringes/needles



Glass syringes

Made of Durobax®-glass. With exact-fitting plunger. Imprinted brown graduation. Autoclavable to 134 °C.

With glass cone and Luer-fitting

Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
1	0,05	C676.1	1	7,65
2	0,1	C677.1	1	7,65
3	0,1	C678.1	1	7,65
5	0,2	C679.1	1	7,65
10	0,2	C680.1	1	9,90
20	1,0	C681.1	1	14,85
30	1,0	C682.1	1	18,85
50	2,0	C683.1	1	32,90
100	4,0	C684.1	1	53,70

With metal cone and Luer-Lock-fitting

Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
1	0,05	C685.1	1	10,25
2	0,1	C686.1	1	10,25
3	0,1	C687.1	1	10,55
5	0,2	C688.1	1	10,55
10	0,2	C689.1	1	12,60
20	1,0	C690.1	1	19,30
30	1,0	C691.1	1	23,65
50	2,0	C692.1	1	36,35
100	4,0	C693.1	1	70,85



Disposable syringes

By B. Braun. Three-part syringe made of PP, sterile, smooth-moving piston stopper with double seal ring. Secure piston stopper. With easy-to-read, smudge-proof graduation. Centric catheter attachment Ø 7-10 mm.

Delivery incl. Luer adapter.

Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
100	2,0	HY16.1	1	5,70



Sterican® disposable needles

By B. Braun. Made from nickel chromium steel with silicone coating. Luer-lock fitting made of PP. Sterile (individually wrapped), 100 needles in dispenser box.

Long edge

Colour	Outer Ø (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
grey	0,40	20	27 G	X133.1	100	5,60
brown	0,45	25	26 G	C718.1	100	6,70
violet	0,55	25	24 G	X132.1	100	5,60
blue	0,60	25	23 G	C719.1	100	6,70
blue	0,60	30	23 G	X129.1	100	5,60
blue	0,60	60	23 G	C720.1	100	11,00
blue	0,60	80	23 G	C629.1	100	16,70
black	0,70	30	22 G	X128.1	100	5,60
green	0,80	40	21 G	X127.1	100	5,60
green	0,80	50	21 G	0060.1	100	11,20
green	0,80	120	21 G	C630.1	100	30,45
yellow	0,90	40	20 G	C721.1	100	6,70
yellow	0,90	70	20 G	C722.1	100	12,15
grey	1,10	50	19 G	C723.1	100	11,00

Short edge

Colour	Outer Ø (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
pink	1,20	40	18 G	C724.1	100	11,00

Blunt edge

Colour	Outer Ø (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
green	0,80	22	21 G	X134.1	100	9,80
grey	0,40	25	27 G	HY15.1	100	18,50



Injection needles

Suitable for all syringes with a Luer-Lock cone. Rustproof stainless steel. Autoclavable. With polished ground section.

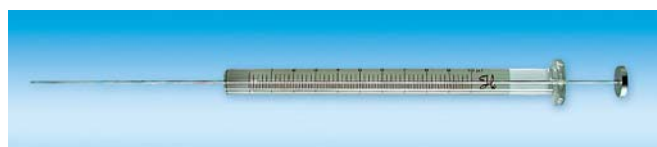
Outer Ø (mm)	Length (mm)	Gauge	Art. No.	Pack Qty.	€
0,45	18	26 G	X801.1	12	12,50
0,45	21	26 G	X802.1	12	12,50
0,50	23	25 G	X803.1	12	12,50
0,55	25	24 G	X804.1	12	12,50
0,60	25	23 G	X805.1	12	12,50
0,65	30	-	X806.1	12	12,50
0,70	32	22 G	X807.1	12	12,50
0,80	35	21 G	X808.1	12	12,50
0,90	38	20 G	X809.1	12	12,50
1,00	60	19 G	X810.1	12	32,05
1,20	40	18 G	X811.1	12	24,65

Microlitre syringes

Microlitre syringes by HAMILTON

Technical specifications:

Accuracy	≤ ±1 % of nominal volume
Test pressure	0.6 MPa
Working temperature	-10 to +50 °C
Material of body	Borosilicate glass
Tip type 2	12° grinding, bent slightly inwards; for piercing septum, in all chromatographic methods.
Tip type 3	90° grinding, blunt; for HPLC-applications or for exact dosing e.g. for thin-layer chromatography.



Series 700 MICROLITER®-syringes

By HAMILTON. For dosing liquids. The piston is firmly fixed in the glass body. Needle and piston are made of stainless steel. Needle 51 mm, bent slightly inwards, sealed in wall.

Tip type 2:

Model	Volume (µl)	Pitch (µl)	Needle-Ø inside (mm)	Needle-Ø outside (mm)	Art. No.	Pack Qty.	€
701 N	10	0,1	0,13	0,47	X033.1	1	36,80
702 N	25	0,5	0,15	0,72	X034.1	1	47,00
705 N	50	1,0	0,15	0,72	X035.1	1	57,30
710 N	100	1,0	0,15	0,72	X036.1	1	68,05
725 N	250	5,0	0,15	0,72	X038.1	1	73,00
750 N	500	10,0	0,41	0,72	X039.1	1	82,80

Tip type 3:

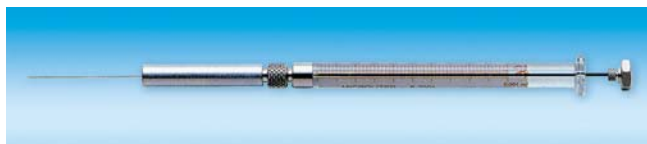
Model	Volume (µl)	Pitch (µl)	Needle-Ø inside (mm)	Needle-Ø outside (mm)	Art. No.	Pack Qty.	€
701 NR	10	0,1	0,13	0,47	EY37.1	1	48,35
702 NR	25	0,5	0,15	0,72	EY38.1	1	50,10
705 NR	50	1,0	0,15	0,72	EY39.1	1	54,85
710 NR	100	1,0	0,15	0,72	EY40.1	1	68,05
725 NR	250	5,0	0,41	0,72	EY41.1	1	71,10
750 NR	500	10,0	0,41	0,72	EY42.1	1	83,00



Series 700 Standard-GC-syringes

By HAMILTON. For dosing liquids in autosamplers HP 7683 / HP 7673. The piston is firmly fixed in the glass body. Needle and piston are made of stainless steel. Needle 43 mm, with an 8° bevel (special tapered tip for autosampler vials) sealed in the tube wall.

Model	Volume (µl)	Needle-Ø inside (mm)	Art. No.	Pack Qty.	€
701 ASN 23S	10	0,34	X060.1	1	53,55
701 ASN 26S	10	0,13	X061.1	1	56,05



Series 7000 MICROLITER®-syringes

By HAMILTON. For dead volume-free dosing of liquids with a very small nominal volume. The stainless steel needle and Wolfram piston are exactly coordinated. Volume dosing takes place in the needle. Needle 70 mm.

Tip type 2:

Model	Volume (µl)	Pitch (µl)	Needle-Ø outside (mm)	Art. No.	Pack Qty.	€
7000.5 KH	0,5	0,005	0,50	X056.1	1	119,35
7001 KH	1,0	0,01	0,47	X057.1	1	90,20
7002 KH	2,0	0,02	0,50	X058.1	1	112,90
7105 KH	5,0	0,05	0,56	X059.1	1	103,55

Tip type 3:

Model	Volume (µl)	Pitch (µl)	Needle-Ø outside (mm)	Art. No.	Pack Qty.	€
7000.5 KH	0,5	0,005	0,50	EY52.1	1	119,35
7001 KH	1,0	0,01	0,47	EY53.1	1	92,70
7002 KH	2,0	0,02	0,50	EY54.1	1	116,10
7105 KH	5,0	0,05	0,56	EY55.1	1	106,45



Series 1000 GASTIGHT®-syringes

By HAMILTON. For dosing liquids and media with a high vapour pressure. Glass body and piston are replaceable. With Luer-Lock-connection made of PTFE. Piston made of PTFE-coated aluminium.

Delivery without needle, please order separately.

Model	Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
1001 TLL	1,0	0,01	X041.1	1	69,90
1002 TLL	2,5	0,05	X042.1	1	69,90
1005 TLL	5,0	0,10	X043.1	1	81,70
1010 TLL	10,0	0,20	X044.1	1	90,20

Needles KF

By HAMILTON. Made of stainless steel, 51 mm, Luer-connection PCTFE, 22G. Inner-Ø 0.41 mm, outer-Ø 0.72 mm.

Tip type	Art. No.	Pack Qty.	€
2	X045.2	6	105,90
3	EY43.1	6	95,15

Microlitre syringes



Series 1700 GASTIGHT®-syringes

By HAMILTON. For dosing liquids and gases. Glass body and piston are replaceable. Stainless steel pistons with PTFE-seal. Needle made of stainless steel, 51 mm, exchangeable.

Technical specifications:

Accuracy	≤ ±1 % of nominal volume
Test pressure	0.6 MPa
Working temperature	-10 to +50 °C
Material of body	Borosilicate glass
Tip type 2	12° grinding, bent slightly inwards; for piercing septum, in all chromatographic methods.
Tip type 3	90° grinding, blunt; for HPLC-applications or for exact dosing e.g. for thin-layer chromatography.

Tip type 2:

Model	Volume (µl)	Pitch (µl)	Needle-Ø inside (mm)	Needle-Ø outside (mm)	Art. No.	Pack Qty.	€
1701 RN	10	0,1	0,13	0,47	X046.1	1	66,80
1702 RN	25	0,5	0,15	0,72	X047.1	1	72,25
1705 RN	50	1,0	0,15	0,72	X048.1	1	72,25
1710 RN	100	1,0	0,15	0,72	X049.1	1	76,90
1725 RN	250	5,0	0,15	0,72	X050.1	1	76,80
1750 RN	500	10,0	0,41	0,72	X051.1	1	76,80

Tip type 3:

Model	Volume (µl)	Pitch (µl)	Needle-Ø inside (mm)	Needle-Ø outside (mm)	Art. No.	Pack Qty.	€
1701 RNR	10	0,1	0,15	0,72	EY44.1	1	70,45
1702 RNR	25	0,5	0,15	0,72	EY45.1	1	70,45
1705 RNR	50	1,0	0,15	0,72	EY46.1	1	73,65
1710 RNR	100	1,0	0,15	0,72	EY47.1	1	79,55
1725 RNR	250	5,0	0,41	0,72	EY48.1	1	76,90
1750 RNR	500	10,0	0,41	0,72	EY49.1	1	76,90

Spare needles

By HAMILTON.

For	Art. No.	Pack Qty.	€
Tip type 2; 10 µl	X052.2	6	59,15
Tip type 2; 25-100 µl	X053.2	6	59,15
Tip type 2; 250 µl	X054.2	6	72,90
Tip type 2; 500 µl	X055.2	6	75,80
Tip type 3; 10-100 µl	EY50.1	6	60,20
Tip type 3; 250-500 µl	EY51.1	6	51,10

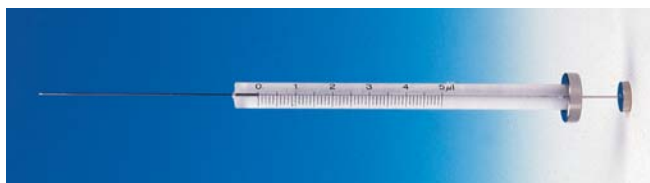
Microlitre syringes

A variety of models available for different applications.

- Tested up to 3.0 bar liquid pressure
- Calibrated with an accuracy of ±1 %
- Precise and easy to read scale
- Precise workmanship prevents, as far as possible, air bubbles from forming

General instructions for use:

Microlitre syringes should be washed with an organic solvent immediately after use. Drying temperature may not exceed 60 °C. When dry, the syringes should be stored at room temperature. Never touch the flask with the naked hand!



Standard microlitre syringes

Needle with slanted tip, tight, length 50 mm. Parts that touch sample are made of high-grade steel and glass. Syringes must not be used with fluorine or highly acidic liquids.

Volume (µl)	Graduations (ml)	Unused volume (µl)	Art. No.	Pack Qty.	€
5	0,1	0,0±0,3	E114.1	1	41,90
10	0,1	0,9±0,3	E115.1	1	33,00
25	0,5	1,7±0,3	E116.1	1	42,50
50	1	1,7±0,3	E117.1	1	44,55
100	2	1,7±0,3	E118.1	1	50,50
250	5	3,6±0,3	E119.1	1	57,95
500	10	3,6±0,3	E120.1	1	62,15



HPLC microlitre syringes

For Rheodyne-valves. Specially polished blunt needle tips ensure tight fit and prevent damage of seal and rotor. Needle length 51 mm. Needle inner Ø 0.18 mm, outer Ø 0.715 mm.

Volume (µl)	Subdivisions (µl)	Art. No.	Pack Qty.	€
25	0,5	E121.1	1	38,20
50	1	E122.1	1	40,35
100	2	E123.1	1	47,10
250	5	E124.1	1	60,35
500	10	E125.1	1	71,95



Microlitre syringes with super-elastic plunger

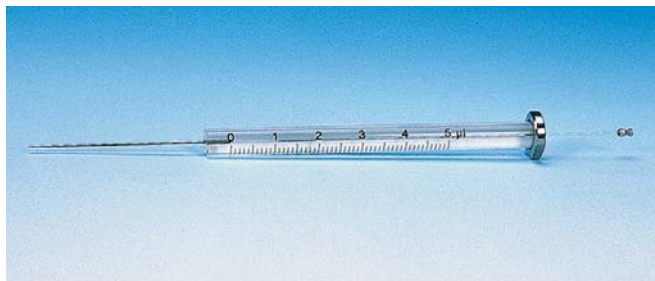
Cannot be permanently bent. Plunger will return into previous form.

Syringe volume 5 µl

Range of application	Pitch (µl)	Needle-Ø outside (mm)	Needle-Ø inside (mm)	Length (mm)	Art. No.	Pack Qty.	€
GC	0,1	0,52	0,13	50	E108.1	1	61,25
HPLC	0,1	0,715	0,18	51	E110.1	1	82,80
HPLC	0,1	0,51	0,13	50	E112.1	1	82,25

Syringe volume 10 µl

Range of application	Pitch (µl)	Needle-Ø outside (mm)	Needle-Ø inside (mm)	Length (mm)	Art. No.	Pack Qty.	€
GC	0,2	0,52	0,13	50	E109.1	1	38,50
Rheodyne	0,2	0,715	0,18	51	E111.1	1	40,35
Waters	0,2	0,51	0,13	50	E113.1	1	47,75



Microlitre syringes for automatic sampler

For Agilent (HP) Model 7673A. The models with the super elastic plunger have longer working life. Needle caliber 23G, needle-Ø inner 0.15 mm, outer 0.64 mm. Needle length 43 mm, conical tip. Fixed needle.

Plunger material	Volume (µl)	Graduation (µl)	Art. No.	Pack Qty.	€
Rustproof stainless steel	5	0,1	H136.1	1	68,30
Rustproof stainless steel	10	0,2	H138.1	1	51,40
Super elastic plunger	5	0,1	H140.1	1	84,40
Super elastic plunger	10	0,2	H142.1	1	65,70



Microlitre syringes with plunger guide

Capacity 10 µl. Graduated in 0.1 µl steps. With slanted needle, length 50 mm, inner-Ø 0.18 mm, outer-Ø 0.52 mm. Precision ±1 %.

With variable external guide. Locking screw enables reproducible injections of same volumes.

Art. No.	Pack Qty.	€
E126.1	1	68,30

With PTFE-tube. For added plunger protection.

Art. No.	Pack Qty.	€
E127.1	1	64,00



Gastight syringes

With specially polished syringe hole and plunger needle made of PTFE. Gas- and liquid tight up to a maximum pressure of 5.0 kg/cm². Accuracy and reproducibility better than ±1 %. Replaceable needle with slanted tip.

Syringe with screw head fitting

Needle length 30 mm, Ø inside 0.30 mm, Ø outside 0.56 mm.

Unused volume 2.2 ±0.3 µl. **Needle included.**

Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
1	0,02	E128.1	1	141,90
2,5	0,05	E129.1	1	141,90
5	0,1	E130.1	1	141,90
10	0,2	E131.1	1	170,95

Syringe with Luer-Lock-fitting.

All parts in contact with media are made of borosilicate glass and PTFE. Particularly ideal for applications that require extremely inert materials.

Doesn't include needle.

Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
1	0,02	E133.1	1	106,25
2,5	0,05	E134.1	1	110,75
5	0,1	E135.1	1	120,40
10	0,2	E136.1	1	120,40

Accessories for gastight syringes

Replacement needle with screw head fitting.

Art. No.	Pack Qty.	€
E132.1	5	73,00

Needle with Luer-Lock-connector and chamfered tip.

Length 50 mm, Ø-inner 0.30 mm, Ø-outer 0.56 mm.

Art. No.	Pack Qty.	€
E137.1	5	71,85

Capillary pipettes



ringcaps® disposable capillary pipettes

By Hirschmann.

- Made of Borosilicate glass 3.3
- Not heparinised
- Comes with certificate of conformity
- CE acc. to IVD 98/79 EG
- Acc. to ISO 7550
- With ring mark
- Length approx. 12.5 cm
- Tolerance to 5 µl 0.3 %, 0.25 %
- Variation coefficient to 5 µl 0.60 %, from 10 µl 0.50 %
- Autoclavable

Volume (µl)	No. of marks	Art. No.	Pack Qty.	€
1/2/3/4/5	5	A756.1	4 x 250	103,95
10	1	A757.1	4 x 250	95,15
20	1	A758.1	4 x 250	95,15
25	1	A759.1	4 x 250	95,15
40	1	A760.1	4 x 250	95,15
50	1	A761.1	4 x 250	95,15
100	1	A762.1	4 x 250	95,15
5/10	2	A764.1	4 x 250	95,15
20/40	2	A765.1	4 x 250	95,15
50/100	2	A766.1	4 x 250	95,15
100/200	2	A767.1	4 x 100	61,85



Disposable capillary pipettes minicaps

By Hirschmann.

- Made of Borosilicate glass 3.3
- Not heparinised
- Certificate of Conformity
- CE acc to IVD 98/79 EG
- In acc. with ISO 7550
- Tolerance 0,5 %
- Variation coefficient 1 %
- Independent filling via capillary action (end-to-end)
- 100 pieces in dispenser

Volume (µl)	Colour code	Length (mm)	Art. No.	Pack Qty.	€
0,5	black	30-32	L918.2	10 x 100	85,95
1	blue	30-32	0771.2	10 x 100	85,95
5	white	30-32	L923.2	10 x 100	85,95
6,66	natural	72	L924.2	10 x 100	85,95
2	red	30-32	L919.2	10 x 100	85,95
3	yellow	30-32	L920.2	10 x 100	85,95
3,33	yellow	36	L921.2	10 x 100	85,95
4	green	30-32	L922.2	10 x 100	85,95
10	orange	30-32	L925.2	10 x 100	85,95
20	black	30 ±0,5	L926.2	10 x 100	85,95



Micropipettor pipetting aid

By Hirschmann. Manual pipetting aid for disposable capillary pipettes with ring marks (e.g. ringcaps®), with two replaceable adapters for optimal fit to the pipette size. For volumes from 1-200 µl. CE acc. to IVD 98/79 EG.

Art. No.	Pack Qty.	€
AH26.1	1	26,35



Pipettor aids

By Hirschmann. Ideal for emptying disposable capillary pipettes minicaps. With rubber cap.

Art. No.	Pack Qty.	€
T749.1	2	5,40

Pasteur pipettes/Disposal pipettes



Disposable micro hematocrit capillary tubes

By Marienfeld.

- Made of AR-glass
- CE to IVD 98/79 EG
- Acc. to ISO 12772
- Length: 75 ± 0.5 mm, thickness: 0.2 ± 0.025 mm.
- For centrifuging blood samples
- With or without heparinisation. Sodium-heparin (80 iu/ml ± 30 %) applied as a thin, homogeneous film delays coagulation of blood.
- Colour-coded end is fire polished to reduce centrifuge wear.

With sodium heparinisation

Volume (µl)	Inner Ø (mm)	Outer Ø (mm)	Art. No.	Pack Qty.	€
60	0,9-1,2	1,3-1,4	TX79.1	10 x 100	26,35
75	1,1-1,2	1,5-1,6	TX80.1	10 x 100	25,70

With sodium heparinisation, calibration mark at 60 mm

Volume (µl)	Inner Ø (mm)	Outer Ø (mm)	Art. No.	Pack Qty.	€
18	0,5-0,6	1,5-1,6	TX81.1	10 x 100	71,10

Without heparinisation

Seal with wax immediately after filling and centrifuge.

Volume (µl)	Inner Ø (mm)	Outer Ø (mm)	Art. No.	Pack Qty.	€
60	0,9-1,0	1,3-1,4	TX77.1	10 x 100	23,45
75	1,1-1,2	1,5-1,6	TX78.1	10 x 100	22,50

Accessories for micro hematocrit capillary tubes

By Marienfeld. Wax plates for sealing micro hematocrit capillary tubes. Numbered from 1 to 48.

Art. No.	Pack Qty.	€
TX82.1	6	25,30



Pipette bulbs

Made of silicone. Autoclavable.

*Suitable for glass Pasteur pipettes.

Suction capacity (ml)	Length (mm)	Ø of openings (mm)	Art. No.	Pack Qty.	€
1	40	5*	C529.1	10	12,50
2	53	6*	C530.1	5	9,70
5	56	8	C531.1	5	17,65
10	69	8	C532.1	5	27,85



Pasteur pipettes

Made of lime soda clear glass. Hydrolytic class 3. **Sterile** or non sterile. Uniformly shaped. Wall thickness 0.55-0.8 mm. With neck for cotton stoppers. Autoclavable.

For one-time use in serological and microbiological laboratories. Also suitable for filling and draining NMR vials.

Without cotton stoppers, non sterile

Overall length (mm)	Length of tip (mm)	Tip outer Ø (mm)	Art. No.	Pack Qty.	€
150	60	1,3	4518.1	1000	47,20
230	140	1,3	4522.1	1000	53,70
270	160	1,3	HX77.1	1000	115,05
300	195	1,5	HX78.1	500	64,45
350	230	1,5	HX79.1	1000	274,15

Complete with cotton stoppers, non sterile

Overall length (mm)	Length of tip (mm)	Tip outer Ø (mm)	Art. No.	Pack Qty.	€
150	60	1,3	E326.1	1000	102,15
230	140	1,3	E327.1	1000	106,45

Complete with cotton stoppers, sterile

Overall length (mm)	Length of tip (mm)	Tip outer Ø (mm)	Art. No.	Pack Qty.	€
150	60	1,3	AHA3.1	1000	148,35
230	140	1,3	AHA4.1	1000	138,70



Suction cup

For Pasteur pipettes, graduated and volumetric pipettes with a capacity of up to 10 ml.

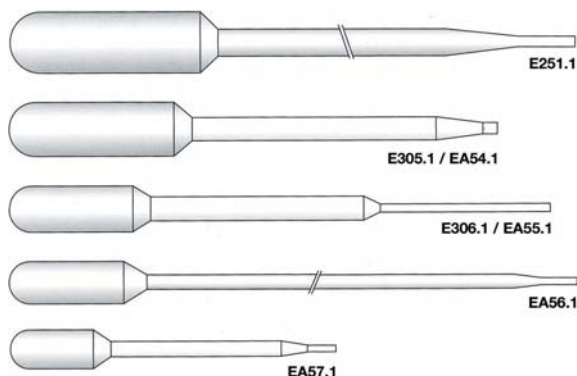
*Suitable for Pasteur pipettes made of glass

Suction capacity (ml)	Hole Ø (mm)	Colour	Material	Art. No.	Pack Qty.	€
1,8	5*	transparent	natural rubber	8404.1	100	29,05
2	5*	red	Natural rubber/SBR	YX53.1	100	55,80
5	6	transparent	Natural rubber	ATN7.1	5	10,75
10	6	transparent	Natural rubber	ATN8.1	3	10,70

Pasteur pipettes/Disposal pipettes

Disposable pasteur pipettes

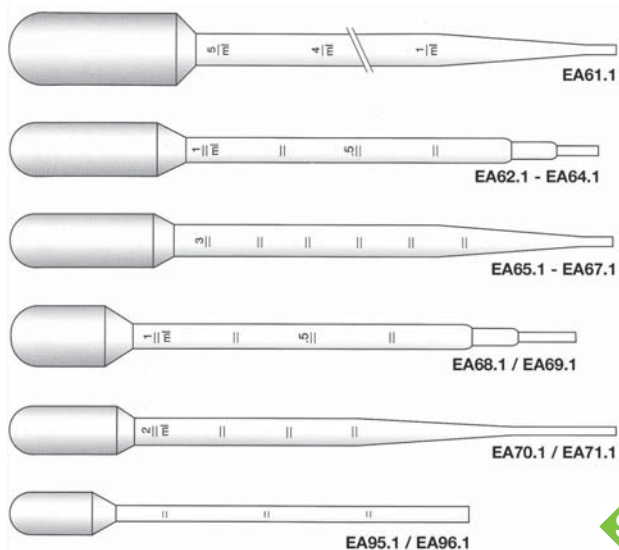
Made of transparent **LDPE** precision-formed,
unbreakable, non toxic.
Enables precise, repeatable dosing.



Standard pasteur pipettes, not graduated

Sterile or unsterile.

Type	Filling capacity (ml)	Drop size (µl)	Drops per ml	Length (mm)	Art. No.	Pack Qty.	€
unsterile, very long	7,3	50	20	300	E251.1	100	30,20
sterile, single/pack	7,3	50	20	300	AEA7.1	100	58,60
unsterile, wide opening	4,8	62	16	137	E305.1	250	22,55
sterile, single/pack, for cell culture, wide opening	4,8	62	16	137	EA54.1	250	54,10
unsterile	3,0	34	29	155	E306.1	500	34,40
sterile, 10 per pack.	3,0	34	29	155	EA55.1	500	51,95
unsterile, very long	2,3	40	25	225	EA56.1	400	26,45
sterile, single/pack, very long	2,3	40	25	225	AEA8.1	400	72,25
unsterile, short	0,9	40	25	87	EA57.1	500	23,65

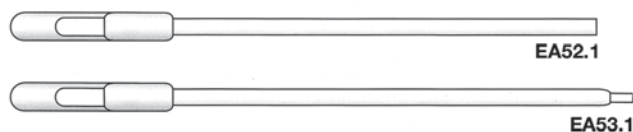


Disposable pasteur pipettes, graduated

Sterile or unsterile. Graduation see figure.

*A filling capacity of 1.8 ml is achieved by pressing the suction ball.
To achieve a filling capacity 2 ml, the stem must also be squeezed.

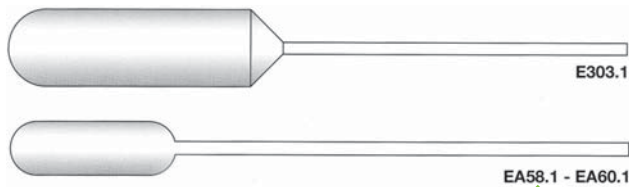
Type	Filling vol./grad. to (ml)	Drop size (µl)	Drops per ml	Length (mm)	Art. No.	Pack Qty.	€
unsterile	6,2/5	54	19	217	EA61.1	250	20,25
sterile, 20 per pack.	6,2/5	54	19	217	AEA4.1	240	36,05
unsterile	3,4/1	40	25	155	EA62.1	500	16,35
sterile, single/pack.	3,4/1	40	25	155	EA63.1	500	69,70
sterile, 20 per pack.	3,4/1	40	25	155	EA64.1	500	34,95
unsterile	3,2/3	50	20	155	EA65.1	500	14,95
sterile, single/pack.	3,2/3	50	20	155	EA66.1	500	73,35
sterile, 20 per pack.	3,2/3	50	20	155	EA67.1	500	39,25
unsterile	2,2/1	40	25	140	EA68.1	500	24,20
sterile, 20 per pack.	2,2/1	40	25	140	EA69.1	500	42,50
unsterile	1,8/2*	41	24	152	EA70.1	500	25,70
sterile, 20 per pack.	1,8/2*	41	24	152	EA71.1	500	44,10
unsterile	0,8/0,3	47	21	116	EA95.1	500	29,05
sterile, 20 per pack.	0,8/0,3	47	21	116	EA96.1	500	42,70



Disposable mixing pipettes, not graduated

Type	Filling capacity (ml)	Drop size (µl)	Drops per ml	Length (mm)	Art. No.	Pack Qty.	€
unsterile	0,2	50	20	124	EA52.1	500	21,40
unsterile, fine	0,2	25	40	131	EA53.1	500	23,45

Pasteur pipettes/Disposal pipettes



Pasteur pipettes with long, thin tip, not graduated

Sterile or unsterile.

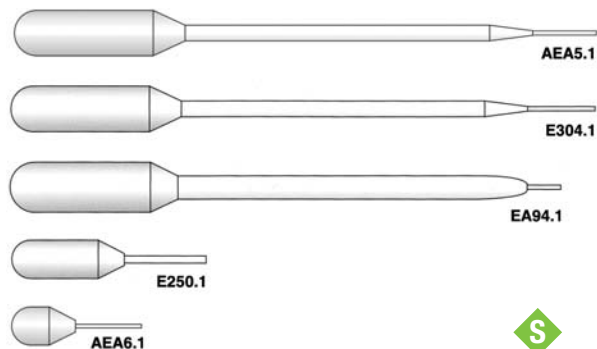
Type	Filling capacity (ml)	Drop size (µl)	Drops per ml	Length (mm)	Art. No.	Pack Qty.	€
unsterile	8,0	52	19	155	E303.1	250	27,95
unsterile	3,3	40	25	155	EA58.1	500	18,50
sterile, single/pack.	3,3	40	25	155	EA59.1	500	68,30
sterile, 20 per pack.	3,3	40	25	155	EA60.1	500	41,95



Disposable Pasteur pipettes with bellows

Made of PE, with graduation and built-in bellows.

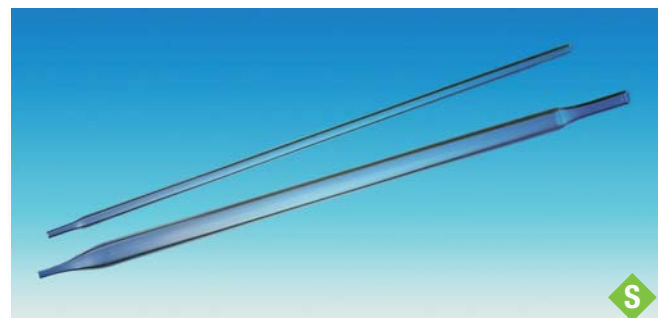
Filling capacity (ml)	Graduations (ml)	Length (mm)	Art. No.	Pack Qty.	€
1,5	0,5	134	TT22.1	100	14,15
5,0	1,0	195	TT23.1	100	16,35



Pasteur pipettes with ultra-thin tip, ungraduated

Made of transparent polyethylene (LDPE) precision-formed, unbreakable, non toxic and with controlled, reproducible drop size. Outer-Ø tip 1,1 mm (E250.1 Ø 1.5 mm).

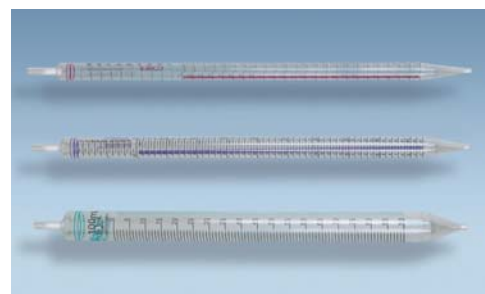
Type	Filling capacity (ml)	Drop size (µl)	Drops per ml	Length (mm)	Art. No.	Pack Qty.	€
sterile, single/pack.	3,5	20	50	157	AEA5.1	400	76,90
unsterile	3,5	20	50	157	E304.1	500	41,40
unsterile	3,3	18	55	147	EA94.1	500	41,10
unsterile	1,0	22	45	51	E250.1	500	37,65
unsterile	0,5	25	40	36	AEA6.1	500	34,65



Aspiration pipettes

Made of PS. Sterile. Pipettes without cotton stopper, without graduation. Suitable for vacuum applications and liquid handling where high precision is not required. Safe alternative to pasteurizing pipettes made of glass, since there is no risk of injury.

Volume (ml)	Type	Packaging	Length (mm)	Art. No.	Pack Qty.	€
2	sterile	individually wrapped	271	NA41.1	500	50,00
10	sterile	individually wrapped	295	NA42.1	200	58,60



Single-use pipettes

Made of PS, transparent. Sterile, individually packed. For aqueous solutions.

Volume (ml)	Art. No.	Pack Qty.	€
25	CPP2.1	50	105,35
50	CPP3.1	25	109,65
100	CPP4.1	10	194,35

Volumetric / Graduated pipettes



Serological Rotilabo®-pipettes

Made of biologically inert **PS** (with colour-coded cotton stopper). **Sterile** or unsterile. Easy-to-read graduation. The sterile pipettes are RNase-/DNase-free, pyrogen-free, non toxic and are not hemolytic.

Standard pipettes, length 27-30 cm. Art. No. ET25.2: Length 35 cm.

Volume (ml)	Stopper colour	Type	Packaging	Art. No.	Pack Qty.	€
1	yellow	sterile	individually wrapped	N231.1	500	55,90
1	yellow	sterile	25 per pack	N232.1	1000	93,00
1	yellow	non-sterile	loose	N233.2	2000	155,90
2	green	sterile	individually wrapped	N236.1	500	57,65
2	green	sterile	25 per pack	N237.1	1000	97,10
2	green	non-sterile	loose	N238.1	1000	87,10
5	blue	sterile	individually wrapped	N239.1	250	48,95
5	blue	sterile	25 per pack	N240.1	375	68,40
5	blue	non-sterile	loose	N241.1	400	64,20
10	orange	sterile	individually wrapped	N242.1	200	41,40
10	orange	sterile	25 per pack	N243.1	250	48,95
10	orange	non-sterile	loose	N244.1	250	41,40
25	red	sterile	individually wrapped	N245.2	100	53,70
25	red	sterile	10 per pack	ET23.1	100	51,10
25	red	non-sterile	loose	ET24.1	100	42,50
50	purple	sterile	individually wrapped	ET25.2	100	170,95

Short pipette shaft

Length 22 cm. For working under the sterile bench.

Volume (ml)	Stopper colour	Type	Packaging	Art. No.	Pack Qty.	€
5	blue	sterile	individually wrapped	ET26.1	200	98,90
10	orange	sterile	individually wrapped	ET27.1	100	68,30

Pipettes with large opening

For pipetting viscous liquids, for cell cultures.

Volume (ml)	Stopper colour	Type	Packaging	Art. No.	Pack Qty.	€
5	blue	sterile	individually wrapped	ET28.1	250	47,85
5	blue	sterile	25 per pack	ET29.1	375	64,30
10	orange	sterile	individually wrapped	ET30.1	200	40,35
10	orange	sterile	25 per pack	ET31.1	250	46,05

Demeter pipettes

Dilution pipettes for bacteriological examinations in food laboratories and in the dairy products industry.

Pipettes 1.1 ml **graduated** at 0.5 ml, 1 ml and 1.1 ml.

Pipettes 2.2 ml **graduated** at 0.5 ml, 1 ml, 2 ml, 2.1 ml and 2.2 ml.

Volume (ml)	Stopper colour	Type	Packaging	Art. No.	Pack Qty.	€
1,1	yellow	sterile	individually wrapped	N234.1	500	57,85
1,1	yellow	sterile	25 per pack	N235.1	1000	93,00
2,2	green	sterile	individually wrapped	NA43.1	500	56,90
2,2	green	sterile	25 per pack	NA44.1	1000	91,40

Pipettes without tip

Straight pipettes for high viscosity liquids or suspensions.

Volume (ml)	Stopper colour	Type	Packaging	Art. No.	Pack Qty.	€
10	orange	sterile	individually wrapped	NA48.1	200	41,40



Plastic graduated pipettes

Made of **PP**, transparent. Shatter-proof. EX-calibrated. Suction tube end outer Ø max. 8 mm (XY60.1 10 mm). Cleaning with low alkaline cleaning agents is recommended up to a max. temperature of 60 °C in order to avoid changes in volume.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Overall length (mm)	Art. No.	Pack Qty.	€
1	0,1	0,02	300	XY57.1	12	126,85
2	0,1	0,02	300	XY58.1	12	127,95
5	0,1	0,05	330	XY59.1	12	134,40
10	0,1	0,10	330	XY60.1	12	164,50
10	0,1	0,10	320	XY61.1	12	217,15



Plastic volumetric pipettes

Made of **PP**, transparent. Shatter-proof. EX-calibrated. Cleaning with low alkaline cleaning agents is recommended up to a max. temperature of 60 °C in order to avoid changes in volume.

Volume (ml)	Limit of error (±ml)	Overall length (mm)	Art. No.	Pack Qty.	€
1	0,02	300	YA06.1	12	122,55
2	0,02	300	YA07.1	12	130,10
5	0,03	300	YA08.1	6	118,25
10	0,04	440	YA09.1	6	124,70
25	0,05	450	YA10.1	6	127,95
50	0,10	460	YA11.1	6	134,40



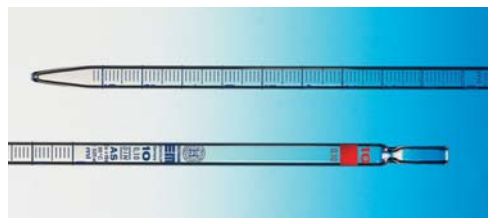
Suction piston graduated pipettes

By Hirschmann. Made of AR®-glass. With principal point ring division. **With brown graduation.** Graduated to tip. Zero point at the top.

Volume (ml)	Graduations (ml)	Art. No.	Pack Qty.	€
1	0,01	T742.1	1	17,10
2	0,02	T743.1	1	17,65
5	0,05	T744.1	1	20,75
10	0,1	T745.1	1	22,15
20	0,1	T746.1	1	27,20
25	0,1	T747.1	1	28,30
50	0,2	T748.1	1	53,00

► Greases see page 1096

Volumetric / Graduated pipettes



Programme extension!

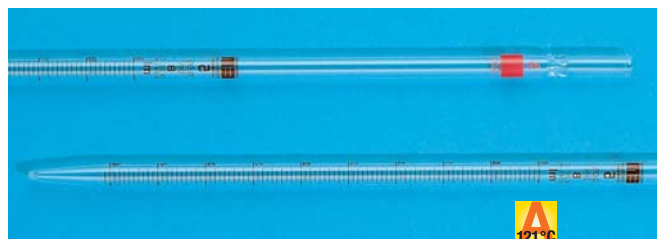


Graduated pipettes class AS

By Hirschmann. Made of AR®-glass. EX-adjusted. **Certified of conformity.** With principal point ring division. Zero point at the top. Graduated to tip. With dated charge identification. **With blue graduations.** Autoclavable. Acc. to DIN EN ISO 835. From 5 ml comes with cotton stopper ends.

*In supplementation to DIN.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Total length ±5 (mm)	Art. No.	Pack Qty.	€
0,5	0,01	0,005	360	E950.1	12	43,20
1	0,01	0,007	360	E951.2	6	37,45
1	0,01	0,007	360	E951.1	12	42,90
2	0,02	0,01	360	E952.2	6	37,45
2	0,02	0,01	360	E952.1	12	42,90
5	0,05	0,03	360	E953.2	6	42,50
5	0,05	0,03	360	E953.1	12	47,65
5*	0,1	0,03	360	E954.1	12	47,75
10	0,1	0,05	360	E955.2	6	41,95
10	0,1	0,05	360	E955.1	12	47,75
20*	0,1	0,1	360	E956.2	3	41,95
20*	0,1	0,1	360	E956.1	6	47,75
25	0,1	0,1	450	E957.2	3	41,95
25	0,1	0,1	450	E957.1	6	47,75
50*	0,2	0,2	450	E958.2	3	67,55
50*	0,2	0,2	450	E958.1	6	83,85



Graduated pipettes class B

By Hirschmann. Made of AR®-glass. EX-adjusted. The indicated volume can be obtained via normal discharge of volumetric pipette. Graduated up to tip, zero point at the top. **Brown graduation.** Autoclavable. Acc. to DIN EN ISO 835. From 5 ml comes with cotton wool stopper ends.

*In supplementation to DIN.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Total length ±5 (mm)	Art. No.	Pack Qty.	€
0,5*	0,01	0,0075	360	E941.1	12	31,95
1	0,01	0,01	360	E942.1	12	28,40
2	0,02	0,015	360	E943.1	12	28,40
5	0,05	0,045	360	E944.1	12	44,00
5*	0,1	0,045	360	E945.1	12	32,55
10	0,1	0,075	360	E946.1	12	35,30
20*	0,1	0,15	360	E947.1	6	29,90
25	0,1	0,15	450	E948.1	6	33,55
50*	0,2	0,3	450	E949.1	6	55,10

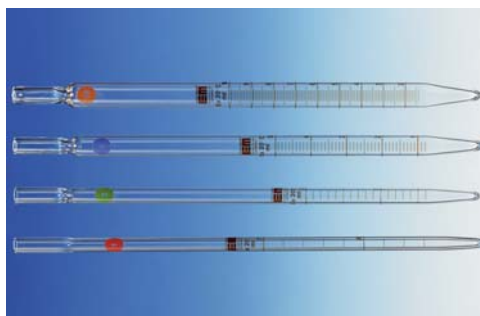


Graduated pipettes, class AS

By Hirschmann. Made of AR®-glass. **Certificate of conformity included.** With dated batch identification. Zeroed at the top, with rings marking main volumes. Adjusted to EX, in acc. with DIN EN ISO 835. With permanent colour diffusion. **Brown graduated.** From 5 ml comes with cotton stopper ends.

*In supplementation to DIN.

Volume (ml)	Graduations (ml)	Limit of error (±ml)	Total length ±5 (mm)	Art. No.	Pack Qty.	€
0,5	0,01	0,005	360	AH36.1	12	60,75
1	0,01	0,007	360	AH37.1	12	53,15
2	0,02	0,01	360	AH38.1	12	53,15
5	0,05	0,03	360	AH39.1	12	59,70
5*	0,1	0,03	360	AH40.1	12	57,65
10	0,1	0,05	360	AH41.1	12	58,40
20*	0,1	0,1	360	AH42.1	6	59,70
25	0,1	0,1	450	AH43.1	6	61,30
50*	0,2	0,2	450	AH44.1	6	105,35



Graduated pipettes for tissue culture

By Hirschmann. Made of AR®-glass with principal point ring division. Short form. Specially designed for use in sterile benches. With cotton stopper ends. Zero point at the bottom. Adjusted to ex. **With brown graduation.**

Volume (ml)	Graduations (ml)	Total length ±3 (mm)	Art. No.	Pack Qty.	€
1	0,1	230	X157.1	12	61,20
2	0,1	230	X158.1	12	61,20
5	0,1	230	X159.1	12	61,20
10	0,1	230	X160.1	12	73,75
25	0,2	230	X162.1	12	121,50

► For pipette containers and sterilization containers for pipettes see page 248

Volumetric / Graduated pipettes

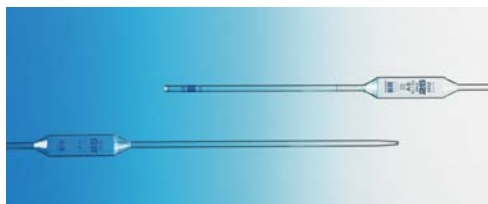


Volumetric pipettes class AS

By Hirschmann. Made of AR®-glass. **Certificate of conformity included.** With dated batch identification and with volume mark. Adjusted to EX, in acc. with DIN EN ISO 648. With permanent silver diffusion colour **graduated brown.**

*In supplementation to DIN.

Volume (ml)	Limit of error (±ml)	Total length ±10 (mm)	Art. No.	Pack Qty.	€
0,5	0,005	300	AC84.1	12	53,00
1	0,007	300	AC85.1	12	53,00
2	0,01	330	AC86.1	12	53,00
3*	0,01	350	AC87.1	6	31,15
4*	0,015	400	AC88.1	6	35,80
5	0,015	400	AC89.1	6	32,80
10	0,02	440	AC90.1	6	37,20
15*	0,03	510	AC91.1	6	41,30
20	0,03	510	AC92.1	6	46,90
25	0,03	520	AC93.1	6	48,40
30*	0,03	520	AC94.1	6	55,60
40*	0,05	540	AH33.1	6	60,65
50	0,05	540	AH34.1	6	60,65
100	0,08	585	AH35.1	6	83,35



Programme extension!



Volumetric pipettes class AS

By Hirschmann. Made of AR®-glass. With dated charge identification. **Certificate of conformity included. With blue graduation.** Autoclavable. Ex-adjusted acc. to DIN EN ISO 648. With a ring mark.

*In supplementation to DIN.

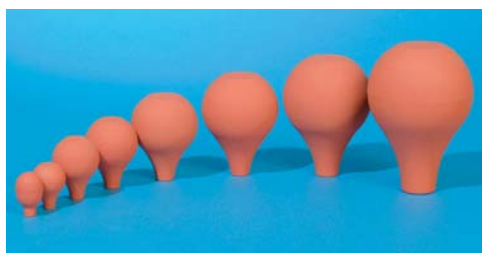
Volume (ml)	Limit of error (±ml)	Total length ±10 (mm)	Art. No.	Pack Qty.	€
1	0,007	300	E972.2	6	37,60
1	0,007	300	E972.1	12	49,70
2	0,01	330	E973.2	6	42,95
2	0,01	330	E973.1	12	53,55
3*	0,01	350	E974.1	6	29,05
5	0,015	400	E976.2	3	22,15
5	0,015	400	E976.1	6	33,25
10	0,02	440	E977.2	3	24,65
10	0,02	440	E977.1	6	36,55
15*	0,03	510	E978.1	6	37,55
20	0,03	510	E979.2	3	31,15
20	0,03	510	E979.1	6	43,00
25	0,03	520	E980.2	3	32,05
25	0,03	520	E980.1	6	44,25
50	0,05	540	E983.2	3	39,70
50	0,05	540	E983.1	6	56,55
100	0,08	585	E984.2	3	55,80
100	0,08	585	E984.1	6	77,95



Volumetric pipettes class B

By Hirschmann. Made of AR®-glass. With a ring mark. EX-adjusted. **With brown graduation.** Autoclavable. Acc. to DIN EN ISO 648.

Volume (ml)	Limit of error (±ml)	Total length ±10 (mm)	Art. No.	Pack Qty.	€
1	0,0105	300	E960.1	12	38,10
2	0,015	330	E961.1	12	44,00
5	0,023	400	E964.1	6	26,35
10	0,03	440	E965.1	6	33,00
20	0,045	510	E967.1	6	40,45
25	0,045	520	E968.1	6	41,95
50	0,075	540	E969.1	6	50,85
100	0,12	585	E970.1	6	69,80



Pipette bulbs

Made of soft PVC. Ideal for volumetric, graduated or pasteur pipettes. Neck bore Ø 6 mm.

Suction capacity (ml)	Ball-Ø (mm)	Art. No.	Pack Qty.	€
5	25 (oval)	C260.1	5	16,05
7,5	30	H616.1	5	20,00
20	42	H617.1	5	21,85
30	48	H618.1	5	29,25
85	62	H619.1	2	13,45
140	72	H620.1	2	18,75
220	84	H621.1	2	22,90
340	94	H622.1	1	14,00



Multi-coloured pipette bulb

Hand-made of natural rubber. Ideal for pipetting, distributing and measuring with volumetric or graduated pipettes.

Art. No.	Pack Qty.	€
L960.1	1	15,00

Manual pipetting aids



Rotilabo®-safety pipette bulbs

Made of natural rubber. For volumetric and graduated pipettes. Glass ball valve is opened by pressing marked point.

Standard model

For pipettes up to 10 ml. Total length 125 mm, weight 50 g.

Art. No.	Pack Qty.	€
0251.1	1	6,90

Universal model

For pipettes up to 100 ml, with Ø up to 9 mm. Total length 152 mm, weight 58 g.

Art. No.	Pack Qty.	€
PC78.1	1	6,60



Rotilabo®-safety pipette bulbs Flip

Made of natural rubber. With detachable safety valve. Evacuating via removable automatic valve. Can be cleaned inside. Suction and emptying with the aid of two operating points. Suitable for volumetric and graduated pipettes from 10-100 ml with Ø from 6-8 mm.

Colour	Art. No.	Pack Qty.	€
red	C261.1	1	9,80
yellow	C262.1	1	9,80
green	C263.1	1	9,80
blue	C264.1	1	9,80



Pipetting aid

Head and bottom part made of synthetic rubber. Suction bulb made of PE. With 3-point operation. For graduated and volumetric pipettes from 1 to 50 ml. Can be taken apart for cleaning.

Advantage: filling can be accelerated by pulling head part.

Art. No.	Pack Qty.	€
C614.1	1	21,30



Pipetting aids macro

By Brand.

- For graduated, volumetric and delivery pipettes from 0.1 to 200 ml
- Suction of up to 50 ml in 11 seconds following one-time ventilation
- Single-level operation for sucking and delivering liquid
- Spring-loaded control lever for delicate pipetting
- Blow-out function
- Drip stop via hydrophobic membrane filter (3 µm)
- Membrane filter: PP housing; PTFE membrane
- Fully autoclavable at 121 °C (2 bar) according to DIN EN 285
- Replaceable valve system

Effortless pipetting: The further up the pipette lever is operated, the faster the pipette is filled. To deliver the liquid, move the pipette lever fully downward. Even when flowing freely, the pipette's volume accuracy is not affected.

Delivery incl. spare filter.

Colour	Art. No.	Pack Qty.	€
Neutral	X478.1	1	52,60
blue	X479.1	1	52,60
magenta	X480.1	1	52,60
green	X482.1	1	52,60

Accessories:

Unsterilised spare membrane filter	X484.1	1	8,00
Unsterilised spare membrane filter	X485.1	10	58,40
Spare valve system (PP, PTFE, silicone)	X486.1	1	28,30
Spare adapter (silicone), length 44 mm	AK02.1	1	6,80



Pipette fillers pi-pump® 2500

Made of acid-resistant plastic. Safe and precise. Thumbwheel for drawing and dispensing liquid. Size 2-25 ml with venting lever for fast emptying.

Colour	Size	for pipettes up to (ml)	Art. No.	Pack Qty.	€
red	25	25	0387.1	1	17,20
green	10	10	0388.1	1	15,30
blue	2	2	0389.1	1	15,30
yellow	0	0,2	0390.1	1	15,80

Accessories:

Spare cone, rubber	E385.1	1	4,25
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Pipette filters



pipetus®-junior

By Hirschmann. **Manual pipetting aids** for all standard graduated- and volumetric pipettes. Easy and safe to use. Weighs only 115 g. Defined lifting capacity app. 2 ml when full. With hydrophobic PTFE-membrane filter 0.2 µm for integral overflow protection.

Art. No.	Pack Qty.	€
L468.1	1	139,75



pipetus®-standard

By Hirschmann. **Electric pipetting aids** consisting of ergonomically formed handle, double hose and pump with mains cable. Ideal for all standard pipettes 0.1 to 200 ml. For effective working with EX or Blow-out pipettes. Pipetting speed can be preset directly on the pump. Built-in safety valve prevents overfilling. Integral PTFE-membrane filter 0.2 µm and additional high-capacity filter on pump part. Hose length 150 cm. Cable length 140 cm. GS-approved. Connected load 220 V / 50 Hz / 2 W.

Type	Art. No.	Pack Qty.	€
without sterile filter	1534.1	1	250,50
with sterile filter	B010.1	1	292,40



Pipettor aid Safetypette

For simple and precise working with EX and blow-out pipettors from 1 to 100 ml. Excellent for right and left handed users. Sturdy, lightweight design. The silicone pipettor holder is autoclavable.

Delivery incl. 0.45 µm safety filter and different-coloured pipettor cones.

Type	Art. No.	Pack Qty.	€
Pipettor aid Safetypette	N508.1	1	93,45

Accessories:

Membrane filter 0.45 µm, unsterile	N509.1	5	12,40
Spare-silicone adapter	N315.1	1	12,55



Powerpette Plus

Mains-free pipetting aids for pipettors 1-100 ml. Housing made of ABS. Three different sucking and draining speeds can be selected.

With integrated safety filter 0.45 µm and low-battery display with one hour battery capacity left. Battery operated with 2 x 1.2 V rechargeable batteries, capacity approx. 8 hours. Weight 180 g.

Delivery incl. Powerpette plus - recharger unit, stand and 2 filters 0.45 µm.

Colour	Art. No.	Pack Qty.	€
grey	K161.1	1	238,65
yellow	K603.1	1	238,65
pink	K604.1	1	238,65
violet	K605.1	1	238,65
blue-green	K606.1	1	238,65
green	K607.1	1	238,65

Accessories:

Spare-round filter set 0.2 µm	N313.1	5	13,35
Spare-silicone adapter	N315.1	1	12,55

Cordless pipette fillers



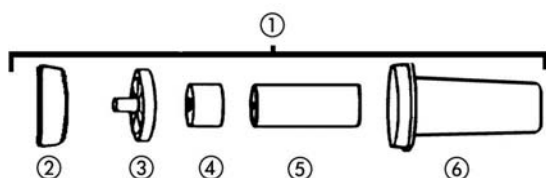
pipetus®

By Hirschmann. **Battery-operated pipetting aid**

- For pasteur-, graduated- and volumetric pipettes with volumes between 0.1 and 200 ml
- Easy-to-read colour display for optical control of all functions
- Permanent rechargeable-battery capacity display
- Preset pipetting mode (EX or Blow-out)
- Display for set pipetting speed (5 speeds available)
- Safety check valve integrated
- Non-stop working capacity up to 1 week
- Audible signal when battery capacity is under 10 %
- Recharging via charging station or directly with battery charger, overload protection
- Pipettor can be sterilized (excluding PTFE-filter) at 121 °C
- Weight 200 g

Delivery incl. 2 sterile round filters, 1 safety valve, power pointcharger and inductive charging station.

Type	Art. No.	Pack Qty.	€
pipetus®	N472.1	1	428,95



Spare parts for pipetus® models

By Hirschmann.

Type	Art. No.	Pack Qty.	€
① Pipette holder complete	N473.1	1	73,10
② Spigot nut	N474.1	1	15,45
③ 5 round filters	K450.1	1	45,50
④ Safety valve	K451.1	1	43,25
⑤ Rubber adapters (silicone)	E388.1	1	12,00
⑥ Pipette holder box	N475.1	1	32,05
Seal ring	KT19.1	5	11,45



accu-jet® pro

By Brand. **Battery-operated pipette controller**

- For glass and plastic pipettes from 0.1-200 ml
- Ergonomic design, excellently balanced
- Continuously-adjustable control of the pipetting speed
- Robust, powerful pump for fast filling (50 ml in 10 seconds)
- LED lights up when there are approx. two hours of battery-power left
- 8 hours of continuous pipetting with a 10 ml pipette without recharging
- Corrosion protection through active pressure compensation
- Safety valve / membrane filter against liquid penetration
- Select either gravity-delivery or motorized blow-out as liquid delivery mode
- Weight 190 g

Single-handed operation: select gravity-delivery or motorized blow-out, and adjust the motor speed range with one hand. Pipetting buttons for sensitive control of filling and dispensing rates, especially for lower volume pipettes.

Delivery incl. nickel-metal hybrid battery (230 V/50 Hz), 2 battery compartment covers, wall support, 2 spare membrane filters 0.2 µm, sterile.

Colour	Art. No.	Pack Qty.	€
dark blue	NA54.1	1	435,40
magenta	NA55.1	1	435,40
green	NA56.1	1	435,40
royal blue	NA57.1	1	435,40

Spare parts for accu-jet® pro

By Brand.

Type	Art. No.	Pack Qty.	€
Diaphragm filter 0.2 µm, sterile	NA58.1	1	7,75
Pipette adapter with check valve	NA59.1	1	15,00
Nickel-metal hybrid battery pack	NA60.1	1	18,20

Pipette accessories



Rota-Filler 3000™ battery operated pipetting aid

Battery operated. Pipette holder made of PP, interchangeable PTFE membrane filter prevents contamination. Autoclavable.

- For glass and plastic pipettes between 1 and 100 ml
- Ergonomically shaped housing for fatigue-free working
- UV-resistant housing material
- 2 pipetting speeds (High or Low Speed)
- Gravity mode, for non-motorised fluid drainage
- 20 h continuous duty, can be used while charging is in progress
- LED-based low battery indicator
- User friendly thanks to concave shaped finger pads
- With labelling space on the side
- Five-coloured pipette holder for distinguishing between apparatus
- Additional pipette adapter for low pipetting volumes
- Weight approx. 200 g.

Delivery incl. power supply (100-240 V, 50/60 Hz), lithium ion battery, 3 spare membrane filters (PTFE 0.45 µm), 5 pipette holders, adapter for 1-ml pipettes, stand and wall mount.

Art. No.	Pack Qty.	€
TC16.1	1	260,15

Replacement parts for Rota-Filler 3000™

Type	Art. No.	Pack Qty.	€
Replacement membrane filter	AN90.1	5	32,20
Replacement charger	TC17.1	1	62,35
Replacement lithium ion battery	TC18.1	1	34,20
Replacement pipette adapter, made of silicone	TC19.1	1	23,55
Replacement pipette holder, coloured	TC20.1	5	60,20



Rotilabo®-washing system for pipettes

Made of **HDPE**. Washing system for gentle cleaning of pipettes based on pipetting principle. A complete system consists of a washing unit and/or cleaning vessel and a pipette basket.

All individual components must be ordered separately.
Delivery without tube.

- ① **Washing unit** with draining siphon for automatic water change. Suitable for use with pipette baskets.
- ② **Cleaning vessel** for pre-washing pipettes or brushes with cleaning solution.
- ③ **Pipette baskets** for immersing pipettes in the cleaning vessels or washing units and for transporting the pipettes. Height of basket 300 mm. Optional extension piece is also available which enables the basket (Art. No. Y813.1) length to be extended from 650 to 870 mm.

① Washing unit

For pipette length (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
600	170 x 990	Y809.1	1	160,20
460	170 x 735	Y810.1	1	155,90

② Cleaning vessel

For pipette length (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
600	162 x 650	Y811.1	1	69,35
460	162 x 505	Y812.1	1	69,35

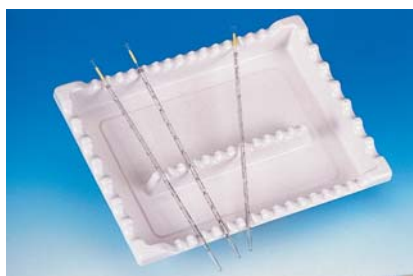
③ Pipette basket

For pipette length (mm)	Ø x H (mm)	Art. No.	Pack Qty.	€
600	145 x 650	Y813.1	1	36,35
460	145 x 500	Y814.1	1	34,40

Accessories:

Extension piece for pipette basket Y813.1	Y815.1	2	15,00
Silicone hose, 10 m	9581.1	1	49,45

► Ultrasonic pipette cleansing set see page 1054

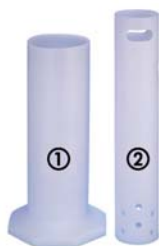


Rotilabo®-pipette tray

Made of **PVC**. For pipettes from 120 mm in length. Dimensions: L 300 x W 220 x H 38 mm.

Art. No.	Pack Qty.	€
7220.1	1	18,85

Pipette accessories



NEU
NOUVEAU
NEW

Pipette cleaning container

Made from **LDPE**. For gentle cleaning of volumetric and graduated pipettes. Versatile, also suitable for storing and wetting pipettes.

① Cleaning cylinder

Leakproof pipette cylinder with sturdy wide base.

For	Ø x H (mm)	Art. No.	Pack Qty.	€
Cleaning basket CXT0.1	152 x 460	CXP8.1	1	107,45
Cleaning basket CXT1.1	152 x 610	CXP9.1	1	113,95

② Cleaning basket

Pipette basket with drainage holes. Inner foam padding prevents damage to pipettes.

For	Ø x H (mm)	Art. No.	Pack Qty.	€
Pipette length 460 mm	102 x 580	CXT0.1	1	135,45
Pipette length 610 mm	102 x 810	CXT1.1	1	148,35



121°C

Pipette stand

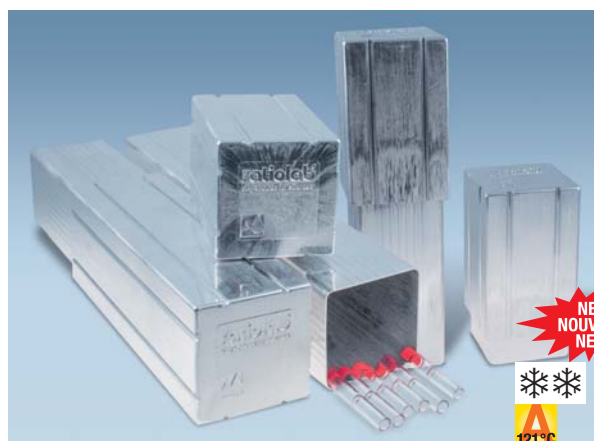
Made of **PP**. 16 spaces: For 8 pipettes up to 8 mm Ø and 8 pipettes up to 16 mm Ø. Small holes in the base allow the liquid to run out. Dimensions: L 200 x W 75 x H 150 mm. Autoclavable.

Art. No.	Pack Qty.	€
HX82.1	1	12,15

Pipette stands with foot

Made of **PP**. 28 spaces: For 18 pipettes up to 10 mm Ø and 10 pipettes up to 15 mm Ø. Small bore holes in the base allow the liquid to run out. Top part can also be used separately, please order base with PVC bar separately. The top section of the complete system is height-adjustable.

Type	Art. No.	Pack Qty.	€
Top part: Stand with 28 spaces, Ø 175 mm	HX80.1	1	22,40
Foot with PVC rod, Ø foot 230 mm	HX81.1	1	14,95



NEU
NOUVEAU
NEW

121°C

Pipette container

Made of aluminium. For the storage of plastic pipettes and glassware between 150 and 480 mm in length, e.g. stirring bars, serological, Pasteur pipettes, volumetric pipettes and graduated pipettes. With silicone inner padding and lid for protection of the stored glass pipettes. Autoclavable.

Length (mm)	Art. No.	Pack Qty.	€
150-200	CLN4.1	1	32,15
235-305	CLN5.1	1	37,45
315-385	CLN6.1	1	40,55
315-485	CLN7.1	1	42,80



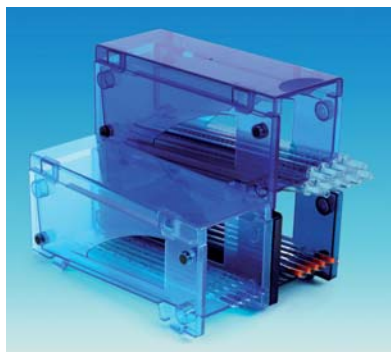
Rotilabo®-pipette stand

Made of **PP**. Rotating. With 94 ports of different Ø for graduated and bulb pipettes on various sizes with a maximum Ø of 13 mm. With reinforced base and additional turntable disk to protect pipette tips. Dimensions: H 470 mm, Ø 230 mm.

Art. No.	Pack Qty.	€
7364.1	1	48,40

► For pipette containers and sterilization containers for pipettes see page 248

Piston pipettors



Pipette combi rack

Made of **ABS**. For storage of measuring pipettes and serological pipettes under a laminar flow container or fume hood. Racks can be combined horizontally or vertically. Magnets on both sides for mounting the racks to metal walls. Inclined position of pipettes for safe storage; straight lid can be used as additional storage surface.
Dimensions: L 301 x W 100 x H 127.5 mm.

Delivery incl. three pipette racks in matching blue colour tones.

Art. No.	Qty. (set)	€
NA53.1	1	80,55



Rotilabo®-Pipette racks

Robust pipette rack with 4 levels for holding graduated pipettes from 0.1 to 25 ml. Dimensions: L 291 x W 88 x H 401 mm.

- Available in two designs: Acrylic glass or ABS
- ABS-pipette racks with additional holders on both long sides for manual pipetting aids and pipette fillers

Type	Colour	Art. No.	Pack Qty.	€
Acrylic glass	colourless	CX88.1	1	151,60
ABS	blue	CX89.1	1	102,15
ABS	red	CX90.1	1	102,15



Rotilabo®-pipette tray

Made of **PVC**, fits most drawers. Divided lengthways into 4 parts. Dimensions: L 420 x W 300 x H 40 mm.

Art. No.	Pack Qty.	€
7230.1	1	31,40

► Drawer inserts, see page 700



Ripette®

Adjustable piston pipettor for serial pipetting. 48 dispensing settings from 1 µl to 5 ml without refilling. Tested acc. to DIN EN ISO 8655 with Certificate of Conformity. Easy to operate setting device cuts down on fatigue during long-term use. Light, robust construction, ergonomic design.

Delivery incl. adapter for 25 and 50 ml dispensers tips.

Type	Art. No.	Pack Qty.	€
Ripette®	H768.1	1	213,95
Adapter for 25 ml + 50 ml (autoclavable)	H687.1	1	6,40



Dispensertips

Sterile or **unsterile**. Classic dispensertips, suitable for Ripette®, Ripette® pro, HandyStep®, Distriman®, Multipette® 4780 and other compatible dosing systems. Comply with DIN EN ISO 8655. Sterile models DNA-/RNase-/ATP-free and not pyrogen.

Technical specifications:

Control wheel	1	2	3	4	5		
Increments	48	23	15	11	8		
Tips (ml)	Capacity (µl)					Non accuracy	Non precision
0.05	1	2	3	4	5	±2.5 %	≤5 %
1.25	25	50	75	100	125	±0.8 %	≤0.5 %
12.5	250	500	750	1000	1250	±0.3 %	≤0.3 %
25.0	500	1000	1500	2000	2500	±0.2 %	≤0.3 %

*Optimal use only in combination with 10 µl pipettor tips

Unsterile

Volume (ml)	Art. No.	Pack Qty.	€
0,05*	H679.1	100	105,35
1,25	H681.1	100	63,45
12,5	H684.1	100	63,45
25	H685.2	25	22,60

Sterile (bioclean®, individually wrapped)

Volume (ml)	Art. No.	Pack Qty.	€
0,05*	YK27.1	100	135,45
1,25	H689.1	100	116,10
25	H693.2	25	35,75

Accessories:

Adapter for 25 ml + 50 ml (autoclavable)	H687.1	1	6,40
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Piston pipettors



Ripette® pro

Manual series dispenser with sight glass for easy tip selection and setting the dispensing volume.

- Stroke setting wheel with 10 positions
- 10 program numbers and 12 tip sizes give you a choice of 120 different setting options
- Straightforward display of stroke setting and dispensing volume in sight glass
- Anatomical design, easy-action dispensing button, low weight
- Good chemical resistance
- Suitable for Dispenser tips, Ritips® professional, PD-Tips from Brand, Combitips®, Combitips® plus
- Includes a certificate of quality
- Conformity certified, with serial number

Technical specifications:

Program numbers	1	2	3	4	5	6	7	8	9	10
Number of steps	48	35	23	19	15	13	11	9	8	7
Tip size (ml)	Dispensing volume (µl)									
0.05	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5
0.10	2	3	4	5	6	7	8	9	10	11
0.20	3	6	8	10	12	14	16	18	20	22
0.50	10	15	20	25	30	35	40	45	50	55
1,00	20	30	40	50	60	70	80	90	100	110
1,25	25	37,5	50	62,5	75	87,5	100	112,5	125	137,5
2,50	50	75	100	125	150	175	200	225	250	275
5,00	100	150	200	250	300	350	400	450	500	550
10,00	200	300	400	500	600	700	800	900	1000	1100
12,50	250	375	500	625	750	875	1000	1125	1250	1375
25,00	500	750	1000	1250	1500	1750	2000	2250	2500	2750
50,00	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500

Art. No.	Pack Qty.	€
YK24.1	1	256,95

Ripette® pro test set

Delivery incl. 5 Ritips® professional dispensertips (all sizes) and dispensertips 0.05 ml, 1.25 ml as well as 12.5 ml plus an adaptor for dispensertips 25/50 ml.

Art. No.	Qty. (set)	€
YK25.1		47,55



Ritips® professional

Sterile or non-sterile. Sterile models (bioclean® quality) are individually packed, DNA/RNase/ATP free. Pyrogenfree.

- Direct displacement principle, suitable for viscous and highly volatile liquids
- Safe dispensing without risk of contamination
- Colour code allows quick identification of the required tip

Suitable for Ripette®, Ripette® pro, Multipette® 4780, HandyStep®, eLine™-Dispenser, Minilab 100, Minilab 101, Minilab 201, Repetman®, Stepmate, EasyStep, EasyStep electronic, RepeatOne®, Handrop. No display when used in combination with the following dispensers: Multipette® M4, Multipette® plus, HandyStep® electronic.

Technical specifications:

Tip size	Dosing range	Increments	Test volume	Systematic error of measurement (%)	Random error of measurement (%)
0.1 ml	1-100 µl	0.2 µl	10 µl 100 µl	±1.0 ±0.8	≤1.0 ≤0.5
0.2 ml	2-200 µl	0.4 µl	20 µl 200 µl	±1.0 ±0.8	≤0.9 ≤0.5
0.5 ml	5-500 µl	1 µl	50 µl 500 µl	±0.8 ±0.8	≤0.9 ≤0.3
1.0 ml	10-1000 µl	2 µl	100 µl 1000 µl	±0.9 ±0.85	≤0.6 ≤0.4
2.5 ml	25-2500 µl	5 µl	250 µl 2500 µl	±0.9 ±0.85	≤0.45 ≤0.15
5 ml	50-5000 µl	10 µl	500 µl 5000 µl	±0.8 ±0.85	≤0.35 ≤0.15
10 ml	0.1-10 ml	0.02 ml	1 ml 10 ml	±0.7 ±0.85	≤0.3 ≤0.15
25 ml	0.25-25 ml	0.05 ml	2.5 ml 25 ml	±0.5 ±0.4	≤0.3 ≤0.15
50 ml	0.5-50 ml	0.1 ml	5 ml 50 ml	±0.5 ±0.4	≤0.3 ≤0.15

Liquid: Aqua bidist., reference temperature: 20 °C, measurement acc. to DIN 8655

Unsterile

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,10	-	Y907.1	100	71,40
0,20	-	Y908.1	100	71,40
0,50	-	Y909.1	100	71,40
1,00	-	Y910.1	100	71,40
2,50	-	Y911.1	100	71,40
5,00	-	Y912.1	100	71,40
10,0	-	Y913.1	100	71,40
25,00	incl. 1 adapter	Y914.1	25	22,50
50,00	incl. 1 adapter	Y915.1	25	23,15

Sterile (bioclean®, individually wrapped)

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,10	-	Y917.1	100	130,10
0,20	-	Y918.1	100	130,10
0,50	-	Y919.1	100	130,10
1,00	-	Y920.1	100	130,10
2,50	-	Y921.1	100	130,10
5,00	-	Y922.1	100	130,10
10,00	-	Y923.1	100	130,10
25,00	incl. 1 adapter	Y924.1	25	42,80
50,00	incl. 1 adapter	Y925.1	25	44,65

Piston pipettors



HandyStep® S

By Brand. Manual multi-dispenser for fast, repetitive dispensing of liquids. The PD-Tips allow volumes of between 2 µl and 5 ml to be dispensed in up to 49 steps with a single filling. HandyStep® S and PD-Tips work on the positive displacement principle. High viscosity, high density and high vapour pressure liquids can be dispensed with extremely high precision. Direct displacement allows contamination-free operation since no aerosols are formed.

Properties:

- Ergonomic design
- Stroke length setting wheel with 9 positions
- Easy tip attachment - the PD-Tips are inserted straight from below
- Safe tip removal at the touch of a button - no need to touch the dispenser tips
- Easy-to-read display, no battery required
- Innovative plastics provide increased resistance to chemicals
- For use with PD-Tips, Combitips®, Combitips® plus, Ritips®, Repet Tips, Encode™ Tips and other compatible tips
- Working temperature range: 15 to 40 °C
- Maintenance free, factory calibrated
- Includes a certificate of quality
- Conformity certified, with serial number
- DE-M approved

Technical specifications:

(accuracy table for HandyStep® S when used in combination with PD-Tips)

PD tip size	Volume range (µl)	Accuracy ≤ ± % - stroke adjustment = % of nominal capacity		Variation coefficient ≤ ± % - stroke adjustment = % of nominal capacity	
		10 %	2 %	10 %	2 %
0.1 ml	2-10	1.6	8.0	2.0	5.0
0.5 ml	10-50	0.8	4.0	0.6	1.4
1.0 ml	20-100	0.8	4.0	0.4	1.0
1.25 ml	25-125	0.8	4.0	0.3	0.8
2.5 ml	50-250	0.7	3.5	0.2	0.8
5.0 ml	100-500	0.5	2.5	0.2	0.6
10.0 ml	200-1000	0.4	1.5	0.2	0.5
12.5 ml	250-1250	0.3	1.5	0.2	0.4
25 ml	500-2500	0.3	1.5	0.2	0.4
50 ml	1000-5000	0.3	1.5	0.15	0.4

Limits of error referred to the dispensing volume set according to PD-tip size with the instrument, tip, environment and distilled water at a constant temperature of 20 °C and under smooth and steady operation. This test is performed in accordance with DIN EN ISO 8655-5. The nominal capacity is the maximum volume printed on the PD-tip.

Art. No.	Pack Qty.	€
EH21.1	1	213,95



HandyStep® electronic

By Brand. Microprocessor-controlled, storage battery operated hand-held dispenser. Ergonomic design enables fatigue-proof serial dosing.

Three functions:

- Dispensing
- Automatic dispensing (the unit calculates the temporal mean value between three dispensing stages and automatically continues working at the same rhythm)
- Pipetting

Properties:

- Variable volume adjustment between 1 µl and 50 ml
- Automatic size recognition of PD-Tips from Brand with type coding
- One-hand operation
- Can be used with almost all other standard dispenser tips
- With Certificate of Quality
- Conformity certified with serial number
- DE-M approved

Technical data:

(table of accuracy for HandyStep® electronic in combination with PD-tips).

PD-tip size	Volume range	Sub-divisions	Nominal volume (Accuracy ≤ ± %)		Nominal volume (Variation coefficient ≤ %)	
			100 %	10 %	100 %	10 %
0.1 ml	1 µl-100 µl	0.1 µl	1.0	1.6	0.5	2.0
0.5 ml	5 µl-100 µl 100 µl-500 µl	0.1 µl 1 µl	0.9	0.9	0.25	1.0
1.25 ml	12.5 µl-100 µl 100 µl-1000 µl 1 ml-1.25 ml	0.5 µl 1 µl 10 µl	0.6	0.9	0.15	0.6
2.5 ml	25 µl-1000 µl 1 ml-2.5 ml	1 µl 10 µl	0.5	0.8	0.1	0.4
5.0 ml	50 µl-1000 µl 1 ml-5 ml	1 µl 10 µl	0.5	0.8	0.08	0.3
12.5 ml	125 µl-1000 µl 1 ml-10 ml 10 ml-12.5 ml	5 µl 10 µl 100 µl	0.4	0.5	0.08	0.25
25 ml	250 µl-10 ml 10 ml-25 ml	10 µl 100 µl	0.3	0.3	0.08	0.25
50 ml	500 µl-10 ml 10 ml-50 ml	10 µl 100 µl	0.3	0.3	0.08	0.25

Limit of error referred to the nominal capacity and partial volumes according to PD tip with the instrument, environment and distilled water at a constant temperature of 20 °C and under smooth and steady operation. The limits of error specified in ISO 8655 are not exceeded. The nominal capacity is the maximum volume printed on the PD tip.

Delivery incl. charging station with power adapter (230 V/50 Hz) and NiMH battery pack (can be recharged in unit or separately).

Type	Art. No.	Pack Qty.	€
HandyStep® electronic	EH22.1	1	654,70

Accessories:

Spare-NiMH storage battery pack	EH44.1	1	41,75
Spare charging station, without power unit	EH45.1	1	130,10
Spare power unit	EH46.1	1	61,50



Programme extension!



PD-Tips

By Brand. Precision dispenser tips with patented type coding, **PP** cylinder, **HDPE** piston (0.1 ml made of LCP). Suitable for various compatible metering systems, e.g. HandyStep® electronic, Gilson® Repetman®, Rainin AutoRep™ E (with automatic size recognition); HandyStep®, Rainin AutoRep™ M, Eppendorf® Multipette® 4780 and EDOS® 5221 (without automatic size recognition). In conformity with ISO 8655, with batch certificate.

CE marked in accordance with IVD directive 98/79 EC.

Technical specifications:

Setting of stroke	1	1.5	2	2.5	3	3.5	4	4.5	5
Number of steps	49	32	24	19	15	13	11	10	9
PD-Tips (ml)	Dosing volume (µl)								
0.1	2	3	4	5	6	7	8	9	10
0.5	10	15	20	25	30	35	40	45	50
1	20	30	40	50	60	70	80	90	100
1.25	25	37.5	50	62.5	75	87.5	100	112.5	125
2.5	50	75	100	125	150	175	200	225	250
5.0	100	150	200	250	300	350	400	450	500
10	200	300	400	500	600	700	800	900	1000
12.5	250	375	500	625	750	875	1000	1125	1250
25	500	750	1000	1250	1500	1750	2000	2250	2500
50	1000	1500	2000	2500	3000	3500	4000	4500	5000

Unsterile

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,1	-	EH23.1	100	73,65
0,5	-	EH24.1	100	67,00
1	-	PP97.1	100	70,95
1,25	-	EH25.1	100	67,00
2,5	-	EH26.1	100	67,00
5	-	EH27.1	100	67,00
10	-	PP98.1	100	70,95
12,5	-	EH28.1	100	67,00
25	incl. 1 adapter	EH29.1	50	38,20
50	incl. 1 adapter	EH30.1	25	21,10

Sterile (endotoxin-free, individually wrapped)

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,1	-	EH31.1	100	145,15
0,5	-	EH32.1	100	127,95
1	-	PP99.1	100	127,95
1,25	-	EH33.1	100	127,95
2,5	-	EH34.1	100	127,95
5	-	EH35.1	100	127,95
10	-	PT00.1	100	127,95
12,5	-	EH36.1	100	127,95
25	incl. 1 adapter	EH37.1	25	37,75
50	incl. 1 adapter	EH38.1	25	38,70

Bio-Cert® model (sterile, DNA-/RNase-/ATP- and endotoxin-free, individually wrapped)

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,1	-	EH39.1	100	160,20
0,5	-	EH40.1	100	140,85
1	-	PT01.1	100	140,85
1,25	-	EH41.1	100	140,85
2,5	-	EH42.1	100	140,85
5	-	EH43.1	100	140,85
10	-	PT02.1	100	140,85
12,5	-	EH50.1	100	140,85
25	incl. 1 adapter	EH51.1	25	40,55
50	incl. 1 adapter	EH55.1	25	42,50

Accessories:

Spare adapter, sterile	EH57.1	5	19,65
Spare adapter, unsterile	EH56.1	10	18,85

PD-Tip-set

20 PD-tips in sizes of 0.5, 1, 1.25, 2.5, 5, 10 and 12.5 ml.

Art. No.	Qty. (set)	€
CNT1.1	1	94,10



Stepper™ 411

By Socorex. For precise serial pipetting.

- 4-finger activation function eliminates thumb fatigue
- Stop mechanism: Self-locking mechanism prevents false delivery
- Dose range: 53 volumes from 10 to 5000 µl
- Only 3 different tip sizes, colour-coded
- Up to 73 doses per filling
- Enables fast work rates, up to 2 doses per second
- Individually calibrated with test certificate

An separate adjustable head of matching colour is available for each tip size; it displays the dosing volume and number for a filled tip.

Type	Art. No.	Pack Qty.	€
Stepper	6952.1	1	274,15

Accessories:

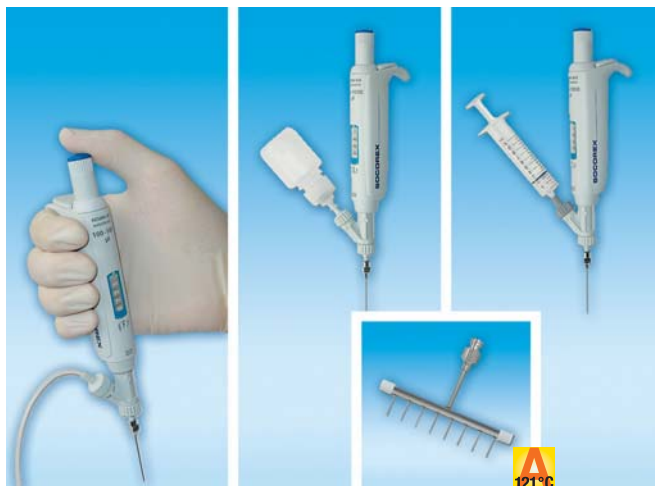
Stand for one stepper	6993.1	1	48,60
Adapter for 37.5 ml tips	P198.1	5	11,25

Ecostep™ disposable tips for Stepper™ 411

By Socorex. Made of PP, colour coded, autoclavable.

Volume (ml)	Range (µl)	Graduation (µl)	Art. No.	Pack Qty.	€
0,75	10-100	5	6953.1	100	108,60
3,75	50-500	25	6969.1	100	108,60
37,50	500-5000	250	6987.1	100	145,15

Piston pipettors



Micro-dispensing pipettors Acura® 865

By Socorex. Manual dispensing pipettors for serial dosing in the microliter range.

- Three-way valve enables continuous dosing
- Low weight and ergonomic design for fatigue-free working
- Easy to operate function keys
- Gentle piston stroke activation
- Large volume display window
- The valve unit can be rotated
- Liquid can be supplied from hose, syringe or optionally via the bottle
- Simple calibration system
- With customised serial number and test certificate
- Can be autoclaved fully assembled at 121 °C

Technical specifications:

Capacity (µl)	Graduation (µl)	Non accuracy (%)	Non precision (%)
5-50	0.1	5 µl <±5.0	5 µl <±2.0
		50 µl <±1.5	50 µl <±0.4
20-200	0.2	20 µl <±2.5	20 µl <±1.5
		200 µl <±1.0	200 µl <±0.3
100-1000	1	100 µl <±1.5	100 µl <±0.6
		1000 µl <±0.6	1000 µl <±0.2

Delivery incl. silicone hose, single-channel dosing cannula made of stainless steel, valve cap for drawing-off liquid from a disposable syringe.

Volume (µl)	Art. No.	Pack Qty.	€
5-50	EP88.1	1	376,25
20-200	EP89.1	1	344,00
100-1000	EP90.1	1	321,45

Accessories for micro dispensing pipettors Acura® 865

Ideal for sucking up liquid from bottle:

Type	Art. No.	Pack Qty.	€
Bottle with Luer-adapter, made of PP, 30 ml	EP91.1	1	45,10

Further accessories:

Type	Art. No.	Pack Qty.	€
8-channel cannulas made of stainless steel with Luer-lock adapter	EP92.1	1	144,05
Pipettor stands for 3 pipettors, light grey	EP93.1	1	96,75
Rack pipette holder for 2 pipettes, blue	TY58.1	1	18,15



Stem pipettor Acura® manual 810

By Socorex. Microlitre pipettor for 1:10 dilution

Air suspension pipettor with two pre-calibrated fixed volumes in one piston stroke enables sequential delivery of 1 and 0.1 ml of same liquid. For more flexibility, the volumes can be used either individually or together for dilution. The metal cone guarantees perfect fit of the long PP stem tips, which is of great advantage when removing samples from narrow vessels, Stomacher® - and other homogenizing bags. The Acura® manual 810 is an ideal alternative to standard graduated pipettors for serial 1:10 dilution in bacteriology.

Stem tips: Made of PP (inner-Ø 4 mm), sterile.

Protection filters: For protection against intrusion of liquid and any risk of contamination. The protection filters are easy to change and to remove.

Properties:

- Two pre-calibrated fixed volumes - no setting-up required
- Both volumes 1 and 0.1 ml can be calibrated separately from each other
- Simple carrying out of all functions
- Excellent ergonomics, light weight
- The metal shaft enables long stem tips to be used
- Justip™ system for height adjustment of tip ejection
- Simple and faultless ejection of stem tips
- Completely autoclavable at 121 °C
- Replaceable PE protection filter

Technical specifications:

The values were obtained with distilled water at a constant (±0.5 °C) room temperature between 20 and 25 °C, acc. to EN ISO 8655.

Volume (µl)	Inaccuracy (E %)	Non-precision (CV %)
100	<±2.0	<2.5
1000	<±0.5	<0.4

Volume (µl)	Tip type	Art. No.	Pack Qty.	€
100 + 1000	Stem tip	HK00.1	1	240,80

Accessories:

Smartie-Mix, press-button cap for pipettor Acura®, in 14 colours	AT36.1	14	34,40
Stem tips made of PP, L 190 mm, sterile	HK01.2	1000 (40 x 25)	67,95
Protection filters made of PE	HK02.1	100	24,20
Pipettor stands for 3 pipettors, light grey	EP93.1	1	96,75
Rack pipette holder for 2 pipettes, blue	TY58.1	1	18,15

► Homogenizing bags, see page 239

Positive displacement pipettors



Piston pipettors, digital Transferpettor

By Brand. Positive displacement pipettors for difficult media

For foaming media (e.g. tenside solutions), high-vapor-pressure media (e.g. alcohols, ether, hydrocarbons), viscous media and high-density media (e.g. concentrated protein solutions, oils, resins, fats, glycerine, mercury, sulphuric acid).

Unlike air displacement pipettes, the Transferpettor piston is in direct contact with the aspirated liquid to be expelled. This principle always provides precise, reproducible results, regardless of the pipetting speed and the ambient conditions. Capillaries and tips can be reused, since the minimal residual wetting is negligible for most applications. Where carry-over is not permitted, such as with infectious or radioactive media, an air displacement pipette with disposable tips should be used.

Range of application:

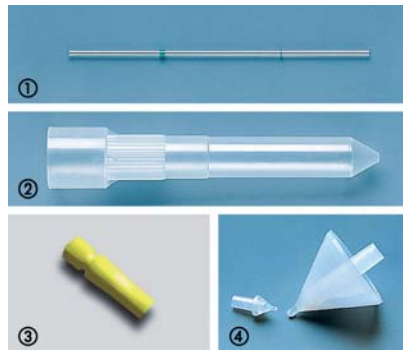
- Media with densities up to 13.6 g/cm³
- Viscosity up to 140 000 mm²/s (depending on size of apparatus)
- Vapour pressure up to 500 mbar
- Working temperature range 15 to 40 °C

DE-M approved, with Certificate of Quality.

Technical specifications:

Capacity (µl)	Correctives (%)	Variation coefficient (%)
2.5-10	10 µl ≤ 1.0	10 µl ≤ 0.8
5-25	25 µl ≤ 0.8	25 µl ≤ 0.5
10-50	50 µl ≤ 0.6	50 µl ≤ 0.4
20-100	100 µl ≤ 0.6	100 µl ≤ 0.4
100-500	500 µl ≤ 0.5	500 µl ≤ 0.2
200-1000	1000 µl ≤ 0.5	1000 µl ≤ 0.2
1000-5000	5000 µl ≤ 0.5	5000 µl ≤ 0.2
2000-10 000	10 000 µl ≤ 0.5	10 000 µl ≤ 0.2

Volume (µl)	Pitch (µl)	Colour code	Art. No.	Pack Qty.	€
2,5-10	0,01	orange	NA87.1	1	322,50
5-25	0,1	2 x white	NA88.1	1	322,50
10-50	0,1	green	NA89.1	1	322,50
20-100	0,1	blue	NA90.1	1	322,50
100-500	1,0	green	NA91.1	1	322,50
200-1000	1,0	yellow	NA92.1	1	322,50
1000-5000	10,0	red	NA93.1	1	322,50
2000-10 000	10,0	orange	NA94.1	1	322,50



Accessories for digital Transferpettor

By Brand. DE-M approved.

Caps

Image	Type	for capacity (µl)	Colour code	Art. No.	Pack Qty.	€
①	Glass	1, 2, 5	white	NA95.1	100	29,15
①	Glass	10	orange	NA96.1	100	29,15
①	Glass	20	black	NA97.1	100	29,15
①	Glass	25	2 x white	NA98.1	100	29,15
①	Glass	50	green	NA99.1	100	29,15
①	Glass	100 / 200	blue / red	PA00.1	50	15,95
②	PP	100-500	green	PA01.1	10	26,00
②	PP	200-1000	yellow	PA02.1	10	26,00
②	PP	1000-5000	red	PA03.1	10	26,00
②	PP	2000-10 000	orange	PA04.1	10	26,00

Seals

Image	Type	for capacity (µl)	Art. No.	Pack Qty.	€
③	PTFE	20, 25	PA05.1	3	16,45
③	PTFE	50	PA06.1	3	16,45
③	PTFE	100, 200	PA07.1	3	16,45
④	PE	100-500	PA08.1	10	21,40
④	PE	200-1000	PA09.1	10	21,40
④	PE	1000-5000	PA10.1	10	21,40
④	PE	2000-10 000	PA11.1	10	21,40

Repair sets, conformity certification

Type	for capacity (µl)	Art. No.	Pack Qty.	€
Set	1, 2, 5	PA12.1	1	28,10
Set	10	PA13.1	1	28,10
Set	20, 25	PA14.1	1	31,40
Set	50	PA15.1	1	31,40
Set	100, 200	PA16.1	1	31,40



Transferpettor stations

By Brand. For storing 2 or 4 devices, incl. accessories.

Image	for capacity (µl)	Art. No.	Pack Qty.	€
⑤	500-10 000	PA17.1	1	97,50
⑥	max. 200	PA18.1	1	115,05

Positive displacement pipettors



NEU
NOUVEAU
NEW

Positive displacement pipettes microman® E

From Gilson. Positive displacement system without air cushion between sample and piston prevents contamination as well as aerosol formation and produces precise and reproducible pipetting results. Caps fit straight out of the box, pistons and capillaries lock into place automatically ("QuickSnap System").

For difficult-to-process media, e.g.:

- Viscous media, e.g. oils, glycerol, gel loading buffer
- Media with a high vapour pressure (acetone, hexane or other solvents)
- Sterile media
- PCR/qPCR preparations
- Radioactive media
- Cold/warm solutions

Advantages:

- QuickSnap system for easy handling
- Volume lock for safe pipetting
- Ergonomically designed and comfortable handle
- Lightweight and narrow CP tips for narrow vessels

Conformity certified to DIN EN ISO 8655 with inspection certificate. CE/IVD approved.

Technical specifications:

Model	Capacity (µl)	Systematic deviation (µl)	Random deviation (µl)
M10E	1	±0.09	≤0.03
	5	±0.10	≤0.03
	10	±0.15	≤0.06
M25E	3	±0.25	≤0.08
	10	±0.27	≤0.08
	25	±0.30	≤0.10
M50E	20	±0.34	≤0.20
	50	±0.70	≤0.30
M100E	10	±0.50	≤0.20
	50	±0.75	≤0.30
	100	±1.00	≤0.40
M250E	50	±1.50	≤0.30
	100	±1.70	≤0.30
	250	±2.50	≤0.50
M1000E	100	±3.00	≤1.60
	500	±5.00	≤2.50
	1000	±8.00	≤4.00

Model	Volume (µl)	Art. No.	Pack Qty.	€
M10E	1-10	CTT1.1	1	256,95
M25E	3-25	CTT2.1	1	256,95
M50E	20-50	CTT3.1	1	256,95
M100E	10-100	CTT4.1	1	256,95
M250E	50-250	CTT5.1	1	256,95
M1000E	100-1000	CTT6.1	1	256,95



CP-tips for microman® E positive displacement pipettes

From Gilson. Made of PP and polyester (types CP100/CP100ST and CP250/CP250ST are made of PP and PE). **Sterile** or non-sterile. Sterile versions free of detectable DNA, RNA, DNase, RNase, ATP and pyrogens. Capillary Piston Tips, suitable for Gilson microman® and microman® E.

Type	For model	Volume (µl)	Packaging	Art. No.	Pack Qty.	€
CP10	M10E	1-10	in rack, non-sterile	CTT7.1	192	66,15
CP10ST	M10E	1-10	in rack, sterile	CTT8.1	192	74,20
CP25	M25E	3-25	loose in bag, non-sterile	CTT9.1	200	60,45
CP25	M25E	3-25	in rack, non-sterile	CTX0.1	960	313,90
CP25ST	M25E	3-25	in rack, sterile	CTX1.1	576	220,40
CP50	M50E	20-50	loose in bag, non-sterile	CTX2.1	200	60,45
CP50	M50E	20-50	in rack, non-sterile	CTX3.1	960	313,90
CP50ST	M50E	20-50	in rack, sterile	CTX4.1	576	220,40
CP100	M100E	10-100	in rack, non-sterile	CTX5.1	192	66,15
CP100ST	M100E	10-100	in rack, sterile	CTX6.1	192	74,20
CP250	M250E	50-250	loose in bag, non-sterile	CTX7.1	200	60,45
CP250	M250E	50-250	in rack, non-sterile	CTX8.1	960	313,90
CP250ST	M250E	50-250	in rack, sterile	CTX9.1	576	220,40
CP1000	M1000E	100-1000	in rack, non-sterile	CTY0.1	182	66,15
CP1000ST	M1000E	100-1000	in rack, sterile	CTY1.1	182	74,20



Microlitre pipettors, Roth



Accessories for Rotilabo®-microlitre pipettors

Type	Art. No.	Pack Qty.	€
Rack mount for 1 pipettor	TA28.1	1	15,75
Table stand, rotatable, for 6 pipettors	TA29.1	1	74,75
Filter for 5 ml pipettor	TA30.1	25	8,10
Filter for 10 ml pipettor	TA31.1	25	13,10

Rotilabo®-microlitre pipettors

Robust quality pipettors with variable volume for routine work and demanding applications.

- Ergonomic finger rest for comfortable handling and one-handed operation
- Separate tip eject button
- Central, large pipettor button for smooth piston movement
- Separate volume adjustment, for left and right handed users
- Easy-to-read display
- Integrated calibration function for easy adjustment without tools
- Corrosion-resistant piston and ejector
- Slim shaft
- DE-M approved, with certificate of Quality
- CE-IVD-approved
- Completely autoclavable at 121 °C (2 bar) according to DIN EN 285
- A filter for protection of the pipettors is optional with volumes of 5 ml and higher, please order separately

Technical specifications:

Volume (µl)	Accuracy* (%)	Variation coefficient* (%)
0.5-10	10 µl <±1.0	10 µl ≤0.5
2-20	20 µl <±0.8	20 µl ≤0.4
10-100	100 µl <±0.6	100 µl ≤0.2
20-200	200 µl <±0.6	200 µl ≤0.2
100-1000	1000 µl <±0.6	1000 µl ≤ 0.2
500-5000	5000 µl <±0.6	5000 µl ≤ 0.2
1000-10 000	10 000 µl <±0.6	10 000 µl ≤ 0.2

* Calibrated to deliver „Ex“. Error limits are based on the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, during smooth, steady operation. The error limits are within the limits of DIN EN ISO 8655-2. A = Accuracy, CV = Coefficient of variation.

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0,5-10	0,01	20	TA21.1	1	213,95
2-20	0,02	200	TA22.1	1	198,90
10-100	0,1	200	TA23.1	1	198,90
20-200	0,2	200	TA24.1	1	198,90
100-1000	1	1000	TA25.1	1	198,90
500-5000	5	5000	TA26.1	1	213,95
1000-10 000	10	10 000	TA27.1	1	213,95

- Qualitatively high-value pipettor tips from page 429

Rotilabo®-microlitre pipettors

Suitable pipettor tips			Pipettors Art.-No. (****.1)						
Volume range of tips	Tip No.		TA21	TA22 TA23	TA24	TA25	TA26	TA27	
0.1-10 µl	27		x						
	31	32	x						
	62		x						
	43	45	x						
0.5-10 µl	33		x						
	46		x						
0.1-20 µl	20		x						
	56		x						
	59		x						
1-20 µl	28		x						
	47		x						
1-50 µl	21		x						
1-100 µl	48		x	x					
1-200 µl	3	4	5	x	x				
	6			x	x				
	22	23		x	x				
	29			x	x				
	34	35		x	x				
	36	37		x	x				
	65	66	67	x					
1-300 µl	53			x					
	24			x	x				
	39				x				
	52				x				
	57	60			x				
100-1250 µl	9	10				x			
	25	26				x			
	30					x			
	40	41	42			x			
	54	55				x			
1-5 ml	17						x		
1-10 ml	19							x	

Microlitre pipettors, Gilson



Pipetman® Neo

By Gilson. Infinitely adjustable air cushion pipettor. Robust, durable, precise and easy to maintain.

- Grease-free sealing system
- Clip tip ejector made of metal for easy dismantling and secure grip
- Multichannel pipettes with patented piston stroke mechanism which eliminates differences in volume between individual channels
- With Certificate of Conformity in accordance with DIN EN ISO 8655 with Test Protocol
- CE-mark in accordance with IVD

Technical specifications:

Model	Volume (µl)	Systematic error (± µl)	Random deviation (≤ µl)
P2N	0,2 0,5 2	0,024 0,025 0,03	0,012 0,012 0,014
P10N	1 5 10	0,025 0,075 0,1	0,012 0,03 0,04
P20N	2 10 20	0,1 0,1 0,2	0,03 0,05 0,06
P20N 8x20 12x20	2 10 20	0,1 0,2 0,4	0,08 0,1 0,2
P100N	10 50 100	0,35 0,4 0,8	0,1 0,12 0,15
P200N	20 100 200	0,5 0,8 1,6	0,2 0,25 0,3
P200N 8x20 12x20	20 100 200	0,5 1 2	0,25 0,4 0,6
P1000N	100 500 1000	3 4 8	0,6 1 1,5

1-channel

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P2N	0,2-2	0,002	10	HY83.1	1	273,05
P10N	1-10	0,02	10	HY84.1	1	273,05
P20N	2-20	0,02	200	HY85.1	1	231,15
P100N	10-100	0,2	200	HY86.1	1	231,15
P200N	20-200	0,2	200	HY87.1	1	231,15
P1000N	100-1000	2,0	1000	HY88.1	1	231,15

8-channel

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
8x20	2-20	0,02	200	TT05.1	1	621,35
8x200	20-200	0,2	200	TT06.1	1	621,35

12-channel

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
12x20	2-20	0,02	200	TT07.1	1	750,35
12x200	20-200	0,2	200	TT08.1	1	750,35

Pipetman® Neo starter kits

Delivery incl. 3 microliter pipettes Pipetman® Neo, 2 or 3 boxes filled with pipette tips and 3 single pipette holders.

Type	Model	Art. No.	Pack Qty.	€
Starter kit Neo	P20N, P200N, P1000N	NA61.1	1	656,85
PCR kit Neo	P10N, P100N, P1000N	NA62.1	1	752,50



Accessories for Pipetman® Neo

Type	Art. No.	Pack Qty.	€
Single pipette holder, 1 holder	HY79.1	1	13,60
Multi channel pipettor holder, 1 holder	TT09.1	1	30,75
Pipette carousel, 7 holders	HY80.1	1	90,75
Coloris™ Clips (5 colours, sorted)	HY81.1	10	11,75

Gilson multichannel pipettors Pipetman® Neo

Suitable pipettor tips	Pipettors Art.-No. (****.1)			
Volume range of tips	Tip No.		TT05 TT07	TT06 TT07
1-20 µl	47		x	
1-100 µl	48		x	
1-200 µl	4			x
	22	23	x	x
	34			x
	35		x	x
	36	37 38	x	x
	49			x
	50	51		x
1-350 µl	7			x
	39		x	x
	57	60		x
40-350 µl	8			x



Pipetman® G

By Gilson. Variable air-displacement pipette offering one of the lowest pipetting forces on the market. Equipped with a clip ejector made of metal for an easy tip removal. These pipette models are noted for their robustness, accuracy, ease of maintenance and long life.

- Easy dismantling and maintenance
- Despite the low pipetting force, the initial pressure point is easy to feel during pipetting
- P5000G and P10 ml G pipettes come with a protective filter which protects the piston and prevents contamination
- Conformity certified to DIN EN ISO 8655 with inspection certificate
- CE mark to IVD

Technical specifications:

Model	Capacit (µl)	Systematic deviation (± µl)	Random deviation (± µl)
P2G	0.2	0.024	0.012
	0.5	0.025	0.012
	2	0.03	0.014
P10G	1	0.025	0.012
	5	0.075	0.03
	10	0.1	0.04
P20G	2	0.1	0.03
	10	0.1	0.05
	20	0.2	0.06
P100G	10	0.35	0.1
	50	0.4	0.12
	100	0.8	0.15
P200G	20	0.5	0.2
	100	0.8	0.25
	200	1.6	0.3
P1000G	100	3	0.6
	500	4	1
	1000	8	1.5
P5000G	500	12	3
	2500	15	5
	5000	30	8
P10 ml G	1 ml	30	6
	5 ml	40	10
	10 ml	60	16

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P2G	0,2-2	0,002	10	TP68.1	1	272,00
P10G	1-10	0,02	10	TP69.1	1	272,00
P20G	2-20	0,02	200	TP70.1	1	230,05
P100G	10-100	0,2	200	TP71.1	1	230,05
P200G	20-200	0,2	200	TP72.1	1	230,05
P1000G	100-1000	2,0	1000	TP73.1	1	230,05
P5000G	1000-5000	2,0	5000	TP74.1	1	272,00
P 10 ml G	1-10 ml	20,0	10 ml	TP75.1	1	272,00

Pipetman® G Starter Kits

Delivery incl. 3 Pipetman® G microlitre pipettes, 2 boxes filled with pipette tips, 3 single-pipette holders, 3 plastic ejectors and 10 Coloris™-Clips.

Type	Model	Art. No.	Pack Qty.	€
Starter Kit G	P20G, P200G, P1000G	TP76.1	1	650,40
Micro Volume Kit G	P2G, P10G, P100G	TP77.1	1	750,35



Accessories for Pipetman® G + L

Type	Art. No.	Pack Qty.	€
Single pipette holder, 1 holder	HY79.1	1	13,60
Pipette carousel, 7 holders	HY80.1	1	90,75
Coloris™ Clips (5 colours, sorted)	HY81.1	10	11,75
Protective filter for P5000 and P10 ml	HY78.1	100	25,05
Pipette grease for Pipetman® M, L and G (1 g)	TP78.1	1	17,10

Gilson microlitre pipettors Pipetman® Neo / Pipetman® G

Suitable pipettor tips				Pipettors Art.-No. (****.1)							
Volume range of tips	Tip No.			HY83 TP68	HY84 TP69	HY85 TP70	HY86 TP71	HY87 TP72	HY88 TP73	TP74	TP75
0,1-10 µl	1			x	x						
	27			x							
	31	32	33	x	x						
	43	44	45	x	x						
	62	63	64	x	x						
0,5-10 µl	46				x						
0,1-20 µl	20			x							
	56	59		x	x	x					
1-20 µl	47					x					
1-100 µl	48					x					
1-200 µl	4	5	6			x	x	x			
	34	35	36			x	x	x			
	37	38				x	x	x			
	65	66	67			x	x	x			
	51							x			
	53						x				
1-300 µl	39					x	x	x			
	52						x	x			
	57	60						x			
100-1000 µl	9	10							x		
	40	41	42						x		
	54	55							x		
	58	61							x		
1-5 ml	14									x	
1-10 ml	19										x

Microlitre pipettors, Gilson

Programme extension!



Pipetman® L

By Gilson. Lightweight and safe yet robust quality pipette.
Pipette with greatly reduced pipetting forces - increases throughput without compromising on comfort.

- Patented Lock/Unlock System for safe pipetting
- The set volume is locked during the first pipetting operation
- Easy release of the volume adjustment lock
- Ergonomic handle
- Adjustable tip ejector for left- and right-handed users
- Plastic tip ejector
- 2D identification code

Technical specifications:

Model	Capacity (µl)	Systematic deviation (± µl)	Random deviation (± µl)
P2L	0.2	0.024	0.012
	0.5	0.025	0.012
	2	0.03	0.014
P10L	1	0.025	0.012
	5	0.075	0.03
	10	0.1	0.04
P20L	2	0.1	0.03
	10	0.1	0.05
	20	0.2	0.06
P100L	10	0.35	0.1
	50	0.4	0.12
	100	0.8	0.15
P200L	20	0.5	0.2
	100	0.8	0.25
	200	1.6	0.3
P1000L	100	3	0.6
	500	4	1
	1000	8	1.5
P5000L	500	12	3
	2500	15	5
	5000	30	8
P10 ml L	1 ml	30	6
	5 ml	40	10
	10 ml	60	16

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P2L	0.2-2	0,002	10	TP97.1	1	266,60
P10L	1-10	0,02	10	TP98.1	1	266,60
P20L	2-20	0,02	200	TP99.1	1	266,60
P100L	10-100	0,2	200	TT00.1	1	266,60
P200L	50-200	0,2	200	TT01.1	1	266,60
P1000L	100-1000	2,0	1000	TT02.1	1	266,60
P5000L	1000-5000	2,0	5000	TT03.1	1	266,60
P10 ml L	1-10 ml	20,0	10 ml	TT04.1	1	266,60

Starter kits Pipetman® L

Delivery incl. 3 Pipetman® L microlitre pipettes, 2 boxes filled with pipette tips and 3 pipette holders.

Type	Model	Art. No.	Pack Qty.	€
Starter kit L	P20L, P200L, P1000L	CTY2.1	1	766,50
Micro Volume Kit L	P2L, P10L, P100L	CTY3.1	1	766,50



Accessories for Pipetman® G + L

Type	Art. No.	Pack Qty.	€
Single pipette holder, 1 holder	HY79.1	1	13,60
Pipette carousel, 7 holders	HY80.1	1	90,75
Coloris™ Clips (5 colours, sorted)	HY81.1	10	11,75
Protective filter for P5000 and P10 ml	HY78.1	100	25,05
Pipette grease for Pipetman® M, L and G (1 g)	TP78.1	1	17,10

Gilson microlitre pipettors Pipetman® L

Suitable pipettor tips		Pipettors Art.-No. (****.1)							
Volume range of tips	Tip No.	TP97	TP98	TP99	TT00	TT01	TT02	TT03	TT04
0,1-10 µl	1	x	x						
	27	x							
	31	x	x						
	32	x							
	33	x	x						
0,5-10 µl	43	x	x						
	44	x							
	45	x	x						
0,1-20 µl	62	x	x						
	63	x							
1-20 µl	46		x						
1-100 µl	20	x							
	56	x	x	x					
1-200 µl	47			x					
	48			x					
	4	5	6	x	x	x			
	34	35	36	x	x	x			
	37	38		x	x	x			
1-300 µl	65	66	67	x	x	x			
	51					x			
	53				x				
100-1000 µl	39			x	x	x			
	52				x	x			
	57	60				x			
	9	10					x		
1-5 ml	40	41	42				x		
	54	55					x		
	58	61					x		
1-10 ml	14							x	
	19								x



Pipetman® M

By Gilson. Electronic pipette.

- Intuitive software, similar to a mechanical pipette, lightweight
- User-independent pipetting thanks to even piston movement
- Piston stroke speed can be adapted to the properties of the sample (variable sample aspiration and dispensing speeds)
- Lockable volume
- Service Reminder
- Volume adjustment by rotary push-button
- Functions: pipetting, repetitive, mix and reverse
- Pipetting is possible during the loading cycle
- Conformity certified to DIN EN ISO 8655 with inspection certificate
- CE mark to IVD

Technical specifications:

Model	Capacity (µl)	Systematic deviation (± µl)	Random deviation (≤ µl)
P10M	0.5	0.04	0.013
	1	0.025	0.012
	5	0.06	0.02
	10	0.08	0.025
P20M	2	0.075	0.025
	10	0.1	0.035
	20	0.15	0.05
P200M	20	0.4	0.15
	100	0.8	0.22
	200	1	0.26
P1000M	100	2.5	0.4
	500	3.5	0.7
	1000	5.0	1.1

Single-channel

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P10M	0.5-10	0.01	10	TP87.1	1	465,50
P20M	2-20	0,01	200	TP88.1	1	465,50
P200M	20-200	0,1	200/300	TP89.1	1	465,50
P1000M	100-1000	1,0	1000	TP90.1	1	465,50

8-channel

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P8x20M	1-20	0,01	200	TP91.1	1	898,70
P8x200M	20-200	0,1	200/300	TP92.1	1	898,70

12-channel

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
P12x20M	1-20	0,01	200	TP93.1	1	1003,00
P12x200M	20-200	0,1	200/300	TP94.1	1	1003,00



Accessories for Pipetman® M

Power carousel TP95.1 for storage and simultaneous loading of up to 5 Pipetman® M single and/or multichannel pipettes. The TP96.1 loading adapter is required for loading the pipettes on single-pipette holder HY79.1 and pipette carousel HY80.1.

Type	Art. No.	Pack Qty.	€
① Power carousel for Pipetman® M, 5 holders	TP95.1	1	388,10
② Pipette carousel, 7 holders	HY80.1	1	90,75
③ Single pipette holder, 1 holder	HY79.1	1	13,60
④ Loading adapter suitable for pipette carousel HY80.1 or single-pipette holder HY79.1	TP96.1	1	66,45
Pipette grease for Pipetman® M, L and G (1 g)	TP78.1	1	17,10
Coloris™ clips (5 assorted colours)	HY81.1	10	11,75

Gilson microlitre pipettors/multichannel pipettors Pipetman® M

Suitable pipettor tips				Pipettors Art.-No. (****.1)					
Volume range of tips	Tip No.			TP87	TP88	TP89	TP90	TP91 TP93	TP92 TP94
0.1-10 µl	1			x					
	31	32	33	x					
	43	44	45	x					
	62	63	64	x					
0.5-10 µl	46			x					
	56	59		x		x			
1-20 µl	47					x			
1-100 µl	48					x			
1-200 µl	4				x	x			x
	5	6				x			
	22	23						x	x
	34				x	x			x
	35	36			x	x		x	x
	37	38			x	x		x	x
	49	50	51						x
1-300 µl	65	66	67		x	x			
	7								x
	39				x	x		x	x
	52					x			
1-350 µl	57	60				x		x	
	8								x
100-1000 µl	9	10					x		
	40	41	42				x		
	54	55					x		
	58	61					x		

Microlitre pipettors, BRAND



Programme
extension!



Microlitre pipettes Transferpette® S

By BRAND. Manual positive displacement pipettes for demanding applications.

- Anatomically shaped finger hook for comfortable handling
- Central pipetting button and separate ejection function
- One-handed operation for both left and right handers
- Corrosion-resistant piston and ejector
- Fully autoclavable at 121 °C (2 bar), acc. to DIN EN 285
- CE mark (IVD).
- Volume change protection
- Multichannel pipettes with freely rotatable pipetting unit (360°)

Transferpette® S, variable:

- 4-digit volume display for maximum precision, always clearly visible
- Featuring Easy Calibration technology for readjustment without special tools

Technical specifications:

Model	Volume (µl)	Correctives* (%)	Variation coefficient* (%)
D-1	0.1-1	1 µl ≤ ±2.0	1 µl ≤ 1.2
D-2.5	0.1-2.5	2.5 µl ≤ ±1.4	2.5 µl ≤ 0.7
D-10	0.5-10	10 µl ≤ ±1.0	10 µl ≤ 0.8
D-20	2-20	20 µl ≤ ±0.8	20 µl ≤ 0.4
D-50	5-50	50 µl ≤ ±0.8	50 µl ≤ 0.3
D-100	10-100	100 µl ≤ ±0.6	100 µl ≤ 0.2
D-200	20-200	200 µl ≤ ±0.6	200 µl ≤ 0.2
D-1000	100-1000	1000 µl ≤ ±0.6	1000 µl ≤ 0.2
D-5000	500-5000	5000 µl ≤ ±0.6	5000 µl ≤ 0.2
D-10000	1000-10000	10000 µl ≤ ±0.6	10000 µl ≤ 0.2

F-10	10	≤ ±1.0	≤ 0.5
F-20	20	≤ ±0.8	≤ 0.4
F-25	25	≤ ±0.8	≤ 0.4
F-50	50	≤ ±0.8	≤ 0.4
F-100	100	≤ ±0.6	≤ 0.2
F-200	200	≤ ±0.6	≤ 0.2
F-500	500	≤ ±0.6	≤ 0.2
F-1000	1000	≤ ±0.6	≤ 0.2

M8-10/M12-10	0.5-10	10 µl ≤ ±1.6	10 µl ≤ 1.0
M8-50/M12-50	5-50	50 µl ≤ ±0.8	20 µl ≤ 0.4
M8-100/M12-100	10-100	100 µl ≤ ±0.8	100 µl ≤ 0.3
M8-200/M12-200	20-200	200 µl ≤ ±0.8	200 µl ≤ 0.3
M8-300/M12-300	30-300	300 µl ≤ ±0.6	300 µl ≤ 0.3

*Adjusted to 'Ex'. Margins of error refer to the nominal volume (= max. volume) printed on the instrument, assuming that the instrument, ambient air and distilled water are at the same temperature (20 °C), and that the instrument is operated evenly and smoothly.

1-channel, variable

Delivery incl. certificate of quality and shelf/rack mount.

Model	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
D-1	0.1-1	0,001	10/20	HL21.1	1	260,15
D-2,5	0.1-2,5	0,002	10/20/50	CNN3.1	1	260,15
D-10	0.5-10	0,01	10/20/50	HL22.1	1	260,15
D-20	2-20	0,02	200/300	HL23.1	1	232,20
D-50	5-50	0,05	200/300	ECX8.1	1	232,20
D-100	10-100	0,1	200/300	HL24.1	1	232,20
D-200	20-200	0,2	200/300	HL25.1	1	232,20
D-1000	100-1000	1	1000/1250	HL26.1	1	232,20
D-5000	500-5000	5	5000	HL27.1	1	260,15
D-10 000	1000-10 000	10	10 000	HL28.1	1	260,15

1-channel, fixed volume

Delivery incl. certificate of quality and shelf/rack mount.

Model	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
F-10	10	Fix	20	HL34.1	1	147,30
F-20	20	Fix	200	HL35.1	1	147,30
F-25	25	Fix	200	CNN4.1	1	147,30
F-50	50	Fix	200	HL36.1	1	147,30
F-100	100	Fix	200	HL37.1	1	147,30
F-200	200	Fix	200	HL38.1	1	147,30
F-500	500	Fix	1000/1250	HL39.1	1	147,30
F-1000	1000	Fix	1000/1250	HL40.1	1	147,30

8-channel, variable

Delivery incl. certificate of quality, 2 x TipBox filled with BRAND® pipette tips, 1 shelf/rack mount, 1 reagent reservoir, 1 set of FKM shaft seals, 1 assembly key and silicone oil.

Model	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
M8-10	0.5-10	0,01	10/20	CNN5.1	1	610,60
M8-50	5-50	0,1	200/300	CNN6.1	1	610,60
M8-100	10-100	0,2	200/300	CNN7.1	1	610,60
M8-200	20-200	0,2	200/300	CNN8.1	1	610,60
M8-300	30-300	0,5	1000/1250	CNN9.1	1	610,60

12-channel, variable

Delivery incl. certificate of quality, 2 x TipBox filled with BRAND® pipette tips, 1 shelf/rack mount, 1 reagent reservoir, 1 set of FKM shaft seals, 1 assembly key and silicone oil.

Model	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
M12-10	0.5-10	0,01	10/20	CNP0.1	1	698,75
M12-50	5-50	0,1	200/300	CNP1.1	1	698,75
M12-100	10-100	0,2	200/300	CNP2.1	1	698,75
M12-200	20-200	0,2	200/300	CNP3.1	1	698,75
M12-300	30-300	0,5	1000/1250	CNP4.1	1	698,75

Accessories:

Table stand for Transferpette® S, 6 holders	HL32.1	1	67,20
Shelf holder for Transferpette® S, 1 holder	HL33.1	1	13,30

► Pipette stands see page 428



Starter kits Transferpette® S, variable

Delivery incl. 3 Transferpette® S, variable, 3 boxes filled with pipette tips and 3 shelf holders.

Type	Model	Art. No.	Pack Qty.	€
Micro starter kit	D-1, D-10, D-100	HL29.1	1	706,30
Standard starter kit	D-10, D-100, D-1000	NA40.1	1	683,70
Midi starter kit	D-20, D-200, D-1000	HL30.1	1	666,50
Macro starter kit	D-1000, D-5000, D-10 000	HL31.1	1	706,30

Pipette tip coding

Pipette tip No.	Pipette tip designation	Pipette tip type	Catalogue page
1-19	Standard	Standard quality for general laboratory applications	429-431
20-26	Pipette tips by Brand	Pipette tips produced in a cleanroom environment	432
27-30	Filter tips by Brand	Pipette tips with aerosol filter produced in a cleanroom environment	433
31-42	MultiPrecision	Pipette tips by Sorenson	434-435
43-55	MultiGuard	Pipette tips by Sorenson with aerosol filter	436-437
56-61	Multi OneTouch	Pipette tips by Sorenson with flexible stem	438
62-67	MultiFlex	Gelloading pipette tips by Sorenson	439
68-71	Cell Saver Tips	Pipette tips with large opening	440

Transferpette®/Transferpette® S

Suitable pipettor tips				Pipettors Art.-No. (****.1)									
Volume range of tips	Tip No.			HL21	HL22	HL23	CNN6	HL25	HL26	HL27	HL28		
				HL34	CNN5	ECX8 HL24 HL35 HL37	CNN7 CNN8 CNN9 CNP1 CNP2 CNP3 CNP4	HL38	HL39 HL40				
0.1-10 µl	27			X	X								
	31	32			X								
	62				X								
	43	45			X								
0.5-10 µl	33				X								
	46				X								
0.1-20 µl	20			X	X								
	56			X	X								
	59				X								
1-20 µl	28				X								
	47				X								
1-50 µl	21				X								
1-100 µl	48				X	X							
1-200 µl	3	4	5			X	X	X					
	6					X	X	X					
	22	23				X	X	X					
	29					X	X	X					
	34	35				X	X	X					
	36	37				X	X	X					
	65	66	67			X	X						
	53					X	X						
1-300 µl	24					X	X	X					
	39							X					
	52							X					
	57	60						X					
100-1250 µl	9	10							X				
	25	26							X				
	30								X				
	40	41	42						X				
	54								X				
1-5 ml	16	17								X			
1-10 ml	19										X		

Microlitre pipettors, BRAND



Programme extension!

Microlitre pipettors Transferpette® electronic

By Brand. Microprocessor-controlled piston pipettors

- Ergonomic control for easy operation
- Height-adjustable finger rest for optimal position of hand to operating keys
- 5 Functions: Pipetting, mixing, reverse pipetting, dispensing, gel-electrophoresis mode
- High pipetting speed
- 8-hour continuous pipetting possible
- Ready for use during charging cycle
- Refresh mode for increasing battery life
- Slim pipette shaft enables pipetting in narrow tubes
- Easy Calibration Function - Adjusting without tools, in accordance with ISO 9001 and GLP/GMP
- Pipettor shaft is completely autoclavable
- Comes with certificate of conformity
- With Certificate of Quality
- CE/IVD-compliant

Technical specifications:

Capacity (µl)	Accuracy (%)	Variation coefficient (%)
0.5-10	10 µl ≤ ±1.0	10 µl ≤ 0.4
2-20	20 µl ≤ ±1.0	20 µl ≤ 0.4
20-200	200 µl ≤ ±0.8	200 µl ≤ 0.2
100-1000	1000 µl ≤ ±0.6	1000 µl ≤ 0.2
500-5000	5000 µl ≤ ±0.6	5000 µl ≤ 0.2

1-channel, with power supply unit 230 V/50 Hz

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0.5-10	0,01	10/20	CH82.1	1	330,05
2-20	0,02	20	AA39.1	1	330,05
20-200	0,2	200/300	AA40.1	1	330,05
100-1000	1	1000/1250	AA41.1	1	330,05
500-5000	5	5000	CH83.1	1	330,05

1-channel, without power supply unit

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0.5-10	0,01	10/20	CH84.1	1	312,85
2-20	0,02	20	AA42.1	1	312,85
20-200	0,2	200/300	AA43.1	1	312,85
100-1000	1	1000/1250	AA44.1	1	312,85
500-5000	5	5000	CH85.1	1	312,85

8-channel, with power supply unit 230 V/50 Hz

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0.5-10	0,01	10/20	CNL2.1	1	815,95
1-20	0,02	10/20	CNL3.1	1	815,95
5-100	0,1	200/300	CNL4.1	1	815,95
10-200	0,2	200/300	CNL5.1	1	815,95
15-300	0,5	200/300	CNL6.1	1	815,95

12-channel, with power supply unit 230 V/50 Hz

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0.5-10	0,01	10/20	CNL7.1	1	876,15
1-20	0,02	10/20	CNL8.1	1	876,15
5-100	0,1	200/300	CNL9.1	1	876,15
10-200	0,2	200/300	CNN0.1	1	876,15
15-300	0,5	200/300	CNN1.1	1	876,15

Accessories:

3-stands incl. power unit 230 V, 50 Hz	AA45.1	1	163,40
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Microlitre pipettors Transferpette® electronic

Suitable pipettor tips				Pipettors Art.-No. (****.1)					
Volume range of tips				CH82 CH84 CNL2 CNL3 CNL7 CNL8		AA40 AA43 CNL4 CNL5 CNL6 CNL9 CNN0 CNN1		AA41 AA44	CH83 CH85
	Tip. No.				AA39 AA42				
0.1-10 µl	1			x					
	27			x	x				
	31	32			x				
	43	45			x				
	62				x				
0.5-10 µl	33				x				
	46			x	x				
1-20 µl	20			x	x				
	28				x				
	47					x			
	56	59		x	x				
1-100 µl	48					x			
1-200 µl	6					x			
	22	23				x			
	29					x			
	34	35				x			
	36	37				x			
	50	53				x			
	65	66	67			x			
1-300 µl	8					x			
	24					x			
	39					x			
	52					x			
	57	60				x			
100-1000 µl	25	26					x		
	30						x		
	40	41					x		
	54						x		
1-5 ml	16	17							x

► Pipettor tips from page 429



Micro/macrolitre pipettors Calibra® digital

By Socorex. A reliable pipette line noted for its mechanical precision, ergonomics and user friendliness. The setting ring (step gauge) minimises the risk of maladjustment during pipetting and keeps adjustment work to a minimum.

- Super-fast volume adjustment
- Fully autoclavable
- Separate tip ejector
- Narrow shaft, light weight and soft piston action for optimal ease of use
- Attractive colour coding caps for differentiation between the various pipettes
- Resistant to shock, heat, chemicals and UV light
- Each pipette is individually calibrated and delivered with an inspection certificate

Multichannel pipettors:

- Turns on the handpiece by 360° and can be adjusted as desired

Technical specifications:

Type	Capacity (µl)	Inaccuracy	Imprecision
822	0.2 - 2	0.5 µl <±6 % 2 µl <±2 %	0.5 µl <±5 % 2 µl <±1.5 %
822	1-10	1 µl <±2.5 % 10 µl <±1 %	1 µl <±2 % 10 µl <±0.5 %
822	2 - 20	2 µl <±2.5 % 20 µl <±1 %	2 µl <±1.7 % 20 µl <±0.5 %
822	10 - 100	10 µl <±1.5 % 100 µl <±0.8 %	10 µl <±1 % 100 µl <±0.2 %
822	20 - 200	20 µl <±1.5 % 200 µl <±0.6 %	20 µl <±0.6 % 200 µl <±0.2 %
822	100 - 1000	100 µl <±1.5 % 1000 µl <±0.5 %	100 µl <±0.5 % 1000 µl <±0.2 %
832	200 - 2000	0.2 ml <±1.5 % 2 ml <±0.5 %	0.2 ml <±0.5 % 2 ml <±0.2 %
832	1000 - 10000	1 ml <±1.5 % 10 ml <±0.5 %	1 ml <±0.3 % 10 ml <±0.15 %
852	1 - 10	1 µl <±5.0 % 10 µl <±2.0 %	1 µl <±5.0 % 10 µl <±1.5 %
852	10 - 100	10 µl <±1.0 % 100 µl <±0.7 %	10 µl <±1.0 % 100 µl <±0.4 %
852	20 - 200	20 µl <±0.9 % 200 µl <±0.7 %	20 µl <±0.6 % 200 µl <±0.3 %

Micro/macrolitre pipettors Calibra® digital 822/832

Model	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
1-channel	0,2-2	0,1	10	K307.1	1	299,95
1-channel	1-10	0,05	10	K308.1	1	299,95
1-channel	2-20	0,1	200	K309.1	1	281,65
1-channel	10-100	0,5	200	K310.1	1	281,65
1-channel	20-200	1,0	200	K311.1	1	281,65
1-channel	100-1000	5,0	1000	K312.1	1	281,65
1-channel	200-2000	10,0	2000	K313.1	1	319,30
1-channel	1000-10000	100,0	10000	K314.1	1	319,30

Multichannel pipettors Calibra® digital 852

Model	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
8-channel	1-10	0,05	10	P320.1	1	776,15
8-channel	10-100	0,5	200, 300	L662.1	1	727,80
8-channel	20-200	1,0	200, 300	L663.1	1	727,80
12-channel	10-100	0,5	200, 300	L664.1	1	833,15
12-channel	20-200	1,0	200, 300	L665.1	1	833,15

Disposable filters

For Calibra®-pipettors. Filter K317.1 is also suitable for 10 ml Acura pipettes. Protect against contamination of the pipettor and sample.

For	Material	Art. No.	Pack Qty.	€
Pipettes 2 ml,	Cellulose	K316.1	250	40,80
Pipettors 10 ml	PP	K317.1	100	33,35

Pipettor stands

By Socorex. Made of PA. For max. 3 one-/ or multichannel pipettors from Socorex, Models Calibra® and Acura®. Suitable for microdispenser pipettors Acura® 865 and stem pipettors Acura® manual 810.

Art. No.	Pack Qty.	€
EP93.1	1	96,75

Air cushion-piston pipettors Calibra® digital

Suitable pipettor tips		Pipettors Art.-No. (****.1)						
Volume range of tips	Tip No.	K307	K308	K309	K310 K311	K312	K313	K314
0.1-10 µl	31		X					
	43 45	X	X					
	62 63 64	X	X					
	2	X	X					
0.5-10 µl	33	X	X					
	46	X	X					
1-20 µl	47				X			
1-100 µl	48				X			
1-200 µl	3				X			
	5 6			X	X			
	34 35			X	X			
	36 37			X	X			
	53			X	X			
	65 66 67			X	X			
1-300 µl	39				X			
100- 1000 µl	9 10					X		
	40 41					X		
	54					X		
0,1-2 ml	12						X	
1-10 ml	18							X

Multichannel pipettors Calibra® digital

Suitable pipettor tips		Pipettors Art.-No. (****.1)			
Volume range of tips	Tip No.	P320			L662 L663 L664 L665
0.1-10 µl	31			X	
	62 63 64			X	
0.5-10 µl	2			X	
	33			X	
1-200 µl	3 5 6				X
	34 35				X
	36 37				X
	65 66 67				X
1-300 µl	39				X

Microlitre pipettors, Socorex



Acura®-microlitre pipettes manual XS 826

By Socorex. Features: see Acura® 825 microlitre pipettes.

Additional features:

- Innovative calibration system (Swift-Set)
- Tamper-proof seal label for protection of the calibrator
- Outstanding ergonomic profile
- Extremely gentle pipetting action, easier on the hands
- Reduced weight (to 83 from 88 g)
- Reduced stem length allows optimised instrument guidance
- Conical stem end for easy access to reaction vessels

Technical specifications:

Capacity (µl)	Inaccuracy (%)	Non-precision (%)
0.1-2	0.5 µl <±6.0 2.0 µl <±2.0	0.5 µl <5.0 2.0 µl <1.5
0.5-10	1.0 µl <±2.5 10 µl <±1.0	1.0 µl <1.8 10 µl <0.5
1-10	1.0 µl <±2.5 10 µl <±1.0	1.0 µl <2.5 10 µl <0.7
2-20	2.0 µl <±2.5 20 µl <±1.0	2.0 µl <1.7 20 µl <0.5
5-50	5.0 µl <±1.5 50 µl <±1.0	5.0 µl <1.0 50 µl <0.4
10-100	10 µl <±1.5 100 µl <±0.8	10 µl <1.0 100 µl <0.2
20-200	20 µl <±1.5 200 µl <±0.8	20 µl <0.6 200 µl <0.2
100-1000	100 µl <±1.5 1000 µl <±0.5	100 µl <0.5 1000 µl <0.2

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0.1-2	0.002	10	TX47.1	1	289,20
0.5-10	0.01	10	TX48.1	1	289,20
1-10	0.01	200	TX49.1	1	270,90
2-20	0.02	200	TX50.1	1	270,90
5-50	0.1	200	TX51.1	1	270,90
10-100	0.1	200	TX52.1	1	270,90
20-200	0.2	200	TX53.1	1	270,90
100-1000	1	1000	TX54.1	1	270,90

TwixS Packs

Delivery incl. 2 Acura® manual XS pipettes, shelf/rack mount for 2 pipettes and inspection certificate.

Set	Type	Art. No.	Qty. (set)	€
①	0.1-2 / 2-20 µl	TX55.1	1	504,20
②	0.5-10 / 10-100 µl	TX56.1	1	504,20
③	2-20 / 20-200 µl	TX57.1	1	491,30
④	5-50 / 20-200 µl	TX58.1	1	489,15
⑤	10-100 / 100-1000 µl	TX59.1	1	489,15
⑥	20-200 / 100-1000 µl	TX60.1	1	489,15

Rack pipette holder

By Socorex. Made of PC. For two Calibra® or Acura® pipettes. With self-adhesive strips for secure adhesion to many surfaces.

Art. No.	Pack Qty.	€
TY58.1	1	18,15

Micro-/macrolitre pipettors Acura®/Acura® XS

Suitable pipettor tips				Pipettors Art.-No. (****.1)							
Volume range of tips	Tip No.			AT26 TX47	AN94 AN95 AN96 AT27 TX48	AT28 AT29 TX49 TX50	AN97 AN98 AN99 AP00 AT30 AT32 TX51 TX53	AT31 TX52	AP02 AP03 AP04 AT33 TX54	AP05 AP06 AP07 AT34	AP08 AT35
	31				X						
0.1-10 µl	43	44		X	X						
	62	63	64	X	X						
	2			X	X						
0.5-10 µl	33			X	X						
	46			X	X						
	47						X	X			
1-20 µl	56	59		X							
	48						X	X			
1-200 µl	3						X				
	4	5	6			X	X	X			
	34	35				X	X				
	36	37				X	X				
	53					X	X	X			
	65	66	67			X	X	X			
1-300 µl	57					X	X				
100-1000 µl	9	10							X		
	40	41							X		
	54								X		
	58	61							X		
1-5 ml	15									X	
1-10 ml	18										X

Multichannel pipettors Acura® 855

Suitable pipettor tips				Pipettors Art.-No. (****.1)		
Volume range of tips	Tip No.			AT43 AT46	AT44 AT47	AT45 AT48
0,1-10 µl	31			x		
	43	44		x		
	62	63	64	x		
0,5-10 µl	2			x		
	33			x		
	46			x		
1-20 µl	47				x	
	52				x	
1-100 µl	48				x	
1-200 µl	3				x	
	5	6			x	
	34	35			x	
	36	37			x	
	53				x	
	65	66	67		x	
1-300 µl	39				x	
40-350 µl	8					x



Micro-/macrolitre pipettors Acura®

By Socorex, Acura® the manual range of pipettors excels for its speedy and reliable volume setting. It possesses all the features typical for the new generation of instruments and offers extremely high pipetting comfort.

- Completely autoclavable
- Lightweight
- Extremely gentle piston activation
- Separate, large tip ejector button
- Easy tip ejection
- Slim pipettor shaft
- All function buttons are easy to operate
- Justip™-tip adjustment-system enables exact adjustment of shaft height
- Innovative and rapid calibration system with integral spanners
- Original serial number and control certificate

Multichannel pipettors:

- Housing can be rotated by 360° for optimal working comfort
- Step-by-step tip ejection

Technical specifications Acura® 825/835, variable:

Typ	Capacity (µl)	Non accuracy (%)	Non precision (%)
825	0.1-2	0.5 µl <±6.0 2.0 µl <±2.0	0.5 µl <5.0 2.0 µl <1.5
825	0.5-10	1.0 µl <±2.0 10 µl <±1.0	1.0 µl <1.8 10 µl <0.5
825	1-10	1.0 µl <±2.0 10 µl <±1.0	1.0 µl <2.5 10 µl <0.7
825	2-20	2.0 µl <±2.0 20 µl <±1.0	2.0 µl <1.7 20 µl <0.5
825	5-50	5.0 µl <±1.4 50 µl <±1.0	5.0 µl <1.0 50 µl <0.5
825	10-100	10 µl <±1.0 100 µl <±0.8	10 µl <1.0 100 µl <0.2
825	20-200	20 µl <±1.0 200 µl <±0.8	20 µl <0.6 200 µl <0.2
825	100-1000	100 µl <±0.7 1000 µl <±0.5	100 µl <0.5 1000 µl <0.2
835	500-5000	500 µl <±1.0 5000 µl <±0.7	500 µl <0.6 5000 µl <0.4
835	1000-10 000	1000 µl <±0.8 10 000 µl <±0.5	1000 µl <0.4 10 000 µl <0.2

Technical specifications Acura® 855, multichannel pipettors:

Capacity (µl)	Non accuracy (%)	Non precision (%)
0.5-10	1 µl <±3.5 10 µl <±1.5	0.5 µl <3.0 10 µl <1.0
5-50	5 µl <±1.0 50 µl <±0.8	5 µl <1.0 50 µl <0.4
40-350	40 µl <±1.0 350 µl <±0.8	40 µl <0.6 350 µl <0.3

Technical specifications Acura® 815/835 F, fix volume:

Capacity (µl)	Non accuracy (%)	Non precision (%)
1	<±2.0	<2.0
5	<±1.4	<1.0
10	<±0.7	<0.7
20	<±0.7	<0.5
25	<±0.7	<0.6
50	<±0.7	<0.5
100	<±0.7	<0.3
200	<±0.7	<0.4
250	<±0.7	<0.4
500	<±0.7	<0.3
1000	<±0.6	<0.2
2000	<±0.8	<0.5
2500	<±0.8	<0.5
5000	<±0.7	<0.4
10 000	<±0.5	<0.2

Acura® 825/835 variable

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0,1-2	0,002	10	AT26.1	1	256,95
0,5-10	0,01	10	AT27.1	1	256,95
1-10	0,01	200	AT28.1	1	240,80
2-20	0,02	200	AT29.1	1	240,80
5-50	0,1	200	AT30.1	1	240,80
10-100	0,1	200	AT31.1	1	240,80
20-200	0,2	200	AT32.1	1	240,80
100-1000	1,0	1000	AT33.1	1	240,80
500-5000	10,0	5000	AT34.1	1	263,40
1000-10 000	10,0	10 000	AT35.1	1	263,40

Acura® 855, multichannel pipettors 8-channel

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0,5-10	0,01	10	AT43.1	1	654,70
5-50	0,10	200, 300	AT44.1	1	618,15
40-350	0,40	350	AT45.1	1	618,15

Acura® 855, multichannel pipettors 12-channel

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0,5-10	0,01	10	AT46.1	1	751,45
5-50	0,10	200, 300	AT47.1	1	708,45
40-350	0,40	350	AT48.1	1	708,45

Acura® 815/835F, fix volume

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
1	Fix	10	AN94.1	1	163,40
5	Fix	10	AN95.1	1	163,40
10	Fix	10	AN96.1	1	163,40
20	Fix	200, 300	AN97.1	1	163,40
25	Fix	200, 300	AN98.1	1	163,40
50	Fix	200, 300	AN99.1	1	163,40
100	Fix	200, 300	AP00.1	1	163,40
200	Fix	200, 300	AP01.1	1	163,40
250	Fix	1000	AP02.1	1	163,40
500	Fix	1000	AP03.1	1	163,40
1000	Fix	1000	AP04.1	1	163,40
2000	Fix	5000	AP05.1	1	195,65
2500	Fix	5000	AP06.1	1	195,65
5000	Fix	5000	AP07.1	1	195,65
10 000	Fix	10 000	AP08.1	1	195,65

TrioPack Acura® 825 and 835

Delivery incl. 3 Acura® pipettes and inspection certificate.

Set	Type	Art. No.	Qty. (set)	€
①	0.1-2 / 0.5-10 / 5-50 µl	TY62.1	1	676,20
②	0.1-2 / 2-20 / 20-200 µl	TY63.1	1	661,15
③	1-10 / 5-50 / 20-200 µl	TY64.1	1	643,95
④	0.5-10 / 10-100 / 100-1000 µl	TY65.1	1	661,15
⑤	1-10 / 10-100 / 100-1000 µl	TY66.1	1	643,95
⑥	2-20 / 20-200 / 100-1000 µl	TY67.1	1	643,95
⑦	5-50 / 20-200 / 100-1000 µl	TY68.1	1	643,95
⑧	10-100 / 100-1000 µl / 0.5-5 ml	TY69.1	1	665,45
⑨	100-1000 µl / 0.5-5 / 1-10 ml	TY70.1	1	686,95

Microlitre pipettors, Sartorius



Air cushion-piston pipettors mLINE®, variable

By Sartorius. mLINE® one-channel pipettors require very little force for pipetting or tip ejection and are characterized by their extremely low weight.

- Completely autoclavable once the Safe-Cone-filter has been removed.
- Ergonomic design enables fatigue-free operation
- Thermo-insulation of inner components improves accuracy
- Easy-to-read display
- Opti-load tip loading mechanism for simple tip ejection
- The start knob makes automatic Safe-Cone filter ejection possible
- Ergonomically designed bow-shaped finger rest with ID-window for individual marking
- Five different coloured knob covers for colour coding
- Certificate of conformity, with test protocol
- Safe-Cone filter prevents contamination of pipettor and sample material (suitable for pipettes from 10 µl on). Please order separately.

Technical specifications:

Volume (µl)	Test volume (µl)	Inaccuracy (%)	Non-precision (%)
0.1-3	0.3	10	6
	1.5	2.4	1.6
	3	1.3	0.8
0.5-10	0.5	5.00	4.00
	1	2.50	1.50
	5	1.50	1.00
	10	1.00	0.60
2-20	2	3.00	2.00
	10	1.20	1.00
	20	0.90	0.40
10-100	10	2.00	1.00
	50	1.00	0.40
	100	0.80	0.15
20-200	20	2.00	0.80
	100	0.80	0.30
	200	0.60	0.15
100-1000	100	1.50	0.70
	500	0.70	0.25
	1000	0.60	0.20
500-5000	500	1.50	0.60
	2500	0.60	0.30
	5000	0.50	0.15

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0.1-3	0.002	10/20	KC10.1	1	315,00
0.5-10	0.01	10/20	AN21.1	1	265,00
2-20	0.02	200, 300	AN22.1	1	265,00
10-100	0.1	200, 300	AN23.1	1	265,00
20-200	0.2	200, 300	AN24.1	1	265,00
100-1000	1	1000	AN25.1	1	265,00
500-5000	10	5000	AN26.1	1	265,00

Revolving stand

By Sartorius. Made of ABS. For 6 Sartorius-pipettors, series mLINE®.

Art. No.	Pack Qty.	€
AL16.1	1	119,00

Air cushion-piston pipettors mLINE®, variable

Suitable pipettor tips				Pipettors Art.-No. (****.1)					
Volume range of tips	Tip No.			KC10	AN21	AN22 AN23	AN24	AN25	AN26
0.1-10 µl	1			X					
	27			X	X				
	31	32		X	X				
	43	45		X	X				
	62	63	64	X	X				
0.5-10 µl	33			X	X				
	46			X	X				
0.1-20 µl	20				X				
	47						X		
	56	59		X	X				
1-200 µl	4	5				X	X		
	6					X			
	34	35				X	X		
	36	37				X	X		
	49	53					X		
	65	66	67			X	X		
1-300 µl	39					X	X		
	52						X		
	57	60					X		
100-1000 µl	9	10						X	
	25	26						X	
	40	41						X	
	54							X	
50-1250 µl	42							X	
	58	61						X	
1-5 ml	13								X

Microlitre pipettors eLINE® electronic

Suitable pipettor tips				Pipettors Art.-No. (****.1)							
Volume range of tips	Tip No.			LP77 LP82 LP86	LP78 LP83 LP87	LP79	LP84 LP88	LP80	LP81	LP85 LP89	
0,1-10 µl	1			x							
	31	32		x							
	43	44	45	x							
	62	63	64	x							
0,5-10 µl	2			x							
	33			x							
	46			x							
1-20 µl	47					x	x				
1-200 µl	4	5	6		x	x	x				
	34	35	36		x	x	x				
	37	38			x	x	x				
	49	50	53			x	x				
	65	66	67		x	x	x				
1-300 µl	7					x	x				
	39				x	x					
	52					x	x				
	57	60				x	x				
100-1000 µl	9	10						x			
	40	41						x			
	54							x			
50-1250 µl	11									x	
	42							x			
1-5 ml	13								x		



Microlitre pipettors eLINE® electronic

By Sartorius. Electronic microlitre pipettors.

- Twice as fast as mechanical pipettors
- Covers the volume range of two mechanical pipettors
- Reduced effort when pipetting
- Electronically-controlled tip ejection, tip ejection button for both right and left-hand users
- Improved pipetting reproducibility, for user-independent result
- Ergonomic design
- Optiload tip loading mechanism
- Rotatable dispensing head
- Typical applications: PCR, ELISA
- Pipetting still possible while loading
- Articles LP85.1 and LP89.1 with autoclavable dispensing head

Functions:

- Pipetting, reverse pipetting
- Pipetting with mixing / cycle counter
- Dispensing: Multiple dispensing, sequential dispensing
- Diluting, diluting with mixing, multi-aspirating
- 6 memory settings
- 9 speeds for suction and dispensing
- Single point calibration

Technical specifications Mikrolitre pipettors 1-channel:

Volume (µl)	Test volume (µl)	Inaccuracy (%)	Non-precision (%)	Safe-Cone Filter Standard	Safe-Cone Filter Plus
0,2-10	10 1	0,90 2,50	0,40 1,50	-	-
5-120	120 12	0,40 2,00	0,15 1,00	X230.1	AL18.1
10-300	300 30	0,40 1,50	0,15 0,80	X229.1	AL19.1
50-1000	1000 100	0,40 1,50	0,15 0,50	K776.1	AL20.1
100-5000	5000 500	0,50 1,00	0,15 0,40	K776.1	AL20.1

Technical specifications Multichannel pipettors:

Volume (µl)	Test volume (µl)	Inaccuracy (%)	Non-precision (%)	Safe-Cone Filter Standard	Safe-Cone Filter Plus
0,2-10	10 1	0,90 4,00	0,50 3,00	-	-
5-120	120 12	0,50 2,00	0,20 1,50	X230.1	AL18.1
10-300	300 30	0,50 2,00	0,20 1,00	X229.1	AL19.1
50-1200	1200 120	0,50 2,50	0,20 1,00	K776.1	AL20.1

Delivery incl. charging station.

1-channel

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0,2-10	0,05	10	LP77.1	1	517,00
5-120	0,5	300, 350	LP78.1	1	517,00
10-300	1	350	LP79.1	1	517,00
50-1000	5	1000	LP80.1	1	517,00
100-5000	10	5000	LP81.1	1	517,00

8-channel

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0,2-10	0,05	10	LP82.1	1	827,00
5-120	0,50	300, 350	LP83.1	1	827,00
10-300	1,00	350	LP84.1	1	827,00
50-1200	5,00	1200	LP85.1	1	827,00

12-channel

Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
0,2-10	0,05	10	LP86.1	1	1034,00
5-120	0,50	300, 350	LP87.1	1	1034,00
10-300	1,00	350	LP88.1	1	1034,00
50-1200	5,00	1200	LP89.1	1	1034,00

Accessories:

Charging station for 1 pipette, incl. power unit	LP90.1	1	222,00
Charging station for 4 pipettes, incl. power unit	LP91.1	1	493,00



Safe-Cone-Filters

For Sartorius-pipettes from 10 µl. The replaceable filters serve as a barrier against liquid permeation and harmful vapours and therefore also protect the pipettor interior, e.g. against radioactive, biologically dangerous or corrosive samples. They also protect against cross-contamination. The safe-cone-filters should be replaced at regular intervals (after 50-250 pipetting actions) or immediately in the event of overpipetting.

Two models available:

Safe-Cone-Filter Plus for highly demanding applications such as cell culture, bacteriological and virological work and in microbiology.

Safe-Cone-Filter Standard for normal applications to prevent against contamination of the pipettor and the sample material.

FilterStandard	Filter Plus	Suitable for		Suitable for	
		Proline® Plus		mLINE® and eLINE®	
		Vol. (µl)	Best.-Nr.	Vol. (µl)	Art. No.
(max 20 µl) AN27		2-20	NA73.1	0.5-10	AN21.1
(max 100 µl) X230	(max 100 µl) AL18	10-100	NA74.1 NA80.1 NA83.1	10-100	AN23.1 LP83.1 LP78.1 LP87.1
(max 200 µl) X229	(max 200 µl) AL19	20-200	NA75.1 NA81.1 NA84.1	20-200	AN24.1 LP84.1 LP88.1 LP79.1
(max 1000 µl) K776	(max 1000 µl) AL20	100-1000	NA76.1	100-1000	AN25.1 LP85.1 LP89.1 LP80.1
(max 10 ml) K777	(max 10 ml) AL21	500-5000 1-10 ml	NA77.1 NA78.1	500-5000	AN26.1

Filter type	Ø (mm)	Art. No.	Pack Qty.	€
Standard (max 20 µl)	1,83	AN27.1	50	55,00
Standard (up to 100 µl)	2,51	X230.1	50	61,50
Standard (max 200 µl)	3,15	X229.1	50	61,50
Standard (max 1000 µl)	5,33	K776.1	50	48,50
Standard (max 10 ml)	6,73	K777.1	50	55,00
Plus (max 100 µl)	2,51	AL18.1	50	65,00
Plus (max 200 µl)	3,15	AL19.1	50	65,00
Plus (max 1000 µl)	5,33	AL20.1	50	65,00
Plus (max 10 ml)	6,73	AL21.1	50	65,00

Microlitre pipettors, Sartorius



Microlitre pipettors Proline® Plus, variable

By Sartorius. Suitable for all types of routine laboratory applications. Ergonomic design allows fatigue-free operations and minimizes work effort.

- Fully autoclavable when Safe-Cone filters are removed
- Robust, yet light and easy to use
- Volume setting by click stops, easy-to-read display
- Thermal insulation of inside components for improved accuracy
- Highly resistant to chemicals and UV light
- Multichannel pipettes with Optiload tip loading mechanism
- Easy to clean; no tools required for disassembling
- With calibrating tools for easy self-calibration
- Suitable for both left-handed and right-handed users
- Replaceable Safe-Cone filter to prevent contamination of pipette and sample (for pipettes from 10 µl). Please order separately.
- High-level accuracy and precision according to ISO 8655
- CE/IVD marking
- Individual Certificate of Quality

Technical specifications single channel:

Capacity (µl)	Test capacity (µl)	Inaccuracy (%)	Non-precision (%)	Safe-Cone Filter Standard	Safe-Cone Filter Plus
0.1-3	3	1.30	0.80	-	-
	0.3	10.00	6.00		
0.5-10	10	1.00	0.60	-	-
	0.5	5.00	4.00		
2-20	20	0.90	0.40	AN27.1	-
	2	3.00	2.00		
10-100	100	0.80	0.15	X230.1	AL18.1
	10	2.00	1.00		
20-200	200	0.60	0.15	X229.1	AL19.1
	20	2.00	0.80		
100-1000	1000	0.60	0.20	K776.1	AL20.1
	100	1.00	0.40		
500-5000	5000	0.50	0.20	K777.1	AL21.1
	500	2.00	0.60		
1-10 ml	10000	0.60	0.20	K777.1	AL21.1
	1000	3.00	0.60		

Technical specifications multichannel:

Capacity (µl)	Test capacity (µl)	Inaccuracy (%)	Non-precision (%)	Safe-Cone Filter Standard	Safe-Cone Filter Plus
0.5-10	10	1.50	1.00	-	-
	5	2.50	2.50		
	1	4.00	4.00		
10-100	100	0.70	0.25	X230.1	AL18.1
	50	1.00	0.70		
	10	3.00	1.50		
30-300	300	0.60	0.25	X229.1	AL19.1
	150	1.00	0.50		
	30	2.00	1.00		

1-channel

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
1-channel	0,1-3	0,002	10	NA71.1	1	210,00
1-channel	0,5-10	0,01	10	NA72.1	1	210,00
1-channel	2-20	0,02	200, 300	NA73.1	1	210,00
1-channel	10-100	0,10	200, 300, 350	NA74.1	1	210,00
1-channel	20-200	0,20	200, 300, 350	NA75.1	1	210,00
1-channel	100-1000	1,00	1000	NA76.1	1	210,00
1-channel	500-5000	10,00	5000	NA77.1	1	210,00
1-channel	1-10 ml	20,00	10000	NA78.1	1	210,00

Multichannel

Type	Volume (µl)	Pitch (µl)	Tip type (µl)	Art. No.	Pack Qty.	€
8-channel	0,5-10	0,01	10	NA79.1	1	614,00
8-channel	10-100	0,10	200, 300, 350	NA80.1	1	614,00
8-channel	30-300	0,20	300, 350	NA81.1	1	614,00
12-channel	0,5-10	0,01	10	NA82.1	1	671,00
12-channel	10-100	0,10	200, 300, 350	NA83.1	1	671,00
12-channel	30-300	0,20	300, 350	NA84.1	1	671,00

Microlitre pipettors Proline® Plus

Suitable pipettor tips		Pipettors Art.-No. (****.1)									
Volume range of tips	Tip No.	NA71	NA72	NA73	NA74	NA75	NA76	NA77	NA78	NA79	NA80 NA81 NA83 NA84
0.1-10 µl	1	x								x	
	27	x	x								
	31	x	x							x	
	32		x							x	
	43 44 45	x	x							x	
	62 63 64	x	x								
0.5-10 µl	2		x								
	46	x									
1-20 µl	20	x	x								
	47				x						
	56 59	x	x								
1-100 µl	48				x						
	4	5	6		x	x	x				
1-200 µl	34 35		x	x	x						
	36 37		x	x	x						
	38										x
	50 53				x						
	65 66 67		x	x							
	39		x	x	x						x
1-300 µl	52				x						
	57 60				x						
100-1000 µl	9	10					x				
	40 41						x				
	54						x				
50-1250 µl	42						x				
	55						x				
	58 61						x				
1-5 ml	13 15							x			
1-10 ml	19								x		

Microlitre pipettors: Eppendorf

Suitable pipettor tip			Volume range of Eppendorf-microlitre pipettors						
Volume range of tips	Tip No.		0,5-10 µl	10-100 µl	20-200 µl	100-1000 µl	200-2000 µl	1-5 ml	1-10 ml
0.1-10 µl	27		x						
	43	44	45	x					
	62	63	64	x					
0.5-10 µl	2		x						
	33		x						
	46		x						
1-20 µl	20		x						
	47		x						
1-100 µl	48		x						
1-200 µl	3	5	6		x				
	34	35			x				
	36	37			x				
	38					x			
	49	50	53		x	x			
	51					x			
	65	66	67		x				
1-300 µl	39				x				
	52				x	x			
100-1000 µl	9	10				x	x		
	40	41				x	x		
	54						x		
50-1250 µl	42						x		
	55						x		
100-2000 µl	12							x	
1-5 ml	15								x
1-10 ml	19								x

The pipette tip fitting tables for all microlitre pipettor models can be found on pages 413-426.

Matching pipette tips for reusable boxes see p. 442.

Fitting information is provided as general recommendations. It is recommended that a check be made by the user. Pipette tip samples are available on request.



Pipette carousels Twister™ universal 336

By Socorex. Made of PA, coloured parts made of PC. Carousel stand for six pipettes of all well-known brands. 360° axial rotation allows easy access to instruments.

Colour	Art. No.	Pack Qty.	€
blue	TX62.1	1	110,75
green	TX63.1	1	110,75
orange	TX64.1	1	110,75
grey	TX65.1	1	110,75
red	TX66.1	1	110,75
white	TX67.1	1	110,75
yellow	TX68.1	1	110,75

Microlitre pipettors: FinnpiPETTE®

Suitable pipettor tips				Volume range of FinnpiPETTE®					
Max. tip volume	Tip No.			0.5-10 µl	10-100 µl	20-200 µl	100-1000 µl	1-5 ml	1-10 ml
0.1-10 µl	27			x					
	43	44	45	x					
	62	63	64	x					
0.5-10 µl	46			x					
0.1-20 µl	20			x					
	47				x	x			
1-100 µl	48				x	x			
1-200 µl	5			x	x	x			
	34	35		x	x	x			
	36	37	38	x	x	x			
	49	50	53		x	x			
	51				x	x			
	65	66	67	x	x	x			
1-300 µl	39				x	x			
	52				x	x			
100- 1000 µl	40	41					x		
	54						x		
50-1250 µl	42						x		
	55						x		
1-5 ml	16							x	
1-10 ml	18								x



Flip & Grip™-pipette carousels

Carousel stands for the most common pipette brands. Holds up to 12 single-channel pipettes (6 on the handle + 6 attached to the pipetting button) or 3 multichannel plus 3 single-channel pipettes. With heavy base for secure positioning on laboratory benchtops. Pipette holder can be bolted upside down under a rack for space-saving storage. Dimensions: Ø 332 mm x H 193 mm.

Colour	Art. No.	Pack Qty.	€
blue	XT82.1	1	70,45
mint green	XT83.1	1	70,45
magenta	XT84.1	1	70,45

Microlitre pipettors - Accessories



Pipettor stand Rotilabo®

Made of acrylic glass. Suitable for all standard pipettors. Secure and stable stand, breakproof. Dimensions: W 280 x H 165 x D 80 mm. Ø of openings 20 mm.

Art. No.	Pack Qty.	€
A804.1	1	106,10



Table-pipettor stands

By Socorex. Made of PA. Ideal for 7 standard microlitre pipettors. Space-saving.

Colour	Art. No.	Pack Qty.	€
light grey	T277.1	1	90,30
ice-blue	T278.1	1	90,30
mint green	T279.1	1	90,30
vanilla-yellow	T280.1	1	90,30



Pipettor stand Rotilabo®

Made of white acrylic glass with clear lid. Suitable for retaining 6 microlitre pipettors. With 2 compartments (W 158 x D 120 x H 95 mm) for pipette tips. Ø of adjusting opening for pipettes 20 mm. Overall dimensions W 328 x H 228 x D 200 mm.

Art. No.	Pack Qty.	€
A879.1	1	165,55



Universal holder for pipettors

Ideal for attaching to shelves, lab benches, etc. Plastic screw enables speedy attaching and removal. Span width max. 3 cm. Holder opening: width 2.4 cm x length 5 cm. Suitable for all standard pipettors.

Art. No.	Pack Qty.	€
P202.1	1	17,75



Pipettor stands

Made of ABS. Suitable for holding 6 pipettes of most standard makes. Top cut-out: W 25 mm, bottom cut-out: W 20 mm.

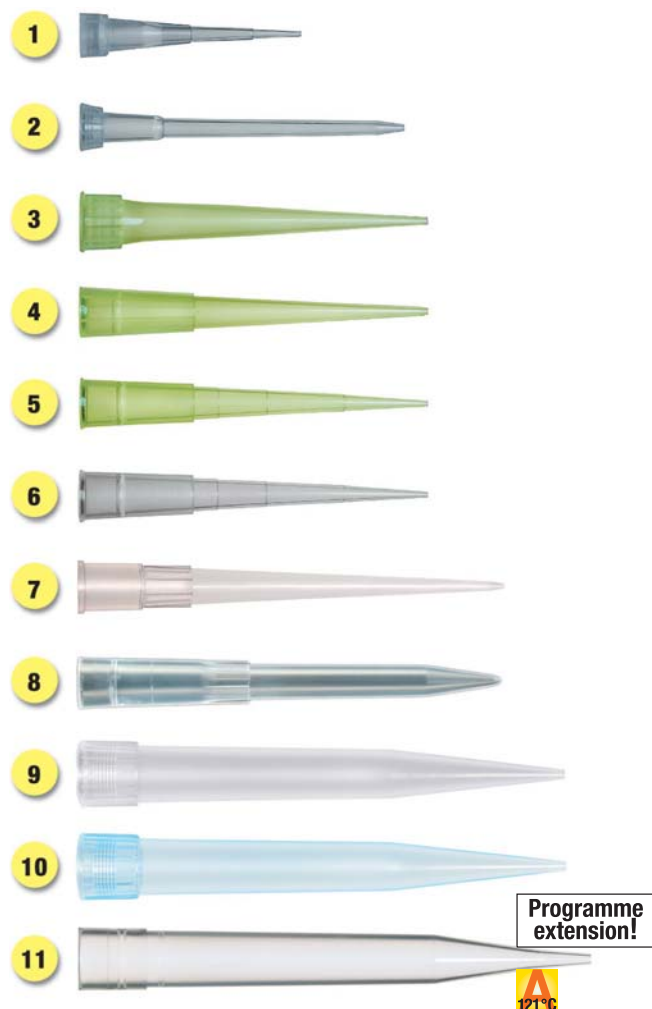
Colour	Art. No.	Pack Qty.	€
blue	N949.1	1	39,75

Pipettor tips

Pipettor tips, standard

Made of PP. Autoclavable.

All figures drawn to scale!



1 Standard MIKRO 0.1-10 µl

Colourless, graduated. Suitable for Brand, Sartorius. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
0,1-10	bulk-packed (bag), unsterile	K138.1	1000	18,25
0,1-10	in MultiTray-insert, unsterile	KE22.1	10 x 96	38,95
0,1-10	in hinged lid rack, unsterile	CLC9.1	10 x 96	47,20

2 Standard KRISTALL 0.5-10 µl

Colourless, short. Suitable for Eppendorf, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
0,5-10	bulk-packed (bag), unsterile	9260.1	1000	18,50
0,5-10	in MultiTray-insert, unsterile	CLE0.1	10 x 96	39,75
0,5-10	in hinged lid rack, unsterile	CLE1.1	10 x 96	46,80

3 Standard UNIVERSAL 10-100 µl

Yellow. Suitable for Roth, Brand, Eppendorf, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
10-100	bulk-packed (bag), unsterile	2395.1	1000	17,00
10-100	in inverted tray rack, unsterile	CLX9.1	10 x 96	40,00

4 Standard UNIVERSAL 10-200 µl

Yellow. Suitable for Brand, Gilson, Roth, Sartorius. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
10-200	bulk-packed (bag), unsterile	5889.1	1000	17,00
10-200	in inverted tray rack, unsterile	CLY0.1	10 x 96	42,50

5 Standard UNIVERSAL 10-200 µl

Yellow, graduated. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
10-200	bulk-packed (bag), unsterile	B007.1	1000	24,75
10-200	in inverted tray rack, unsterile	CLY1.1	10 x 96	42,50

6 Standard UNIVERSAL 5-200 µl

Colourless, graduated. Suitable for Brand, Eppendorf, Gilson, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
5-200	bulk-packed (bag), unsterile	B002.1	1000	17,55
5-200	in inverted tray rack, unsterile	CPX3.1	10 x 96	58,60

7 Standard UNIVERSAL 1-300 µl

Uncoloured. Suitable for Brand, Eppendorf, Gilson, Sartorius. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
1-300	loose in bag, unsterile	XC75.1	1000	21,45
1-300	in MultiTray, unsterile	XC76.1	10 x 96	42,95
1-300	Hinged racks, unsterile	XC77.1	10 x 96	51,55

8 Standard UNIVERSAL 40-350 µl

Colourless. Suitable for Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
40-350	bulk-packed (bag), unsterile	AT49.1	1000	69,90
40-350	in rack, unsterile	AT50.1	10 x 96	117,20

9 Standard UNIVERSAL 100-1000 µl

Colourless. Suitable for Brand, Eppendorf, Gilson, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
100-1000	bulk-packed (bag), unsterile	B006.1	1000	14,85
100-1000	in MultiTray-insert, unsterile	KE23.1	16 x 60	44,65
100-1000	in hinged lid rack, unsterile	CLE2.1	10 x 60	34,95

10 Standard UNIVERSAL 100-1000 µl

Blue. Suitable for Brand, Eppendorf, Gilson, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
100-1000	bulk-packed (bag), unsterile	2679.1	1000	12,85
100-1000	in MultiTray-insert unsterile	KE24.1	16 x 60	45,15
100-1000	in hinged lid rack, unsterile	CLE3.1	10 x 60	31,15

11 Standard 50-1200 µl

Colourless. Suitable for Sartorius eLINE® LP85.1 and LP89.1. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
50-1200	bulk-packed (bag), unsterile	LT33.1	1000	47,40
50-1200	Racks, unsterile	LT34.1	10 x 96	79,50

The pipette tip fitting tables for all microlitre pipettor models can be found on pages 413-426.

Matching pipette tips for reusable boxes see p. 442.

Fitting information is provided as general recommendations. It is recommended that a check be made by the user. Pipette tip samples are available on request.

Pipettor tips

Pipettor tips, standard

Made of PP. Autoclavable.

All figures drawn to scale!

12



13



14



15



16



17



18



19



Pipette tips

12 Standard MAKRO 0.1-2 ml

Colourless. Length 115 mm. Suitable for Eppendorf, Socorex. Autoclavable.

Volume (ml)	Packaging	Art. No.	Pack Qty.	€
0,1-2	bulk-packed (bag), unsterile	K315.1	250	46,15

13 Standard MAKRO 1-5 ml

Colourless. Length 134 mm. Suitable for Sartorius, Socorex, Labmate and Roth. Autoclavable.

Volume (ml)	Packaging	Art. No.	Pack Qty.	€
1-5	bulk-packed (bag), unsterile	CX70.1	300	31,15
1-5	in rack, unsterile	XP91.1	1 x 50	24,95

14 Standard MAKRO 1-5 ml

Colourless. Length 120 mm. Suitable for Starlab, Gilson, Oxford, Socorex. Autoclavable.

Volume (ml)	Packaging	Art. No.	Pack Qty.	€
1-5	bulk-packed (bag), unsterile	5846.1	250	22,40
1-5	in rack, unsterile	XP92.1	1 x 50	24,95

15 Standard MAKRO 1-5 ml

Colourless. Graduated. Suitable for Eppendorf, Sartorius, Socorex. Autoclavable.

Volume (ml)	Packaging	Art. No.	Pack Qty.	€
1-5	bulk-packed (bag), unsterile	AT51.1	2 x 250	89,80
1-5	in rack, unsterile	AT52.1	2 x 50	69,90

16 Standard MAKRO 1-5 ml

Colourless. Length 148 mm. Suitable for Finnpiptette® and Brand. Autoclavable.

Volume (ml)	Packaging	Art. No.	Pack Qty.	€
1-5	bulk-packed (box), unsterile	6946.1	75	13,95
1-5	bulk-packed (bag), unsterile	6946.2	500	51,10
1-5	in rack, unsterile	XP93.1	1 x 50	24,95

17 Standard 0.5-5 ml

Transparent. Length 160 mm. Suitable for Roth, Brand. CE-Identification (IVD). Autoclavable.

Volume (ml)	Packaging	Art. No.	Pack Qty.	€
0,5-5	bulk-packed (bag), unsterile	HL73.1	200	24,30
0,5-5	in TipBox for 5 ml tips, unsterile	HL74.1	1 x 28	40,25

18 Standard MAKRO 1-10 ml

Colourless. Length 150 mm. Suitable for Socorex and Finnpiptette®. Autoclavable.

Volume (ml)	Packaging	Art. No.	Pack Qty.	€
1-10	bulk-packed (bag), unsterile	E736.1	100	37,55
1-10	in hinged lid rack, unsterile	PC77.1	1 x 24	27,85

19 Standard MAKRO 1-10 ml

Transparent. Length 156.5 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Sartorius. CE-Identification (IVD). Autoclavable.

Volume (ml)	Packaging	Art. No.	Pack Qty.	€
1-10	bulk-packed (bag), unsterile	HL75.1	100	22,05
1-10	in TipBox for 10 ml tips, unsterile	HL76.1	1 x 18	51,85



TipBox 5 ml/10 ml

By Brand.

- Made of **PP**
- Unsterile
- Round with lid
- For 5 ml or 10 ml pipettor tips
- Filled with pipettor tips (HL74.1 (17), HL76.1 (19))
- Autoclavable

Art. No.	Pack Qty.	€
HL74.1	1 x 28	40,25
HL76.1	1 x 18	51,85

Pipette tip coding

Pipette tip No.	Pipette tip designation	Pipette tip type	Catalogue page
1-19	Standard	Standard quality for general laboratory applications	429-431
20-26	Pipette tips by Brand	Pipette tips produced in a cleanroom environment	432
27-30	Filter tips by Brand	Pipette tips with aerosol filter produced in a cleanroom environment	433
31-42	MpultiPrecision	Pipette tips by Sorenson	434-435
43-55	MpultiGuard	Pipette tips by Sorenson with aerosol filter	436-437
56-61	Mpulti OneTouch	Pipette tips by Sorenson with flexible stem	438
62-67	MpultiFlex	Gelloading pipette tips by Sorenson	439
68-71	Cell Saver Tips	Pipette tips with large opening	440

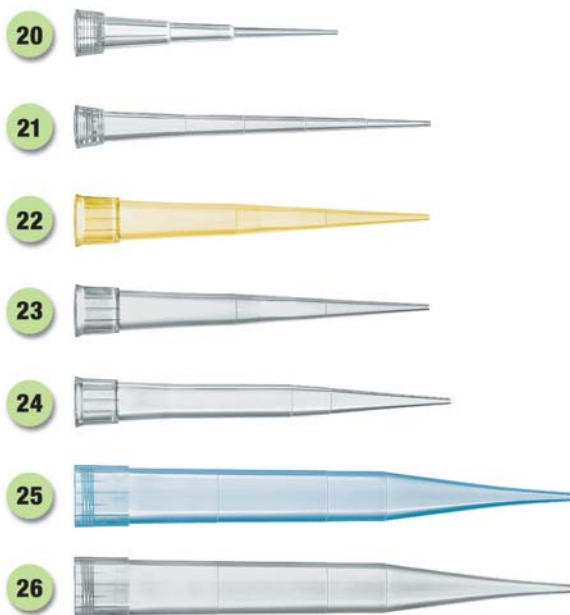
- To find appropriate tips for each pipettor and appropriate pipettors for every tip - refer to the fitting table on page 413

Pipette tips

Pipette tips, Brand

- **Sterile** or unsterile.
- Produced in a cleanroom environment, automatically palletised and packaged
- High-quality polypropylene types, free of DiHEMA and Oleamid
- Produced without plasticizer, cadmium-free colour pigments
- Graduated for quick volume identification
- **Palletised tips and filter tips free of DNA, RNases, endotoxins and ATP**
- Sterile tips incl. BIO-CERT® grade packaging: **sterile** in accordance with ISO 11 137 and AAMI guidelines, an SAL of 10⁻⁶ is guaranteed, with certificate
- Autoclavable at 121 °C (2 bar), according to DIN EN 285
- CE marked in accordance with IVD directive 98/79 EC

All figures drawn to scale!



20 pipette tips Brand 0.1-20 µl

By Brand. Colourless. Length 37 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiquette®, Sartorius. Specially designed for nanoscale applications. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
0,1-20	Standard	loose in bag, unsterile	AL17.1	1000	35,30
0,1-20	Standard	palletised, unsterile	ALT4.1	10 x 96	59,70
0,1-20	Standard	in TipBox, unsterile	HL65.1	5 x 96	47,20
0,1-20	Standard	in TipBox, sterile	ALT5.1	10 x 96	112,90
0,1-20	Ultra Low Retention	in TipBox, unsterile	ALT6.1	5 x 96	61,10
0,1-20	Ultra Low Retention	in TipBox, sterile	ALT7.1	10 x 96	127,95

21 pipette tips Brand 1-50 µl

By Brand. Colourless. Length 50 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiquette®, Sartorius. 2.5 µl, 10, 25 and 50 µl graduations for quick volume identification. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-50	Standard	loose in bag, unsterile	ALT8.1	1000	19,05
1-50	Standard	palletised, unsterile	ALT9.1	10 x 96	55,40
1-50	Standard	in TipBox, unsterile	ALX0.1	5 x 96	48,50
1-50	Standard	in TipBox, sterile	ALX1.1	10 x 96	104,85
1-50	Ultra Low Retention	in TipBox, unsterile	ALX2.1	5 x 96	56,45
1-50	Ultra Low Retention	in TipBox, sterile	ALX3.1	10 x 96	121,50

22 pipette tips Brand 2-200 µl

By Brand. Yellow. Length 50 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiquette®, Sartorius. 20 µl and 100 µl graduations for quick volume identification. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
2-200	Standard	loose in bag, unsterile	HL67.1	1000	19,30

23 pipette tips Brand 2-200 µl

By Brand. Colourless. Length 50 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiquette®, Sartorius. 20 µl and 100 µl graduations for quick volume identification. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
2-200	Standard	palletised, unsterile	ALX4.1	10 x 96	51,55
2-200	Standard	in TipBox, unsterile	HL68.1	5 x 96	41,40
2-200	Standard	in TipBox, sterile	ALX5.1	10 x 96	97,75
2-200	Ultra Low Retention	in TipBox, unsterile	ALX6.1	5 x 96	53,70
2-200	Ultra Low Retention	in TipBox, sterile	ALX7.1	10 x 96	111,80

24 pipette tips Brand 5-300 µl

By Brand. Colourless. Length 53 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiquette®, Sartorius. 50 µl, 100 µl and 300 µl graduations for quick volume identification. Thin-walled tip, suitable for reverse pipetting. Ideal for working with multichannel pipettes. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
5-300	Standard	loose in bag, unsterile	ALX8.1	1000	23,25
5-300	Standard	palletised, unsterile	ALX9.1	10 x 96	51,55
5-300	Standard	in TipBox, unsterile	ALY0.1	5 x 96	46,70
5-300	Standard	in TipBox, sterile	ALY1.1	10 x 96	96,65
5-300	Ultra Low Retention	in TipBox, unsterile	ALY2.1	5 x 96	53,70
5-300	Ultra Low Retention	in TipBox, sterile	ALY3.1	10 x 96	111,80

25 pipette tips Brand 50-1000 µl

By Brand. Blue. Length 70 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiquette®, Sartorius. 250 µl, 500 µl and 1000 µl graduations for quick volume identification. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
50-1000	Standard	loose in bag, unsterile	HL70.1	2 x 500	23,15
50-1000	Standard	loose in bag, unsterile	HL70.2	10 x 500	92,90

26 pipette tips Brand 50-1000 µl

By Brand. Colourless. Length 70 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiquette®, Sartorius. 250 µl, 500 µl and 1000 µl graduations for quick volume identification. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
50-1000	Standard	palletised, unsterile	ALY4.1	10 x 96	52,60
50-1000	Standard	in TipBox, unsterile	HL71.1	5 x 96	42,40
50-1000	Standard	in TipBox, sterile	ALY5.1	10 x 96	108,60
50-1000	Ultra Low Retention	in TipBox, unsterile	ALY6.1	5 x 96	55,30
50-1000	Ultra Low Retention	in TipBox, sterile	ALY7.1	10 x 96	124,70

Pipette tips

Ultra Low Retention pipette tips

The surfaces of the Ultra Low Retention tips by Brand are produced through a special, patented physicochemical process. The homogeneous, defect-free surfaces thus produced have extremely low surface tension - over 50 % less than PTFE. This significantly reduces sample loss and provides substantially higher reproducibility when working with critical medias.

- Ideal for biological samples that contain detergents such as Triton® X-100, SDS, Tween etc.
- No additives that can be leached out! No siliconisation of the surface!
- High chemical resistance. Ideal for working with solvents
- Autoclaved at 121 °C (2 bar) without any detrimental effect on material properties



Palletised pipette tips TipRacks

- Palletised pipette tips in refill units (TipRacks)
- Produces less waste than filled TipBoxes
- Tips and filter tips up to 1000 µl, free from DNA, RNase, endotoxins and ATP
- **Delivery incl.** transfer aid for easy transfer in TipBoxes

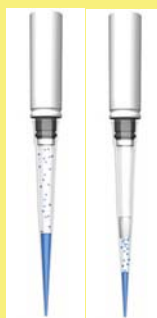


TipBox

- Made of PP
- With flap-/slip lid
- Stackable
- Filled with pipettor tips
- Autoclavable

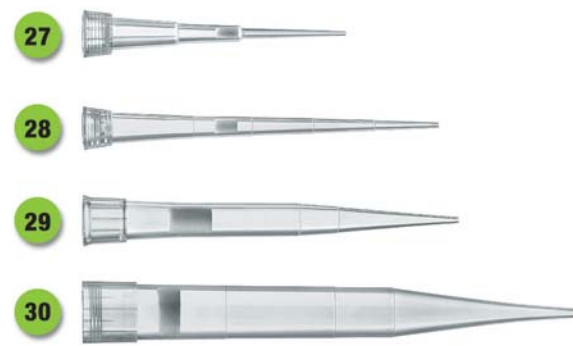
Filter tips

Non-self sealing filter tips by Brand have a PE filter that is free from chemical additives. The combination of pore diameter and filter length prevents the passage of aerosols to the tip shaft. The filter reliably serves this function. On the other hand, a liquid can pass very slowly should it accidentally come into contact with the filter. Since the filter does not swell, the sample can be recovered from the filter by simply actuating the pipette's blow-out function, or by centrifugation if necessary. This is a major advantage when working with valuable samples. An added advantage is that the sample is protected from contamination as the filter contains no additives!



Filter tips, Brand

All figures drawn to scale!



27 filter tips Brand 0.1-1 µl

By Brand. Colourless. With PE filter. Length 37 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiptette®, Sartorius. Specially designed for nanoscale applications. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
0,1-1	Standard	loose in bag, unsterile	ALY8.1	960	86,55
0,1-1	Standard	palletised, unsterile	ALY9.1	10 x 96	110,75
0,1-1	Standard	in TipBox, sterile	ANA0.1	10 x 96	141,90
0,1-1	Ultra Low Retention	in TipBox, unsterile	ANA1.1	5 x 96	77,30
0,1-1	Ultra Low Retention	in TipBox, sterile	ANA2.1	10 x 96	164,50

28 filter tips Brand 1-20 µl

By Brand. Colourless. With PE filter. Length 50 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiptette®, Sartorius. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-20	Standard	loose in bag, unsterile	ANA3.1	960	81,40
1-20	Standard	palletised, unsterile	ANA4.1	10 x 96	102,05
1-20	Standard	in TipBox, sterile	ANA5.1	10 x 96	133,30
1-20	Ultra Low Retention	in TipBox, unsterile	ANA6.1	5 x 96	66,05
1-20	Ultra Low Retention	in TipBox, sterile	ANA7.1	10 x 96	154,80

29 filter tips Brand 5-200 µl

By Brand. Colourless. With PE filter. Length 50 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiptette®, Sartorius. 20 µl and 100 µl graduations for quick volume identification. CE mark (IVD). Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
5-200	Standard	loose in bag, unsterile	ANA8.1	960	74,20
5-200	Standard	palletised, unsterile	ANA9.1	10 x 96	90,00
5-200	Standard	in TipBox, sterile	ANC0.1	10 x 96	118,25
5-200	Ultra Low Retention	in TipBox, unsterile	ANC1.1	5 x 96	65,60
5-200	Ultra Low Retention	in TipBox, sterile	ANC2.1	10 x 96	136,55

30 filter tips Brand 50-1000 µl

By Brand. Colourless. With PE filter. Length 70 mm. Suitable for Roth, Brand, Eppendorf, Gilson, Finnpiptette®, Sartorius. 250 µl, 500 µl and 100 µl graduations for quick volume identification. CE mark (IVD). Autoclavable.

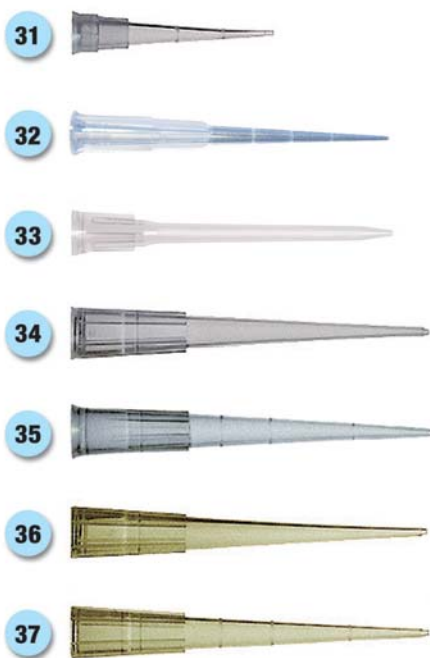
Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
50-1000	Standard	loose in bag, unsterile	ANC3.1	960	94,40
50-1000	Standard	palletised, unsterile	ANC4.1	10 x 96	125,80
50-1000	Standard	in TipBox, sterile	ANC5.1	10 x 96	138,70
50-1000	Ultra Low Retention	in TipBox, unsterile	ANC6.1	5 x 96	72,60
50-1000	Ultra Low Retention	in TipBox, sterile	ANC7.1	10 x 96	160,20

Pipettor tips

Pipettor tips, Sorenson Multi® Precision

- **Sterile** or unsterile
- Positioning rings in tip neck for better grip on the pipettor
- Very high transparency
- Tapered tip
- **Free of RNase/DNase and pyrogens**
- **Free of human DNA and PCR inhibitors**
- Colourless tips free of metals and cadmium
- Autoclavable

All figures drawn to scale!



31 Multi® MICRO ULTRA G 0.1-10 µl

Colourless, graduated. Suitable for Brand, Eppendorf, Gilson, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
0,1-10	Standard	bulk-packed (bag), unsterile	P866.1	1000	26,45
0,1-10	Standard	Racks, unsterile	P867.1	10 x 96	65,05
0,1-10	Standard	Racks, sterile	P868.1	10 x 96	69,05
0,1-10	LowBinding	bulk-packed (bag), unsterile	NL51.1	1000	32,50
0,1-10	LowBinding	Racks, unsterile	X590.1	10 x 96	59,70
0,1-10	LowBinding	Rack, sterile	PC91.1	10 x 96	70,55

32 Multi® Long Reach 0.1-10 µl

Colourless, graduated. Length 45.1 mm. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
0,1-10	Standard	bulk-packed (bag), unsterile	KP26.1	1000	27,90
0,1-10	Standard	Racks, unsterile	KP27.1	10 x 96	55,90
0,1-10	Standard	Racks, sterile	KP28.1	10 x 96	61,20

33 Multi® CRYSTAL 0.5-10 µl

Colourless. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
0,5-10	Standard	bulk-packed (bag), unsterile	2393.1	1000	27,10
0,5-10	Standard	Racks, unsterile	8144.1	10 x 96	72,25
0,5-10	Standard	Racks, sterile	8148.1	10 x 96	79,15
0,5-10	LowBinding	bulk-packed (bag), unsterile	NL52.1	1000	31,10
0,5-10	LowBinding	Racks, unsterile	X591.1	10 x 96	59,70
0,5-10	LowBinding	Rack, sterile	PC92.1	10 x 96	71,30

28 Multi® UNIVERSAL 1-200 µl

Colourless. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-200	Standard	bulk-packed (bag), unsterile	7058.1	1000	16,80
1-200	Standard	Racks, unsterile	8151.1	10 x 96	45,10
1-200	Standard	Racks, sterile	8154.1	10 x 96	54,85

35 Multi® UNIVERSAL 1-200 µl

Colourless, graduated. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-200	LowBinding	bulk-packed (bag), unsterile	NL53.1	1000	26,35
1-200	LowBinding	Racks, unsterile	X592.1	10 x 96	48,30
1-200	LowBinding	Rack, sterile	PC93.1	10 x 96	58,60

36 Multi® UNIVERSAL 1-200 µl

Yellow. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-200	Standard	bulk-packed (bag), unsterile	8156.1	1000	15,05
1-200	Standard	Racks, unsterile	8157.1	10 x 96	45,10
1-200	Standard	Racks, sterile	8159.1	10 x 96	49,85

37 Multi® UNIVERSAL 1-200 µl

Yellow, graduated. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-200	Standard	bulk-packed (bag), unsterile	E707.1	1000	24,95
1-200	Standard	Racks, unsterile	NL55.1	10 x 96	44,55
1-200	Standard	Racks, sterile	NL56.1	10 x 96	48,95



Multi®-Racks

By Sorenson.

- With slip lid
- Stackable
- Empty
- Autoclavable

Art. No.	Pack Qty.	€
T688.1	10	32,50

Pipettor tips

Pipettor tips, Sorenson Multi®Precision

- **Sterile** or unsterile
- Positioning rings in tip neck for better grip on the pipettor
- Very high transparency
- Tapered tip
- **Free of RNase/DNase and pyrogens**
- **Free of human DNA and PCR inhibitors**
- Colourless tips free of metals and cadmium
- Autoclavable

All figures drawn to scale!



38 Multi® Soft-Tips 1-200 µl

Colourless, graduated. With flexible pipettor tip shaft, especially suited for multi-channel pipettors. Suitable for Eppendorf, Finnpiptette®, Gilson, Oxford, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-200	Standard	bulk-packed (bag), unsterile	PP71.1	1000	26,55
1-200	Standard	Racks, unsterile	EC33.1	10 x 96	44,75
1-200	Standard	Racks, sterile	EL96.1	10 x 96	53,65

39 Multi® UNIVERSAL 1-300 µl

Transparent. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-300	Standard	bulk-packed (bag), unsterile	KC07.1	1000	21,70
1-300	Standard	Racks, unsterile	KC08.1	10 x 96	44,95
1-300	Standard	Racks, sterile	KC09.1	10 x 96	54,10

40 Multi® UNIVERSAL 100-1000 µl

Colourless. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
100-1000	Standard	bulk-packed (bag), unsterile	8163.1	1000	25,10
100-1000	Standard	Racks, unsterile	8164.1	10 x 100	53,25
100-1000	Standard	Racks, sterile	8165.1	10 x 100	64,00
100-1000	LowBinding	bulk-packed (bag), unsterile	NL54.1	1000	27,85
100-1000	LowBinding	Racks, unsterile	X594.1	10 x 100	57,45
100-1000	LowBinding	Racks, sterile	PC94.1	10 x 100	62,70

41 Multi® UNIVERSAL 100-1000 µl

Blue. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
100-1000	Standard	bulk-packed (bag), unsterile	8160.1	1000	26,05
100-1000	Standard	Racks, unsterile	8161.1	10 x 100	52,85
100-1000	Standard	Racks, sterile	8162.1	10 x 100	60,10

42 Multi® UNIVERSAL 50-1250 µl

Colourless, graduated. Length 103 mm. Suitable for Eppendorf, Finnpiptette®, Gilson, Oxford, Sartorius. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
50-1250	Standard	bulk-packed (bag), unsterile	NL57.1	768	25,30
50-1250	Standard	Hinged lid racks, unsterile	EL23.1	8 x 96	58,60
50-1250	Standard	Hinged lid racks, sterile	EL24.1	8 x 96	75,05

MultiLowBinding® pipettor tips

- **Surface optimized** through **LowBinding polymer coating** for minimum sample adhesion
- Maximum accuracy on quantitative analysis **minimizes sample loss** and reduces absolute error
- Chemically resistant coating
- Loseless pipetting of DNA, peptides, proteins, highly viscous samples
- Without the use of disruptive silicones



Conventional tip

LowBinding tip

The pipette tip fitting tables for all microlitre pipettor models can be found on pages 413-426.

Matching pipette tips for reusable boxes see p. 442.

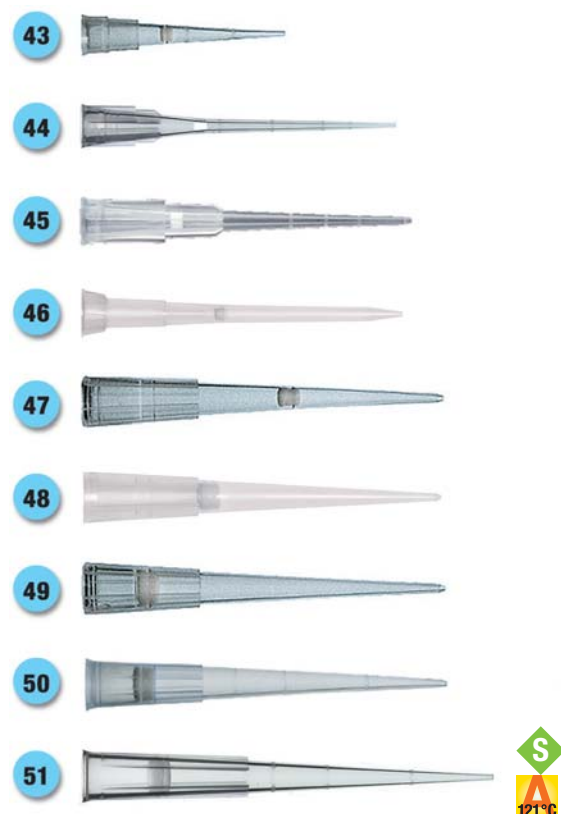
Fitting information is provided as general recommendations. It is recommended that a check be made by the user. Pipette tip samples are available on request.

Pipettor tips

Filtertips, Sorenson MultiGuard®-tips

- **Sterile**
- Specially developed **hydrophobic membranes for protection against contamination** from bio-hazardous, toxic or radioactive substances
- Made of completely inert material - to eliminate "incorrect signals" during PCR experiments
- **Free of RNase/DNase and pyrogens**
- **Free of human DNA and PCR inhibitors**
- Autoclavable

All figures drawn to scale!



43 MultiGuard® tips 0.1-10 µl

Colourless, with aerosol filter, graduated. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
0,1-10	Standard	Racks, sterile	T613.1	10 x 96	78,30
0,1-10	LowBinding	Racks, sterile	X595.1	10 x 96	85,80

44 MultiGuard® tips 0.1-10 µl

Colourless, graduated. Extra long. With aerosol filter. Length 45 mm. Suitable for Eppendorf, Finnpiptette®, Gilson, Oxford, Sartorius. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
0,1-10	Standard	Hinged lid rack, sterile	EL28.1	10 x 96	78,40

45 MultiGuard® tips 0.1-10 µl

Colourless, with aerosol filter, graduated, long. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
0,1-10	Standard	Racks, sterile	Y816.1	10 x 96	81,60

46 MultiGuard® tips 0.5-10 µl

Colourless, with aerosol filter. Suitable for Brand, Eppendorf, Gilson, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
0,5-10	Standard	Racks, sterile	A567.1	10 x 96	81,60
0,5-10	LowBinding	Racks, sterile	X596.1	10 x 96	85,80

47 MultiGuard® tips 1-20 µl

Colourless, with aerosol filter. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-20	Standard	Racks, sterile	9770.1	10 x 96	81,60
1-20	LowBinding	Racks, sterile	X597.1	10 x 96	85,80

48 MultiGuard® tips 1-100 µl

Colourless, with aerosol filter. Suitable for Brand, Eppendorf, Gilson, Finnpiptette®, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-100	Standard	Racks, sterile	XC78.1	10 x 96	77,00

49 MultiGuard® tips 1-200 µl

Colourless, with aerosol filter. Suitable for Finnpiptette®, Oxford, Sartorius. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-200	Standard	Racks, sterile	9771.1	10 x 96	81,60

50 MultiGuard® 1-200 µl

Colourless, graduated, with aerosol filter. Suitable for Brand, Finnpiptette®, Sartorius, Oxford. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-200	LowBinding	Racks, sterile	X598.1	10 x 96	85,80

51 MultiGuard® NX 1-200 µl

Colourless, graduated. With aerosol filter. Length 59 mm. Suitable for Eppendorf, Finnpiptette®, Gilson, Oxford. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-200	LowBinding	Racks, sterile	EL27.1	10 x 96	103,00



Multi®-hinged lid racks

By Sorenson.

- With hinged lid
- Stackable
- Empty
- Autoclavable

Art. No.	Pack Qty.	€
T689.1	10	32,50

Pipettor tips

Filtertips, Sorenson MultiGuard®-tips

- **Sterile**
- Specially developed **hydrophobic membranes for protection against contamination** from bio-hazardous, toxic or radioactive substances
- Made of completely inert material - to eliminate "incorrect signals" during PCR experiments
- **Free of RNase/DNase and pyrogens**
- **Free of human DNA and PCR inhibitors**
- Autoclavable

All figures drawn to scale!



52 MultiGuard® tips 1-300 µl

Colourless, graduated, with aerosol filter. Length 77 mm. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Sartorius. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-300	Standard	Racks, sterile	KL03.1	10 x 96	81,60
1-300	LowBinding	Racks, sterile	KL04.1	10 x 96	84,85

53 MultiGuard® tips 1-200 µl

Colourless, graduated. With aerosol filter. Length 77,8 mm. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
1-200	Standard	Racks, sterile	H698.1	10 x 96	77,30
1-200	LowBinding	Rack, sterile	X599.1	10 x 96	85,80

54 MultiGuard® tips 100-1000 µl

Colourless, with aerosol filter. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
100-1000	Standard	Racks, sterile	9773.1	10 x 100	81,60
100-1000	LowBinding	Rack, sterile	X601.1	10 x 100	85,80

55 MultiGuard®-tips 50-1250 µl

Colourless, graduated. With aerosol filter. Length 102 mm. Suitable for Eppendorf, Finnpiquette®, Gilson, Oxford, Sartorius. Autoclavable.

Volume (µl)	Type	Packaging	Art. No.	Pack Qty.	€
50-1250	Standard	Hinged lid rack, sterile	EL25.1	8 x 96	80,55

The pipette tip fitting tables for all microlitre pipettor models can be found on pages 413-426.

Matching pipette tips for reusable boxes see p. 442.

Fitting information is provided as general recommendations. It is recommended that a check be made by the user. Pipette tip samples are available on request.

MultiLowBinding® pipettor tips

- **Surface optimized** through **LowBinding polymer coating** for minimum sample adhesion
- Maximum accuracy on quantitative analysis **minimizes sample loss** and reduces absolute error
- Chemically resistant coating
- Loseless pipetting of DNA, peptides, proteins, highly viscous samples
- Without the use of disruptive silicones



Conventional tip

LowBinding tip

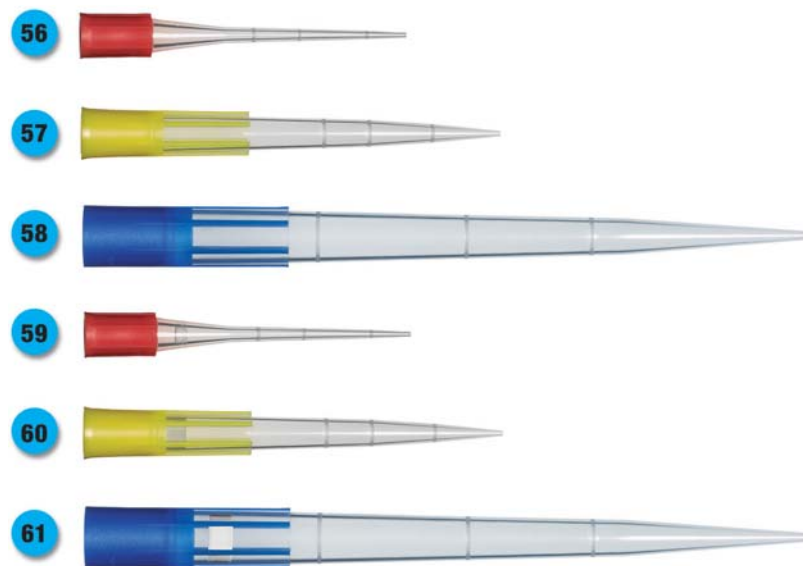
Pipettor tips

Pipettor tips, Sorenson Multi® OneTouch

Only one tip required for numerous pipettor models

- **Sterile** or unsterile
- **Elastic shaft** made of TPE, rigid body made of PP
- Graduated
- Tips in plastic rack are autoclavable
- **RNase-/DNase-** and **pyrogen-free**
- **Free of human DNA** and **PCR inhibitors**
- With or without **aerosol filter**

All figures drawn to scale!



56 Multi® OneTouch 0.1-20 µl

Red shaft. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Roth, Sartorius, Socorex.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
0,1-20	Plastic rack, unsterile	KT09.1	10 x 96	53,65
0,1-20	Plastic rack, sterile	KT10.1	10 x 96	56,95
0,1-20	Cardboard rack, sterile	KT11.1	10 x 96	56,95

57 Multi® OneTouch 1-350 µl

Yellow shaft. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Roth, Sartorius, Socorex.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
1-350	Plastic rack, unsterile	KP90.1	10 x 96	53,70
1-350	Plastic rack, sterile	KP91.1	10 x 96	56,80
1-350	Cardboard rack, sterile	KP92.1	10 x 96	56,80

58 Multi® OneTouch 50-1250 µl

Blue shaft. Suitable for Eppendorf, Finnpiquette®, Gilson, Sartorius, Socorex.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
50-1250	Plastic rack, unsterile	KT14.1	8 x 96	53,65
50-1250	Plastic rack, sterile	KT15.1	8 x 96	56,95
50-1250	Cardboard rack, sterile	KT16.1	12 x 64	64,30

59 Multi® OneTouch 0.1-20 µl

Red shaft with aerosol filter. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Roth, Sartorius, Socorex.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
0,1-20	Plastic rack, sterile	KT12.1	10 x 96	112,90
0,1-20	Cardboard rack, sterile	KT13.1	10 x 96	112,90

60 Multi® OneTouch 1-350 µl

Yellow shaft with aerosol filter. Suitable for Brand, Eppendorf, Finnpiquette®, Roth, Sartorius, Socorex.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
1-350	Plastic rack, sterile	KP93.1	10 x 96	112,90
1-350	Cardboard rack, sterile	KP94.1	10 x 96	112,90

61 Multi® OneTouch 50-1250 µl

Blue shaft with aerosol filter. Suitable for Eppendorf, Finnpiquette®, Gilson, Sartorius, Socorex.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
50-1250	Plastic rack, sterile	KT17.1	8 x 96	112,90
50-1250	Cardboard rack, sterile	KT18.1	12 x 64	112,90



Ecological cardboard box racks

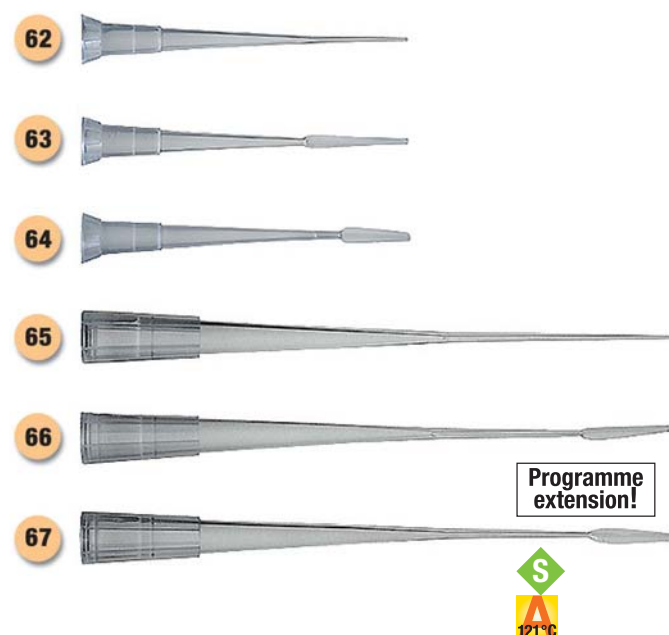
- Cardboard raw material from sustainable forestry
- Ink print on a soja base
- Used racks can be folded, easy to recycle
- Reduce plastic waste

Pipettor tips

Pipettor tips, Sorenson MultiMiniFlex®-tips, MultiFlex®-tips

- Sterile or unsterile
- Suitable for loading SDS page protein gels, horizontal agarose and DNA sequencing gels
- Precise pipetting of minute samples at the lower end of the micron range (restriction enzyme digestion, nick translation, enzyme assay, immune precipitation and DNA sequencing reaction)
- For checking the precision of pipettors: (62)-(64) graduation with 2 µl, (65)-(67) graduation of 5 µl
- Free of RNase/DNase and pyrogens
- Free of human DNA and PCR inhibitors
- Autoclavable

All figures drawn to scale!



62 MultiMiniFlex® tips 0,1-10 µl

Colourless, round. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
0,1-10	Rack	A569.1	200	32,40
0,1-10	Rack, sterile	NL58.1	200	35,15

62 MultiMiniFlex® tips 0.1-10 µl

Colourless, flat 0.4 mm. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
0,1-10	Racks, unsterile	A570.1	200	64,00

64 MultiMiniFlex® tips 0.1-10 µl

Colourless, flat 0.2 mm. Suitable for Eppendorf, Finnpiquette®, Gilson, Oxford, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
0,1-10	Racks, unsterile	A571.1	200	86,35

65 MultiFlex®-tips 1-200 µl

Colourless, round. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
1-200	bulk-packed (bag)	Y419.1	1000	44,40
1-200	Rack, unsterile	6144.1	200	32,40
1-200	Rack, sterile	NL60.1	200	37,95

66 MultiFlex®-tips 1-200 µl

Colourless, flat 0.4 mm. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
1-200	Racks, unsterile	6128.1	200	62,90

67 MultiFlex®-tips 1-200 µl

Colourless, flat 0.2 mm. Suitable for Brand, Eppendorf, Finnpiquette®, Gilson, Oxford, Roth, Sartorius, Socorex. Autoclavable.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
1-200	Racks, unsterile	6124.1	200	82,45

The pipette tip fitting tables for all microlitre pipettor models can be found on pages 413-426.

Matching pipette tips for reusable boxes see p. 442.

Fitting information is provided as general recommendations. It is recommended that a check be made by the user. Pipette tip samples are available on request.

Pipettor tips

Cell-Saver Tips Pipettor tips with large opening

- Made of **PP**
- **Sterile** or unsterile
- With extra-large opening for the protection of cells
- Suitable for pipetting of suspensions or for viscous liquids
- With or without **aerosol filter**
- **RNase/DNase free**
- **Filter tips free of human DNA, pyrogen free**
- Autoclavable

All figures drawn to scale!



68 Cell-Saver 1-200 µl

Uncoloured. Suitable for Roth, Brand, Eppendorf, Gilson.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
1-200	loose in bag, unsterile	AEA9.1	1000	36,35

69 Cell-Saver 20-200 µl

Colourless, **with aerosol filter**. Suitable for Roth, Brand, Eppendorf, Gilson.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
20-200	Racks, sterile	AEC1.1	10 x 96	109,65

70 Cell-Saver 100-1000 µl

Uncoloured. Suitable for Eppendorf, Finnpiptette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
100-1000	loose in bag, unsterile	CHC5.1	1000	40,65

71 Cell-Saver 100-1000 µl

Colourless, **with aerosol filter**. Suitable for Eppendorf, Finnpiptette®, Gilson, Rainin®, Sartorius.

Volume (µl)	Packaging	Art. No.	Pack Qty.	€
100-1000	Racks, sterile	CHC6.1	6 x 96	77,30

Gel Cutting Tips Pipette tips for cloning applications

- Made of **PP**
- For cutting DNA or protein bands out of agarose or SDS-PAGE gels
- Suitable for most commonly available 1000 µl pipettes
- Ideal for precision cutting of protein bands, which can be transferred to a reaction vial using a pipette plunger
- **RNase/DNase free**
- Autoclavable



72 Gel Cutting Tips 4 x 1 mm

Uncoloured.

Packaging	Art. No.	Pack Qty.	€
loose in bag, unsterile	CHA9.1	250	163,40
in rack, unsterile	CHC0.1	5 x 48	332,20

73 Gel Cutting Tips 6.5 x 1 mm

Uncoloured.

Packaging	Art. No.	Pack Qty.	€
loose in bag, unsterile	CHC1.1	250	163,40
in rack, unsterile	CHC2.1	5 x 48	332,20

Pipettor tips and refill systems



Multi®-Tip stations

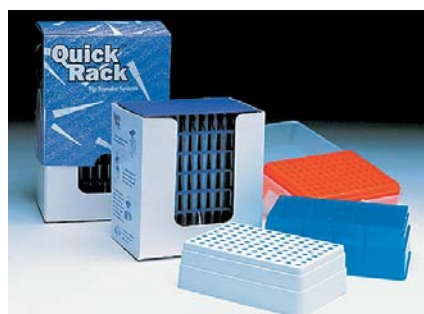
By Sorenson. 5-tier pipettor tip station made of PP. Ideal for loading multichannel pipettors.

- 960 pipettor tips in one Multi®-Tip station
- Each with 2 x 96 (=192) pipettor tips per tier
- Lid can be placed over half of tier (96 tips) to avoid any risk of contamination
- Made of 100 % recycling plastic
- Space-saving

Models:

- Sterile or unsterile
- Multi®Precision® quality
- MultiLowBinding®-pipettor tip quality
- Graduated
- Volume range: 0.1-10 µl and 1-200 µl

Vol. (µl)	Type	Type	Art. No.	Pack Qty.	€
0,1-10	MultiLowBinding®, colourless, extra long	sterile	EL29.1	5 x 960	208,55
0,1-10	Multi®Precision®, colourless, extra long	unsterile	EL30.1	5 x 960	183,85
1-200	MultiLowBinding®, colourless	sterile	EL31.1	5 x 960	183,85
1-200	Multi®Precision®, colourless	unsterile	EL32.1	5 x 960	165,55
1-200	Multi®Precision®, yellow	sterile	EL33.1	5 x 960	177,40
1-200	Multi®Precision®, yellow	unsterile	EL34.1	5 x 960	165,55



Multi®-QuickRack Transfer System

By Sorenson. Refill system for pipettor tips

For filling empty racks with 96 pipettor tips. Simply place the transfer plate in the top layer of the tips, lift the tips and place them into the available rack - now they're ready. Tips are autoclavable and RNase/DNase-free.

Type	Art. No.	Pack Qty.	€
QuickRack 0.1-10 µl MIKRO colourless (Tip No. 25)	NL61.1	10 x 96	35,70
QuickRack 0.1-10 µl MIKRO colourless, LowBinding (Tip No. 56)	NL62.1	10 x 96	39,60
QuickRack 0.1-10 µl colourless (Tip No. 26)	KP34.1	10 x 96	34,30
QuickRack with tips 1- 200 µl colourless (Tip No. 28)	T686.1	10 x 96	31,95
QuickRack with tips 1- 200 µl yellow (Tip No. 29)	T687.1	10 x 96	31,95
QuickRack with tips 1- 200 µl yellow, graduated (Tip No. 30)	NL63.1	10 x 96	30,25
QuickRack 1-200 µl colourless, LowBinding (Tip No. 58)	NL64.1	10 x 96	37,65
Standard boxes, empty	T688.1	10	32,50
Racks with hinged lid, empty	T689.1	10	32,50



Platinum Reload System Refill systems for pipettor tips

By Sorenson. Pipettor tips in pre-assembled inserts. Easy to use: transfer the inserts with tips into the empty rack, and the tips are ready for use. Top quality Multi-Precision. Reusable racks with hinged lid, stackable. Free of human DNA and PCR inhibitors, RNase/DNase free and pyrogen free. Autoclavable.

Starter Kits Reload System

Delivery incl. Reload System and 10 racks (8 racks for PK21.1).

Type	Art. No.	Pack Qty.	€
0.1-10 µl (tip No. 26)	PK18.1	10 x 96	58,50
1-200 µl (tip No. 30, yellow)	PK19.1	10 x 96	55,85
1-200 µl (tip No. 31, colourless)	NL65.1	10 x 96	53,25
1-300 µl (tip No. 32)	PK20.1	10 x 96	74,10
50-1250 µl (tip No. 35)	PK21.1	8 x 96	62,70

Refill sets Platinum Reload System

Type	Art. No.	Pack Qty.	€
0.1-10 µl (tip No. 26)	PK22.1	4 x 960	116,10
1-200 µl (tip No. 30, yellow)	PK23.1	4 x 960	103,75
1-200 µl (tip No. 31, colourless)	NL66.1	4 x 960	116,10
1-200 µl (tip No. 58, colourless, LowBinding)	NL67.1	4 x 960	131,15
1-300 µl (tip No. 32)	PK24.1	4 x 960	134,40
50-1250 µl (tip No. 35)	PK25.1	4 x 768	145,15



Multi®-hinged lid racks

By Sorenson.

- With hinged lid
- Stackable
- Empty
- Autoclavable

Art. No.	Pack Qty.	€
T689.1	10	32,50

Boxes for pipettor tips

Pipettor tip overview table

Suitable refill boxes for pipettor tips at a glance!

Other boxes for pipette tips are listed under the respective tip types.

Boxes for pipettor tips, empty		Suitable pipettor tips (Tip-No.)												
Box name	Art. No. Box + insert	1	2	3	4 5 6	9 10	20	22	23	25	31	32	33	34 36 37
Rotibox® with insert for tips 200 µl	C636.1 + C638.1			x										
Multibox with transfer racks 10/200 µl	2681.1 + H609.1	x	x	x	x		x	x	x		x		x	
Multi®-Racks with slip lid, 10/200 µl	T688.1	x		x	x		x				x	x		x
Multi®-Racks with hinged lid, 10/200 µl	T689.1	x		x	x		x				x	x		x

Boxes für pipettor tips, filled		Suitable pipettor tips (Tip no.)												
Box name	Art. No.	1 2	3	8	15	17	19	20	22	25	31	34 36 37	40 41	65
TipBox (low form), 20 µl	HL65.1	x						x			x			
TipBox (low form), 200 µl	HL68.1		x						x			x		
Rack for Multiflex-tips 200 µl	6144.1													x
Rack for tips 350 µl	AT50.1			x										
TipBox (high Form), 1000 µl	HL71.1									x				
Multi®-Rack with slip lid, 1000 µl	8161.1, 8162.1												x	
TipBox 5 ml	HL74.1					x								
TipBox 10 ml	HL76.1						x							
Rack for tips 5 ml	AT52.1				x									



Rotibox®

- Made of stainless steel
- Pipettor tip sterilising box
- Practical and robust, autoclavable
- Sliding lid can be opened in both directions
- For dust-free storage, also after autoclaving
- Stackable
- Side walls with recess handles for simple switching of inserts
- Tips fit tightly and precisely into drilled insert holes
- Pipettor tips in racked inserts also fit into the Rotibox®

Type	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
Rotibox® for 2 rack	170 x 120 x 80	C636.1	1	80,65

Insert with 96 holes

For tips with a volume of 1-200 µl, tip numbers (3).

Type	Art. No.	Pack Qty.	€
Insert with 96 holes	C638.1	1	18,25



Rotilabo®-Multibox

Made of PC.

- Without rack insert
- With sliding lid
- For pipettor tips in racked insert or MultiTray-insert
- Temperature stable from -135 to +125 °C
- Stackable
- Dimensions: 12 x 7.5 x 9 cm
- Repeatedly autoclavable

Art. No.	Pack Qty.	€
2681.1	1	17,10

Rack inserts for Rotilabo®-Multibox

Made of PP, empty, also suitable for Rotibox®.

For tips	Art. No.	Pack Qty.	€
0.1-10 µl and 0.1-200 µl (Format 8 x 12)	H609.1	5	8,40

Boxes for pipettor tips



TipBox

- By Brand.
- Made of PP
 - Unsterile
 - With flap-/slip lid
 - Stackable
 - Filled with pipettor tips
 - Autoclavable

Volume (µl)	Art. No.	Pack Qty.	€
0,1-20	HL65.1	5 x 96	47,20
1-50	ALX0.1	5 x 96	48,50
2-200	HL68.1	5 x 96	41,40
5-300	ALY0.1	5 x 96	46,70
50-1000	HL71.1	5 x 96	42,40



Reagent reservoirs

Made from transparent PP. **Sterile** or unsterile.

- Volume: 175 ml.
- With graduations of 25, 50, 75, 100, 125 and 150 ml
- Good stability
- Reusable
- Compatible with 8 and 12 channel pipettes
- Removable lids, easy to open
- Autoclavable

Type	Type	Art. No.	Pack Qty.	€
with lid	sterile	APX0.1	100 (20 x 5)	194,60
with lid	non-sterile	APX1.1	100 (10 x 10)	131,15
without lid	sterile	APX2.1	100 (20 x 5)	166,65
without lid	non-sterile	APX3.1	100 (10 x 10)	112,90



Multi®-Racks

- By Sorenson.
- With slip lid
 - Stackable
 - Empty
 - Autoclavable

Art. No.	Pack Qty.	€
T688.1	10	32,50

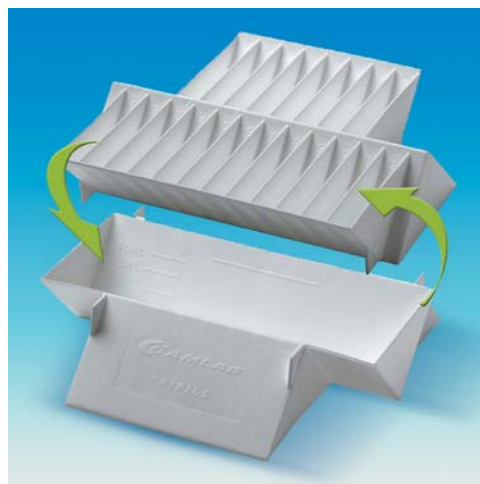


Multi®-hinged lid racks

- By Sorenson.
- With hinged lid
 - Stackable
 - Empty
 - Autoclavable

Art. No.	Pack Qty.	€
T689.1	10	32,50

► Multi-channel pipettors see page 414



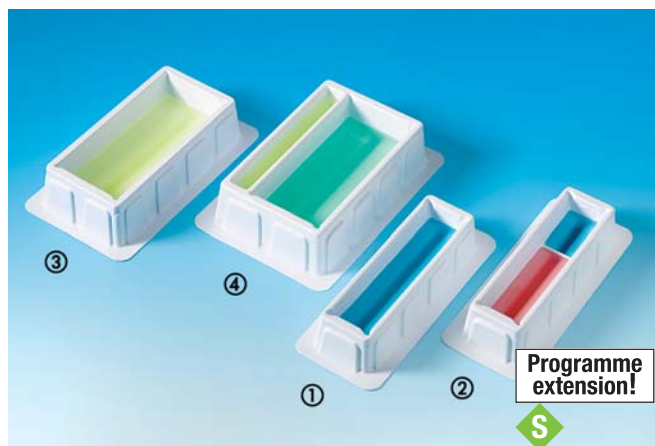
Multi-channel pipettor Trifill reservoirs

Made of PP, white. Autoclavable. Trifill is a combination of three reservoir units. With V-shaped, graduated liquid container, volume max. 50 ml, and 8- and 12-space liquid reservoirs.

Max. filling capacity of 5 ml per numbered, V-shaped chamber.

Art. No.	Pack Qty.	€
AA87.1	10	35,45

Reagent reservoirs



Single-use reagent reservoir

- Made of **PET**, colour: white
- **Sterile** or non-sterile.
- With conical overflow channel on base for minimal reagent loss
- Graduated volume markings on the inner wall
- Reinforced side walls and wider base for better stability

Volume: 25 ml

Image	Type	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
①	non-sterile	146 x 57 x 26	CYN5.1	100 (10 x 10)	85,15
①	sterile	146 x 57 x 26	HT65.1	100 (10 x 10)	101,05
①	sterile	146 x 57 x 26	HT66.1	50 (50 x 1)	90,30
②	subdivided, non-sterile	146 x 57 x 26	CYN4.1	100 (10 x 10)	85,15
②	subdivided, sterile	146 x 57 x 26	HT67.1	100 (10 x 10)	100,00
②	subdivided, sterile	146 x 57 x 26	HT68.1	50 (50 x 1)	87,10

Volume: 100 ml

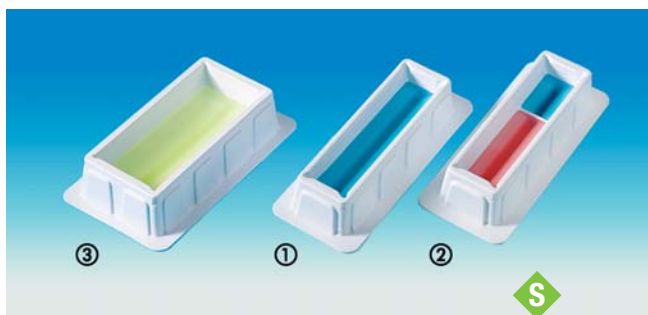
Image	Type	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
③	non-sterile	146 x 83 x 32	CYN6.1	100 (10 x 10)	145,15
③	sterile	146 x 83 x 32	HT69.1	100 (10 x 10)	116,10
③	sterile , 1 per pack	146 x 83 x 32	HT70.1	50 (50 x 1)	104,30
④	with side 20 ml reservoir, sterile	146 x 102 x 32	HT71.1	100 (10 x 10)	117,20



Reagent reservoir for 8-channel pipettors

Made of **PS**, colour: white. Single compartments with round base for minimal reagent loss. Capacity per well approx. 7 ml.

Art. No.	Pack Qty.	€
NA12.1	100	77,20



Single-use reagent reservoirs Bio-pure™

- Made of **biodegradable PET**, colour: white
- **Sterile**
- With conical overflow channel on base for minimal reagent loss
- Reinforced side walls and wider base for better stability
- Model ② is suitable for 4 and 8 channel pipettes through partitions

Volume (ml)	Image	Type	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
25	①	10 per pack	146 x 57 x 26	AXC7.1	100	84,95
25	②	subdivided, 10 per pack	146 x 57 x 26	AXC8.1	100	84,95
100	③	10 per pack	146 x 83 x 32	AXC9.1	100	105,35



Rotilabo®-liquid reservoirs

Sterile (individually wrapped) or unsterile. With special design for 4, 8 and 12 channel pipettors. The bevelled sides and V-shaped base enable almost total withdrawal of liquid. Sterile vessels are individually wrapped. **Sterile designs are DNase/RNase-free and non-pyrogenic.**

Volume (ml)	Material	Type	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
55	PVC	unsterile	143	70	25	E830.2	100	92,45
55	PS	sterile	143	70	25	E831.2	80	165,55

Accessories for Rotilabo®-liquid reservoirs

Lid made of PET. **Sterile** (individually wrapped).

Type	Art. No.	Pack Qty.	€
Lid, sterile	EL53.1	20	40,75

Microtiter plates and accessories



Rotilabo®-microtest plates

Made of highly pure **PS**. With 96 alphanumerically coded cavities. Different base profiles available. Produced under sterile working conditions. Suitable for analysis and microbiology. Stackable. Dimensions: L 128 x W 85 x H 15 mm.

Delivery without cover plate, please order separately.

Type	Volume per well (µl)	Art. No.	Pack Qty.	€
① U-profile (round)	345	9291.1	100	46,25
② V-profile (conical)	335	9292.1	100	52,70
③ F-profile (flat)	405	9293.1	100	57,00

Cover plates for Rotilabo®-microtest plates

Made of **PS**. Prevents contaminations and liquid loss.

Art. No.	Pack Qty.	€
9297.1	100	39,70



**NEU
NOUVEAU
NEW**

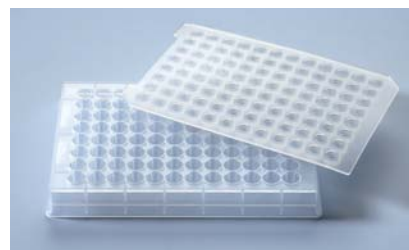
Rotilabo®-microtest plates, black

Made of **PS**. Black plates for low background and reduced light scatter during applications in fluorescence microscopy. With 96 alphanumerically coded cavities with flat bottom. "Chimney top" well design reduces the risk of contamination. SBS dimensions. **RNase, DNase and human DNA free.**

Volume per well (µl)	Art. No.	Pack Qty.	€
350	CEK8.1	100	320,35

Accessories:

Accessories:	Art. No.	Pack Qty.	€
Cover plates	CEK9.1	80	117,20



**NEU
NOUVEAU
NEW**

121°C

Rotilabo® polypropylene microtest plates

Made of **PP**. With 96 wells in a round U-profile for maximum sample recovery with reduced capillary effect. SBS dimensions, suitable for robot systems. Good chemical resistance, e.g. against DMSO, phenol and chloroform.

RNase, DNase and human DNA free. Autoclavable.

Volume per well (µl)	Art. No.	Pack Qty.	€
350	CEL3.1	100	155,90

Accessories:

Accessories:	Art. No.	Pack Qty.	€
Silicone rubber sealing mats	CEL4.1	50	213,95



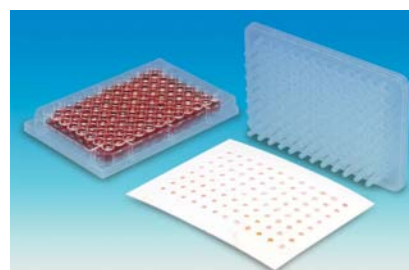
6-well macroplates

Made of **PS**. For all bacteriological applications which require a subdivided culture dish. Simple and space-saving alternative to six conventional 35 mm petri dishes.

Dimensions: L 128 x W 85 x H 20 mm.

- Manufactured under aseptic conditions
- With 6 alphanumeric-labelled wells, well Ø 35 mm
- Working volume 2-5 ml
- Maximum well volume: 15 ml
- Centrifugable to 4500 g
- Temperature stable from -20 to approx. +60 °C

Art. No.	Pack Qty.	€
ATC0.1	100	79,05



121°C

Bel-Blotter™ 96-well replication plate

Made of **PC**, with 96 pipette tips. **Simultaneous taking of approx. 10 µl samples per tip.** Place cover on plate with medium, fill tips using capillary effect: if necessary, drain by centrifuging. Samples can be transferred to microtest plates, PCR plates or filter membranes. Suitable for creating DNA libraries, for hybridisations or phage typifications. Suitable for all 96-well microtiter plates or PCR plates. Autoclavable.

Art. No.	Pack Qty.	€
YA93.1	1	26,15

Microtiter plates and accessories



Programme extension!



Microtitration plates BRANDplates®

By Brand. Manufactured according to ANSI/SBS standards 1 to 4 - 2004 to ensure compatibility when carrying out manual processes and, in particular, automatic processes.

- 96 well standard format
- Clearly distinguishable by embossed alphanumeric colour code: grey for standard plates, blue for immunology, orange for the cell culture
- **Free of endotoxins, DNase, DNA, RNase, non-cytotoxic**

Microtiter plates pureGrade™ S

Made of transparent PS. Untreated surface.

- **Sterile** (individually packed, with cover) or non-sterile
- Chimney shaped 96 well cavities, with alphanumeric labelling
- F profile (flat bottom shape) for precision optical measurements
- Sterile type is ideal for bacteriological assays
- Non-sterile type designed, in particular, for homogeneous assays, screenings and storage

Volume per well (µl)	Type	Art. No.	Pack Qty.	€
350	F-profile, sterile	XT64.1	50	118,25
350	F-profile, non-sterile	CNP7.1	100	92,45

Microtitration plates immunoGrade™

Made of PS. For optimal binding of IgG.

- Non-sterile
- Highest binding capacity for molecules with hydrophilic and hydrophobic regions
- Ideal surface for most standard ELISA assays
- Suitable for solid phase immunoassays
- Equivalent to high-binding products from other manufacturers

Volume per well (µl)	Type	Art. No.	Pack Qty.	€
350	transparent, F-bottom	XT66.1	100	151,60
330	white, U-bottom	XT67.1	100	298,85
350	white, C-bottom	XT68.1	100	298,85
330	black, U-bottom	XT69.1	100	298,85
350	black, C-bottom	XT70.1	100	298,85
330	black, transparent F-bottom	XT71.1	100	727,80

Microtitration plates pureGrade™ UV

Made of **UV polymer**, slightly hydrophilised. **PS** frame.

- Non-sterile
- Bottom: UV-transparent film, wall thickness 25 µm
- Transmission at 240 nm is 80 %
- Suitable for the determination of nucleic acid and protein concentrations (at 260 and 280 nm respectively)

Volume per well (µl)	Type	Art. No.	Pack Qty.	€
350	F-bottom	XT65.1	50	619,20

Microtitration plates cellGrade™

Made of **PS**.

- **Sterile** (individually packed, with cover)
- Standard plate for cultivating adherent cell cultures
- PS surface with various freely accessible chemical groups, e.g. carboxyl and hydroxyl groups
- Surface is hydrophilic (untreated PS is non-hydrophilic)
- Serum constituents are bound to the free chemical groups which allow indirect adhesion of cells

Volume per well (µl)	Type	Art. No.	Pack Qty.	€
350	transparent, F-Boden	CNP6.1	50	127,95
350	white, F-bottom	XT72.1	50	237,60
350	black, F-bottom	XT73.1	50	237,60
330	white, with transparent F-bottom	XT74.1	50	583,75
330	black, with transparent F-bottom	XT75.1	50	583,75

Microtitration plates, inertGrade™

Made of **PS**.

- **Sterile** (individually packed, with cover)
- Suitable for cultivating suspension cell cultures
- Ideal for cell cultures if cell adhesion is to be avoided
- Optimised surface properties minimise cell binding, protein absorption, enzyme activation and cellular activation
- This allows, for example, premature differentiation of stem cells to be inhibited

Volume per well (µl)	Type	Art. No.	Pack Qty.	€
330	96 well, transparent, U-bottom	XT76.1	40	437,55
350	96 well, transparent, F-bottom	XT77.1	40	437,55

Covers for microtitration plates BRANDplates®

By Brand. Made of transparent PS. Non-sterile.

For protection against contamination and evaporation.

Type 1, for 96 well standard plates

Type 2, for microtitration plates with transparent bottom, pureGrade™.

Type	Condensation rings	Height (mm)	Art. No.	Pack Qty.	€
1	Yes	8	XT79.1	100 (20 x 5)	63,40
1	No	8	XT80.1	100 (20 x 5)	63,40
2	No	4,5	XT81.1	50 (5 x 10)	61,95

Overview of microtitration plates BRANDplates®

BRANDplates® Microtitration plates in 96 well standard format have a so-called chimney shape. The individual wells are separated from one another by a gap so as to avoid contamination. This, in combination with the condensation rings on the cover, significantly reduces evaporation.

U-bottom

Round bottomed wells. Since the wells do not have corners, this bottom shape is ideal for mixing and washing samples. Applications for this bottom shape include agglutination tests.

F-bottom

Flat bottom shape. F bottom is mainly used for precision optical measurements and is ideal for colorimetric determination, but also for microscopy. F bottom can, for example, also be used in cell culture.

C-bottom

Flat bottom shape with raised corners. C bottom combines the advantages of the U and F bottoms. Raised corners allow much better sample mixing in the wells. The flat bottom in the centre of the wells also allows precision optical measurements to be performed. C bottom is ideal for immunoassays in which optical measurement and thorough sample mixing are key factors influencing the precision of the test result.

Transparent

Transparent plates are ideal for precision optical measurements because of their excellent optical properties. This is why these plates are mainly used for colorimetric assays, but also in cell culture and storage.

White

White pigmented plates are optimised for luminescence measurements. Due to their white coloration, the plates provide maximum reflection of luminescence signals and minimise well-to well crosstalk.

Black

Black pigmented plates are optimised for fluorescence measurements. Due to their black coloration, the plates minimise autofluorescence (even at low wavelengths) and well-to well crosstalk.

Microtitration plates with transparent bottom

These plates are made of white or black PS and have a transparent bottom made of PS. Generally, these plates are suitable for applications requiring a transparent bottom, such as luminescence and fluorescence measurements. The transparent bottom provides a clear view of the well contents and enables transmitted light measurements to be performed. In addition, the plates can be examined directly under a microscope, which is particularly important for cell-bottomed applications. The white or black pigmented structure of the frame minimises well-to well crosstalk.

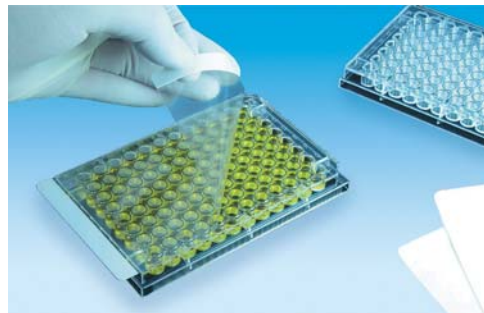
Microtiter plates and accessories



Cell culture Multiwell plates

By Greiner Bio-One. Made of **PS**. **Sterile** (individually packed, cover plate for adherent cell cultures). TC-surface treated. Non-pyrogenic. **DNase-, RNase- and human DNA-free**. Alphanumeric well coding. F-bottom. Max. centrifuging: 4800 x g.

Wells	Growth surface per well (cm ²)	Working volume per well (ml)	Art. No.	Pack Qty.	€
6	9,6	2-5	CE54.1	100	177,40
12	3,9	2-4	CE55.1	100	224,70
24	1,9	0,5-1,5	CE56.1	100	198,90
48	1,0	0,5-1	CE57.1	100	263,40
96	0,34	0,025-0,34	KL43.1	100	213,95



Rotilabo®-sealing films for microtest plates

Self-adhesive. **Sterile** or unsterile. Minimizes cross-contamination of samples during handling and transport. With perforated ends for simple and speedy application.

Types 1 and 2

Made of **polyester**. Also suitable for ELISA-plates. Minimize evaporation. Type 1 can be pierced with a single-channel pipettor.

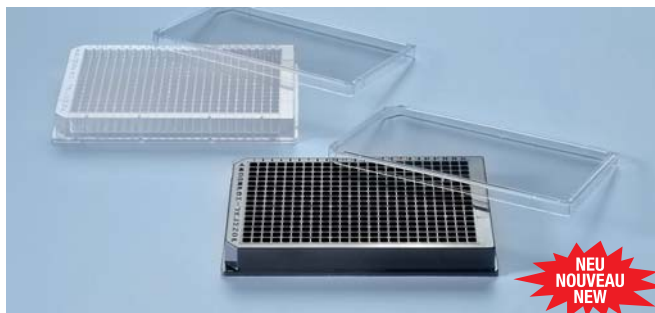
Type 3

Made of **aluminium-coated paper**. Good diffusion barrier. Produced under almost germ-free conditions.

Technical specifications:

Type	1	2	3
Thickness (µm)	25	50	65
Dimensions L x W (mm)	141 x 79.4	146 x 79.4	130 x 78
Temperature-stable (°C)	-40 to +120	-40 to +120	-20 to +80
Piercable	yes	no	no

Type	Type	Art. No.	Pack Qty.	€
1	unsterile	H769.1	100	69,35
1	sterile	H770.1	100	92,45
2	unsterile	EN76.1	100	46,20
2	sterile	EN77.1	100	70,45
3	unsterile	X172.1	100	38,70



Rotilabo®-384-well microtest plates

Made of **PS**. With 384 alphanumerically coded cavities with flat bottom. Working volume 120 µl. SBS dimensions Black plates for low background and reduced light scatter during applications in fluorescence microscopy. Reduced capillary effect thanks to rounded corners. **RNase, DNase and human DNA free**.

Colour	Art. No.	Pack Qty.	€
colourless	CEL0.1	100	289,20
black	CEL1.1	100	299,95

Accessories:

Cover plates	CEL2.1	100	155,90
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Rotilabo®-sealing roller

Frame made of **metal**, with **rubber** roller. For more effective sealing of microtest-, PCR- and Deep-Well-plates with sealing foil or sealing mats because the roller presses them on more evenly. Also usable for evenly smoothing out gel, transfer membrane and blotting-paper during blot-assembly. Roll width: 100 mm, Ø roll: 30 mm.

Art. No.	Pack Qty.	€
HE23.1	1	37,85

Microtiter plates and accessories



Protective sheets on rolls

Made of polyester, self-adhesive. For sealing micro test plates. Minimises cross-contamination of samples during incubation, transportation and temporary storage. Also suitable for ELISA plates. Without intermediate paper backing, for fast handling. 100 individual sheets per roll.

Technical specifications:

Thickness	38 µm
Dimensions of individual sheet (L x W)	122 x 79 mm
Heat resistant	-40 to +120 °C
Pierceable	no

Art. No.	Pack Qty. (roll)	€
APT6.1	2	100,00

Dispenser for protective sheets on rolls

Made of PP. Handy dispenser for fast dispensing and application of protective sheets on rolls. Dimensions: L 80 x W 105 mm. **Delivery incl.** 2 rolls of protective sheets (APT6.1).

Art. No.	Pack Qty.	€
APT7.1	1	108,60



Labels for microtest plates

Made of chemically inert polyester. Tearproof. Sticks to all plastic types without drying out or falling off. Useable during steam sterilisation, in waterbaths, freezers (to max. -40 °C), etc. Almost all types of markers and pens may be used for labelling. Dimensions: 6 x 38 mm, therefore excellent for use on the sides of microtest plates or petri dishes. Per roll 1000 labels.

Art. No.	Pack Qty.	€
K435.1	1	40,05



Gas-permeable sealing film

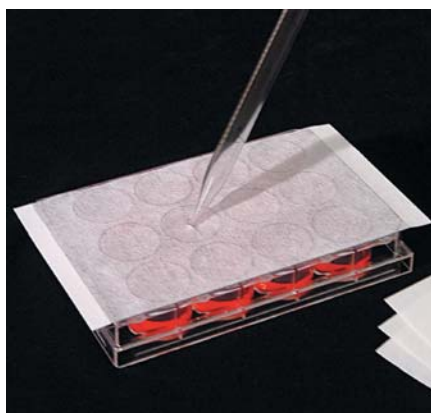
Self-adhesive film, made on a polyurethane base.

- **Sterile** and non-cytotoxic
- For sealing microtitre plates
- Prevents contamination from cavity to cavity
- Ensures an even exchange of oxygen and carbon dioxide
- Excellent for aerobic cell cultures, biological and immunological cellular preparation and selection, screening, etc.
- Does not inhibit cellular growth or the separation of human fibroblasts
- FDA-tested

Technical specifications:

Thickness	25 µm
Dimensions (L x W)	153 x 78 mm
Temperature-resistant	-80 to +100 °C
Pierceable	yes

Art. No.	Pack Qty.	€
T093.1	100	134,40



Rotilabo®-cling film for cell cultures

Made of **rayon**. **Sterile** or unsterile. Self-adhesive hydrophobic cling film for cell culture and deep well plates.

- Gas-permeable, for a steady exchange of air and carbon dioxide
- Minimises evaporation and cross-contamination
- With perforated ends for simple and speedy application
- Non-cytotoxic

Technical specifications:

Thickness	114 µm
Dimensions (L x W)	142.9 x 82.6 mm
Temperature-resistant	-20 to +80 °C
Pierceable	yes

Type	Art. No.	Pack Qty.	€
unsterile	EN84.1	100	81,50
sterile	EN85.1	50	57,00



Programme extension!



riplate® deepwell plates

Made of PP. **Sterile** or unsterile. Suitable for all standard automation systems, 1 and 2 ml plates are suitable for multichannel pipettors. **riplate® plus** with raised wells for reduced risk of cross-contamination and improved hot sealing or sealing with adhesive film. **riplate® medio** for specimen storage, 50 % less storage space required due to reduced height.

- Alphanumeric well identification
- Includes angled corner for proper orientation
- Stackable
- SBS dimensions
- Optimised base structure minimises specimen losses
- Temperature stable up to -85 °C
- Centrifugable to 3000 g
- Autoclavable

Applications: High Throughput Screening (HTS), general analysis necessitating the use of a stock plate; serial dilution; reagent transfer; cell and tissue cultures; specimen storage.

Technical specifications:

Type	Total vol./well (µl)	Working vol./well (µl)	Plate format	L x W x H (mm)	Design/well base
riplate® 1 ml	1200	50-1000	8 x 12	127.3 x 84.7 x 41.2	round/round
riplate® plus 1 ml	1200	50-1000	8 x 12	127.8 x 85.5 x 41.0	round/round
riplate® medio 1 ml	1200	50-1000	8 x 12	127.8 x 85.5 x 27.0	round/round
riplate® sw 2 ml	2500	50-2400	8 x 12	127.8 x 85.5 x 44.0	rectangular/round
riplate® rw 2 ml	2200	1900	8 x 12	127.8 x 85.5 x 44.0	round/round
riplate® sw 5 ml	5000	50-4900	8 x 6	127.8 x 85.5 x 44.0	rectangular/V-shaped
riplate® sw 10 ml	10 000	50-9900	4 x 6	127.8 x 85.5 x 44.0	rectangular/V-shaped

Type	Type	Art. No.	Pack Qty.	€
riplate® 1 ml	unsterile	EN06.1	20	81,70
riplate® 1 ml	sterile	YP59.1	10	57,65
riplate® 1 ml plus	unsterile	TC21.1	20	80,65
riplate® 1 ml plus	sterile	YP60.1	10	59,15
riplate® 1 ml medio	unsterile	TC22.1	32	123,65
riplate® sw 2 ml	unsterile	EN07.1	20	88,10
riplate® sw 2 ml	sterile	YP61.1	10	65,25
riplate® rw 2 ml	unsterile	CEX7.1	20	79,55
riplate® sw 5 ml	unsterile	EN08.1	20	105,35
riplate® sw 5 ml	sterile	YP62.1	10	71,50
riplate® sw 10 ml	unsterile	TC23.1	20	104,20
riplate® sw 10 ml	sterile	YP63.1	10	71,50

Accessories for riplat® deepwell plates

Sealing mats. Not autoclavable.

For	Type	Art. No.	Pack Qty.	€
riplate® 1 ml / riplat® 1 ml plus	unsterile	EN09.1	20	49,60
riplate® 1 ml / riplat® 1 ml plus	sterile	YP64.1	10	37,20
riplate® 1 ml medio / riplat® rw 2 ml	unsterile	CEX8.1	20	42,95
riplate® sw 2 ml	unsterile	EN10.1	20	50,85
riplate® sw 2 ml	sterile	YP65.1	10	38,60
riplate® sw 5 ml	unsterile	TC24.1	20	53,55
riplate® sw 5 ml	sterile	YP66.1	10	41,20
riplate® sw 10 ml	unsterile	TC25.1	20	56,95
riplate® sw 10 ml	sterile	YP67.1	10	44,30



Autotube racks

Made of PP, **sterile** or unsterile. Ideal for storing, transporting and freezing samples as well as for use in many biological tests, e.g. PCR, radio immunoassays (RIA), enzyme immunoassays (EIA) or cell growth studies. Racks can be removed from their base, e.g. for homogeneous heating of vials in a water bath.

- 1.2 ml vials, made of PP, arranged in microtitration plate format 8 x 12
- Suitable for working with multichannel pipettors
- With alphanumeric marking on outside of rack
- Label inside rack
- Temperature stable up to -90 °C
- Autoclavable

Delivery without cap strips or loose lid. Please order separately.

Type	Art. No.	Pack Qty.	€
Rack with 96 vials, unsterile	EC05.1	10	69,90
Rack with 96 vials, sterile	EC06.1	10	79,05



Refill vials and caps for Autotube racks

1.2 ml vials made of PP, cap strips made of. **Sterile** or non-sterile. Only vials are autoclavable.

Type	Art. No.	Pack Qty.	€
Vials, 1.2 ml, individual, loose, unsterile	EC07.1	960	33,30
Vials, 1.2 ml, 8 vial strips, individual, loose, unsterile	YC41.1	120	27,65
Caps, individual, loose, unsterile	YC42.1	960	53,65
Cap strips, 8 cap strips, individual, loose, unsterile	EC08.1	120	23,15
Cap strips, 8 cap strips, loose, sterile	EC09.1	120	25,30

Microcentrifuge tubes systems and sample storage

Micro Tubes Systems

Reusable micro racks in SBS standard micro test plate format (8 x 12). Temperature-resistant up to -80 °C. Autoclavable.

- For use with micro tubes
- Angled corner on rack for clear positioning of refill unit
- Sides can be labelled, e.g. with a barcode
- Suitable for use in combination with automatic dispensing systems and robots
- Racks are stackable and suitable for stacker systems



Micro Racks

Made of **PP**, with lid. Racks with 96 micro tubes, filled or unfilled. Tubes are optionally available with a number code on the base or uncoded. Pressure tested for leak tightness.

Volume (ml)	Type	L x W x H (mm)	Art. No.	Pack Qty.	€
0,65	filled, uncoded	127,76 x 85,48 x 20,4	XK04.1	50	398,85
0,65	filled, coded	127,76 x 85,48 x 20,4	XK05.1	50	441,85
0,65	unfilled	127,76 x 85,48 x 20,4	XK06.1	5	21,45
1,2	filled, uncoded	127,76 x 85,48 x 28,4	XK07.1	50	398,85
1,2	filled, coded	127,76 x 85,48 x 28,4	XK08.1	50	441,85
1,2	unfilled	127,76 x 85,48 x 28,4	XK09.1	5	21,45



Micro Tubes Refill Systems

Made of **PP**, on 8 x 12 well microplates, for transfer to empty micro racks.

- Filled with coded or uncoded tubes
- Easy, hygienic and fast rack filling
- Easy to handle and minimal waste
- Pressure tested for leak tightness

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,65	uncoded	XK14.1	50	212,85
0,65	coded	XK15.1	50	254,80
1,2	uncoded	XK16.1	50	212,85
1,2	coded	XK17.1	50	254,80



Micro Tubes

Made of **PP**, with round base. As single tubes or 8 tube strips for use in micro racks.

Volume (ml)	Ø x H (mm)	Type	Art. No.	Pack Qty.	€
0,65	8.3 x 28	individually wrapped	XK10.1	5 x 1000	177,40
0,65	8.3 x 28	8 tube strip	XK11.1	5 x 120	183,85
1,2	8.3 x 44,1	individually wrapped	XK12.1	5 x 1000	177,40
1,2	8.3 x 44,1	8 vial strip	XK13.1	5 x 120	183,85



Sealing accessories for micro tubes

Made of **TPE**. For sealing 0.65 and 1.2 ml micro tubes. Can be punctured with syringe needles for sampling and filling.

Type	Art. No.	Pack Qty.	€
8 tube cap strip	XK18.1	1000	161,25
8 x 12 sealing mats	XK19.1	100	221,45

PCR-trays and containers



Rotilabo®-sealing films for PCR-plates

Made of **PP** or **aluminium**. Self-adhesive. **Sterile** or unsterile. For sealing PCR-plates.

- Suitable for use in thermocyclers
- Perforated ends for simple and speedy application
- **Nucleic acid-free**
- **RNase-/DNase-free**

Technical specifications:

Type	1	2
Material	aluminium	PP
Thickness (µm)	38	50
Dimensions L x W (mm)	142.9 x 82.6	135.1 x 79.4
Temperature stability (°C)	-80 to +120	-40 to +125
Piercable	yes	no

Type	Type	Art. No.	Pack Qty.	€
1	unsterile	EN80.1	100	89,80
1	sterile	EN81.1	50 (2 x 25)	75,25
2	unsterile	EN82.1	100	73,35
2	sterile	EN83.1	100	92,35

Sealing films for RT PCR

Made from optically clear polyester; with strong, non-absorbent and non-fluorescent adhesive.

Suitable for ELISA, real-time qPCR applications and protein crystallisation. Plastic backing film, easily removable.

Length between perforations: 121.9 mm.

RNase-, DNase- and Nucleic acid-free.

Technical specifications:

Material	Polyester
Thickness	50 µm
Dimensions (L x W)	142.9 x 79.4 mm
Heat resistant	-40 to +120 °C

Art. No.	Pack Qty.	€
APT8.1	100	119,35

Sealing films with special adhesive

Made from optically clear polyolefin; with inert, encapsulated silicone adhesive. The initially non-tacky adhesive is activated by applying pressure to the PCR plate, thus providing a perfectly tight seal, while the area directly above the wells is unchanged. The high optical clarity in these areas ensures reproducible results. Low autofluorescence, suitable for ELISA, quantitative DNA amplification, real-time qPCR applications and protein crystallisation. Length between perforations: 113 mm.

DNase, RNase and DNA free. Resistant to DMSO.

Technical specifications:

Material	Polyolefin
Thickness	50 µm
Dimensions (L x W)	139.7 x 78.6 mm
Heat resistant	-70 to +100 °C

Art. No.	Pack Qty.	€
APT9.1	100	181,70



Rotilabo®-PCR trays

Made of **PP**, without frame. With black alphanumeric print for sample differentiation. Volume 0.3 ml (max. working volume 250 µl, max. filling volume 300 µl). Thin-walled for optimal heat transfer between thermocycler and sample. Cavities with raised edge to aid covering with PCR film. Suitable for most standard thermocyclers. **RNase, DNase and human DNA free.** Autoclavable.

Colour	Art. No.	Pack Qty.	€
colourless	CEL7.1	50	137,60
blue	CEL8.1	50	137,60
yellow	CEL9.1	50	137,60



Tear-A-Way™ PCR trays

Made of PP, without frame. With perforation, separable into individual PCR strips or smaller trays. With black alphanumeric print for sample analysis. Volume 0.3 ml (max. working volume 250 µl, max. filling volume 300 µl). Thin-walled for optimal heat transfer between thermocycler and sample. Cavities with raised edge to aid covering with PCR film. Suitable for most standard thermocyclers.

RNase, DNase and human DNA free. Autoclavable.

Art. No.	Pack Qty.	€
CEN2.1	50	145,15

- Pipettor tips see page 429
- Microlitre pipettors see page 413

PCR-trays and containers



Rotilabo®-PCR trays

Made of **PP**. With black alphanumeric print for sample differentiation. Thin-walled for optimal heat transfer between thermocycler and sample. Cavities with raised edge to aid covering with PCR film. Suitable for most standard thermocyclers. **RNase, DNase and human DNA free**. Autoclavable.

Type	Filling volume (µl)	Working volume (µl)	Art. No.	Pack Qty.	€
Standard, with half frame	300	250	CEN0.1	50	137,60
Low profile, with full frame	200	150	CEN1.1	50	137,60



Multi®-Rigid Ultra Plates

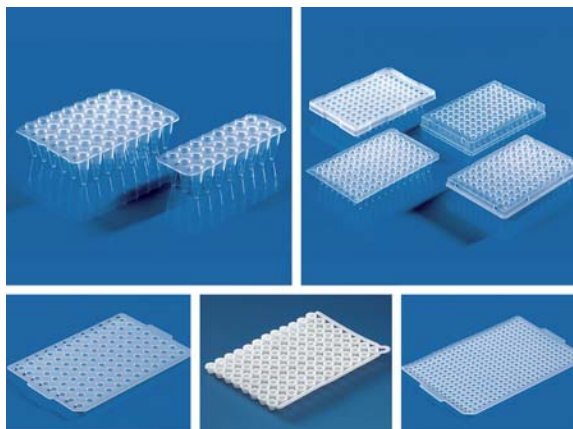
By Sorenson. Made of **PP**. One-piece plates in microtitre plate format (8 x 12). Supplied with 96 extremely thin-walled micro-centrifuge tubes 0.2 ml. Thin walls guarantee steady heat transfer and shorter cycle duration during PCR-experiments. Can be easily closed with micromats, lid strips, or sealing foil. With alphanumeric coding for easy sample identification. Fit all standard thermocyclers. **DNase/RNase free**. Autoclavable.

Colour	Art. No.	Pack Qty.	€
natural	N421.1	25	106,45
red	N422.1	25	106,45
blue	N423.1	25	106,45
green	N424.1	25	106,45
yellow	N425.1	25	106,45

Micromats

Made of silicon rubber. Autoclavable, for closing Multi®-Ultra Plates.

Art. No.	Pack Qty.	€
K119.1	5	76,35



PCR trays

By Brand.

- Made from **PP**, extra-thin, even wall thickness, for optimal heat transfer and short cycle times
- Thin-walled PCR trays for constant, fast and precise heat transfer
- Tubes have smooth and inert inner surfaces to minimise binding of enzymes and nucleic acids
- Wells have raised rims for protection against cross-contamination and reliable sealing with suitable sealing mats
- Suitable for all standard quantitative real-time thermocyclers
- **DNase, DNA and RNase free**
- Autoclavable

24/48/96-well PCR trays

0.2 ml tubes.

Type	Art. No.	Pack Qty.	€
24-well, without rack	XT94.1	40 (8 x 5)	63,60
48-well, without rack	XT95.1	20 (4 x 5)	61,65
96-well, without rack	EL80.1	50 (10 x 5)	167,70
96-well, with half rack	EL81.1	50 (10 x 5)	167,70

384-well PCR trays

40 µl tubes, for specimen volumes ranging from 2 to 30 µl. The trays can be filled using conventional multichannel pipettes or robot systems.

Type	Art. No.	Pack Qty.	€
384-well, with complete rack	XT98.1	50 (5 x 10)	248,35

PCR sealing mats

By Brand. Made from **silicone rubber**, **TPE**. Suitable for PCR trays from Brand. Designed to reduce evaporation losses by up to 75 % compared to conventional systems. High flexibility, exact sealing, easy to pierce with pipette tips. Autoclavable.

Type	suitable for	Art. No.	Pack Qty.	€
96-well mat, TPE	EL80.1, EL81.1	EL82.1	5	21,85
384-well mat, silicone rubber	XT98.1	XX00.1	10	48,05

PCR-trays and containers



PCR-strips 12 tubes

Made of PP. Volume 0.2 ml. Autoclavable.

- PCR-micro-centrifuge strips with 12 micro-centrifuge tubes
 - Thin-walled PCR-tubes guarantee optimal temperature exchange during heating and cooling PCR-cycles
 - **Certified DNase-, RNase- and DNA-free**
- Delivery without lid strips, please order separately.**

Colour	Volume (ml)	Art. No.	Pack Qty.	€
colourless	0,2	EL74.1	125	123,65

Accessories for PCR-strips 12 tubes

Lid strips made of PP. Curved lids. Suitable for PCR-centrifuge strips each with 12 centrifuge tubes. Autoclavable.

Colour	Art. No.	Pack Qty.	€
colourless	EL79.1	125	49,45



Multi®-UltraStrips 8-tubes

By Sorenson. Made of thin-walled PP. **Sterile** (incl. lid strips) or unsterile. 8 micro-centrifuge tubes with 200 µl per strip. Fit all standard thermocyclers, e.g. Perkin Elmer, Biometra. The SafeSeal® design of the caps ensures tight closing. Due to the very smooth and transparent inner and outer surfaces, even the smallest volumes are clearly visible.

RNase-/DNase-free, pyrogen-free. Autoclavable.

Colour	Type	Art. No.	Pack Qty.	€
colourless	sterile	E712.1	120	170,95
red	sterile	E713.1	120	170,95
blue	sterile	E714.1	120	170,95
green	sterile	E715.1	120	170,95
yellow	sterile	E716.1	120	170,95
colourless	unsterile	E717.1	120	155,90
red	unsterile	E718.1	120	155,90
blue	unsterile	E719.1	120	155,90
green	unsterile	E720.1	120	155,90
yellow	unsterile	E721.1	120	155,90

Lid strips, curved

For closing Multi®-Ultra Plates and Multi®-Ultra Strips 0.2 ml.

Type	Art. No.	Pack Qty.	€
cannot be pierced, curved lid	H997.1	120	76,35



Rotilabo®-8-strip PCR reaction vials

Made of PP. colourless, with numberings from 1 to 8 for sample differentiation. Volume 0.2 ml (max. working volume 250 µl, max. filling volume 300 µl). Thin-walled for optimal heat transfer between thermocycler and sample. Suitable for most standard thermocyclers.

RNase, DNase and human DNA free. Autoclavable.

Delivery incl. cap strips (flat or convex) or attachable single caps.

Type	Art. No.	Pack Qty.	€
① PCR strips with convex cap strips	CEN3.1	125	91,40
② PCR strips with flat cap strips	CEN4.1	125	91,40
③ PCR strips, attachable flat single caps	CEN5.1	120	91,40



PCR-strips 8 tubes

Made of PP. Volume 0.2 ml. Autoclavable.

- PCR-micro-centrifuge strips with 8 micro-centrifuge tubes
- **Lids, which can be opened or closed individually**, are available in two designs: flat or curved
- Flat lid puncturable with cannula
- Extremely thin-walled PCR-tubes guarantee optimal temperature exchange when heating and cooling during PCR-cycles
- **DNase-, RNase- and DNA-free**

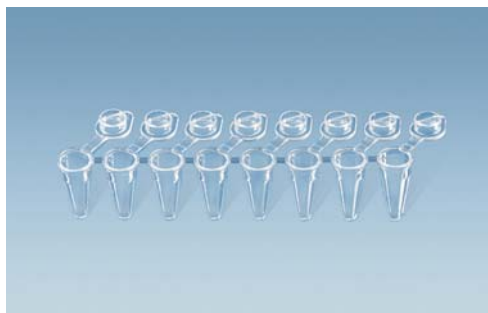
Tubes with lids for individual attachment (flat)

Colour	Art. No.	Pack Qty.	€
colourless	CH87.1	125	106,45
blue	CH88.1	125	106,45
green	CH89.1	125	106,45
red	CH90.1	125	106,45
yellow	CH91.1	125	106,45

Tubes with lids for individual attachment (curved)

Colour	Art. No.	Pack Qty.	€
colourless	CH92.1	125	106,45
blue	CH93.1	125	106,45
green	CH94.1	125	106,45
red	CH95.1	125	106,45
yellow	CH96.1	125	106,45

PCR-trays and containers



NEU
NOUVEAU
NEW

PCR reaction vials, strip of 8, low profile

By Brand. Made of PP. Volume 0.15 ml. PCR reaction vial strip with 8 interconnected vials. Flat single caps attached, highly transparent and so suitable for real time PCR.

Art. No.	Pack Qty.	€
CNT0.1	120	138,70



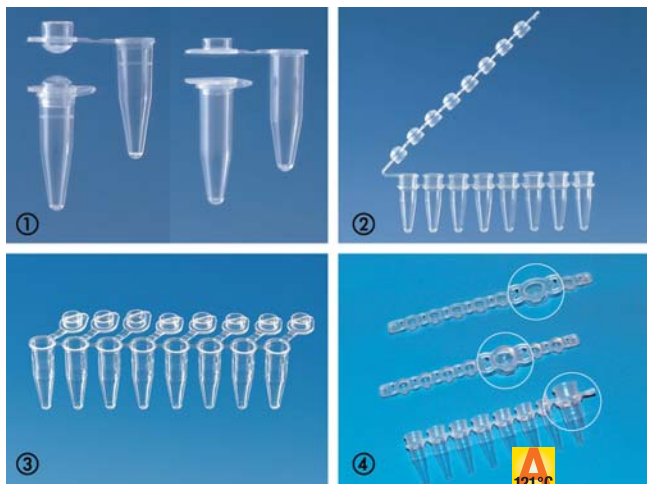
121°C

PCR-strips 8 tubes with attached lid

Made of PP. Capacity 0.2 ml. Autoclavable.

- PCR-micro-centrifuge strips with 8 micro-centrifuge tubes
- **Attached lid strips** enable easy opening and closing
- Lids curved
- Thin-walled PCR-tubes guarantee optimal temperature exchange when heating and cooling during PCR-cycles
- **DNase-, RNase- and DNA-free**

Colour	Volume (ml)	Art. No.	Pack Qty.	€
colourless	0,2	CK82.1	125	102,15
blue	0,2	CK83.1	125	102,15
green	0,2	CK84.1	125	102,15
pink	0,2	CK85.1	125	102,15
yellow	0,2	CK86.1	125	102,15



PCR-reaction vials

By Brand.

- Made of **PP**. Uncoloured. Extra-thin, even wall thickness, for optimal heat transfer and short cycle times
- Made of high-grade pure plastics containing no additives
- Acc. to ISO 14 644-1 classes 5 to 8
- **DNase, DNA- and RNase free**
- Suitable for all standard thermocyclers
- Caps are easy to open and close
- Autoclavable

① PCR-individual vials with attached cap

Convex or flat cap, tight-fitting for minimal loss of fluid through evaporation.

② PCR-vials, 8 tube strips with attached cap strip

Convex cap.

③ PCR-vials, 8 tube strips with attached single caps

Flat single cap for optimal protection against contamination. Highly transparent cap, **suitable for real-time PCR**.

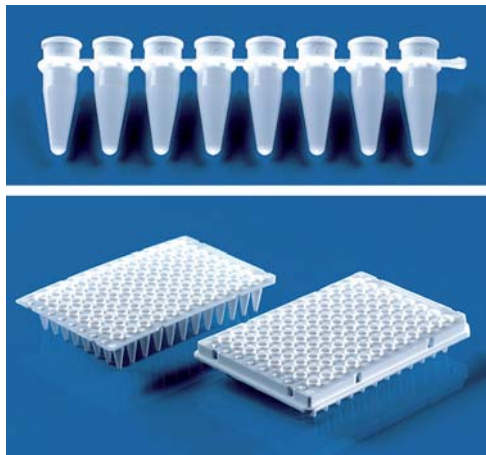
④ PCR-vials, 8 tube strips with separate 8 cap strip

Vials with retaining tab on one end.

Cap strip with convex or flat cap (**suitable for real-time PCR**) and small step on side of each cap for careful, contamination-free opening. Please order vials and caps separately.

Type	Type	Volume (ml)	Art. No.	Pack Qty.	€
①	Vials, attached convex caps	0,2	XT86.1	1000	60,55
①	Vials, attached flat caps	0,2	XT87.1	1000	50,00
①	Vials, attached flat caps	0,5	XT88.1	1000	47,20
②	Vials, 8 tube strips, attached convex cap strips	0,2	XT89.1	125	122,55
③	Vials, 8 tube strips, attached flat single caps	0,2	XT90.1	120	135,45
④	Vials, 8 tube strips, without cap	0,2	XT91.1	125	84,40
④	8 cap strips, convex	-	XT92.1	125	28,30
④	8 cap strips, flat	-	XT93.1	125	36,05

Microcentrifuge tubes



PCR products for real time PCR

By Brand.

- Made of **PP**, white. For qPCR
- Significantly better results than clear 8-tube strips or trays in fluorescence measurements.
- Evenly dyed with titanium dioxide in combination with smooth surfaces for optimal reflection of fluorescence signals.

PCR tube strips (8 tubes per strip)

0.2 ml tubes. Separate clear caps, flat, easy to open and close (please order separately). Tubes have tab at one end. Capped strips with a small lip on the side of each cap for careful, contamination-free opening.

Type	Art. No.	Pack Qty.	€
Tubes without capped strips	XX01.1	125	94,95
8 cap strips, flat	XT93.1	125	36,05

96-well PCR trays

0.2 ml tubes.

Type	Art. No.	Pack Qty.	€
Without rack	XX02.1	50	190,30
With half rack	XX03.1	50	190,30



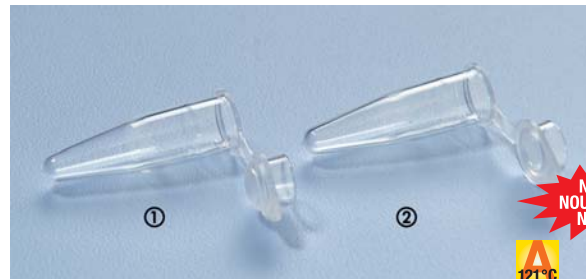
Multi®-Ultra PCR tubes 0.2 ml

By Sorenson. Made of highest purity **PP**. With flat lid. The tubes are extremely thin which ensures speedy and even heat transfer of every sample.

Fits all standard thermocyclers such as Perkin Elmer, Biometra, Ericomp, MJ Research, Coy, Techne, Grant, Inotech, Hybaid, Biotherm, USA Scientific, Bios, Quatro and Stratagene Mastercycler.

Pyrogen free, DNase- /RNase-free and autoclavable.

Colour	Art. No.	Pack Qty.	€
natural	H560.1	1000	108,60
red	H561.1	1000	108,60
blue	H562.1	1000	108,60
green	H563.1	1000	108,60
yellow	H564.1	1000	108,60



Rotilabo®-PCR reaction vials 0.2 ml

Made of **PP**. Colourless. Volume 0.2 ml (max. working volume 250 µl, max. filling volume 300 µl). Thin-walled for optimal heat transfer between thermocycler and sample. Suitable for all standard thermocyclers. **RNase, DNase and human DNA free.** Autoclavable.

Type	Art. No.	Pack Qty.	€
① PCR tubes with convex cap	CEL5.1	1000	53,25
② PCR tubes with flat cap	CEL6.1	1000	53,25



Multi®-Ultra PCR tubes 0.65 ml

By Sorenson. Made of clear, highest purity **PP**. Extremely thin-walled, which guarantees speedy and even heat transfer for each sample and reduces the length of time considerably when carrying out PCR-experiments. Can be centrifuged up to 10 000 x g. Flat, roughened lid for labelling. The piercing area in the lid makes the transfer of hazardous materials with a syringe easier.

DNase- and RNase-, endotoxin- and heavy metal-free. Autoclavable.

Art. No.	Pack Qty.	€
A774.1	1000	56,65



Microcentrifuge tubes 1.5 ml, without lid

Made of **PP**. Colourless. Volume 1.5 ml. Autoclavable.

- Centrifugable up to 6000 x g at 20 °C, max. 20 min
- With dull finish labelling area on the side
- Outer-Ø x total height: 11 x 39.5 mm

Art. No.	Pack Qty.	€
CK05.2	1000	22,15

Microcentrifuge tubes



Rotilabo®-microcentrifuge tubes

Made of **PP**. Capacity 1.5 ml. With dull finish labelling area. Graduated. Can be centrifuged up to 18 000 x g. Temperature stable from -70 °C to 121 °C. Autoclavable.

Colour	Art. No.	Pack Qty.	€
colourless	4182.1	1000	17,10
red	4189.1	1000	18,10
blue	4190.1	1000	18,10
yellow	4204.1	1000	18,10
green	4209.1	1000	18,10
assorted colours (5 x 1000 pieces)	5913.1	5000	80,65



Programme extension!



Mircocentrifuge tubes 1.5 ml

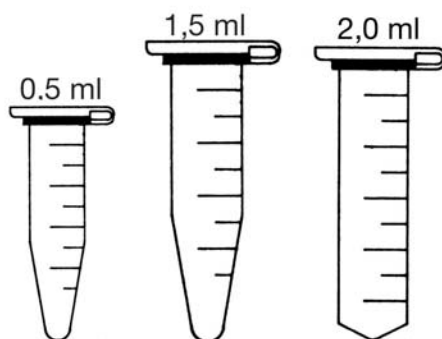
By Brand. Made of **PP**. **Sterile** or unsterile. Volume 1.5 ml, graduated.

- Centrifugable up to 20 000 x g at 20 °C, max. 20 min
- With mat-finished labelling area on the side
- Lid membrane Ø 8.5 mm, with a uniform thickness of approx. 0.3 mm, can be pierced by analyzer
- **BIO-CERT®-quality**, sterile and free from endotoxins, DNA, RNase and ATP, with batch certificate

Dimensions: outer Ø 10.75 x H 40.8 mm. Autoclavable.

* Brown reaction vials are ideal for light-sensitive reactions.

Colour	Type	Art. No.	Pack Qty.	€
natural BIO-CERT®	sterile	CH75.1	30 x 15	102,15
natural	unsterile	CH76.1	500	13,80
natural	unsterile	CNT2.1	3000	69,05
yellow	unsterile	CH77.1	500	15,60
blue	unsterile	CH78.1	500	15,60
green	unsterile	CH79.1	500	15,60
orange	unsterile	CH80.1	500	15,60
brown (amber)*	unsterile	CH81.1	500	15,60



Multi®-safety microcentrifuge tubes SafeSeal® Tubes

- By Sorensen
- Can be centrifuged up to 25 000 x g
- Highly transparent **PP**
- Stable from -80 to 121 °C
- Graduated at 250 µl
- Etched labelling surface
- Tightly fitting cap
- Flat lid, suitable for labelling
- **LowBinding version:** Surface-optimized with a polymer coating, thereby minimal adhesion of sample
- Colour range: red, blue, green, yellow, lilac
- Autoclavable

- **RNase/DNase-free**
- **Human-DNA-free**
- **PCR-inhibitor-free**
- **Pyrogen-free**

Nominal capacity (ml)	Filling capacity (ml)	Colour	Art. No.	Pack Qty.	€
0,5	0,65	natural	7060.1	1000	21,75
0,5	0,65	assorted colours	7096.1	1000	48,20
0,5	0,65	clear, LowBinding	7137.1	1000	69,90
1,5	1,7	colourless	7080.1	1000	31,00
1,5	1,7	assorted colours	7110.1	1000	51,40
1,5	1,7	clear, LowBinding	7154.1	1000	69,90
2,0	2,0	colourless	7083.1	800	46,45
2,0	2,0	assorted colours	N457.1	800	55,90
2,0	2,0	clear, LowBinding	7181.1	1000	80,30

Microcentrifuge tubes



Rotilabo®-safety reaction tubes

Made of **PP**. Colourless, with graduations and labelling space. Tight plug seat, e.g. for applications under thermal stress. Cap membrane is pierceable. Vessel base of 2.0 ml tubes is rounded on the inside to enhance pellet formation. Centrifugable to 18000 x g. Heat resistant from -70 to 121 °C. Autoclavable.

Volume (ml)	Art. No.	Pack Qty.	€
0,5	XC62.1	1000	15,00
1,5	XC63.1	1000	17,75
2,0	NA16.1	1000	17,10



Microcentrifuge tubes 2 ml

By Brand. Made of **PP**. Volume 2 ml, graduated.

- Centrifugable up to 20 000 x g at 20 °C, max. 20 min
- With dull finish labelling area on the side
- The lid membrane, which is approx. 0.3 mm thick throughout, can be pierced by the analyzer
- **Free of RNase, DNase, DNA and endotoxins**
- Autoclavable

Colour	Art. No.	Pack Qty.	€
colourless	CK06.1	500	29,10



Reaction vials with lid lock

By Brand. Made of **PP**. Additional lid lock for extra tightness, prevents unintentional opening of the lid. The wide lid rim allows easy handling using only one hand. With frosted labelling space and graduations for reading the approximate volume.

- Manufactured from high quality medical grade polypropylene
- Produced under cleanroom conditions to ISO 14 644-1 Class 8
- **Free of RNase, DNase, DNA and endotoxins**
- Centrifugable to 30 000 x g.
- Autoclavable at 121 °C and 2 bar (DIN EN 285)

Volume (ml)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
0,5	10	30	CNT3.1	500	24,75
1,5	10,75	40,8	CNT4.1	1000	41,95
2,0	12,8	40	CNT5.1	1000	25,70



Rotilabo®-microcentrifuge tubes

Made of **PP**. Colourless, temperature stable from -90 to +121 °C, autoclavable. Can be centrifuged up to 17 000 x g.

Image	Volume	Type	Art. No.	Pack Qty.	€
①	250 µl	not graduated	EA82.1	1000	50,00
③	500 µl	graduated	EA83.1	1000	40,80
④	1,5 ml	graduated	EA84.1	1000	47,30
⑤	1,9 ml	graduated	EA85.1	1000	59,15

Rotilabo®-microcentrifuge tubes

Made of **LDPE**. Colourless, not graduated. Temperature stable from -90 to +121 °C

Image	Volume	Art. No.	Pack Qty.	€
②	400 µl	EA86.1	1000	51,75

Microcentrifuge tubes



FlipTube®-microcentrifuge tubes

Made of highly transparent **PP**. Volume 1.5 ml, graduated. Autoclavable. Special FlipTube® Closure: Tubes are usable single-handed. Prevents contaminations and aerosols when opened.

- Can be centrifuged up to 20 000 x g
- Frosted labeling area on side and top
- Lid membrane Ø 8 mm, pierceable

Colour	Art. No.	Pack Qty.	€
transparent	LH82.1	500	21,20
blue	LH83.1	500	22,05
yellow	LH84.1	500	22,05
green	LH85.1	500	22,05
red	LH86.1	500	22,05



Multi®-TabTop® Tubes 0.5 and 1.5 ml

By Sorenson. Made of high-purity **PP**. Tubes are marked in 250 µl increments and feature a large labelling surface on the side. Can be centrifuged up to 22 000 x g. Can be opened single-handed.

Inner lid cap is subdivided into four sectors of 20 µl each (1.5 ml tubes) for separate loading of samples and reagents. High surface tension prevents mixing of samples in the individual sectors prior to centrifuging even when lid is closed. Specially formed lip seal prevents lid from opening during the heating process. Tubes are **heavy metal free and pyrogen/RNase/DNase-free**. Autoclavable.

Volume (ml)	Art. No.	Pack Qty.	€
0,5	H268.1	1000	47,85
1,5	E518.1	1000	47,25



Multi®-safety microcentrifuge tubes 2 ml

By Sorenson. Made of **PP**. With special design for alleviating sample removal, particularly during DNA-/RNA-centrifugation. Flat lid with piercing zone for syringes. Can be centrifuged up to 15 000 x g. Temperature stable from -80 to +121 °C. Flat lid and rough surface for easy marking of tubes. **DNase-/RNase-free**. Autoclavable.

Art. No.	Pack Qty.	€
E708.1	1000	52,35



Rotilabo®-microcentrifuge tubes, black

Made of **PP**, black. 1.5 ml, graduated. Autoclavable. Temperature stable from -80 to +121 °C. Can be centrifuged up to 15 000 x g. Ideal for storing light-sensitive samples.

Art. No.	Pack Qty.	€
AA80.1	500	20,00



Rotilabo®-microcentrifuge tubes 5 ml

Made of **PP**, graduated. Autoclavable.

- Leak-tight closure
- Labelling space on side of vessel and lid
- Centrifugable to 5000 g
- Temperature resistant in the range -80 to 121 °C
- Vessel-Ø 15 (incl. rim 18 mm) x H 60 mm

Colour	Art. No.	Pack Qty.	€
colourless	PE68.1	250	42,50
black	PE69.1	250	42,50

Microcentrifuge tubes



Rotilabo®-microcentrifuge tube openers

Opens and closes 0.2- to 2.2-ml-tubes. The opener only touches the outer edge of the lid thereby reducing the risk of contamination. Assorted colours.

Art. No.	Pack Qty.	€
AA94.1	10	12,75



SnapTwist™-reaction vials

Made of PP. RNase, DNase, DNA and pyrogen free. Autoclavable.

- **Timesaving closure:** just press to safely seal vial, twist just a ¼ turn to open.
- With clear polished surface
- Leak-proof lip seal on closure
- Conical reaction vials are centrifugable up to 20 000 x g
- Temperature stable from -90 to +100 °C

Vials with fitted screw cap, sterile

Volume (ml)	Type	Art. No.	Pack Qty.	€
1,5	Conical, with transparent lid	ATC4.1	500	160,20

Vials without cap, non sterile

Volume (ml)	Type	Art. No.	Pack Qty.	€
1,5	Free-standing	YK13.1	1000	54,85
1,5	Conical	YK14.1	1000	54,85
1,8	Free-standing	YK15.1	1000	54,85
1,8	Conical	YK16.1	1000	54,85

Lids for SnapTwist™-reaction vials

Made of HDPE. Lid inserts for identification are optional (CK72.1ff). Non-autoclavable.

Colour	Art. No.	Pack Qty.	€
transparent	YK17.1	1000	63,35
blue	YK18.1	1000	63,35
green	YK19.1	1000	63,35
violet	YK20.1	1000	63,35
red	YK21.1	1000	63,35
yellow	YK22.1	1000	63,35
white	YK23.1	1000	63,35



Multi®-lid locks

By Sorenson. For microcentrifuge tubes 1.5/1.7 ml. Tubes are closed securely in water baths, autoclaves, ice baths, liquid nitrogen.

Art. No.	Pack Qty.	€
T600.1	100	22,15



Rotilabo®-sealing clips

For microcentrifuge tubes. Safe closure of vessels during boiling or freezing. With grip end for easy loading and removal of tubes. Reusable. Assorted colours.

For containers	Art. No.	Pack Qty.	€
0,5 ml	N216.1	100	42,15
1,5 / 2 ml	N217.1	100	42,15

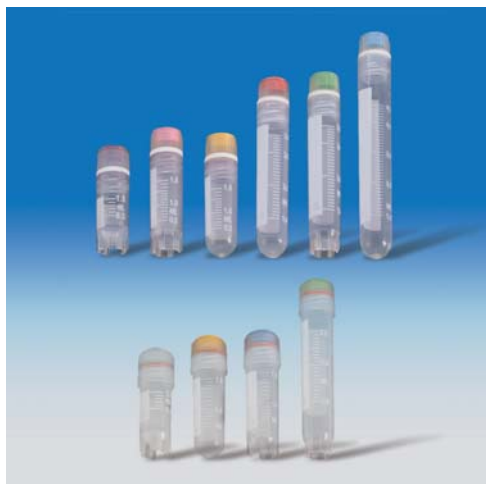


Lid inserts

Made of PP. For colour-coded, easy identification of reaction vials (Art. No. CK47.1 ff, CK57.1 ff and ATC4.1).

Colour	Art. No.	Pack Qty.	€
blue	CK72.1	500	14,55
yellow	CK73.1	500	14,55
red	CK74.1	500	14,55
white	CK75.1	500	14,55
green	CK76.1	500	14,55
assorted colours	CK77.1	500	14,55

Screw Cap tubes



Cryogenic vials

Made of **PP, Sterile** (gamma-sterilised). Ø 12.5 mm. Autoclavable. Suitable for the storage of cell cultures, sera, blood components, bacteriological cultures and other liquids at low temperatures in fridges or nitrogen tanks. Temperature stable up to -196 °C (suitable for storing samples in the liquid nitrogen gas phase).

- **RNase/DNase/DNA and pyrogen free**
- Vertical strip => easy-grip cap
- 1¼ turn closure => fast opening and closing
- **White labelling space** and coloured cap inserts => easy sample identification (please order cap inserts separately)
- Freestanding vessels with thread on base => **suitable for single-handed use** in racks with locking system
- Cap and vessel made from same material (PP) => **uniform expansion of contents**, no danger of explosion
- High transparency => **sample is easily visible**
- Round inside bottom => contents **can be completely drained**

With internal thread and silicone seal

Vials with round bottom centrifugable up to 17 000 x g

Volume (ml)	Type	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	Freestanding	43	12,5	E308.1	100	34,95
2	Freestanding	49	12,5	E309.1	100	34,95
2	Round bottom	48	12,5	E310.1	100	34,95
4	Round bottom	72	12,5	E311.1	100	40,35
4	Freestanding	78	12,5	E312.1	100	40,35
5	Round bottom	92	12,5	E313.1	100	40,35

With outer thread and lip seal

Vials with round bottom centrifugable up to 17 000 x g

Volume (ml)	Type	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	Freestanding	43	12,5	E290.1	100	28,95
2	Round bottom	48	12,5	E291.1	100	28,95
2	Freestanding	49	12,5	E292.1	100	28,95
3	Freestanding	72	12,5	E293.1	100	30,00
4	Freestanding	78	12,5	E294.1	100	32,70
5	Freestanding	92	12,5	E295.1	100	36,35

With outer thread and silicone seal

Vials with round bottom centrifugable up to 17 000 x g.
Article P168.1 with **HDPE** cap.

Volume (ml)	Type	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	Freestanding	43	12,5	E314.1	100	38,20
2	Round bottom	48	12,5	E315.1	100	38,20
2	Freestanding	49	12,5	E316.1	100	38,20
3	Freestanding	72	12,5	E317.1	100	41,40
4	Freestanding	78	12,5	E318.1	100	41,40
5	Freestanding	92	12,5	E319.1	100	43,55
10	Freestanding	84	17	P168.1	50	24,85

With outer thread, lip seal and silicone seal

Vials with round bottom centrifugable up to 17 000 x g.

Volume (ml)	Type	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
1,2	Freestanding	43	12,5	AEH6.1	100	35,80
2	Round bottom	48	12,5	AEH7.1	100	35,80
2	Freestanding	49	12,5	AEH8.1	100	35,80
3	Freestanding	72	12,5	AEH9.1	100	39,45
4	Freestanding	78	12,5	AEK0.1	100	41,10
5	Freestanding	92	12,5	AEK1.1	100	45,40



Rotilabo®-aluminium holders

Ideal for storing max. 5 cryo vials 1.2 ml or 2 ml in liquid nitrogen containers and Dewar vessels. Length 290 mm.

Art. No.	Pack Qty.	€
P169.1	12	14,85



Cap inserts for cryo vials

For colour coding and simple identification of samples.
Suitable for 1.2 to 5 ml cryo vials (Art. no. E308.1ff).

Colour	Art. No.	Pack Qty.	€
white	E320.1	500	16,70
blue	E321.1	500	16,70
red	E322.1	500	16,70
green	E323.1	500	16,70
yellow	E324.1	500	16,70
sorted (5 x 100 pieces)	E325.1	500	16,70

- For stands for cryo vials, see page 218
- For matching cryo boxes, see page 226

Screw Cap tubes



True North® cryo vials

Made of **PP. Sterile**. Lid and vessel with identical Ø (13 mm), therefore also suitable for 10 x 10 cryo box format. Suitable for storage in deep freezers or liquid nitrogen (gas phase). Temperature stable from -196 to +121 °C. Autoclavable.

- Lid with external thread and silicon seal
- With labelling space and graduations
- **RNase/DNase-free, non-pyrogenic and non-cytotoxic**

Volume (ml)	Type	Length (mm)	Art. No.	Pack Qty.	€
2	Sorted (lid colour blue, red, green, violet, grey)	49	TP67.1	500 (10 x 50)	145,15
2	transparent	49	XT57.1	500 (10 x 50)	145,15
4	transparent	88	XT58.1	200 (4 x 50)	106,25



Reaction tubes with screw cap

Made of **PP. HDPE** screw cap with **TPS** ring seal. Autoclavable.

- **Sterile**
- Conical bottomed vessels are centrifugable up to 25 000 x g
- 1.5 and 2.0 ml reaction vials with labelling space
- Temperature resistant in the range -80 to +121 °C
- Screw cap Ø 13 mm
- CE-IVD compliant

Volume (ml)	Type	Graduations	Vessel Ø x H (mm)	Art. No.	Pack Qty.	€
0,5	Conical	none	8 x 47	XC79.1	200	41,90
0,5	Free-standing	none	10,5 x 48	XC80.1	200	41,90
1,5	Conical	up to 1.0 ml	10,5 x 47	XC81.1	200	41,90
1,5	Free-standing	up to 1.0 ml	10,5 x 48	XC82.1	200	41,90
2,0	Conical	up to 1.2 ml	11,5 x 47	XC83.1	200	41,90
2,0	Free-standing	up to 1.2 ml	10,5 x 48	XC84.1	200	41,90



Reaction vials with screw cap

Made of **PP. Sterile** or non sterile. Ideal for storage in freezers, applications in a boiling water bath or for centrifuging. Tight sealing due to combination of lip seal and silicone ring in cap. Single-handed opening in suitable racks (e.g. AEN2.1ff) through longitudinal grooves on the upper edge and locking system on self-standing vials.

- With graduations and large labelling space
- Quick opening and closing with only 1 1/4 turns of cap
- Conical vials, centrifugable up to 20 000 x g
- Thick-walled for high stability
- Excellent visual clarity
- Outer Ø x overall height: 13 x 47 mm
- **RNase/DNase/DNA and pyrogen free**
- Temperature stable from -196 to +121 °C
- Autoclavable

Vials with screw cap, sterile

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,5	Freestanding	AET3.1	500 (10 x 50)	120,40
1,5	Freestanding	AET4.1	500 (10 x 50)	120,40
1,5	Conical	AET5.1	500 (10 x 50)	120,40
2,0	Freestanding	AET6.1	500 (10 x 50)	120,40

Vials without cap, non sterile

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,5	Freestanding	AET7.1	1000	91,20
1,5	Freestanding	AET8.1	1000	91,20
1,5	Conical	AET9.1	1000	91,20
2,0	Freestanding	AEX0.1	1000	91,20

Caps for reaction vials, non sterile

Flat caps, suitable for automatic packaging machines.

With lip seal and integrated silicone ring. Suitable for vials AET7.1ff.

Colour	Art. No.	Pack Qty.	€
yellow	AEX1.1	1000	93,45
red	AEX2.1	1000	93,45
green	AEX3.1	1000	93,45
blue	AEX4.1	1000	93,45
white	AEX5.1	1000	93,45
transparent	AEX6.1	1000	93,45
sorted (200 pc. in each colour: yellow, red, green, blue, white)	AEX7.1	1000	93,45

Screw Cap tubes



Rotilabo®-screw cap tubes

Made of PP. With hang-on (PP) screw lid with silicone seal. **Sterile** or unsterile. Autoclavable.

- Volume: 0.5 / 1.5 / 2.0 ml
- Clear, optionally available with subdivisions and labelling space
- Only 1¼ turns are needed for speedy opening and closing of the lid
- Temperature stable from -196 to +121 °C
- Outer-Ø x total height: 13 x 47 mm
- Conical micro-centrifuge tubes can be centrifuged up to 20 000 x g
- Lid inserts are also available for easy identification (see CK72.1 ff.)
- **RNase-/DNase-/DNA- and pyrogen free**

Microcentrifuge tubes with hang-on screw lid (separately packed) - unsterile

Volume (ml)	Type	Graduations	Art. No.	Pack Qty.	€
0,5	self-standing	no	CK57.1	1000	155,90
1,5	self-standing	no	CK58.1	1000	155,90
1,5	conical	no	CK59.1	1000	155,90
2,0	self-standing	no	CK60.1	1000	155,90
2,0	conical	no	CK61.1	1000	155,90

Microcentrifuge tubes with hang-on screw lid (attached) - sterile

Volume (ml)	Type	Graduations	Art. No.	Pack Qty.	€
0,5	self-standing	no	CK62.1	500	106,45
1,5	self-standing	no	CK63.1	500	106,45
1,5	conical	no	CK64.1	500	106,45
2,0	self-standing	no	CK65.1	500	106,45
2,0	conical	no	CK66.1	500	106,45

Graduated microcentrifuge tubes with hang-on screw lid (attached) - sterile

Volume (ml)	Type	Graduations	Art. No.	Pack Qty.	€
0,5	self-standing	yes	CK67.1	500	138,70
1,5	self-standing	yes	CK68.1	500	138,70
1,5	conical	yes	CK69.1	500	138,70
2,0	self-standing	yes	CK70.1	500	138,70
2,0	conical	yes	CK71.1	500	138,70



Screw cap tubes, brown

Made of PP. Autoclavable.

- Volume 0.5 / 1.5 / 2.0 ml
- Brown screw cap tubes for storage of light-sensitive samples
- Temperature stable from -196 to 121 °C
- Conical micro-centrifuge tubes can be centrifuged up to 20 000 x g
- **RNase-/DNase-/DNA- and pyrogen free**
- Screw-on lid made of PP with silicone sealing
- Only 1¼ turns needed for speedy opening and closing of lid
- Lid inserts are also available for easy identification (see CK72.1 ff.)

Delivery without lids, please order separately!

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,5	self-standing	CK47.1	1000	76,35
1,5	self-standing	CK48.1	1000	76,35
1,5	conical	CK49.1	1000	76,35
2,0	self-standing	CK50.1	1000	76,35
2,0	conical	CK51.1	1000	76,35

Screw-on lids (PP) with silicone sealing

Suitable for screw cap tubes, brown.

Colour	Type	Art. No.	Pack Qty.	€
red	attached	CK52.1	1000	117,20
white	attached	CK53.1	1000	117,20
brown	loose	AEK2.1	1000	106,45
red	loose	CK54.1	1000	104,30
white	loose	CK55.1	1000	104,30



Lid inserts

Made of PP. For colour-coded, easy identification of reaction vials (Art. No. CK47.1 ff, CK57.1 ff and ATC4.1).

Colour	Art. No.	Pack Qty.	€
blue	CK72.1	500	14,55
yellow	CK73.1	500	14,55
red	CK74.1	500	14,55
white	CK75.1	500	14,55
green	CK76.1	500	14,55
assorted colours	CK77.1	500	14,55



Reaction vials with septum screw caps

Made of PP.

- With graduations and labelling space
- Conical tubes, centrifugable up to 20 000 x g
- Outer Ø x height: 11 x 44 mm
- **RNase/DNase/DNA and pyrogen free**
- Temperature stable from -196 to +121 °C
- Autoclavable

Reaction vials, graduated, without closure

Volume (ml)	Type	Art. No.	Pack Qty.	€
0,5	Freestanding	AEK3.1	1000	96,25
1,5	Freestanding	AEK4.1	1000	96,25
1,5	Conical	AEK5.1	1000	96,25
2,0	Freestanding	AEK6.1	1000	87,10

Screw caps with septum

Made of PP. Tight sealing due to integrated PTFE/silicone septum. Easy to pierce with pipette tips or cannulas. Suitable for vials AEK3.1ff.

Art. No.	Pack Qty.	€
AEK7.1	250	106,45



Laboratory markers

By Marienfeld. Permanent marker suitable for nearly all surfaces made of glass, plastic and paper. Suitable for indelible labelling of microscope slides, embedding cassettes and Petri dishes.

- Ultrafine tip
- High-contrast black ink
- Writes without pretreatment of surfaces
- Waterproof, resistant to most laboratory chemicals
- Odourless
- Non-toxic
- Non-dry, long-lasting

Art. No.	Pack Qty.	€
CET9.1	12	30,65



Labels on rolls

Ideal for 0.2/0.5/0.65 and 1.5/2 ml tubes and other containers made of chemically inert polyester. Sticks to plastics without drying out and falling off during steam sterilization, in boiling waterbaths, refrigerators, stirrers, shakers, centrifuges, etc. Are extremely close-fitting and do not hinder removal or loading of tubes in stands or centrifuges. Tearproof. Can be marked with almost all markers.

Labels, angular (Tough Tags™), for manually marking. Temperature stable from **-40 to +121 °C**. 1000 per roll. (1500 per roll at Art. No. K436.1).

For vials (ml)	Colour	Length (mm)	Width (mm)	Art. No.	Pack Qty. (roll)	€
0,2	white	20,5	6,5	K436.1	1	40,05
0,5	white	23	13	K556.1	1	38,20
0,5	blue	23	13	K440.1	1	40,05
0,5	yellow	23	13	K441.1	1	40,05
0,5	green	23	13	L666.1	1	39,70
0,5	red	23	13	K442.1	1	40,05
0,5	transparent	23	13	K443.1	1	40,05
1,5/2	white	32	13	K557.1	1	38,20
1,5/2	blue	32	13	K444.1	1	45,70
1,5/2	yellow	32	13	K445.1	1	45,70
1,5/2	green	32	13	L667.1	1	45,70
1,5/2	red	32	13	K446.1	1	45,70
1,5/2	transparent	32	13	K447.1	1	45,70
Test tubes etc.	white	38	19	L676.1	1	57,55
Microtest plates	white	38	6	K435.1	1	40,05

Labels, round (Tough Spots™), for manually marking. Temperature stable from **-196 to +80 °C**. 1000 per roll.

For vials (ml)	Colour	Ø (mm)	Art. No.	Pack Qty. (roll)	€
0,5	white	9,5	K164.1	1	39,25
0,5	blue	9,5	X612.1	1	36,55
0,5	green	9,5	X613.1	1	36,55
0,5	red	9,5	X614.1	1	36,55
0,5	yellow	9,5	X615.1	1	36,55
1,5/2	white	12,7	N120.1	1	38,20
1,5/2	red	12,7	N121.1	1	38,20
1,5/2	green	12,7	N122.1	1	38,20
1,5/2	yellow	12,7	N123.1	1	38,20
1,5/2	blue	12,7	N124.1	1	38,20

Labels and Lab Markers



Cryo-labels

Made with acrylate. Sticks to plastic, glass or metal without drying out or peeling off. Glass and metal surfaces must be completely free of grease. Can also be used in boiling water baths, in refrigerators, under cryo-conditions (liquid nitrogen). Temperature stable from **-196 to +100 °C**. Can be removed without leaving any traces. Sheets are printable with a laser printer.

Sheet size (US-Letter) 21.6 x 27.9 cm.

White

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
38	6	Microtiter-plates	156	X545.1	20	72,60
24	13	0.5 ml tubes	119	X547.1	20	72,60
33	13	1.5-2 ml tubes	85	X548.1	20	72,60
25	25	Microscope slides	80	EL06.1	20	72,60
38	19	Cryo-vials	60	X549.1	20	72,60
64	13	0.5-2 ml tubes	60	EL07.1	20	72,60
43	19	Cryo vials	52	EL08.1	20	72,60
29	44	Centrifuge tubes	42	EL09.1	20	72,60
67	25	Racks, boxes	30	X550.1	20	72,60
76	51	Bottles, glasses	12	X551.1	20	72,60

Cryo-labels on the roll, colour white

White, for hand-labelling

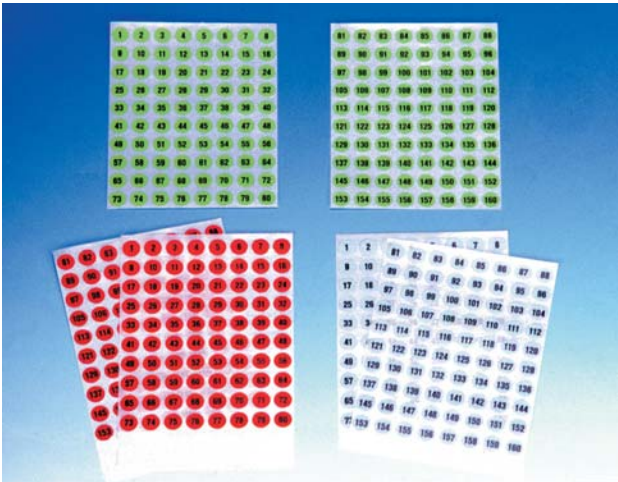
Length (mm)	Width (mm)	For	Labels/ Roll	Art. No.	Pack Qty. (roll)	€
24	13	0.5 ml tubes	1000	HX56.1	1	39,80
38	19	Cryo vials	1000	L673.1	1	39,70
33	13	1.5-2 ml tubes	1000	L672.1	1	39,70



Lab Markers

All-purpose fibre-tip. For nearly all type of surfaces made of glass, metal and most plastics, e.g. PS-petri dishes. Writes on wet or cold surfaces. Waterproof, also while autoclaving. With quick-drying ink. Can be wiped off high-gloss surfaces. Length 135 mm. Stroke width 1.0 mm.

Colour	Art. No.	Pack Qty.	€
black	3083.2	10	24,30
blue	3084.2	10	24,30
red	3085.2	10	24,30
Assortment: 4 black, 4 blue, 4 red	1701.1	12	28,50



Sekuroka®-labels

Numbered from 1-160 in red, green and blue. Self-adhesive, made of paper Ø 8 mm. Ideal for labelling test tubes, vials, microcentrifuge tubes, etc. Should be used together with numerical racks to prevent any mix-up. Labels ensure correct positioning of test tubes even during bulk sampling.

Art. No.	Pack Qty.	€
N376.1	1	4,20

- Stands for centrifuge tubes from page 215
- Cryo gloves see page 616



Lab Markers II

All-purpose fibre-tip. Ideal for glass and most plastics, e.g. embedded casting moulds and microscope slides. Waterproof. With quick-drying ink. Can be wiped off high-gloss surfaces. Length 135 mm. Stroke width 0.6 mm.

Colour	Art. No.	Pack Qty.	€
black	9028.1	10	31,00
red	9036.1	10	31,00
Assortment: 5 black, 5 red	9040.1	10	31,00



Filtration, Water Purification and Dialysis

Analyse machines	500
Bottle Top filter systems, disposable	447
Centrifuge filter systems	475
Chromatography accessories	505
Dialysis accessories	517
Dialysis systems	513
Dialysis tubular membranes	508
Distilling devices	502
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Filter holders	483
Filter papers for qualitative analysis	492
Filter papers for quantitative analysis	494
Filter devices made of plastic, glass or stainless steel	479
Filter papers for special applications	496
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Ion exchange devices	502
Membrane filters	484
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SPE columns	507
SPE vacuum blocks	507
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Syringe filters



Rotilabo®-syringe filters

With hydrophilic or hydrophobic membranes.

Hydrophilic membrane: Polyethersulfone (PES)
For removing finest particles from **aqueous** solutions.

Hydrophilic membrane: Cellulose mixed ester (CME = Cellulose acetate and -nitrate)
For clear filtration of aqueous solutions.

Hydrophilic membrane: Polyvinylidene fluoride (PVDF)
For clear filtration of **aqueous and slightly organic** solutions.

Hydrophilic membrane: Nylon
For clear filtration of **aqueous and organic** solutions.

Hydrophobic membrane: Polytetrafluoroethylene (PTFE)
For clear filtration of **organic** solutions and for air filtration.

Technical specifications:

Nominal-Ø(mm)	13	25	33
Sample capacity (ml)	up to 10	up to 100	up to 100
Dead capacity (µl)	<15	<100	<80
Max. Input pressure (bar)	10	5	8.6
Max. operating temperature (°C)	45	45	45
Filter surface (cm ²)	0.8	3.9	4.52
Connection	Luer-Lock inlet / Luer outlet		

Unsterile, nominal-Ø 13 mm, Ø outer 19 mm

Pore size (µm)	Membrane material	Material housing	Art. No.	Pack Qty.	€
0,20	Nylon	PP	CCX8.1	100	130,10
0,45	Nylon	PP	CCX9.1	100	130,10
0,22	PVDF	PP	CCY0.1	100	130,10
0,45	PVDF	PP	CCY1.1	100	130,10
0,20	PTFE	PP	CCY2.1	100	130,10
0,45	PTFE	PP	CCY3.1	100	130,10

Unsterile, nominal-Ø 25 mm, Ø outer 29 mm

Pore size (µm)	Membrane material	Material housing	Art. No.	Pack Qty.	€
0,20	PTFE	PE	P815.1	100	132,25
0,45	PTFE	PE	P816.1	100	132,25
5,0	PTFE	PE	P817.1	100	132,25
0,22	CME	PVC	P818.1	100	126,85
0,45	CME	PVC	P819.1	100	126,85
0,8	CME	PVC	P820.1	100	126,85

Unsterile, Ø outer 33 mm. Increased speed of flow due to larger filter surface and higher allowable operating pressure.

Pore size (µm)	Membrane material	Material housing	Art. No.	Pack Qty.	€
0,22	PES	Co-Polymer	P821.1	100	126,85
0,20	Nylon	PP	KY61.1	100	132,25
0,45	Nylon	PP	KY64.1	100	132,25
0,22	PVDF	PP	KY62.1	100	132,25
0,45	PVDF	PP	KY63.1	100	132,25



Rotilabo®-syringe filters

Sterile (individually packed), Ø outer 33 mm. Luer-Lock inlet/Luer outlet.

Polyethersulfone (PES):
For ultra-quick filtration of tissue culture media, -additives and other aqueous solutions.

Cellulose mixed ester (CME):
For filtration of additives, tissue culture media, antibiotics.

Polyvinylidene fluoride (PVDF):
For filtration of protein solutions, tissue culture media, additives, antibiotics, alcoholic solutions.

Pore size (µm)	Membrane material	Material housing	Art. No.	Pack Qty.	€
0,22	CME	Acryl-Polymer	KH54.1	50	69,70
0,45	CME	Acryl-Polymer	KH55.1	50	69,70
0,22	PVDF	Acryl-Polymer	P666.1	50	69,70
0,45	PVDF	Acryl-Polymer	P667.1	50	69,70
0,22	PES	Acryl-Polymer	P668.1	50	69,70



Rotilabo®-fibre glass syringe filters

Ideal for pre-filtration of samples with high particle load. Retention range 1-2 µm, free from binding agents. **Unsterile.**

Technical specifications:

Membrane Ø (mm)	15	25	30
Housing Ø (mm)	20	30	34
Housing	ultrasound welded	injection moulded	
Housing material	PP		PC
Sample volume (ml)	1-10	10-100	> 100
Dead volume (µl)	< 25	< 65	< 170
Total filtration capacity (ml)	0.335	0.6	0.864
Filtration area (mm ²)	177	490	707
Max. operating pressure (bar)	7	7	6
Inlet connection	Luer-Lock connector		
Outlet connection	Luer Slip		

Membrane Ø (mm)	Material housing	Pack Qty.	Art. No.	€
15	PP	100	KC98.1	57,45
25	PP	100	KC99.1	98,40
30	PC	100	KE00.1	151,60



Rotilabo®-syringe filters

With pressure and chemical resistant casings made of PP or PC.
Sterile (individually packed) or non-sterile.

Regenerated cellulose (RC)

Hydrophilic membrane with low non-specific protein adsorption ($<10 \mu\text{g}/\text{cm}^2$). For filtration of biological solutions as well as sample preparation and degassing of eluants for HPLC. Good resistance to aqueous and organic solutions.

Polytetrafluoroethylene (PTFE)

Hydrophobic membrane for filtration of aggressive chemicals, acids and nonpolar solvents. Low resistance to gas flow allows applications in air and gas filtration (e.g. for ventilation tasks and sterile gas exchange).

Polyvinylidene difluoride (PVDF)

Slightly hydrophobic membrane for clear and sterile filtration of organic and partially organic solutions. Protein adsorption ($125 \mu\text{g}/\text{cm}^2$).

Polyamide (Nylon)

For filtration of HPLC and GC solvents as well as for the clarification and sterile filtration of aqueous, alkaline and organic solutions. Hydrophilic, resistant to many solvents. High mechanical stability.

Polypropylene (PP)

Low-hydrophobic all-round membrane for aqueous and organic media.

Polyether sulfone (PES)

Hydrophilic membrane with low protein binding ($<20 \mu\text{g}/\text{cm}^2$) and high flow rates. Suitable for aqueous and partially organic media, e.g. for biological sample preparation.

Polyester (PET)

Hydrophilic membrane for aqueous and organic solvents. For HPLC sample preparation and for cell culture applications.

Cellulose ester composite (CME)

Hydrophilic membrane with high non-specific adsorption capacity for preparation of aqueous media samples and for separation of microbiological substances (bacteria, fungi, etc.).

Cellulose acetate (CA)

Hydrophilic membrane with very low protein adsorption ($3.8 \mu\text{g}/\text{cm}^2$) for biological samples (e.g. enzyme solutions, biological macromolecules) as well as for clear and sterile filtration of aqueous solutions.

Technical specifications:

Membrane Ø (mm)	15	25	30
Housing Ø (mm)	20	30	34
Housing	ultrasound welded	injection moulded	
Housing material	PP		PC
Sample volume (ml)	1-10	10-100	> 100
Dead volume (µl)	< 25	< 65	< 170
Total filtration capacity (ml)	0.335	0.6	0.864
Filtration area (mm ²)	177	490	707
Max. operating pressure (bar)	7	7	6
Inlet connection	Luer-Lock connector		
Outlet connection	Luer Slip		

Unsterile, Ø 15 mm, housing made of PP, ultrasonic welded, colourless

Pore size (µm)	Membrane material	Colour code	Art. No.	Pack Qty.	€
0.2	RC	colourless	KC90.1	100	91,20
0.45	RC	colourless	KC91.1	100	91,20
0.2	Nylon	colourless	KC92.1	100	67,55
0.45	Nylon	colourless	KC93.1	100	67,55
0.2	PTFE	colourless	KC94.1	100	67,55
0.45	PTFE	colourless	KC95.1	100	67,55
0.2	PVDF	colourless	KC96.1	100	82,75
0.45	PVDF	colourless	KC97.1	100	82,75

Sterile, Ø 15 mm, housing made of PP, ultrasonic welded, colourless

Pore size (µm)	Membrane material	Colour code	Art. No.	Pack Qty.	€
0,2	RC	colourless	PA49.1	100	108,60
0,45	RC	colourless	PA50.1	100	108,60
0,2	Nylon	colourless	PA51.1	100	80,65
0,45	Nylon	colourless	PA52.1	100	80,65
0,2	PTFE	colourless	PA53.1	100	80,65
0,45	PTFE	colourless	PA54.1	100	80,65
0,2	PVDF	colourless	PA55.1	100	80,65
0,45	PVDF	colourless	PA56.1	100	80,65
0,2	PP	colourless	PA57.1	100	93,00
0,45	PP	colourless	PA58.1	100	93,00
0,2	PES	colourless	PA59.1	100	76,35
0,45	PES	colourless	PA60.1	100	76,35
0,45	PET	colourless	PA62.1	100	101,05
0,2	CME	colourless	PA63.1	100	80,65
0,45	CME	colourless	PA64.1	100	80,65

Unsterile, Ø 25 mm, housing made of PP, with coloured rim

Pore size (µm)	Membrane material	Colour code	Art. No.	Pack Qty.	€
0.2	CA	light grey	KC60.1	100	112,90
0.45	CA	grey	KC61.1	100	107,00
0.2	RC	orange	KC62.1	100	141,90
0.45	RC	red	KC63.1	100	141,90
0.2	Nylon	yellow	KC64.1	100	117,20
0.45	Nylon	light orange	KC65.1	100	117,20
0.2	PTFE	magenta	KC66.1	100	125,80
0.45	PTFE	purple	KC67.1	100	125,80
0.2	PVDF	violet	KC68.1	100	127,95
0.45	PVDF	blue	KC69.1	100	127,95
0.2	PES	blue	NA21.1	100	104,30

Sterile, Ø 25 mm, housing made of PP with coloured rim

Pore size (µm)	Membrane material	Colour code	Art. No.	Pack Qty.	€
0.2	CA	light grey	KC70.1	100	126,85
0.45	CA	grey	KC71.1	100	123,65
0.2	RC	orange	KC72.1	100	165,55
0.45	RC	red	KC73.1	100	165,55
0.2	Nylon	yellow	KC74.1	100	140,85
0.45	Nylon	light orange	KC75.1	100	140,85
0.2	PTFE	magenta	KC76.1	100	140,85
0.45	PTFE	purple	KC77.1	100	140,85
0.2	PVDF	violet	KC78.1	100	154,80
0.45	PVDF	blue	KC79.1	100	154,80

Unsterile, Ø 30 mm, housing made of PC with coloured rim

Pore size (µm)	Membrane material	Colour code	Art. No.	Pack Qty.	€
0.2	CA	light grey	KC80.1	100	174,15
0.45	CA	grey	KC81.1	100	154,80
0.2	RC	orange	KC82.1	100	217,15
0.45	RC	red	KC83.1	100	217,15
0.2	Nylon	yellow	KC84.1	100	174,15
0.45	Nylon	light orange	KC85.1	100	174,15
0.2	PTFE	magenta	KC86.1	100	174,15
0.45	PTFE	purple	KC87.1	100	174,15
0.2	PVDF	violet	KC88.1	100	203,20
0.45	PVDF	blue	KC89.1	100	203,20

Syringe filters



Rotilabo®-syringe filters Mini-Tip

Unsterile, 15 mm, housing made of PP, ultrasonic welded, colourless. Ideally suited for HPLC. The Mini-Tip opening is ideal for filtering in very small sample containers or vials.

Regenerated cellulose (RC)

Hydrophilic membrane with low non-specific protein adsorption ($<10 \mu\text{g}/\text{cm}^2$). For filtration of biological solutions as well as sample preparation and degassing of eluants for HPLC. Good resistance to aqueous and organic solutions.

Polytetrafluoroethylene (PTFE)

Hydrophobic membrane for filtration of aggressive chemicals, acids and nonpolar solvents. Low resistance to gas flow allows applications in air and gas filtration (e.g. for ventilation tasks and sterile gas exchange).

Polyvinylidene difluoride (PVDF)

Slightly hydrophobic membrane for clear and sterile filtration of organic and partially organic solutions. Protein adsorption ($125 \mu\text{g}/\text{cm}^2$).

Polyamide (Nylon)

For filtration of HPLC and GC solvents as well as for the clarification and sterile filtration of aqueous, alkaline and organic solutions. Hydrophilic, resistant to many solvents. High mechanical stability.

Cellulose acetate (CA)

Hydrophilic membrane with very low protein adsorption ($3.8 \mu\text{g}/\text{cm}^2$) for biological samples (e.g. enzyme solutions, biological macromolecules) as well as for clear and sterile filtration of aqueous solutions.

Technical specifications:

Membrane Ø (mm)	15
Housing Ø (mm)	20
Housing	ultrasound welded
Housing material	PP
Sample volume (ml)	1-10
Dead volume (µl)	< 25
Total filtration capacity (ml)	0.335
Filtration area (mm ²)	177
Max. operating pressure (bar)	7
Inlet connection	Luer-Lock connector
Outlet connection	Mini-Tip

Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
0,2	RC	PP41.1	100	97,85
0,45	RC	PP42.1	100	97,85
0,2	Nylon	PP43.1	100	65,05
0,45	Nylon	PP44.1	100	65,05
0,2	PTFE	PP45.1	100	65,05
0,45	PTFE	PP46.1	100	65,05
0,2	PVDF	PP47.1	100	88,05
0,45	PVDF	PP48.1	100	88,05
0,2	CA	PP52.1	100	63,35
0,45	CA	PP53.1	100	63,35

► Luer-connectors see page 365

► Membrane filters see page 484



Cameo™ syringe filters

Sterile or non-sterile.

Nylon

Hydrophilic. Good chemical resistance, very low extractable substances content. For the filtration of organic solvents, for HPLC sample preparation and for sterile and clear filtration of biological media. High protein binding (approx. $120 \mu\text{g}/\text{cm}^2$).

Cellulose acetate (CA)

Hydrophilic. Very low protein binding (approx. $3.8 \mu\text{g}/\text{cm}^2$). For sterile filtration of biological media (proteins, enzymes, buffer, cell culture etc.), as well as for particle extraction from aqueous and alcohol-based solutions.

PTFE

Hydrophobic. Excellent chemical resistance. For filtration of aggressive substances, solvent, gases and aerosols.

Technical specifications:

Membrane Ø (mm)	17	25	30
Housing material	PP	Acrylic	PP
Sample volume (ml)	approx. 10	approx. 100	approx. 120
Retention capacity (µl)	< 15	< 60	< 60
Filtration area (cm ²)	1,4	4,1	4,8
Max. working temperature (°C)	80	55	80
Max. working pressure (bar)	8	5	8
Autoclavable	yes	no	yes
Connection	Luer lock inlet / Luer outlet		

Non-sterile, membrane-Ø 17 mm, outer Ø 22 mm

Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
0.22	PTFE	A075.2	50	91,40
0.45	PTFE	A076.2	50	91,40

Sterile, membrane Ø 25 mm, outer Ø 30 mm

Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
0.22	CA	A062.1	50	115,70
0.45	CA	A063.1	50	124,60
0.8	CA	AH51.1	50	153,75
0.22	Nylon	A071.1	50	124,60
0.45	Nylon	A072.1	50	124,60
1.2	Nylon	A073.1	50	124,60
5	Nylon	A074.1	50	124,60

Non-sterile, membrane Ø 30 mm, outer Ø 34 mm

Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
0.22	CA	AH52.1	50	117,20
0.45	CA	AH53.1	50	117,20
0.8	CA	AH54.1	50	117,20
0.22	Nylon	A068.2	50	105,05
0.45	Nylon	A069.2	50	105,05
1.2	Nylon	AH50.1	50	117,20
5,0	Nylon	A070.2	50	105,05
0.22	PTFE	A077.2	50	127,95
0.45	PTFE	A078.2	50	127,95

Syringe filters



Millex®-filter units

By Millipore.

Hydrophilic PES membrane

- For filtration of aqueous solutions

Durapore® membrane (hydrophilic PVDF)

- For clear filtration of aqueous and slightly organic solutions, membrane has very low protein binding ratios

Hydrophilic nylon membrane

- For clear filtration of aqueous and organic solutions

Hydrophilic LCR (PTFE) membrane

- Low protein binding for clear filtration of aqueous and organic solutions

Hydrophobic Fluoropore (PTFE) membrane

- For clear filtration of organic solvents

Technical specifications:

Membrane Ø (mm)	4	13	25	33
Type	non-sterile			
Housing material	HDPE			PP
Specimen volume (ml)	up to 1	up to 10	up to 100	
Dead volume (µl)	< 10	< 25	< 100	
Filtration surface area (cm ²)	0.1	0.65	3.9	4.5
Max. inlet pressure (bar)	14	7	7	8,6
Max. working temperature (°C)	45			
Inlet connection	Luer-Lock connector			
Outlet connection	Luer cone connector, stepped	Luer/*Luer cone connector with extended outlet	Luer connector	

① Millex® filter units, 4 mm

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-GV	0.22	PVDF	XE04.1	100	182,75
Millex®-HV	0.45	PVDF	XE05.1	100	184,90
Millex®-LG	0.2	Hydrophilic PTFE	XE06.1	100	182,75
Millex®-LH	0.45	Hydrophilic PTFE	XE07.1	100	182,75
Millex®-FG	0.2	Hydrophobic PTFE	XE08.1	100	176,30
Millex®-FH	0.45	Hydrophobic PTFE	XE09.1	100	176,30

② Millex® filter units, 13 mm

Incl. a Luer or *Luer cone connector with extended outlet allowing filtration into vessels with small openings.

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-GP	0.22	PES	XE10.1	100	241,90
Millex®-HP	0.45	PES	XE11.1	100	241,90
Millex®-GV	0.22	PVDF	XE12.1	100	256,95
Millex®-GV	0.22*	PVDF	XE13.1	100	266,60
Millex®-HV	0.45	PVDF	XE14.1	100	256,95
Millex®-HV	0.45*	PVDF	XE15.1	100	266,60
Millex®-GN	0.2	Nylon	XE16.1	100	242,95
Millex®-GN	0.2*	Nylon	XE17.1	100	247,25
Millex®-HN	0.45	Nylon	XE18.1	100	242,95
Millex®-HN	0.45*	Nylon	XE19.1	100	247,25
Millex®-LCR	0.45	Hydrophilic PTFE	XE20.1	100	287,05
Millex®-LCR	0.45*	Hydrophilic PTFE	XE21.1	100	301,00
Millex®-FG	0.2	Hydrophobic PTFE	XE22.1	100	252,65
Millex®-FG	0.2*	Hydrophobic PTFE	XE23.1	100	273,05
Millex®-FH	0.45	Hydrophobic PTFE	XE24.1	100	252,65
Millex®-FH	0.45*	Hydrophobic PTFE	XE25.1	100	273,05

③ Millex® filter units, 25 mm

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-LCR	0.45	Hydrophilic PTFE	XE26.1	50	212,85
Millex®-FG	0.2	Hydrophobic PTFE	XE27.1	50	251,55
Millex®-FH	0.45	Hydrophobic PTFE	XE28.1	50	208,55

Millex® filter units, 33 mm

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-GP	0.22	PES	XC98.1	50	188,15
Millex®-HP	0.45	PES	XC99.1	50	193,50
Millex®-GV	0.22	PVDF	XE00.1	50	193,50
Millex®-HV	0.45	PVDF	XE01.1	50	195,65
Millex®-GN	0.20	Nylon	XE02.1	50	188,15
Millex®-HN	0.45	Nylon	XE03.1	50	188,15



Millex®-filter units 33 mm

By Millipore.

CE-certified, sterile (individually packed).

Mixed Cellulose Ester (MCE) membrane

- Application: 0.2 µm filter units for the sterilisation of aqueous solutions, large pore sizes for prefiltration and clear filtration

- Colour code: blue
- Working capacity: max. 100 ml

Durapore® membrane (hydrophilic PVDF)

- Application: sterilisation of aqueous and protein solutions, syringe filter with lowest protein binding ratio

- Colour code: yellow
- Working capacity: max. 100 ml

Millipore Express® membrane (PES)

- Application: sterilisation of tissue culture media and additives, buffers, protein solutions, virus suspensions, DNA and other aqueous solutions

- Colour code: green
- Working capacity: max. 200 ml

Technical specifications:

Membrane Ø	33 mm
Type	sterile (individually packed)
Housing material	Modify acrylic
Dead volume	<100 µl
Filtration surface area	4.5 cm ²
Max. inlet pressure	10 bar
Max. working temperature	45 °C
Inlet connection	Luer-Lock connector
Outlet connection	Luer connector

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-GS	0.22	MCE	XC55.1	50	150,50
Millex®-HA	0.45	MCE	XC56.1	50	152,65
Millex®-AA	0.8	MCE	XC57.1	50	151,60
Millex®-VV	0.1	PVDF	XC58.1	50	180,60
Millex®-GV	0.22	PVDF	XC59.1	50	178,45
Millex®-HV	0.45	PVDF	XC60.1	50	178,45
Millex®-GP	0.22	PES	XC61.1	50	178,45
Millex®-HP	0.45	PES	XE79.1	50	164,50

Syringe filters

CHROMAFIL® syringe filters

By Macherey-Nagel.

- For clear or sterile filtration of liquids or gases, as well as for preparation of samples for use in HPLC, GC, ICP, AAS, TOC, DOC, IR, NMR, photometry, spectroscopy, etc.
- Compacted **PP** housing with very low extractable substances content and good chemical resistance.
- Autoclavable at 121 °C and 1.1 bar for 30 min.

Technical specifications:

Membrane Ø (mm)	3	15	25
Outer Ø (mm)	approx. 6	approx. 25	approx. 30
Sample volume (ml)	≤1	1-5	5-100
Dead capacity (µl)	approx. 5	approx. 35	approx. 80
Max. inlet pressure (bar)	CHROMAFIL®: 6; CHROMAFIL® Xtra: 12		
Max. operating temperature (°C)	55		
Filtration area (cm²)	approx. 0.07	approx. 1.6	approx. 4.9
Connection	Luer lock inlet/Luer or Mini-Spike outlet (MS)		



CHROMAFIL® CA and CA Xtra

By Macherey-Nagel. Hydrophilic cellulose acetate membrane for filtration of aqueous solutions. Ideal for use with biological macromolecules, water soluble oligomers and polymers.

Extremely low protein binding capacity (21 µg per 25-mm filter).

CA, unsterile

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
CA-20/25	0.20	25	XH38.1	100	122,00
CA-20/25	0.20	25	XH38.2	400	488,00
CA-45/25	0.45	25	XH39.1	100	122,00
CA-45/25	0.45	25	XH39.2	400	488,00

CA sterile (individually packed)

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
CA-20/15 MS (S)	0.20	15	XH40.1	50	95,00
CA-45/15 MS (S)	0.45	15	XH41.1	50	95,00
CA-20/25 (S)	0.20	25	XH42.1	50	95,00
CA-45/25 (S)	0.45	25	XH43.1	50	95,00

CA Xtra, unsterile

Uncoloured, low bleed 100 % PP housing for method validation and certification. Imprint for quick and easy identification of membrane type, diameter and pore size.

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
CA-20/25	0.20	25	XH44.1	100	122,00
CA-20/25	0.20	25	XH44.2	400	488,00

CHROMAFIL® RC and RC Xtra

By Macherey-Nagel. Regenerated cellulose hydrophilic membrane with very low adsorption. For filtration of aqueous and organic-aqueous solutions. Protein binding capacity: 84 µg per 25-mm filter. Unsterile.

RC

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
RC-20/15 MS	0.20	15	XH45.1	100	122,00
RC-20/15 MS	0.20	15	XH45.2	800	976,00
RC-45/15 MS	0.45	15	XH46.1	100	122,00
RC-45/15 MS	0.45	15	XH46.2	800	976,00
RC-20/25	0.20	25	EE80.1	100	125,00
RC-20/25	0.20	25	EE80.2	400	488,00
RC-45/25	0.45	25	EE81.2	400	488,00
RC-45/25	0.45	25	EE81.1	100	122,00

RC Xtra

Uncoloured, low bleed 100% PP housing for method validation and certification. Imprint for quick and easy identification of membrane type, diameter and pore size.

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
RC-20/25	0.20	25	XH47.1	100	122,00
RC-20/25	0.20	25	XH47.2	400	488,00
RC-45/25	0.45	25	XH48.1	100	122,00
RC-45/25	0.45	25	XH48.2	400	488,00

CHROMAFIL® MV and MV Xtra

By Macherey-Nagel. Hydrophilic cellulose ester composite membrane with very low adsorption for the filtration of aqueous and polar solutions. Unsterile.

MV

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
MV A-20/25	0.20	25	XH49.1	100	122,00
MV A-20/25	0.20	25	XH49.2	400	488,00
MV A-45/25	0.45	25	XH50.1	100	122,00
MV A-45/25	0.45	25	XH50.2	400	488,00

MV Xtra

Uncoloured, low bleed 100 % PP housing for method validation and certification. Imprint for quick and easy identification of membrane type, diameter and pore size.

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
MV-20/25	0.20	25	XH51.1	100	122,00
MV-20/25	0.20	25	XH51.2	400	488,00
MV-45/25	0.45	25	XH52.1	100	122,00
MV-45/25	0.45	25	XH52.2	400	488,00

CHROMAFIL® PVDF and PVDF Xtra

By Macherey-Nagel. Hydrophilic PVDF membrane for polar and nonpolar solutions, water soluble oligomers, proteins and other polymers. Protein binding capacity: 82 µg per 25-mm filter. Unsterile.

PVDF

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
PVDF-20/15 MS	0.20	15	XH69.1	100	122,00
PVDF-45/15 MS	0.45	15	XH70.1	100	122,00

PVDF Xtra

Uncoloured, low bleed 100 % PP housing for method validation and certification. Imprint for quick and easy identification of membrane type, diameter and pore size.

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
Xtra PVDF-20/25	0.20	25	XH71.1	100	122,00
Xtra PVDF-45/25	0.45	25	XH72.1	100	122,00



CHROMAFIL® PES Xtra

By Macherey-Nagel. Hydrophilic PES membrane for aqueous and slightly organic solutions. Very low adsorption of proteins, good resistance to acids and bases. Protein binding capacity: 29 µg per 25-mm filter. Uncoloured, low bleed 100 % PP housing for method validation and certification. Imprint for quick and easy identification of membrane type, diameter and pore size. Unsterile.

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
PES-20/25	0.20	25	XH73.1	100	122,00
PES-20/25	0.20	25	XH73.2	400	488,00
PES-45/25	0.45	25	XH74.1	100	122,00
PES-45/25	0.45	25	XH74.2	400	488,00
PES-500/25	5.0	25	XH75.1	100	122,00
PES-500/25	5.0	25	XH75.2	400	488,00

CHROMAFIL® PET and PET Xtra

By Macherey-Nagel. Hydrophilic PET all-round membrane for polar and nonpolar solutions. Ideal for filtering eluents from water and organic solvents for HPLC and for the preparation of samples for TOC/DOC determination. Non-cytotoxic, does not inhibit the growth of micro-organisms and higher eucaryotic cells. Unsterile.

PET

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
PET-20/15 MS	0.20	15	P300.1	100	122,00
PET-45/15 MS	0.45	15	P301.1	100	122,00
PET-20/25	0.20	25	P298.1	100	122,00
PET-20/25	0.20	25	P298.2	400	488,00
PET-45/25	0.45	25	P299.1	100	122,00
PET-45/25	0.45	25	P299.2	400	488,00

PET Xtra

Uncoloured, low bleed 100 % PP housing for method validation and certification. Imprint for quick and easy identification of membrane type, diameter and pore size.

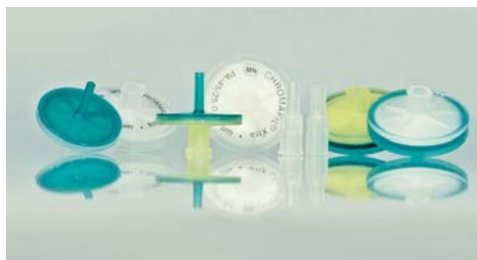
Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
PET-20/25	0.20	25	XH76.1	100	122,00
PET-20/25	0.20	25	XH76.2	400	488,00
PET-45/25	0.45	25	XH77.1	100	122,00
PET-45/25	0.45	25	XH77.2	400	488,00

CHROMAFIL® GF/PET

By Macherey-Nagel. Hydrophilic PET all-round membrane for polar and nonpolar solutions. Ideal for filtering eluents from water and organic solvents.

Recommended for solutions with a high suspended matter load or high viscosity solutions; the glass-fibre membrane removes coarse particulate matter and prevents clogging of the membrane. This improves filtration efficiency, increases filtrate yield and aids clarification of solutions with a high particulate matter load. Unsterile.

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
GF/PET-20/25	1.0/0.20	25	EE78.1	100	154,00
GF/PET-45/25	1.0/0.45	25	EE79.1	100	154,00



CHROMAFIL® Nylon PA and PA Xtra

By Macherey-Nagel. PA (Nylon) membrane for the filtration of medium polar organic-aqueous liquids. Non-sterile.

PA

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
AO-20/3	0.20	3	XH53.1	100	148,00
AO-45/3	0.45	3	XH54.1	100	148,00
AO-20/15 MS	0.20	15	XH55.1	100	122,00
AO-45/15 MS	0.45	15	XH56.1	100	122,00
AO-20/25	0.20	25	XH57.1	100	122,00
AO-20/25	0.20	25	XH57.2	400	488,00
AO-45/25	0.45	25	XH58.1	100	122,00
AO-45/25	0.45	25	XH58.2	400	488,00

PA Xtra

Uncoloured, low bleed 100 % PP housing for method validation and certification. Imprint for quick and easy identification of membrane type, diameter and pore size.

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
PA-20/25	0.20	25	XH59.1	100	122,00
PA-20/25	0.20	25	XH59.2	400	488,00
PA-45/25	0.45	25	XH60.1	100	122,00
PA-45/25	0.45	25	XH60.2	400	488,00

CHROMAFIL® PTFE and PTFE Xtra

By Macherey-Nagel. Hydrophobic PTFE membrane for nonpolar liquids and gases. Highly resistant to solvents, acids and bases. Unsterile.

Note: the membrane can be wetted with water by rinsing with alcohol and subsequently with water.

PTFE

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
O-20/3	0.20	3	XH61.1	100	148,00
O-45/3	0.45	3	XH62.1	100	148,00
O-20/15 MS	0.20	15	XH63.1	100	122,00
O-45/15 MS	0.45	15	XH64.1	100	122,00
O-20/25	0.20	25	XH65.1	100	122,00
O-20/25	0.20	25	XH65.2	400	488,00

PTFE Xtra

Uncoloured, low bleed 100 % PP housing for method validation and certification. Imprint for quick and easy identification of membrane type, diameter and pore size.

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
PTFE-20/25	0.20	25	XH66.1	100	122,00
PTFE-20/25	0.20	25	XH66.2	400	488,00
PTFE-45/25	0.45	25	XH67.1	100	122,00
PTFE-100/25	1.0	25	XH68.1	100	122,00

Filter units



SPARTAN®-syringe filters

By Whatman. Certified for HPLC.

Hydrophilic. Specially developed for purifying HPLC-samples. Ideal for filtering aqueous and organic solutions.

Technical specifications:

Membrane-Ø (mm)	30	13
Sample capacity (ml)	max. 100	max. 5
Dead capacity (µl)	50	10
Filter surface (cm ²)	5.7	0.75
Max. working pressure (bar)	7.0	
Max. working temperature (°C)	80	
Connection	Luer-Lock inlet / Luer outlet	

Nominal-Ø 13 mm, Ø outer 17 mm

Pore size (µm)	Membrane material	Colour code	Material housing	Art. No.	Pack Qty.	€
0,2	reg. Cellulose	dark brown	PP	5989.2	100	200,00
0,45	reg. Cellulose	light brown	PP	5992.2	100	200,00

Membrane-Ø 30 mm, Ø outer 34 mm

Pore size (µm)	Membrane material	Colour code	Material housing	Art. No.	Pack Qty.	€
0,2	reg. Cellulose	dark brown	PP	5824.2	100	235,00
0,45	reg. Cellulose	light brown	PP	0062.2	100	227,00



ReZist®-syringe filters

By Whatman. **Hydrophobic.** Ideal for ventilation, gas filtration and HPLC-sample preparation of organic solvents. Luer-Lock inlet/Luer outlet.

Membrane-Ø 30 mm, outer 34 mm

Pore size (µm)	Membrane material	Colour code	Material housing	Art. No.	Pack Qty.	€
0,2	PTFE	white	PP	5994.2	100	314,00
0,45	PTFE	green	PP	5996.2	100	314,00
1	PTFE	yellow	PP	5998.2	100	314,00
5	PTFE	grey	PP	6000.2	100	314,00



Millex®-HPF filter units

By Millipore.

For clear filtration of solutions with a high particle load prior to instrument based assay.

- With graduated glass fibre prefilter (10.0 to 0.7 µm)
- Two to four times the throughput of syringe filters without a prefilter
- Polyethylene housing with a low extractable substances content

Hydrophilic nylon membrane

- With glass fibre prefilter for clear filtration of aqueous and slightly organic solutions with a high particle load

Durapore® membrane (hydrophilic PVDF)

- Very low protein binding
- With glass fibre prefilter for clear filtration of protein solutions with a high particle load

Hydrophilic PTFE membrane

- Low protein binding
- With glass fibre prefilter for clear filtration of aqueous and organic solutions with a high particle load

Technical specifications:

Membrane Ø	25 mm
Type	non-sterile
Housing material	HDPE
Specimen volume	up to 100 ml
Dead volume	< 250 µl
Filtration surface area	3.9 cm ²
Max. inlet pressure	7 bar
Max. working temperature	45 °C
Inlet connection	Luer-Lock connector
Outlet connection	Luer connector

Type	Pore size (µm)	Membrane material	Art. No.	Pack Qty.	€
Millex®-GN	0.2	Nylon	XE30.1	50	177,40
Millex®-HN	0.45	Nylon	XE31.1	50	195,65
Millex®-HV	0.45	PVDF	XE32.1	50	195,65
Millex®-LLG	0.2	PTFE	XE33.1	50	181,70
Millex®-LCR	0.45	PTFE	XE34.1	50	179,55

► Tube pumps see page 335

Filter units



Millex®-PTFE-filter units IC

By Millipore. **IC-certified.**
Specially designed for sample preparation in ion chromatography.

- Low extractable substances content
- Low-binding hydrophilic PTFE membrane
- For clear filtration of aqueous and slightly organic solutions

Technical specifications:

Membrane Ø (mm)	13	25
Type	non-sterile	
Housing material	HDPE	
Sample volume (ml)	up to 10	up to 100
Dead volume (µl)	< 25	< 100
Max. inlet pressure (bar)	7	
Max. working temperature (°C)	45	
Inlet connection	Luer-Lock connector	
Outlet connection	Luer connector	

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
Millex®-LG	0.20	13	XE82.1	100	289,20
Millex®-LG	0.20	25	XE83.1	50	231,15
Millex®-LH	0.45	13	XE84.1	100	293,50
Millex®-LH	0.45	25	XE85.1	50	284,90



Millex®-PES-filter units

By Millipore. Express® (PES) membranes, with low protein binding and high flow speed. For sterile filtration of cell culture media or other aqueous solutions. Filling cone optional, reduces the risk of contamination.

Technical specifications:

Version	sterile
Housing material	MBS
Membrane	PES
Filtration surface	19.6 cm²
Dead volume	< 1000 µl after emptying with air
Max. temperature	45 °C
Max. pressure	3.4 bar
Input and output connection	graded hose connection (Ø 6-13 mm) and Luer-cone inside

Type	Membrane Ø (mm)	Filtration-volume (l)	Pore size (µm)	Art. No.	Pack Qty.	€
Millex®-GP	50	4	0,22	CY11.1	10	126,85
Millex®-GP with filling cone	50	4	0,22	CY12.1	10	141,90



Millex®-PTFE-filter units

By Millipore. For sterile filtration of gases, sterile venting of containers and for sterilisation and clear filtration of organic solutions. Also suitable for preventing ingress of fluid contamination in following pumps and other instruments.

Technical specifications:

Version	unsterile
Housing material	PP
Membrane	PTFE
Filtration surface	19.6 cm²
Max. temperature	121 °C
Max. pressure	4 bar
Input and output connection	graded hose connection (Latex) (Ø 6-13 mm) with Luer-cone inside

Type	Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
Millex®-FG	0,22	50	CY06.1	10	122,55
Millex®-FH	0,45	50	CY07.1	10	122,55
Millex®-FA	1.0	50	CY08.1	10	122,55

Millex®-fibre-glass filter units

By Millipore. Ideal for prefiltrating difficult-to-filter solutions and liquids with high particle densities. Protects downstream membranes from rapid blocking. Retention range ca. 2,0 µm.

Technical specifications:

Membrane-Ø	25 mm	50 mm
Model	unsterile	
Filtration volume (ml)	100	4000
Housing material	PVC	
Membrane	Fibre-glass	
Filtration surface (cm²)	3.9	19.6
Dead volume (µl)	<100	<1000
Max. working temperature (°C)	45	
Max. pressure (bar)	5	4.1
Input connection	female Luer-Lock inside	graded hose connection with Luer-cone inside
Output connection	male Luer-cone outside	graded hose connection (Ø 6-13 mm) with Luer-cone inside

Type	Membrane Ø (mm)	Art. No.	Pack Qty.	€
Millex®-AP	25	CY09.1	50	106,45
Millex®-AP	50	CY10.1	10	58,40

Filter units



Sterivex™-filter units

By Millipore. For sterile filtration of aqueous liquids for volumes up to 1 or 2 l. Filter units can be operated with syringes or hose pumps. Filling cone optional, to reduce the risk of contamination.

Technical specifications:

Model	sterile (gamma sterilized)
Housing material	Eastar®
Filtration surface	10 cm ²
Dead volume	< 200 µl after emptying with air
Max. temperature	45 °C
Max. pressure	3 bar
Input connection	female Luer-Lock
Output connection	with or without filling cone (male Luer-Lock)

Durapore® (PVDF) membrane with extremely low protein binding, filtration volume 1 l.

Type	Pore size (µm)	Art. No.	Pack Qty.	€
Sterivex™-GV with filling cone	0,22	CT79.1	10	135,45
Sterivex™-GV without filling cone	0,22	CT80.1	15	163,40
Sterivex™-HV with filling cone	0,45	CT81.1	10	135,45
Sterivex™-HV without filling cone	0,45	CT82.1	15	163,40

Millipore Express® (PES) membrane with low protein binding and high rate of flow, filtration volume 2 l.

Type	Pore size (µm)	Art. No.	Pack Qty.	€
Sterivex™-GP with filling cone	0,22	CT83.1	10	124,70
Sterivex™-GP without filling cone	0,22	CT84.1	15	163,40



Steripak™-filter units

By Millipore. **For sterile filtration of volumes up to 20 l.**

With Millipore Express® (PES) membranes with high rates of flow and low protein binding. **Sterile** and ready-to-use in operations with hose pumps or pressure chambers.

- The filling cone on the output side of unit makes the sterilisation process safer
- Manual air vent prevent air blocking of membrane
- For sterile filtration of tissue culture media, buffers and other aqueous solutions

Technical specifications:

Version	sterile
Housing material	SAN
Membrane	PES (hydrophilic polyether sulfone)
Ø	76 mm
Dead volume	< 2700 µl after emptying with air
Max. temperature	45 °C
Max. pressure	5.2 bar (in direction of flow)
Input connection	graded hose connection (Ø 6-8 mm)
Output connection	graded hose connection and filling cone

Millipore Express® (PES) membrane

With low protein formation and high flow speed, sterile.

Filtrationvolume (l)	Pore size (µm)	Filtration surface (cm ²)	Art. No.	Pack Qty.	€
10	0,22	100	CT85.1	3	160,20
20	0,22	200	CT86.1	3	198,90

► Tube pumps see page 335

Centrifuge filter systems



Ultrafree filtration systems for laboratory centrifuges

By Millipore. **Sterile** or non-sterile. Centrifuge filter systems for volumes from 0.5 to 2.0 ml. Use in fixed-angle rotors for 1.5 or 2.0 ml sample tubes. Filter unit and sample tube are made of PP.

- **Hydrophilic Durapore® PVDF membrane:** extremely low protein binding. Suitable for removal of particulate matter and precipitate from aqueous samples, and for protein and nucleic acid applications
- **Hydrophilic PTFE membrane:** for removal of precipitate from solvent-based samples

Technical specifications:

Type	Ultrafree-MC	Ultrafree-CL
Max. volume (ml)	0.5	2
Centrifugable to	12000 x g	5000 x g
Dead volume (µl)	5	10
Membrane surface area (cm ²)	0.2	0.8
Outer Ø (mm)	10.6	16.3
Length (mm)	45	77

Procedure:

- Place the insert in the housing
- Fill the insert with the volume of sample
- Close the filtration unit using the attached lid and place it in the centrifuge
- On completion of centrifuging, remove the filtration unit, open the lid and remove the insert
- The insert contains the residue and the sealable housing contains the filtrate

Ultrafree-MC to 0.5 ml, PVDF membrane

Pore size (µm)	Type	Colour code	Art. No.	Pack Qty.	€
0.1	non-sterile	orange	T341.1	25	127,95
0.22	non-sterile	yellow	T342.1	25	127,95
0.22	sterile	yellow	XH78.1	50	244,05
0.45	non-sterile	red	T343.1	25	127,95
0.65	non-sterile	purple	T344.1	25	127,95
0.65	sterile	purple	XH79.1	50	238,65
5.0	non-sterile	dark green	XH80.1	100	404,20

Ultrafree-MC to 0.5 ml, PTFE membrane

Pore size (µm)	Type	Colour code	Art. No.	Pack Qty.	€
0.2	non-sterile	yellow	XH81.1	25	155,90
0.45	non-sterile	red	XH82.1	25	155,90

Ultrafree-CL to 2.0 ml, PVDF membrane

Pore size (µm)	Type	Colour code	Art. No.	Pack Qty.	€
0.1	non-sterile	orange	T345.1	25	158,05
0.22	non-sterile	yellow	T346.1	25	158,05
0.22	sterile	yellow	XH83.1	50	289,20
0.45	non-sterile	red	T347.1	25	158,05
0.65	non-sterile	purple	XH84.1	25	158,05
5.0	non-sterile	dark green	XH85.1	25	158,05

Ultrafree-CL to 2.0 ml, PTFE membrane

Pore size (µm)	Type	Colour code	Art. No.	Pack Qty.	€
0.22	non-sterile	yellow	XH86.1	25	158,05
0.45	non-sterile	red	XH87.1	25	158,05



Centrifuge filter systems Midi

With hydrophilic PET-membrane. **Sterile.** Suitable for removal of particles or sterile filtration of very small sample volumes (aqueous and viscous liquids) via centrifugation. PET-membrane with defined pore sizes 0.2 and 0.45 µm.

Applications: biological research and development, HPLC-sample preparation etc.

- PET-membrane: extremely low protein binding properties, high chemical resistance
- Biologically inert - in compliance with USP Class VI
- Autoclavable

Fits 15 ml centrifuge tubes N459.1, please order separately.

Technical specifications:

Version	sterile
Housing material	PP
Membrane material	PET
Filtration surface	0.85 cm ²
max. sample volume	5 ml
Centrifugable up to	3400 x g
Ø outside	8,8 mm
Length	57 mm

Pore size (µm)	Art. No.	Pack Qty.	€
0,2	EL91.1	50	233,30
0,45	EL92.1	50	233,30

- Centrifuges see page 1039
- Microcentrifuge tube see page 453
- Centrifuge tubes see page 73

Centrifuge filter systems



Steriflip®-vacuum filter units

By Millipore. Sterile filter units for volumes of up to 50 ml.

- **Millipore Express® PES membrane** with high flow rate and low protein binding: for routine sterile filtration of tissue culture media, sera, buffers and other aqueous solutions
- **Durapore® PVDF membrane** with very low protein binding: For sterile and clear filtration of aqueous solutions
- **Hydrophilic Nylon mesh filter:** for removing coarse particulate matter

Technical specifications:

Type	sterile
Housing material	MBS/PP (modified acrylic/PP) housing
Filtration area	7 cm ²
Filtration volume	max. 50 ml
Membrane surface area (cm ²)	0.2
Dead volume	600 µl
Max. operating temperature	45 °C

Procedure:

- Connect the filter unit to the centrifuge tube containing the sample. Rotate the filter unit through 180° and apply vacuum.
- An alternative option: screw the funnel attachment onto the sterile filter unit, fill with sample and apply vacuum
- No need for filtrate transfer - Steriflip® filter unit filters directly into a sterile 50 ml centrifuge tube

Delivery incl. sterile filter units with connected 50 ml centrifuge tube and lid (each packed separately) and a single tube holder (blue). The 50 ml centrifuge tube and funnel attachment are optional (please order separately).

Membrane material	Pore size (µm)	Art. No.	Pack Qty.	€
PES	0.22	X348.1	25	161,25
PVDF	0.22	XE99.1	25	186,00
PVDF	0.45	XH00.1	25	186,00
Nylon mesh	20	XH01.1	25	180,60
Nylon mesh	40	XH02.1	25	180,60
Nylon mesh	60	XH03.1	25	180,60
Nylon mesh	100	XH04.1	25	180,60

Accessories:

50 ml centrifuge tube	N462.1	500	128,50
Funnel attachment, 50 ml, PP, non-sterile	XH05.1	25	104,95



Stericup®-vacuum filter systems

By Millipore. Combination of bottle top filter and collecting bottle.

- For routine sterile filtration of tissue culture media, serum, additives and other aqueous solutions
- Low protein binding
- High flow rates - short filtration times
- Vacuum filter systems for volumes of 150 to 1000 ml
- The compact form makes it ideal for use under laminar flow conditions
- 0.1 µm pore size for mycoplasma-precipitation
- Bottles are stackable

Technical specifications:

Membrane	Express® Plus Membrane (PES)	Durapore® (PVDF)-Membranes
Pore size (µm)	0.1* / 0.22	0.22 / 0.45
Design		Sterile
Housing material/Lid		PS/PE
Membrane-Ø (mm)		73
Filtration surface (cm ²)		40
Max. temperature (°C)		50
Connection	Vacuum tube connection Ø 6.5 - 12 mm	

*Millipore Express Membrane (PES)

MILLIPORE Express® PLUS (PES)-membrane

Pore size (µm)	Funnel capacity (ml)	Dripbottle (ml)	Art. No.	Pack Qty.	€
0.1*	250	250	CX01.1	12	137,60
0.22	150	150	X338.1	12	103,00
0.22	250	250	X339.1	12	124,70
0.22	500	500	X340.1	12	190,30
0.22	500	1000	X341.1	12	262,30
0.22	1000	1000	X342.1	12	275,20

Durapore® (PVDF)-membrane with extremely low protein binding

Pore size (µm)	Funnel capacity (ml)	Dripbottle (ml)	Art. No.	Pack Qty.	€
0.22	150	150	CT87.1	12	103,10
0.22	250	250	CT88.1	12	127,95
0.22	500	500	CT89.1	12	195,65
0.22	500	1000	CT90.1	12	265,55
0.22	1000	1000	CT91.1	12	276,30
0.45	150	150	CT92.1	12	103,10
0.45	250	250	CT93.1	12	126,85
0.45	500	500	CT94.1	12	194,60
0.45	1000	1000	CT96.1	12	280,60

Bottle-Top filter systems



Steritop™-bottle top filters

By Millipore.

- Casing made of polystyrene
- **Sterile**
- For sterile filtration of tissue culture media, serum, additives, buffers and other aqueous solutions
- Low protein binding
- High flow rates - short filtration times
- Can be used with screw thread bottles 45 mm suitable for vacuum or GL 45
- Filtration surface 40 cm²

MILLIPORE Express® PLUS (PES)-membrane

Pore size (µm)	Funnel capacity (ml)	Art. No.	Pack Qty.	€
0.22	150	X334.1	12	85,40
0.22	250	X335.1	12	103,10
0.22	500	X336.1	12	124,70
0.22	1000	X337.1	12	202,10

Durapore® (PVDF)-membrane

Pore size (µm)	Funnel capacity (ml)	Art. No.	Pack Qty.	€
0.22	500	CT99.1	12	125,80



Stericup®-bottles

By Millipore. Filtrate collecting bottles for Steritop™ and Stericup® filter systems.

Made of PS. **Sterile**. Screw cap made of PE. Thread 45 mm.

Volume (ml)	Art. No.	Pack Qty.	€
250	CX04.1	12	49,90
500	CX05.1	12	64,30
1000	CX06.1	12	103,10

- ▶ Water jet pumps see page 354
- ▶ Vacuum and compression-proof screw neck bottles see page 37
- ▶ Glass bottles see page 31



Filter units with cellulose nitrate membrane

By Nalgene®. Triton-free cellulose nitrate membrane (CN) with excellent active surface properties and high flow rates for aqueous solutions. For cold-sterilization, clear-filtration, pre-filtration and ultra-filtration of buffers, microbiological nutrient media and other aqueous solutions.

Design:

- Green colour coding
- Filter units made of PS
- Graduated filter tops and filter bottles
- With quick-connect tube adapter and cotton stopper
- Leakproof screw-cap
- Filtration units are non pyrogenic, non cytotoxic and **sterile**

*each box contains 12 glass fiber preliminary filters

Pore size (µm)	Membrane Ø (mm)	Volume (ml) Filter top/Filter bottle	Colour of membrane/Grid	Art. No.	Pack Qty.	€
0,2	50	150/150	white/none	AC48.1	12	106,45
0,45	50	150/150	white/green	AC49.1	12	106,45
0,8	50	150/150	white/black	AC50.1	12	106,45
0,2	50	250/250	white/none	AC51.1	12	118,25
0,45	50	250/250	white/green	AC52.1	12	118,25
0,8	50	250/250	white/black	AC53.1	12	118,25
0,2*	75	500/500	white/none	AC54.1	12	192,45
0,45*	75	500/500	white/green	AC55.1	12	192,45
0,8*	75	500/500	white/black	AC56.1	12	192,45
0,2*	75	500/1000	white/none	AC57.1	12	238,65
0,45*	75	500/1000	white/green	AC58.1	12	238,65
0,8*	75	500/1000	white/black	AC59.1	12	238,65



Filtrate bottles for bottle-top-filter

By Nalgene®. Made of PS. Thread 45 mm. Screw cap made of PE, closed with 1½ turns. Non-pyrogen, non-cytotoxic, γ-sterile. **Suitable for all bottle-top filters and filtration devices, Art. Nos AC08.1 to AC59.1.**

Volume (ml)	Art. No.	Pack Qty.	€
150	AC60.1	24	103,20
250	AC61.1	24	113,95
500	AC62.1	12	80,55
1000	AC63.1	12	118,25

- ▶ Vacuum pumps see page 340
- ▶ Vacuum tubes see page 356

Bottle-Top filter systems



Filter units with SFCA-membrane

By Nalgene®. Membranes made from cellulose acetate that is free of active surface agents (SFCA) with extremely low protein binding and low viscosity. SFCA is ideal when working with tissue culture and when filtering protein-containing serum as there are no active surface agents in the membranes which could have a toxic effect on the cells.

Design:

- Yellow colour coding
- Filter units made of PS
- Graduated filter tops and filter bottles
- With quick-connect tube adapter and cotton stopper
- Leakproof screw-cap
- Filtration units are non pyrogenic, non cytotoxic and **sterile**

*each box contains 12 glass fiber preliminary filters

Pore size (µm)	Membrane Ø (mm)	Volume (ml)	Art. No.	Pack Qty.	€
0,2	50	150	AC23.1	12	110,75
0,45	50	150	AC24.1	12	110,75
0,2	50	250	AC25.1	12	119,35
0,45	50	250	AC26.1	12	119,35
0,2*	75	500	AC27.1	12	195,65
0,45*	75	500	AC28.1	12	195,65
0,2	90	500	AC29.1	12	233,30
0,45	90	500	AC30.1	12	233,30
0,2	90	1000	AC31.1	12	283,80
0,45	90	1000	AC32.1	12	283,80



Filter units with PES-membrane

By Nalgene®. With hydrophilic Polyethersulfone membranes (PES) for biological sterile filtrations. Low protein binding properties, high chemical stability and high flow rates. No undesired substances are released in the media as the membranes contain no active surface agents or softeners.

Design:

- Blue colour coding
- Filter units made of PS
- Graduated filter tops and filter bottles
- With quick-connect tube adapter and cotton stopper
- Leakproof screw-cap
- Filtration units are non pyrogenic, non cytotoxic and **sterile**

*with Supor® PES-Membrane

Pore size (µm)	Membrane Ø (mm)	Volume (ml)	Art. No.	Pack Qty.	€
0,2*	50	150	AC08.1	12	105,35
0,45	50	150	AC09.1	12	111,80
0,2*	50	250	AC10.1	12	118,25
0,45	50	250	AC11.1	12	126,85
0,2*	75	500	AC12.1	12	189,20
0,45	75	500	AC13.1	12	197,80
0,2*	90	500	AC14.1	12	221,45
0,45	90	500	AC15.1	12	232,20
0,2*	90	1000	AC16.1	12	237,60
0,45	90	1000	AC17.1	12	248,35



Bottle-top filters with SFCA-membrane

By Nalgene®. Filter with SFCA-membrane for screwing on bottles with 45 mm thread. The leakproof screw-on top enables vacuum filtration directly into a sterile bottle.

Design:

- Yellow colour coding
- Graduated filter top
- Quick-connect tube adapter for tubes with inner Ø 6-8 mm
- Leakproof screwing for vacuum filtration
- Filtration units are non pyrogenic, non cytotoxic and **sterile**

Pore size (µm)	Membrane Ø (mm)	Volume (ml)	Art. No.	Pack Qty.	€
0,2	50	150	AC33.1	12	81,70
0,45	50	150	AC34.1	12	81,70
0,2	75	500	AC35.1	12	117,20
0,45	75	500	AC36.1	12	117,20
0,2	90	1000	AC37.1	12	206,40



Bottle-top filters with PES-membrane

By Nalgene®. Filter with PES-membrane for bottles with 45 mm thread. The leakproof screw top enables vacuum filtration directly into a sterile bottle.

Design:

- Blue colour coding
- Graduated filter top
- Quick-connect tube adapter for tubes with inner Ø 6-8 mm
- Leakproof screwing for vacuum filtration
- Filtration units are non pyrogenic, non cytotoxic and **sterile**

*with a Supor® PES-Membrane

Pore size (µm)	Membrane Ø (mm)	Volume (ml)	Art. No.	Pack Qty.	€
0,2*	50	150	AC18.1	12	81,60
0,45	50	150	AC19.1	12	87,40
0,2*	75	500	AC20.1	12	106,45
0,45	75	500	AC21.1	12	112,90
0,2*	90	1000	AC22.1	12	219,30

Bottle-Top filter systems



Filter units with nylon membrane

By Nalgene®. Suitable for sterile filtration of nutrient media or sensitive cell and tissue cultures. Alcohol-resistant **nylon** membranes with extremely low content (<0.5 weight percentage) of extractable substances and high flow rates at short filtration times. Hydrophilic and free from active surface agents.

Design:

- Red colour coding
- Filter units made of PS
- Graduated filter tops and filter bottles
- With quick-connect tube adapter and cotton stopper
- Leakproof screw-cap
- Filtration units are non pyrogenic, non cytotoxic and **sterile**

*each box contains 12 glass fiber preliminary filters

Pore size (µm)	Membrane Ø (mm)	Volume (ml) Filter top/Filter bottle	Art. No.	Pack Qty.	€
0,2	50	150/150	AC38.1	12	132,25
0,45	50	150/150	AC39.1	12	132,25
0,2	50	250/250	AC40.1	12	143,00
0,45	50	250/250	AC41.1	12	143,00
0,2*	75	500/500	AC42.1	12	223,60
0,45*	75	500/500	AC43.1	12	223,60
0,2*	75	500/1000	AC44.1	12	278,45
0,45*	75	500/1000	AC45.1	12	278,45
0,2	90	500/500	AC46.1	12	278,45
0,2	90	1000/1000	AC47.1	12	310,70



Filter funnels

By Nalgene®. Made of **PSF**. Graduated. Suitable for use with 47 to 50 mm diaphragms. Autoclavable.

Delivery incl. suction sleeve, fits suction bottles with neck inner Ø 30 to 38 mm.

Funnel capacity (ml)	Art. No.	Pack Qty.	€
250	ATC8.1	1	127,95
500	ATC9.1	1	181,70

Replacement suction sleeves

Made of thermoplastic elastomer. Outer Ø 40 mm at top, 28 mm at bottom. Height 30 mm, wall thickness 3 mm.

Art. No.	Pack Qty.	€
ATE0.1	6	55,70



Reusable filtration systems

By Nalgene®. Filter holders with filtrate bottle made of **PSF**, with graduation. Suitable for vacuum filtration with 47 mm or 50 mm membranes. 2 tube connectors for tubes with inner-Ø 6-8 mm. With cap for sterile storage of filtrate. Autoclavable.

Delivery incl. filter holder and -bottle.

Volume of upper part (ml)	Volume of collecting bottle (ml)	Art. No.	Pack Qty.	€
250	250	KA84.1	1	125,80
500	500	KA85.1	1	181,70
500	1000	KA86.1	1	229,00



Reusable bottle-top filter holders

By Nalgene®. Made of **PSF**. For screwing on vacuum-tight bottles with thread size 45 mm. Suitable for vacuum filtration with 47 mm or 50 mm membranes. With graduation. Tube connection for tubes with inner-Ø 6-8 mm. Autoclavable.

Volume of upper part (ml)	for thread (mm)	Art. No.	Pack Qty.	€
500	33	KA89.1	1	187,05
500	45	KA90.1	1	187,05

► Vacuum and compression-proof screw neck bottles see page 37

Filter units and filter holder



DURAN GROUP

Material
DURAN®



Filters made of DURAN®

- Interchangeable filter plates available in 4 different porosities
- Easy and safe removal of filtered medium
- Filter plates can be cleaned on both sides
- Attention: insert disc between two Viton®-seals
- Optional: Slit sieve plates can be inserted into 250 ml filters to hold membrane and paper filters

Delivery incl. Filter attachment made of DURAN® with PP funnel and 2 Viton®-sealing gaskets.

Please order filter plates separately!

Volume (ml)	for plate (mm)	Thread (mm)	Filtershaft outer Ø (mm)	Art. No.	Pack Qty.	€
30	24	28	10	1631.1	1	17,80
250	50	54	12	1632.1	1	42,00
1000	90	95	18	CT08.1	1	95,80

Slit sieve plate

Ideal as holder for membrane and paper filters with Ø 47 mm. Suitable for 1632.1.

Art. No.	Pack Qty.	€
N886.1	1	22,85

Filter plates

With glass rim.

For 30-ml unit; for filter-Ø 25 mm.

Porosity	Art. No.	Pack Qty.	€
1 (100 - 160 µm)	1633.1	1	23,20
2 (40 - 100 µm)	1634.1	1	23,20
3 (16 - 40 µm)	1635.1	1	23,20
4 (10 - 16 µm)	1636.1	1	25,20

For 250-ml unit; for filter-Ø 50 mm.

Porosity	Art. No.	Pack Qty.	€
1 (100 - 160 µm)	1637.1	1	32,65
2 (40 - 100 µm)	1638.1	1	32,65
3 (16 - 40 µm)	1639.1	1	32,65
4 (10 - 16 µm)	1640.1	1	34,60

For 1000-ml unit; for filter-Ø 90 mm.

Porosity	Art. No.	Pack Qty.	€
1 (100 - 160 µm)	CT09.1	1	43,90
2 (40 - 100 µm)	CT10.1	1	43,90
3 (16 - 40 µm)	CT11.1	1	43,90
4 (10 - 16 µm)	CT12.1	1	47,00

Spare filter attachments made of DURAN®

For filters.

For volumes (ml)	for plate (mm)	Thread (mm)	Art. No.	Pack Qty.	€
30	24	28	CX98.1	1	11,90
250	50	54	CX99.1	1	34,35
1000	90	95	CY00.1	1	88,60

Spare sealing gaskets made of Viton®

For filters made of DURAN®.

For volumes (ml)	for plate (mm)	Thread (mm)	Art. No.	Pack Qty.	€
30	24	28	CT13.1	10	11,45
250	50	54	CT14.1	10	30,00
1000	90	95	CT15.1	10	59,50



Programme extension!

DURAN GROUP



Vacuum filtration unit

Made of borosilicate glass. For coarse and membrane filtration, residue analysis, particulate monitoring, microbiology as well as filtration of alkaline and aggressive media.

Suitable for use with filter papers, membrane filters or glass filters. Temperature stable up to +180 °C. Autoclavable.

- Parts in contact with media are made of glass and PTFE, therefore are suitable for universal use, biologically inert and corrosion resistant
- Scaled reservoir for easier metering and evaluation
- Plates are optionally available in porosity grades of 1-4, which means they are also suitable for analytical filtration
- Fast and easy to clean

Technical specifications:

Funnel capacity	250 ml
Bottle capacity	1000 ml
Filter size Ø	47 / 50 mm
Connections	Hose coupling, suitable for hoses of 5-8 mm inner Ø

Delivery incl. slotted sieve plate as filter holder and glass filter plate, por. grade 2.

Art. No.	Pack Qty.	€
XT09.1	1	436,00

DURAN® adapter from NS 45/40 to GL 45 for vacuum filtration unit
Made of PTFE. Allows use of the DURAN® filtration unit (NS 45/40 connection) with vacuum resistant GL 45 laboratory bottles.

Art. No.	Pack Qty.	€
CCX4.1	1	90,90

Accessories:

Replacement reservoir with scale, 250 ml	XT10.1	1	107,00
Replacement PTFE adapter plate	XT11.1	1	73,20
Replacement clamp (anodised aluminium)	XT12.1	1	89,00
Replacement attachment NS 45/40	XT13.1	1	111,00
Replacement DURAN®-suction bottle NS 45/50, 1000 ml	XT14.1	1	56,30
Replacement plastic hose connection with silicone seal, straight, GL 14, outer- Ø 8.6 mm	L992.1	2	3,10
Replacement screw caps, red, PBT, GL 14, hole Ø 9.5 mm	L993.1	2	3,25
Replacement DURAN®-slotted sieve plate, Ø 48 mm	N886.1	1	22,85
DURAN®-glass filter plate, Ø 50 mm, por. grade 1 (100-160 µm)	1637.1	1	32,65
DURAN®-glass filter plate, Ø 50 mm, por. grade 2 (40-100 µm)	1638.1	1	32,65
DURAN®-glass filter plate, Ø 50 mm, por. grade 3 (16-40 µm)	1639.1	1	32,65
DURAN®-glass filter plate, Ø 50 mm, por. grade 4 (10-16 µm)	1640.1	1	34,60

Filter units and filter holder



Material
DURAN®
 121°C

Vacuum filter unit GV 050/2

By Whatman. Made of DURAN®. With glass frit as filter support. Especially suitable for analysis of microscopic residue, particle control, filtration of alkaline and aggressive solutions and buffer solutions for HPLC. Biologically inert and non-corrosive. Autoclavable.

Technical specifications:

Funnel capacity	250 ml
Flask capacity	1000 ml
For filters Ø	47/50 mm
Connectors	suitable for tubes 5 - 8 mm Ø inner
Size (Length x Ø)	450 x 135 mm (without clip)
Weight	1122 g

Art. No.	Pack Qty.	€
5986.1	1	558,00

Spare parts for filter unit GV 050/2

Glass vessel 250 ml

Art. No.	Pack Qty.	€
H427.1	1	106,00

Glass frit Ø 40 mm

Art. No.	Pack Qty.	€
H430.1	1	48,10

PTFE-centering ring, inner-Ø 40 mm, outer-Ø 57 mm

Art. No.	Pack Qty.	€
H431.1	1	18,60

Spring clamp

Art. No.	Pack Qty.	€
H433.1	1	110,00

Bottom part with ground-in sleeve NS 45

Art. No.	Pack Qty.	€
H428.1	1	144,00

Erlenmeyer 1000 ml with ground cone NS 45

Art. No.	Pack Qty.	€
H429.1	1	155,00

Plastic-olive, straight

Art. No.	Pack Qty.	€
L992.1	2	3,10

Screw cap for plastic olive GL 14

Art. No.	Pack Qty.	€
L993.1	2	3,25



Material
DURAN®
 121°C

Vacuum filter system GV 050/0

By Whatman. Made of DURAN®. Only suitable for vacuums. The system is non-corrosive, biologically inert and autoclavable to 121 °C and 1.1 bar overpressure (20 mins). For filter-Ø 47-50 mm and prefilter Ø 37 mm. Filtershaft-Ø ~14.75 mm.

Applications: in analytic biochemical and radiochemical operations or for particle control in micro-electronics.

Delivery incl. 250 ml vessel, fritted glass disc as filter support, glass support, spring clamp, a rubber lid and PTFE-ring.

Art. No.	Pack Qty.	€
H434.1	1	333,00

Spare parts for filter system GV 050/0

Glass vessel 250 ml

Art. No.	Pack Qty.	€
H427.1	1	106,00

Base made of glass for rubber stopper

Art. No.	Pack Qty.	€
X812.1	1	71,00

Glass frit Ø 40 mm

Art. No.	Pack Qty.	€
H430.1	1	48,10

PTFE-centering ring, inner-Ø 40 mm, outer-Ø 57 mm

Art. No.	Pack Qty.	€
H431.1	1	18,60

Rubber lid

Art. No.	Pack Qty.	€
H432.1	1	11,90

Spring clamp

Art. No.	Pack Qty.	€
H433.1	1	110,00

- Autoclaving information on page 5
- Water jet pumps on page 354

Filter units and filter holder



Vacuum filter units - series MV 050

By Whatman. Made of stainless steel, chemically resistant against a lot of aqueous and organic solutions.

For filter 47/50 mm and pre-filter 40 mm.

The devices have a punched sieve to support filtering.

Alternative use of steel frits, please order separately. Autoclavable.

Type	Funnel capacity (ml)	Ø x H (mm)	Art. No.	Pack Qty.	€
MV 050/0, with spring clamp	500	110 x 320	CC09.1	1	859,00
MV 050A/0, with quick-close	500	110 x 320	CC10.1	1	939,00

Accessories:

Stainless steel frit with ring, pore size 80 µm	CC12.1	1	82,00
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Suction dome

With tubing olive made of PP and stoppers made of natural rubber, with 9-mm-bore hole. Screw plug sizes GL 45.

Autoclavable to 121 °C.

Vacuum-/compression-proof screw thread bottle please order separately.

Art. No.	Pack Qty.	€
CC56.1	1	33,20

Accessories:

DURAN®-pressure plus-screw thread bottle, 250 ml	CK34.1	1	8,30
DURAN®-pressure plus-screw thread bottle, 500 ml	CK35.1	1	11,20
DURAN®-pressure plus-screw thread bottle, 1000 ml	H995.1	1	12,90



Multiple vacuum filter units AS-series

By Whatman. Stainless steel holder for 3 or 6 attachments, complete with 500 ml-stainless steel attachments. Each attachment can be operated with a separate stopcock. With quick-lock system. The devices are heat-stable up to 180 °C and autoclavable. Only suitable for vacuum, connection via tube olive for tubes with inner-Ø 8-10 mm. For filter 47/50 mm and 40 mm preliminary filter.

Delivery incl. punched sieve to support filtering.

Applications: Microbiological quality control, residual analysis and series filtration.

Type	Art. No.	Pack Qty.	€
Three-fold filter unit AS 310/3	CC32.1 *	1	3159,00
Six-fold filter unit AS 610/3	CC33.1 *	1	5599,00

* Longer delivery times possible. Please check with our Sales Department.



DURAN GROUP
Material
DURAN®
121°C

Filtering flasks

Made of DURAN®. With KECK™-connector set, consisting of plastic tubing connector made of PP, plastic-tubulature made of PP and silicone rubber seal. Heavy walled for vacuum use, fulfills the regulations of the "equipment and product safety regulations". Acc. to DIN 12 476, ISO 6556. Autoclavable.

Volume (ml)	Largest outer Ø (mm)	Height (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
100	64	105	24	E575.1	1	17,35
250	85	155	34	E576.1	1	22,40
500	105	185	34	E577.1	1	27,95
1000	135	230	45	E578.1	1	41,90
2000	166	255	60	E579.1	1	86,40
3000	170	295	58	E580.1	1	108,00
5000	185	360	68	E581.1	1	149,00
10000	240	420	70	E582.1	1	223,00
15000	255	500	70	E583.1	1	289,00
20000	290	535	70	E584.1	1	363,00



DURAN GROUP
121°C

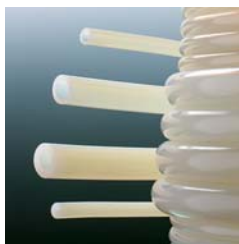
GUKO set

Made of EPDM. Conical rubber seals for suction bottle.

Temperature resistant in the range -45 to +150 °C. Autoclavable.

Delivery incl. 8 Gukos, size 22, 29, 36, 44, 53, 63, 73, 84 mm.

Art. No.	Qty. (set)	€
PK84.1	1	34,50



121°C

Rotilabo®-vacuum silicone tubes

Temperature range -60 to +180 °C (for short periods up to +260 °C).

Hardness: 55 Shore A, thick-walled, opaque. Autoclavable.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
8	16	4	9746.1	5	65,60



Filter holders for syringes

By Whatman. Made of **polysulfone** or **stainless steel**. With silicone-O-ring. Suitable for repeated use with membrane-, paper-, or glass fiber round filters. Maximal pressure load 7 bar. Temperature stable: Polysulfone 180 °C; Stainless steel 200 °C. Connections: Luer or tubing olive (outer-Ø 11 mm), unscrewable.

Application:

For clear and sterile filtration of biological media, reagents and buffer solutions as well as for aqueous solutions and gases.

Polysulfone

Filter holders	Filters-Ø (mm)	Connections (Input/output)	Ø x H (mm)	Art. No.	Pack Qty.	€
FP 025/1	25	Luer-Lock/Luer	30 x 34	CC19.1	10	113,00
FP 050/0	47/50	Luer-Lock/tubing olive	65 x 80	CC20.1	1	66,50
FP 050/1	47/50	Tubing olive/tubing olive	65 x 95	CC21.1	1	66,50

Stainless steel

Filter holders	Filters-Ø (mm)	Connections (Input/output)	Ø x H (mm)	Art. No.	Pack Qty.	€
FM 025/0	25	Luer-Lock/Luer	30 x 26	CC23.1	1	229,00



In-Line filter holder

By Millipore. Made of reinforced **PP**, **Nylon** hand knobs. For 47 mm filter discs. For pressure filtration of liquids or gases. • Suitable for multiple use • With stepped hose connectors

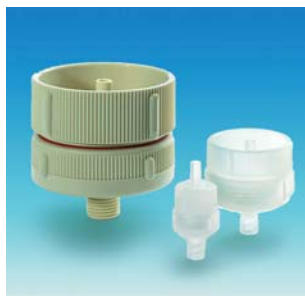
Technical specifications:

Filter Ø	47 mm
Filtration area	13.8 cm ²
Max. inlet pressure	5.5 bar
Max. working temperature	70 °C
Dimensions: L x Ø	12 x 7.6 cm
Prefilter Ø	42 mm (thick depth prefilter) or 47 mm (membrane filter)
Inlet/outlet fittings	1/4" NPTF: connector for 6 mm to 9.5 mm tubing ID

Art. No.	Pack Qty.	€
XE95.1	1	241,90

Accessories:

Replacement O-rings (silicone rubber)	XE96.1	6	135,45
Spare filter holder plates, 47 mm, PP	XE92.1	1	26,35
Hand knobs, Nylon	XE98.1	3	76,35



Swinnex®-filter holders

By Millipore. Made of **PP**. For the filtration, purification or sterile filtration of small quantities of fluid using a syringe. Swinnex® 47 mm filter holder can also be used with a hose connector. • For 13, 25 and 47 mm filter discs • Autoclavable with the filter inserted • Suitable for multiple use

Technical specifications:

Type	Swinnex® 13	Swinnex® 25	Swinnex® 47
Gaskets	Silicone rubber		
Max. differential pressure (bar)	3.5		5
Dimensions: L x Ø (cm)	3.5 x 1.7	3.7 x 3.2	5.4 x 5.7
Filter Ø (mm)	13	25	47
Prefilter Ø (mm)	10 (thick depth prefilter)	22 (thick depth prefilter)	42 (thick depth prefilter) or 47 (membrane filter)
Filtration area (cm ²)	0.7	3.4	13.8
Inlet connection	Luer-Lock connector		1/4"-NPTM/female Luer lock connector
Outlet connection	Luer connector		1/4"-hose connection/female Luer lock connector

Type	Art. No.	Pack Qty.	€
Swinnex® 13	XE86.1	10	90,25
Swinnex® 25	XE87.1	12	178,45
Swinnex® 47	XE88.1	8	435,40

Accessories:

Spare silicone rubber gaskets for Swinnex®, 13 mm	XE89.1	100	61,25
Spare silicone rubber gaskets for Swinnex®, 25 mm	XE90.1	100	127,95
Spare filter holder plates, 25 mm, PP	XE91.1	30	212,85
Spare filter holder plates, 47 mm, PP	XE92.1	1	26,35
Spare silicone rubber O-rings for Swinnex®, 47 mm	XE93.1	10	68,80
Spare silicone rubber O-rings for Swinnex® bottom section, 47 mm	XE94.1	5	67,75



Syringe filter adapters

Made of **PTFE**. No release of trace elements into the media to be filtered. Filter membrane can be replaced easily by simply unscrewing it. Luer-Lock connection on both sides. Pressure resistant to max 2 bar. Autoclavable. Anti-adhesive surface enables easy cleaning. Please order filter membranes separately.

Filter membrane Ø (mm)	Filter surface (cm ²)	Outer Ø (mm)	Art. No.	€/ piece
13	0,78	21	Y933.1	163,40
25	3,80	34	Y934.1	170,95

Membrane filters



Flow-through filters

Made of **PTFE**. Suitable for overpressure or vacuum up to about 5 bar. No release of trace elements into media to be filtered. Filter membrane can be replaced easily by unscrewing the sample funnel. Plastic tubing can be connected with olives. Matching adapter for 2 x tube sizes included. Autoclavable. Anti-adhesive surface allows easy cleaning. **Delivery without** filter membranes, please order separately.

Filter membrane Ø (mm)	Filter surface (cm ²)	Filter surface (cm ²)	for hose with outer Ø (mm)	Art. No.	€/ piece
25	3,1	GL 14	3,2 and 6	Y935.1	267,70
47	13,8	GL 18	6 and 8	Y936.1	342,95
90	52,0	GL 25	8 and 10	Y937.1	665,45



PTFE filter membranes

Hydrophobic made of micro-porous PTFE. Thickness of membrane is 0.2 mm. Temperature range from -200 to 250 °C. Autoclavable. Suitable for syringe filter adapters (Y933.1-Y934.1) and flow-through filters (Y935.1-Y936.1).

Filter membranes Ø 13 mm

Pore size (µm)	Art. No.	Pack Qty.	€
0,05	Y938.1	10	36,55

Filter membranes Ø 25 mm

Pore size (µm)	Art. No.	Pack Qty.	€
0,05	Y943.1	10	107,40

Filter membranes Ø 47 mm

Pore size (µm)	Art. No.	Pack Qty.	€
0,05	Y948.1	10	181,70
0,2	Y949.1	10	147,30
0,45	Y950.1	10	147,30
1	Y951.1	10	147,30
5	Y952.1	10	147,30

- ▶ Membrane vacuum pumps see page 340
- ▶ Vacuum tubes see page 356
- ▶ Tubing accessories see page 361
- ▶ Filter crucibles see page 154
- ▶ Fritted filter funnel see page 155



Membrane filters

Hydrophilic. **Sterile** or non-sterile.

Nitrocellulose

High flow rates. Biologically inert, non-cytotoxic. Maximum usage temperature 180 °C. Protein binding approx. 160 µg/cm². Autoclavable. Wide range of applications: gravimetric analysis, particle analysis, microbiological analysis, sterile filtration of aqueous solutions.

Nylon

Very low extractable substances content, wetting agent free. Good chemical resistance, polyester reinforcement for higher mechanical stability. Protein binding approx. 120 µg/cm². Maximum usage temperature 180 °C.

Application: solvent filtration (HPLC), sample preparation (HPLC, GC), sterile filtration of aqueous and organic solutions.

Track etched polycarbonate

Exact pore size, very smooth surface. Very low extractable substances content. Low protein binding <5 µg/cm², incineration residue approx. 0.92 µg/cm². Maximum usage temperature 140 °C. Autoclavable. Application: particle analysis, microscopy, electron microscopy.

Nitrocellulose, non-sterile

Danger H228

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0.22	47	A009.1	100	91,60
0.45	47	A012.1	100	91,85
0.45	90	A014.1	25	57,85
1.2	47	A021.1	100	99,45

Nitrocellulose, sterile, individually packed, with mesh

Danger H228

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0.45	47	A023.1	200	98,40

Nylon, non-sterile

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0.22	47	A026.1	100	90,95
0.45	47	A031.1	100	94,50
0.45	13	A029.1	100	60,95

Track etched polycarbonate, non-sterile

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0.2	25	A044.1	100	59,85
0.45	25	A045.1	100	58,20
0.45	47	A046.1	100	88,85

Membrane filters



Programme extension!



Cellulose mixed ester membrane filters

By Whatman. Versatile hydrophilic membrane made of mixed ester of cellulose acetate and cellulose nitrate. **Applications:** e.g. sterile and clear filtration, particle separation and analysis, microbiological analysis, counting germs, yeasts, fungi and particles, foodstuffs biology, airborne pollutant measurements etc.
Max. usage temperature 130 °C. Autoclavable.

- High dirt absorbing capacity prevents rapid clogging of the membrane
- Uniform membrane structure ensures high flow rates
- Very smooth and even surface aids microscopic evaluation
- Biologically inert and free of surfactants

Gridded membranes (**line spacing 3.1 mm**) make it easier to count particles and microorganisms; the dyes used are non-toxic and free of antibacterial substances.

Non-sterile



Pore size (µm)	Ø (mm)	Surface	Art. No.	Pack Qty.	€
0.2	47	white	NH80.1	100	125,00
0.2	142	white	ECT7.1	25	144,00
0.45	47	white	NH81.1	100	125,00
0.45	47	white, gridded	NH82.1	100	125,00
0.45	142	white	ECT8.1	25	144,00

Sterile, individually packed



Pore size (µm)	Ø (mm)	Surface	Art. No.	Pack Qty.	€
0.2	47	white	NH83.1	100	136,00
0.2	47	white, gridded	NH84.1	100	136,00
0.45	47	white	NH85.1	100	136,00
0.45	47	white, gridded	NH86.1	100	89,50



RC-membrane filters

By Whatman. Made of regenerated cellulose with PP-support. Ø 50 mm, thickness 155 µm. Suitable for aqueous and organic media. Hydrophilic. Autoclavable at 121 °C.

Pore size (µm)	Art. No.	Pack Qty.	€
0.2	5987.1	100	235,00
0.45	5988.1	100	235,00



Programme extension!



Cellulose nitrate membrane filters

By Whatman. Versatile hydrophilic standard membrane. **Applications:** filtration of aqueous solutions, sample preparation, microbiological studies etc. High stability and flexibility, low extractable substances content. Max. usage temperature 80 °C. Autoclavable. Gridded membranes (**line spacing 3.1 mm**) make it easier to count particles and microorganisms; the dyes used are non-toxic and free of antibacterial substances.

Non-sterile



Pore size (µm)	Ø (mm)	Surface	Art. No.	Pack Qty.	€
0.1	47	white	NH68.1	100	171,00
0.2	47	white	NH69.1	100	149,00
0.2	142	white	ECT9.1	25	234,00
0.45	47	white	NH70.1	100	144,00
0.45	47	white, gridded	NH71.1	100	158,00
0.45	142	white	ECX0.1	25	228,00
0.65	47	white	NH72.1	100	158,00
0.8	47	white	NH73.1	100	151,00
1	47	white	NH74.1	100	159,00
3	47	white	NH75.1	100	159,00
5	47	white	NH76.1	100	148,00

Sterile, individually packed



Pore size (µm)	Ø (mm)	Surface	Art. No.	Pack Qty.	€
0.2	47	white	NH77.1	100	98,00
0.45	47	white, gridded	NH78.1	100	96,95
0.45	47	white, gridded	NH79.1	200	143,00



CA-membrane filters

Made of cellulose acetate.

Applications: filtration of aqueous samples.

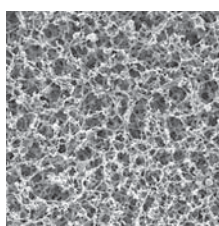
- Hydrophilic surface
- Low protein adsorption of 3.8 µg/m²
- High flow rate
- Diaphragm thickness: 65-110 µm
- Max. working temperature: 135 °C
- Surface: white
- Autoclavable

Pore size (µm)	Ø (mm)	Art. No.	Pack Qty.	€
0.2	25	PT82.1	100	50,35
0.45	25	PT83.1	100	50,35
0.2	47	PT84.1	100	90,10
0.45	47	PT85.1	100	90,10

Membrane filters

General overview of Millipore®-membrane filters

Membrane type	Membrane- properties	Proteinbinding	For aqueous samples	For alcohol samples	For organic solutions	Flow rate
CME (Cellulose mixed ester)	hydrophilic	high	yes	no	no	medium
Nylon	hydrophilic	high	yes	no	yes	high
PES	hydrophilic	low	yes	no	no	very high
Polycarbonate	hydrophilic	low	yes	yes	no	low
PTFE	hydrophobic	low	no	yes	yes	high
PTFE	hydrophilic	low	yes	yes	yes	high
PVDF	hydrophobic	high	no	yes	no	medium
PVDF	hydrophilic	very low	yes	yes	no	medium

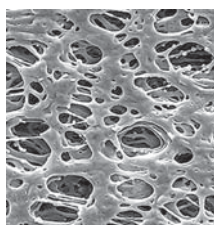


Cellulose mixed ester (CME) membrane filters

By Millipore. **Standard membrane filter hydrophilic for a broad range of applications**

- **Application:** Sewage filtration and sterile filtration of liquids, air and particle analysis, contamination analysis of fuel and hydraulic liquids to determine particle load, biological applications e.g. harvesting or washing cells, microdialysis
- Material: cellulose nitrate and cellulose acetate
- Protein binding: 150 µg/cm²
- Membrane strength: 105-150 µm
- Colour: white
- **Surface: smooth or gridded**
- Autoclavable

Pore size (µm)	Membrane Ø (mm)	Surface	Art. No.	Pack Qty.	€
0,025	13	smooth	CY35.1	100	224,70
0,025	25	smooth	CY36.1	100	285,95
0,025	47	smooth	CY37.1	100	364,45
0,025	90	smooth	CY38.1	25	338,65
0,22	13	smooth	CY39.1	100	104,85
0,22	25	smooth	CY40.1	100	120,40
0,22	47	smooth	CY41.1	100	160,20
0,22	90	smooth	CY42.1	100	428,95
0,45	13	smooth	CY43.1	100	104,30
0,45	13	gridded	CY44.1	100	117,20
0,45	25	smooth	CY45.1	100	108,60
0,45	25	gridded	CY46.1	100	130,10
0,45	47	smooth	CY47.1	100	159,10
0,45	47	gridded	CY48.1	100	177,40
0,45	90	smooth	CY49.1	100	423,55
0,65	13	smooth	CY50.1	100	104,85
0,65	25	smooth	CY51.1	100	123,65
0,65	47	smooth	CY52.1	100	166,65
0,65	90	smooth	CY53.1	25	133,30
0,8	13	smooth	CY54.1	100	106,45
0,8	13	gridded	CY55.1	100	112,90
0,8	25	smooth	CY56.1	100	119,35
0,8	25	gridded	CY57.1	100	130,10
0,8	47	smooth	CY58.1	100	160,20
0,8	47	gridded	CY59.1	100	170,95
0,8	90	smooth	CY60.1	100	390,25
8,0	13	smooth	CY61.1	100	97,85
8,0	25	smooth	CY62.1	100	119,35
8,0	47	smooth	CY63.1	100	164,50
8,0	90	smooth	CY64.1	25	144,05



PES-membrane filters

By Millipore.

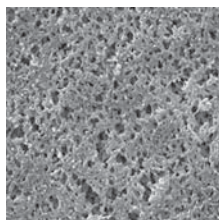
Surface-modified hydrophilic polyethersulfone

- **Application:** ultrafast filtration of tissue culture media, buffers and other aqueous solutions
- High flow rates and high output
- Low protein binding
- Membrane strength: ≥ 150 µm and ≤ 200 µm
- Colour: white
- Surface: smooth
- Autoclavable

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
0,22	13	CX07.1	100	117,20
0,22	25	CX08.1	100	146,20
0,22	47	CX09.1	100	203,20
0,22	90	CX10.1	50	246,20
0,22	142	XA42.1	50	446,15
0,45	13	XA43.1	100	108,60
0,45	25	XA44.1	100	145,15
0,45	47	XA45.1	100	187,05
0,45	90	XA46.1	50	220,40
0,45	142	XA47.1	50	459,05

Microdialysis by Membrane Filter (Drop Dialysis)

Microvolumes of sample (5-100 µl) can also be dialysed by membrane filter discs made of cellulose mixed ester (pore size 0,025 µm, Art. No. CY35.1-CY37.1): Fill a Petri dish with dialysis buffer. Place the membrane filter disc on the surface of the solution (shiny side up, avoid bubbles under the filter) by using a stainless steel forceps. Float the membrane for ca. 5 min until it is completely soaked. Pipette the sample on the center of the filter. Due to the open pore structure of the membrane filter and the high surface-to-volume ratio the dialysis is done within a short time (mostly < 30 min). To avoid evaporation of the sample seal the Petri dish tightly during the procedure. In this way the sample volume remains nearly constant.



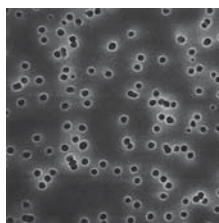
Nylon membrane filters

By Millipore.

Hydrophilic nylon membrane filter with high solvent compatibility.

- **Applications:** sterile filtration, bioassays, filtration of solvents, clear filtration of aqueous solutions, particle separation and analysis
- Membrane thickness: 170 µm
- Colour: white
- Surface: smooth
- Wettability: hydrophilic
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 75 °C

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
0.20	25	XA48.1	100	134,40
0.20	47	XA49.1	100	166,65
0.45	25	XA50.1	100	127,95
0.45	47	XA51.1	100	179,55
0.8	25	XA52.1	100	109,65
0.8	47	XA53.1	100	150,50
1.2	25	XA54.1	100	109,65
1.2	47	XA55.1	100	151,60

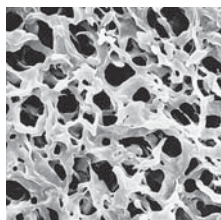


Polycarbonate-membrane filters

By Millipore. **Smooth surface facilitates suitable for microscopic analysis**

- **Application:** chemotaxis studies, analysing beverages, sterility tests, cell culture/-cell biology, bioassays, cytology, environmental/air analysis, epifluorescence (black membranes)
- Material Polycarbonate film, hydrophilic, non-hygroscopic
- Membrane strength: 9-10 µm
- Max. operating temperature: 140 °C, autoclavable
- Colour: transparent or black

Pore size (µm)	Membrane Ø (mm)	Colour	Art. No.	Pack Qty.	€
0,1	13	transparent	CY17.1	100	321,45
0,1	25	transparent	CY18.1	100	281,65
0,1	47	transparent	CY19.1	100	424,65
0,22	13	transparent	CY20.1	100	119,35
0,22	25	transparent	CY21.1	100	181,70
0,22	47	transparent	CY22.1	100	220,40
0,22	90	transparent	CY23.1	30	170,95
0,22	13	black	CY24.1	100	123,65
0,22	25	black	CY25.1	100	278,45
0,22	47	black	CY26.1	100	418,20
0,4	13	transparent	CY28.1	100	123,65
0,4	25	transparent	CY29.1	100	216,10
0,4	47	transparent	CY30.1	100	231,15
0,4	90	transparent	CY31.1	30	177,40
0,4	13	black	CY32.1	100	123,65
0,4	25	black	CY33.1	100	216,10
0,4	47	black	CY34.1	100	532,15



PVDF-membrane filters, hydrophilic

By Millipore. **Surface-modified polyvinylidene fluoride with minimal protein bonding**

- **Applications:** sterile filtration of protein solutions, tissue culture media, additives, antibiotics and alcoholic solutions; removal of particles, biological assays (e.g. recipe-bonding studies, TCA-precipitation)
- Protein binding: 4 µg/cm²
- Membrane strength: approx. 125 µm
- Colour: white
- Surface: smooth
- Max. working temperature: 85 °C
- Autoclavable

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
0,1	13	CX11.1	100	115,05
0,1	25	CX12.1	100	138,70
0,1	47	CX13.1	100	192,45
0,1	90	CX14.1	50	297,80
0,22	13	CX15.1	100	117,20
0,22	25	CX16.1	100	145,15
0,22	47	CX17.1	100	204,25
0,22	90	CX18.1	50	278,45
0,45	13	CX19.1	100	118,25
0,45	25	CX20.1	100	144,05
0,45	47	CX21.1	100	203,20
0,45	90	CX22.1	50	310,70
0,65	13	CX23.1	100	118,25
0,65	25	CX24.1	100	141,90
0,65	47	CX25.1	100	188,15
0,65	90	CX26.1	50	276,30
5,0	13	CX27.1	100	117,20
5,0	25	CX28.1	100	145,15
5,0	47	CX29.1	100	224,70

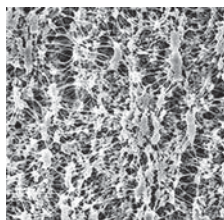
PVDF-membrane filters, hydrophobic

By Millipore. **Hydrophobic polyvinylidene fluoride**

- **Applications:** clear filtration of air/gases, sterile filtration of gases
- Protein binding: 150 µg/cm²
- Membrane strength: approx. 125 µm
- Colour: white
- Surface: smooth
- Max. working temperature: 85 °C
- Autoclavable

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
0,1	47	CX31.1	100	267,70
0,22	13	CX32.1	100	162,35
0,22	25	CX33.1	100	202,10
0,22	47	CX34.1	100	294,55
0,22	90	CX35.1	50	375,20
0,45	13	CX36.1	100	173,10
0,45	25	CX37.1	100	202,10
0,45	47	CX38.1	100	294,55
0,45	90	CX39.1	50	381,65

Membrane filters

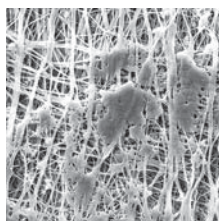


PTFE-membrane filters, hydrophilic

By Millipore. **Hydrophilic PTFE enables filtration of aqueous solutions without previous wetting. Can be used with all standard HPLC-solvents**

- **Application:** clear filtration of acids, bases, cryogenic liquids and fuel, analysis of hydraulic liquids RNA-isolation
- Very low ionic extractables suitable for IC
- Membrane: hydrophilic
- Membrane strength: 150 µm
- Max. working temperature: 130 °C, autoclavable
- Colour: white

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
0,45	13	CX67.1	100	266,60
0,45	25	CX68.1	100	370,90
0,45	47	CX69.1	100	474,10

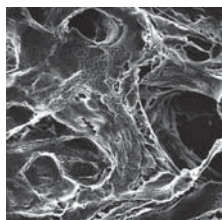


PTFE-membrane filters with laminated support

By Millipore. **Hydrophobic membrane filters made of PTFE (polytetrafluoroethylene) - bonded to a high-density polyethylene support**

- **Application:** clear filtration of acids, alkali, solvents and alcoholic solutions, gas-/air filtration, UV-spectroscopy
- If wetted beforehand with methanol or ethanol, aqueous solutions can also be filtered.
- Membrane strength: 150 µm
- Max. operating temperature: 130 °C, autoclavable
- Colour: white

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
0,22	13	CX44.1	100	255,85
0,22	25	CX45.1	100	360,15
0,22	47	CX46.1	100	444,00
0,22	90	CX47.1	50	643,95
0,5	13	CX48.1	100	258,00
0,5	25	CX49.1	100	349,40
0,5	47	CX50.1	100	461,20
0,5	90	CX51.1	50	697,70
1,0	13	CX52.1	100	265,55
1,0	25	CX53.1	100	349,40
1,0	47	CX54.1	100	432,15
3,0	25	CX56.1	100	389,15
3,0	47	CX57.1	100	493,45
3,0	90	CX58.1	25	478,40



PTFE-membrane filters without support structure

By Millipore. **Hydrophobic PTFE-membrane filters**

- **Application:** Filtration under extreme chemical or thermal conditions, clear filtration of acids, lyes, cryogenic liquids and fuels, analysis of hydraulic liquids, RNA-isolation
- If wetted beforehand with methanol or ethanol, aqueous solutions can also be filtered
- Membrane strength: 130-140 µm
- Max. operating temperature: 260 °C, autoclavable
- Colour: white

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
5,0	13	CX59.1	100	281,65
5,0	25	CX60.1	100	316,05
5,0	47	CX61.1	100	510,65
5,0	90	CX62.1	25	394,55
10,0	13	CX63.1	100	277,35
10,0	25	CX64.1	100	306,40
10,0	47	CX65.1	100	482,70
10,0	90	CX66.1	25	389,15



Zitex®-PTFE filters

Deep-bed filter made of hydrophobic PTFE with high particle retention capacity and uniform pore size distribution.

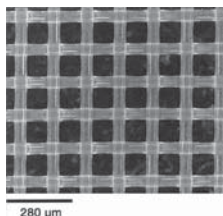
Heat resistant up to approx. 200 °C.

For the filtration of solvents, aggressive liquids and gases, or for ventilation. If wetted beforehand with methanol or ethanol, aqueous solutions can also be filtered. Stable anti-adhesive structure allows quantitative separation of filter cake without damaging the membrane. Autoclavable.

Technical specifications:

Type	G110: ultra fine	G108: fine	A135: coarse
Retention range (µm)	1-3	3-5	20-30
Thickness (µm)	200-300	150-250	110-180
Water flow rate (ml/min/cm²)	80-120	120-200	440-620
Water breakthrough pressure (bar)	0.36-0.42	0.23-0.30	0.04-0.08
Ethanol bubble point (bar)	0.07-0.10	0.06-0.08	0.02-0.03
Average pore volume (%)	40	45	65

Type	Retention range (µm)	Ø (mm)	Art. No.	Pack Qty.	€
G110 (ultra fine)	1-3	47	YY91.1	10	53,65
G108 (fine)	3-5	47	YY92.1	10	55,70
A135 (coarse)	20-30	47	YY94.1	10	59,70
G110 (ultra fine)	1-3	90	YY95.1	10	64,30
G108 (fine)	3-5	90	YY96.1	10	74,75



Nylon mesh filters

By Millipore.

Hydrophilic nylon mesh filter with high solvent compatibility.

- **Applications:** collection of algae and cells, particle analysis, separation of large particles, background filter for use in monitoring by automatic particle imaging systems, prefiltration of solvents, monitoring of contamination in paints and lacquers
- Colour: white
- Surface: smooth
- Wettability: hydrophilic
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 100 °C

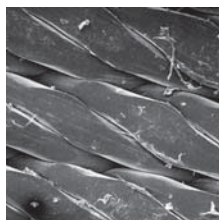
Round filter

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
10	25	XA56.1	100	87,85
10	47	XA57.1	100	110,75
10	90	XA58.1	50	164,50
11	25	XA59.1	100	111,80
11	47	XA60.1	100	133,30
11	90	XA61.1	50	258,00
20	25	XA62.1	100	110,75
20	47	XA63.1	100	131,15
20	90	XA64.1	50	291,35
30	25	XA65.1	100	111,80
30	47	XA66.1	100	131,15
30	90	XA67.1	50	258,00
41	25	XA68.1	100	111,80
41	47	XA69.1	100	136,55
41	90	XA70.1	50	258,00
60	25	XA71.1	100	111,80
60	47	XA72.1	100	131,15
60	90	XA73.1	50	261,25
80	25	XA74.1	100	111,80
80	47	XA75.1	100	132,25
80	90	XA76.1	50	258,00
100	25	XA77.1	100	111,80
100	47	XA78.1	100	132,25
100	90	XA79.1	50	258,00
120	25	XA80.1	100	111,80
120	47	XA81.1	100	132,25
120	90	XA82.1	50	258,00
140	25	XA83.1	100	111,80
140	47	XA84.1	100	131,15
140	90	XA85.1	50	242,95
160	25	XA86.1	100	111,80
160	47	XA87.1	100	132,25
160	90	XA88.1	50	258,00
180	25	XA89.1	100	111,80
180	47	XA90.1	100	131,15
180	90	XA91.1	50	258,00

Filterrolls

Dimensions: B 30 x L 300 cm

Pore size (µm)	Art. No.	Pack Qty.	€
11	XA92.1	1	505,25
20	XA93.1	1	481,60
41	XA94.1	1	464,40
60	XA95.1	1	463,35
100	XA96.1	1	481,60
160	XA97.1	1	547,20



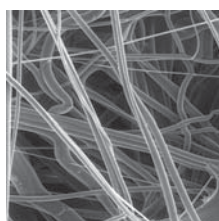
PP mesh filters

By Millipore.

Hydrophilic PP mesh filter made of 100 % pure polypropylene

- **Application:** clear filtration, collection of cells and protein precipitates, separation of large particles, analysis of particulate impurities
- Colour: white
- Surface: smooth
- Wettability: hydrophilic
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 100 °C

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
25	25	XC04.1	100	119,35
25	47	XC05.1	100	163,40
45	25	XC06.1	100	124,70
45	47	XC07.1	100	159,10



PP prefilters

By Millipore.

Hydrophobic PP prefilter made of 100 % pure polypropylene

- **Application:** prefilter with high particle retention capacity, high dirt holding capacity and low pressure drop. Suitable for filtration of organic solvents.
- Filter type: deep-bed filter
- Colour: white
- Surface: smooth
- Wettability: hydrophobic
- Sterilisation: compatible with gamma or EO sterilisation
- Max. working temperature: 90 °C

Pore size (µm)	Membrane Ø (mm)	Art. No.	Pack Qty.	€
0,6	47	XA98.1	100	140,85
1,2	47	XA99.1	100	140,85
2,5	47	XC00.1	100	140,85
5	47	XC01.1	100	152,65
10	47	XC02.1	100	159,10
30	47	XC03.1	100	149,45

Glass and quartz fibre filters



Glass fibre filter paper - Round filters

By Whatman. Made of 100 % borosilicate glass fibre and inorganic bonding agents.

Properties:

- Chemically resistant to most organic and inorganic solvents, aggressive chemicals and concentrated bases (Not resistant to hydrofluoric acid)
- Constant weight, also in case of fluctuations in air humidity
- Mechanically stable (limited bending resistance)

Filter units and clamping fixtures must have flexible sealings.

Type GF 6

- Filtration speed low
- Retention rate: 99.97 %
- Retention range: <1 micron
- Surface weight: 80 g/m²

Application: environmental analysis, biology, physics, beverage industry.

Use: Gas/air monitoring, water and waste water investigations.

Ø (mm)	Type	Thickness (µm)	Art. No.	Pack Qty.	€
25	GF 6	350	AY36.1	200	46,80
47	GF 6	350	AY39.1	200	71,20
50	GF 6	350	AY40.1	200	79,50
55	GF 6	350	AY41.1	100	72,80
70	GF 6	350	AY42.1	100	92,50
90	GF 6	350	AY43.1	100	129,00
100	GF 6	350	AY44.1	100	203,00
110	GF 6	350	AY45.1	100	211,00
125	GF 6	350	AY46.1	100	221,00
150	GF 6	350	AY47.1	100	302,00
185	GF 6	350	AY48.1	100	338,00
200	GF 6	350	Y716.1	100	389,00
240	GF 6	350	AY49.1	100	441,00

Type GF 8

- Filtration speed high
- Retention rate: 99 %
- Retention range: 3 µm
- Surface weight: 80 g/m²

Application: environmental analysis, industry

Use: Determining PCB, DDE, DDT, furane and dioxin levels in the air

Ø (mm)	Type	Thickness (µm)	Art. No.	Pack Qty.	€
90	GF 8	350	AY51.1	100	128,00

Type GF 92

- Filtration speed medium
- Surface weight: 70 g/m²
- Retention range: 2-3 µm

Applications: environmental analysis, biology, beverage industry.

Use: Membrane pre-filter, soot extraction from gas analysers.

Ø (mm)	Type	Thickness (µm)	Art. No.	Pack Qty.	€
47	GF 92	350	AY55.1	200	112,00
50	GF 92	350	AY56.1	200	115,00
100	GF 92	350	AY57.1	100	167,00
135	GF 92	350	AY58.1	100	266,00
142	GF 92	350	AY59.1	100	272,00



Glass fibre round filters

By Macherey-Nagel. Made of borosilicate fiber glass. With organic binders or binder-free. Enable speedy filtering, yet with high retaining power. Very good resistance against most organic and anorganic solvents (not resistant against hydrofluoric acid). Temperature max. 200 °C.

Technical specifications:

Filter type	Binder	Speed air (s)	Retaining range (µm)	Grammage (g/m ²)
MN 85/70	organic	15	max 0.6	70
MN 85/70 BF	without	15	max 0.6	70

Type MN 85/70

Application: Most commonly used fiber glass filter for standard applications with high mechanical stability.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
25	MN 85/70	0,35	EN17.1	100	11,30
37	MN 85/70	0,35	EN18.1	100	14,10
40	MN 85/70	0,35	EN19.1	100	15,40
45	MN 85/70	0,35	EN20.1	100	15,40
55	MN 85/70	0,35	EN21.1	100	16,50
70	MN 85/70	0,35	EN22.1	100	20,50
90	MN 85/70	0,35	EN23.1	100	27,30
110	MN 85/70	0,35	EN24.1	100	33,60
125	MN 85/70	0,35	EN25.1	100	41,80
150	MN 85/70	0,35	EN26.1	100	55,20
185	MN 85/70	0,35	EN27.1	100	77,00
200	MN 85/70	0,35	EN28.1	100	114,00
240	MN 85/70	0,35	EN29.1	100	114,00
270	MN 85/70	0,35	EN30.1	100	134,00
320	MN 85/70	0,35	EN31.1	100	183,00

Type MN 85/70 BF

Usage: as a prefilter in the membrane filtration of particle-laden media.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
25	MN 85/70 BF	0,35	HK45.1	100	19,80
37	MN 85/70 BF	0,35	HK46.1	100	25,10
45	MN 85/70 BF	0,35	HK47.1	100	26,90
55	MN 85/70 BF	0,35	HK48.1	100	29,50
70	MN 85/70 BF	0,35	HK49.1	100	36,20
90	MN 85/70 BF	0,35	HK50.1	100	48,20
110	MN 85/70 BF	0,35	HK51.1	100	60,90
125	MN 85/70 BF	0,35	HK52.1	100	76,30
150	MN 85/70 BF	0,35	HK53.1	100	101,00
185	MN 85/70 BF	0,35	HK54.1	100	144,00
240	MN 85/70 BF	0,35	HK55.1	100	205,00
270	MN 85/70 BF	0,35	HK56.1	100	247,00

► Glass wool see chapter Chromatography!



Quartz fibre round filters MN QF-10

By Macherey-Nagel. Made of pure quartz fibres without bonding agents. High chemical resistance to organic and inorganic solvents, acids (except hydrofluoric acid) and alkalis. For filtration of aggressive media, in trace analytics, emission control, airborne dust analytics etc. Extremely low content of metal trace elements. Filter speed (in compliance with DIN 53137): <5 s. Surface weight: 85 g/m², retention range: up to 0.3 µm. Temperature stable up to 950 °C.

Ø (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
45	0.46	EN12.1	100	160,00
47	0.46	EN13.1	100	160,00
50	0.46	EN14.1	100	164,00
90	0.46	EN15.1	100	399,00



Rotilabo®-round filters

Filter paper for **qualitative analysis**. Made of 100 % cellulose. Ash content 0.06 %.

Type 111A

Very fast filtration time, filtration speed according to DIN 53137: 10 s
Surface weight: 80 g/m², retention range: 12-15 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
25	111A	0,16	XP31.1	100	4,80
47	111A	0,16	XP32.1	100	4,80
55	111A	0,16	AP58.1	100	4,85
70	111A	0,16	AP59.1	100	5,35
90	111A	0,16	AP60.1	100	6,40
110	111A	0,16	AP61.1	100	7,00
125	111A	0,16	AP62.1	100	8,85
150	111A	0,16	AP63.1	100	10,65
185	111A	0,16	AP64.1	100	12,90
240	111A	0,16	AP65.1	100	20,45

Type 112A

Fast filtration time, filtration speed according to DIN 53137: 20 s
Surface weight: 80 g/m², retention range: 8-12 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
25	112A	0,16	XP33.1	100	4,80
47	112A	0,16	XP34.1	100	4,80
55	112A	0,16	AP66.1	100	4,85
70	112A	0,16	AP67.1	100	5,35
90	112A	0,16	AP68.1	100	6,40
110	112A	0,16	AP69.1	100	7,00
125	112A	0,16	AP70.1	100	8,85
150	112A	0,16	AP71.1	100	10,65
185	112A	0,16	AP72.1	100	12,90
240	112A	0,16	AP73.1	100	20,45

Type 113A

Medium-fast filtration time, filtration speed according to DIN 53137: 50s
Surface weight: 87 g/m², retention range: 5-8 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
25	113A	0,16	XP35.1	100	4,80
47	113A	0,16	XP36.1	100	4,80
55	113A	0,16	AP74.1	100	4,85
70	113A	0,16	AP75.1	100	5,30
90	113A	0,16	AP76.1	100	6,40
110	113A	0,16	AP77.1	100	7,00
125	113A	0,16	AP78.1	100	8,85
150	113A	0,16	AP79.1	100	10,65
185	113A	0,16	AP80.1	100	12,90
240	113A	0,16	AP81.1	100	20,45

Type 114A

Slow filtration time, filtration speed according to DIN 53137: 100s
Surface weight: 80 g/m², retention range: 3-5 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
25	114A	0,15	XP37.1	100	4,80
47	114A	0,15	XP38.1	100	4,80
55	114A	0,15	AP82.1	100	4,85
70	114A	0,15	AP83.1	100	5,35
90	114A	0,15	AP84.1	100	6,40
110	114A	0,15	AP85.1	100	7,00
125	114A	0,15	AP86.1	100	8,85
150	114A	0,15	AP87.1	100	10,65
185	114A	0,15	AP88.1	100	12,90
240	114A	0,15	AP89.1	100	20,45

Type 115A

Very slow filtration time, filtration speed according to DIN 53137: 180s
Surface weight: 80 g/m², retention range: 2-3 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
25	115A	0,14	XP39.1	100	4,80
47	115A	0,14	XP40.1	100	4,80
55	115A	0,14	AP90.1	100	4,85
70	115A	0,14	AP91.1	100	5,35
90	115A	0,14	AP92.1	100	6,40
110	115A	0,14	AP93.1	100	7,00
125	115A	0,14	AP94.1	100	8,85
150	115A	0,14	AP95.1	100	10,65
185	115A	0,14	AP96.1	100	12,90
240	115A	0,14	AP97.1	100	20,45

Type 601A

Slow filtration time, filtration speed according to DIN 53137: 88s
Surface weight: 73 g/m², retention range: 5-13 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	601A	0,16	AP98.1	100	4,85
70	601A	0,16	CA04.1	100	5,00
90	601A	0,16	AT00.1	100	5,55
100	601A	0,16	AT01.1	100	6,05
110	601A	0,16	AT02.1	100	6,05
125	601A	0,16	AT03.1	100	6,35
130	601A	0,16	AT04.1	100	6,85
150	601A	0,16	AT05.1	100	7,70
185	601A	0,16	AT06.1	100	9,45
190	601A	0,16	AT07.1	100	10,25
210	601A	0,16	AT08.1	100	11,05
240	601A	0,16	AT09.1	100	12,60
250	601A	0,16	AT10.1	100	12,60
320	601A	0,16	AT11.1	100	18,40
330	601A	0,16	AT12.1	100	18,50
400	601A	0,16	AT13.1	100	26,35

Filter papers for qualitative analysis



Filter papers - Round filters

By Macherey-Nagel. For **qualitative analysis**. Not chemically treated. Ash content 0.1 - 0.2 %. Filtration time complies with DIN 53137.

Type MN 615, medium filtering

Thin filter paper for standard use. Particularly for filtration of water, saline solutions, surface weight 70 g/m², thickness 0.16 mm. Filtration time 22 s. Retention range: 4-12 µm.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	MN 615	0,16	L870.1	100	4,60
70	MN 615	0,16	L871.1	100	4,60
90	MN 615	0,16	L872.1	100	5,35
110	MN 615	0,16	L873.1	100	7,00
125	MN 615	0,16	L874.1	100	7,80
150	MN 615	0,16	L875.1	100	10,30
185	MN 615	0,16	L876.1	100	14,40
240	MN 615	0,16	L877.1	100	23,00

Type MN 616, medium filtering

Ideal for sediments such as sulphides, lead chromate, calcium oxalate. Surface weight 85 g/m², thickness 0.20 mm. Filtration time 27 s. Retention range: 4-12 µm.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	MN 616	0,2	L878.1	100	5,50
70	MN 616	0,2	L879.1	100	5,50
90	MN 616	0,2	L880.1	100	7,30
110	MN 616	0,2	L881.1	100	9,50
125	MN 616	0,2	L882.1	100	11,40
150	MN 616	0,2	L883.1	100	14,50
185	MN 616	0,2	L884.1	100	20,50
240	MN 616	0,2	L885.1	100	33,80

Type MN 619 eh, slow filtering

Dense filters for fine sediments. Surface weight 85 g/m², thickness 0.17 mm. Filtration time 140 s. Retention range: 2-4 µm.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	MN 619 eh	0,17	L886.1	100	5,50
70	MN 619 eh	0,17	L887.1	100	5,50
90	MN 619 eh	0,17	L888.1	100	7,30
110	MN 619 eh	0,17	L889.1	100	9,50
125	MN 619 eh	0,17	L890.1	100	11,40
150	MN 619 eh	0,17	L891.1	100	14,50
185	MN 619 eh	0,17	L892.1	100	20,50
240	MN 619 eh	0,17	L893.1	100	33,80



Rotilabo®-filter papers

100 % cellulose quality filter papers. High absorbency. Standard filter paper with a smooth surface for analysis. Colour white. Larger sizes are ideal as surface protection paper or working surface.

Type 600

Weight 64 g/m², thickness 0.15 mm. Retention 10-20 µm.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
420	520	XP43.1	500	62,15
500	500	XP44.1	500	70,45
600	600	XP45.1	500	102,15

Type 601

Weight 73 g/m², thickness 0.16 mm. Retention 5-13 µm.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
450	450	XP46.1	500	170,95
460	570	XP47.1	100	39,80

Type 122

Weight 73 g/m², thickness 0.17 mm. Retention 17-30 µm.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
520	520	XP48.1	500	160,20
600	600	XP49.1	500	189,20

► Filtering flasks and filter crucibles from p. 154



Rotilabo®-Büchner funnels

Made of glazed porcelain. Excellent resistance to acids and bases. Temperature stable up to 1000 °C.

Volume (ml)	for filter paper Ø (mm)	Ø Filter plate (mm)	Height (mm)	Tube length (mm)	Art. No.	Pack Qty.	€
35	45	48	24	43	XX44.1	1	12,80
70	55	62	30	64	XX45.1	1	14,85
120	70	77	35	64	XX46.1	1	17,75
240	90	97	40	71	XX47.1	1	24,65
400	110	116	49	83	XX48.1	1	30,65
600	125	130	52	85	XX49.1	1	38,65
1000	150	156	59	96	XX50.1	1	51,40
2000	185	192	74	117	XX51.1	1	68,60
4000	240	248	90	117	XX52.1	1	160,20
7000	290	296	105	130	XX53.1	1	385,95
10 000	320	334	120	133	XX54.1	1	483,75



Rotilabo®-folded filters

Filter paper for **qualitative analysis**. Made of 100 % cellulose. Ash content 0.06 %.

Type 113P

Medium filtration speed, filtration speed acc. to DIN 53137: 50 s

Surface weight: 87 g/m², retention range: 5-8 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
70	113P	0,16	CA05.1	100	23,05
90	113P	0,16	CA06.1	100	23,05
110	113P	0,16	CA07.1	100	23,90
125	113P	0,16	CA08.1	100	25,80
150	113P	0,16	CA09.1	100	26,90
185	113P	0,16	CA10.1	100	29,60
210	113P	0,16	CA11.1	100	35,40
240	113P	0,16	CA12.1	100	41,10
270	113P	0,16	CA13.1	100	47,65
320	113P	0,16	CA14.1	100	63,65

Type 600P

Fast filtration speed, filtration speed acc. to DIN 53137: 30 s

Surface weight: 64 g/m², retention range: 13 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
70	600P	0,15	CA15.1	100	13,20
100	600P	0,15	CA16.1	100	14,30
110	600P	0,15	CA17.1	100	15,00
125	600P	0,15	CA18.1	100	15,60
150	600P	0,15	CA20.1	100	15,95
185	600P	0,15	CA21.1	100	17,45
240	600P	0,15	CA23.1	100	21,30
320	600P	0,15	CA25.1	100	30,35
400	600P	0,15	CA27.1	100	44,10
450	600P	0,15	CA28.1	100	64,00
500	600P	0,15	CA29.1	100	69,90

Type 601P

Slow filtration speed, filtration speed acc. to DIN 53137: 130 s

Surface weight: 73 g/m², retention range: 5-13 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
70	601P	0,16	AY73.1	100	16,70
100	601P	0,16	AY74.1	100	18,95
110	601P	0,16	AY75.1	100	19,60
125	601P	0,16	AY76.1	100	19,60
150	601P	0,16	AY78.1	100	21,50
185	601P	0,16	AY79.1	100	23,05
240	601P	0,16	AY81.1	100	27,10
320	601P	0,16	AY83.1	100	40,00
400	601P	0,16	AY85.1	100	55,40
450	601P	0,16	AY86.1	100	78,05
500	601P	0,16	AY87.1	100	100,00



Filter papers - Folded filters MN 615 ¼

By Macherey-Nagel. For **qualitative analysis**. Ash content 0.1 %.

Alpha cellulose content approx. 95 %. Thin filter paper for standard use. Particularly filtration of water, saline solutions etc. Surface weight 70 g/m², thickness 0.16 mm. **Medium filtration speed**.

Filtration time complies with DIN 53137: 22 s. Retention range: >4 µm.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
70	MN 615 ¼	0,16	A795.1	100	22,30
90	MN 615 ¼	0,16	A796.1	100	22,30
110	MN 615 ¼	0,16	A797.1	100	22,30
125	MN 615 ¼	0,16	A798.1	100	22,30
150	MN 615 ¼	0,16	A799.1	100	22,30
185	MN 615 ¼	0,16	A800.1	100	24,30
210	MN 615 ¼	0,16	A801.1	100	35,30
240	MN 615 ¼	0,16	Y856.1	100	35,30
270	MN 615 ¼	0,16	Y857.1	100	41,00
320	MN 615 ¼	0,16	Y858.1	100	50,30
380	MN 615 ¼	0,16	Y859.1	100	73,50



Rotilabo®-filter stand

For 2 funnels, made of white PP, can be sterilized, with adaptors for various funnel sizes, outer handle Ø max. 17 mm. Upper funnel bar can be adjusted in height. Foot plate W 140 x H 480 x L 300 mm. Weight 600 g.

Art. No.	Pack Qty.	€
1109.1	1	50,50

- Analysis funnels see page 151
- Filter stands see page 151

Filter papers for quantitative analysis



Rotilabo®-round filters

Filter paper for **qualitative analysis**. Made of 100 % cellulose. Ash content 0.007 %.

Type 11A

Equivalent black band.

Very fast filtration time, filtration speed according to DIN 53137: 10 s

Surface weight: 84 g/m², retention range: 12-15 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
9	11A	0,18	XP10.1	100	6,05
12	11A	0,18	XP11.1	100	6,05
13	11A	0,18	XP12.1	100	6,05
15	11A	0,18	XP13.1	100	6,05
27	11A	0,18	XP14.1	100	6,05
42,5	11A	0,18	XP15.1	100	6,05
47	11A	0,18	XP16.1	100	6,05
55	11A	0,18	AP18.1	100	6,05
70	11A	0,18	AP19.1	100	7,00
90	11A	0,18	AP20.1	100	9,65
110	11A	0,18	AP21.1	100	12,80
125	11A	0,18	AP22.1	100	15,70
150	11A	0,18	AP23.1	100	21,30
185	11A	0,18	AP24.1	100	29,80
240	11A	0,18	AP25.1	100	60,10

Type 12A

Fast filtration time, filtration speed acc. to DIN 53137: 20 s

Surface weight: 84 g/m², retention range: 8-12 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	12 A	0,17	AP26.1	100	6,05
70	12 A	0,17	AP27.1	100	7,35
90	12 A	0,17	AP28.1	100	9,65
110	12 A	0,17	AP29.1	100	12,80
125	12 A	0,17	AP30.1	100	15,70
150	12 A	0,17	AP31.1	100	21,30
185	12 A	0,17	AP32.1	100	29,80
240	12 A	0,17	AP33.1	100	60,10

Type 13A

Equivalent white band.

Medium-fast filtration time, filtration speed according to DIN 53137: 50 s

Surface weight: 84 g/m², retention range: 5-8 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
9	13A	0,16	XP17.1	100	6,05
12	13A	0,16	XP18.1	100	6,05
13	13A	0,16	XP19.1	100	6,05
15	13A	0,16	XP20.1	100	6,05
27	13A	0,16	XP21.1	100	6,05
42,5	13A	0,16	XP22.1	100	6,05
47	13A	0,16	XP23.1	100	6,05
55	13A	0,16	AP34.1	100	6,05
70	13A	0,16	AP35.1	100	7,35
90	13A	0,16	AP36.1	100	9,65
110	13A	0,16	AP37.1	100	12,80
125	13A	0,16	AP38.1	100	15,70
150	13A	0,16	AP39.1	100	21,30
185	13A	0,16	AP40.1	100	29,80
240	13A	0,16	AP41.1	100	60,10

Type 14A

Slow filtration time, filtration speed acc. to DIN 53137: 100 s

Surface weight: 84 g/m², retention range: 3-5 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	14A	0,15	AP42.1	100	6,05
70	14A	0,15	AP43.1	100	7,35
90	14A	0,15	AP44.1	100	9,65
110	14A	0,15	AP45.1	100	12,80
125	14A	0,15	AP46.1	100	15,70
150	14A	0,15	AP47.1	100	21,30
185	14A	0,15	AP48.1	100	29,80
240	14A	0,15	AP49.1	100	60,10

Type 15A

Equivalent blue band.

Very slow filtration time, filtration speed according to DIN 53137: 180 s

Surface weight: 84 g/m², retention range: 2-3 µm

Membrane Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
9	15A	0,14	XP24.1	100	6,05
12	15A	0,14	XP25.1	100	6,05
13	15A	0,14	XP26.1	100	6,05
15	15A	0,14	XP27.1	100	6,05
27	15A	0,14	XP28.1	100	6,05
42,5	15A	0,14	XP29.1	100	6,05
47	15A	0,14	XP30.1	100	6,05
55	15A	0,14	AP50.1	100	6,05
70	15A	0,14	AP51.1	100	7,35
90	15A	0,14	AP52.1	100	9,65
110	15A	0,14	AP53.1	100	12,80
125	15A	0,14	AP54.1	100	15,70
150	15A	0,14	AP55.1	100	21,30
185	15A	0,14	AP56.1	100	29,80
240	15A	0,14	AP57.1	100	60,10



Forceps for filter paper

Made of 18/10 stainless steel. For handling filter papers, cover slips and other flat objects. Width 12 mm, length 125 mm. Autoclavable.

Art. No.	Pack Qty.	€
C828.1	1	9,80

► Further forceps from p. 298

Filter papers for quantitative analysis



Filter papers - Round filters MN 640

By Macherey-Nagel. For **quantitative analysis**. Made of noble cellulose washed in acid and linters with a cellulose content of over 95 %. Ash content <0.01 %. Temperature stable up to +130 °C. Surface weight 85 g/m². Filtration time acc. to DIN 53137.

Type MN 640 w,
quick filtering, filtration time 9 s
Equivalent black band.

Soft filter, loosely structured. Ideal for coarses sediments such as ferric/aluminium hydroxide, bismuth/copper/ferric sulphide, nickel/diacetyldioxine, etc. Standard filter for Si-analysis. Retention range: >8 µm.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
70	MN 640 w	0,2	A780.1	100	11,95
90	MN 640 w	0,2	A781.1	100	17,00
110	MN 640 w	0,2	A782.1	100	24,95
125	MN 640 w	0,2	A783.1	100	28,50
150	MN 640 w	0,2	A784.1	100	38,90

Type MN 640 m,
medium filtering, filtration time 27 s
Equivalent white band.

Ideal for sediments such as sulphides, lead chromate, calcium oxalate. Typical fields of application: Gravimetric analysis, quantitative analysis of residue and purification processes. Retention range: >4 µm.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
70	MN 640 m	0,2	A785.1	100	11,95
90	MN 640 m	0,2	A786.1	100	17,00
110	MN 640 m	0,2	A787.1	100	24,95
125	MN 640 m	0,2	A788.1	100	28,50
150	MN 640 m	0,2	A789.1	100	38,90

Type MN 640 d,
slow filtering, filtration time 140 s
Equivalent blue band.

Dense filters for all fine and extra fine sediments. Retention range: >2 µm.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
70	MN 640 d	0,2	A790.1	100	11,95
90	MN 640 d	0,2	A791.1	100	17,00
110	MN 640 d	0,2	A792.1	100	24,95
125	MN 640 d	0,2	A793.1	100	28,50
150	MN 640 d	0,2	A794.1	100	38,90

- Buchner funnels, see page 152
- Filtering flasks, see page 155
- Filter units, see page 480



Hard filter papers

Ash-free for **quantitative analysis**.

a cellulose content of over 95 %, ash content approx. 0.002 %.

Made of high-purity acid washed cotton linter pulp and cellulose mixed with a small quantity consolidating resin. Free of minerals and metal ions.

High stability and resistance, very high wet strength. Precipitates can be removed easily with no fibres.

For analytical applications, routine quantitative and gravimetric methods.

Highly recommended for vacuum and pressure filtration, determination of metal ions, and filtration of acidic and alkaline solutions.

Resistant to sulphuric and nitric acids (up to 40 % at 50 °C) and alkalis (up to 10 % at 20 °C).

Technical specifications:

Type	Herzberg filtration rate (s)	Retention range (µm)	Weight (g/m ²)	Thickness (mm)
1505	50	12-25	88	0.17
1506	170	4-12	90	0.16
1507	600	≤2	90	0.14

Type 1505, fast filtering

Ø (mm)	Art. No.	Pack Qty.	€
50	NL27.1	100	22,50
70	NL28.1	100	23,55
90	NL29.1	100	25,70
110	NL30.1	100	30,10
125	NL31.1	100	33,55
150	NL32.1	100	41,85
185	NL33.1	100	70,75
240	NL34.1	100	117,20

Type 1506, medium fast filtering

Ø (mm)	Art. No.	Pack Qty.	€
50	NL35.1	100	22,60
70	NL36.1	100	23,60
90	NL37.1	100	25,70
110	NL38.1	100	30,10
125	NL39.1	100	33,55
150	NL40.1	100	41,30
185	NL41.1	100	70,75
240	NL42.1	100	117,20

Type 1507, slow filtering

Ø (mm)	Art. No.	Pack Qty.	€
50	NL43.1	100	22,60
70	NL44.1	100	23,60
90	NL45.1	100	25,70
110	NL46.1	100	30,10
125	NL47.1	100	33,55
150	NL48.1	100	41,30
185	NL49.1	100	70,75
240	NL50.1	100	117,20

Special filter papers



Phosphate-free round filters

By Macherey-Nagel. Phosphate-free filter papers for soil analysis and P-analysis in iron and steel works. Slow filtering.

Technical specifications:

Filter type	Speed in conformance with DIN 53137 (s)	Thickness (mm)	Weight (g/m ²)
MN 619 G	100	0.17	75
MN 616 G	22	0.20	85
MN 617 G	9	0.20	85

Type MN 619 G, slow filtering

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	MN 619 G	0,17	HK04.1	100	4,20
70	MN 619 G	0,17	HK05.1	100	4,20
90	MN 619 G	0,17	HK06.1	100	5,50
110	MN 619 G	0,17	HK07.1	100	7,40
125	MN 619 G	0,17	HK08.1	100	8,40
150	MN 619 G	0,17	HK09.1	100	11,50
185	MN 619 G	0,17	HK10.1	100	15,80
240	MN 619 G	0,17	HK11.1	100	25,10
320	MN 619 G	0,17	HK12.1	100	40,30
400	MN 619 G	0,17	HK13.1	100	69,60

Type MN 616 G, medium filtering

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	MN 616 G	0,20	HK14.1	100	5,50
70	MN 616 G	0,20	HK15.1	100	5,50
90	MN 616 G	0,20	HK16.1	100	7,40
110	MN 616 G	0,20	HK17.1	100	9,70
125	MN 616 G	0,20	HK18.1	100	11,60
150	MN 616 G	0,20	HK19.1	100	14,90
185	MN 616 G	0,20	HK20.1	100	20,50
240	MN 616 G	0,20	HK21.1	100	33,80
320	MN 616 G	0,20	HK22.1	100	58,70
400	MN 616 G	0,20	HK23.1	100	98,80

Type MN 617 G, quick filtering

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	MN 617 G	0,20	HK24.1	100	5,50
70	MN 617 G	0,20	HK25.1	100	5,50
90	MN 617 G	0,20	HK26.1	100	7,30
110	MN 617 G	0,20	HK27.1	100	9,50
125	MN 617 G	0,20	HK28.1	100	11,40
150	MN 617 G	0,20	HK29.1	100	14,50
185	MN 617 G	0,20	HK30.1	100	20,50
240	MN 617 G	0,20	HK31.1	100	33,80
320	MN 617 G	0,20	HK32.1	100	58,70
400	MN 617 G	0,20	HK33.1	100	98,80



Phosphate-free folded filters MN 280 1/4

By Macherey-Nagel. Folded filters with high purification and smooth surface, made of acid-washed and phosphate-free filter papers. For analysis of available plant nutrients (Mg, Mn, Cu, Zn, Co, B, Mo) and soil analysis. Slow filtering.

Technical specifications:

Type	Speed in conformance with DIN 53137 (s)	Thickness (mm)	Weight (g/m ²)
MN 280 1/4	100	0.18	75

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
110	MN 280 1/4	0,18	HK34.1	100	47,10
125	MN 280 1/4	0,18	HK35.1	100	47,10
150	MN 280 1/4	0,18	HK36.1	100	47,10
185	MN 280 1/4	0,18	HK37.1	100	62,30
240	MN 280 1/4	0,18	HK38.1	100	80,60



Folded filters for analysing fats MN 615 ff 1/4

By Macherey-Nagel. For analysing fats. Filter papers are practically free from fats and resins. Ether-soluble residue < 0.1 mg in filters with Ø 270 mm. Medium filtering.

Technical specifications:

Type	Surface	Weight (g/m ²)
MN 615 ff 1/4	smooth	70

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	MN 615 ff 1/4	0,16	HK77.1	100	51,80
70	MN 615 ff 1/4	0,16	HK78.1	100	51,80
90	MN 615 ff 1/4	0,16	HK79.1	100	51,80
110	MN 615 ff 1/4	0,16	HK80.1	100	51,80
125	MN 615 ff 1/4	0,16	HK81.1	100	51,80
150	MN 615 ff 1/4	0,16	HK82.1	100	51,80
185	MN 615 ff 1/4	0,16	HK83.1	100	58,60
240	MN 615 ff 1/4	0,16	HK84.1	100	91,30
270	MN 615 ff 1/4	0,16	HK85.1	100	105,00

Special filter papers



Nitrogen poor filter papers

By Macherey-Nagel. With low nitrogen content. Ideal for nitrogen and protein analyses. For analysis of the dry substance and for filtration of samples for all N-parameters. Approved by the EBC (European Brewery Convention) for malt analysis in breweries and malt houses.

Technical specifications:

Type	Surface	Speed in conformance with DIN 53137 (s)	Weight (g/m ²)
MN 614 ¼	grained	25	75
MN 620 ¼	grained	25	75

Type MN 614 ¼, medium filtering

Bleached. Suitable for filtration of essential oils, emulsions, essences, etc.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
55	MN 614 ¼	0,25	HK57.1	100	22,00
70	MN 614 ¼	0,25	HK58.1	100	22,00
90	MN 614 ¼	0,25	HK59.1	100	22,00
110	MN 614 ¼	0,25	HK60.1	100	22,00
125	MN 614 ¼	0,25	HK61.1	100	22,00
150	MN 614 ¼	0,25	HK62.1	100	22,00
185	MN 614 ¼	0,25	HK63.1	100	25,70
240	MN 614 ¼	0,25	HK64.1	100	38,50
320	MN 614 ¼	0,25	HK65.1	100	54,30
400	MN 614 ¼	0,25	HK66.1	100	87,00

Type MN 620 ¼

Unbleached. For ex. for removing carbonic acid before analysis.

Ø (mm)	Type	Thickness (mm)	Art. No.	Pack Qty.	€
70	MN 620 ¼	0,26	HK67.1	100	18,00
90	MN 620 ¼	0,26	HK68.1	100	18,00
110	MN 620 ¼	0,26	HK69.1	100	18,00
125	MN 620 ¼	0,26	HK70.1	100	18,00
150	MN 620 ¼	0,26	HK71.1	100	18,00
185	MN 620 ¼	0,26	HK72.1	100	22,00
240	MN 620 ¼	0,26	HK73.1	100	29,80
320	MN 620 ¼	0,26	HK74.1	100	44,30
385	MN 620 ¼	0,26	HK75.1	100	61,70
400	MN 620 ¼	0,26	HK76.1	100	69,10



Rotilabo®-blotting paper blocks

Highly absorptive paper for removing excess liquid from small samples or microscopic preparations. Surface weight 73 g/m². Dimensions: L 100 x W 37 mm.

Art. No.	Pack Qty.	€
XP50.1	1 block à 50 sheets	4,85



Phase separating paper - round filters MN 616 WA

By Macherey-Nagel. Silicone-impregnated paper for **qualitative analysis**. The hydrophobic surface separates water from non water-miscible liquids. Suitable for filtration of portions. Surface weight: 85 g/m². Temperature stable to +120 °C. Mostly solvent consistent.

Membrane Ø (mm)	Thickness (mm)	Art. No.	Pack Qty.	€
125	0,2	1284.1	100	21,30



Rotilabo®-activated carbon filter papers

Filter papers for clear filtration and brightening of dark urine for polarimetric determination of sugar, clear filtration of dyed liquids as well as filtration of galvanic baths.

Proportion of activated carbon 35 %, ash content 0.06 %, no binding medium.

Filtration speed in accordance with DIN 53137: 65 s

Retention: 5 µm

Grammage: 160 g/m²

Thickness: 0.42 mm

Ø (mm)	Type	Art. No.	Pack Qty.	€
55	round	HC15.1	100	9,15
70	round	HC14.1	100	11,75
90	round	HC16.1	100	12,15
110	round	HC17.1	100	29,70
140	round	HC18.1	100	29,70
150	round	HC19.1	100	29,70
185	round	HC20.1	100	36,15
210	round	HC21.1	100	60,20



Programme extension!

Disposable sieves

Made of water repellant card with a nylon screen fabric. For liquids of different consistencies, e.g. paints and lacquers. Height 12 cm, Ø top approx. 16 cm.

Mesh size (µm)	Mesh type	Colour	Art. No.	Pack Qty.	€
125	super fine	blue	TA93.1	125	28,95
150	extra-fine	turquoise	AXL8.1	125	30,05
190	fine	yellow	TA92.1	125	26,85
260	medium	orange	TA91.1	125	26,85
1000	coarse	white	AXL9.1	125	30,65

Special filter papers



Rotilabo®-germ testing paper

Folded, moisture-resistant germ testing paper for carrying out germ resistance tests, e.g. for root vegetable seeds.
Grammage: 160 g/m². Format: width 110 mm, fold depth 20 mm, double folds (50 units), length 2 m.

Art. No.	Pack Qty.	€
AT14.1	1	4,05



Cotton wool

Made of 100 % cotton, perforated. For filtering and cleaning.

Type	Art. No.	Pack Qty.	€
perforated	0571.1	1 kg (10 x 100 g)	23,60
not perforated	PE40.1	700 g (7 x 100 g)	13,90



Rotilabo®-test flakes

Untreated cellulose flakes for impregnating with active ingredient solution. Suitable for determining resistance to antibiotics or chemotherapeutic media in bacteria culture and pathogenic organisms.
Made of 100 % cotton linter, good absorption, grammage: 290 g/m², thickness: 0.75 mm.

Ø (mm)	Art. No.	Pack Qty.	€
6	KA07.1	1000	16,30
9	KA08.1	1000	20,90
12	KA09.1	1000	27,35
12,7	KA10.1	1000	27,35
25	KA11.1	1000	69,70



Rotilabo®-absorbent papers

Bench-Top Protection Paper

Highly absorbent white paper, coated on one side with water-resistant PE. Suitable as a protective working surface for lab tops or for lining cupboards and drawers. Protects surfaces against chemicals, dirt and contamination. Also suitable for analytical and isotope laboratories.

Weight: 144 g/m², absorbency approx. 250-280 g/m²

Cut	Size	Art. No.	Pack Qty.	€
Sheets	48 cm x 60 cm	1941.1	100	166,00
Roll	48 cm x 100 m	1959.1	1	244,00
Roll	60 cm x 100 m	1006.1	1	297,00

Weight: 125 g/m², absorbency approx. 170 g/m²

Cut	Size	Art. No.	Pack Qty.	€
Sheets	42 cm x 52 cm	HY90.1	100	59,15
Sheets	46 cm x 57 cm	HY91.1	100	63,65
Sheets	50 cm x 60 cm	HY92.1	100	85,80
Roll	49 cm x 50 m	HY93.1	1	85,80
Roll	60 cm x 50 m	HY94.1	1	102,70
Roll	92 cm x 50 m	HY95.1	1	136,55

Weight: 225 g/m², absorbency approx. 200 g/m²

Cut	Size	Art. No.	Pack Qty.	€
Sheets	46 cm x 57 cm	HY96.1	50	63,45
Sheets	50 cm x 60 cm	HY97.1	50	58,60
Roll	49 cm x 50 m	HY98.1	1	160,20
Roll	60 cm x 50 m	HY99.1	1	196,75
Roll	92 cm x 50 m	KA00.1	1	277,35



Rotilabo®-activated carbon filters

For filtration of organic solutions and acids, ambient air and various gases.
Filter material: Activated carbon granulate. Housing made of PC.
Temperature stable up to max. 70 °C, pressure resistant up to max. 2 bar.
For tube connections with inner-Ø 6.3 mm. Dimensions: Ø 26 x 82 mm.

Art. No.	Pack Qty.	€
HC24.1	10	89,60



Extraction thimbles, cellulose

By Macherey-Nagel. For Soxhlet and other extractions. Also suitable for extracting solid or liquid particles from the air and from gases. Extraction thimbles as per DIN 12449 are suitable for extractors according to DIN 12602 and 12604.

* (acc. to DIN 12449)

Outer Ø (mm)	Inner Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
23	20	80	H202.1	25	66,90
25*	22	80	H203.1	25	66,90
26	23	100	H204.1	25	66,90
27	24	60	H205.1	25	66,90
31	28	80	H206.1	25	66,90
32	29	100	H207.1	25	78,30
33	30	80	H208.1	25	66,90
36*	33	94	H209.1	25	80,30
33	30	100	H210.1	25	80,30
34	31	118	H211.1	25	96,40
36*	33	205	L867.1	25	131,00
52*	48	230	L868.1	25	175,00
61*	57	315	L869.1	25	262,00



Glass fibre extraction thimbles type MN 649 R

By Macherey-Nagel. Micro glass fibres consist of binder-free borosilicate glass, short term temperature stability up to 500 °C. The thimbles have high chemical resistance, a very high separation capacity and a very high particle retention capacity.

Suitable for emission measurement at high temperatures and for the separation of dust particles or aerosols from gases or air flows.

Extraction thimbles according to DIN 12449 are suitable for extractors with defined nominal volumes in accordance with DIN 12602 and 12604.

Type MN 649 R

Extraction thimbles with sealing collar and two finger recesses on opposite sides of the collar, for dust analysis in industrial gases, exhaust gases and room air.

Inner Ø (mm)	Height (mm)	Collar Ø (mm)	Art. No.	Pack Qty.	€
27	55	50	CYL8.1	25	162,00
79	155	102	CYL9.1	25	468,00



Glass fibre extraction thimbles type MN 649

By Macherey-Nagel. Micro glass fibres consist of binder-free borosilicate glass, short term temperature stability up to 500 °C. The thimbles have high chemical resistance, a very high separation capacity and a very high particle retention capacity.

Suitable for emission measurement at high temperatures and for the separation of dust particles or aerosols from gases or air flows.

Extraction thimbles according to DIN 12449 are suitable for extractors with defined nominal volumes in accordance with DIN 12602 and 12604.

Type MN 649

*(according to DIN 12449)

Outer Ø (mm)	Inner Ø (mm)	Height (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
17	15	50	1,0	CYH8.1	25	124,00
18	16	100	1,0	CYH9.1	25	124,00
25*	22	80	1,5	CYK0.1	25	124,00
26	23	90	1,5	CYK1.1	25	124,00
26	23	100	1,5	CYK2.1	25	124,00
30	27	80	1,5	CYK3.1	25	124,00
31	28	60	1,5	CYK4.1	25	124,00
31	28	120	1,5	CYK5.1	25	146,00
33	30	150	1,5	CYK6.1	25	181,00
36	33	80	1,5	CYK7.1	25	124,00
36	33	90	1,5	CYK8.1	25	149,00
36*	33	94	1,5	CYK9.1	25	149,00
36	33	100	1,5	CYL0.1	25	149,00
36	33	118	1,5	CYL1.1	25	180,00
36*	33	205	1,5	CYL2.1	25	242,00
36	35	150	1,5	CYL3.1	25	211,00
47	43	123	2,0	CYL4.1	25	230,00
52*	48	230	2,0	CYL5.1	25	322,00
61*	57	315	2,0	CYL6.1	25	483,00
79	75	330	2,0	CYL7.1	25	545,00



Rotisol®

Universal alcoholic solvent, extraction agent, mobile phase, and elution medium, for dehydrating in histology, recrystallisation, etc. Mixable with water.

Ingredients:

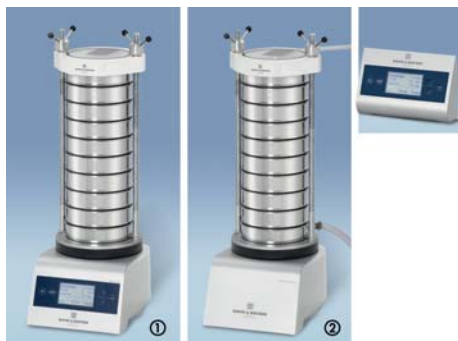
dehydrated ethanol ~99 % · acetone ~5 % · methyl ethyl ketone ~1 % · Flp 12 °C · Kp 56-80 °C · D ~0.79 · highly flammable.

Danger H225-H319-EUH066

Art. No.	Pack Qty.	€
7917.3	1 l	n.a.
7917.1	2,5 l	n.a.
7917.2	25 l	n.a.

► Soxhlet extractors see page 140

Analytical sieve machines



Analytical sieve machines, HAVER EML 200 Premium series

By Haver & Boecker. For sieve analysis in accordance with ISO 2591-1. Measurement range 20 µm-125 mm. Suitable for analytical sieves with Ø 50 to 203 mm.

- Fast and easy to operate
- Amplitude is adjustable in 0.1 mm increments
- Intermittent operation or continuous operation
- Memory for storing various sieve modes (49 memory slots)
- Ethernet interface
- Optional TwinNut rapid clamping system allows easier and faster replacement of sieves without time-consuming screwing

Additional features of EML 200 Premium Remote model:

Unit with protection class IP 54 and separate control unit for wall mounting allows the additional option of wet sieving.

Technical specifications:

Type	EML 200 Premium	EML 200 Premium Remote
Suitable for dry sieving	yes	yes
Suitable for wet sieving	no	yes
Type of motion	Three-dimensional	
Shaking amplitude (mm)	0.1 to 3.0	
Timer (min)	1 to 99 or continuous operation	
Intermittent operation (s)	1 to 99	
Max. load capacity	9 analytical sieves with usable height 50 mm or 8.7 kg sieve stack weight	
Dimensions W x D x H (mm)	295 x 385 x 880	
Weight (kg)	38	
Power supply	110-230 V, 50-60 Hz	

① **Analytical sieve machines EML 200 Premium**
Delivery incl. clamping system (2 M20 guide bars, 660 mm long, 2 tensioning nuts) as well as machine cover with window.
Delivery without sieve pan (please order separately).

Type	Art. No.	Pack Qty.	€
EML 200 Premium with Classic clamping system	ECE6.1	1	2676,75
EML 200 Premium with rapid TwinNut clamping system	ECE7.1	1	2811,15

② **Analytical sieve machines EML 200 Premium Remote**
Delivery incl. separate control unit with wall mount and connecting cable, clamping system (2 M20 guide bars, 660 mm long, 2 tensioning nuts), machine cover with full-cone nozzle and window, water plug with socket and PVC water hose (3 m).
Delivery without sieve pan (please order separately).

Type	Art. No.	Pack Qty.	€
EML 200 Premium Remote with Classic clamping system	ECE8.1	1	3042,25
EML 200 Premium Remote with TwinNut rapid clamping system	ECE9.1	1	3176,65

Accessories for dry sieving

(EML 200 Premium and Premium Remote)

Type	Art. No.	Pack Qty.	€
Sieve pan for dry sieving, Ø 200 x H 50 mm, stainless steel	ECC7.1	1	47,55
Replacement machine cover with window	ECE3.1	1	168,80

Accessories for wet sieving (EML 200 Premium Remote only)

Type	Art. No.	Pack Qty.	€
Sieve pan with outlet and PVC hose for wet sieving	ECH0.1	1	150,50
Replacement machine cover with full-cone nozzle and window	ECH1.1	1	297,80
PVC hose (½"), 3 m	ECH2.1	1	10,70

Spare parts for clamping systems

(EML 200 Premium and Premium Remote)

Type	Art. No.	Pack Qty.	€
Replacement guide bar Classic / TwinNut, 660 mm, M20	ECH3.1	1	79,55
Replacement tensioning nut for Classic system	ECH4.1	1	59,15
Replacement tensioning nut for TwinNut system	ECH5.1	1	125,80



Analytical sieve machine HAVER EML 200 Pure

By Haver & Boecker. For sieve analysis in accordance with ISO 2591-1. Standard model for dry sieving and fast and easy operation. Measurement range 20 µm-125 mm. Suitable for analytical sieves with Ø 50 to 203 mm.

- Two amplitudes can be selected for coarse or fine materials
- Preset interval (10 s)
- Digital timer
- Anodised aluminium housing

Technical specifications:

Type of motion	Three-dimensional
Shaking amplitude	2.2 mm (coarse) or 0.9 mm (fine)
Timer	1 min or continuous operation
Max. load capacity	9 analytical sieves with usable height 50 mm or 8.7 kg sieve stack weight
Dimensions (W x D x H)	295 x 385 x 900 mm
Weight	38 kg
Power supply	110-230 V, 50-60 Hz

Delivery incl. Classic "eco" clamping system (2 M16 guide bars, 660 mm long, 2 tensioning nuts) and machine cover with window.
Delivery without sieve pan (please order separately).

Art. No.	Pack Qty.	€
ECE2.1	1	2144,65

Accessories:

Sieve pan for dry sieving, Ø 200 x H 50 mm, stainless steel	ECC7.1	1	47,55
Replacement machine cover with window	ECE3.1	1	168,80
Replacement Classic "eco" guide bar, 660 mm, M16	ECE4.1	1	59,15
Replacement tensioning nut for Classic "eco" system	ECE5.1	1	47,30

Analytical sieves



Analytical sieves Ø 200 mm

By Haver & Boecker. Sieve frame fabricated in stainless steel with stainless steel wire mesh base. Compliant with DIN ISO 3310, ASTM E11, ISO 565, BS 410, etc. Suitable for testing granulates, powders, plastics, silicon, dyes, metal filings etc.

- Strong sieve construction for long life
- Sieve mesh retains excellent tension, even during intensive use
- Smooth frame surface avoids cross contamination
- Usable height 50 mm

Delivery incl. PVC sealing ring and Certificate of Compliance 2.1 in accordance with DIN EN 10 204.

Mesh size (mm)	Art. No.	Pack Qty.	€
0,02	EAE7.1	1	532,15
0,025	EAE8.1	1	311,75
0,032	EAE9.1	1	181,70
0,036	EAH0.1	1	177,40
0,038	EAH1.1	1	177,40
0,04	EAH2.1	1	127,95
0,045	EAH3.1	1	127,95
0,05	EAH4.1	1	103,75
0,053	EAH5.1	1	103,75
0,056	EAH6.1	1	103,75
0,063	EAH7.1	1	94,10
0,071	EAH8.1	1	94,10
0,075	EAH9.1	1	94,10
0,08	EAK0.1	1	94,10
0,09	EAK1.1	1	94,10
0,1	EAK2.1	1	94,10
0,106	EAK3.1	1	94,10
0,112	EAK4.1	1	94,10
0,125	EAK5.1	1	94,10
0,14	EAK6.1	1	94,10
0,15	EAK7.1	1	94,10
0,16	EAK8.1	1	94,10
0,18	EAK9.1	1	94,10
0,2	EAL0.1	1	94,10
0,212	EAL1.1	1	94,10
0,224	EAL2.1	1	94,10
0,25	EAL3.1	1	94,10
0,28	EAL4.1	1	94,10
0,3	EAL5.1	1	94,10
0,315	EAL6.1	1	94,10
0,355	EAL7.1	1	94,10
0,4	EAL8.1	1	94,10
0,425	EAL9.1	1	94,10
0,45	EAN0.1	1	94,10
0,5	EAN1.1	1	94,10
0,56	EAN2.1	1	94,10
0,6	EAN3.1	1	94,10
0,63	EAN4.1	1	94,10
0,71	EAN5.1	1	94,10
0,8	EAN6.1	1	94,10
0,85	EAN7.1	1	94,10
0,9	EAN8.1	1	94,10
1	EAN9.1	1	95,15
1,12	EAP0.1	1	95,15

Mesh size (mm)	Art. No.	Pack Qty.	€
1,18	EAP1.1	1	95,15
1,25	EAP2.1	1	95,15
1,4	EAP3.1	1	95,15
1,6	EAP4.1	1	95,15
1,7	EAP5.1	1	95,15
1,8	EAP6.1	1	95,15
2	EAP7.1	1	95,15
2,24	EAP8.1	1	95,15
2,36	EAP9.1	1	95,15
2,5	EAT0.1	1	95,15
2,8	EAT1.1	1	111,80
3,15	EAT2.1	1	111,80
3,35	EAT3.1	1	111,80
3,55	EAT4.1	1	111,80
4	EAT5.1	1	111,80
4,5	EAT6.1	1	111,80
4,75	EAT7.1	1	111,80
5	EAT8.1	1	111,80
5,6	EAT9.1	1	111,80
6,3	EAX0.1	1	111,80
6,7	EAX1.1	1	111,80
7,1	EAX2.1	1	111,80
8	EAX3.1	1	111,80
9	EAX4.1	1	111,80
9,5	EAX5.1	1	111,80
10	EAX6.1	1	111,80
11,2	EAX7.1	1	117,20
12,5	EAX8.1	1	117,20
13,2	EAX9.1	1	117,20
14	EAY0.1	1	117,20
16	EAY1.1	1	117,20
18	EAY2.1	1	117,20
19	EAY3.1	1	117,20
20	EAY4.1	1	117,20
22,4	EAY5.1	1	123,65
25	EAY6.1	1	123,65
26,5	EAY7.1	1	123,65
28	EAY8.1	1	123,65
31,5	EAY9.1	1	123,65
35,5	ECA0.1	1	123,65
37,5	ECA1.1	1	123,65
40	ECA2.1	1	123,65
45	ECA3.1	1	123,65
50	ECA4.1	1	123,65
53	ECA5.1	1	123,65
56	ECA6.1	1	123,65
63	ECA7.1	1	123,65
71	ECA8.1	1	123,65
75	ECA9.1	1	123,65
80	ECC0.1	1	123,65
90	ECC1.1	1	123,65
100	ECC2.1	1	123,65
106	ECC3.1	1	123,65
112	ECC4.1	1	123,65
125	ECC5.1	1	123,65

Accessories:

Sieve lid Ø 200 mm, stainless steel	ECC6.1	1	123,65
Sieve pan for dry sieving, Ø 200 x H 50 mm, stainless steel	ECC7.1	1	47,55
Intermediate pan Ø 200 x H 50 mm, stainless steel	ECC8.1	1	84,95
Adapter ring Ø 200 x H 50 mm, stainless steel	ECC9.1	1	75,05
Replacement PVC sealing ring	ECE0.1	1	3,25
Viton sealing ring (-15 to 200 °C)	ECE1.1	1	10,25

Water recycling



Distilling unit Monodest

Tabletop unit. For producing distilled water from tap water.
Ideal for schools, pharmacies or firms with relatively low water consumption.

Technical specifications:

Type	Monodest
Power consumption	2.500 W
Distillate amount	3.5 l/h
Cooling water amount	45 l/h
Conductivity distillate	1.5 µS/cm
Distillate temperature	80 °C
Heating element	Stainless steel
Glass parts	DURAN®
Connection	olive Ø 12 mm
Weight	3.5 kg
In acc. with DAB norm	no
Voltage	230 V
Dimensions W x D x H	160 x 220 x 700 mm

Art. No.	Pack Qty.	€
Y367.1 *	1	1213,70

* Please check with our Sales Department for delivery period of these products.



Flow meters with propeller

With 2 hose connectors, length 25 mm, Ø 6-11 mm.
Minimum flow 150 ml/min. Pressure load max. 2 bar.
Dimensions: W 90 x H 40 x D 15 mm. Weight 12 g.

Made of styrene-acrylonitrile (SAN)

For water and similar liquids.
Temperature stable up to +30 °C.

Colour	Art. No.	Pack Qty.	€
blue	1736.1	1	11,40
red	E486.1	1	11,40
black	E487.1	1	11,40



Compact ion exchanger Destiljo 2

For wall attachment. Ideal for deionizing water
(high purity water quality 0.1-20 µS) in small quantities.

- Very effective, handy and dependable
- Capacity about 50 l per h
- Capacity of cartridge is dependent on water grade: at 10° d app. 320 l, at 20° d approx. 160 l water. Conductivity range up to 100 µS/cm
- Current 220 V/50Hz
- Dimensions: W 115 x H 520 x D 115 mm
- Extension cord 150 cm, tap water supply with ¾" - screw thread 150 cm, plastic outlet hose 100 cm

Delivery incl. cartridge, hoses, wall attachment and instruction manual.

Art. No.	Pack Qty.	€
0092.1	1	306,40

Disposable cartridge D 2

Pretreated against algae growth. Length 380 mm, Ø 90 mm.
Weight app. 1400 g.

Art. No.	Pack Qty.	€
0093.1	1	70,85

► Ion exchange resins see chapter
Chromatography!

Water recycling



Ion exchange cartridges plastic design

By Thermo. **Pressureless.**

Provide completely demineralized water using a mixed-bed resin ion exchanger. Can be attached directly to a tap water supply. Ideal for treating small amounts of water and for supplying autoclaves, sterilizers etc with deionized water.

- 100 % utilization of capacity
- Constantly good water quality

Technical specifications:

Model	DI 425	DI 750
Cartridge	disposable	regenerative
Rate of flow (l/h)	50	100
Capacity at 10° total salt content (l)	425	750
High-purity water quality (µS/cm)	0.1 - 20	
Max. water temp. (°C)	30	
Current	230 V, 50/60 Hz	
Material	polyethylene	
Dimensions Ø x H (mm)	100 x 600	175 x 480
Weight approx. (kg)	3	7
Connection	R 3/4"	

Pressureless cartridge DI 425

Delivery incl. analogue conductivity meter, tubing set and wall attachment. Measuring range 0.1-50 µS/cm

Type	Art. No.	Pack Qty.	€
DI 425	Y360.1	1	285,95
Spare cartridge	Y361.1	1	76,90

Pressureless cartridge DI 750

Delivery incl. analogue conductivity meter and tubing set. Measuring range 0.1-50 µS/cm

Type	Art. No.	Pack Qty.	€
DI 750	Y362.1 *	1	388,10
Spare cartridge	Y363.1 *	1	223,60

* Please check with our Sales Department for delivery period of these products.



Ion exchanger cartridges made of stainless steel

By Thermo. **Pressure-stable** (max. 10 bar) ion exchanger cartridges made of stainless steel. For simple and economical production of deionized water. Ideal for supplying high-purity water systems, dishwasher, autoclaves, sterilizers, air conditioners, steam boilers and for general laboratory applications.

Technical specifications:

Model	DI 1500	DI 2000	DI 2800	DI 4000
Capacity at 10° total salt content (l)	1500	2000	2800	4000
Cartridge filling	Mixed bed resin, regenerative			
Max. pressure (bar)	10			
Pure water quality (µS/cm)	0.1-20			
Max. water temperature (°C)	30			
Material	Stainless steel V4A			
Connection	R 3/4"			
Weight (kg)	14	18	24	27
Dimensions Ø x H (mm)	240 x 410	240 x 490	240 x 600	240 x 700

Delivery without conductivity meter CA30.1 (please order separately).

Type	Art. No.	Pack Qty.	€
DI 1500	HH27.1 *	1	657,90
DI 2000	CA31.1 *	1	756,80
DI 2800	CA32.1 *	1	881,50
DI 4000	CA33.1 *	1	1163,15

* Longer delivery times possible. Please check with our Sales Department.



Digital conductivity meter

By Thermo. Ranges: 0.055-199.9 µS/cm, from 10 µS/cm automatic switch-over to 10.00-199.9 µS/cm. With automatic temperature-compensation. Limit value alarm can be adjusted to up to 30 µS/cm, visual and audible alarm when limit value has been exceeded.

Delivery incl. PVC-tube, outside-Ø 16.5 mm, inside-Ø 10.2 mm, length 1.5 m.

Type	Art. No.	Pack Qty.	€
for models DI 1500 to DI 4000	CA30.1 *	1	553,65

* Longer delivery times possible. Please check with our Sales Department.

Water recycling



Smart2Pure ultrapure water system

By Thermo.

Compact systems for the production of contamination-free water from tap water. The unit is **connected directly to the mains water supply**. Simultaneous provision of ultrapure and pure water in the following grades:

- **ASTM type I** (resistance of 18.2 MΩ x cm)
- **ASTM type II** (resistance of 10 -15 MΩ x cm)

Easy to use, space-saving design and low follow-up costs. The pre-treatment cartridge is separate from the ultrapure water cartridge. Only the used cartridge need be replaced, when necessary.

Uses:

Analytical chemistry: HPLC, GC, GC-MS, ICP-MS, AA, TOC measurements, IC

Molecular biology and microbiology: cell culture/ tissue culture, PCR, DNA sequencing, electrophoresis

Routine laboratory tasks: making up and diluting buffers and reagents, rinsing of laboratory glassware, supply of autoclaves, analysers and other laboratory equipment

Features of Smart2Pure basic model:

- Combined cartridge (reverse osmosis membrane/activated charcoal) for pre-treatment of feed water
- Direct tapping of type I ultrapure water through a sterile end filter (0.2 µm)
- Integrated 6-litre tank for storing type II pure water
- Guaranteed pure water quality: the recirculation pump and sterile air filter protect from microbial contamination
- Additional pressure outlet on ultrapure water tank for supplying downstream devices
- Simple and economical change of expendables as treatment cartridges can be replaced separately
- Space-saving mounting on laboratory bench or on the wall

Optional Smart2Pure UV system:

UV lamp with two wavelengths of 254 and 185 nm kills bacteria, oxidises organic compounds and produces germ-free ultrapure water with a TOC content of < 5 ppb.

Optional Smart2Pure UF system:

UF ultra-filtration module for near-total elimination of macro-molecular contamination such as microorganisms, pyrogens (bacterial endotoxins), nucleases and particles.

Optional Smart2Pure UV/UF system:

The combination of UV oxidation and ultra-filtration produces analytically pure water with a specific resistance of up to 18.2 MΩ cm, TOC values of < 5 ppb, pyrogen levels of < 0.001 EU/ml and RNase, DNase and DNA concentrations below the detection limit.

Technical specifications:

Drinking water requirements:	
Drinking water to DIN 2000	Manganese and iron content: < 0.05 mg/l
	Chlorine concentration: < 0.1 mg/l
	Colloid index : < 3
	Drinking water temperature: 2-35 °C
	Drinking water pressure: 1-6 bar

Pure water specifications:	ASTM Type I	ASTM Type II
Conductivity (µS/cm)	0.055	0.067-0.1
Resistance (MΩ x cm)	18.2	10-15
Permeate output for pure water at 15 °C (l/h)	-	3 or 6
Output for ultrapure water (l/min)	1.0	-
Output (models with UF filter) (l/min)	0.6	-
TOC value (ppb)	< 10	-
TOC value (models with UV lamp) (ppb)	1-5	-
Endotoxins (models with UF filter) (EU/ml)	0.001	-
Bacteria content (KbE/ml)	< 1	-
Particle content < 0.2 µm pro ml	< 1	-
Technical specifications:		
Dimensions W x D x H (mm)	305 x 400 x 545	
Weight (kg)	approx. 22	
Power supply	100-240 V / 50/60 Hz, 1.8 m mains plug	
Drinking water connection	1.5 m tubing with 8 mm outer Ø and 3/4"	
Wastewater connection	1/4" or 8 mm outer Ø, 2 m tubing, pressure-less outlet	

Delivery incl. Smart2Pure unit with integral 6-litre tank, sterile tank ventilation filter, combined cartridge (reverse osmosis membrane/activated charcoal), ultrapure water cartridge, 0.2 µm end filter, pressure retaining valve, UV lamp and/or ultra-filter (depending on model).

Type	Typical applications	Art. No.	Pack Qty.	€
Smart2Pure 3 l/h	Standard buffers, autoclaves, analysis: AAS, IC, ICP	HE77.1 *	1	4176,40
Smart2Pure 6 l/h		HE78.1 *	1	5279,35
Smart2Pure UF 3 l/h	Standard buffers, autoclaves, molecular biology: electrophoresis buffer, cell and tissue culture media	HE79.1 *	1	4612,85
Smart2Pure UF 6 l/h		HE80.1 *	1	5715,80
Smart2Pure UV 3 l/h	Trace analysis, HPLC, IC, ICP-MS, GC-MS, TOC analysis	HE81.1 *	1	4849,35
Smart2Pure UV 6 l/h		HE82.1 *	1	5951,20
Smart2Pure UV/UF 3 l/h	Molecular and microbiology: PCR, DNS, IVF, monoclonal antibodies, cell culture media	HE83.1 *	1	5455,65
Smart2Pure UV/UF 6 l/h		HE84.1 *	1	6557,50

Accessories:

Spare pretreatment pack Smart2Pure 3 l/h	HE85.1 *	1	278,45
Spare pretreatment pack Smart2Pure 6 l/h	HE86.1 *	1	317,15
Spare pure water filter cartridge	HE87.1 *	1	403,15
Spare UV-lamp	HE88.1 *	1	295,65
Spare ultra-filtration module	HE89.1 *	1	392,40
Spare tank air filter	HE90.1 *	1	93,00
Wall attachments incl. mounting parts	HE92.1 *	1	148,35
Spare sterile filter capsule 0.2 µm	CA73.1 *	1	203,20

* Longer delivery times possible. Please check with our Sales Department.



BRITA® benchtop water filters

For optimal drinking water quality. Reduces limescale, lead, copper and chlorine content using a combination of ion exchange and activated charcoal.

- Electronic cartridge exchange indicator
- With MAXTRA Flow Control for steady flow and optimal filtration capacity
- ① MARELLA: easy to fill flip top lid
- ② OPTIMAX: with tap easy and convenient use

Delivery incl. 1 MAXTRA water filter cartridge.

Type	Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
① MARELLA	2,4	267 x 109 x 277	XC11.1	1	25,75
② OPTIMAX	8,5	200 x 350 x 228	XC12.1	1	67,75

Accessories:

BRITA® MAXTRA water filter cartridges	XC13.1	3	23,55
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Rotilabo®-battery jars

Made of type 3.3 borosilicate glass.

Cylindrical glass beakers with rough ground rim. Autoclavable.

Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
60	120	AYL9.1	10	102,05
100	100	AYN0.1	6	68,30
100	150	AYN1.1	6	73,10
100	200	AYN2.1	6	83,75
125	125	AYN3.1	6	90,10
125	250	AYN4.1	6	97,85
150	150	AYN5.1	4	82,60
150	200	AYN6.1	1	20,25
150	250	AYN7.1	1	21,40
160	320	AYN8.1	1	32,05
200	200	AYN9.1	1	40,35
200	250	AYP0.1	1	42,95
200	300	AYP1.1	1	46,20
200	400	AYP2.1	1	49,25
240	480	AYP3.1	1	103,20



TLC separation chamber

Made of borosilicate glass 3.3. For immersing pre-treated TLC ready-to-use 8 x 4 cm foils in solvents. Cylindrical glass beakers with loose glass lid. Inner height 100, Ø 60 mm.

Art. No.	Pack Qty.	€
0823.1	1	39,05



Capillary tube

By Hirschmann. Made of clear glass. Open at both ends.

Length (mm)	Outer Ø (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
80	1,0	0,8	EAC7.1	10 x 100	62,70
80	1,35	0,95	EAC8.1	10 x 100	43,90
80	1,55	1,15	EAC9.1	10 x 100	45,80
90	1,0	0,8	EAE0.1	10 x 100	63,00
100	1,0	0,8	EAE1.1	10 x 100	71,95
100	1,35	0,95	EAE2.1	10 x 100	50,75
100	1,55	1,15	EAE3.1	10 x 100	46,85
120	1,0	0,8	EAE4.1	4 x 250	73,25
120	1,35	0,95	EAE5.1	4 x 250	59,25
150	1,0	0,8	EAE6.1	4 x 250	79,45

Chromatography accessories



Test tube atomizers

Made of DURAN®. **Delivery incl.** ground joint clamp and rubber bulb.

Volume (ml)	Standard taper (NS)	Art. No.	Pack Qty.	€
6	14/23	TK61.1	1	48,20
12	19/26	TK62.1	1	49,05

Accessories:

Spare atomizer attachment for TK61.1	TK63.1	1	40,65
Spare atomizer attachment for TK62.1	TK64.1	1	43,25
Spare test tube for TK61.1	TK65.1	1	9,30
Spare test tube for TK62.1	TK66.1	1	10,50
Spare rubber bulb, incl. tube	5914.1	1	12,90



TLC sprayer

Versatile sprayer with gas cartridge for spraying reagents and other liquids. Spray pressure: constant 4.4 bar. Eco-friendly propellant mixture of dimethyl ether, propane and isobutane. Sufficient for approx. 500 ml of liquid.

Easy to clean: unscrew cartridge, immerse uptake into vessel containing cleaning fluid and spray until the spray is free of residues.

Propellants: dimethyl ether, isobutane, propane.

Delivery incl. propellant cartridge, 170 ml glass reservoir bottle, suction tube and screw cap.

Danger H222-H229

Art. No.	Pack Qty.	€
YC44.1	1	13,95

Accessories:

Replacement cartridges with spray nozzle and suction tube	YC45.1	5	44,10
Replacement 170 ml glass bottle	YC46.1	1	7,20



TLC atomizers

Made of DURAN®. NS 19/26, volume 100 ml. Overall height 160 mm.

Autoclavable without rubber tube.

Delivery incl. Erlenmeyer flasks, wire joint clamps, rubber ball incl. rubber tube 25 cm.

Type	Art. No.	Pack Qty.	€
TLC atomizers complete	0707.1	1	60,75

Accessories:

Spare spray nozzle	H451.1	1	36,70
Spare rubber bulb, incl. tube	5914.1	1	12,90



Spray diffusers

By Rixius. Made of brown glass. Volume approx. 20 ml, Ø 29 mm, overall height with spray nozzle 98 mm. With GL 18 thread.

Spray nozzle complete with cap and tube made of PE.

Tube length 111 mm. Approx. 0.05 ml spray volume per pump action.

Art. No.	Pack Qty.	€
N145.1	3	8,20

- Matching tubes can be found from page 354
- Vacuum pumps see page 340
- Further separation chambers see chapter chromatography!



Vacuum-blocks

For **filtration** and solid **extraction**. Ideal for rapid **sample preparation**. Each tube position is equipped with a valve and can therefore be evacuated either individually or with the others. Each individual valve contains a Luer fitting, enabling filtration with a syringe filter or mounting of a disposable syringe. Inner body makes exact positioning of test tubes under each available opening.

Delivery incl. lid, glass chamber with connector (for tubes with inner Ø 9-10 mm) and manometer, plastic rack (with support posts and 3 interchangeable plates for tube-Ø 17, 12 or 10 mm), nylon-stopcocks, plastic valves and needles (PP, length 25 mm).

Type	Inner dimensions: L x W x H (mm)	Art. No.	Pack Qty.	€
12-place	177 x 82,5 x 171,5	H676.1	1	822,40
16-place	279 x 76 x 171,5	T670.1	1	912,70
24-place	279 x 76 x 171,5	T678.1	1	1072,85

Accessories for vacuum-blocks

Drying attachment

For simultaneous evaporation of between 12 and 24 eluates. The lid has a gas connector on one side, from which the gas is fed directly to 12, 16 or 24 stations.

Type	Art. No.	Pack Qty.	€
12-station	PL28.1	1	364,45
16-station	PL29.1	1	439,70
24-station	PL30.1	1	461,20

Rack bases for 12-station vacuum-block

Type	Art. No.	Pack Qty.	€
Rack base for volumetric flasks	PL31.1	1	65,60
Rack base for autosampler vials Ø 12 mm	PL32.1	1	65,60

Spare parts for vacuum-blocks

For 12 places (H676.1)

Type	Art. No.	Pack Qty.	€
Glass chamber	T553.1	1	170,95
Spare parts set: 1 lid, 1 seal, 12 cocks	T554.1	1	321,45
Lid seals	T555.1	2	22,50
Spare parts set: 1 vac. manom., 1 valve, 1 glass chamber	T556.1	1	489,15
Needles (polypropylene)	T557.1	12	40,10
Needles (stainless steel)	T558.1	12	127,95
Cocks (nylon)	T559.1	12	89,80

For 16 places (T670.1)

Type	Art. No.	Pack Qty.	€
Glass chamber	T671.1	1	220,40
Spare parts set: 1 lid, 1 seal, 12 cocks	T672.1	1	493,45
Lid seals	T673.1	2	31,65
Spare parts set: 1 vac. manom., 1 valve, 1 glass chamber	T674.1	1	536,45
Needles (polypropylene)	T675.1	16	51,40
Needles (stainless steel)	T676.1	16	160,20
Cocks (nylon)	T677.1	16	112,90

For 24 places (T678.1)

Type	Art. No.	Pack Qty.	€
Glass chamber	T679.1	1	235,45
Spare parts set: 1 lid, 1 seal, 12 cocks	T680.1	1	536,45
Lid seals	T681.1	2	28,85
Spare parts set: 1 vac. manom., 1 valve, 1 glass chamber	T682.1	1	686,95
Needles (polypropylene)	T683.1	24	76,25
Needles (stainless steel)	T684.1	24	224,70
Cocks (nylon)	T685.1	24	165,55

General spare parts for vacuum-blocks

Type	Art. No.	Pack Qty.	€
Top lid port, female Luer connector	PL33.1	2	13,35
Bottom lid port, male Luer connector	PL34.1	2	13,35



SPE columns

Made of **PP**. Can be used with vacuum block (H676.1ff) and other vacuum systems. Excellent chemical resistance. Column outlet: Luer (male).

Delivery without PE frits (please order separately).

Volume (ml)	Outer Ø (mm)	Art. No.	Pack Qty.	€
1	8	PX07.1	100	41,20
3	11	PX08.1	100	41,20

Frits for SPE columns

Made of **PE**. Pore size 20 µm.

Type	Art. No.	Pack Qty.	€
For 1 ml PP column	PX10.1	100	15,95
For 3 ml PP column	PX11.1	100	15,95

Accessories: Luer caps

Made of **PP**. To fit standard Luer (male) outlets, and for all column and cartridge sizes.

Art. No.	Pack Qty.	€
PX15.1	100	15,95



SPE empty cartridges

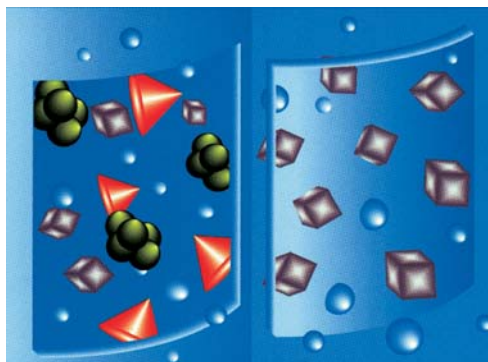
Made of **PP**. Fitted with 2 PE frits (pore size 20 µm).

Usable with vacuum block (H676.1ff) and other vacuum systems.

The Luer lock caps can be removed and refitted. Luer lock caps can be used to fit further cartridges, a column or a reservoir with Luer outlet (male). Column outlet: Luer (male). Load capacity is dependent on the particle size of the sorbent.

Volume (ml)	Outer Ø (mm)	Art. No.	Pack Qty.	€
0,7	12	PX13.1	100	140,85
2	12	PX14.1	100	159,10

Dialysis Tubular Membranes



Dialysis – Principle

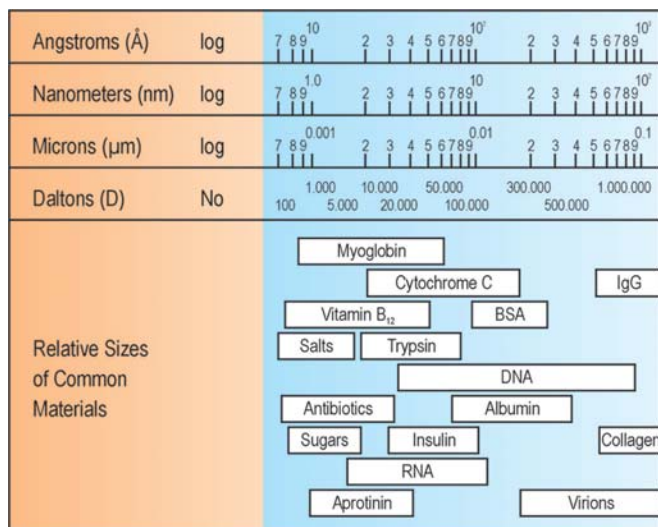
Dialysis is a method used for **purifying biomolecules according to the principle of osmosis**: From a high concentration solution small solutes diffuse across a semi permeable membrane to a low concentration solution until equilibrium is reached. The pore size of the membrane allows only small solutes to pass, larger species are retained. Thus the molecules are separated. The pore size is indicated as **Molecular Weight Cut Off (MWCO)**.

Dialysis- Examples for Applications

- Desalting
- Concentration of plasma or serum
- Buffer or pH change of samples
- Preparation of proteins for electrophoresis
- Concentration of antibodies
- Removal of contamination
- Purifying cell culture extracts
- Protein removal of gels after electrophoresis
- Removal of oligosaccharides from protein solutions

Course of Dialysis

1. Fill beaker with dialysis buffer:
In most cases the dialysis buffer equals the sample buffer, except for the molecules hold back by the membrane. The volume of the solution should be at least 100 times the sample volume.
2. Place magnetic follower into the buffer.
3. Cut dialysis tube.
The length required depends on the following criteria:
- Tube length for dialysis (mm) = $[\text{Vol (in } \mu\text{l)} \times 3.2] / [\text{flat width}^2 \text{ (in mm}^2\text{)}]$
- Add 10 % of tube length
- Add 40 mm for closures
4. Close one end of the preincubated tube with a closure so that at least 1 cm tubing overlaps.
5. Turn tube, open other end and fill sample. Carefully press the tubing to remove remaining air. Also close this end with a closure (1 cm overlap).
6. Place the dialysis tube into the prepared beaker, close lid and switch on stirrer.
7. The dialysis solution should be changed at least 3 times during the total dialysis process. Recommend changing after 2- 4 h, 6- 8 h and 10-14 h. Dialysis should be continued for at least 2 h after final change.
8. Following dialysis dry tube with a clean kim wipe, remove one clip, open the tube and remove sample with a pipette.



Choosing the Dialysis Membrane

Chemical resistance (residence time 17-20 h):

Regenerated cellulose: 2<pH<12, applicable when using diluted acid, base, or solvents (see table below).

Cellulose ester: 5<pH<9, use only under neutral conditions.

MWCO:

Those molecules about to be separated must have a **size ratio of approx. 25:1**.

Rule of thumb: Ideal MWCO = approx. half of molecular weight of the macromolecule left in the membrane.

Flat width:

Rule of thumb: $\sqrt{[\text{Vol (in } \mu\text{l)} / 20]} = \text{average flat width required (mm)}$.

The overall length of dialysis tube should not exceed 10 to 15 cm.

Choosing the Clips

The clips should be approx. 4 to 10 mm wider than the flat width of the tube.

Notice: Membranes made of cellulose ester should only be closed using Art. No 0685.1 to 0688.1.

Pretreatment of the Membranes

Wet packaged membranes (Spectra/Por® cellulose ester, Spectra/Por® 7, ZelluTrans/Roth V series)

Place tube for approx. 30 min in distilled water to remove the sodium azide and ethanol, respectively. Then rinse with distilled water.

Dry packaged membranes (Membra-Cel™, Nadir®, ZelluTrans/Roth, Spectra/Por®1-4 and Spectra/Por® 6)

For the most applications it is sufficient to soak the membrane for approx. 30 min in distilled water to remove glycerol and then to rinse it with distilled water. To remove heavy metals and sulphides place the tube in a solution of 2 % sodium bicarbonate and 1 mM EDTA and treat it as follows:

- Soak the tube at + 60 °C for 3 to 4 h. Then rinse with distilled water. Be careful also to rinse the inside of the tube.
- *Alternatively* incubate the tube 2 times for 10 min at approx. 95 °C. Rinse with distilled water in between incubation steps and afterwards. Be careful also to rinse the inside of the tube.

Note:

Wetted membranes may not dry out!

Filling volume for 15 cm tube length

Broadth (mm)	8	10	12	18	25	32	40	45	50	76	100	120
Tube Ø (mm)	5	6	8	11	16	20	25	29	32	48	64	76
Filling volume (ml)	3.1	4.8	7	15	30	49	76	97	119	276	478	688



ZelluTrans/Roth Dialysis Membranes

Made of **regenerated cellulose**.

- High-quality membranes, **dry packaged** on rolls
- Treated with glycerol to protect against brittleness
- Very low adsorption capacity (e.g. 1 µg/cm² Bovin Serum Albumin)
- Temperature stable up to +90 °C
- Good chemical resistance
- Contain low amounts of impurities, sulphides and heavy metals
- Wall thickness: 20-50 µm
- Autoclavable up to 121 °C (immersed in dist. water for max. 10 min. at 1 bar)

Metal traces:

cadmium	< 0.10 ppm	nickel	< 0.10 ppm
chromium	< 0.10 ppm	zinc	6.24-12.9 ppm
copper	< 0.10 ppm	lead	0.75-0.80 ppm
iron	< 13.6 ppm		

Delivery incl.

T1 to T3: detailed instructions, disposable scissors, 2 clips, batch specific data sheet.

T4: detailed instructions, disposable scissors, 2 clips.

T1: MWCO 3500

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
19	12	15	E656.1	1	213,95
19	12	30	E657.1	1	289,20
46	29.3	15	E658.1	1	220,40
46	29.3	30	E659.1	1	289,20

T2: MWCO 6000-8000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
10	6.4	15	E660.1	1	218,25
10	6.4	30	E661.1	1	299,95
23	14.6	15	E662.1	1	148,35
23	14.6	30	E663.1	1	190,30
25	16	15	E664.1	1	153,75
25	16	30	E665.1	1	192,45
32	20.4	15	E666.1	1	153,75
32	20.4	30	E667.1	1	192,45
40	25.5	15	E668.1	1	164,50
40	25.5	30	E669.1	1	202,10
50	31.8	15	E670.1	1	229,00
50	31.8	30	E671.1	1	281,65

T3: MWCO 12000-14000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
10	6.4	15	E672.1	1	267,70
10	6.4	30	E673.1	1	360,15
25	16	15	E674.1	1	224,70
25	16	30	E675.1	1	310,70
33	21	15	E676.1	1	224,70
33	21	30	E677.1	1	310,70
45	28.6	15	E678.1	1	224,70
45	28.6	30	E679.1	1	310,70
76	48.4	5	E680.1	1	160,20
76	48.4	10	E681.1	1	213,95

T4: MWCO 12000-14000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
10	6.4	30	E682.1	1	325,75
25	16	30	E683.1	1	149,45
33	21	30	E684.1	1	156,95
45	28.6	30	E685.1	1	178,45



ZelluTrans/Roth V-series

Made of **regenerated cellulose**.

- **Highly pure tubing membrane in pieces (length 50 cm)**
- Free of any trace elements, glycerol, heavy metals, sulphides
- Can be used without any time-consuming cleaning procedure
- **Packaged wet** in 20 % ethanol
- Excellent for DNA/RNA applications
- Good chemical resistance
- Wall thickness: 20-30 µm
- Store at +4 to +8 °C
- Autoclavable up to 121 °C

		5 pieces			10 pieces		
MWCO	Flat width (mm)	Art. No.	Pack Qty.	€	Art. No.	Pack Qty.	€
1000	18	E909.1	5	162,35	E887.1	10	235,45
1000	38	E910.1	5	162,35	E888.1	10	222,55
1000	45	E911.1	5	162,35	E889.1	10	239,75
2000	18	E912.1	5	162,35	E890.1	10	239,75
2000	38	E913.1	5	162,35	E891.1	10	239,75
2000	45	E914.1	5	162,35	E892.1	10	239,75
5000	18	E915.1	5	162,35	E893.1	10	239,75
5000	20	E916.1	5	162,35	E894.1	10	239,75
5000	30	E917.1	5	162,35	E895.1	10	239,75
5000	40	E918.1	5	162,35	E896.1	10	239,75
10000	10	E919.1	5	162,35	E897.1	10	239,75
10000	25	E920.1	5	162,35	E898.1	10	239,75
10000	32	E921.1	5	162,35	E899.1	10	239,75
10000	40	E922.1	5	162,35	E900.1	10	239,75
15000	10	E923.1	5	162,35	E901.1	10	239,75
15000	25	E924.1	5	162,35	E902.1	10	239,75
15000	32	E925.1	5	162,35	E903.1	10	239,75
15000	45	E926.1	5	162,35	E904.1	10	239,75
25000	12	E927.1	5	162,35	E905.1	10	239,75
25000	25	E928.1	5	162,35	E906.1	10	239,75
25000	35	E929.1	5	162,35	E907.1	10	239,75
25000	40	E930.1	5	162,35	E908.1	10	239,75

Nadir®-Dialysis Tubing

Made of **regenerated cellulose (cellulose hydrate)**.

For technical dialysis of metal colloids, blood serum and other protein colloids, and for removal of mineral salts and to culture bacteria.

Technical specifications:

MWCO	10 000 - 20 000 Dalton
Average poresize	25 - 30 Å
Total pore surface	approx. 6 %
Water vapour permeability (DIN 53122)	1000 mg/m ² at 20 °C and 85 % rel. humidity
Effective diffuse permeability	NaCl: 7 - 15 x 10 ⁻⁷ cm ² /s (37 °C) Vit. B12: 0,5 - 1,5 x 10 ⁻⁷ cm ² /s (37 °C)
Glycerol content	21 %
Steam sterilizable at	+130 °C

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty. (roll)	€
62,8	40	25	5101.1	1	50,45
62,8	40	100	5101.2	1	170,95
66	42	25	5102.1	1	50,45
66	42	100	5102.2	1	170,95
78,5	50	25	5104.1	1	50,45
78,5	50	100	5104.2	1	170,95

Dialysis Tubular Membranes



Dialysis Membrane Spectra/Por® 1 to 4

Made of **regenerated cellulose**.

- High-quality membrane on rolls
- Temperature stable up to +60 °C
- High chemical resistance
- **Dry packaged**
- Treated with glycerol to protect against brittleness
- Contains low amounts of impurities such as sulphides and heavy metals

Metal traces:

cadmium	< 0.02 ppm	lead	2-6 ppm
chromium	0.1-0.2 ppm	magnesium	0.1-0.3 ppm
copper	0.8-1.2 ppm	nickel	1.3-1.7 ppm
iron	20-60 ppm	zinc	1.5-5 ppm

Spectra/Por® 1 - MWCO 6000 to 8000

Width 10-50 mm: Wall thickness 30-50 µm

Width 100-120 mm: Wall thickness 70 µm

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	15	1954.1	1	262,30
23	14,6	30	1955.1	1	270,90
32	20,4	30	1956.1	1	270,90
40	25,5	30	2710.1	1	290,25
50	31,8	30	2711.1	1	338,65
100	63,7	15	2712.1	1	410,65
120	76,4	15	2713.1	1	425,70

Spectra/Por® 2 - MWCO 12000 to 14000

Highly porous membranes for high dialysis rates.

Width 10-45 mm: Wall thickness 20-50 µm

Width 105-120 mm: Wall thickness 135-155 µm

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	15	1958.1	1	358,00
25	15,9	15	1964.1	1	358,00
45	28,6	15	2714.1	1	358,00
105	63,7	15	2715.1	1	792,30
120	76,4	15	2716.1	1	792,30

Spectra/Por® 3 - MWCO 3500

Wall thickness: 25-30 µm

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
18	11,5	15	0978.1	1	319,30
45	28,6	15	0959.1	1	319,30
54	34,0	15	0983.1	1	339,70

Spectra/Por® 4 - MWCO 12000 to 14000

Wall thickness: 20-50 µm

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	30	2717.1	1	397,75
25	15,9	30	2718.1	1	220,40
32	20,4	30	2719.1	1	237,60
45	28,6	30	2720.1	1	276,30
75	47,7	15	2721.1	1	292,40

Trial Kits Spectra/Por® 1-3

Made of **regenerated cellulose**.

Tubular membrane pieces on roll, length 5 m, packaged dry. Ideal for small-scale dialyses and for testing membranes for special applications.

Trial Kit delivery incl.

- tubular membrane Spectra/Por® 1, 2 or 3
- 1 pair of Spectra/Por® sealing clips made of PP (1 x with weight, 1 x without)

Spectra/Por® 1 - MWCO 6000-8000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
32	20.4	5	4570.1	1	121,50
50	32	5	4572.1	1	133,30

Spectra/Por® 2 - MWCO 12 000-14 000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
25	16	5	4574.1	1	121,50
45	29	5	4577.1	1	133,30

Spectra/Por® 3 - MWCO 3500

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
18	11.5	5	4578.1	1	121,50
54	34	5	4579.1	1	133,30



Dialysis tubes Membra-Cel™

By Viskase. Made of **regenerated cellulose**.

Colourless, transparent to slightly opaque, semi-permeable and seamless.

Application area: dialysis and ultrafiltration in the laboratory.

- **Exclusion limit (MWCO) 14 000**
- Dry packed, treated with glycerine
- Solid in pH range from 5 to 9
- No unspecific protein binding, protein adsorption < 1 ng/g
- Autoclavable up to +120 °C (max. 15 min, immersed in dist. water)

Flat width (mm)	Ø (mm)	Length (m)	Wall thickness (mm)	Art. No.	Pack Qty. (roll)	€
10	6	30	0.051	1780.1	1	155,90
10	6	152	0.051	1781.1	1	504,20
25	16	152	0.020	0653.1	1	188,15
34	22	30	0.023	1784.1	1	66,65
34	22	152	0.023	0654.1	1	203,20
44	28	30	0.020	1785.1	1	80,10
44	28	152	0.020	0655.1	1	246,20
77	49	30	0.041	5358.1	1	188,15

Attention:

Do not tie knots in **regenerated cellulose**. Closure clips must be used to avoid any changing of membrane or MWCO.



Dialysis membranes Spectra/Por® 6

Made of **regenerated cellulose**.

- **Packaged wet** in 0.05 % sodium azide solution on rolls
- Contain low amounts of impurities such as sulphides and heavy metals
- Wall thickness: 60-65 µm
- Store at +4 °C
- Temperature stable up to +60 °C

Metal traces:

cadmium	< 0.02 ppm	lead	2-6 ppm
chromium	0.1-0.2 ppm	magnesium	0.1-0.3 ppm
copper	0.8-1.2 ppm	nickel	1.3-1.7 ppm
iron	20-60 ppm	zinc	1.5-5 ppm

Spectra/Por® 6 MWCO 1000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
18	11,5	10	1966.1	1	379,50
38	24	10	1967.1	1	379,50
45	29	10	1968.1	1	379,50

Spectra/Por® 6 MWCO 2000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
18	11,5	10	1973.1	1	379,50
38	24	10	1974.1	1	379,50
45	29	10	1975.1	1	379,50

Spectra/Por® 6 MWCO 3500

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
18	11,5	10	1976.1	1	379,50
45	29	10	1977.1	1	379,50
54	34	10	1978.1	1	379,50

Spectra/Por® 6 MWCO 8000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	10	1924.1	1	379,50
24	15	10	1926.1	1	379,50
40	25,5	10	1934.1	1	379,50
50	32	10	1935.1	1	379,50

Spectra/Por® 6 MWCO 10000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	10	1990.1	1	379,50
24	15	10	1991.1	1	379,50
32	20,4	10	1992.1	1	379,50
45	29	10	1996.1	1	379,50

Spectra/Por® 6 MWCO 15000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	10	1881.1	1	379,50
24	15	10	1883.1	1	379,50
32	20,4	10	1887.1	1	379,50
45	29	10	1888.1	1	379,50

Spectra/Por® 6 MWCO 25000 (opaque)

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	10	1979.1	1	379,50
28	18	10	1981.1	1	379,50
34	22	10	1982.1	1	379,50

Spectra/Por® 6 MWCO 50000 (opaque)

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	10	1891.1	1	379,50
28	18	10	1892.1	1	379,50
34	22	10	1893.1	1	379,50

Dialysis membranes Spectra/Por® 7

Made of **regenerated cellulose**.

- **Packaged wet** in 0.05 % sodium azide solution on rolls
- **Highly pure membrane** without any trace elements such as heavy metals, sulphides, glycerol
- Can be directly used without any cleaning procedures
- Wall thickness: 60-65 µm
- Store at +4 °C
- Temperature stable up to +60 °C

Spectra/Por® 7 MWCO 1000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
18	11,5	5	E853.1	1	321,45
38	24	5	E854.1	1	321,45
45	29	5	E855.1	1	321,45

Spectra/Por® 7 MWCO 2000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
18	11,5	5	E856.1	1	321,45
38	24	5	E857.1	1	321,45
45	29	5	E858.1	1	321,45

Spectra/Por® 7 MWCO 3500

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
18	11,5	5	E859.1	1	321,45
45	29	5	E860.1	1	321,45
54	34	5	E861.1	1	321,45

Spectra/Por® 7 MWCO 8000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	5	E862.1	1	321,45
18	11,5	5	E863.1	1	321,45
24	15	5	E864.1	1	321,45
32	20,4	5	E865.1	1	321,45
40	25,5	5	E866.1	1	321,45
50	32	5	E867.1	1	321,45

Spectra/Por® 7 MWCO 10000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	5	E868.1	1	321,45
18	11,5	5	E869.1	1	321,45
24	15	5	E870.1	1	321,45
32	20,4	5	E871.1	1	321,45
45	29	5	E872.1	1	321,45

Spectra/Por® 7 MWCO 15000

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	5	E873.1	1	321,45
18	11,5	5	E874.1	1	321,45
24	15	5	E875.1	1	321,45
32	20,4	5	E876.1	1	321,45
45	29	5	E877.1	1	321,45

Spectra/Por® 7 MWCO 25000 (opaque)

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	5	E878.1	1	321,45
18	11,5	5	E879.1	1	321,45
24	15	5	E880.1	1	321,45
28	18	5	E881.1	1	321,45
34	22	5	E882.1	1	321,45

Spectra/Por® 7 MWCO 50000 (opaque)

Flat width (mm)	Ø (mm)	Length (m)	Art. No.	Pack Qty.	€
12	7,5	5	E883.1	1	321,45
28	18	5	E884.1	1	321,45
34	22	5	E885.1	1	321,45

Dialysis Tubular Membranes



Dialysis Membrane Spectra/Por® Biotech CE

Made of **cellulose ester (CE)**

- **High purity** as no trace elements, heavy metals, sulphides, glycerol
- Extensive MWCO range
- Low membrane reactivity, therefore negligible protein and liposome adsorption
- No time-consuming cleaning process required
- Temperature stable up to +37 °C
- **Packaged wet** in 0.05 % sodium-azide solution
- Store at +4 °C
- Wall thickness:
MWCO 100-50 000: 75-85 µm
MWCO 100 000: ≥ 100-125 µm

MWCO 100-500

Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	0,32	10	2702.1	1	385,95
16	10,2	0,79	10	4594.1	1	440,75

MWCO 500-1000

Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	0,32	10	2704.1	1	385,95
16	10,2	0,79	10	4596.1	1	440,75

MWCO 3500-5000

Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	0,32	10	2708.1	1	385,95
16	10,2	0,79	10	4616.1	1	440,75

MWCO 8000-10000

Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	0,32	10	4633.1	1	385,95
16	10,2	0,79	10	4635.1	1	440,75

MWCO 20 000

Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	0,32	10	4643.1	1	385,95
16	10,2	0,79	10	4646.1	1	440,75

MWCO 50000

Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	0,32	10	8957.1	1	385,95
16	10,2	0,79	10	8959.1	1	440,75

MWCO 100000

Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
10	6,4	0,32	10	8960.1	1	385,95
16	10,2	0,79	10	8967.1	1	440,75
24	15,2	1,80	10	8968.1	1	505,25

MWCO 300 000

Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
16	10,2	0,79	10	8977.1	1	440,75

MWCO 1 000000

Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
16	10,2	0,79	10	2786.1	1	440,75

Trial Kits Spectra/Por® Biotech CE

Made of **cellulose ester (CE)**.

Tubing membrane pieces on roll, length 1 m, packaged moist in 0.05 % natrium azide solution. Ideal for dialysis where only a small amount of tubing is required (test runs, small-scale applications, etc.).

Sample kit delivery incl.

- Spectra/Por® Biotech CE tubular membrane
- 1 pair of Spectra/Por® universal sealing clips (red, sealing length 50 mm)

MWCO	Flat width (mm)	Ø (mm)	Vol/length (ml/cm)	Length (m)	Art. No.	Pack Qty.	€
100-500	16	10	0,79	1	4556.1	1	145,15
500-1000	16	10	0,79	1	4558.1	1	145,15
3500-5000	16	10	0,79	1	4567.1	1	145,15
8000-10 000	16	10	0,79	1	4583.1	1	145,15
20 000	16	10	0,79	1	4584.1	1	145,15
50 000	16	10	0,79	1	4585.1	1	145,15
100 000	16	10	0,79	1	4586.1	1	145,15
300 000	16	10	0,79	1	4587.1	1	145,15
1 000 000	16	10	0,79	1	4588.1	1	145,15

► For Spectra/Por® universal closures, see page 517

Appearance of dialysis membranes

Dry dialysis membranes have different appearances, dependent on pore size and wall thickness: Clear, opaque or even completely white.

Reason:

Larger MWCO membranes are made slightly thicker to maintain membrane strength when the pores are larger.

The thicker the membrane and larger the pores, the more opaque. So the different membranes look as follows:

Dry membranes with MWCO

100-1000: clear

3 500-5 000: mostly clear

8 000-10 000: slightly opaque

20 000-50 000: opaque

≥100 000: white.

When the membrane is wetted with water the effect disappears and the membrane becomes more clear.

Dialysis Units



Spectra/Por® Float-A-Lyzer® G2

Ready-to-use Dialysis device combining efficiency, convenience and sample protection **with a sample recovery rate of 95-98 %**. The cylindrical dialysis tubing from cellulose ester, is fixed to polycarbonate pieces. **Packaged dry** with glycerol to protect against brittleness. Before use the glycerol is to be removed by rinsing with distilled water for 15-30 min.

- Sample volume 1-10 ml
- The leak-proof screw-on cap allows easy for handling and in-process testing during dialysis is possible
- The tubing is made of cellulose ester with no heavy metal and sulfide contaminants, therefore, no special purification is necessary
- Low-protein and liposome binding membrane, can be used directly with biological samples
- Flotation ring improves sample buoyancy and vertical orientation during dialysis
- Available in precise MWCOs with colour-coded caps
- Several Float-A-Lyzer can be used in one vessel

Technical specifications:

Capacity	1 ml	5 ml	10 ml
Length (mm)	50	100	160
Membrane Diameter (mm)	10	10	10
Top Piece Diameter (mm)	23	23	23
Flotation Ring Diameter (mm)	38	38	38

MWCO	Colour code	1 ml	5 ml	10 ml
100-500	green	P560.1	P586.1	P599.1
500-1000	orange	4549.1	4617.1	4657.1
3500-5000	black	P564.1	P590.1	P603.1
8000-10 000	yellow	P566.1	P592.1	P605.1
20 000	red	P568.1	P594.1	P607.1
50 000	violet	P569.1	P595.1	P608.1
100 000	blue	P570.1	P596.1	P609.1
300 000	amber	4550.1	4624.1	4660.1
1 000 000	pink	4608.1	4653.1	4663.1
Pack Qty.		12	12	12
€		124,70	136,55	139,75

Microdialysis by Membrane Filter (Drop Dialysis)

Microvolumes of sample (5-100 µl) can also be dialysed by membrane filter discs made of cellulose mixed ester (pore size 0,025 µm, Art. No. CY35.1-CY37.1): Fill a Petri dish with dialysis buffer. Place the membrane filter disc on the surface of the solution (shiny side up, avoid bubbles under the filter) by using a stainless steel forceps. Float the membrane for ca. 5 min until it is completely soaked. Pipette the sample on the center of the filter. Due to the open pore structure of the membrane filter and the high surface-to-volume ratio the dialysis is done within a short time (mostly < 30 min). To avoid evaporation of the sample seal the Petri dish tightly during the procedure. In this way the sample volume remains nearly constant.



Spectra/Por®-dialysis cylinder

Made of PS. For use with magnetic stirrers. The tube is centred and dialysis speeded up by the stirring movement.

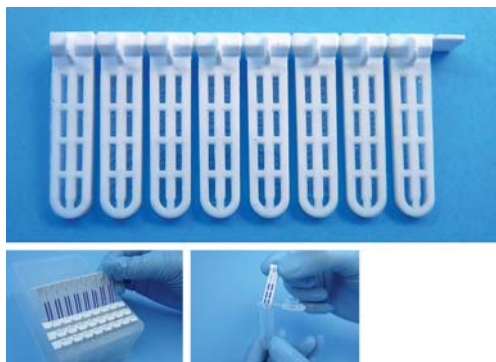
- MINI - for dialysis tubes and systems up to a length of 10 cm
- MAXI - for dialysis tubes and systems up to a length of 25 cm

Delivery incl. magnetic bar and cover.

Model	Volume (ml)	Height (cm)	Ø (cm)	Art. No.	Pack Qty.	€
MINI	600	12,5	11,5	CL82.1	1	74,20
Maxi	1800	30	11,5	CL83.1	1	88,15

- Heating and magnetic stirrers from page 969
- Spectra/Gel™-Absorbant for concentration of dialysed biomolecules see the Biochemistry/ Protein Isolation chapter!

Dialysis Units



ZelluTrans/Roth Mini Dialyzer MD 100

Made of **regenerated cellulose**.

Ready-to-use dialysis unit for samples of between 10 and 100 µl.

The Mini Dialyzer consists of a U-shaped polypropylene capillary with 25 µl graduations and membranes on both sides. The filled sample forms a very thin layer over a large surface area, ensuring very short dialysis times.

- Available as an **individual dialyzer** packed in a 2 ml reaction vial or as a **dialyzer strip** with 8 interconnected individual dialyzers (can be separated)
- Membranes are made of high-quality regenerated cellulose with different pore sizes (MWCO), **dry packed**
- Easy to use: can be filled with sample and emptied using any standard pipette (2-200 µl)
- Very short dialysis times
- Flexible: uses ranging from low-volume dialysis (in reaction vial or micro-titration plate) to high-volume dialysis (using a suitable flotation aid, as described below)
- Compatible with **96 deepwell plates (2.5 ml)**, 8-channel multichannel pipettes and standard automation systems allow simultaneous processing of up to 96 samples.

The Mini Dialyzers can be ready for use straight away - no pretreatment required. For sensitive applications, soak in water or buffer for 15 min to remove any traces of glycerine.

MWCO	Designation	Art. No.	Pack Qty.	€
3500	Individual dialyzer in 2 ml reaction vial	4765.1	1	8,60
	Individual dialyzer in 2 ml reaction vial	4766.1	12	48,20
	Dialyzer strip (8 connected individual dialyzers)	4767.1	1	37,10
6000-8000	Individual dialyzer in 2 ml reaction vial	4769.1	1	8,20
	Individual dialyzer in 2 ml reaction vial	4770.1	12	48,20
	Dialyzer strip (8 connected individual dialyzers)	4771.1	1	35,40
12000-14000	Individual dialyzer in 2 ml reaction vial	4772.1	1	8,20
	Individual dialyzer in 2 ml reaction vial	4775.1	12	48,20
	Dialyzer strip (8 connected individual dialyzers)	4776.1	1	37,10



ZelluTrans/Roth Mini Dialyzer MD 300

Made of **regenerated cellulose**.

Ready-to-use dialysis system for samples from 50 to 300 µl.

The Mini Dialyzer consists of a U-shaped polypropylene capillary with 75 µl graduations and membranes on both sides. The filled sample forms a very thin layer over a large surface area, ensuring very short dialysis times.

- Available as an **individual dialyzer** packed in a 5 ml test tube or as a **dialyzer strip** with 8 interconnected individual dialyzers (can be separated)
- Membranes are made of high-quality regenerated cellulose with different pore sizes (MWCO), **dry packed**
- Easy to use: can be filled with sample and emptied using any standard pipette (100-1000 µl)
- Short dialysis times (30-480 min)
- Flexible: uses ranging from low-volume dialysis (in test tube, 96-deepwell plates, 2.5 ml) to high-volume dialysis (using a suitable flotation aid, 4768.1)

The Mini Dialyzers are ready for use straight away - no pretreatment required.

For sensitive applications, soak in water or buffer for 15 min to remove any traces of glycerine.

MWCO	Designation	Art. No.	Pack Qty.	€
3500	Individual dialyzer in 5 ml test tube	NH90.1	1	8,10
	Individual dialyzer in 5 ml test tube	NH91.1	12	52,65
	Dialyzer strip (8 connected individual dialyzers)	NH92.1	1	39,25
6000-8000	Individual dialyzer in 5 ml test tube	NH93.1	1	8,10
	Individual dialyzer in 5 ml test tube	NH94.1	12	52,65
	Dialyzer strip (8 connected individual dialyzers)	NH95.1	1	39,25
12 000-14 000	Individual dialyzer in 5 ml test tube	NH96.1	1	8,10
	Individual dialyzer in 5 ml test tube	NH97.1	12	52,65
	Dialyzer strip (8 connected individual dialyzers)	NH98.1	1	39,25



Accessories for Mini Dialyzer MD 100 and MD 300

① **Flotation aids** made of PE foam, for use of the Mini Dialyzer in large dialysis vessels. Reusable.

② **High-quality PP cover film** for protection against contamination and evaporation or for storage. Self-adhesive.

Type	Art. No.	Pack Qty.	€
① Flotation aid	4768.1	1	6,35
② PP cover film (for 12 dialyzer strips)	4781.1	1	5,20

- Other Roti® elution vials are also suitable for the dialysis of biomolecules, see chapter LifeScience.

Dialysis Units



Micro dialysis capsule QuixSep®

Reusable dialysis system made of **HDPE** for fast and efficient cleaning of very small sample volumes (**50 µl to 5 ml**). Minimised sample loss, easy handling, usable with any type of membrane.

Usage:

The bottom part of the capsule (white) is filled with sample and the desired membrane is fixed in place by pressing on the capsule closure (red). The fitted capsule is placed into a buffer solution and set in rotation by a magnetic stirrer. This significantly accelerates the dialysis process; concentrations are equalised on average after 30 to 60 min per 0.1 ml of sample volume. On completion of dialysis, the dialysis membrane is pierced with a pipette tip or a syringe and the residual volume is drawn off. The micro dialysis capsule can then be cleaned and reused. During the dialysis process, the cover protects the membrane against damage, allowing multiple QuixSep® capsules to be used simultaneously in a vessel.

Note:

ready-fit dialysis membranes - see ZelluTrans/Roth membrane pieces for QuixSep®, Art. No. 2820.1 - 2822.1. Regenerated cellulose, available in three standard MWCO's.

If using other tube membranes, they must be trimmed to **20 x 20 mm** (for QuixSep® 0.1 to 1.0 µl) or **55 x 55 mm** (for QuixSep® with 5.0 ml volume); i.e. tubes with a flat width of at least 10 or 28 mm are required.

Max. volume (ml)	Max. width of bottom part (mm)	Max. width of cover (mm)	Capsule height (mm)	Art. No.	Pack Qty.	€
0.1	27	21	22	H447.1	1	58,05
0.5	27	21	22	H448.1	1	58,05
1.0	27	21	22	H449.1	1	58,05
5.0	50	48	15	0671.1	1	110,75
Range: each 1x 0.1 / 0.5 / 1.0 ml				H450.1	1	163,40

Replacement lids for Micro Dialysis Capsules QuixSep®

Capsule size (max. vol.)	Art. No.	Pack Qty.	€
0,1 ml / 0,5 ml / 1,0 ml	3929.1	10	105,35
5,0 ml	3931.1	10	105,35



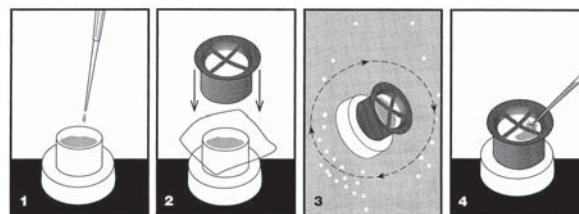
ZelluTrans/Roth dialysis membrane pieces for QuixSep®

Single-layer membrane pieces (flat sheets) made of **regenerated cellulose**, packed dry. Properties - see ZelluTrans/Roth T series of dialysis membranes (Art. No. E656.1 ff). Dimensions: 55 x 55 mm, **suitable for QuixSep® 5.0 ml micro dialysis capsules**. When using the small capsules (0.1 to 1.0 ml), the pieces can be cut into four equal parts (approx. 20 x 20 mm).

Easy preparation: soak in distilled water for approx. 20 minutes and rinse with distilled water. Use straight away since moist membranes must not be allowed to dry.

Designation	MWCO	Dimensions	Art. No.	Pack Qty.	€
Membrane pieces F1	3500	55 x 55 mm	2820.1	10	52,70
Membrane pieces F2	6000-8000	55 x 55 mm	2821.1	10	52,70
Membrane pieces F3	12 000-14 000	55 x 55 mm	2822.1	10	52,70

- 96-Deep well plates (2.5 ml) see page 449
- Micro dialysis with membrane filters see page 486



Procedure with micro dialysis capsule QuixSep®

- ① Fill bottom part with sample.
- ② Fit the desired dialysis membrane (20 x 20 mm for H447.1, H448.1 and H449.1; 55 x 55 mm for 0671.1) and press on the cover.
- ③ Move QuixSep® continuously in a buffer solution using the magnetic stirrer.
- ④ On completion of dialysis, the dialysis membrane can be pierced with a pipette tip or a syringe and the residual volume drawn off.

Dialysis

Chemical Compatibility of Dialysis Membranes

The list below is no guarantee of chemical compatibility. In fact, it should be used as a guide. Many other factors like temperature, concentration of solvent, duration of exposure etc. may modify the effect to the membrane.

Membranes made of cellulose ester and regenerated cellulose are to be used only with diluted solvents, maximum about 25 %. Higher concentrations may alter the membrane.

We recommend to test the membrane compatibility under your own conditions first.

Chemical Compatibility of Dialysis Membranes

R: recommended
L: limited exposure only
NR: not recommended

	Celluloseester	Reg. Cellulose
Acetic acid (5 %)	L	R
Acetic acid (25 %)	NR	R
Acetic acid, glacial	NR	R
Acetic acid ethyl ester	NR	R
Acetone	NR	R
Acetonitril	NR	R
Ammonia (diluted)	NR	R
Ammonia (approx. 25 %)	NR	L
Amyl alcohol	L	R
Benzene	NR	R
Benzyl alcohol	NR	R
Boric acid	R	R
Butyl acetate	NR	R
Butyl-alcohol	L	R
Chlorine acetic acid	NR	R
Chloroform	L	R
Cyclohexane	L	R
Diacetone alcohol	NR	R
Dichloromethane	L	R
Dimethyl formamide	NR	L
Dimethyl sulfoxide	NR	R
Dioxane	NR	L
Ethanol (15 %)	R	R
Ethanol (95 %)	L	R
Ether	NR	R
Ethylene glycol	L	R
Ethylene oxide	NR	L
Formaldehyde (up to 30 %)	L	R
Formic acid (up to 50 %)	NR	R
Glycerol	R	R
Hexane	R	R
Hydrochloric acid (5 %)	L	R
Hydrochloric acid (up to 37 %)	NR	NR
Hydrofluoric acid (25 %)	NR	L
Hydrogen peroxide (30 %)	R	R
Iodine solution	NR	NR
Isobutyl-alcohol	R	R
Isopropanol	L	R
Isopropyl ether	L	R
Lactic acid	R	R
Methanol	L	R
Methyl acetate	NR	R

Chemical Compatibility of Dialysis Membranes

R: recommended
L: limited exposure only
NR: not recommended

	Celluloseester	Reg. Cellulose
Methyl chloride	NR	R
Methylene chloride	L	R
Methyl ethyl ketone	NR	R
Methyl isobutyl ketone	NR	R
N-Methyl-2-pyrrolidone	NR	R
Mineral oils	R	R
Monochlorobenzene	L	R
Nitric acid (5 %)	L	R
Nitric acid (min. 25 % or 6 M)	NR	NR
Nitrobenzene	NR	L
Nitropropane	NR	L
Oil of Petroleum basis	R	R
Pentane	R	R
Perchloric acid (25 %)	NR	L
Perchloroethylene	NR	R
Petroleum ether	R	R
Phenol (0.5 %)	R	R
Phenol (10 %)	NR	R
Phosphoric acid (25 %)	NR	L
Potassium hydroxide (1 N)	L	R
Potassium hydroxide (25 %)	NR	L
Potassium hydroxide (50 %)	NR	NR
Propanol	R	R
Pyridine	NR	R
Silicone oil	R	R
Sodium hydroxide (0.1 N)	L	R
Sodium hydroxide (up to 25 %)	NR	L
Sodium hydroxide (> 25 %)	NR	NR
Sodium hypochlorite	R	R
Sulfuric acid (5 %)	R	R
Sulfuric acid (25 % or 6 N)	NR	L
Tetrahydrofurane	NR	R
Toluene	R	R
Trichloro acetic acid (25 %)	NR	NR
Trichloroethylene	R	R
Triethylamine	NR	R
Trichlorobenzene	NR	NR
Trichloroethane	L	R
Urea (diluted)	NR	R
Urea (6 N)	R	R
Xylene	NR	R



ZelluTrans/Roth locking clips

Made of **PA**. For liquid-tight sealing of tube membranes. Usage temperature -30 to +80 °C. Autoclavable.

Sealing length (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
45	65	H277.1	10	7,35
65	90	H278.1	10	9,65
110	130	P901.1	10	15,00
150	170	P902.1	10	23,60

Please note:

The closure clips should be 4-10 mm longer than the width of the tubular membrane.



Spectra/Por®-universal locking clips

Made of **PA**. For liquid-tight sealing of tube membranes. Non floating. Suitable for all membrane types, especially recommended for membranes made of cellulose ester. Autoclavable, usage temperature 0 to 90 °C.

Sealing length (mm)	Colour	Art. No.	Pack Qty.	€
50	yellow	0685.1	10	92,45
70	yellow	0686.1	10	106,45
110	yellow	0687.1	10	117,20
150	yellow	0688.1	10	117,20



Spectra/Por®-clips

Made of **PP**. Temperature stable from 0 to +121 °C. Autoclavable.

Standard clips

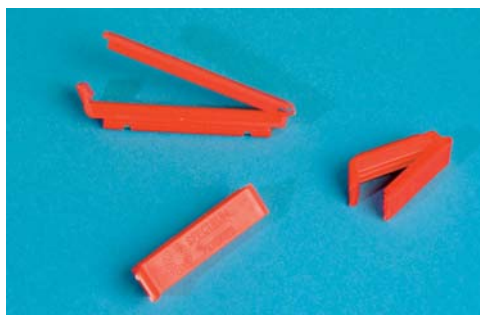
Sealing length (mm)	Colour	Art. No.	Pack Qty.	€
12	orange	0985.1	10	92,45
23	orange	2768.1	10	103,20
35	orange	0988.1	10	106,45
55	orange	2770.1	10	108,60
75	orange	2771.1	10	110,75

Clips with weights, for upright dialysis position

Sealing length (mm)	Colour	Art. No.	Pack Qty.	€
12	white	2773.1	10	105,35
23	white	2774.1	10	113,95
35	white	2775.1	10	118,25
55	white	2776.1	10	120,40
75	white	2777.1	10	126,85

Combi-set (10 with weights, 10 without weights)

Sealing length (mm)	Colour	Art. No.	Pack Qty.	€
5	white/orange	2778.1	20	129,00
12	white/orange	2779.1	20	169,85
23	white/orange	2780.1	20	187,05
35	white/orange	2781.1	20	204,25
55	white/orange	2782.1	20	210,70
75	white/orange	2783.1	20	219,30



Spectra/Por®-magnetic weight locking clips

Made of **PP**. With embedded magnetic weight for use with magnetic stirrers.

- The dialysis bag is completely immersed in the buffer
- Continuous, rotary action for optimal material exchange
- No additional magnetic stirrer bar is required

Sealing length (mm)	Colour	Art. No.	Pack Qty.	€
23	red	4647.1	2	69,90
35	red	4648.1	2	74,20
55	red	4650.1	2	77,40
75	red	4652.1	2	85,90

Dialysis accessories



ZelluTrans/Roth dialysis tubing support

Made of **PP**. With labelling surface. Very sturdy. Ideal for immersing the filled dialysis tube in larger vessels. Autoclavable.

Art. No.	Pack Qty.	€
E704.1	6	31,10



ZelluTrans/Roth filling funnel

Made of **PP**. For easy filling and draining of dialysis tubes. The open end of the dialysis tube is pushed onto the funnel nozzle and held in place by a silicone strap. The holder on the funnel allows the funnel to be mounted in different containers. Snap closure. Autoclavable.

Type	For	Art. No.	Pack Qty.	€
MINI	Tubes with 10-19 mm flat width	E709.1	5	80,65
Maxi	Tubes with 23-45 mm flat width	E710.1	10	86,00

- Spectra/Gel™-Absorbant for concentration of dialysed biomolecules see the Biochemistry/ Protein Isolation chapter!
- Heating and magnetic stirrers from page 969



Spectra/Por®-dialysis cylinder

Made of **PS**. For use with magnetic stirrers. The tube is centred and dialysis speeded up by the stirring movement.

- MINI - for dialysis tubes and systems up to a length of 10 cm
- MAXI - for dialysis tubes and systems up to a length of 25 cm

Delivery incl. magnetic bar and cover.

Model	Volume (ml)	Height (cm)	Ø (cm)	Art. No.	Pack Qty.	€
MINI	600	12,5	11,5	CL82.1	1	74,20
Maxi	1800	30	11,5	CL83.1	1	88,15



Rotilabo®-mini magnetic stirrer M 3

- For stirring volumes up to 3 l
- Continuously adjustable speed range
- ABS housing

Technical specifications:

Stirring volume (H ₂ O)	3 l
Max. speed	1100 rpm
Motor power (output):	0.6 W
Mounting surface	130 x 150 mm
Permissible operating temperature	5 to 40 °C at 80 % rel. humidity
Dimensions (W x D x H)	130 x 150 x 50 mm
Weight	400 g
Power supply	100 to 240 V, 50/60 Hz

Art. No.	Pack Qty.	€
AAN1.1	1	80,65



Occupational Safety & Personal Protection

Absorbers	668
Aprons	632
Body safety showers	520
Chemical protective gloves	599
Cold resistant gloves	616
Cut resistant gloves	608
Disposable gloves	587
Disposable protective clothing	630
Ear protection	565
Eye showers and eye wash bottles	522
Face safety shields	548
Fire protection	646
First aid	639
Full view goggles	529
Foot protection	636
Gloves	587
Hazard identification signs and labels	654
Head protection	550
Heat resistant gloves	619
Lab coats	624
Marker tapes and signal bands	654
Marking, labels and signs	654
Overalls	629
Over glasses	532
Protective clothing	629
Protective mouth masks	553
Radiation protection	652
Resistance list - chemical protective gloves	600
Respiratory protection and accessories	552
Safety and poison cabinets	647
Safety goggles and accessories	545
Safety shields	652
Skin protection accessories	582
Skin protection, -care, -cleansing, -disinfection	572
Tapes	654
Towel dispensers and accessories	585
UV-safety spectacles	536
Waste collectors	680
Waste disposal	669
Working gloves	614
Workwear	624

Body showers

Sekuroka®-Body showers

In compliance with DIN EN 15154-1:2006, DIN 12899-3:2009 and ANSI Z 358.1-2009.

- Stable construction due to robust brass body
- Chemically resistant powder coating
- Large, maintenance-free ball stop-cock for high flow volume (at 1.5 bar 60 l/min)
- Large, easy to operate release rod
- Operative range from 1 to 10 bar water pressure
- Automatic-emptying, high-power shower head (prevents formation of bacteria and scaling)
- Maintenance-free
- Self-adhesive information label for body showers, 150 x 150 mm



Body shower model 1

DVGW certified. For wall assembly, surface inlet pipe. Wall flange mounting. Is triggered off by pull-rod valve, which does not close automatically. Water connection 3/4" inner thread, overhang 625 mm, pull-rod length 700 mm.

Art. No.	Pack Qty.	€
EP70.1 *	1	278,45

* Longer delivery times possible. Please check with our Sales Department.

All laboratories must have a **body shower** with a drinking water supply beside the exit which contains sufficient water (at least 30 l/min) to wet all body parts immediately. The showers must meet the requirements of DIN EN 15154-1. (Safe working in laboratories BGI/GUV-I 850-0).



Body shower model 3

DVGW certified. For above the door mounting, surface inlet pipe, can be mounted on the right or left of the door, wall flange mounting. Is triggered by a pull-rod valve, which does not close automatically. Water-connection 3/4" inner thread, overhang 565 mm, distance of pull-rod valve to shower arm 500 mm, length of pull rod 700 mm.

Art. No.	Pack Qty.	€
EP72.1 *	1	396,70

* Longer delivery times possible. Please check with our Sales Department.



Combined emergency showers

Acc. to DIN EN 15154-1:2006, DIN EN 15154-2:2006, DIN 12899-3:2009 and ANSI Z 358.1-2009. DIN-DVGW tested and approved.

- **Emergency body shower with eye wash**
- Made of brass with chemical resistant powder coating, colour green
- Water connection: 3/4" internal thread
- Wall mounting, surface-type
- Projection: 625 mm

Image	Type	Art. No.	Pack Qty.	€
①	Emergency body shower with hand-eye wash, vertical shower head	YP32.1	1	729,95
②	Emergency body shower with eye wash, two 45° shower heads	YP33.1	1	729,95

Body showers



Body-/Eye shower model 2

Combined shower for wall mounting

- Height 205 mm, width 355 mm, depth 305 mm
- Wall-mounted shower arm ¾" made of brass, spout projection 625 mm
- Volume flow rate 60 l/min at 1-1.5 bar flow pressure

Body shower:

- Wall flange ¾" made of brass, water supply ¾" inner thread
- Brass ball valve ¾" with pull rod operation
- Pull rod with triangular handle made of steel, 700 mm long
- High-performance shower head made of chemically resistant plastic with upgraded stream, corrosion-resistant

Eye shower with basin:

- Eye and face shower with 2 shower heads and basin
- Media-bearing parts made of stainless steel 1.4301 (AISI304)
- Enclosure and basin made of unbreakable and UV-resistant ABS plastic
- Activated by pressing large stainless steel panel
- Broad-stream shower heads ensure extensive water distribution
- With integrated volume regulating valve ¾" outer thread
- Water supply ¾" outer thread, water drainage 1 ¼" outer thread

Art. No.	Pack Qty.	€
KH53.1 *	1	886,90

* Longer delivery times possible. Please check with our Sales Department.



Emergency shower test trolley

Mobile catch tank on 4 castors with two recessed handles. Can be dismantled into three pieces for easy storage. Drain screw for floor drainage. Retention capacity: 30 litres. Total/ catch height 2.1 m, W 440 x D 440 mm. Aluminium tube Ø 47 mm, connectable, non extendable. Funnel Ø 440 mm, height 160 mm. Overall weight 7 kg.

Art. No.	Pack Qty.	€
YP27.1	1	188,15



Sekuroka®-shower tester

For easy checking of body showers. Consists of: synthetic hose with stitched-in opening ring, upper Ø 28 cm, lower Ø 12 cm, length 180 cm. 20 liter plastic bucket. Metal clamp rod, 80 cm long.

Art. No.	Qty. (set)	€
T348.1	1	191,35

Emergency shower inspection

Emergency showers (body showers and eyewashes) must be inspected on a monthly basis as stipulated by BGI 850-0 / GUV-I 850-0, Section 7.2. Besides the flow rate, this inspection involves a visual assessment of the water distribution through the shower head and the quality of the water.

The purpose of the regular inspections is also to ensure that the actuating valve continues to operate smoothly and water flow through the shower head is maintained. In addition, the function tests safeguard against microbial contamination. It is recommended that emergency eyewashes be operated even more frequently.

Eye showers

Sekuroka®-eye showers

In compliance with DIN EN 15154-2:2006 and ANSI Z358.1-2009. DVGW-certified.

- Rubber sleeves to protect against injury
- Dust caps open automatically when actuated
- Integral flow control ensures a steady jet of water even if water pressure varies
- With extremely wide-stream shower head for a large surface water distribution
- Large holes in the shower heads protect against scaling
- Shower heads can be removed easily for maintenance
- Self-adhesive information label for eye shower, 150 x 150 mm



Eye shower model 1

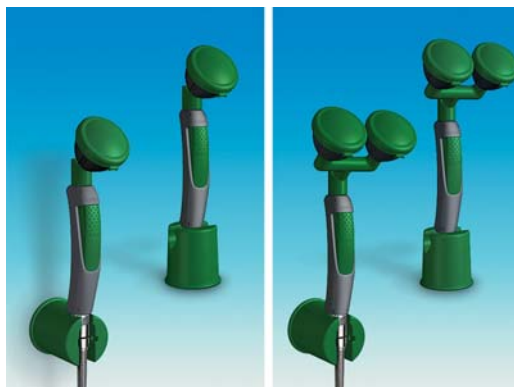
With a vertical shower head.

With non-automatic closing valve for wall and vertical desk top mounting. The release lever locks automatically, and the water can easily be shut off by releasing the lever. Made of plastic (media-conveying parts are made of brass). Silicone hose stainless steel clad, 1.5 m long. Flow rate 7 l/min per shower head at a minimum operating pressure of 1 bar. 1/2" water connection, internal thread, union nut.

Art. No.	Pack Qty.	€
KT00.1	1	177,40

All laboratories must install an **eye shower**, which meets the requirements of DIN EN15154-2 (Guidelines for Laboratories BGR 120, Point 6.6.2). In the event of contamination or cauterization, both eyes can, therefore, be rinsed immediately and for as long as necessary with a constant supply of drinking water.

Eye wash flasks, which do meet the requirements of DIN EN15154-4, can still be used to supplement the emergency eye showers. Should eye wash flasks be used, then preferably those with special rinsing solution.



Eye showers model 2

Identical to model 1 except that the **shower head is inclined at 45°**, allowing the eye bath to be used without removing it from the wall or desktop holder.

With 1 shower head

Art. No.	Pack Qty.	€
KT01.1	1	224,70

With 2 shower heads

Art. No.	Pack Qty.	€
KT02.1	1	263,40



Premium eye showers

Tested and approved acc. to DIN EN 15154-2:2006 and ANSI Z358.1- 2009, DIN-DVGW.

- Made of stainless steel
- For bench or wall mounting
- Integrated backflow preventer
- Stainless steel sheathed drinking water tube, length 1.5 m
- Water connection 1/2" internal thread

With vertical shower head

- High-performance shower head with integrated flow rate regulator: 7 l/min
- Attachment height: 77 cm (±20 cm)
- Height of shower: 21 cm

Image	Type of assembly	Art. No.	Pack Qty.	€
①	Benchtop	YP23.1	1	252,65
②	Wall, 20° angle wall bracket	YP24.1	1	252,65

With two vertical shower heads

- High-performance shower head with integrated flow rate regulator: 14 l/min
- Attachment height: 68 cm (±20 cm)
- Height of shower: 26 cm

Image	Type of assembly	Art. No.	Pack Qty.	€
③	Benchtop	YP25.1	1	332,20
④	Wall, 20° angle wall bracket	YP26.1	1	332,20

Eye showers



Eye shower model 3

For table assembly. Two 45° offset shower heads and distributor fork made of brass, with chemically resistant green powder coating. With large release lever, 130 mm long and big "PUSH" sign, luminescent according to DIN 67510. Maintenance-free ball valve, 90° operation, made of stainless steel, does not close automatically, DIN-DVGW certified and approved. Flow rate 14-16 l/min at a minimum operating pressure of 1 bar. Water connection 1/2" outer thread incl. attachment kit. Dimensions: W (incl. lever) 240 x H 180 mm.

Art. No.	Pack Qty.	€
LP23.1	1	192,45



Eye shower model 5

For wall mounting. With stainless steel basin, diameter 275 mm, drainage connection 1 1/4" inner thread. Two shower heads, distributor fork and wall flange (water connection 3/4" inside thread) made of brass, with chemically resistant green powder coating. With large release lever, length 240 mm and big "PUSH" sign, luminescent according to DIN 67510. Maintenance-free ball valve, 90° operation, made of stainless steel, does not close automatically, DIN-DVGW certified and approved. Flow rate 14-16 l/min at a minimum operating pressure of 1 bar. Dimensions: W (incl. lever) 425 x D 385 mm.

Art. No.	Pack Qty.	€
LP26.1	1	360,15



Eye shower model 4

For wall mounting. Two 45° offset shower heads, distributor fork and wall flange (Water connection 3/4" inner thread) made of brass, with chemically resistant green powder coating. With large release lever, 130 mm long and big "PUSH" sign, luminescent according to DIN 67510. Maintenance-free ball valve, 90° operation, made of stainless steel, does not close automatically, DIN-DVGW certified and approved. Flow rate 14-16 l/min at a minimum operating pressure of 1 bar. Dimensions: W (incl. lever) 330 x D 330 mm.

Art. No.	Pack Qty.	€
LP25.1	1	246,20



Eye shower model 6

For in-wall mounting or for replacing the cold water tap. Made of brass, with chemically stable powder coating. Spray disc made of plastic. Two stream 45° offset shower heads. Release lever with 90° operation. Valve does not close automatically. Waterconnection 1/2" outer thread.

Art. No.	Pack Qty.	€
KX21.1	1	203,20

Eye wash bottles



Disposable eye wash bottles

By Plum. Compliant with DIN EN 15154-4. Sterile. Supplied with dust cap. This easy-to-use product is designed to allow speedy rinsing of eyes in an emergency. Patented eye supports keep the eyelids open during rinsing. Duo design enables both eyes to be rinsed simultaneously.

- Sterile saline (0.9 %)
- Quick and easy use
- Directions for use on the bottle
- No contamination
- No cleaning or maintenance needed
- Shelf life 3 years (if unopened)

Note: disposable eye wash bottles to DIN EN 15154-4 may only be used in addition to existing eye wash units to DIN EN 15154-2 if no running potable water or water of comparable quality is available!

① Eye wash bottles for one eye

Volume (ml)	Total rinsing time	Art. No.	Pack Qty.	€
200	approx. 2 min	Y829.1	1	11,80
500	approx. 5 min	Y828.1	1	18,10
1000	approx. 10 min	LH95.1	1	21,00

② Duo eye wash bottle for both eyes

Volume (ml)	Total rinsing time	Art. No.	Pack Qty.	€
500	approx. 2 min	ALA8.1	1	16,05
1000	approx. 5 min	LY44.1	1	27,75



Phosphate buffer disposable eye wash bottles

By Plum. Compliant with DIN EN 15154-4. **Sterile.** Supplied with dust cap. This easy-to-use product is designed to allow speedy rinsing of eyes in an emergency. Patented eye support keeps the eyelids open during rinsing. For speedy and effective neutralisation of acids and a wide range of alkaline substances. Duo design enables both eyes to be rinsed simultaneously.

- Neutralising phosphate buffer solution (4.9 %)
- pH-neutral (pH-value 7.4)
- No contamination
- Quick and easy use
- Directions for use on the bottle
- No cleaning or maintenance needed
- Shelf life 3 years (if unopened)
- Rinsing time approx. 2 minutes

Note: disposable eye wash bottles to DIN EN 15154-4 may only be used in addition to existing eye wash units to DIN EN 15154-2 if no running potable water or water of comparable quality is available!

Type	Type	Volume (ml)	Art. No.	Pack Qty.	€
①	For one eye	200	AA81.1	1	13,95
②	Duo, for both eyes	500	LY45.1	1	25,30



Wall-mounted eye wash stations

By Plum. Wall mounting with pictogram, including one eye wash bottle.

- ① 1 x 500 ml sterile NaCL eye wash solution (Y828.1)
- ② 1 x 1000 ml sterile NaCL eye wash solution in duo bottle (LY44.1)

For eye wash use at any time in the workplace.

The duo bottle allows both eyes to be rinsed simultaneously.

Pictogram dimensions: H 300 x W 90 x D 3 mm.

Delivery incl. mounting materials.

Note: Disposable eye wash bottles to DIN EN 15154-4 may only be used in addition to existing eye wash units to DIN EN 15154-2 if no running potable water or water of equivalent quality is available!

Type	Type	Volume (ml)	Art. No.	Pack Qty.	€
①	For one eye	500	Y830.1	1	34,95
②	Duo, for both eyes	1000	LY50.1	1	40,65



Duo wall-mounted eye emergency station

By Plum. Wall mount with pictogram and mirror, including duo eye wash bottles:

- 1 x 1000 ml sterile NaCL eye wash solution (LY44.1)
- 1 x 500 ml sterile pH neutral phosphate buffer eye wash solution (LY45.1)

Ideal for use in workplaces where acids, bases and foreign bodies can get into the eyes.

Duo bottles come eye device for rinsing both eyes at the same time. After rinsing with the phosphate buffer solution, it is recommended that rinsing with the sodium chloride solution be continued until medical treatment is provided.

Pictogram dimensions: H 300 x W 90 x D 3 mm.

Delivery incl. mounting materials and mirror.

Note: Disposable eye wash bottles to DIN EN 15154-4 may only be used in addition to existing eye wash units to DIN EN 15154-2 if no running potable water or water of equivalent quality is available!

Art. No.	Pack Qty.	€
LY51.1	1	64,45

Eye wash bottles



QuickSafe first aid boxes

- For keeping all your first aid materials ready to hand in one place
 - Flexible and well-organised system
 - Contains all the essential materials needed in an emergency
 - High hygiene standard through dust-proof housing
 - Robust and sturdy box made of impact-resistant plastic
 - Requires little space due to compact size: H 430 x W 253 x D 92 mm
- Delivery incl.** mounting materials.

① QuickSafe Box Complete

For irrigation of eyes, wound care, minor cutting injuries and burns.
Contents:

- 2 x 500 ml sterile NaCl eye wash solution 0.9 %
- 1 x 200 ml sterile pH neutral eye wash solution
- 5 x 20 ml sterile QuickRinse eye wash ampoules
- 18 x QuickCool burn relief gel
- 1 x QuickStop wound dressing kit with 1 17 x 17 cm dressing and 2 7.5 x 12 cm dressings
- 20 x QuickClean wound cleaning tissues
- 1 x QuickFix Elastic plaster refill set with 45 plasters

Art. No.	Pack Qty.	€
ALA9.1	1	129,00

② QuickSafe Chemical Industry

For irrigation of eyes after accidents involving acids and bases.
Contents:

- 1 x 500 ml NaCl eye wash solution 0.9 %, Duo bottle
- 1 x 500 ml sterile pH neutral eye wash solution, Duo bottle
- 1 x 200 ml sterile pH neutral eye wash solution
- 5 x 20 ml sterile QuickRinse eye wash ampoules
- 1 x QuickFix Elastic plaster refill set with 45 plasters

Art. No.	Pack Qty.	€
ALC0.1	1	116,10

Refill eye wash bottles for QuickSafe first aid boxes

With sterile eye wash solutions.

Type	Volume (ml)	Art. No.	Pack Qty.	€
NaCl eye wash solution 0.9 %	200	Y829.1	1	11,80
NaCl eye wash solution 0.9 %	500	Y828.1	1	18,10
NaCl eye wash solution 0.9 %, Duo	500	ALA8.1	1	16,05
pH neutral eye wash solution	200	AA81.1	1	13,95
pH neutral eye wash solution, Duo	500	LY45.1	1	25,30

Refill packs for QuickSafe first aid boxes

QuickClean wound cleaning tissues

Wound cleaning tissues for cleaning minor wounds and cutting injuries. Contains sterile water.

Art. No.	Pack Qty.	€
ALC1.1	20	9,65

QuickCool burn relief gel

Sachets containing pain-relieving gel for first-aid use on minor burns and scalds. Cools and relieves pain. Contains tea tree oil.

Art. No.	Pack Qty.	€
ALC2.1	18	16,70

QuickRinse eye wash ampoules

Eye wash ampoules containing 20 ml of 0.9 % sterile sodium chloride solution. For rinsing dust and dirt out of the eyes or for fast relief of dry, tired and sore eyes.

Art. No.	Pack Qty.	€
ALC3.1	5	10,25

QuickStop wound dressing kit

Sterile wound dressings with integrated compress. Elastic, non-adherent and skin friendly. Suitable for universal use as compressive dressing, occlusive dressing and fixed dressing. In the event of heavy bleeding, the small wound dressings can be used as an additional compress.

Kit consists of: 1 3 m x 8 cm wound dressing with 17 x 17 cm compress and 2 2 m x 7 cm wound dressing with 7.5 x 12 cm compresses.

Art. No.	Pack Qty.	€
ANE4.1	1	11,30

QuickFix Elastic plaster refill set with 45 plasters. Elastic, breathable and skin-friendly 72 x 25 mm plaster strips.

Art. No.	Pack Qty.	€
LH94.1	2	14,95

All laboratories must have an **eye shower** with a drinking water supply, which meets the requirements of DIN EN15154-2 (Guidelines for Laboratories BGV GUV-I 850-0). **Eye wash flasks**, which do meet the requirements of DIN EN15154-4, can still be used to supplement the emergency eye showers. Should eye wash flasks be used, then preferably those with special rinsing solution.



Eye first-aid stations

By Plum. First-aid stations each containing:

- 1 x 500 ml sterile NaCl eye wash solution (Y828.1)
- 1 x 200 ml sterile pH neutral eye wash solution (AA81.1)
- Mirror
- With pictograph

Two models available:

① Wall station with wall attachments:

Dimensions: H 290 x W 230 x D 80 mm.

② Dustproof wall box: Dimensions: H 270 x W 227 x D 110 mm.

Delivery incl. wall attachment material.

Image	Type	Art. No.	Pack Qty.	€
①	Wall station with wall attachment, open	CK43.1	1	53,70
②	Dustproof wall box	CK44.1	1	64,40

Eye wash bottles



Wall-mounted eye wash box

By Plum. Wall box with two eye wash bottles filled with 500 ml sterile NaCl eye wash solution (Y828.1). With pictogram and mirror.

- Ideal for use in workplaces where dust and dirt accumulate (e.g. workshops)
- Easy to open for quick access in an emergency

Dimensions: H 270 x W 227 x D 110 mm.

Delivery incl. mounting materials.

Art. No.	Pack Qty.	€
Y831.1	1	60,20



Sekuroka®-eye wash flask

Acc. to DIN EN 15154-4, filled with 620 ml eye wash solution (water), 2 year shelf life.

- **Refillable:** the eye wash bottle can be filled with drinking water any number of times after the first complete rinse to allow continuous rinsing until medical care is provided
- **Patented tilt valve:** allows the eye wash bottle to be drained both upwards and downwards, e.g. in a bent-forward posture or in a reclining body position

Art. No.	Pack Qty.	€
1543.1	1	26,35

Wall attachment for Sekuroka®-eye wash flask

Art. No.	Pack Qty.	€
5546.1	1	6,40

Sekuroka®-eye wash flask, empty

Made of LDPE. With tilting valve, approx. 620 ml volume.

Type	Art. No.	Pack Qty.	€
Sekuroka®-eye wash flask, empty	5545.1	1	16,40
Spare stickers	A853.1	10	3,20



Eye wash bottle station

Made of shock-proof plastic. For dust and splash-free storage of all standard eye wash bottles. Protective lid locks in place when open. Also contains mirror which enables immediate and on-the-spot application and control. Dimensions: H 236 x W 225 x D 125 mm

Suitable for storing maximum:

- 6 Sekuroka®-mini eye wash bottles (K128.1) or
- 3 disposable eye wash bottles 500 ml (Y828.1/NH43.1) or
- 6 disposable eye wash bottles 200 ml (Y829.1)

Delivery incl. screws and dowels for wall attachment.

With labels on clasp for individual marking. Contents not included.

Art. No.	Pack Qty.	€
Y832.1	1	42,80



Sekuroka®-eye wash boxes

Made of plastic, with mirror. For wall attachment, empty, for eye wash flasks 5545.1 and 1543.1.

Type	W x D x H (mm)	Art. No.	Pack Qty.	€
For 1 eye wash flask	320 x 180 x 78	8120.1	1	49,25
For 2 eye wash flasks	320 x 280 x 78	2005.1	1	66,55

Eye wash bottles



Sekuroka®-eye wash solution

Acc. to EN 15154-4. Eye wash bottle, with 500 ml 0.9 % sodium chloride solution, **sterile**, for washing foreign particles, e.g. wood and metal splinters, dust, dirt.

- Ready to use
- Eye wash bottle with ergonomically designed spray head and dust cap
- For mobile use and for refilling eye wash stations and first-aid cases

Note: Disposable eye wash bottles to DIN EN 15154-4 may only be used in addition to existing eye wash units to DIN EN 15154-2 if no running potable water or water of equivalent quality is available!

Art. No.	Pack Qty.	€
NH43.1	1	14,95



Sekuroka®-eye wash box

Space-saving, dust-proof eye wash station. Filled with 2 eye wash bottles, 500 ml Sekuroka® eye wash solution (NH43.1) for rinsing out foreign particles. Suitable for wall mounting, easy to use.

Outer dimensions: approx. W 260 x H 370 x D 100 mm.

Delivery incl. mirror, pictogram and mounting materials.

Note: Disposable eye wash bottles to DIN EN 15154-4 may only be used in addition to existing eye wash units to DIN EN 15154-2 if no running potable water or water of equivalent quality is available!

Art. No.	Pack Qty.	€
NH44.1	1	31,75



Sekuroka®-single eye wash station

Wall-mountable eye wash station, supplied with 1 Sekuroka® eye wash bottle, 500 ml (NH43.1). With pictograms for quick and easy use.

Delivery incl. mount for wall mounting and mounting materials.

Note: Disposable eye wash bottles to DIN EN 15154-4 may only be used in addition to existing eye wash units to DIN EN 15154-2 if no running potable water or water of equivalent quality is available!

Art. No.	Pack Qty.	€
NH45.1	1	27,55



BARIKOS KS eye wash flask Mini

By Bartels + Rieger. Acc. to DIN EN 15154-4. Filled with 175 ml eye wash solution (water). Can be comfortably carried in overall pocket from one workplace to the other and is always at hand. With patented tilt valve, refillable with drinking water. Min. shelf life two years.

Art. No.	Pack Qty.	€
K128.1	1	21,00

Emergency-Eye showers



Eye and wound showers

Sterile 0.9 % NaCl-solution (isotonic), 250 ml.

Ideal for rinsing eyes and wounds after surface injuries, dirtying of eyes etc.

- Spray eyes or wound from 20 cm away
- **Suitable for multiple use**, stays sterile after opening
- Usable for 3 years
- Environmental-friendly propellant: Nitrogen
- Gentle rinsing, propellant remains in can

Art. No.	Pack Qty.	€
HA35.1	1	26,15



Sekuroka®- eye shower Kleen Eyes® II

For connection to water spigots with outer thread M 22 x 1. Is activated by simple push of a button. Ensures continuous fresh water supply. Both hands stay free US-patent.

Sekuroka®-eye showers Kleen Eyes® II is not in conformity with DIN 15154-2, Part 2. The eye shower may only be used as a supplement to emergency eye showers in conformance with DIN 15154-2.

Automatic switch-back to normal use of tap water when turned off. Spray heads can be adjusted to desired angle. The eye-shower unit can be rotated when attached to water tap. This enables the unit to be fitted to awkwardly situated water taps and to be adjusted to the required position.

Art. No.	Pack Qty.	€
E348.1	1	102,15

Adapter for Kleen Eyes®

M 22 x 1 outer, 1/2" inner. For connecting Kleen Eyes® units to water taps with 1/2" outer thread.

Art. No.	Pack Qty.	€
E711.1	1	5,50



Skin cleanser pH-neutral

By Plum. **Sterile.** For neutralizing acids and alkalis particularly on the skin within seconds.

- 4.9 % phosphate buffer solution, sterile
- Also suitable for cleansing wounds
- Special spray head which cleans larger areas of skin effectively and quickly, rinsing time 2 min
- Simple and speedy application
- Shelf life 3 years if unopened

Delivery incl. 1000 ml-bottle with wall holder and illustrated instructions.

Type	Art. No.	Pack Qty.	€
Station	CK41.1	1	34,20
Spare bottle	CK42.1	1	20,35

All laboratories must install an **eye shower**, which meets the requirements of DIN EN15154-2 (Guidelines for Laboratories BGV GUV-I 850-0). In the event of contamination or cauterization, both eyes can, therefore, be rinsed immediately and for as long as necessary with a constant supply of drinking water.

Eye wash flasks, which do meet the requirements of DIN EN15154-4, can still be used to supplement the emergency eye showers. Should eye wash flasks be used, then preferably those with special rinsing solution.

Full view goggles



Full view safety goggles Vistamax

Acc. to **EN 166**. Can be worn over regular spectacles. With direct ventilation. Scratch-proof and non-fogging polycarbonate screen. The frame is made of transparent, stabilized PVC. With woven polyester/natural rubber headband. The full-vision goggles provide protection against flying particles of medium energy and splashes of molten metal and hot solid. Weight approx. 110 g.

Art. No.	Pack Qty.	€
5360.1	1	24,10



Full view goggles ultrasonic

By UVEX. Acc. to **EN 166** and **EN 170**. Also suitable for working with **UV-light**. Scratchproof, non-fogging polycarbonate screen. Features flexible soft components for pressure-free fit and panoramic visual field. Also suitable for spectacle users. Wide, variably adjustable band.

Type	Art. No.	Pack Qty.	€
orange/grey	X406.1	1	21,30
grey/black	X407.1	1	21,30

Eye Protection Equipment

All laboratory staff are obliged to constantly wear goggles with sufficient side protection. When working with dangerous substances, suitable eye protection must be made available and worn. Below is an extract on the dangers of chemical injuries to the eyes. Look at BGI/GUV-I 850-0.



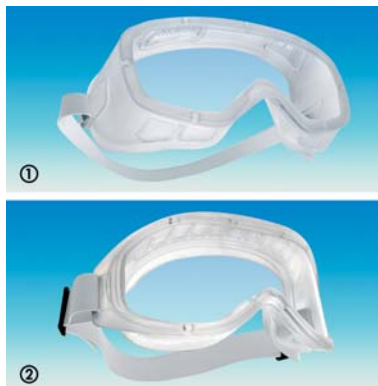
Full-vision goggles BLAST

By Bollé. Acc. to **EN 166** and **EN 170**. Also suitable for work with UV light. Special features: Combined with attachable "Visor" (please order separately) with same degree of protection as a face visor and improved eye protection.

- Very comfortable to wear, flexible application options
- Scratch-proof, anti-fog and antistatic PC visor
- Protects against dust, droplets, gases and splashes of molten metal
- Can be worn over spectacles
- Adjustable head strap
- Rotatable articulated hinge
- Outer channel for fluid transport
- Permits wearing of a respiratory half-mask
- 2 versions: indirect venting or gastight

Weight: protective goggles 113 g, visor 65 g.

Type	Art. No.	Pack Qty.	€
Full-vision goggles, indirect venting	KP07.1	1	14,75
Full-vision goggles, gastight	KP08.1	1	14,75
"Visor"	KP09.1	1	8,65



Autoclavable full-vision goggles

By Bollé. Conforms to **EN 166**. Suitable for **cleanroom** use.

- Can be worn over prescription spectacles
- Adjustable head strap
- High wearing comfort

① Model COVERALL CLAVE

Lens with anti-scratch/anti-fog coating. With interchangeable indirect ventilation.

② Model BLAST AUTOCLAVE

Lens made of untreated PC. With liquid overflow chute and direct ventilation. Can be worn with respiratory half mask.

Image	Model	Weight (g)	Art. No.	Pack Qty.	€
①	COVERALL CLAVE	54	PK52.1	1	18,30
②	BLAST AUTOCLAVE	103	PK53.1	1	23,65

EN-Standards for safety spectacles

EN 166 General requirements
EN 169 Eye protection filter for welding
EN 170 UV-protection filter
EN 171 Infrared filter
EN 172 Sun-protection filter

Full view goggles



Full view goggles 9305

By UVEX. Acc. to **EN 166**. Tight, pressure-free fit. With vents. Non-fogging screen made of cellulose acetate. Headband manufactured from solid rubber. Suitable for clean-room work.

Type	Art. No.	Pack Qty.	€
Panorama goggles	P822.1	1	17,15
Spare screen	P823.1	1	9,60



Full view goggles 601

By Univet. Acc. to **EN 166**. Lenses made of clear acetate, with anti-fog coating. Excellent resistance to chemicals and solvents. Soft and elastic, allows perfect adaptation to the face, with anatomically shaped nose bridge for optimum wear comfort.

- Wide and undistorted field of view
- Soft fitting, pressure-free rubber frame
- Wide, adjustable elastic head strap
- Can be worn over corrective spectacles
- Adaptor available for corrective lenses
- Weight 118 g

Type	Colour	Art. No.	Pack Qty.	€
With indirect ventilation	blue	ATP1.1	1	21,85
Without ventilation, gastight	white	ATP2.1	1	21,85
Adaptor for corrective lenses	transparent	ATP3.1	1	12,90



Full view spectacle ultravision

By UVEX. Acc. to **EN 166**. Panorama screen with 180° vision field. Features ventilating and deventilating system. Screen made from cellulose acetate, with non-fogging coating on screen. Wide, variably adjustable band.

Art. No.	Pack Qty.	€
X368.1	1	19,15



Full view ultravision gas-tight

By UVEX. Acc. to **EN 166, EN 170**. Also suitable for working with UV light. Ergonomically designed full vision goggles with unrestricted side visibility. PC lenses, colourless, extremely scratch-resistant on the outside, permanent anti-fog properties on the inside. Flame-retarding PVC frame in signal red, gas-tight.

Art. No.	Pack Qty.	€
NP20.1	1	19,90



6X1 full view goggles

By Univet. Acc. to **EN 166**. The perfect combination. Clear lenses made of PC with anti-scratch/anti-fog coating. The adjustable SoftPad™ side pieces can be replaced with an elastic head strap and therefore offer absolute flexibility.

- Wide lens for distortion-free field of view
- Indirect ventilation system
- Soft fitting, pressure-free rubber frame
- Adaptor available for corrective lenses
- Angle and length of side pieces can be adjusted

Delivery incl. head strap.

Type	Art. No.	Pack Qty.	€
Full view goggles 6X1	APY5.1	1	27,45
Adaptor for corrective lenses	APY6.1	1	7,80

Full view goggles



Full view goggles 6X3

By Univet. Acc. to **EN 166**.

Large panorama lens, can be worn over corrective spectacles and is compatible with half masks. Clear glass lenses made of PC with innovative double-layer anti-scratch/anti-fog coating.

- Adjustable head strap
- Indirect ventilation system ensures protection against liquid droplets and splashes
- Optional attachable face shield
- Weight of safety spectacles: 75 g

Type	Art. No.	Pack Qty.	€
Full view goggles 6X3	ATP4.1	1	25,30
Face visor	ATP5.1	1	11,20



Full-vision spectacles X90

By Bollé. Acc. with **EN 166**. Small, compact full-vision goggles.

- PC lens
- Scratch-proof, anti-fog and antistatic treatment
- Wide, adjustable head strap
- Rotatable articulated hinge
- Indirect venting

Weight: 62 g

Art. No.	Pack Qty.	€
KP06.1	1	14,45



Full view goggles 2890

By 3M. In acc. with **EN 166**, **EN 170**. Also suitable for work with UV light. Clear, scratch-proof and non-fogging PC lens. Indirect ventilated. Can be worn over most prescription spectacles using grooves on each side.

Wide adaptable headband with adjustable joints for perfect fit. Good compatibility with 3M half masks. Weight 41 g.

3M No.	Art. No.	Pack Qty.	€
2890	PT44.1	1	14,55



Full vision goggles carbonvision

By UVEX. In acc. with **EN 166** and **EN 170**. Also suitable for work with UV light. Colourless, scratch-proof and anti-fog PC visor. Excellent mechanical stability with high-grade, long-life headband. Very light full-vision goggles combinable with respiratory protection and safety cap. Weight 46 g.

Art. No.	Pack Qty.	€
PP31.1	1	21,30



Fahrenheit™-safety goggles

By 3M. Acc. to **EN 166**. PC lenses, clear, with anti-scratch and anti-fog coating. Light blue frame. Indirect ventilation, adjustable nylon head band. Suitable for wearing with corrective spectacles and respiratory half masks.

Delivery incl. microfibre bag.

3M No.	Art. No.	Pack Qty.	€
FheitAF	AKX2.1	1	11,85



Safety spectacle SP1000™

In acc. with **EN 166** and **EN 170**. Offers effective protection from chemical splash, impact, wind, dust and flying particles. With black frame and clear PC lens. Weight 50 g.

- With Dura-streme™ dual anti-fog/anti-scratch coating
- With indirect ventilation at the top and bottom
- High-quality foam-padded frame for first-class comfort and sealing
- Soft and flexible nose pads for easy fitting to a variety of face shapes
- Padded ear-piece tips for all-day wear comfort
- Flexible design: can be used with ear pieces or adjustable headband.

Delivery incl. ear pieces and headband.

Art. No.	Pack Qty.	€
PT41.1	1	24,95

Protective glasses for spectacle wearers



Panorama safety spectacle Armamax

Fits over regular glasses. Acc. to **EN 166**. Extra large field of vision and wide side shields. Frame and screen made of transparent polycarbonate. Weight 46 g.

Art. No.	Pack Qty.	€
1726.1	1	9,15



Cover glasses 9161

By UVEX. Acc. to **EN 166, EN 170**.

Also suitable for working with UV-light.

Fits over all regular spectacles. Super panorama screen with 180° fields of vision enable unlimited side view.

Model I: Uncoated polycarbonate lens with standard side arms; autoclavable.

Model II: scratch-proof polycarbonate screen, with special side arms adjustable in 4 stages. With soft padding for pressure-free fit.

Type	Art. No.	Pack Qty.	€
Model I	1554.1	1	8,55
Model II	N163.1	1	13,95



Safety goggles astro for spectacle wearers

By UVEX. Acc. to **EN 166, EN 170**.

Also suitable for working with UV-light. Light safety goggles with unlimited field of vision on sides. Fit over most spectacles. Lens made of PC, high scratch and chemical resistance. New NanoClean technique facilitates cleaning and increases the non-stick properties. 4-stage length adjustment of sidearms. Sidearms are padded at the end to prevent pressure marks behind ears. Weight 50 g.

Art. No.	Pack Qty.	€
HX72.1	1	16,35



Goggles for spectacle wearers, super OTG

By UVEX. Acc. to **EN 166, EN 170 and EN 172** (only Art. No. KX41.1). Can be worn over most standard spectacles.

- Highly scratch-resistant PC lens on both sides
- Hinge-free earpiece
- Flexible, soft ear pieces
- Weight 57 g

Frame colour	Lens design	Art. No.	Pack Qty.	€
blue	clear	KX39.1	1	20,00
black	clear	KX40.1	1	21,30
black	tinted grey	KX41.1	1	22,40



Over-goggles 5X7

By Univet. Acc. to **EN 166, EN 170, EN 172** (grey lens only).

Innovative frame design prevents overlap of the side pieces and provides excellent wear comfort.

UV protection lenses: with anti-scratch/anti-fog coating.

Grey lenses: with anti-scratch coating only.

Orange lenses: protection against UV rays and visible light to 525 nm.

- 3x length adjustable side pieces
- SoftPad™ ear pieces allow perfect adaptation to the face shape of the wearer
- Weight 37 g

Frame colour	Lens design	Art. No.	Pack Qty.	€
gun metal/green	clear	APY1.1	1	18,85
white/blue	clear	APY2.1	1	18,85
gun metal/green	grey	APY3.1	1	15,60
black/orange	orange	APY4.1	1	20,35

Protective glasses for spectacle wearers



Over-goggles 2800

By 3M. Acc. to EN 166 and EN 170. Lenses made of PC with UV protection, anti-scratch coating. Dark-blue frame.

Can be worn as over-goggles over most types of corrective spectacle.

- 4x adjustable earpiece length
- Adjustable lens angle for perfect fit
- Soft tip ear pieces for wearing comfort
- Yellow lenses filter UV radiation and blue light up to 480 nm and increase contrast even in weak light conditions.
- Weight 38 g

Lens	3M No.	Art. No.	Pack Qty.	€
clear	2800	KA80.1	1	9,60
yellow	2802	AKT8.1	1	9,30



Over-goggles OX 3000

By 3M. Acc. to EN 160, EN 170. Also suitable for UV work. Comfortable over-goggles for spectacle wearers, fits over all types of spectacles.

- Clear polycarbonate lens, the coating protects against fogging, scratches, static charge and chemical influences
- Straight earpieces, 4-times adjustable, can also be used in combination with ear muffs
- The earpieces are covered with non-slip rubber for optimal comfort
- No metal parts, also suitable for electricians
- Weight 46 g

Art. No.	Pack Qty.	€
KA31.1	1	11,20

Eye Protection Equipment

All laboratory staff are obliged to constantly wear goggles with sufficient side protection. When working with dangerous substances, suitable eye protection must be made available and worn. Below is an extract on the dangers of chemical injuries to the eyes. Look at BGI/GUV-I 850-0.



SQUALE UV-over-goggle

By Bollé. In acc. with EN 166 and 170.

- Length-adjustable earpieces
- Scratch-proof and anti-fog PC visor
- Additional top and bottom protection

Weight: 43 g.

Delivery incl. thin goggles strap.

Art. No.	Pack Qty.	€
KP05.1	1	7,55



Safety spectacle for visitors

Acc. to EN 166. Rugged over-spectacle with uncoated PC lens. Ventilated side protectors. Can be worn over corrective spectacles.

Art. No.	Pack Qty.	€
CNH1.1	1	5,55



Universal clip-ons

Acc. to EN 166, fit most spectacles. Can be tilted. With integrated side protection. Screen made of transparent polycarbonate. L 16 x W 5.7 cm. Distance between attachment clips 2.5 cm.

Art. No.	Pack Qty.	€
8496.1	1	17,15

Safety spectacles



UV-safety spectacle XC

Acc. to **EN 166, EN 170**. Anti-fogging polycarbonate lens. Inclination of lens can be adjusted individually, length of side-arms is also adjustable. Can also be used by people with glasses in combination with the special corrective lens insert (CK91.1).

Art. No.	Pack Qty.	€
CK90.1	1	20,65

Corrective insert

Can be combined with UV-safety glasses XC (CK90.1). The insert must be adjusted individually by your optician with lenses in your normal strength.

- Can be fitted easily and safely behind the screen of the safety glasses
- The optician's lenses are protected by the safety glasses screen
- More comfortable to wear than clip-on glasses or spectacle covers

Art. No.	Pack Qty.	€
CK91.1	1	36,45



UV-safety spectacles ceramic

By UVEX. Acc. to **EN 166 and EN 170**. **Specially designed for women and for narrow faces**. Clear lens made of polycarbonate, extremely scratchproof and easy to clean. Two-lens design with metal side-pieces and comfort-end pieces. Lenses made of hard glass, can be replaced with cut glass. Weight 27 g.

Frame colour	Art. No.	Pack Qty.	€
blue	CH16.1	1	29,05
grey	CH17.1	1	29,05



Safety spectacles BX™-readers with bifocal lenses

By 3M. Compliant to **EN 166, EN 170**. **Bifocal lenses** made of clear PC, anti-scratch and anti-fog. The bottom part of the lens provides magnification for reading or precision work but at the same time still providing excellent protection against flying particles or mist.

- The lenses are deeply curved for optimal coverage of the eyes
- Soft tip temples improve wear comfort
- Soft, universal-fit nose piece
- Adjustable temple length and lens angle (3 positions)

Protection level	Focal power	Art. No.	Pack Qty.	€
2C-1.2	+1,5	YP13.1	1	16,70
2C-1.2	+2,0	YP14.1	1	16,70



UV-safety spectacle cosmo flex

By UVEX. Acc. to **EN 166, EN 170**. Excellent fit and low weight (33 g). Clear panes made of polycarbonate, extremely scratch-resistant. Side arms can be individually adapted in 4 stages for extreme comfort and are non-slip. Side protectors integrated in frames. Also feature covers for eyebrow area for additional protection against impurities from above. Replaceable lenses.

Art. No.	Pack Qty.	€
C523.1	1	18,25



UV-safety spectacles, futura

By UVEX. Acc. to **EN 166, EN 170**. Excellent fit. Clear panes made of polycarbonate, extremely scratch-resistant and with a near unrestricted field of view. Side arms can be individually adapted in 4 stages for extreme comfort, are non-slip and with variably adjustable inclination. Weight 46 g. Replaceable lenses.

Art. No.	Pack Qty.	€
C522.1	1	17,45

Safety spectacles



Sekuroka®-safety spectacle

Acc. to **EN 166**. Scratchproof, non-fogging lenses made of polycarbonate. With integral side protection. Side arms can be adjusted in length and are pliable. Softpads reduce the pressure. Inclination of lens enables individual fit. Weight 34 g.

Art. No.	Pack Qty.	€
Y254.1	1	12,50



Programme extension!

Safety glasses 511

By Univet. Acc. to **EN 166**. Clear lenses made of PC. Narrow type is suitable for narrow faces or students.

- Angle and length of side pieces can be adjusted
- Integrated side protection
- Weight 34 g

Type	Frame colour	Lens design	Art. No.	Pack Qty.	€
Normal type	blue	Anti-scratch coating	APY7.1	1	7,00
Normal type	black	Anti-fog coating	CNH0.1	1	8,90
Narrow type	blue	Anti-scratch coating	APY8.1	1	7,00



Safety spectacle SUNDOWNER

Acc. to **EN 166**. Panorama style design, i.e. frames and lenses curve backwards and are formed to fit the shape of the head. The one-piece, non-fogging screen is made of scratchproof 2 mm thick polycarbonate. The nose piece features soft silicone padding for improved comfort. Side arms can be adjusted in length by 4 stages. Weight 41 g.

Art. No.	Pack Qty.	€
P099.1	1	13,55



astrolite safety spectacles

By UVEX. Acc. to **EN 166**, **EN 170**. Clear polycarbonate lenses, scratch-resistant and resistant to chemicals on the inside and outside, with integrated side protectors. Angle and length of side pieces can be adjusted. Excellent field of vision without front frame, perfect vision downwards.

Frame colour	Art. No.	Pack Qty.	€
red/black	NP96.1	1	13,90
blue/black	NP97.1	1	13,90



Safety spectacle asiatic

By UVEX. Acc. to **EN 166** and **EN 170**. Also suitable for working with **UV-light**. Specially formed to fit asiatic heads, stop glasses from always slipping down. Clear lenses, extremely scratchproof and chemically resistant. Angle of lens can be adjusted in 3 stages and the length of the ear-piece 4 times. The ends of the ear-pieces are soft for a pressure-free fit.

Art. No.	Pack Qty.	€
AA86.1	1	13,95

UV-protection spectacles



astrospec 2.0 safety spectacles

By UVEX. Acc. to **EN 166, EN 170**.

Clear panorama lens made of polycarbonate with UV filter and integrated side protectors.

- Flexible duo component temples and adjustable lens inclination for perfect fit
- Soft ear pieces ensure a secure fit without pressure points
- Maximum wearing comfort for all face shapes
- Also suitable for extended wear
- Extremely flat-folding and space-saving
- Weight 37 g

Frame colour	Lens design	Art. No.	Pack Qty.	€
① anthracite/blue	Scratch-resistant on the outside and inside, permanently anti-fog	CYN0.1	1	19,35
② black/orange	Anti-fog, scratch-resistant and antistatic on both sides	CYN1.1	1	19,35
③ black/lime	Scratch-resistant on outside and chemical resistant on inside, anti-fog	CYN2.1	1	19,35



UV-safety spectacle astroflex

By UVEX. Acc. to **EN 166, 170**. Extremely scratchproof lens with non-fogging coating inside. Unrestricted vision on sides. Flexible sealing lip protects against reflecting light, dust and splashes from above or when carrying out overhead work. With additional cushioning effect against physical blows. Variable adjustable side-arm inclination. Side-arm can be adjusted individually in 3 stages, with integrated safety catch. With soft padding on the ends of arms to minimize the pressure marks behind the ears.

Art. No.	Pack Qty.	€
N150.1	1	20,40



UV-safety spectacles astrospec

By UVEX. Acc. to **EN 166, EN 170**. **Scratchproof**, with easy to replace lens made of polycarbonate and integrated side protection. Side arms can be adjusted in length and inclined for exact fit. Soft pads at the ends of the side arms reduce pressure. Weight 36 g.

Frame colour	Art. No.	Pack Qty.	€
violet/green	A257.1	1	14,55
silver-grey	A255.1	1	14,55
spare screen	P939.1	1	8,35



UV-safety spectacles astrospec

By UVEX. Acc. to **EN 166, EN 170**. **Scratchproof, with permanently non-fogging and antistatic lens** made of polycarbonate with integrated side protection. Lens is easy to replace. Side arms can be adjusted in length and inclined for exact fit. Soft pads at the ends of the side arms reduce pressure. Weight 36 g.

Frame colour	Art. No.	Pack Qty.	€
blue	9018.1	1	13,95
yellow	9021.1	1	13,95
spare screen	9022.1	1	8,55

UV-protection spectacles



UV-safety spectacle B272

By Bollé. Acc. to **EN 166, EN 170**.

- Scratch-proof and non-fogging PC visor
- Length-adjustable earpieces
- Adjustable visor inclination
- Additional top and bottom protection

Weight: 31 g.

Lens design	Art. No.	Pack Qty.	€
clear	KP00.1	1	13,45



UV-safety spectacles skyper / skyper s

By UVEX. Acc. to **EN 166, EN 170**. Polycarbonate lens, clear, scratchproof. Length of side pieces and inclination of lens can be adjusted for individual fit. Also features integrated side protection in lens. Weight 30 g or 28 g.

Skyper: larger model for broad faces

Frame colour	Art. No.	Pack Qty.	€
blue	X451.1	1	16,70
black	X452.1	1	16,70

Skyper s: smaller model for narrow faces

Frame colour	Art. No.	Pack Qty.	€
blue	P825.1	1	16,70



Skylite UV safety spectacles

By UVEX. Acc. to **EN 166, EN 170**. Clear lenses made of polycarbonate, scratch-resistant on the inside and outside. Angle of side pieces can be adjusted. Integrated side protectors with a matt finish. Ultra-lightweight spectacles, approx. 26 g.

Frame colour	Art. No.	Pack Qty.	€
① red metallic	CH18.1	1	12,05
② blue	NP29.1	1	11,80



UV-safety spectacle skybrite

By UVEX. Acc. to **EN 166, EN 170**. **Model for narrow faces.**

Scratchproof, non-fogging lens. Sidepieces can be adjusted in length and inclination (adjustable sidepiece inclination) for individual fit.

The soft sidepieces also ensure optimum and pressure-free fit. Weight 32 g.

Frame colour	Lens design	Art. No.	Pack Qty.	€
blue	colourless	X400.1	1	19,90



UV-safety spectacles 2810

By 3M. Acc. to **EN 166** and **EN 170**.

- Clear, robust polycarbonate lens
- Narrow, flexible side arms for better comfort
- With integrated side protection for more safety
- Very light: 21 g

Art. No.	Pack Qty.	€
KA81.1	1	8,55

UV-protection spectacles



UV-safety spectacles super g

By UVEX. Acc. to **EN 166, EN 170**.

The lightest safety glasses in the world.

Weight 18 g.

- Completely metal-free
- Fatigue-free and safe fit thanks to the barely noticeable and extremely flexible frame design
- Unique nose rest allows it be combined easily with respiratory masks
- The side-arms are comfortable and pressure-free due to XST technology (Ends of side-arms come with soft components)
- Very thin and breakproof lens made of PC
- Different types of lens coating available:
 - ① Permanently non-fogging, scratchproof and antistatic.
 - ② Outside highly scratchproof, inside permanently non-fogging.

Model	Frame colour	Art. No.	Pack Qty.	€
①	crystal	HH50.1	1	17,15
②	blue	HH51.1	1	18,95



UV-safety spectacles PRISM

By Bollé. Acc. to **EN 166, EN 170** and **EN 172** (dark visor).

- Goggles 100 % polycarbonate
- Scratch-proof and anti-fog visor
- Straight earpiece
- Very light goggles, 23 g

Delivery incl. goggles strap.

Lens design	Art. No.	Pack Qty.	€
clear	KP03.1	1	7,55
Tinted glass, dark	KP04.1	1	7,55



UV safety spectacles I-3

By UVEX. Acc. to **EN 166, EN 170, EN 172** (grey lenses).

- PC lenses - anti-fog on the inside, scratch resistant on the outside, resistant to chemicals
- Perfect vision downwards
- Adapts perfectly to any face shape, excellent wearer comfort
- Soft nose pads ensure perfect anti-slip fitting
- Metal-free construction for low weight and long life

Frame colour	Lens design	Art. No.	Pack Qty.	€
① anthracite/blue	clear	NP27.1	1	21,45
② anthracite/red	grey	NP28.1	1	24,65



UV-safety spectacles VIPER

By Bollé. In acc. with **EN 166** and **EN 170**.

- Very good adaptation thanks to shape and ultra-light design
- Length-adjustable earpieces
- Visor made of PC, scratch-proof; yellow tinted visor, also anti-fog
- Additionally integrated protection at upper edge of goggles

Weight: 25 g.

Delivery incl. adjustable goggles strap.

Lens design	Art. No.	Pack Qty.	€
clear	KP01.1	1	8,95
yellow	KP02.1	1	10,80

UV-protection spectacles



UV-safety spectacles SILIUM

- By Bollé. Acc. to **EN 166, EN 170** and **EN 172** (dark visor).
- Non-slip TIPGRIP earpieces and non-slip adjustable nose bridge plates
 - Scratch-proof, anti-fog and antistatic PC visor
 - Bendy, Flex earpiece 160 %
 - Brass frame
 - Weight: 34 g

Lens design	Art. No.	Pack Qty.	€
clear	KN95.1	1	11,45
Tinted glass, slightly dark	KN96.1	1	13,05



UV-safety spectacles i-vo

- By UVEX. Acc. to **EN 166, EN 170** or **EN 172** (CH15.1). Extremely scratchproof polycarbonate-lens. With integral side protection. Ankle and length of side arms can be adjusted individually. Pressure-free and comfortable fit due to soft, flexible nose strap and elastic ends of side arms. Weight 34 g.

Lens design	Art. No.	Pack Qty.	€
clear	Y406.1	1	20,35
brown	CH15.1	1	21,45



Safety spectacles 506U

- Acc. to **EN 166, EN 170**. Clear UV-protective lens made of PC with anti-scratch/anti-fog coating.
- Angle and length adjustable temples
 - Soft ear pieces avoid pressure points
 - Optimal wearing comfort and adaptation through soft, adjustable nose pad
 - Weight 25 g

Frame colour	Art. No.	Pack Qty.	€
white/pink	CNE8.1	1	12,20
black/green	CNE9.1	1	11,15



Programme extension!

Safety spectacles 5X3

- By Univet. Acc. to **EN 166, EN 170**. Advanced frame design minimises pressure points, adapts automatically to any face shape.
- SoftPad™ side pieces and adjustable nose bridge for improved wear comfort
 - Distinctive wraparound lenses made of PC
 - Ventilation system
 - Orange lens offers protection against UV light and blue light up to 525 nm
 - Weight 31 g

Frame colour	Lens design	Art. No.	Pack Qty.	€
black/green	clear, anti-scratch coated	APX7.1	1	11,40
black/orange	clear, anti-scratch/anti-fog coated	APX8.1	1	17,75
black/orange	orange, anti-scratch/anti-fog coated	CNH4.1	1	18,25

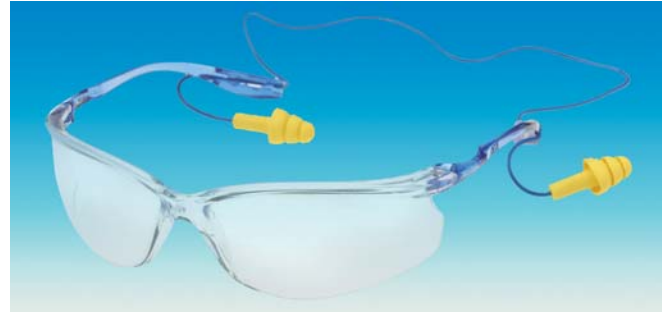
UV-protection spectacles



UV-safety spectacle Maxim

By 3M. Acc. to **EN 166, EN 170**. Clear polycarbonate lens for 180° view without distortion. Coated lens protects against fogging, scratches and splashes from chemicals. Soft, adjustable nose-piece. With eyebrow protection for more comfort and protection against mechanical influences. Earpieces can be adjusted in length and inclination of lens can also be altered. Weight 28 g.

Art. No.	Pack Qty.	€
KA36.1	1	14,20



UV safety spectacles Tora CCS

By 3M. Acc. to **EN 166, EN 170**. Scratchproof, fogproof PC lens. Ear protection attaches directly to the spectacles, ensuring that eye and ear protection are always joined and ready for use, without tangling. The ear protection cord doubles as a spectacle cord. Very light (22 g). **Delivery without** ear protection and cord. Please order separately (ULTRAFIT TE80.1 ear plugs).

Lens design	Art. No.	Pack Qty.	€
clear	TE79.1	1	8,95



UV safety spectacles 5X6

By Univet. Acc. to **EN 166, EN 170**. Clear UV-protective lens made of PC with anti-scratch/anti-fog coating. Light and comfortable model, ideal for long-duration wear. Sporty "wrap-around" design, the lens is flexibly attached to the frame.

- Length adjustable SoftPad™ side pieces
- Soft and anatomically shaped nose bridge
- Weight 26 g

Frame colour	Art. No.	Pack Qty.	€
gun metal/green	APX9.1	1	16,70
white/blue	APY0.1	1	16,70



UV-safety spectacle Premium 2750

By 3M. Acc. to **EN 166, EN 170**. Clear, scratchproof and non-fogging lens made of polycarbonate. Sidearms can be adjusted 5 times in length. Soft, shaped nose piece. Weight 32 g. Can be used in combination with Sekuroka®-particle filter masks N186.1 ff., the 9300 series by 3M.

Art. No.	Pack Qty.	€
EH68.1	1	12,40



UV-safety spectacle Comfort 2740

By 3M. Acc. to **EN 166, EN 170**. Lens made of clear polycarbonate, scratchproof and non-fogging. Earpieces can be adjusted 4 times in length and in inclination and have soft ends. Weight 28 g.

Art. No.	Pack Qty.	€
EH67.1	1	11,05

UV-protection spectacles



UV-safety spectacle Z8

Acc. to **EN 166**, **EN 170**. Clear, anti-fogging polycarbonate lens, also protects the area around the eyebrows. Metal side-arm. Side-arms are padded at the ends with non-slip, soft PVC. Optimal fit and good panorama view. Weight 33 g.

Lens design	Art. No.	Pack Qty.	€
clear	CY76.1	1	12,80



UV-safety spectacle x-act

By UVEX. Acc. to **EN 166**, **EN 170**. Frameless glasses with large field of vision. With clear, scratchproof polycarbonate lenses. Top of the lens is also covered for additional protection against falling particles. Adjustable arm inclination allows lens to be adjusted to face shape. Weight approx. 28 g.

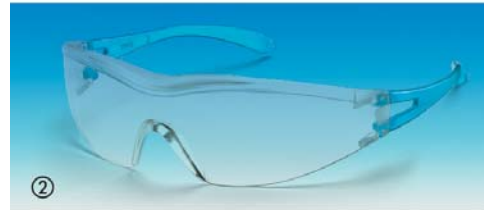
Art. No.	Pack Qty.	€
AA52.1	1	17,15



Safety spectacles ALEXIA™

In acc. with **EN 166**, **EN 170** and **EN 172** (PT42.1). Also suitable for work with UV light. Lens made of PC. Models developed specifically for women (reduced width, shorter earpieces and slimmer nose piece). Crystal accents on each side of the lens. Weight 30 g.

Frame colour	Lens design	Art. No.	Pack Qty.	€
clear, frosted	clear, scratchproof, anti-fog	PT40.1	1	11,10
brown, frosted	brown tinted, scratchproof	PT42.1	1	11,15



X-one UV safety spectacles

By UVEX. Acc. to **EN 166**, **EN 170**, **EN 172** (grey lenses). Sporty and lightweight, wide field of vision, unlimited side vision, good coverage of the eyebrows and cheeks. Weight 27 g.

Frame colour	Lens design	Art. No.	Pack Qty.	€
① colourless	clear	NP24.1	1	8,85
② azure blue	clear	NP25.1	1	8,85
③ grey-black	grey	NP26.1	1	8,85



UV-safety spectacles x-trend

By UVEX. Acc. to **EN 166**, **EN 170**, **EN 172** for HH53.1. Large anatomically formed wrap-around lens made of PC, for extreme safety. 20 % higher coverage compared to standard glasses. Lens is highly scratch-resistant on exterior and with permanently non-fogging inner side. With anti-slip side arm surface.

Lens design	Art. No.	Pack Qty.	€
clear	HH52.1	1	14,55
grey	HH53.1	1	17,00

UV-protection spectacles



UV safety spectacles pheos/pheos blue

By UVEX. Acc. to **EN 166**, **EN 170** and **EN 172** (grey lens).

- Wide, undistorted field of vision
- Scratch-resistant, permanently anti-fog on the inside.
- Duo-spherical lenses provide optimal eye coverage at the sides
- The tips of the earpieces are fitted with anti-slip components for extra comfort and slip resistance
- Excellent ventilation
- Metal-free earpiece mechanism with an easy action
- Compatible with ear muffs, hard hats and bump caps

①+② pheos

PC lenses.

③ pheos blue

Eco-friendly safety spectacles "**Green Design**" based on natural raw materials. Made of bioplastic, which is a plastic based on organic raw materials. Fully functional safety spectacle which meets all requirements for safety and wearing comfort.

Frame colour	Art. No.	Pack Qty.	€
light grey/grey	XC85.1	1	14,55
black/grey	XC86.1	1	16,05
sand/blue	XC87.1	1	21,45



millennia® UV-safety glasses

Tempered safety glasses acc. to **EN 166**, **EN 170** and **EN 172** (P763.1). Ergonomic frame adapts to head shape. Straight side-arms do not need to be adjusted in length or inclined, no pressure behind the ears. Lens is optimally curved enabling undistorted vision. Low weight (34 g).

Lens	Application
clear	High mechanical protection, filters harmful UV-rays.
yellow	Excellent contrast recognition by filtering the blue proportion of light in the visible spectrum, filters harmful UV-rays. High mechanical protection.
grey	Sun protection filter, filters UV-rays and visible light. Good colour recognition.

Delivery incl. adjustable, flexible spectacles band.

Frame colour	Lens design	Art. No.	Pack Qty.	€
blue	clear	P758.1	1	10,70
silver	clear	P760.1	1	10,70
black	yellow	P761.1	1	13,65
black	grey	P763.1	1	13,65



UV safety spectacles 2720

By 3M. Acc. to **EN 166**, **EN 170**, **EN 172** (grey lens).

Sporty design, protects reliably against UV rays, with a special anti-scratch, anti-fog lens coating.

- PC lenses give excellent impact protection
- Compact design: slim nose bridge and flat side-pieces
- Compatible with 3M Series 9300+ particle masks
- Very light (24 g) and comfortable, suitable for prolonged wear
- Choice of 3 lens tints for various working environments

Lens design	3M No.	Art. No.	Pack Qty.	€
clear	2720	TE22.1	1	9,50
grey	2721	TE23.1	1	9,50
yellow	2722	TE24.1	1	9,50



UV-safety spectacles millennia® sport

Acc. to **EN 166**, **EN 170** und **EN 172** (grey lens). Scratchproof polycarbonate lens. Same as millennia® UV-safety glasses.

Delivery incl. adjustable, flexible spectacles band.

Frame colour	Lens	Art. No.	Pack Qty.	€
blue	clear	CA36.1	1	10,00
black	grey	CA35.1	1	9,65

UV-protection spectacles



Virtua UV-safety spectacles

By 3M. Acc. to **EN 166**, **EN 170** and **EN 172** (grey lens). Spectacles are entirely made of polycarbonate scratchproof. Extremely good fit. Weight 25 g.

Lens design	Art. No.	Pack Qty.	€
clear	CY78.1	1	5,95
grey	CY80.1	1	5,95



UV-safety spectacles racer MT

By UVEX. Acc. to **EN 166**, **EN 170** and **EN 172** (only Art. No. KX38.1).

- Flexible metal frame
- Adjustable nosepiece
- Scratchproof, non-fogging PC lens
- Weight 40 g

Lens design	Art. No.	Pack Qty.	€
clear	KX37.1	1	25,75
grey	KX38.1	1	29,90



Safety spectacles SecureFit 400

By 3M. Acc. to **EN 166**, **EN 170**, **EN 172** (grey lenses). Polycarbonate UV protective lenses with anti-scratch resistance and anti-fog properties.

- Flexible frame, adapts easily to all head sizes and shapes
- Soft, adjustable nose pad for a perfect and secure fit
- Padded ear pieces reduce pressure points and thus enhance wearing comfort
- Optimal compatibility with ear muffs and fine dust masks
- Ultra lightweight - only 19 g

Frame colour	Lens	Art. No.	Pack Qty.	€
black/green	clear	CNE6.1	1	9,90
black/green	grey	CNE7.1	1	9,90



UV-safety spectacles, cybric

By UVEX. Acc. to **EN 166**, **EN 170** and **EN 172** (AA34.1). Sporty, modern double lens optic with integral side protection. Scratchproof and non-fogging lens made of polycarbonate. Side arms can be adjusted individually in inclination and length. End of side arms are elastic for a pressure-free and comfortable fit. Weight 29 g.

Lens design	Art. No.	Pack Qty.	€
clear	AA33.1	1	18,25
grey	AA34.1	1	19,30



UV-safety spectacles, Kids

By 3M. Acc. to **EN 166**, **EN 170**. For small head sizes, children or adults with short interpupillary distance / narrow face. Glasses made of polycarbonate, clear and scratchproof lens.

Art. No.	Pack Qty.	€
KA62.1	1	6,15

EN-Standards for safety spectacles

- EN 166 General requirements
- EN 169 Eye protection filter for welding
- EN 170 UV-protection filter
- EN 171 Infrared filter
- EN 172 Sun-protection filter

Special protection spectacles



Safety spectacles 546

By Univet. Acc. to **EN 166, EN 170**. Extremely lightweight and modern spectacle with a sporty line. Clear UV protective lenses made of PC with anti-scratch/anti-fog coating.

- Wraparound polycarbonate lens with integrated side protectors
- Temples guarantee excellent fit and wear comfort
- Non-slip soft nose pad
- Ideal for long wearing times
- Orange lens offers protection against UV and light up to 525 nm

Frame colour	Lens design	Art. No.	Pack Qty.	€
black/green	clear	CNH2.1	1	13,45
black/orange	orange	CNH3.1	1	17,35



UV-safety spectacles 2840

By 3M. Acc. to **EN 166, EN 170 and EN 172 (KA83.1)**.

- Side arm length is 3-times adjustable
- Adjustable inclination of lens for individual fit
- Robust polycarbonate lens with scratchproof and non-fogging coating
- Integrated eyebrow protection for more safety
- Side arms are soft inside for a more comfortable fit
- Safety spectacles **KA83.1**, with grey lens for outside use when greater protection against sunlight is necessary
- Protective goggles **NN25.1** with orange lens, filters out UV radiation and blue wavelength light to 530 nm. Enhances contrast and focus in low light conditions
- Weight 26 g

Lens design	3M No.	Art. No.	Pack Qty.	€
① clear	2840	KA82.1	1	12,05
② grey	2841	KA83.1	1	12,05
③ orange	2846	NN25.1	1	14,85



Autoclavable safety goggles CR

By UVEX. Acc. to **EN 166, EN 170**.

Clear lenses made of PC with UV protection, anti-fog coated on the inside, highly scratch-resistant on the outside. Autoclavable for at least 10 cycles (20 min at 121 °C). Suitable as cleanroom goggles or for critical areas.

① Full-vision goggles ultrasonic CR

Exceptional wear comfort even for wearers of corrective spectacles. No pressure problems even after long periods of wear due to the combination of hard and soft components. Sporty design, wide panoramic field of vision and full side protection. Indirect ventilation, adjustable silicone strap. Replaceable lens.

② Over-goggles super OTG CR

Fit over corrective goggles. Excellent wearability, unrestricted lateral vision. New side piece/hinge concept with soft ear pieces.

③ Safety goggles super fit CR

Ultra light safety glasses in sporty design. Extremely thin lens made of clear PC for maximum optical clarity. Excellent protection against mechanical risks, perfect non-slip fit.

Model	Art. No.	Pack Qty.	€
① Full-vision goggles ultrasonic CR	ANL3.1	1	31,75
② Over-goggles super OTG CR	ANL4.1	1	29,35
③ Safety goggles super fit CR	ANL5.1	1	27,95



UV-safety spectacle LED Light Vision

By 3M. Acc. to **EN 166, EN 170**.

- Safety spectacles with height-adjustable and extremely bright LEDs
- Built-in batteries (2 x round cell batteries CR 2032), long battery life (over 50 hours)
- Illuminates dark areas and at the same time protects the eyes. Hands are free to work, e.g. for electric work, car repairs, installation work, do-it-yourself jobs, mechanical work in the dark, reading...
- With rubber padding on ear and nose-piece for extra comfort
- Non-fogging lens made of polycarbonate, also suitable for working with UV-light

Weight 61.4 g.

Delivery incl. microfiber pouch for storing and cleaning.

Art. No.	Pack Qty.	€
KA25.1	1	22,50

Eye protection accessories



Welding safety goggles astrospec

By UVEX. Acc. to **DIN EN 166 and 169** (filter for welding). **Welding protection stage 5**, for hard soldering and welding with acetylene up to 70 l/h volume capacity. Green lens made of polycarbonate with integrated side protection and unlimited side perception. Good adaptability, 3-stage adjustable lens inclination and 4-stage earpiece length adjustment. Weight 36 g.

Art. No.	Pack Qty.	€
EH99.1	1	17,75



Spectacles bag

By UVEX. Made of nylon. Suitable for all spectacles and full-view goggles.

Art. No.	Pack Qty.	€
T708.1	1	5,95



Welding safety goggles

By UVEX. Acc. to **EN 166, EN 169, EN 170, welding protection stage 5**. Full vision welding safety goggles with flip-up filter holder. Lenses are made of colourless CA in standard version. Green hinged lenses. Tight-fitting with high wearer comfort, designed to fit perfectly over prescription spectacles. Quick and easy headband adjustment. Indirect ventilation system.

Art. No.	Pack Qty.	€
NP31.1	1	22,05



Spectacles case

By UVEX. With push-button, made of plastic. Dimensions approx. W 170 x H 70 x D 55 mm. Suitable for most frame spectacles.

Art. No.	Pack Qty.	€
N112.1	1	8,85



Infrared and welding safety goggles

By UVEX. Acc. to **EN 166, EN 171, infrared protection stage 4-6**. Rugged nylon safety goggles, grey, with twin lenses. Filter holder flips up easily. Excellent, tight fit. Angle and length of side pieces can be adjusted individually, anatomically formed ear pieces. Laminated glass lenses in standard version. Blue hardened glass hinged lenses.

Art. No.	Pack Qty.	€
NP30.1	1	31,15



Spectacles bag

By UVEX. Robust case with reinforced zipper and separate pocket for e.g. cleaning tissues. Belt with velcro fastening. Ideal for all spectacles from UVEX except Super OTG.

Art. No.	Pack Qty.	€
AA00.1	1	10,15

Eye protection accessories



Sekuroka®-neck cord

For spectacles, braided, with silicone rubber band. Black, length about 45 cm.

Art. No.	Pack Qty.	€
5844.1	1	4,55



Mobile spectacles box

Made of sturdy plastic (ABS), blue. Portable spectacles box for safe "on the go" storage of safety spectacles, e.g. when away on a job, in industrial plants, on construction sites etc. Protects against scratching, dust and moisture. Suitable for all standard safety spectacles.

Delivery without safety spectacles.

Art. No.	Pack Qty.	€
TY61.1	1	11,00



Sekuroka®-safety glasses boxes

- Made of impact resistant plastic (ABS) with rounded corners, blue or transparent
- For safe storage of safety spectacles directly in the workplace
- Protects against scratching, dust and moisture
- Suitable for all standard safety spectacles

Delivery incl. fixing hardware for wall mounting, without safety spectacles.

Box for 1 pair of safety glasses

Dimensions: W 236 x D 120 x H 120 mm

Delivery without safety label (Art. No. NK20.1 - please order separately).

Colour	Art. No.	Pack Qty.	€
blue	N426.1	1	12,15
transparent	N427.1	1	14,30

Box for 4 pairs of safety glasses

Dimensions: W 236 x D 125 x H 225 mm

Delivery incl. safety label "Wear eye protection".

Colour	Art. No.	Pack Qty.	€
blue	TY59.1	1	54,85
transparent	TY60.1	1	60,45

Box for 12 pairs of safety spectacles

Ideal for storage of safety spectacles for visitors. Insert is removable, e.g. for cleaning.

Outer dimensions: W 236 x D 200 x H 315 mm

Inner dimensions: W 230 x D 192 x H 299 mm

Inner compartment: W 63 x D 174 x H 75 mm, Ø 98 mm

Delivery incl. safety label "Wear eye protection".

Colour	Art. No.	Pack Qty.	€
blue	X465.1	1	105,90
transparent	CHL0.1	1	109,65



Safety spectacles dispenser

Store spectacles in a clean and safe place, ideal for visitor's spectacles. Made of acrylic glass. Either separate or attached to the wall.

Spectacles can also be removed individually. Clamping lid at top.

Dimensions: W 170 x D 75 x H 390 mm. Sampling port: W 17 x H 5.9 cm.

Delivery incl. wall attachment for wall assembly, without safety spectacles.

Art. No.	Pack Qty.	€
KN10.1	1	98,90



Anti-fog cleaner

Solution for cleaning spectacles and visors, prevents fogging. Contents: 17 ml.

Warning H319

Art. No.	Pack Qty.	€
CNH5.1	1	11,15

Eye protection accessories



Sekuroka®-lens cleansing tissues

For moist cleaning of optical glasses, with active grease remover and alcohol. Clean glasses without leaving specks, anti-static and non-fogging. Very gentle, only one wipe required. Individually packed.

Art. No.	Pack Qty.	€
1678.1	100	17,75



Sekuroka®-cleaning fluid

Silicone-free cleaning and protecting fluid for spectacles, screens and other sensitive glass surfaces. Environmentally friendly, without propellant gas.

Danger H225-H319-H336

Art. No.	Pack qty. (ml)	€
1317.1	100	6,40



Sekuroka®-microfibre tissues

Ideal for film-free cleaning of spectacles and optical instruments. Washable and reusable. Dimensions: 150 x 150 mm.

Art. No.	Pack Qty.	€
E172.1	5	12,40



Spectacles cleaning station

By UVEX. Manufactured from breakproof plastic. Can be locked with specially-made key. For wall assembly. The station is filled with 2 x 700 sheets of silicon-free tissue wipes and 500 ml cleanser fluid with plastic pump.

Type	Art. No.	Pack Qty.	€
Spectacles cleaning station, full	AA35.1	1	72,90

Accessories:

Tissue wipes with 700 tissues	AA36.1	2	24,20
Cleaning fluid 0.5 l bottle	AA37.1	1	11,80
Plastic pump	AA38.1	1	6,40



Safety symbols to ISO 7010

Acc. to ASR 1.3 and DIN EN ISO 7010. Made of PE film with colour-fast print. Self-adhesive individual labels. Resistant to water, oil and alkalis. Temperature stable from -40 to +80 °C.

Type	Symbol	Ø (mm)	Art. No.	Pack Qty.	€
a	Wear eye protection	50	NK20.1	1	2,10
a	Wear eye protection	100	NK21.1	1	2,80
a	Wear eye protection	200	NK22.1	1	4,65
d	Wear protective headgear	100	NK28.1	1	3,20
d	Wear protective headgear	200	NK29.1	1	4,90
d	Wear face shield	100	NK41.1	1	3,20
m	Wear face shield	200	NK42.1	1	4,90



Sekuroka®-wall hooks

With information sign, made of rigid plastic. W 195 x L 215 mm. Hook length 40 mm.

Information sign	Art. No.	Pack Qty.	€
Gas mask	1091.1	1	11,30
Apron	1092.1	1	11,30
Face screen	E174.1	1	11,30

Head and face protection



UV-face visor

By Bollé. Acc. to **EN 166**, **EN 170**. Also suitable for work with UV light.

- Ultra-light, fold-up visor
- Anti-fog acetate protective visor, thickness 1.5 mm
- Protection against chemical splashes, electrical arcs and short circuits
- Protection against flying particles, medium energy (120 m/s)
- Adjustable head strap
- Frame and head fastener made of polypropylene

Weight: 200 g. Visor size (H x W) 190 x 290 mm.

Type	Art. No.	Pack Qty.	€
UV face visor	KP10.1	1	32,15
Spare visor for UV face visor KP10.1	KP11.1	1	27,10



UV-face protection shield

By UVEX. Acc. to **EN 166** and **EN 170**. Robust head support made of PA with integral forehead protection. With rotating fastener for easy adjustment to individual head size. Infinitely variable lift-up mechanism. Screen made of cellulose-acetate, 1 mm thick. For protection against low-energy particles. Dimensions: H 195 x W 540 mm. Weight 227 g.

Type	Art. No.	Pack Qty.	€
UV-face protection screen	EX08.1	1	29,60
Spare screen for face protection screen EX08.1	EX09.1	1	14,20



UV face visor SPHERE

By Bollé. In acc. with **EN 166**, **EN 170**. Also suitable for work with UV light.

- Lens made of PC (2.0 mm thick), frame made of PP
- Large field of vision of 180°
- Adjustable headgear and headband
- Protection from chemical splashes
- Protection from medium energy particles (120 m/s), tested at extremely high temperatures
- Protection from hot solids and molten metals

Weight 355 g. Lens size: H 205 x W 394 mm.

Type	Art. No.	Pack Qty.	€
UV face visor SPHERE	PT74.1	1	23,15
Spare lens for UV face visor SPHERE PT74.1	PT75.1	1	12,65



699 face visor with chin protection

By Univet. Acc. to **EN 166**.

- 1 mm polycarbonate visor with 90° hinge mechanism
- Height-adjustable head frame
- Adjustable head size using elastic headband
- Exchangeable foam headband
- Can be worn with protection goggles and respiratory protection

Type	Art. No.	Pack Qty.	€
Face visor with chinguard	ATP6.1	1	17,75
Replacement visor lens 699	ATP7.1	1	8,90
Replacement chinguard made of PC	ATP8.1	1	3,35

Head and face protection



Sekuroka®-face protection shields

Ultra-light, made from ABS. Flexible, non fogging. Can also be worn over respiratory masks and glasses. With forehead padding and straps. Head-piece adapts to wearer after exposure to body temperature. Smallest head size approx. 440 mm.

Delivery incl. headgear with cord, 3 face shields and 1 mini shield.

Colour	Art. No.	Pack Qty.	€
white	C346.1	1	53,55
blue	C347.1	1	53,55
neon yellow	C348.1	1	53,55
neon pink	C349.1	1	53,55
Spare screens (6 spare screens and 6 spare mini screens)	C350.2	12	55,70



Sekuroka®-face shield

Acc. to EN 166. Extremely light head support. Replaceable PC screen, pliable due to metal frame. Rotating ratchet mechanism enables width of padded head support to be individually adjusted. Ideal for protection against liquid splashes and low pressure flying particles. Dimensions of screen H 250 x W 205 mm. Height including head support 265 mm.

Type	Art. No.	Pack Qty.	€
Sekuroka®-face shield	E227.1	1	29,60
Spare screen for face shield E227.1	E228.1	1	13,95



Face visor 710

By Univet. Acc. to EN 166. Lightweight face shield for liquid droplet and splash protection in medical areas.

- Clear anti-fog visor made of acetate
- Interchangeable skin-friendly terry towel lining on forehead
- Adjustable elastic head strap
- Can be worn over corrective spectacles
- Weight 97 g

Type	Art. No.	Pack Qty.	€
Face visor 710	APY9.1	1	36,45
Replacement lenses, anti-fog	ATA0.1	5	57,55
Replacement terry towel forehead lining	ATA1.1	10	8,55



Face protection shield

By 3M. Acc. to EN 166. Protects against all particles of medium energy flying about and liquid metal splashes. Screen made from 2 mm thick PC (230 x 370 mm), can be lifted up and locked in place. Infinitely adjustable. With soft vinyl sweat-band.

Type	Art. No.	Pack Qty.	€
Sekuroka®-face protection shield	T668.1	1	35,50
Spare screen for face protection shield T668.1	T669.1	1	14,25

Head and face protection



Protector F800 face shield

Acc. to EN 166. With visor frame which attaches into the centre of the frame, allowing easy replacement. Head support with headband and ratchet wheel for easy adaptation to head size.

- Offers a high level of protection and a wide field of vision
- Acetate or PC visor options
- Built-in chinguard for additional protection

Delivery without visor. Please order separately.

Type	Art. No.	Pack Qty.	€
Screen support with built-in chinguard	XK49.1	1	26,05
Acetate visor, anti-fog	XK50.1	1	22,50
PC visor	XK51.1	1	13,25



Sekuroka®-protective helmet with shield

Acc. to EN 166 and EN 397. Protective helmet made of white plastic with four snapfasteners to attach front shield. Plastic inlay of hard hat adjustable. Screen made of polycarbonate. Length 25 cm, can be tilted. Weight 500 g.

Type	Art. No.	Pack Qty.	€
Sekuroka®-protective helmet	1475.1	1	59,05
Spare shield	0652.1	1	17,20
Spare protective helmet	8405.1	1	14,70



UV-face protection shield Bionic

Acc. to EN 166, EN 170.

- Large screen for good view
- Polycarbonate lens for UV-protection and good colour identification
- Scratchproof and non-fogging
- Protects against liquid splashes
- Protects against flying particles of medium energy (120 m/s), tested at extremely high temperatures
- Lenses are very easy to replace
- Individually adjustable for good fit
- Ratchet head fixture
- Frame made of robust ABS-plastic
- Soft padding on all parts that touch the head
- Skin-friendly sweatband, can be replaced and washed
- Added protection for top of head and chin
- Can be combined with respiratory protection or safety spectacles
- Very light, weight 407 g
- Dimensions: H 31 x W 24 cm

Type	Art. No.	Pack Qty.	€
UV-face protection screen Bionic	CA34.1	1	68,30
Spare screen for face protection screen CA34.1	EP73.1	1	33,00



Combined face and ear protection G500

By 3M. Acc. to EN 166, EN 352. The combination consists of yellow headgear, a clear, anti-fog PC visor and Optime™ I ear muffs (insulation value 26 dB A). Adjustable headgear for head sizes ranging from 54-62 cm. The visor protects against particles flying at a medium speed of 120 m/s.

- A practical and comfortable solution for all who need both face and ear protection
- Face visor and wide field of view
- Multiple combinations with protective glasses and clear or net visors
- Stable construction, long service life and excellent wear comfort

Delivery incl. headgear, PC visor, Optime™ I ear protectors.

Art. No.	Pack Qty.	€
YT38.1	1	56,65

Head and face protection



Safety helmets with Uvicator™ sensor and ratchet system

By 3M. Acc. to EN 397. Made of ABS, ventilated, with headband. Designed for use in harsh environments with high safety requirements.

- Compatible with other auxiliary safety gear, such as ear defenders, visors or safety goggles.
- The Peltor™ Uvicator™ sensor indicates when the hat needs replacing.
- Short face shield allows for excellent visibility
- Ratchet system for easy adaptation to head size
- Slender, rounded shape reduces the danger of getting caught on objects such as tree branches or similar obstacles
- Multiple ventilation slots make for excellent ventilation

Colour	Art. No.	Pack Qty.	€
white	NH14.1	1	22,50
yellow	NH15.1	1	22,50



Peltor™ OPTIME™ ear defenders

By 3M. Acc. to EN 352-1. With safety attachment for all hard hats with 30 mm slot system and face/ear protection G500 (YT38.1). High wearing comfort and low pressure inside ear even after extended wear.

- Lightweight design, optimal ear protection
- Constant pressure, liquid-filled sealing ring
- 2-point mounting

OPTIME™ I

Flat design. **Applications:** outdoor work, building trade, engineering, woodworking, metalworking, automobile industry, farming, chemical treatment.

OPTIME™ II

For high-noise environments, provides excellent sound insulation even at extremely low frequencies.

Applications: outdoor work, building trade, airports.

Delivery without safety helmet, please order separately (Art. No. NH14.1f)

Model	SNR value	Art. No.	Pack Qty. (Pair)	€
OPTIME™ I	26 dB	NH12.1	1	22,60
OPTIME™ II	30 dB	NH13.1	1	28,30



Protective visors, for hard hats

By 3M. Suitable for hard hats (NH14.1f) and face/ear protection G500 (YT38.1). The visor mount (NH18.1) and, if no ear defenders are attached, the hat adapter (AKT9.1) are also required for hard hats.

① PC visor, clear, anti-fog

Art. No.	Pack Qty.	€
NH16.1	1	16,10

② Stainless steel mesh visor, light reduction: 24 %, 54 g, suitable for farming, forestry and landscaping.

Art. No.	Pack Qty.	€
NH17.1	1	14,30

③ Visor mount for hard hats NH14.1 f.

Art. No.	Pack Qty.	€
NH18.1	1	11,65

Helmet adaptor

Connector for helmets with 30 mm slot (NH14.1) for attaching the visor mount without earmuffs.

Art. No.	Pack Qty. (Pair)	€
AKT9.1	1	13,65



Respiratory protection

Alphabetical listing of harmful substances and recommended respiratory protection filters

When selecting your respiratory unit, please also consider BGR 190 requirements for the use of respiratory units.

Harmful Substance	Filter type
1,1-Dichlorethene, 1,2 --	AX
1,2,4 Trimethylbenzene	A
1,4-Dioxane	A
2-Chloro- 1,3-Butadiene	AX
3-Chlorpropene	AX
3,3-Dimethylbenzidine	(A-)P3
Acetaldehyde	AX
Acetone	AX
Acetonitril	A
Acrylaldehyde	AX
Acrylamide	A(-P3)
Acrylic acid	A
Acrylnitrile	A
Aluminium oxide	P2
Aluminiumchloride	P2(-E)
Aluminium	P2
Amine (C7-C9 aliph.)	A; B
Ammonia	K
Ammonium chloride	P2
Aniline	A(-P3)
Antimony	P2
Arsenic trioxide (Arsenic)	P3
Arseniuretted hydrogen	B(-P3)
Arsenous acid and its salt	P3
Artificial mineral fibres	P2
Asbestos	P2; P3
Ash	P2
Atrazine	P2
Bacteria	P2
Barium compounds soluble	P2
Benzene	A
Benzyl chloride	B(-P2); A(-P2)
Beryllium	P3
Biphenyl	A(-P2)
Boric acid	(E-)P2
Boroxide	P2
Bromine	B
Butane	AX
Butanol	A
Butanone	A
Butyl acetate	A
Butyl amin	AX
Cadmium and compounds	P3
Calcium hydroxide, -sulphate, -oxide	P2
Carbon monoxide	C0
Carbon bisulphide (carbon disulphide)	B; A
Carbonyl chloride	B
Caustic potash	P2
Cement	P2
Chlorbenzene	A
Chlorinated biphenyl	(A)P2
Chlorine	B(-P3)
Chloroform	AX
Chrome(VI)-compounds	P3
Cobalt-metal, -oxide, -sulphide	P3
Concrete (-injection guns)	P2
Cooling lubricants	P2
Copper, -vapours	P2

Harmful Substance	Filter type
Cotton dust	P2
Cresol	A
Cyanamide	B-P2
Cyanide (e.g. potassium cyanide, etc.)	B-P3
Cyclohexane	A
Cyclohexylamine	A
Cyclopentadiene	AX
Cytostatics	P2
Di-isopropylether	A
Diazinone	A(P2)
Dibenzodioxine, -furane	(A-)P3
Dichlorbenzene	A
Dichlormethane	AX
Dichromate Na-, K-	P3
Diesel fuel	A(-P3)
Diethyl ether	AX
Diethylamine	AX
Dimethoxymethane	AX
Dimethylamine	K
Dimethylformamiden (DMF)	A
Dimethylnitrosamine	A(-P3)
Dimethylsulfate	A(-P3)
Enzymes	P3
Ethanol	A
Ethyl acetate	A
Ethyl acrylate	A
Ethyl amine	K
Ethyl benzene	A
Ethyl formiate	AX
Ethylene glycol	A(-P29)
Ethylene oxide	AX
Fluoride	P2
Fluorine	B
Formaldehyde	B(-P3)
Formamide	A
Formic acid	E; B
Fungal spores	P2
Glass fibers	P2
Glycidole	A
Graphite	P1
Gypsum	P2
Halogens	B
Halothane	AX
Hexachlorcyclohexane	A(-P2)
Hexane-Isomers	A
Hydrazine	K
Hydrochloric acid (hydrogen chloride)	E(-P2); B(-P2)
Hydrocyanic acid	B
Hydrocyanic acid	B
Hydrogen bromide	E-P2
Hydrogen fluoride (hydrofluoric acid)	E; B
Hydrogen peroxide	NO
Hydrogen phosphide (Phosphine)	B
Hydrogen sulphide	B
Insekticide	A(-P3)
Iron oxide	P2
Iso-Amyl alcohol	A

Harmful Substance	Filter type
Isocyanate	B(-P3)
Isopropanol	A
Jodine	B(-P2)
Lead and compounds	P2
Lead chromate	P3
Lead vapour	P2; P3
Lime	P2
Lindane	A-P3
Magnesium oxide	P2
Magnesium vapours	P2
Maleic anhydride	A-P2
Manganese compounds	P2
Marble	P1
Mercaptane	B
Mercury	Hg(P3)
Methanol	AX
Methoxy ethanol	A
Methyl acrylate	A
Methyl amine	K
Methyl cyclohexanol	A
Methyl ethyl ketone (MEK)	A
Methyl isobutyl ketone	A
Mill dust	P3
Molybdenum compounds	P2
n-Butyl acrylate	A
n-Heptane	A
n-Hexane	A
N-Nitrosamine	A-P3
Naphthaline	A(-P2)
Nickel-metal, -oxide, -sulphide	P3
Nitric acid	E; B; NO
Nitrous compounds (org.)	A
Nitrous fumes (NO, NO ₂)	NO-P3
o-Toluidine	A
Octane	A
Ozone	NO
Parathion (E605)	A-P3
Perchlorethylene	A
Petrol	A
Phenol	A(-P2)
Phenylhydrazine	A(-P2)
Phosgene (Carbonylchloride)	B
Phosphorpentoxide	P2
Phosphortrichloride	B(-p2); E
Polychlorinated biphenyle (PCB)	(A-)P3
Polyvinyl chloride (PVC)	P2
Potassium hydroxide (caustic potash solution)	P2
Pyridine	A
Pyrosulphuric dichloride	B(-P2)
Quartz	P2
Quartzing fine dust	P2
Rust	P1
Silica acid, Kieselguhr	P2
Silica glass, silica vapours	P2
Silicious carbide	P2
Silver and compounds (soluble)	P3
Sodium azide	P3
Sodium hydroxide (caustic soda)	P2
Soot	P2

Harmful Substance	Filter type
Stainless steel, vapours, fine dust	P3
Stibine	B
Stone dust (quartzing)	P2
Styrene	A
Sulphur dioxide	E
Talc	P3
Telluric, -compounds	P2
Tetrachlormethane	A
Tetrahydrofurane (THF)	A
Tin compounds (anorg.)	P2
Tin compounds (org.)	AP2
Titanium dioxide	P2
Toluene	A
Trichlorethylene (Tri)	A
Triethylamine	A; K
Turpentine oil	A
Uranium compounds	P3
Vanadium pentoxide	P3
Vinyl acetate	A
Viruses	P3
Wood dust	P2
Xylene (all isomers)	A
Xylidine	A-P3
Zinc oxide, -vapours	P2



Disposable protection masks Visma®

By B. Braun.

- OP facemasks to EN 14683 type II
- Acc. to MDD 93/42/EEC class 1
- Filtration capacity $\geq 98\%$ BFE (Bacterial filtration efficiency)
- Protection for patient and wearer
- Soft textile non-woven fabric
- Glass fibre free and latex free
- 3-ply, skin friendly
- Excellent fit
- Absorbent material prevents spectacles from fogging

Visma® ear-loop: with rubber straps for secure fitting behind the ears

Visma® tie-on: with straps for tying

Type	Art. No.	Pack Qty.	€
Visma® ear-loop	X458.1	50	17,45
Visma® tie-on	HY39.1	50	15,95



Sekuroka®-protection masks

Odour binding, made of active carbon tissue, without fibre glass. Features aluminium nose support and straps. Ensures easy breathing. Dimensions: L 175 x W 98 mm. Individually wrapped in foil.

Art. No.	Pack Qty.	€
8401.1	10	24,70
8401.2	50	96,25



Sekuroka®-protective masks Sanifil®

Protect against irritating, non-hazardous coarse dust. No personal protection equipment.

Comfort, optimal fit. Weight approx. 6.2 g.

Art. No.	Pack Qty.	€
AA73.1	50	27,85

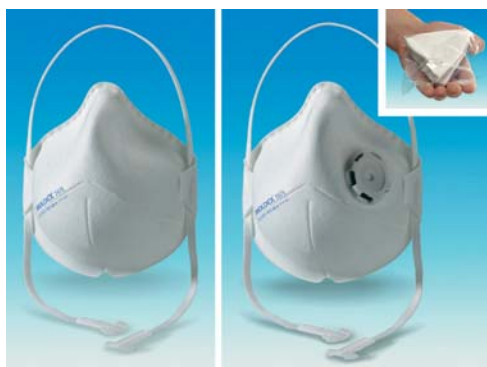


Surgical masks with SUAVEL®-Antifluid visor

By Meditrade®. Acc. to EN 14683 Model II R, 93/42EEC Class 1.

- Filtration capacity: $> 99\%$ BFE (bacteria filtration efficiency)
- Face mask for highly contagious situations
- Splash and fluid protection for mouth, nose and eyes
- 4-layer skin friendly material with antifluid layer
- With reinforced, long nose piece
- For tying
- Latex free, lint-free, non-sterile
- Colour: blue

Art. No.	Pack Qty.	€
CAL8.1	50	42,50



Smart Pocket FFP masks

By Moldex. Acc. to EN 149:2001+ A1:2009.

Protection against dust, aerosols and fumes

- Individually packed
- Ready to wear
- Soft sealing lip
- DuraMesh®: sturdy mask mesh keeps the mask in shape
- ActivForm®: without nose piece
- Loop strap with clip for simple on, off and adjustment

Without Klimaventil®

Protection level	Moldex No.	Art. No.	Pack Qty.	€
FFP2 NR D	2470	YP15.1	10	24,20

With Klimaventil®

Protection level	Moldex No.	Art. No.	Pack Qty.	€
FFP1 NR D	2375	YP16.1	10	24,70
FFP2 NR D	2475	YP17.1	10	33,25
FFP3 NR D	2575	YP18.1	10	60,10

Respiratory protection



Medical masks

By Moldex. **All-in-one fine dust mask and medical mask**
(EC Directive 89/686/EEC) and
EN 14683:2005 Medical Products Standard
(Medical Products Directive 93/42/EEC).

Acc. to EN 149:2001+A1:2009 Occupational Safety Standard
(EC Directive 89/686/EEC) and
EN 14683:2005 Medical Products Standard
(Medical Products Directive 93/42/EEC).

Protection for the wearer

- Protects against airborne hazardous substances (FFP2 NR and FFP3 NR to Occupational Safety Standard EN 149:2001)
- Protects against chemical splashes (splash resistant type IIR to Medical Products Standard EN 14683:2005)

Environment protection

- 98 % antibacterial filtration (type II to Medical Products Standard EN 14683:2005)

All the advantages at a glance:

- Fluted filter technology: very low respiratory resistance, high absorption capacity, long life
- DuraMesh®: stable mask mesh
- ActivForm®: no nosepiece required
- Soft sealing lip and all-round strap with clip
- Packed individually
- Natural latex and PVC free
- Available in two sizes

Protection level	Size	Moldex No.	Art. No.	Pack Qty.	€
FFP2 NR D	S	3150	XA28.1	10	23,90
FFP2 NR D	M/L	3100	XA29.1	10	24,75
FFP3 NR D	S	3250	XA30.1	10	55,80
FFP3 NR D	M/L	3200	XA31.1	10	55,80

Particle filtering half masks

In accordance with European standards EN 149:2001 + A1:2009, particle filtering half masks protect the wearer **against solid and non-volatile liquid particles** and, depending on their filtration capacity, are subdivided into three classes based on OEL (Occupational Exposure Limit).

FFP1: up to 4 times OEL

FFP2: up to 10 times OEL

FFP3: up to 30 times OEL

R: Reusable

NR: Non reusable (for one work shift only)

D: Meets Dolomite Dust Test requirements. The Dolomite Dust Test is mandatory for reusable (R) masks.



smart FFP preformed masks

By Moldex. Acc. to EN 149:2001 + A1:2009

Protection against dust, aerosols and fumes

- Anatomically preformed masks - adaptable to fit different face sizes
- DuraMesh®: sturdy mask mesh keeps the mask in shape
- ActivForm®: no nosepiece required
- Klimaventil® minimises heat and moisture build-up under the mask

- With soft sealing lip
- All-round strap with clip for easy application, removal and adjustment
- Colour-coded straps: FFP1 blue, FFP2 white, FFP3 yellow

Without Klimaventil®

Protection level	Moldex No.	Art. No.	Pack Qty.	€
FFP1 NR D	2380	EE30.1	20	30,65
FFP2 NR D	2480	EE31.1	20	55,40

With Klimaventil®

Protection level	Moldex No.	Art. No.	Pack Qty.	€
FFP1 NR D	2385	T758.1	20	54,30
FFP2 NR D	2485	T759.1	20	74,75
FFP3 NR D	2505	T760.2	10	72,25



Fine dust masks with SoloBand®

By Moldex. Acc. to EN 149:2001 + A1:2009.

Protection against dust, aerosols and fumes

- Anatomically preformed masks - adaptable to fit different face sizes
- DuraMesh®: sturdy mask mesh keeps the mask in shape
- ActivForm®: no nosepiece required
- Klimaventil® minimises heat and moisture build-up under the mask

- FFP mask with special headband
- Easy and quick application and removal, even wearing gloves
- Soft sealing lip
- With Klimaventil®

Protection level	Moldex No.	Art. No.	Pack Qty.	€
FFP1 NR D	2395	CT75.1	20	56,80
FFP2 NR D	2495	CT77.1	20	72,70

Respiratory protection



Air and Air Plus fine dust masks

By Moldex. Acc. to EN 149:2001+A1:2009

Protection against dust, aerosols and fumes

- Anatomically preformed masks - adaptable to fit different face sizes
- DuraMesh®: sturdy mask mesh keeps the mask in shape
- ActivForm®: no nosepiece required
- Klimaventil® minimises heat and moisture build-up under the mask
- **Fluted filter technology: 260 % more filtration area**, very low respiratory resistance, high absorption capacity, long life
- All-round strap with adjustable clip for easy application, removal and adjustment
- Air fine dust masks are also available in **size S** (for small or narrow faces)
- With Klimaventil®

Air fine dust masks

Protection level	Size	Moldex No.	Art. No.	Pack Qty.	€
FFP2 NR D	S	3155	XA32.1	10	34,95
FFP2 NR D	M/L	3105	XA33.1	10	34,95
FFP3 NR D	S	3255	XA34.1	10	66,55
FFP3 NR D	M/L	3205	XA35.1	10	66,55

Air Plus fine dust masks

- Reusable FFP mask
- Soft all-round sealing lip made of a skin-friendly, washable TPE material

Protection level	Size	Moldex No.	Art. No.	Pack Qty.	€
FFP2 R D	M/L	3305	T761.1	5	43,00
FFP3 R D	M/L	3405	T763.1	5	47,65



Respiratory protection masks silv-Air

By UVEX. Acc. to EN 149:2001 + A1:2009.

- Exhalation valve reduces respiratory resistance and heat and moisture under the mask
- Integrated nose clip
- All-round comfort sealing lip
- 4-point headband attachment for comfortable and secure fit at PP32.1

Protection level	Uvex No.	Art. No.	Pack Qty.	€
FFP2 R D	7212	XC91.1	15	46,25
FFP3 R D	7312	PP32.1	5	30,00



silv-Air preformed respiratory protection masks

By UVEX. Acc. to EN 149:2001 + A1:2009.

- Optimized shape
- 4-point adjustable band for comfortable, safe fitting
- Flexible, adaptable nosepiece
- 2 extra filters with inhalation valve for lower respiratory resistance
- Larger filter surface means longer period of use
- Dolomite dust check (D)
- Soft, sealing lip all round
- Temperature control via two suction valves and one exhalation valve

Protection level	Uvex No.	Art. No.	Pack Qty.	€
FFP2 R D	7232	XC92.1	3	26,70
FFP3 R D	7330	KX42.1	3	32,20

Respiratory protection



Aura™ 9300+-series particle masks

By 3M. Acc. to EN 149:2001 + A1:2009.

- Soft fleece, low weight and flat design guarantee comfortable wear; Speaking is no problem
- Integral nose piece with sweat-absorbing padding
- Can be folded flat for easy transport; individually wrapped
- Compatible with spectacles and eye protection
- Cool-Flow exhalation valves reduce breathing resistance and prevent heat accumulation under the mask
- Without natural rubber components
- **Colour-coded bands:** FFP1 yellow, FFP2 blue, FFP3 red

①-③ Without exhalation valve

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP1 NR D	9310+	N186.1	20	27,20
FFP2 NR D	9320+	N187.1	20	51,20
FFP3 NR D	9330+	TY71.1	20	117,20

④-⑥ With Cool-Flow exhalation valve

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP1 NR D	9312+	N188.1	10	24,30
FFP2 NR D	9322+	N189.1	10	35,70
FFP3 NR D	9332+	N190.1	10	69,90



Aura™ 9400+ particle masks

By 3M. Acc. to EN 149: 2001+A1:2009.

Specially designed to meet the requirements for **foodstuff production and processing**. Comfort features of the Aura™ 9300+ series plus:

No small parts which can become detached

- Clip-free: minimises the risk of contamination
- Inlying, adjustable nose piece: securely integrated into the mask

High recognisability

- Metal detector: integrated metallic nose piece
- Visual monitoring: blue contrast colour stands out clearly from foodstuff colours

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP2 NR D	9422+	YP12.1	10	40,25



Programme extension!

Two-way respiratory protection masks

Aura™ 1800+-serie

By 3M. Acc. to EN 149:2001 + A1:2009.

Type IIR acc. to EN 14683:2005 (Surgical Masks), acc. to 93/42/EEC, class 1.

• Protects the user and the environment

- Protection against particulates and aerosols
- Protection against ingress of chemical splashes, e.g. body fluid
- Suitable for lab technicians (e.g. **handling of cytostatic agents**), the pharmaceuticals industry (production of medicines), doctors, operating room nurses, emergency room staff

- Three-piece design, mask adapts to many different face shapes and sizes
- Compatible with safety spectacles
- Folded flat and individually, hygienically packed for easy portability
- Integrated nose piece with perspiration absorbent padding

Without exhalation valve

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP2 NR D	1862+	CNE4.1	20	99,45
FFP3 NR D	1863+	CNE5.1	20	198,90

With special Cool-Flow exhalation valve

Specially developed, covered Cool-Flow exhalation valve reduces heat build-up in the mask and breathing resistance while protecting the environment against exhaled aerosols.

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP3 NR D	1883+	HT23.1	8	61,20



Particle masks classical, series 8000

By 3M. Acc. to EN 149:2001 + A1:2009.

- For protection against fine dust and liquid particulates
- Dimensionally stable mask frame with flexible nose piece
- **Cool-Flow exhalation valve** reduces breathing resistance and prevents build-up of heat under the mask

Without exhalation valve

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP1 NR D	8710E	0265.1	20	23,90
FFP2 NR D	8810	L159.1	20	42,50

With Cool-Flow™ exhalation valve

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP1 NR D	8812	C810.1	10	19,90
FFP2 NR D	8822	C811.1	10	30,85



Programme extension!

Particle masks comfort, series 8300

By 3M. Acc. to EN 149:2001 + A1:2009.

- For protection against fine dust and liquid particulates
- Dimensionally stable mask frame with flexible nose piece
- Soft padded fleece lining for wear comfort
- Safe tight fit even without foam insert
- **Cool-Flow exhalation valve** reduces breathing resistance and prevents build-up of heat under the mask

Without exhalation valve

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP1 NR D	8310	CNE0.1	10	12,40
FFP2 NR D	8320	CNE1.1	10	21,85

With Cool-Flow exhalation valve

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP1 NR D	8312	CNE2.1	10	20,65
FFP2 NR D	8322	CNE3.1	10	31,40

With Cool-Flow exhalation valve and all-round lip seal

Protection level	3M No.	Art. No.	Pack Qty.	€
FFP3 R D	8833	EH61.1	10	60,00



Particle masks Premium

By 3M. Acc. to EN 149:2001 + A1:2009, protect against fine dust and liquid particles. Fulfill the clogging requirements of FFP-masks that can be used for more than one shift.

- **Dolomite dust test (D)** and lip seal all around usable for more than one shift
- Enlarged filter surface for longer service life
- Extra wide, skin-friendly sealing around face for excellent comfort and safety
- Without natural-rubber components
- Adjustable band for individual fit
- **Cool-Flow exhalation valve** prevents against heat accumulation in mask and makes breathing easier
- Padded nosepiece for optimal fit to face

FFP2 R D, against solid and liquid particles of harmful substances up to 10 times the limit value.

3M No.	Art. No.	Pack Qty.	€
8825	0266.1	5	38,70

FFP3 R D, against solid and liquid particles of toxic and extremely toxic substances up to 30 times the limit value.

3M No.	Art. No.	Pack Qty.	€
8835 medium to large	8123.1	5	49,25



Special masks

By 3M. Acc. to EN 149:2001 + A1:2009.

① Odour binding masks FFP1 NR D

Protect against fine dust up to 4-times the limit value and below the limit value **against unpleasant organic odours**.

3M No.	Art. No.	Pack Qty.	€
9913	0936.1	20	94,55

② Odour binding masks FFP1 NR D with Cool-Flow exhalation valve

Protect against fine dust up to 4-times the limit value and below the limit value **against organic odours**.

3M No.	Art. No.	Pack Qty.	€
9914	EH58.1	10	51,60

③ Smog masks FFP1 NR D

Protect against fine dust up to 4-times the limit value and below the limit value **against HF-gas and sulphur dioxide**.

3M No.	Art. No.	Pack Qty.	€
9915	P841.1	20	91,40

④ Special masks FFP2 NR D with Cool-Flow exhalation valve

Protect against fine dust up to 10-times the limit value and below the limit value **against organic odours, HF-gas and sulphur dioxide**.

3M No.	Art. No.	Pack Qty.	€
9926	EH59.1	10	71,50

⑤ Ozone masks FFP2 R D with Cool-Flow exhalation valve

Protect **against harmful fine dusts, metal fumes and ozone** up to 10-times the limit value. Ideal for welding.

3M No.	Art. No.	Pack Qty.	€
9928	P842.1	10	100,00

⑥ Special masks FFP3 R D with Cool-Flow exhalation valve

Protect against fine dust up to 30-times the limit value and below the limit value **against sour gases, HF-gas and sulphur dioxide**.

3M No.	Art. No.	Pack Qty.	€
9936	EH60.1	10	94,55

Particle filtering half masks

In accordance with European standards EN 149:2001 + A1:2009, particle filtering half masks protect the wearer **against solid and non-volatile liquid particles** and, depending on their filtration capacity, are subdivided into three classes based on OEL (Occupational Exposure Limit).

FFP1: up to 4 times OEL

FFP2: up to 10 times OEL

FFP3: up to 30 times OEL

R: Reusable

NR: Non reusable (for one work shift only)

D: Meets Dolomite Dust Test requirements. The Dolomite Dust Test is mandatory for reusable (R) masks.

Respiratory protection



Full face respiratory protection mask

By 3M. Acc. to EN 136. **Class II: full face masks for normal applications.**

- Mask body made of skin friendly silicone
- Wide field of vision
- Scratch and impact resistant lens
- Lip seal ensures excellent fit
- With speech diaphragm
- Exchangeable components.
- Reduced breathing resistance through double filter system
- Easy filter assembly using bayonet connection

Matching respiratory protection filters:
L170.1 ff./L177.1 ff./L175.1 ff./TE83.1 ff.

Type	3M No.	Art. No.	Pack Qty.	€
Full face mask	7907S830	N182.1	1	246,20
Spectacles holder	-	P849.1	1	162,35

Spare parts for Sekuroka®-full respirator mask

Type	Art. No.	Pack Qty.	€
Inhalation valves	N184.1	10	25,80
Exhalation valves	N185.1	10	32,05
Head straps	X623.1	1	75,20



6000 series full face masks

By 3M. EN 136 compliant. **Class I: full face masks for low-load applications.**

- Mask body made of skin-friendly silicone
- Scratchproof, large eyepiece
- Compact design and extremely lightweight (400 g)
- Low breathing resistance due to the double filter system
- Easy to use
- Filter assembly by bayonet connection

Fitting respiratory protection filter:
Art. No. L170.1 ff./L177.1 ff./L175.1 ff./TE83.1 ff.

Type	3M No.	Art. No.	Pack Qty.	€
Full face mask, small	6700S	N168.1	1	116,10
Full face mask, medium	6800M	N169.1	1	116,10
Full face mask, large	6900L	N170.1	1	116,10
Spectacles holder with case	-	P848.1	1	75,60

Spare parts:

Type	3M No.	Art. No.	Pack Qty.	€
Inhalation valves	6893	X621.1	10	25,80
Exhalation valves	6889	X620.1	10	29,50
Head straps	6897	X622.1	1	22,70



Half masks 7500 series

By 3M. Acc. to EN 140-2001.

- Made of skin friendly/kind to the skin silicone rubber
- Rugged and highly comfortable
- With drop-down strap for quick up and down adjustment and for wearing the mask around the neck during breaks
- Reduced breathing resistance through Cool-Flow™ exhalation valve and double filter system
- Good weight distribution
- Easy filter assembly using bayonet connection
- Exchangeable components.

Matching respiratory protection filter:
Art. No. L170.1 ff./L177.1 ff./L175.1 ff./TE83.1 ff.

Size	3M No.	Art. No.	Pack Qty.	€
S	7501	PT45.1	1	34,95
M	7502	Y393.1	1	34,40
L	7503	Y394.1	1	34,40



Half masks 6000 series

By 3M. Acc. to EN 140-1998.

- Made of elastomer material
- Easy to handle and rugged
- Extremely light (82 g) for fatigue-free working
- Low maintenance (exhalation/inhalation valves are non-interchangeable)
- Reduced breathing resistance through double filter system
- Good weight distribution
- Easy filter assembly using bayonet connection

Matching respiratory protection filter:
L170.1 ff./L177.1 ff./L175.1 ff./TE83.1 ff.

Size	3M No.	Art. No.	Pack Qty.	€
S	6100	L167.1	1	19,60
M	6200	L168.1	1	19,60
L	6300	L169.1	1	19,60

Respiratory protection



Gas filters

By 3M. Acc. to EN 141. Are fitted directly to facepiece via bayonet catch. The unique design ensures optimal weight distribution and excellent vision. Fit for respiratory masks: L167.1ff/N168.1ff/PT45.1 f/N182.1.

Filter	For protection against...
A1	organic vapours with max. concentration of 1000 ppm.
A1+formaldehyde	organic vapours with max. concentration of 1000 ppm and formaldehydes.
A2	organic vapours with max. concentration of 5000 ppm.
AXP3*	organic vapours / gases with a boiling point under 65 °C; protect against toxic and highly toxic substances up to 200 x limit value.
ABE1	organic vapours, inorganic and acid gases with max. concentration of 1000 ppm.
ABEK1	organic vapours, inorganic, acid gases and ammonia derivatives to max. concentration of 1000 ppm.
ABEK2P3*	organic vapours, inorganic, acid gases and ammonia derivatives to max. concentration of 5000 ppm. Protect against toxic and highly toxic substances up to 200 x limit value.
HgP3	Mercury and particles of toxic and highly toxic substances up to 200 x limit value.
K1	Ammonia and derivatives with max. concentration of 1000 ppm.

*only for full respirator masks

Filter type	3M No.	Art. No.	Pack Qty.	€
A1	6051	L170.1	8	44,85
K1	6054	L171.1	8	51,60
A2	6055	L172.1	8	52,90
ABE1	6057	L173.1	8	48,35
A1 + formaldehyde	6075	L174.1	8	50,65
ABEK1	6059	N171.1	8	54,50
ABEK2P3*	6099	N172.1	4	63,10
AXP3*	6098	N173.1	4	81,20
HgP3	6096	P845.1	4	87,10



Round particulate filters

By 3M. Acc. to EN 143. The rounded shape enables easier assembly, as the filters can be attached in any position with the bayonet fastening. Breathing resistance was reduced by 30 %, thus enabling longer, fatigue-proof working.

Fit for respiratory masks: L167.1ff/N168.1ff/PT45.1 f/N182.1.

Filter	For protection against...
P2	Solid and liquid particles of harmful substances up to 10 times (for semi-masks) / 15 times (for full masks) the limit value.
P2 with active charcoal	Particles of harmful substances up to 10 times (for semi-masks) / 15 times (for full masks) the limit value, with additional protection against organic and acid gases and vapours as well as ozone below the limit value.
P3	Solid and liquid particles of harmful substances up to 30 times (for semi-masks) / 200 times (for full masks) the limit value.
P3 with active charcoal	Particles of toxic and highly toxic substances up to 30 times (for semi-masks) / 200 times (for full masks) the limit value, with additional protection against organic and acid gases and vapours below the limit value as well as ozone up to 10 times the limit value.

Filter type	3M No.	Art. No.	Pack Qty.	€
P2	2125	L177.1	20	75,90
P2 with active charcoal	2128	L178.1	20	87,65
P3	2135	L179.1	20	88,70
P3 with active charcoal	2138	L180.1	20	100,65



Non-woven filter insert for protection against ingress of particles

By 3M. Acc. to EN 143. Used together in combination with gas filters and filter holders L181.1.

To fit respiratory masks: L167.1ff/N168.1ff/N182.1/PT45.1 ff.

Filter	For protection against...
P1	Particles of inert substances up to 4 times the limit value.
P2	Particles of inert substances up to 10 times (for semi-masks) / 15 times (for full masks) the limit value.
P3	Particles of inert substances up to 30 times (for semi-masks) / 200 times (for full masks) the limit value.

Filter type	3M No.	Art. No.	Pack Qty.	€
P1	5911	L175.1	30	40,35
P2	5925	L176.1	20	65,55
P3	5935	N174.1	20	82,25

Filter holder

By 3M. For combination of gas and particulate insertion filters.

3M No.	Art. No.	Pack Qty.	€
501	L181.1	2	4,70

Respiratory protection



Particle filter in plastic housing

By 3M. Acc. to EN 143. Protects against solid and liquid particles in a sturdy plastic housing. Suitable for demanding applications. P3 R with activated charcoal gives additional protection against organic and acidic gases and vapours.

Fits the following respiratory masks: L167.1ff, N168.1ff, N182.1ff, PT45.1ff.

Filter type	3M No.	Art. No.	Pack Qty.	€
P3 R	6035	TE83.1	20	97,30
P3 R with activated charcoal	6038	TE84.1	8	59,35



4000 Plus-series respiratory masks

By 3M. Acc. to EN 405: 2001 + A1:2009. Ready-to-use half masks, maintenance free, comfortable and high quality. Integrated filters allow long service life. With exhalation valve, large field of vision and special head band for optimal weight distribution. Combinable with safety goggles and ear protection. Delivered in an airtight, resealable bag.

① FFA1P2 RD

Protects against organic gases and vapours (boiling point >65 °C) up to 1000 ppm and against solid and liquid particles up to 10x occupational exposure limit.

3M No.	Art. No.	Pack Qty.	€
4251	9750.1	1	24,70

① FFABE1P3 RD

Protects against organic and inorganic gases and vapours, as well as SO₂/HCl up to 1000 ppm and against solid and liquid particles of harmful substances up to 30x occupational exposure limit.

3M No.	Art. No.	Pack Qty.	€
4277	C272.1	1	33,35

① FFA2P3 RD

Protects against organic gases and vapours (boiling point >65 °C) up to 5000 ppm and against solid and liquid particles of harmful substances up to 30x occupational exposure limit.

3M No.	Art. No.	Pack Qty.	€
4255	E347.1	1	30,65

① FFABEK1P3 RD

Protects against organic and inorganic gases and vapours, as well as SO₂/HCl and ammonia up to 1000 ppm and against solid and liquid particles of harmful substances up to 30x occupational exposure limit.

3M No.	Art. No.	Pack Qty.	€
4279	L162.1	1	36,80

② Particle prefilter for 4000 series masks

Protects against coarse particles and extends the useful life of the mask.

3M No.	Art. No.	Pack Qty.	€
400	AKX1.1	10	12,40



Sekuroka®-respiratory protection filters

Acc. to EN 141 (gas filters), 14387 (gas and combined filters), EN 371 (AX filters) and EN 143 (particle filters). With standard thread acc. to EN 148-1. Aluminium filter case. Combinable with respiratory half masks and full face masks with standard thread connection.

Max. storage time of unopened gas and combination filters is 6 years.

Particle filters can be stored indefinitely. AX-, Hg- and NO-filters are to be used once only.

Filter	Protection against:
A2	Organic gases and vapours, with boiling point above 65 °C
A2 - P2	Organic gases and vapours with boiling point above 65 °C, together with particles of harmful substances
A2 - P3	Organic gases and vapours with boiling point above 65 °C, together with particles of toxic substances
AX	Organic gases and vapours, with boiling point under 65 °C
AXP3	Organic gases and vapours, with boiling point under 65 °C, together with particles of toxic substances
B2	Anorganic gases and vapours
B2 - P2	Anorganic gases and vapours together with particles of harmful substances
B2 - P3	Anorganic gases and vapours together with particles of toxic substances
E2	Sulphur dioxide and hydrogen chloride
Hg - P3	Mercury vapours
K2	Ammonia
NO - P3	Nitrose gases, nitrogen monoxide
P2	Particles of harmful substances
P3	Toxic particles
A2B2E2K2 - P3	Anorganic gases, sulphur dioxide and ammonia. Organic gases and vapours with boiling point above 65 °C as well as particles of toxic substances
A2B2E2K2Hg-P3RD	Organic and anorganic gases and vapours, sulphur dioxide, ammonia and mercury vapors together with particles of toxic and highly toxic substances

Filter type	Colour code	Weight (g)	Art. No.	Pack Qty.	€
A2	brown	180	1270.1	1	17,45
A2 - P2	brown/white	260	1272.1	1	24,55
A2 - P3	brown/white	260	A249.1	1	26,45
AX	brown	265	1550.1	1	25,70
AXP3	brown	290	KP19.1	1	29,00
B2	grey	200	1271.1	1	18,25
B2 - P2	grey/white	270	1282.1	1	27,00
B2 - P3	grey/white	270	0029.1	1	26,70
E2	yellow	250	1277.1	1	19,30
Hg - P3	red/white	265	1274.1	1	33,45
K2	green	225	1275.1	1	18,25
NO - P3	violet/white	370	1224.1	1	73,65
P2	white	115	1286.1	1	18,10
P3	white	115	1225.1	1	19,15
A2B2E2K2 - P3	brown/grey/yellow/green/white	360	0635.1	1	33,30
A2B2E2K2Hg-P3RD	brown/grey/yellow/green/white/red	360	KP20.1	1	33,90

Respiratory protection



Pro2000 respiratory protection filters

Acc. to EN 141 (gas filters), EN 14387 (gas and combined filters), EN 371 (AX filters) and EN 143 (particle filters). With EN 148-1 standard thread. Suitable for respiratory half masks and full face masks with standard threads.

- Low breathing resistance
- High capacity, long life

Half masks are only suitable for filters weighing 300 g or less.

Filter type	Colour code	Weight (g)	Art. No.	Pack Qty.	€
A2	brown	190	XK35.1	1	12,80
A2-P3	brown/white	230	XK36.1	1	20,25
AX	brown	268	XK37.1	1	19,25
AX-P3	brown/white	310	XK38.1	1	22,50
B2	grey	195	XK39.1	1	15,40
B2-P3	grey/white	265	XK40.1	1	23,15
E2	yellow	305	XK41.1	1	19,90
reactor-Hg-P3	red/white	307	XK42.1	1	27,85
K2	green	255	XK43.1	1	13,95
P3 R	white	90	XK44.1	1	10,70
A2B2E2K2-P3	brown/grey/yellow/green/white	370	XK45.1	1	27,75
A2B2E2K2-Hg-P3	brown/grey/yellow/green/red/white	370	XK46.1	1	27,85



Profile 40 half masks

Acc. to EN 140. Single filter half masks with EN 148-1 thread filter fitting. The facepiece is made of durable soft liquid silicone rubber. Slide-through harness for fast and easy fitting. The broad face seal makes it easy to achieve an efficient and comfortable fit. Chin and nosebridge bellows ensure the seal fits perfectly during use.

Please note: only filters weighing 300 g or less are suitable. Matching filter: 1270.1ff, XK35.1ff (please order separately).

Type	Art. No.	Pack Qty.	€
Size S/M	XK52.1	1	42,95
Size M/L	XK53.1	1	42,95



Sekuroka® half masks

Acc. to EN 140. With EN 148-1 standard thread. **Two exhalation valves** guarantee lower exhalation resistance which is optimal for physical work. Exchangeable components. Pull strap. Please order the suitable respiratory filter with EN 148-1 standard round thread separately.

Material	Art. No.	Pack Qty.	€
① Rubber	1939.1	1	54,80
② Silicone	9799.1	1	68,30

Spare parts

Type	Art. No.	Pack Qty.	€
Inhalation valve discs	N966.1	10	5,85
Exhalation valve discs	N967.1	10	18,20
Straps for 1939.1	C567.1	1	26,55
Straps for 9799.1	C568.1	1	28,65



Promask full face respiratory protection masks

Acc. to EN 136. With EN 148-1 standard thread.

- Lightweight and anatomically shaped
- Special face seal provides a comfortable and tight fit
- Clear inner mask
- Unrestricted field of vision thanks to large visor and left side fitting filter port
- With speech diaphragm
- Outstanding wearing comfort
- Easy to use

Promask Black made of halo-butyl elastomer. High chemical resistance ensures long service life.

Suitable for CBRN applications (chemical, biological, radiological, nuclear).

Promask SIL made of skin-friendly, soft yellow silicone rubber.

Matching filter: 1270.1ff, XK35.1ff (please order separately).

Type	Art. No.	Pack Qty.	€
Promask Black	XK47.1	1	148,35
Promask SIL	XK48.1	1	169,85

Respiratory protection



Sekuroka®-full view mask

Acc. to EN 136. Made of rubber and plastic, with communication membrane, replaceable polycarbonate front screen and **two exhalation valves**. Weight 570 g. Please order suitable respiratory protection filters with standard round thread acc. to EN 148-1 (1270.1ff, XK35.1ff), separately.

Art. No.	Pack Qty.	€
1262.1	1	141,90

Spare parts for full view mask

Type	Art. No.	Pack Qty.	€
Spare screen	0482.1	1	24,95
Spare straps	C566.1	1	24,00
Inhalation valve discs	N968.1	10	21,40
Exhalation valve discs	N969.1	2	8,35



Full view mask Vista-pro

Acc. to EN 136.

- Made of blue elastomer
- Lens made of PC
- Distortion-free view
- 5-point-band
- The bands for the temple and back of the neck are fixed to the frame of the screen; when the bands are tightened, the body of the mask is pressed onto the face like an elastic buffer
- Weight 580 g

Please order matching respiratory protection filters with standard round thread acc. to EN 148-1 (1270.1ff, XK35.1ff), separately.

Art. No.	Pack Qty.	€
AY70.1	1	123,65



Full view mask Vision 2

Acc. to EN 136.

- Full face mask made of soft silicone rubber
- Wide field of vision (98% field of vision)
- Speech membrane
- Five-point head strap with snap buckle and padding
- Adjustable neck strap
- Full view polycarbonate visor is shock-resistant and scratchproof, also resistant to solvents, fire and heat
- Weight 630 g

Matching respiratory protection filter with screw thread to EN 148-1 (1270.1ff, XK35.1ff), please order separately.

Type	Art. No.	Pack Qty.	€
Vision 2	X541.1	1	234,35
Spectacles holder	X542.1	1	71,50



Programme extension!

Sekuroka®-safety boxes

Made of breakproof plastic. With rounded edges. Ideal for storing protective products (spectacles, ear plugs, etc.) at work place. Protects equipment against dust, dirt and splashing. Boxes are affixed by glueing or screwing (incl. screws and dowels). With 5 label cards. Boxes have a neutral design and can be labelled with warning signs (NK20.1ff) .

Colour	W x D x H (mm)	Art. No.	Pack Qty.	€
blue	236 x 120 x 120	N426.1	1	12,15
transparent	236 x 120 x 120	N427.1	1	14,30
blue	236 x 125 x 225	N428.1	1	27,10
transparent	236 x 125 x 225	N429.1	1	31,40
blue	236 x 200 x 315	N430.1	1	35,30
transparent	236 x 200 x 315	CHL1.1	1	41,40

Respiratory protection accessories



Dräger PARAT® rescue hoods

By Dräger. Acc. to EN 403:2004 (fire rescue hoods). Protects eyes and respiratory passages.

- High-performance respiratory filter
- Easy to put on and safe to wear, allows a quick escape
- Wide field of vision for better orientation when escaping from a fire
- Also suitable for spectacle wearers and people with beards.
- Replacing the filter extends the shelf life by a further 8 years

Technical specifications:

Type	PARAT® 5530	PARAT® 7530
Filter performance	CO-P2	ABEK-CO-P3
Usable life	Min. 15 minutes	
Shelf life	16 years with replacement of filter after 8 years	
Weight (g)	720	830
Dimensions W x D x H (mm)	143 x 241 x 107	156 x 249 x 115

Delivery incl. hard case, dust and water spray protected box (IP 54) with protective seal.

Dräger PARAT® 5530 fire rescue hood

Protects the wearer against toxic conflagration gases, vapours and particles for at least 15 minutes while escaping from a fire. The filter is also approved for use against H₂S (2.500 ppm) according to DIN 58647-7.

Type	Art. No.	Pack Qty.	€
Fire rescue hood PARAT® 5530	CHK3.1	1	220,40
Replacement filter for PARAT® 5530	CHK4.1	1	81,70
Wall mount for PARAT® hard case	CHK5.1	1	28,10

Dräger PARAT® 7530 fire and industry rescue hood

Protects the wearer against toxic industrial gases, vapours, particles and conflagration gases for at least 15 minutes while escaping from a fire. The filter is also approved for use with gas and combined filters according to DIN 58647-7 and EN 14387:2004.

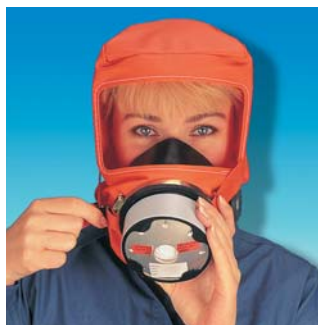
Type	Art. No.	Pack Qty.	€
Fire and industry rescue hood PARAT® 7530	CHK6.1	1	242,95
Replacement filter for PARAT® 7530	CHK7.1	1	100,00
Wall mount for PARAT® hard case	CHK5.1	1	28,10



Respiratory protection storage box

By 3M. Ideal for storing 3M semi masks. Made of PE with labelling area. Height 120 mm, Ø 210 mm.

Art. No.	Pack Qty.	€
P846.1	1	6,85



Replacement filter for Dräger PARAT® rescue hoods

Spare filter with replacement parts set extends the useful life of the rescue hood by a further 6 years after replacement. Usage time: at least 15 min during escape to safety.

Filter type	Matching rescue hood	Art. No.	Pack Qty.	€
CO-P2	Dräger PARAT® C	AH73.1	1	83,55
ABEK P15	Dräger PARAT® 4530	E198.1	1	94,30



Sekuroka®-wall cabinet

Mobile, made of breakproof plastic with transparent door for safe and dust-free storage of respiratory protection products. Specially developed for light respiratory protection devices used at different locations. The robust, easy to assemble wall attachment allows for quick removal and easy transport of cupboard. Ideal for 1 full-view mask and 2 filters or 2 semi masks and 4 filters. Supplied with 2 shelves. Dimensions: W 270 x H 410 x D 140 mm. Weight approx. 1.6 kg.

Art. No.	Pack Qty.	€
H994.1	1	70,90



Sekuroka®-wall container

Ideal for gas mask and filters or for other personal protection equipment. Made of plastic, with transparent, removable snap-on lid. Dimensions: W 340 x H 430 x D 150 mm. Weight 1.2 kg.

Art. No.	Pack Qty.	€
2953.1	1	105,35

Respiratory protection accessories



SecuCase

Carry and storage case for personal protective equipment.

Made of PP. Can be customised, handy for changing places of use or assembly work.

- Clean and safe storage of equipment
- Protective apparatus can be removed quickly and easily
- Including four safety symbol labels (wear eye protection, ear protection, mask and gloves)

Delivery without contents.

Size	W x D x H (mm)	Art. No.	Pack Qty.	€
Mini	260 x 74 x 210	ALA6.1	1	14,30
Midi	340 x 84 x 280	ALA7.1	1	21,45



Cleaning wipes for respiratory masks

By 3M. For quick and easy cleaning of respiratory masks. Impregnated with cleaning solution, individually packed. Dimensions: L 198 x W 92 mm.

3M No.	Art. No.	Pack Qty.	€
105	TK43.1	40	13,45



Bag for full-face masks

By 3M. Bag for carrying and storage of full face masks.

Dimensions: H x W x D: 280 x 320 x 190 mm.

3M No.	Art. No.	Pack Qty.	€
107	AKX0.1	1	45,10

It is the manager's responsibility to ensure that respiratory protection equipment is maintained and checked in accordance with the instruction manual from the manufacturer. Should such recommendations not be available, the following table should be used as a guide BGR 190, 8.7 (Maintenance and checking of respiratory protection (full masks, semi masks, quarter masks and mouth pieces))

Work to be carried out (Comments)	Deadlines					
	prior to releasing for use	prior to use	after use*)	half-yearly	every 2 years	every 6 years
Cleaning and disinfecting			x	x ²		
Function and impermeability test	x			x ²	x	
Valve disk change					x	x ¹
Communication membrane change						x
Gasket ring change					x	x ¹
Screw thread check (with Lehdorn) if applicable						x ^{**}
Control by user		x				

After parts which may influence impermeability have been changed, a full check-over is essential.

1 for reserve equipment;

2 only random checks for equipment in airtight packaging.

*) Respiratory masks which are used regularly, should be cleaned and disinfected as often as required.

They should be cleaned as soon as possible after each application, as perspiration or saliva, which dry on the valves, can interfere with their flawlessness. The equipment must be disinfected before it is handed over to another user.

**) After the first 6-year deadline, the equipment should be checked yearly for possible wear and tear.

- More hazard warning signs from page 661
- Ultrasonic bath for cleaning of respiratory mask can be found from page 1054

Work Safety Act for the prevention of noise and vibration (March 2007) instruct the employer to provide the employee with suitable ear protection when exposure to noise exceeds **80 dB(A)**.
Individual ear protection must be used when exposure to noise has reached or exceeds **85 dB(A)**.

Attenuation values of ear protection products:

Art. No.	H-value	M-value	L-value	SNR-value	Page
Ear plugs:					
0245.1	30	24	22	28	565
C493.1	32	29	29	33	566
EH62.1 f.	37	31	27	34	566
EH64.1 f.	27	22	20	25	568
HE94.1	27	24	22	27	569
HE97.1 f.	36	34	34	37	567
HE99.1 f.	33	30	29	33	567
K130.1	30	24	22	28	568
KA60.1	35	32	30	35	566
KN21.1 f.	36	35	34	37	566
KP16.1	34	32	31	35	567
KP17.1	26	18	12	22	567
P907.1	34	32	31	35	569
T210.1	37	34	31	37	567
TE80.1 f.	33	28	25	32	568
TE82.1	25	17	10	20	568
X556.1/Y868.1	32	29	29	33	566
XA38.1 f.	32	28	26	32	568
XC88.1 f.	28	23	19	26	566
Y861.1 f.	34	32	31	35	567
Ear plugs on band:					
1029.1					569
under the chin	30	23	22	27	
behind the head	28	21	18	25	
over the head	29	22	18	26	
A344.1					569
under the chin	27	19	17	23	
behind the head	25	17	15	21	
HE95.1	26	19	18	24	569
XA36.1	30	23	22	27	569
XC97.1	26	18	17	23	569
Ear muffs:					
AKX4.1	32	25	15	27	571
CT07.1	24	22	20	25	570
CT19.1	32	28	21	30	570
CT24.1	30	29	25	30	570
CT25.1	25	24	19	26	570
NH12.1	32	23	15	26	571
NH13.1	34	28	19	30	571
NH19.1	32	25	15	27	571
NH20.1	34	29	20	31	571
NH61.1	31	29	21	31	571

L-value (dB):	Sound attenuation in low frequency range approx. 63-500 Hz.
M-value (dB):	Sound attenuation in mid frequency range approx. 500-4000 Hz.
H-value (dB):	Sound attenuation in high frequency range approx. 4000-8000 Hz.
SNR-value (dB):	Average sound attenuation over total frequency range (63 to 8000 Hz).

dB (A)	Type of noise	
180	Deadly noise level	Painful
150	Jet engine test	
130	Impace pile driver, pneumatic riveting and drilling hammer	Harmful
120	Propeller engine, circular metal saw, hooter	
110	Drill, pneumatic hammer, discotheque, excentric press, sawmill	
100	Metal processing work, compressor, pressroom and stamping	
90	Belt grinders, milling seaming machines, welding shops, heavy goods vehicles	
80	Heavy traffic, vacuum cleaner, lawnmower, EDP printer	Annoying
70	Cars, shouting, kitchen mixers	
60	Normal radio music, normal conversation	
50	Running tap water, typewriter	Safe
40	Quiet radio music	
30	Ticking of alarm clock, whispering	
20	Breathing, fine rain	
10	Rustling leaf	

Ear muffs or ear plugs?

It is not possible to say that the one is better than the other, but it is rather a question of what is more suitable under individual working conditions. Ear plugs are usually used for protection against long-term noise (weight!), ear muffs for short-term noise and both of them together for protection against extreme short-term noise.

Past experience has shown, however, that comfort (i.e. handling) and hygiene have always played a major role when selecting the correct protection.

In order to encourage the wearing of ear protection, we recommend giving the employees the possibility to choose.

The ear protection is insulated to max. 20-40 dB(A), depending on frequency, material and anatomy. To achieve a higher level of insulation, the ear protection plugs and capsules can be combined. Ear protection plugs can be used for noise levels of up to 115 dB(A) (refer to manufacturer's information). Combinations of plugs and capsules are suitable for higher noise levels.



Ear plugs E.A.R.® Classic II

By 3M. Acc. to EN 352-2. Comfortable fit, high noise attenuation, washable. SNR-value: 28 dB.

Art. No.	Pack Qty. (Pair)	€
0245.1	5	4,25

Ear protection



Max®-disposable ear plugs

Acc to EN 352-2. Made of polyurethane.

- Bell-shaped for very comfortable fit and high protection
- Optimised shape for simple insertion and to prevent slipping out
- Soft, soil-resisting outer shell prevents dirt deposits and guarantees improved hygiene
- Packed in pairs
- High insulating values, SNR value: 37 dB

Type	Art. No.	Pack Qty. (Pair)	€
without security tear band	KN21.1	200	42,95
with security tear band	KN22.1	100	50,35



No-Touch disposable ear plugs

By 3M. Acc. to EN 352-2:2002. Made of slowly expanding foam.

Pre-formed, soft plugs can be used immediately.

- No rolling up into a ball necessary! With band, practical and hygienic
- Can be combined with other personal protective equipment
- Come packed in pairs
- SNR-value: 35 dB

Art. No.	Pack Qty. (Pair)	€
KA60.1	100	87,10



Disposable ear plugs

By 3M. Acc. to EN 352-2. Made of PU-foam, antiallergic, toxicologically tested and medically harmless for use in industry. Very soft and flexible for an extremely comfortable fit. The special shape enables plugs to adapt optimally to the auditory canal. The low pressure on the ears makes them particularly suitable for people with narrow auditory canals. SNR: 34 dB.

Type	3M No.	Art. No.	Pack Qty. (Pair)	€
without safety band	1120	EH62.1	200	37,45
with safety band	1130	EH63.1	100	73,65



Disposable ear plugs

Acc. to EN 352-2. Made of insulating, dermatologically tested PU foam rubber (does not contain PVC). Conic shape for optimal fit in the ear canal. Nominal size 5-12 mm. Weight approx. 0.5 g. SNR-value 33 dB.

① Disposable ear plugs 303L in hand dispenser

Art. No.	Pack Qty. (Pair)	€
X556.1	100	24,10

② Disposable ear plugs 304L with safety strap

Art. No.	Pack Qty. (Pair)	€
C493.1	20	12,05

③ Ear-plug dispenser for wall attachment

Made of plastic. With turning mechanism for simple removal of plugs.

Ensures that ear-plugs are always available at workplace. Transparent cover enables user to see if plugs need refilled.

Delivery incl. dispenser with 400 pairs of ear-plugs (X556.1); 200 pairs in refill pack, please order separately.

Type	Art. No.	Pack Qty.	€
Dispenser	Y867.1	1	104,10
Refill pack for dispenser Y867.1	Y868.1	1	37,10



Ear plugs xact-fit

By UVEX. Acc. to EN 352-2. These innovative plugs adapt perfectly to the ears. The design for the left and right ear is modelled on the anatomy of the ear canal. This noticeably reduces the pressure in the ear canal, even after long wearing.

- Convenient and easy to use
- Oval shape ensures optimal wearing comfort
- Foam plugs are interchangeable for maximum economy and hygiene
- Free of PVC, SNR: 26 dB

Type	Art. No.	Pack Qty. (Pair)	€
Ear plugs, with cord	XC88.1	50	107,00
Spare plugs	XC89.1	250	75,80

Ear protection



Disposable ear plugs

By Moldex. Acc. to 352-2. Comfortable soft PU-foam plugs. Ideal for work which requires constant ear protection. Soft, easy to insert. Plugs, wall attachment and packaging are completely PVC-free. Bright colours increase wearing acceptance.

2 models available:

① Spark plugs:

- Anatomically pre-formed
- SNR-value: 35 dB(A)

② Mellows:

- For better perception of surroundings and better communication
- Especially suitable for lower noise exposure
- SNR-value: 22 dB(A)

Delivery incl. 250 pairs in disposable dispenser station for hanging in wall attachment (please order separately), makes ear protection quickly and hygienically available at work site.

Type	Moldex No.	Art. No.	Pack Qty.	€
① Spark plugs	7825	KP16.1	500	51,55
② Mellows	7625	KP17.1	500	50,20
Wall holder incl. fixing hardware	7060	KP18.1	1	7,35



Disposable ear plugs LASER LITE®

Acc. to EN 352-2. Two-tone plug made of PU. Extremely soft foam. Plugs adapt automatically to the auditory canal. Cause no irritation or allergies. SNR-value: 35 dB.

Packed in pairs in a practical box
(not suitable for ear plug dispenser Y862.1)

Art. No.	Pack Qty. (Pair)	€
Y861.1	200	40,45

Ear plug dispenser

Made of hard, anodized aluminium. Very robust, suitable for continuous stress. Easy removal of plug by turning the crank.

Can be filled with ear plugs Y861.2 (500 pairs).
Delivery incl. fittings, without content.
500 pairs in the refill pack, please order separately.

Type	Art. No.	Pack Qty.	€
Dispenser	Y862.1	1	174,15
Refill pack for dispenser Y862.1	Y861.2	1	79,55



X-fit and Com4-fit ear plugs

By UVEX. Acc. to EN 352-2. Ergonomically designed **disposable ear plugs** for mobile long-term protection. Made of allergy-free PU-foam with a synthetic elastomer.

- Pleasantly soft
- "X"-embossing for comfortable fit and reduction of pressure in the auditory canal
- Closed surface prevents impurities from entering

① X-fit:

- For larger auditory canals
- For high and continuous noise exposure
- Very high insulating value, SNR-value 37 dB

② Com4-fit:

- For smaller auditory canals
- For lower noise exposure
- SNR-value 33 dB

Type	Art. No.	Pack Qty. (Pair)	€
X-fit, 5 pairs in bag	HE97.1	60	24,70
X-fit, loose in bag for dispenser HH01.1	HE98.1	200	34,30
Com4-fit, 5 pairs in bag	HE99.1	60	21,45
Com4-fit, loose in bag for dispenser HH01.1	HH00.1	200	34,30

Ear protection dispenser

By UVEX. Robust, easy-to-use dispensers

- Automatic dispensing guarantees economical removal, plugs fall out individually when turned
- Simple and hygienic refilling
- Max. filling amount 2 x 200 pairs
- Can be filled with X-fit, Com4-fit and all standard ear plugs
- Suitable for wall assembly

Delivery incl. mounting material for wall assembly, without ear plugs.

Art. No.	Pack Qty.	€
HH01.1	1	56,15



Disposable ear plugs

By 3M. Made of polyurethane, acc. to EN 352-2.

Cone shaped, soft and kind to the skin. Optimal fit in the ear canal.
Two pairs of plugs with **aluminium storage box**. SNR-value: 37 dB.

Art. No.	Qty. (set)	€
T210.1	1	7,85

Ear protection



ULTRAFIT ear plugs

By 3M. Acc. to EN 352-2. Pre-moulded ear plugs made of thermoplastic elastomer. Thanks to their flat design, they are a perfect fit for any ear canal. To wash the ear plugs use warm soapy water. **Reusable**. Suitable for sensitive working areas in the foodstuffs and chemicals industries. SNR value: 32 dB.

Type	3M No.	Art. No.	Pack Qty. (Pair)	€
① with safety cord	UF01000	TE80.1	50	112,90
② with storage box	UF01020	TE81.1	50	116,10



ClearE.A.R. 20 ear plugs

By 3M. Acc. to EN 352-2. Pre-moulded ear plugs. Made of soft polymer, transparent. Almost invisible when worn. Ideal fit thanks to flat shape. Short stem for easy insertion and removal. Washable and **reusable**. SNR value: 20 dB.

Delivery incl. storage box.

3M No.	Art. No.	Pack Qty. (Pair)	€
UF01021	TE82.1	12	51,10



E.A.R. Express™-ear plugs

By 3M. Acc. to EN 352-2. Extremely comfortable fit. The foam rubber material expands slowly and insulates completely without any excessive pressure. With patented grip for easy and hygienic insertion and removal of plugs as there is no contact between fingers and plug surface.

Plugs are reusable and easy to clean. Bright colours encourage wear. Come in handy wrapping which can be resealed daily. SNR-value: 28 dB.

Art. No.	Pack Qty. (Pair)	€
K130.1	20	18,25



Reusable ear plugs

By 3M. Acc. to EN 352-2. Lamellar design for improved fit in the auditory canal and increased comfort. The soft material (monoprene) also adds to the comfort. With special recessed grips for better handling. Storage box with a belt clip for clean and safe storage during rest periods and after work. SNR-value: 25 dB.

Type	3M No.	Art. No.	Pack Qty. (Pair)	€
without safety band	1261	EH64.1	50	65,05
with safety band	1271	EH65.1	50	87,00



Spark Plugs® Detect ear plugs

By Moldex. In acc. with EN 352-2. **Detectable** disposable ear protection plugs made of soft PU foam. The plug and cord both contain metal and therefore are fully detectable. Suitable for use in foodstuffs production. Available in hygienic dispenser station or with cord. SNR value: 32 dB.

Spark Plugs® Detect ear plugs dispenser station

Delivery incl. dispenser station filled with 1000 (500 pairs) ear plugs for mounting in the wall bracket (please order separately).

Type	Moldex No.	Art. No.	Pack Qty.	€
Spark Plugs® Detect dispenser station	7829	XA38.1	500	69,80
Spark Plugs® Detect dispenser station	7859	XA38.2	1000	127,95
Wall holder incl. fixing hardware	7060	KP18.1	1	7,35

Spark Plugs® Detect ear plugs with cord, paired

Type	Moldex No.	Art. No.	Pack Qty.	€
Spark Plugs® Detect with cord	7809	XA40.1	400	192,45

Ear protection



Ear protection plugs whisper+detec

By UVEX. Acc. to EN 352-2. Soft, **able to detect reusable ear plugs** with excellent fit inside ear channel. Especially ideal in a dirty working environment. Smooth surface prevents particles, which could cause injuries, from collecting.

- For medium noise range
- Plugs are blue for better visibility on the product line
- Detectable
- Hygienic box for clean storage
- Are always within reach
- Fast and easy to use
- Washable
- Easy to communicate
- Suitable for the food sector
- SNR-value: 27 dB

Art. No.	Pack Qty. (Pair)	€
HE94.1	50	134,40



LASER-TRAK ear plugs

Sound absorbing, **able to detect**. Acc. to EN 352-2. Adapts to auditory canal and cause no irritation or allergies. Also suitable in the food industry. SNR-value: 35 dB.

Art. No.	Pack Qty. (Pair)	€
P907.1	100	85,90



Clamp ear protectors E.A.R.Caps™

By 3M. Acc. to EN 352-2. With soft polyurethane plugs. Ideal for workers with changing noise exposure and for visitors. Comfortable with simple individual adaption. Can also be worn around the neck. Weight approx. 7.6 g. SNR-value: 23 dB.

Type	Art. No.	Pack Qty.	€
Clamp ear protectors E.A.R.Caps™	A344.1	1	8,00
Spare plugs for clamp ear protector	P784.1	20	22,15

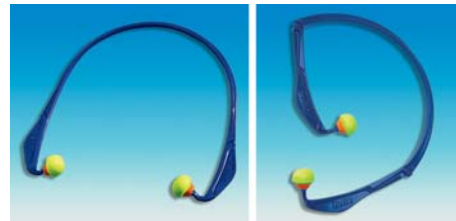


Clamp ear protectors WaveBand® 2K

By Moldex. Acc. to EN 352-2.

- Ear plug band with anatomically adapted contour
- Freedom of movement without contact noise
- Two-component design with grip points
- Comfortable, low contact pressure (only 1.2 N)
- Feather light: only 12 g
- SNR value: 27 dB

Type	Moldex No.	Art. No.	Pack Qty.	€
Clamp ear protector WaveBand® 1K	6800	XA36.1	1	7,85
Replacement plugWaveBand® 2K	6825	XA37.1	100	46,20



Clamp ear protectors x-cap / x-fold

By UVEX. Acc. to EN 352-2. PU ear protection plugs.

The lightweight alternative to ear muffs.

Ideal ear protection for visitors and on-the-go use.

- For temporary noise protection
- Specially designed earpieces, excellent shape retention
- Readily available, convenient and easy to use
- Comfortable fit, easy communication
- Very light, approx. 8 g

x-cap: SNR value: 24 dB.

x-fold: Foldable, i.e. handy for on-the-go use. SNR value: 23 dB.

Type	Art. No.	Pack Qty.	€
Clamp ear protector x-cap	HE95.1	1	5,95
Clamp ear protector x-fold	XC97.1	1	8,55
Replacement ear plugs for x-cap / x-fold	HE96.1	10	9,30



Clamp ear protector E.A.R. Reflex™

By 3M. Acc. to EN 352-2. Features ergonomically designed tilting band for multiple wearing positions. Can be worn together with other types of safety equipment. Infinitely adjustable. Can be worn under the chin, behind the neck or over the head. Extremely soft ear plugs are comfortable to wear and provide excellent attenuation. SNR-value: 26 dB.

Type	Art. No.	Pack Qty.	€
Clamp ear protector E.A.R. Reflex™	1029.1	1	9,90
Spare plugs for clamp ear protector	LE06.1	50	78,30

Ear protection



Thunder T1 ear muffs

Acc. to EN 352-1. Shape-retaining headband which adapts quickly to all head shapes using a quick-click adjustment system. Soft sealing cushions. Dielectric design for working in areas with possible electrical influence. Weight 186 g, pressure force 8.8 N. SNR-value: 30 dB.

Type	Art. No.	Pack Qty.	€
Ear muffs Thunder T1	CT19.1	1	21,45
Hygiene kit (spare cushions)	CT20.1	1	7,50



Clarity C1 ear muffs

Acc. to EN 352-1. Blocks out noise while allowing voices, signals and alarms to be heard with minimal distortion. Without electronic components. Two-part headband with well-ventilated interior, soft sealing cushions. Weight 194 g. Pressure force: 10 N. SNR-value: 25 dB.

Type	Art. No.	Pack Qty.	€
Ear muffs Clarity C1	CT07.1	1	22,55
Hygiene kit (spare cushions)	X682.1	1	9,65



Clarity C2 ear muffs

Acc. to EN 352-1. The Sound Management Technology provides uniform attenuation while allowing voices and signals to be heard with minimal distortion. 3-position universal headband for comfortable fit in the following wearing positions: over the head, behind the neck or under the chin. Can therefore be combined with other safety equipment. Dielectric design. Two-piece headband with well-ventilated interior. Weight 208 g. Pressure force: 11.6 N. SNR-value: 30 dB.

Type	Art. No.	Pack Qty.	€
Clarity C2 ear muffs	CT24.1	1	25,75
Hygiene kit (spare cushions, headband padding)	X680.1	1	12,40



Clarity C1F ear muffs, foldable

Acc. to EN 352-1. The Sound Management Technology provides uniform attenuation while allowing voices and signals to be heard with minimal distortion. Can be folded together to protect the earpieces against dust and dampness. Quick-click adjustment enables headband to adapt quickly to all head shapes and sizes. Dielectric design. Two-part headband with well-ventilated interior, soft sealing cushions. Weight 194 g. Pressure force: 11 N. SNR-value: 26 dB.

Type	Art. No.	Pack Qty.	€
Ear muffs Clarity C1F, foldable	CT25.1	1	25,75
Hygiene kit (spare cushions)	X682.1	1	9,65



Sekuroka®-sweat absorbers

For ear muffs. Manufactured from white cotton fabric, washable. Pleasantly warm in winter and refreshingly cool in summer.

Art. No.	Pack Qty. (Pair)	€
T705.1	50	66,65



M1 ear muffs

By Moldex. Acc. to EN 352-1.

- High-quality ear muffs
- Soft coat material in metallic colour
- Six adjustments for perfect fit
- Soft padded metal headpiece for long wear comfort
- Collapsible: space-saving and hygienic
- SNR value: 31 dB

Type	Moldex No.	Art. No.	Pack Qty.	€
M1 ear muffs	6100	NH61.1	1	36,45
Hygiene set	6105	NH62.1	1	8,20



Peltor™ OPTIME™-ear muffs

By 3M. Acc. to EN 352-1. High wearing comfort and low pressure inside ear even after extended wear.

- Lightweight design, optimal ear protection
- Constant pressure, liquid-filled sealing ring
- 2-point mounting

OPTIME™ I

Flat design. **Applications:** outdoor work, building trade, engineering, woodworking, metalworking, automobile industry, farming, chemical treatment.

OPTIME™ II

For high-noise environments, provides excellent sound insulation even at extremely low frequencies. **Applications:** outdoor work, building trade, airports.

Model	SNR value	Art. No.	Pack Qty.	€
OPTIME™ I	27 dB	NH19.1	1	21,95
OPTIME™ II	31 dB	NH20.1	1	27,10



Peltor™ OPTIME™ ear defenders

By 3M. Acc. to EN 352-1. With safety attachment for all hard hats with 30 mm slot system and face/ear protection G500 (YT38.1). High wearing comfort and low pressure inside ear even after extended wear.

- Lightweight design, optimal ear protection
- Constant pressure, liquid-filled sealing ring
- 2-point mounting

OPTIME™ I

Flat design. **Applications:** outdoor work, building trade, engineering, woodworking, metalworking, automobile industry, farming, chemical treatment.

OPTIME™ II

For high-noise environments, provides excellent sound insulation even at extremely low frequencies. **Applications:** outdoor work, building trade, airports.

Delivery without safety helmet, please order separately (Art. No. NH14.1f)

Model	SNR value	Art. No.	Pack Qty. (Pair)	€
OPTIME™ I	26 dB	NH12.1	1	22,60
OPTIME™ II	30 dB	NH13.1	1	28,30

Accessories for Peltor™ OPTIME™-ear muffs and ear defenders

By 3M. Hygiene set

Delivery incl. 2 foam pads and 2 sealing rings.

suitable for	Art. No.	Pack Qty.	€
OPTIME™ I ear muffs + ear defenders	NH21.1	1	11,45
OPTIME™ II ear muffs + ear defenders	NH22.1	1	11,45



PELTOR™-Kid ear muffs

By 3M. Acc. to EN 352-1. Specially designed for sensitive children's ears. These comfortable ear muffs have an extra-slim profile and offer child-friendly wearing comfort. The unique, low head band design ensures a constant, low contact pressure. The liquid-filled, soft and wide sealing rings provide a perfect seal with a minimum of contact pressure for comfortable wearing. Matching hygiene set: NH21.1 (please order separately). Colour: neon green, SNR value 27 dB.

Art. No.	Pack Qty.	€
AKX4.1	1	23,15

Skin protection

Skin protection		Ideal for use when working with ...										
		Solvents	Dil. acids and alkaline solutions	H ₂ O-insol. substances	H ₂ O-sol. substances	UV-rays	Coarse dirt	Detergents	Dust	Skin care	for fingerprint-free working	Silicone-free
Baktolan® protect+ pure	TE58.1				x					x	x	x
Dualin® cream	P332.1			x	x							x
Hand protection Rotiprotect®	0543.2	x	x	x					x	x		
HERWEDERM PROTECT SENSITIVE	YT47.1	x		x	x			x		x	x	x
HERWESAN ALL-IN-ONE	KN04.1			x	x					x	x	
HERWE EMULSION	KN05.1										x	x
HERWESAN UV	KN06.1				x	x					x	
LINDESA®	YY19.1				x					x	x	
Physio® UV 30	P346.1				x	x						
Physiderm®proGlove	AH81.1.f										x	x
Saniwip®	C785.1		x	x			x		x		x	
Silicoderm® F	4140.1	x	x	x				x				
Mono-Dermin Grün-skin care and protection cream	T052.1						x		x	x		x
Skin protection foam Marly Skin®	2938.3f	x		x	x		x	x		x	x	
Sineprint	2987.1								x		x	



Sineprint®

Hand protection cream made for using natural ingredients. Protects hands, does not leave residue and increases finger grip. Non-greasing, silicone-free.

Packaging	Art. No.	Pack Qty.	€
Tube 100 ml	2987.1	1	5,95

Dualin® cream

Protects against **non-water soluble** and **water soluble** substances and is therefore ideal for workplaces with different working materials. Absorbs into the skin quickly, is slightly perfumed, very hypoallergenic. Silicone-free.

Packaging	Art. No.	Pack Qty.	€
Tube 100 ml	P332.1	1	7,20



Rotiprotect®-skin protection cream

Protects and nourishes the skin. Creates a water-repellant protective film. Promotes the regeneration of skin cells and preserves the natural acidic mantle of the skin. Contains silicone, essential fatty acids, allantoin and RMS, a lactic acid, pH 4.

Packaging	Art. No.	Pack Qty.	€
Dispenser 55 g	0543.2	1	7,35



HERWESAN ALL-IN-ONE (non-greasing cream)

Areas of application: non-greasing protective cream for handling of working materials with water-soluble and hydrophobic properties, for example, in metal processing and in plastics technology, microelectronics and electrical engineering.

- Easy to spread, quickly absorbed O/W skin protection emulsion
- With a new film formation system for protection against water-soluble and hydrophobic working materials
- Non-greasing and therefore a particularly good, comfortable grip remains following absorption
- Cost-effective dosing system
- Silicone-free

Packaging	Art. No.	Pack Qty.	€
Tube 100 ml	KN04.1	1	6,40

HERWEDERM PROTECT SENSITIVE skin protection gel

For imprint-free working and frequently changing work materials; also suitable for sensitive skin types. Universally usable, for face and hands, recommended for extremely sensitive skin types.

For use in the food industry, hospitals, nursing and retirement homes, as well as in electrical engineering. Protection against colours, grease, damp/wet, resins, adhesives, paints, oil, tar-like substances, changing areas of use.

Easy to apply, absorbed quickly. pH neutral, non-greasy, free from preservatives, parabens, silicone and dyes, non-perfumed.

Packaging	Art. No.	Pack Qty.	€
100 ml tube	YT47.1	1	7,35

Skin protection



Marly-Skin®-skin protection foam

Microfine foam penetrates the skin rapidly and forms a protective barrier against harmful and irritant substances. Protection for 4-6 hours. Suitable for use on the entire body, non-greasy, unnoticeable, economical in use. Ideal for use under gloves. Clinically tested.

Note: does not replace protective measures, e.g. wearing gloves.

Packaging	Art. No.	Pack Qty.	€
Spray can 50 ml	2938.3	1	12,15
Spray can 100 ml	2938.1	1	21,00



Baktolan® protect+ pure

Water-in-oil-in-water emulsion, protects against aqueous solutions and revitalises cracked, hard-working skin. Protects the skin when performing tasks involving aqueous solutions. Can be used under gloves to counteract skin irritation due to occlusion. Suitable for use several times a day. Fragrance, silicone and colourant free.

Packaging	Art. No.	Pack Qty.	€
100 ml tube	TE58.1	1	9,65



Mono-Derm Grün®-skin care and protection cream

Ideal for nourishing and regenerating rough and chapped skin. Supports the skin's natural healing process and moisturizes the skin. Slightly greasing. Absorbs quickly. Protects against mechanical strain, dirt and atmospheric exposure. Lightly perfumed, silicone-free.

Packaging	Art. No.	Pack Qty.	€
Tube 50 ml	T052.1	1	3,55



Saniwip®

Hand cream for protection against damage to the skin when working with **water soluble agents** such as acids, alkali, solvents and alcohol. Prevents cracking of the skin. Suitable for use in foodstuffs processing. Also suitable for the care of highly stressed skin. Without perfume or silicone.

Packaging	Art. No.	Pack Qty.	€
Tube 100 ml	C785.1	1	6,05



LINDESA®-skin protection and skin care cream

Oil-in-water emulsion containing natural beeswax and allantoin for care of the skin. For use in applications involving low stress on the skin or daily work in high humidity environments. Protects against skin damage and soothes irritated skin areas while smoothing and conditioning the skin. Suitable as an afterwork skin care cream or for conditioning stressed skin. Fast absorbing, low greasing, beeswax scented, silicone free.

Packaging	Art. No.	Pack Qty.	€
50 ml tube	YY19.1	1	4,00



Silicoderm®F BAYER

Hand protection cream with silicone oil, sorbit and vitamin F. Protects reliably against skin damaging conditions. Slightly cooling, pleasant smell.

Packaging	Art. No.	Pack Qty.	€
Tube 35 g	4140.1	1	5,35

Skin protection



Physiiderm® proGLOVE

Protects the skin against the effects of skin softening when wearing gloves. Transparent fragrance and greece free gel containing alcohol. Hamamelis and chitin protect the upper layer of the skin while bisabolol and glycerine moisturise and soothe the skin. Suitable for foodstuffs. Contains no fragrances, preservatives, silicone or grease.

Image	Type	Art. No.	Pack Qty.	€
①	100 ml tube	AH81.1	1	10,25
②	Dispenser bottle 1000 ml	AH81.2	1	32,20

Vario eco dispenser

Made of impact-resistant plastic. Easy to handle, optimal dispensing and good emptying. Dimensions (W x H (including lever) x D): 126 x 351 x 130 mm. Suitable for 1000 ml dispenser bottles with art. nos. AH81.2 and 4671.2.

Art. No.	Pack Qty.	€
YY16.1	1	51,40



physio UV 30 sun

Skin protection creme for protection against exposure to UV-A, UV-B and UV-C radiation with well balanced protection factor UV-B 30/UV-A 10. **Use:** for protection against intensive UV radiation or when using artificial UV radiation sources.

- white, medium-moisturising W/O emulsion
- Waterproof, contains no fragrances, preservatives or petroleum
- With reflective titanium oxide UV filters (silicone coated)
- Vitamin E acetate combats ageing of the skin

Packaging	Art. No.	Pack Qty.	€
100 ml tube	P346.1	1	8,40



HERWE EMULSION

Area of application: prevents softening of the skin as a result of wearing airtight clothing and in case of mechanical stress on the skin. For example, when wearing gloves for microelectronic work, and when handling cardboard boxes.

- Non-greasing O/W emulsion
- Hardens corneal layers
- Non-greasing cream
- Reduces perspiration and protects against softening of the skin
- Increases wearing comfort of protective clothing
- Lightly perfumed, silicone-free

Packaging	Art. No.	Pack Qty.	€
250 ml bottle	KN05.1	1	8,50

HERWESAN UV

With sun protection factor 30 (International SPF Test Method, Colipa).

Area of application: for protection against strong solar radiation or during exposure to artificial sources of radiation.

- White, slightly greasing, weak-fragrance O/W emulsion
- Waterproof and easy to spread on the skin, easily absorbed
- Silicone-free
- Contains inorganic UV protective pigments and special sunscreens, thus protecting the skin against harmful UV-A, -B, -C radiation
- Skin care properties through cosmetic oils and shea butter

Packaging	Art. No.	Pack Qty.	€
Tube 100 ml	KN20.1	1	7,50



Tubenboy®

Made of ABS/SAN, very robust. For total emptying of all plastic and metal tubes. The tube can be stored in an upright position. The actual tube content can always be seen. For max. tube width 66 mm.

Art. No.	Pack Qty.	€
AK63.1	1	3,50

Skincare		For stressed skin								
		Low	Medium	High						
Baktolan® balm pure	ANY7.1			x		x	x		x	
Baktolan® lotion	L297.1	x			x		x	x		
Cura Soft	Y866.1	x			x		x	x		
cUrea soft	LP24.1		x		x		x	x		
Mono-Dermin Grün skin care and protection cream	T052.1			x			x	x		x
Rotiprotect® skin protection cream	0543.1			x	x		x			x
HERWE CURA	KN06.1	x			x		x	x		x
HERWE MIELOSAN	YT49.1			x			x	x		
Physioderm® cream	4671.1			x	x	x	x	x		
ROTIDERM® A	1930.1			x			x			
ROTIDERM®	5535.2			x			x		x	



Baktolan® lotion

Moisturising care for normal skin, with vegetable oils and panthenol. Oil-in-water-emulsion. Suitable for both daily body skin care and for hand care. Is light and distributes well. Soaks into the skin quickly and leaves no irritating oily film. Slightly perfumed, silicone-free. Excellent when doing paperwork, for working in the laboratory, etc.

Packaging	Art. No.	Pack Qty.	€
Bottle 350 ml	L297.1	1	7,80



Programme extension!

ROTIDERM®

Hand care cream for highly stressed and sensitive skin. Contains essential fatty acids, Sorbitol, waxy high fatty acids and dextrorotatory lactic acid. Helps to repair cracked skin and restore the natural acid balance of the skin. pH 4.

Application: apply to cleansed and dried skin after work which is tough on the hands. Absorbs completely without leaving a greasy film.

ROTIDERM®, unscented

Packaging	Art. No.	Pack Qty.	€
Dispenser 55 g	5535.2	1	6,80

ROTIDERM® A, scented

Packaging	Art. No.	Pack Qty.	€
Tube 40 g	1930.1	1	7,35



Physioderm® cream

Refatting skin care cream, improves the skin's water-binding capacity, helps restore the skin's hydrolipidic film, improves skin smoothness and can help to regenerate the skin in case of attrition dermatitis or eczema. Oil-in-water emulsion with high level of lipids, perfumed, silicone free.

Applications: care and protection of work-stressed skin, especially brittle or dry skin.

Image	Type	Art. No.	Pack Qty.	€
①	100 ml tube	4671.1	1	5,95
②	Dispenser bottle 1000 ml	4671.2	1	28,95

Vario eco dispenser

Made of impact-resistant plastic.

Easy to handle, optimal dispensing and good emptying.

Dimensions (W x H (including lever) x D): 126 x 351 x 130 mm.

Suitable for 1000 ml dispenser bottles with art. nos. AH81.2 and 4671.2.

Art. No.	Pack Qty.	€
YY16.1	1	51,40

Skin care



Baktolan® balm pure

Fragrance free W/O emulsion for dry, highly stressed and sensitive skin. Contains the following active ingredients: allantoin, vitamin E and panthenol. Moisturising and soothing effect, stabilises the skin's protective barrier, pH 5.5. Spreads easily, economical in use, is absorbed quickly, does not form a greasy film.

Packaging	Art. No.	Pack Qty.	€
350 ml bottle	ANY7.1	1	10,25



HERWE CURA

Area of application: easily absorbed skin care cream. Every time after washing hands and face; also during work in the company or office.

- Slightly greasing cream, emulsion type O/W
- Contains natural oils and beeswax
- Easily absorbed, ensures pleasant feeling on the skin
- For hands and face
- Regenerates the skin
- Weak fragrance, silicone-free
- Suitable for all skin types

Packaging	Art. No.	Pack Qty.	€
Tube 100 ml	KN06.1	1	4,10



Cura Soft

Skin care cream. Is absorbed quickly and is only slightly greasing. Fat content 7 %. Ideal for nourishing and regenerating skin subjected to stress. Oil-in-water-emulsion. Slightly perfumed, silicone-free. Dermatologically tested.

Packaging	Art. No.	Pack Qty.	€
Tube 100 ml	Y866.1	1	5,95

cUrea soft

Application: fast absorbing skin care cream containing naturally hygroscopic urea. Nourishes sensitive, worn skin. Helps skin to regenerate effectively from abrasional dermatosis or eczema. Also suitable as nail care.

Product description:

- Contains urea, horsetail plant extracts and high quality bisabolol
- Smooths extremely dry, worn hands
- Slightly greasing cream, emulsion type O/W
- pH-value neutral and perfumed
- Silicone-free and without mineral oil

Packaging	Art. No.	Pack Qty.	€
Tube 100 ml	LP24.1	1	6,05



HERWE MIELOSAN

High-quality hand and foot care cream for dry and stressed skin. To care for skin after intensive hand washing and other activities that particularly dehydrate the skin. Supports the skin's natural moisture retention capacity. Easy to apply, very little required. With honey, urea, glycerine and allantoin, silicon-free.

Packaging	Art. No.	Pack Qty.	€
100 ml tube	YT49.1	1	5,20

Skin cleansing

Skin cleaning		Ideal for ...						free from alkali and soap	anti-bacterial	oil-moisturizing
		Soiling:				Hands	Body	Surfaces	Chemicals	
		light	medium to strong	very strong						
AZUDERM EXTRA MILD®	PA94.1f	x			x	x			x	
Baktolin® sensitive	X589.1f	x			x	x			x	x
Gentle Med® cleanser lotion	NK81.1	x			x	x			x	
HERWE FRESH wash/shower gel	YT48.1f	x			x	x				
HERWE FRESH ANTIDOR wash/shower gel	YT46.1	x			x	x				
Majola® cleanser lotion	1548.1	x			x	x			x	x
plum wipes moist hand wipes	CK45.1	x			x		x			x
	CK46.1		x							
BIP liquid soap	0819.1f	x			x					
Skin cleanser pH-neutral	CK41.1f				x	x		x		
Stellisept® med	X668.1f	x			x	x			x	x
Topsclub® NATURE	AH82.1			x	x				x	



BIP liquid soap

Mild hand cleansing agent containing moisturising substances. Leaves no unwanted residues like soap scum, even when used with hard water. Suitable for all refillable dispenser systems (except for tilt dispenser, as too viscous). Colour: pink, pH-neutral (pH: 6.5-7.0), perfumed.

Art. No.	Pack Qty. (l)	€
0819.2	1	7,45
0819.1	10	32,15



Moist hand wipes plum wipes

By Plum. Effectively and carefully removes all kinds of dirt and soiling caused while working. The moist PP tissues absorb and bind the dirt; and they can be used repeatedly, also suitable for cleaning labware or tools. Lightly perfumed and, because of the glycerine additive, are moisturizing.

- ① **Multi-purpose wipes** with a wide spectrum of application for removing slight to medium soiling.
- ② **Heavy duty-wipes** with additional rubbing effect for removing stubborn and bad soiling, e.g. oil, fat and grease.

Type	Art. No.	Pack Qty.	€
① Multi-purpose wipes, box with 200 tissues	CK45.1	1	36,45
② Heavy duty-wipes, box with 50 tissues	CK46.1	1	16,10



AZUDERM EXTRA MILD

Area of use: Soap-free cleaning gel for sensitive and highly stressed skin.

- Mild, colourless cleaning liquid
- No preservatives
- **Non-perfumed**
- With skin-friendly sugar tensides
- For gentle cleansing of the hands and the whole body
- Corresponds to the pH-value of the skin

Image	Packaging	Art. No.	Pack Qty.	€
①	Bottle 250 ml	PA94.1	1	3,90
②	Pouch bottle 2000 ml	PA95.1	1	17,45

Dispenser

Matches Art. No. PA95.1 and YT48.2.

Housing and wall bracket made of shock-resistant plastic. Operating lever made of stainless steel. With adjusting screw to regulate pump volume. Dimensions: W 120 x H 320 x D 125 mm.

Image	Art. No.	Pack Qty.	€
③	PA96.1	1	56,05

Skin cleansing



Gentle Med®-cleansing lotion with camomile extract

For hands and body. Moisturises and protects against dry skin, anti-irritant and soothing effect. Economical in use. pH skin neutral, free of alkalis and soap, fresh fragrance.

Suitable for dispensers TE54.1.

Art. No.	Pack qty. (ml)	€
NK81.1	1000	7,50



Baktolin® sensitive

Conditioning and moisturising cleansing lotion for gentle cleansing of hands and skin. For sensitive and stressed skin. Contains the skin care substances allantoin and wheat protein. Regenerates and soothes the skin. Soap, alkali and colorant free, skin-neutral pH of 5.5, subtly scented.

Packaging	Art. No.	Pack Qty.	€
500 ml bottle	X589.1	1	4,85
1000 ml bottle	X589.2	1	7,80



Majola® cleanser lotion

For hands and skin, alkali-free. Strengthens and regenerates the skin's natural acid-protection layer. With an anti-bacterial and deodorizing effect. Suitable for infected, damaged, highly stressed and soap-sensitive skin. Helps in the treatment of acne.

Art. No.	Pack qty. (ml)	€
1548.1	500	9,65



Stellisept® med

Acc. to EN 1499, EN 13727. Antiseptic cleansing lotion with antibacterial effect for hands and body. Bactericidal and effective against MRSA. Skin and mucous membrane compatible, suitable for all skin types. Contains no alcohol, pH 5.5.

Packaging	Art. No.	Pack Qty.	€
Bottle 500 ml	X668.1	1	n. a.
Bottle 1000 ml	X668.2	1	n. a.

Skin cleansing



HERWE FRESH shower gel

Skin-friendly and pleasantly mild cleaning gel for face, body and hair. Even suitable for extremely stressed and very sensitive skin, as well as frequent hand-washing. Free from abrasives, soap, and parabens, pH neutral, contains preservatives, discreetly perfumed.

Image	Packaging	Art. No.	Pack Qty.	€
①	Bottle 250 ml	YT48.1	1	4,20
②	Dispenser bottle 2000 ml	YT48.2	1	17,75



Topsclub® NATURE

Hand cleanser with natural rubbing agent (walnut shell flour). Ideal for thorough, but skin-friendly removal of **severe industrial soiling**. Dermatologically tested. Very hypoallergenic. Contains neither solvents or soap. Extremely economical in use.

Packaging	Art. No.	Pack Qty.	€
Tube 200 ml	AH82.1	1	4,85



HERWE FRESH ANTIDOR wash/shower gel

To effectively eliminate unpleasant odours. Skin-friendly and pleasantly mild cleaning gel for face, body and hair. Also suitable for frequent hand-washing. **For use** particularly after preparing fish and meat, working in the chemical industry, e.g. when manufacturing pesticides or other odour-intensive chemicals, as well as in waste processing and removal. Free from abrasives, solvents, soap and parabens, pH neutral, contains preservatives, discreetly and freshly perfumed.

Packaging	Art. No.	Pack Qty.	€
Bottle 250 ml	YT46.1	1	4,85



Skin cleanser pH-neutral

By Plum. **Sterile.** For neutralizing acids and alkalis particularly on the skin within seconds.

- 4.9 % phosphate buffer solution, sterile
- Also suitable for cleansing wounds
- Special spray head which cleans larger areas of skin effectively and quickly, rinsing time 2 min
- Simple and speedy application
- Shelf life 3 years if unopened

Delivery incl. 1000 ml-bottle with wall holder and illustrated instructions.

Type	Art. No.	Pack Qty.	€
Station	CK41.1	1	34,20
Spare bottle	CK42.1	1	20,35



Skin disinfection

Skin disinfection		On following basis ...			for hands	for the body
		Propanol	Benzalconium-chloride	Ethanol		
Disinfectant spray Cutasept® F	AK64.1f	x	x		x	x
Softa-Man®	XP54.1ff	x		x	x	
Softa-Man® ViscoRub	XP55.1ff	x		x	x	
Sterillium®	L276.1ff	x			x	x
Sterillium® Antiseptic wipes	T037.1	x			x	x
Sterillium® classic pure	EH72.1ff	x			x	x
Sterillium® Virugard	L313.1ff			x	x	



Sterillium®

Propanol-based rub-in hand disinfectant. No need for a wash basin or water. For all hygiene-sensitive clinical and industrial applications. Protects against infection in public buildings and during travel.

Efficacy range: bactericidal, fungicidal, tuberculocidal, limited virucidal efficacy (HBV, HIV, HCV), effective against herpes simplex, influenza A, SARS coronavirus, adeno-associated viruses, polyoma viruses and rotavirus.

Listing: BfArM Approval No. 603.00.01. RKI list area A, VAH, IHO list for virucidal products.

Sterillium: Active substances: propan-2-ol, propan-1-ol, mecetronium ethyl sulphate. **Ingredients:** 100 g of solution contains: Active substances: propan-2-ol 45.0 g, propan-1-ol 30.0 g, mecetronium ethyl sulphate 0.2 g. Other Ingredients: glycerol 85 %, tetradecan-1-ol, fragrances, blue patent V 85 %, purified water. **Areas of application:** for hygienic and surgical hand disinfection. For skin disinfection prior to injections and punctures. **Contraindications:** unsuitable for the disinfection of mucus membranes. Do not use in close proximity to the eyes or open wounds. Hypersensitivity (allergy) to one of the ingredients. **Side effects:** slight dryness or irritation of the skin can occur occasionally. In such cases, more intensive general skin care is recommended. Allergic reactions are rare. **Warnings:** Sterillium should not be used on newly or prematurely born infants. Wait until dry before using electrical devices. Do not expose to naked flame. Do not use in the vicinity of ignition sources. Flash point: 23 °C, flammable. There are no fire or explosion hazards associated with the proper use of this product. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Refrain from smoking. In the event of fire, extinguish with water, extinguishing powder, foam or CO2. Refilling may only be performed under aseptic (clean bench) conditions.

Warning H226-H319-H336

Packaging	Art. No.	Pack Qty.	€
Bottle 100 ml	L276.3	1	n. a.
Bottle 500 ml	L276.1	1	n. a.
Bottle 1000 ml	L276.2	1	n. a.
Canister 5 l	L276.4	1	n. a.



Sterillium® classic pure

Hygienic and surgical rub-in hand disinfectant. Ideal for users with sensitive skin (colorant and fragrance free). For all hygiene-sensitive clinical and industrial applications.

Efficacy range: bactericidal, fungicidal, tuberculocidal, limited virucidal efficacy (incl. HBV, HIV, HCV). Effective against herpes simplex, influenza A, SARS coronavirus, adeno-associated viruses, polyoma virus and rotavirus.

Listing: BfArM Approval No. 25918.00.00, RKI list area A, VAH certification, IHO list for virucidal products. Actual product not shown (similar).

Sterillium classic pure: Active substances : propan-2-ol, propan-1-ol, mecetronium ethyl sulphate. Composition: 100 g solution contains: Active substances: 45.0 g propane-2-ol, 30.0 g propane-1-ol, 0.2 g mecetronium ethyl sulphate. **Other ingredients:** 85 % glycerol, tetradecane-1-ol, purified water. **Areas of application:** for hygienic and surgical hand disinfection. For skin disinfection prior to injections and punctures. **Contraindications:** unsuitable for the disinfection of mucus membranes. Do not use in close proximity to the eyes or open wounds. Do not use in case of hypersensitivity (allergic reaction) to one of the active substances or other ingredients. **Side effects:** slight dryness or irritation of the skin may occasionally occur. In such cases, more intensive general skin care is recommended. Allergic reactions are rare. **Warnings:** hand disinfection helps prevent the transmission of infection, e.g. in nursing and health care. Sterillium classic pure should not be used on newly or prematurely born infants. Always consult a doctor prior to use on infants and small children. It is important to ensure that the solution does not come into contact with the eyes. After contact with the eyes, rinse the eyes under running water for several minutes holding the eyelids open. Avoid transferring the solution from one container into another in order to prevent contamination. If this is unavoidable, the solution should be transferred under aseptic conditions (e.g. using sterile containers under a laminar air flow hood). Wait until dry before using electrical devices. Do not expose to naked flame. Do not use in the vicinity of ignition sources. Flash point: 23 °C, flammable. There are no fire or explosion hazards associated with the proper use of this product. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Refrain from smoking. In the event of fire, extinguish with water, extinguishing powder, foam or CO2.

Warning H226-H319-H336

Packaging	Art. No.	Pack Qty.	€
Bottle 100 ml	EH72.1	1	n. a.
Bottle 500 ml	EH72.2	1	n. a.
Bottle 1000 ml	EH72.3	1	n. a.
Canister 5 l	EH72.4	1	n. a.

Skin disinfection



Sterillium® Virugard

Ethanol-based rub-in hand disinfectant. Especially useful for all working areas with an increased infection hazard, such as clinics, laboratories, hospitals etc.

Efficacy range: bactericidal, fungicidal, tuberculocidal, limited virucidal efficacy (including HBV, HIV, HCV), virucidal. Effective against herpes simplex, adeno-associated viruses, polyoma viruses, polio and rotavirus.

Listing: BfArM Approval No. 13814.00.00. RKI list area A/B, VAH, IHO list for virucidal products.

Sterillium Virugard: Active substance: ethanol. **Ingredients:** 100 g solution contain: Active substance: ethanol 99 % 95.0 g. Other ingredients: butan-2-on, glycerol, tetradecan-1-ol, petroleum. **Areas of application:** hygienic and surgical hand disinfection.

Contraindications: Do not apply to mucus membranes. Hypersensitivity to ingredients. **Side effects:** slight, diffuse reddening of the skin may occur rarely. In such cases, more intensive general skin care is recommended. **Warning:** do not expose to naked flame. Do not use in the vicinity of ignition sources. Close bottle after use. Flash point according to DIN 51755: 0 °C. Highly flammable. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Refrain from smoking.

Danger H225-H319-H412

Packaging	Art. No.	Pack Qty.	€
Bottle 100 ml	L313.3	1	n. a.
Bottle 500 ml	L313.1	1	n. a.
Bottle 1000 ml	L313.2	1	n. a.



Dosing pumps

For screwing on. Made of PP/PE. Suitable for bottles from Bode.

For	Art. No.	Pack Qty.	€
300/500 ml bottles	X439.1	2	11,30
1000 ml bottles	X440.1	2	11,30



Disinfection spray Cutasept® F

For skin disinfection, e.g. in the event of accident or minor injuries.

Fast acting and comprehensive. Excellent skin tolerance.

Ready-to use, colourless solution.

Efficacy range: bactericidal, fungicidal, tuberculocidal, limited virucidal efficacy (including HBV, HIV, HCV), herpes simplex virus type 1, rotavirus.

Listing: BfArM Approval No. 6281157.00.00, VAH.

Delivery incl. invertible spray nozzle for 50, 250 and 500 ml bottles (please order spray nozzle for 1000 ml bottle separately).

Cutasept F: Active substance: propan-2-ol. **Ingredients:** 100 g solution contain: Active substance: propan-2-ol 63.0 g, equivalent 72 % by vol. Other ingredients: benzalkonium chloride, purified water. **Areas of application:** skin disinfection prior to punctures, injections and surgical procedures. Surgical and hygienic hand disinfection. **Contraindications:** do not use in close proximity to the eyes. Intolerance to ingredients. When used properly, Cutasept F is safe for use during pregnancy and breast-feeding. **Side effects:** slight, diffuse skin irritation occurs frequently. Contact allergic reactions may occur. **Warning:** there is not enough clinical data to recommend this product for the treatment of infants and toddlers. In these cases, this product may only be applied after stringent diagnosis and under medical supervision. Benzalkonium chloride may cause skin irritation. Do not wet skin below blood pressure cuffs. Do not apply surgical film until dry. Wait until dry before using electrical devices. Do not expose to naked flame. Keep clear of ignition sources. There are no fire or explosion hazards associated with the proper use of this product. After spillage of the disinfectant, the following steps should be taken: soak up the spilt liquid straight away, dilute with copious amounts of water, ventilate the room and remove ignition sources. Flash point according to DIN 51755: 21 °C. Flammable. Refilling may only be performed under aseptic (clean bench) conditions.

Danger H225-H319-H336

Type	Art. No.	Pack Qty.	€
50 ml spray bottle	AK64.1	1	n. a.
250 ml spray bottle	AK64.2	1	n. a.
500 ml spray bottle	AK64.3	1	n. a.
1000 ml bottle	AK64.4	1	n. a.
Spray nozzle for 1000 ml bottle	X827.1	1	n. a.

Abbreviations for hygiene inspectorates

DGHM = German Society for Hygiene and Microbiology

VAH = Association for Applied Hygiene

RKI = Robert Koch Institute

IHO = German Industrial Association for Hygiene and the Protection of Surfaces

IHO List of Virucidal Products: www.iho-viruzidie-liste.de

Skin protection-accessories



Softa-Man®

Ready-to-use, alcohol-based hand sanitiser.

- For rapid and long lasting skin disinfection
- Contains Panthenol (Provitamin B5), Bisabolol and Allantoin for hand care
- Dye-free, low-allergen fragrance
- Dermatologically tested
- Hygienic hand disinfection 30 sec., surgical hand disinfection 60 sec.

Efficacy: effective against bacteria (including MRSA, TbB) and fungi. Limited virucidal efficacy (including HBV, HCV, HIV) (acc. to RKI recommendation, Bundesgesundheitsblatt (Federal Health Bulletin) 01-2004), adenovirus, rotavirus, herpes simplex virus, vaccinia virus, norovirus, influenza virus.

Listing: DGHM/VAH, RKI listed (efficacy range A) and in the IHO List of Virucidal Products.

Composition: 100 ml of solution contain: Active substances: ethanol (100 %) 45 g, 1-propanol (Ph. Eur.) 18 g. Other constituents: purified water, diisopropyl adipate, macrogol-6-glycerolcaprylocaprate (Ph.Eur.), dexpanthenol, (+/-)alpha-bisabolol, fragrances (contain lemons and linalool), allantoin. **Applications:** hygienic and surgical hand disinfection.

Contraindications: hypersensitivity (allergy) to ethanol or 1-propanol or one of the other constituents. **Side effects:** frequent use in particular can cause skin irritation, such as reddening and stinging. Allergic contact reactions are also possible. **Warnings:** flammable. Keep container tightly closed. Keep clear of ignition sources. - Refrain from smoking! Avoid contact with the eyes. Do not apply to injured skin or mucus membranes. For external use only. 21-22 °C flash point according to DIN 51 755.

Danger H225-H318-H336

Type	Art. No.	Pack Qty.	€
100 ml bottle	XP54.1	1	n. a.
500 ml bottle	XP54.2	1	n. a.
1000 ml bottle	XP54.3	1	n. a.
5 litre canister	XP54.4	1	n. a.

Softa-Man® ViscoRub

Ready-to-use, gel-like, alcohol-based hand disinfectant.

- Gel-like structure allows drip free dispensing
- Colorant and fragrance free, i.e. reduced allergenic potential
- Excellent skin compatibility - dermatologically tested
- Especially gentle to the skin
- Hygienic hand disinfection 30 sec., surgical hand disinfection 90 sec.

Efficacy: effective against bacteria (including MRSA, TbB) and fungi. Limited virucidal efficacy (including HBV, HCV, HIV) (acc. to RKI recommendation, Bundesgesundheitsblatt (Federal Health Bulletin) 01-2004), vaccinia viruses, rota viruses, influenza viruses, noro viruses (model virus MNV).

Listing: DGHM/VAH listed and included in the IHO List of Virucidal Products.

Composition: 100 ml of solution contain: Active substances: ethanol (100 %) 45 g, 1-propanol (Ph. Eur.) 18 g. Other ingredients: purified water, butane-2-on, glycerol, isopropyl myristate (Ph. Eur.), (hexadecyl, octadecyl) [(RS)-2-ethyl hexanoate], (+/-)alpha-bisabolol.

Applications: hygienic and surgical hand disinfection. **Contraindications:** hypersensitivity (allergy) to ethanol or 1-propanol or one of the other ingredients of Softa-Man® ViscoRub.

Side effects: frequent use in particular can cause skin irritation, such as reddening and stinging. Allergic contact reactions are also possible. **Warnings:** flammable. Keep container tightly closed. Keep clear of ignition sources. - Refrain from smoking! Avoid contact with the eyes. Do not apply to injured skin or mucus membranes. For external use only. 52.3 % ethanol by weight, 20.9 % 1-propanol by weight. 21 °C flash point according to DIN 51 755.

Danger H225-H318-H336

Type	Art. No.	Pack Qty.	€
100 ml bottle	XP55.1	1	n. a.
500 ml bottle	XP55.2	1	n. a.
1000 ml bottle	XP55.3	1	n. a.
5 litre canister	XP55.4	1	n. a.



Sterillium® Tissue

For hand and skin disinfection. Based on propan-2-ol, propan-1-ol and mecetronium ethyl sulphate.

Efficacy range: bactericidal, yeasticidal, tuberculocidal, mycobactericidal, limited virucidal efficacy (including HBV, HIV, HCV). Effective against herpes simplex and rotavirus. **Listing:** BfArM Approval No. 603.00.00.VAH.

Sterillium® Tissue: Active substances: 2-propanol (Ph. Eur.), 1-propanol (Ph. Eur.), mecetronium ethyl sulphate. **Composition:** 1 fleece wet wipe contains: **Active substances:** 1.341 mg propan-2-ol, 894 mg propan-1-ol and 5.96 mg mecetronium ethyl sulphate. Other constituents: tetradecane-1-ol, glycerol 85 %, fragrances, purified water. **Applications:** for hygienic hand disinfection, for skin disinfection after injections and punctures in low-sebaceous areas of skin. **Contraindications:** Sterillium® Tissue must not be used in persons with an allergic hypersensitivity to 2-propanol (Ph. Eur.), 1-propanol (Ph. Eur.), mecetronium ethyl sulphate or any of the other constituents, in immediate proximity to the eyes or open wounds, in premature and new-born infants, and for disinfection of mucus membranes. **Side effects:** slight dryness or irritation of the skin may occasionally occur. In such cases, more intensive general skin care is recommended. Allergic reactions are rare. **Warnings:** always consult a doctor prior to use on infants and small children. Avoid contact with the eyes. In case of contact with the eyes, rinse immediately with flowing water for several minutes with the eyelid open. Do not use electrical equipment until the substance has dried. Keep away from naked flame. Do not use in the vicinity of ignition sources. Flash point: 23.5 °C, flammable. In the event of fire, extinguish with water, fire extinguisher or CO2.

Warning H226-H319

Art. No.	Pack Qty.	€
T037.1	10	n. a.



ELS/TLS Plus wall dispensers

By B. Braun. For hygienic and precise dispensing of cleansing lotions, disinfectants and skin care lotions. Lever-operated, aluminium housing, plastic pump. Adjustable dispensing volume of 0.7 to 1.5 ml per stroke.

Type	W x D x H (mm)	Art. No.	Pack Qty.	€
ELS plus for 500 ml bottles	82 x 215 x 295	NK86.1	1	108,60
TLS plus for 1000 ml bottles	92 x 225 x 340	NK87.1	1	108,60

Dispensing pumps

By B. Braun. Made of PP/PE. For hygienic dispensing. Integrated non-return valve prevents leakage of contents, e.g. when tilting the bottle. 2 ml per stroke. Suitable for B. Braun bottles.

For bottles	Art. No.	Pack Qty.	€
500 ml	NK88.1	1	6,70
1000 ml	NK89.1	1	6,70



Sekuroka® soap and disinfectant dispenser plus

For application of hand disinfectants, wash and care lotions

- Removable front for easy pump replacement
- Reliable and robust metal dispenser
- All removable parts are fully autoclavable
- Easy installation even in difficult space conditions
- Fits all commercially available bottles
- Easy and quick bottle replacement
- Easy to operate and clean
- Dispensing quantities are adjustable to approx. 0.75 ml to 1.5 ml per stroke

Delivery incl. mounting hardware, excludes bottle (please order separately).

With long arm lever

For bottles	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml	82 x 215 x 295	TE53.1	1	94,50
1000 ml	92 x 225 x 340	TE54.1	1	103,20

With short arm lever

For bottles	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml	82 x 160 x 315	CTA8.1	1	80,55
1000 ml	92 x 160 x 360	CTA9.1	1	88,15

Accessories:

Empty dispenser bottles, 500 ml	KA39.1	6	7,75
Empty dispenser bottles, 1000 ml	KA40.1	6	9,15

Accessories: Drip pans with handle

Suitable for Sekuroka® soap and disinfectant dispenser plus. The drip pans protect floors and other surfaces against products which can drip during dispensing.

For bottles	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml	82 x 215 x 295	TE55.1	1	69,90
1000 ml	92 x 225 x 340	TE56.1	1	71,50

Accessories: dispensing pumps

Suitable for Sekuroka® soap and disinfectant dispenser plus.

Replacement stainless steel pumps

For bottles	Matching dispenser	Art. No.	Pack Qty.	€
500 ml	TE53.1	CTA4.1	1	23,15
1000 ml	TE54.1	CTA5.1	1	25,30

Disposable pumps

Single-use plastic pumps. Easy pump replacement after changing bottle. Saves conditioning the stainless steel pump.

- Individually packed for hygienic use of the pump
- Suitable for hand sanitisers and cleansing lotions
- Dispensing quantity: 1.3 ml per stroke, non-adjustable.
- Non-dishwasher safe, non-autoclavable

For bottles	Matching dispenser	Art. No.	Pack Qty.	€
500 ml	TE53.1	CTA6.1	1	8,10
1000 ml	TE54.1	CTA7.1	1	8,10



Touchless disinfectant dispenser plus

Touchless dispenser for hand sanitiser

- Removable front for easy pump replacement
- Reliable and robust metal dispenser
- Easy installation even in difficult space conditions
- Easy and quick bottle replacement
- Easy to operate and clean
- Dispensing quantities are adjustable to approx. 0.75 to 1.5 ml per stroke

Delivery incl. batteries and mounting hardware, without bottle (please order separately).

For bottles	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml	92 x 210 x 290	CTC0.1	1	231,15
1000 ml	92 x 210 x 290	CTC1.1	1	246,20

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Touchless disinfectant dispenser

For non-contact dispensing of hand disinfectants.

- Fully automatic, non-contact dispenser made of sturdy plastic
- Designed for quick and easy filling
- Easy pump replacement
- Dispensing quantities are adjustable to approx. 1.5 to 6.0 ml per stroke
- Integrated drip pan
- Easy to operate and clean
- Easy installation even in difficult space conditions
- Suitable for wall mounting and mounting on level surfaces

Delivery incl. mounting hardware and batteries. Without bottle (please order separately).

For bottles	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml	155 x 205 x 268	TE57.1	1	267,65

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Skin protection-accessories



Sekuroka®-dispensers

For wash and skin care lotions. The dispenser is made of plastic (ABS and ASA), is easy to use, quick to fill. Dosing pump can be autoclaved at +121 °C and 1 bar. Dosing is adjustable to 0.5/1.0/1.5 ml per pump action. Also suitable for Bode bottles.

Delivery incl. mounting materials.

For	H x T (mm)	Art. No.	Pack Qty.	€
300/500 ml bottles	300 x 85	N108.1	1	73,10
1000 ml bottles	340 x 105	N109.1	1	77,75

Accessories:

Empty dispenser bottles, 500 ml	KA39.1	6	7,75
Empty dispenser bottles, 1000 ml	KA40.1	6	9,15



Sekuroka®-dispenser

For hand disinfecting agents, wash and skin care lotions in 350 and 500 ml Bode-bottles. Original bottle can be replaced easily.

Dosing approx. 1.5-2 ml per pump action. H 210 x W 58/65 x D 110 mm.

Delivery incl. dosing pump, wall holder, mounting parts, assembly and operating instructions. Bottle not included (please order separately).

For bottles	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml	58/65 x 110 x 210	N110.1	1	13,95



Soap and disinfectant dispenser Vario

Made of ABS. For application of hand sanitisers, wash and care lotions.

- Removable front for convenient pump replacement
- Easy to assemble
- Easy and quick bottle replacement
- Easy to operate and clean
- Dispensing quantities are adjustable to approx. 1 to 3 ml per stroke

Delivery incl. mounting hardware, excludes bottle (please order separately).

For bottles	W x D x H (mm)	Art. No.	Pack Qty.	€
350/500 ml	74 x 170 x 275	CPY9.1	1	48,35
1000 ml	98 x 170 x 345	CTA0.1	1	51,55

Accessories: replacement pumps suitable for soap and disinfectant dispenser Vario

For bottles	Art. No.	Pack Qty.	€
350/500 ml	CTA1.1	1	15,60
1000 ml	CTA2.1	1	16,35



Sekuroka® soap dispenser

For liquid hand wash, lotions, shampoos, shower gel and detergents. 500 ml capacity. Housing made of transparent plastic.

Suitable as standalone or wall-mounted dispenser.

Dimensions: H 180 x W 80 x T 65 mm.

Delivery incl. mounting materials.

Art. No.	Pack Qty.	€
T054.1	1	44,10



Wall holders

Made of stable, load bearing ABS plastic. For hand sanitisers, wash and skin care lotion bottles. Easy attachment and cleaning. Consisting of wall plate and bottle holder. Wall plate is attached to the wall, bottle holder is easy to remove and attach for cleaning or replacement. Resistant to hand sanitisers.

Y973.1 is also suitable for holding Bacillo® Tissue cans.

Delivery incl. mounting hardware, without bottle/can and dispensing pump (please order separately).

For bottles	Inner surface area (mm)	Art. No.	Pack Qty.	€
350 ml	61 x 61	CTA3.1	2	16,35
500 ml	70 x 70	Y972.1	2	19,15
1000 ml	88 x 88	Y973.1	2	22,60



Wall-mounted dispenser for hand towel rolls

Made of impact-resistant plastic.

For tidy storage and easy removal of wipes from the roll.

Dimensions W x D x H (mm)	suitable for	Art. No.	Pack Qty.	€
140 x 140 x 280	E184.1	E183.1	1	34,95
256 x 275 x 335	E185.1	E182.1	1	42,95

Disposable hand towel rolls

Premium quality, tear resistant, single-layer, unperforated, white. Pull out centre, unwind wipes from inside.

Blade width (mm)	Roll length (m)	suitable for	Art. No.	Pack Qty. (roll)	€
200	120	E183.1	E184.1	3	16,05
203	300	E182.1	E185.1	2	21,45



Sekuroka®-folded towel dispensers

White, with level indicator window. Suitable for all standard towels.

Type	W x D x H (cm)	Art. No.	Pack Qty.	€
plastic	28 x 13,7 x 37,5	CY01.1	1	39,75
Sheet steel	27,5 x 12,5 x 35	CY02.1	1	32,15



Sekuroka®-folded towels

Made of 100 % recycled paper, soft tissue quality, highly absorbent and tough.

Suitable for Sekuroka®-folded towel dispenser CY01.1 and CY02.1.

Type	Size (mm)	Art. No.	Pack Qty. (Sheet)	€
2-ply, tissue, natural, zigzag folds	25,5 x 23	CY03.1	20 x 160	32,15
2-ply, tissue, green, zigzag folds	25 x 23	CY04.1	20 x 160	32,15
1-ply, crepe, natural, quire folding	25 x 33	CY05.2	24 x 154	36,15



Mini single-sheet paper dispenser

- Hygienic removal of one towel at a time
- Easy to fill
- Viewing slot enables towel level to be checked
- Plastic, white
- Dimensions: W 16 x D 13.5 x H 31 cm

For wall assembly, incl. wall fittings.

Matching tissue papers (Art. No. EE85.1) please order separately.

Art. No.	Pack Qty.	€
EE84.1	1	32,20

Tissue papers

100 % cellulose, white, 2-ply. W 11 x L 18 cm.

9000 tissues, with point-to-point embossing.

Suitable for mini single-sheet paper dispenser (Art. No. EE84.1).

Art. No.	Pack Qty.	€
EE85.1	36 packs à 250 towels	53,65

Skin protection-accessories



Programme extension!

AQUARIUS hand towel dispenser

By Kimberley-Clark.

Made of impact resistant plastic, white, with sight glass.

For hygienic individual removal of paper hand towels.

Dimensions: L 265 x D 136 x H 399 mm.

Suitable for disposable hand towels: KLEENEX® Art. No. X251.2, ECX6.1, ECX7.1 and SCOTT® Performance Art. No. X254.2.

KC number	Art. No.	Pack Qty.	€
6945	X252.1	1	93,55

Disposable hand towels for AQUARIUS hand towel dispenser

By Kimberley-Clark.

SCOTT® Performance hand towels

Disposable hand towels made of Airflex paper, white, single layer, interfold. Suitable for hand towel dispenser AQUARIUS Art. No. X252.1.

KC number	Towel size L x W (mm)	Packaging	Art. No.	Pack Qty. (box)	€
6663	315 x 215	15 pack, 212 sheets each	X254.2	1	75,20

KLEENEX® ULTRA hand towels

Disposable hand towels made of Airflex paper, white. Double-layer, interfold. Outstanding quality, highly absorbent and tear resistant. Suitable for hand towel dispenser AQUARIUS Art. No. X252.1.

KC number	Towel size L x W (mm)	Packaging	Art. No.	Pack Qty. (box)	€
6777	315 x 215	30 pack, 124 sheets each	ECX6.1	1	127,95

KLEENEX® ULTRA SUPER SOFT hand towels

Disposable hand towels made of Airflex paper, white.

Triple-layer, interfold, very soft, kind to the skin and highly absorbent.

Suitable for hand towel dispenser AQUARIUS Art. No. X252.1.

KC number	Towel size L x W (mm)	Packaging	Art. No.	Pack Qty. (box)	€
6771	315 x 215	30 pack, 96 sheets each	ECX7.1	1	140,85
6773	415 x 215	30 pack, 72 sheets each	X251.2	1	160,20



Lab towels

Made of 100 % cotton, can be washed at 90 °C.

Dimensions: 50 x 100 cm, weight approx. 160 g.

Colour	Art. No.	Pack Qty.	€
light blue	1617.1	3	23,15
creamy-yellow	1616.1	3	23,15
pure white	0121.1	3	23,15



Sekuroka®-wire mesh basket

Made of robust metal with plastic coating. Suitable as waste basket, e.g. for paper tissues. Dimensions: L 360 x W 260 x H 610 mm.

Art. No.	Pack Qty.	€
AC06.1	1	38,65

Accessories for Sekuroka®-wire mesh basket

Matching waste bags

50 liter. 370/250 x 850, thickness 0.05 mm.

50 pre-perforated bags on a roll.

Art. No.	Pack Qty. (roll)	€
Y405.1	4	27,20

Disposable gloves

Guidelines on Personal Protective Equipment 89/686/EWG

Identification of protective gloves via Cat. I, II or III pictographs:

Cat. I	Minimal risk Low protection requirements
Cat. II	Medium risk Protection against e.g. mechanical hazards
Cat. III	High risk Protection against irreversible damages and fatal hazards, e.g. damage caused by chemicals.

European Standards for protective gloves:

EN 374	Protective gloves against chemicals and micro-organisms
EN 388	Protective gloves against mechanical risk
EN 407	Protective gloves against thermal risk
EN 420	General requirements for gloves
EN 421	Gloves for protection against ionising radiation and radioactive contamination
EN 455	Medical gloves for single use
EN 511	Protective gloves against the cold
EN 1082	Protective clothing, gloves and protective sleeves for protection against cuts and stab injuries caused by pocket knives
EN 1149	Protective clothing against electrostatics
EN 12477	Protective gloves for welders

AQL-value: Statistical procedure for quality analysis.

Identification of protective gloves via standardized pictographs:



Protection against mechanical hazards



Protection against chemical hazards



Waterproof protective gloves and low protection against chemical hazards



Protection against bacteriological contamination



Protection against radioactive contamination



Protection against cold



Protection against heat and flames



Commodity goods which are safe to come in contact with food



Disposable gloves



Rotilabo®-wall dispensers

Made of stainless steel. Suitable for all Rotiprotect® glove dispensers. By lightly pressing the two metal hoops together, other dispensers of max. 7.5 cm width can be inserted. Comes with two loops for wall attachment. Dowels and screws included.

Type	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
For one box	180 x 85 x 135	Y383.1	1	21,45
For three boxes	245 x 100 x 477	AC07.1	1	51,55



Dracula universal wall mount

Made of PS, colour: white. Adaptable wall mount for dispenser boxes in various sizes, ideal for disposable gloves, face masks, tissues or wipes. For doctor's surgeries, laboratories and hospitals.

- Spring-loaded clamp with teeth
- For boxes with a width of 100 to max. 130 mm, weight up to approx. 1 kg
- Can be attached with double-sided adhesive tape or screws
- Dimensions: W 100 x H 170-210 x D 20 mm

Delivery incl. double-sided adhesive strips for fastening.

Art. No.	Pack Qty.	€
CAL7.1	1	7,45



①



②



③

Sekuroka®-stainless steel glove dispensers

Made of high-quality stainless steel with brushed matt finish. Can be disinfected with surface disinfectant.

① Flex glove dispenser

Height adjustable with variable mounting positions - can be mounted on a level surface or bolted to the wall. Suitable for dispensers with central dispensing opening. Also suitable for dispensing cosmetic wipes and cleaning wipes.

Delivery incl. 4 non-slip, self-adhesive mounting pads to protect surfaces.

② Fix glove dispenser

Keyhole system for quick mounting and removal from the wall without tools.

③ Trio glove dispenser

Three-way glove dispenser with a straightforward vertical layout.

Sizes S, M and L are marked on the side. Filling from above. Can be removed from the wall without tools.

All dispensers are **supplied with** mounting materials.

Type	Outer dimensions: L x W x H (mm)	Suitable dispenser boxes max: L x W x H (mm)	Art. No.	Pack Qty.	€
① Flex	262 x 152 x 90	259 x 136 x 60-90	NK95.1	1	74,20
② Fix	250 x 135 x 80	250 x 132 x 75	NK96.1	1	41,85
③ Trio	258 x 96 x 392	250 x 130 x 90	NK97.1	1	66,65
Adapter for Iso standard rail	202 x 23 x 37	-	NK98.1	1	21,80



Rotiprotect®-latex finger stalls

With roll-up cuff, **powder-free**, natural colour. Length 68 mm, 0.1 mm thick.

Size	Flat width (mm)	Art. No.	Pack Qty.	€
3 (M)	24	X152.1	500	11,40
4 (L)	27	X153.1	500	11,40
5 (XL)	30	X154.1	500	11,40

Disposable gloves



Sekuroka®-disposable gloves B

Simple consumer quality, polyethylene. 10 packs of 100.

Size	Art. No.	Pack Qty.	€
Men's gloves	1969.1	1000	17,10
Ladies' gloves	H706.1	1000	17,10



Cat. I

Sekuroka®-membrane gloves

Made of blue soft foil (co-polymere), very stretchable. Disposable, ambidextrous. Ideal for foodstuffs acc. to Guidelines 90/128/EWG. Strength 30 µm, length 375 mm.

Art. No.	Pack Qty.	€
AN63.1	100	5,25



Sekuroka®-disposable gloves

Made of sturdy polyethylene, stretchable and powdered. Skin friendly and abrasion-proof. Suitable for delicate work. Come in dispenser carton with holes for wall mounting.

Size	Art. No.	Pack Qty.	€
Ladies'	1517.1	100	11,30
Men's	1230.1	100	11,30



Gloves with body protection

Made of soft polyethylene, with straps. Ideal for work requiring protection of the arms, body and clothes, e.g. veterinary exams. Wearable on the left and right (ambidextrous). Glove length: 95 cm, upper arm circumference: 76 cm. Body protection (L x W): 78 x 60 cm. One size fits all, blue.

Art. No.	Pack Qty.	€
NK51.1	100	39,25



Sekuroka®-membrane gloves, extra-long

Made of soft foil (co-Polymer), very stretchable. Colour orange. Disposable, ambidextrous. Strength 30 µm, length approx. 90 cm.

Art. No.	Pack Qty.	€
AN64.1	50	8,60



Undergloves

Made of 100 % nylon. Thin white fine knit. Fingertip-free fine knit undergloves for protection against sweaty hands. High wearing comfort, good tactile sensitivity and ambidextrous. Machine washable up to 30 °C, suitable for multiple use. Universal size.

Art. No.	Pack Qty. (Pair)	€
NK52.1	10	17,10

Disposable gloves

Rotiprotect®-latex gloves

Comply with the requirements of the Foodstuffs and Commodities Law, EU-Regulation 1935/2004.

- Can be used on both hands
- Thin roll-type edge
- Very smooth and pleasantly soft
- Extremely stretchable
- Thiuram-free
- AQL 1.5



Rotiprotect®-latex gloves Type 1 powder-free Disposable natural latex gloves

Acc. to 89/686/EEC, CE category III, for protection against complex risks
Acc. to EN 420, EN 374 and ASTM-F 1671-97. AQL 1.5

Textured surface for secure grip.

- Very smooth and pleasantly soft
- Extremely stretchy
- High tactile sensitivity
- Can be worn on both hands
- Colour: natural
- Double thickness: min. 0.20 mm
- 100 or 90 per dispenser box

Size	Length (mm)	Art. No.	Pack Qty.	€
S (6-7)	≥240	C268.1	100	12,50
M (7-8)	≥240	C269.1	100	12,50
L (8-9)	≥240	C270.1	100	12,50
XL (9-10)	≥240	HE60.1	90	12,50
With 10 boxes of each size				11,25/box

Thiurams

are used as a preservative during glove manufacturing and are also mainly added to accelerate vulcanisation. Thiurams may often cause latex allergies.



Rotiprotect®-latex gloves Type 2 powder-free Disposable natural latex gloves

Acc. to 89/686/EEC, CE category III, for protection against complex risks
Acc. to EN 420, EN 455, EN 374 and ASTM-F 1671-97. AQL 1.5

Textured surface for secure grip.

Synthetic inner coating makes gloves easy to put on.

- Maximum wearing comfort and optimum perspiration absorption
- Intensive washing processes ensure gloves contain low levels of protein and irritants
- Can be worn on both hands
- Colour: natural (light)
- Double thickness: min. 0.22 mm
- 100 or 90 per dispenser box

Size	Length (mm)	Art. No.	Pack Qty.	€
S (6-7)	≥240	L949.1	100	11,40
M (7-8)	≥240	L950.1	100	11,40
L (8-9)	≥240	L951.1	100	11,40
XL (9-10)	≥240	HE61.1	90	11,40
With 10 boxes of each size				10,26/box



Rotiprotect®-latex gloves Type 3 powder-free Disposable natural latex gloves

Acc. to 89/686/EEC, CE category II, for protection against medium risks
Acc. to EN 420, EN 455, EN 374 and ASTM-F 1671-97. AQL 1.5

Hand-specific, textured surface for secure grip, inner-coated

- Anatomically shaped for optimal fit, reduces hand fatigue during work
- Intensive washing processes ensure gloves contain low levels of protein and irritants
- Excellent tactile sensitivity
- Colour: natural (light)
- Double thickness: approx. 0.21 ±0.05 mm
- 50 pairs per dispenser box

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
S (6.5)	≥270	HX19.1	50	42,95
M (7.5)	≥280	HX20.1	50	42,95
L (8.5)	≥285	HX21.1	50	42,95
With 10 boxes of each size				38,66/box



Rotiprotect®-latex gloves Type 4 powder-free Disposable natural latex gloves

Acc. to 89/686/EEC, CE category III, for protection against complex risks
Acc. to EN 420, EN 374 and ASTM-F 1671-97. AQL 1.5

Micro coarse outer surface
Smooth inner surface, lightly powdered

- Very smooth and pleasantly soft
- Can be worn on both hands
- Thin rolled edge
- Colour: natural (light)
- Double thickness: approx. 0.18 mm
- Thiuram-free
- 100 per dispenser box

Size	Length (mm)	Art. No.	Pack Qty.	€
S (6-7)	≥240	5884.1	100	7,85
M (7-8)	≥240	5885.1	100	7,85
L (8-9)	≥240	5886.1	100	7,85
With 10 boxes of each size				7,07/box



Sempercare® latex examination gloves

Acc. to 93/42 EEC medical product class I, acc. to 89/686/EEC PSA category III, acc. to EN 420, EN 374, EN 455, ASTM-F 1671-97, AQL 1,5

- **Powder-free, sterile**
- Usable on both sides
- Synthetic inner coating
- Colour: yellowish-white
- Smooth surface, textured fingers, thin beaded cuff
- Double wall thickness: 0.16 mm fingertips; 0.26 mm palm
- High tensile strength (9 N) gives superior protection for use in critical environments
- Protection against infection for user and patient
- Gamma-sterilised acc. to EN 552, EN 556
- Packaged in pairs inside sterile pouches and sealed

Applications: health care, medical and dental use, light laboratory applications, food processing.

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
S (6-7)	≥240	HH47.1	40	28,85
M (7-8)	≥240	HH48.1	40	28,85
L (8-9)	≥240	HH49.1	40	28,85
With 10 boxes of each size				25,97/box

Resistance list Rotiprotect®-latex gloves

Rotiprotect® Latex	Type 1 powder-free C268.1 ff.	Type 2 powder-free L949.1 ff.	Type 4 powdered 5884.1 ff.
Substance	Level acc. to EN 374		
Acetic acid (10 %)	2	2	A
Acetone (2-propanone, ketone propane)	n.r.	n.r.	n.r.
Acetonitrile (methyl cyanide, ethane nitrile)	n.r.	n.r.	n.r.
Acrylamide (40 %)	6	n.t.	6
Ammonia (25 %)	A	A	n.t.
Benzalkonium chloride fl. (quaternary ammonium compound)	n.t.	6	n.t.
Chlorhexidine gluconate+ethanol+water	n.t.	n.t.	n.t.
Chloroform (trichloromethane)	n.r.	n.r.	n.r.
Cyclohexanol (hexalin / at 23 °C)	n.t.	1	n.t.
Dichloromethane (methylene dichloride, Freon 30)	n.r.	n.r.	n.r.
Diethyl amine (DEA)	n.r.	n.r.	n.r.
Diethyl ether (diethyl oxide, ethoxyethane)	n.r.	n.r.	n.r.
Dimethyl sulphoxide DMSO	n.r.	n.r.	n.r.
Ethanol (20 %)	A	A	A
Ethanol (40 %)	n.r.	n.r.	n.r.
Ethanol (70 %)	n.r.	n.r.	n.r.
Ethanol (80 %)	n.r.	n.r.	n.r.
Ethanol p.a.	n.r.	n.r.	n.r.
Ethidium bromide (1 %)	n.r.	n.r.	n.r.
Ethyl acetate	n.r.	n.r.	n.r.
Formaldehyde (37 %)	1	n.t.	A
Glutaraldehyde (5 %)	6	n.t.	n.t.
n-heptane (CAS 142-82-5)	n.r.	n.r.	n.r.
n-hexane (CAS 110-54-3)	n.r.	n.r.	n.r.
Hydrochloric acid (36 %)	A	1	1
Hydrofluoric acid (40 %) (hydrogen fluoride)	n.t.	n.t.	n.t.
Isopropyl alcohol (40 %)	A	A	A
Isopropyl alcohol (70 %)	A	A	A
Isopropyl alcohol p.a.	n.r.	A	n.r.
Methanol p.a.	n.r.	n.r.	n.r.
Nitric acid (10 %)	6	6	6
Nitric acid (36 %)	6	n.t.	n.t.
Nitric acid (50 %)	2	A	A
Petroleum (heavy, bp 150-190 °C)	n.r.	n.r.	n.r.
Phenol (10 %)	n.t.	A	A
Phenol (80 %)	n.t.	n.t.	n.t.
Phosphoric acid (30 %)	6	n.t.	n.t.
Potassium hydroxide (30 %) (caustic potash)	1	n.t.	n.t.
Sodium hydroxide (30 %) (caustic soda)	4	6	2
Sodium hydroxide (40 %) (caustic soda)	4	5	3
Sulphuric acid (96%)	n.t.	1	n.t.
Toluene	n.r.	n.r.	n.r.
Trichlorethane	n.r.	n.r.	n.r.
Xylene	n.r.	n.r.	n.r.

Level / Permeation time:

Level 1 >10 min	Level 4 >120 min	A - < 10 min, only recommended as splash guard
Level 2 >30 min	Level 5 >240 min	n.r. = not recommended (ruptures immediately)
Level 3 >60 min	Level 6 >480 min	n.t. = not tested

This information is based on laboratory test methods which are not able to simulate all aspects of the working conditions. The end user is responsible for selecting appropriate gloves for a given application. When working with fabrics which can damage the hands, please check the gloves first for any holes and cracks they may contain.

Disposable gloves

Rotiprotect®-nitrile gloves

Acc. to 89/686/EEC, CE category III, for protection against complex risks

Acc. to EN 420, EN 455, EN 374 and

ASTM-F 1671-97. AQL 1.5

Acc. to 1935/2004 - suitable for contact with foodstuffs



Rotiprotect®-nitrile eco

Disposable nitrile gloves, powder-free

Textured fingers for secure grip

- Extra thin and soft for maximum wearing comfort
- High tactile sensitivity
- Can be worn on both hands
- Beaded cuff
- Colour: blue
- Thickness: approx. 0.10 mm
- Length: min. 240 mm
- Free from phthalates/plasticisers and allergenic latex proteins
- 100 or 90 per dispenser box

The perfect disposable solution for splash protection against many chemicals and for handling greasy foodstuffs. The blue signal is suitable for areas which are subject to HACCP standards.

Size	Length (mm)	Art. No.	Pack Qty.	€
S (6-7)	≥240	TC12.1	100	12,40
M (7-8)	≥240	TC13.1	100	12,40
L (8-9)	≥240	TC14.1	100	12,40
XL (9-10)	≥240	TC15.1	90	12,40
With 10 boxes of each size				11,16/box



Rotiprotect® -nitrile evo

Disposable nitrile gloves, powder-free

Textured surface for secure grip

- Higher durability thanks to special formulation
- High elasticity and good tactile sensitivity
- Can be worn on both hands
- Beaded cuff
- Colour: blue
- Thickness: approx. 0.14 mm
- Length: min. 240 mm
- Free from phthalates/plasticisers and allergenic latex proteins
- 100 or 90 per dispenser box

Ideal for general laboratory use, good resistance to many chemicals, greases and oils.

Size	Art. No.	Pack Qty.	€
S (6-7)	CPX6.1	100	14,55
M (7-8)	CPX7.1	100	14,55
L (8-9)	CPX8.1	100	14,55
XL (9-10)	CPX9.1	90	14,55
XXL (10-11)	CPY0.1	90	14,55
With 10 boxes of each size			13,10/box

Disposable gloves

These gloves have been manufactured for single use and should be disposed of regularly. They are liquidproof and can therefore be used as protection against splashing of certain chemicals. Gloves which have been contaminated with chemicals should be changed as soon as possible.

Disposable gloves



Rotiprotect® -nitrile light Disposable nitrile gloves, powder-free

Textured fingers for secure grip

- Extra thin and elastic for maximum wearing comfort
- High tactile sensitivity
- Can be worn on both hands
- Beaded cuff
- Colour: blue
- Thickness: approx. 0.07 mm
- Length: min. 240 mm
- Free from phthalates/plasticisers and allergenic latex proteins
- 200 or 180 per dispenser box

The perfect alternative to latex gloves. An extremely thin nitrile glove with outstanding elasticity and maximum wearing comfort thanks to a specially developed formulation and innovative production technology.

Size	Art. No.	Pack Qty.	€
S (6-7)	AYA6.1	200	23,15
M (7-8)	AYA7.1	200	23,15
L (8-9)	AYA8.1	200	23,15
XL (9-10)	AYA9.1	180	23,15
With 10 boxes of each size			20,84/box



Resistance list Rotiprotect®-nitrile gloves

Substance	Nitrile evo CPX6.1ff	Nitrile eco TC12.1ff	Nitrile light AYA6.1ff
	Level gem. EN 374		
Acetic acid (10 %)	n.t.	6	6
Acetone (2-Propanon, Ketonpropan)	n.r.	n.r.	n.r.
Acetonitrile (Methylcyanide, Ethanenitrile)	n.r.	n.r.	n.r.
Acrylamide (40 %)	6	6	6
Ammonia (25 %)	n.t.	A	n.t.
Benzene (heavy, bp 160-190 °C, CAS 8032-32-4)	n.r.	n.r.	n.r.
Chloroform (Trichloromethane)	n.r.	n.r.	n.r.
Cyclohexanol (Hexalin / at 23 °C)	4	3	n.t.
Dichlormethane (Methylene dichloride, Freon 30)	n.r.	n.r.	n.r.
Diethylamine (DEA)	n.r.	n.r.	n.r.
Diethylether (Diethyloxyde, Ethoxyethane)	n.r.	n.r.	n.r.
Dimethylsulfoxide DMSO	n.r.	n.r.	n.r.
Ethanol (20 %)	6	6	1
Ethanol (40 %)	1	1	A
Ethanol (70 %)	1	1	A
Ethanol (80 %)	1	A	A
Ethanol p.a.	n.t.	A	A
Ethidiumbromide (1 %)	6	6	6
Ethylacetate	A	n.r.	n.r.
Formaldehyde (37 %)	6	3	1
Glutaraldehyde (5 %)	6	6	6
n-Heptane (CAS 142-82-5)	A	n.r.	n.r.
n-Hexane (Cas 110-54-3)	A	n.r.	n.r.
Hydrochloric acid (10 %)	n.t.	6	6
Hydrochloric acid (36 %)	3	2	A
Hydrofluoric acid (40%) (Hydrogen fluoride)	1	n.t.	n.t.
Hydrogen peroxide	n.t.	6	n.t.
Isopropylalcohol (40 %)	1	1	1
Isopropylalcohol (70 %)	1	1	1
Isopropylalcohol p.a.	1	1	A
Methanol 5 %	n.t.	6	n.t.
Methanol p.a.	A	A	n.r.
Nitric acid (10 %)	6	6	6
Nitric acid (36 %)	4	A	A
Nitric acid (50 %)	4	A	A
Phenol (10 %)	2	n.r.	n.r.
Phenol (80 %)	2	n.r.	n.r.
Phosphoric acid (30 %)	n.t.	6	6
Potassiumhydroxide (30 %)	6	6	6
Sodiumhydroxide (30 %) (Caustic potash, caustic soda)	6	6	6
Sodiumhydroxide (40 %) (Caustic potash, caustic soda)	6	6	6
Sulphuric acid (96 %)	1	A	n.t.
Toluene	n.r.	n.r.	n.r.
Trichlorethane	n.r.	n.r.	n.r.
Xylene	n.r.	n.r.	n.r.

Level / permeation time:

Level 1 >10 min	Level 4 >120 min	A - only recommended as splash guard
Level 2 >30 min	Level 5 >240 min	n. r. = not recommended
Level 3 >60 min	Level 6 >480 min	n. t. = not tested

This information is based upon laboratory test methods which cannot simulate the working conditions completely. It is the responsibility of the end consumer to select the gloves most suitable for his needs. When working with substances that may irritate the skin, please always check the glove beforehand for possible holes or tears.

Disposable gloves

Rotiprotect®-vinyl gloves

Acc. to EN 420, corresponds to EN 455. AQL 1.5.

Comply with the requirements of the Foodstuffs and Commodities Law, EU-Regulation 1935/2004.

Not suitable for foodstuffs containing grease.



Rotiprotect®-vinyl Disposable vinyl gloves, powder-free

CE Category I, protected from minimal risks
Acc. to EN 420, corresponds to EN 455. AQL 1.5.

Very good sense of touch

- Colour transparent
- Made of PVC
- smooth
- Flexible
- With roll-type edge
- Wall thickness, double: approx. 0.18 mm
- Free of latex proteins
- Can be used on both hands
- 100 or 90 units in a dispenser carton

Powder-free

Size	Length (mm)	Art. No.	Pack Qty.	€
S (6-7)	≥240	6177.1	100	7,75
M (7-8)	≥240	6178.1	100	7,75
L (8-9)	≥240	6179.1	100	7,75
XL (9-10)	≥240	X356.1	90	7,75
With 10 boxes of each size				6,98/box

Resistance list Rotiprotect®-vinyl gloves

Material	Level acc. to EN 374-3	Permeation time (min)
Acetone	n. r.	instant
Acetonitrile	A	<10
Ammonia (25 %)	A	<10
Benzalcohol chloride	4	>120
Benzene	n. r.	instant
Cyclohexanol (solid)	4	>120
Chlorohexidine (solid)	6	>480
Dichloromethane	n. r.	instant
Diesel oil	A	<10
Diethylamine	n. r.	instant
Diethylether	n. r.	instant
Dimethylsulfoxide (DMSO)	n. r.	instant
Acetic acid (10 %)	6	>480
Ethanol (80 %)	A	<10
Ethyl acetate	n. r.	instant
Formaldehyde (37 %) in 10 % methanol	A	<10
Formaldehyde (37 %), formalin	A	<10
Glutaraldehyde (5 %)	5	>240
n-Heptane	n. r.	instant
n-Hexane	n. r.	instant
Isopropyl alcohol	A	<10
Linseed oil	A	<10
Soda lye (40 %)	6	>480
Phenol (10 %)	A	<10
Nitric acid (10 %)	6	>480
Nitric acid (50 %)	6	>480
Hydrochloric acid (36 %)	1	>10 min
Sulphuric acid (96 %)	A	<10
Toluene	n. r.	instant
Trichloroethane	n. r.	instant
Xylene	n. r.	instant

Level / permeation time:

A - only recommended as splash guard

Level 1 >10 min Level 4 >120 min

Level 2 >30 min Level 5 >240 min

Level 3 >60 min Level 6 >480 min n. r. = not recommended

This information is based upon laboratory test methods which cannot simulate the working conditions completely. It is the responsibility of the end consumer to select the gloves most suitable for his needs. When working with substances that may irritate the skin, please always check the glove beforehand for possible holes or tears.

Disposable gloves

Nitrile gloves N-DEX®

A very good alternative to Latex and vinyl gloves.

- Made of 100 % nitrile rubber (latex-free)
- Contain no natural proteins
- Excellent chemical resistance
- Designed for a natural fit, these gloves mould to the shape of the hand like a second skin
- Can be worn on both hands
- With rolled edge
- AQL 1.5
- 100 or 50 pieces per dispenser box



Nitrile laboratory gloves N-DEX® Original

In compliance with EN 420, EN 374. Smooth surface. Colour: blue. Length 240 mm. Thickness 0.1 mm. 100 pieces per dispenser box.

N-DEX® Original, powder-free, silicone-free. Chlorinated.
Suitable for foodstuffs.

Size	Art. No.	Pack Qty.	€
S (6-7)	CA51.1	100	23,55
M (7-8)	CA52.1	100	23,55
L (8-9)	CA53.1	100	23,55
XL (9-10)	CA54.1	100	23,55
With 20 boxes of each size			21,20/box

N-DEX® Original, lightly powdered

Size	Art. No.	Pack Qty.	€
S (6-7)	A240.1	100	21,30
M (7-8)	A241.1	100	21,30
L (8-9)	A242.1	100	21,30
XL (9-10)	A243.1	100	21,30
With 20 boxes of each size			19,17/box

Accelerators are chemical additives used for shortening the "curing process" when manufacturing disposable nitrile gloves.



Nitrile laboratory gloves N-DEX® Plus

In compliance with EN 420, EN 374. Smooth surface. Colour: blue. Length 240 mm. Thickness 0.2 mm. 50 pieces per dispenser box.

N-DEX® Plus, lightly powdered

Size	Art. No.	Pack Qty.	€
S (6-7)	L022.1	50	33,25
M (7-8)	L023.1	50	33,25
L (8-9)	L024.1	50	33,25
XL (9-10)	L025.1	50	33,25
With 20 boxes of each size			29,93/box

N-DEX® Plus, powder-free, silicone-free. Chlorinated.
Suitable for foodstuffs.

Size	Art. No.	Pack Qty.	€
S (6-7)	CA55.1	50	34,35
M (7-8)	CA56.1	50	34,35
L (8-9)	CA57.1	50	34,35
XL (9-10)	CA58.1	50	34,35
With 20 boxes of each size			30,92/box



N-DEX® Ultimate

Medical examination gloves

Disposable nitrile gloves. Powder-free.

Acc. to 93/686/EEC, category III.
Acc. to 93/42/CEE, medical product class I.
Acc. to EN 420, EN 455, EN 374, AQL 1.5.

- Smooth surface
- Made of 100 % nitrile rubber (latex-free)
- Contain no natural proteins
- These gloves quickly adapt to the hand and fit like a second skin
- Can be worn on both hands
- With rolled edge
- Colour: blue
- Thickness 0.15 mm
- Length 280 mm

Size	Art. No.	Pack Qty.	€
S (6-7)	L030.1	50	25,75
M (7-8)	L031.1	50	25,75
L (8-9)	L032.1	50	25,75
XL (9-10)	L033.1	50	25,75
With 20 boxes of each size			23,18/box

Disposable gloves



Cat. II

N-DEX®-free disposable nitrile gloves

Acc. to EN 420, EN 374-2, AQL 1.5.

- With textured finger tips
- **Free of accelerators:**
without carbamate, thiurame and mercaptobenzthiazole
- Made of 100% nitrile (latex-free)
- Powder-free
- Especially suitable for allergicans
- Can be worn on both hands
- Length approx. 240 mm
- 0.1 mm thick
- With roll-type edge

Size	Art. No.	Pack Qty.	€
S	Y415.1	100	27,95
M	Y416.1	100	27,95
L	Y417.1	100	27,95
XL	Y418.1	100	27,95
With 20 boxes of each size			25,16/box



Cat. III

N-DEX® Nighthawk® disposable nitrile gloves

Compliant with EN 420 and EN 374. AQL 1.5. In accordance with 21CFR 177.2600. Antistatic in accordance with EN 1149.

- Textured finger tips
- Accelerator-free
- Powder-free
- Can be worn on both hands
- Colour: black
- With roll-type edge
- Surface leakage resistance 4.33×10^{11} ohm
- Resistance during use 2.25×10^8 ohm
- Length approx. 240 mm
- Wall thickness 0.1 mm

Size	Art. No.	Pack Qty.	€
S	LY81.1	50	13,95
M	LY82.1	50	13,95
L	LY83.1	50	13,95
XL	LY84.1	50	13,95
With 20 boxes of each size			12,56/box



N-DEX® Medical Exam

Medical examination gloves

Disposable nitrile gloves. Powder-free.

Acc. to 93/42/CEE, medical product class I.

Acc. to EN 420, EN 455.

- Smooth surface
- Made of 100 % nitrile rubber (latex-free)
- Contain no natural proteins
- These gloves quickly adapt to the hand and fit like a second skin
- Can be worn on both hands
- With rolled edge
- Colour: blue
- Wall thickness 0.1 mm
- Length 240 mm.

Size	Art. No.	Pack Qty.	€
XS (5-6)	H707.1	100	31,15
S (6-7)	C791.1	100	31,15
M (7-8)	C792.1	100	31,15
L (8-9)	C793.1	100	31,15
XL (9-10)	C794.1	100	31,15
With 20 boxes of each size			28,04/box



Cat. III

Semperguard® Nitrile Xenon examination gloves

Disposable nitrile gloves, non-powdered

Acc. to 89/686/EEC: CE category III, protection against complex risks.

Acc. to 93/42/EEC: CE class I medical product.

Acc. to EN 420, EN 374, AQL 1.5.

Acc. to EC regulation 1935/2004 - suitable for contact with foodstuffs.

- **Smooth exterior, textured fingers**
- Very soft, very thin with latex-like wearing comfort and excellent tactile sensitivity
- Can be worn on both hands
- Thin rolled edge
- Kind to the skin: free of phthalates and allergy-causing latex proteins
- Colour: white
- Wall thickness: approx. 0.05 mm
- 200 or 180 per dispenser (less packaging material)

Applications: foodstuffs production, catering, health care, examination gloves, medical areas, light industrial applications.

Size	Length (mm)	Art. No.	Pack Qty.	€
S (6-7)	240	XP94.1	200	25,60
M (7-8)	240	XP95.1	200	25,60
L (8-9)	240	XP96.1	200	25,60
XL (9-10)	240	XP97.1	180	25,60
With 10 boxes of each size				23,04/box


Cat. III

Nitrile disposable gloves TouchNTuff®

Acc. to EN 420 and EN 374. AQL 1.5. **Powder-free.** Colour light blue. Thickness 0.10 mm. With roll-type edge. Textured fingertips. Offers optimal protection against splashes from chemicals. Suitable for foodstuffs. 100 slides per dispenser.

TouchNTuff® 92-670, length 240 mm.

Size	Art. No.	Pack Qty.	€
S (6½-7)	P438.1	100	22,55
M (7½-8)	P439.1	100	22,55
L (8½-9)	P440.1	100	22,55
XL (9½-10)	P441.1	100	22,55
With 10 boxes of each size			20,30/box

TouchNTuff® 92-665, length 300 mm.

Size	Art. No.	Pack Qty.	€
S (6½-7)	KE73.1	100	25,80
M (7½-8)	KE74.1	100	25,80
L (8½-9)	KE75.1	100	25,80
XL (9½-10)	KE76.1	100	25,80
With 10 boxes of each size			23,22/box


Cat. III

Dermatril® P-disposable nitrile gloves

Acc. to EN 420, EN 374, EN 455. AQL 0.65.

Virus resistant to ASTM F 1671:2007.

RAL approved for use with foodstuffs.

- Colour: blue
- Long cuff, rolled edge, coarsened fingertips
- Snug fitting, very high tactile sensitivity
- Increased tear strength
- Good chemical resistance
- Powder-free
- Latex free, free of allergenic thiurames and rosin
- Wall thickness: 0.2 mm
- Length: 280 mm

Applications: laboratory and research, chemicals industry, foodstuffs industry, electronics and computer industry, cleaning and maintenance work, product protection.

Size	Art. No.	Pack Qty.	€
6	TX41.1	50	27,75
7	TX42.1	50	27,75
8	TX43.1	50	27,75
9	TX44.1	50	27,75
10	TX45.1	50	27,75
11	TX46.1	50	27,75
With 10 boxes of each size			24,95/box


Cat. III

Nitrile disposable gloves TouchNTuff®

Acc. to EN 420 and EN 374. AQL 1.5. Colour green. Thickness 0.12 mm. With roll-type edge. Offers optimal protection against splashes from chemicals. 100 gloves per dispenser.

TouchNTuff® 92-500, slightly powdered, textured fingertips.

Size	Length (mm)	Art. No.	Pack Qty.	€
S (6½-7)	240	K416.1	100	19,15
M (7½-8)	240	K417.1	100	19,15
L (8½-9)	240	K418.1	100	19,15
XL (9½-10)	240	K419.1	100	19,15
With 10 boxes of each size				17,24/box

TouchNTuff® 92-600, powder-free, smooth. Suitable for foodstuffs. Antistatic acc. to EN 1149-5.

Size	Length (mm)	Art. No.	Pack Qty.	€
S (6½-7)	240	K966.1	100	24,30
M (7½-8)	240	K967.1	100	24,30
L (8½-9)	240	K968.1	100	24,30
XL (9½-10)	240	K969.1	100	24,30
With 10 boxes of each size				21,87/box

TouchNTuff® 92-605, powder-free, smooth. Suitable for foodstuffs.

Size	Length (mm)	Art. No.	Pack Qty.	€
S (6½-7)	300	PA90.1	100	26,35
M (7½-8)	300	PA91.1	100	26,35
L (8½-9)	300	PA92.1	100	26,35
XL (9½-10)	300	PA93.1	100	26,35
With 10 boxes of each size				23,72/box

Disposable gloves



Cat. III

Neoprene disposable gloves NeoTouch®

Acc. to EN 420, EN 374, AQL 1.5. Ideal for applications in the pharmaceutical and chemical industry; for laboratory work and analyses which require short-term protection against chemicals.

- Powder-free
- Protect against Type I allergies
- The inner polyurethane coating enables gloves to be slipped on easily
- With structured fingertips for safer grip when dry or wet
- Turn-up cuff offers safe and firm hold
- Excellent stretching ability enables greater freedom of movement
- Good protection against chemical splashes but not suitable as complete protection against chemicals
- Thickness: 0.13 mm
- 100 gloves per dispenser box

NeoTouch® 25-101, Length 240 mm

Size	Art. No.	Pack Qty.	€
S (6.5-7)	EN44.1	100	20,00
M (7.5-8)	EN45.1	100	20,00
L (8.5-9)	EN46.1	100	20,00
XL (9.5-10)	EN47.1	100	20,00
With 10 boxes of each size			18,00/box

NeoTouch® 25-201, Length 290 mm

Size	Art. No.	Pack Qty.	€
S (6.5-7)	LT51.1	100	24,55
M (7.5-8)	LT52.1	100	24,55
L (8.5-9)	LT53.1	100	24,55
XL (9.5-10)	LT54.1	100	24,55
With 10 boxes of each size			22,10/box



Cat. III

DermaShield® Neoprene disposable gloves

Acc. to EN 420, EN 374 and EN 421, AQL 0.65.

- Powder-free, green
- High tech disposable gloves, available in **sterile** or non-sterile, suitable for use in controlled environments or **cleanrooms**
- Free of latex proteins and vulcanisation accelerants
- High wearing comfort and high flexibility
- Anti-slip rolled edge for increased protection
- Optimal product and user protection
- Fingertips with bisque finish for enhanced tactile sensitivity
- Length 310 mm, wall thickness 0.18 mm

Applications: drug production under aseptic conditions, biotechnology, production of medical equipment, handling cytostatic agents.

Packaging:

- PE bag printed with cleanroom-compatible IPA printing ink
- Optimal contamination protection is provided by triple packaging
- Easy-to-open PE packaging

DermaShield® 73-711. Sterile, for critical applications acc. to ISO 5 (class 100 & GMP AB).

Subpackaging:

- In pairs, 10 pairs in sealed PE master bag
- 5 PE master bags in separate PE protective sleeve
- 4 PE master bags per large bag, carton

Size	Art. No.	Pack Qty. (Pair)	€
6	XE44.1	200	585,90
7	XE45.1	200	585,90
7½	XE46.1	200	575,15
8	XE47.1	200	575,15
9	XE48.1	200	575,15

DermaShield® 73-721. Non-sterile, for controlled working environments.

Subpackaging:

- 20 left/right gloves in separate chambers of a vacuum sealed PE bag
- 2 PE bags in vacuum sealed PE master bag
- 5 PE master bags per large bag, carton

Size	Art. No.	Pack Qty. (Pair)	€
6	XE49.1	200	532,15
7	XE50.1	200	532,15
7½	XE51.1	200	532,15
8	XE52.1	200	532,15
9	XE53.1	200	532,15



AccuTech® 91-325 latex gloves

By Ansell. Acc. to EN 420, EN 374, AQL 1.0.

Made from a special natural rubber latex formulation which provides a very comfortable fit ideal for work requiring high tactile sensitivity and precision. Suitable for a large number of applications, particularly in controlled working environments in biotechnology, medical equipment production, laboratory analysis, pharmaceuticals, and in the flat screen industry.

- Powder-free
- Hand specific (packed in pairs in a PE bag)
- Smooth inside and out, fingertips with bisque finish
- Colour: natural
- Straight forend
- Length 300 mm.
- Wall thickness (palm): 0.225 mm

Size	Art. No.	Pack Qty. (Pair)	€
6.5	ANC8.1	10	27,85
7	ANC9.1	10	27,85
7.5	ANE0.1	10	27,85
8	ANE1.1	10	27,85
8.5	ANE2.1	10	27,85
9	ANE3.1	10	27,85
With 20 boxes of each size			25,07/box



Marigold®-Featherweight Plus

Acc. to EN 420, EN 388, EN 374, EN 421, AQL 0.65.

Made of natural rubber with beaded cuff. Palms and fingers with a rough profile, smooth on inside. High flexibility, excellent finger mobility, high tactile sensitivity, highly tear resistant.

Length approx. 320 mm, wall thickness approx. 0.35 mm.

Size	Art. No.	Pack Qty. (Pair)	€
6.5	YX54.1	12	27,80
7.5	YX55.1	12	27,80
8.5	YX56.1	12	27,80
9.5	YX57.1	12	27,80



Sempervelvet moulded latex gloves

Acc. to EN 420, EN 388 and EN 374, AQL 1,5. Suitable for contact with food acc. to EU Regulation 1935/2004. Anatomically shaped glove with beaded cuff. Honeycomb pattern on the outside for better grip.

Flocked with cotton on the inside. Colour blue. Length approx. 300 mm.

Wall thickness approx. 0.45 mm.

Size	Art. No.	Pack Qty. (Pair)	€
7 (S)	AH95.1	12	14,75
8 (M)	AH96.1	12	14,75
9 (L)	AH97.1	12	14,75
10 (XL)	AH98.1	12	14,75



Moulded latex gloves Lapren® 706

Acc. to EN 420, EN 388, EN 374, AQL 0,65. Made of natural latex with a low chloroprene content. Profiled palms for secure grip even in wet zones.

Cotton flock lining. Forend with elastic edging. Anatomically shaped, elastic and flexible. Length approx. 300-320 mm, thickness 0.6 mm.

Size	Art. No.	Pack Qty. (Pair)	€
7	C940.1	10	32,80
8	C941.1	10	32,80
9	C942.1	10	32,80
10	C943.1	10	32,80

Chemical protection gloves

Resistance against chemicals - protective gloves

Material	Butyl			Chloroprene (Neoprene)				Latex			PE-spec.	PVA
Art. No. (and following)	K626ff	AXN0ff	CE42ff	K347ff/AA08ff	ET40ff	XY14	XY15	AH95ff	C940ff	YA59ff	P157ff	1681f
Page	p. 607	p. 606	p. 607	p. 603	p. 604	p. 603	p. 603	p. 599	p. 599	p. 602	p. 606	p. 606
Substance	Level (Permeation time)											
Accumulator acid (Sulphuric acid 25%)	6	6	n.t.	6	6	n.t.	n.t.	n.t.	6	n.t.	n.t.	n.t.
Acetic acid 10 %	6	6	n.t.	6	6	n.t.	n.t.	n.t.	6	n.t.	n.t.	n.t.
Acetic acid conc. (pure acetic acid)	6	6	n.t.	2	2	n.t.	n.t.	n.t.	2	3	4	n.t.
Acetone (2-Propanon)	6	6	4	1	1	0	n.t.	0	1	0	6	3
Acetonitril	6	6	6	1	3	1	2	0	1	1	6	3
Ammonia 25 %	6	6	6 (29 %)	3	5	n.t.	n.t.	3	1	1	1	n.t.
Amyl alcohol (1-Pentanol)	6	6	n.t.	5	5	n.t.	n.t.	n.t.	1	n.t.	n.t.	n.t.
Benzene	1	1	n.t.	1	1	n.t.	n.t.	n.t.	0	n.t.	6	n.t.
Butyl alcohol (1-Butanol)	6	6	6	5	5	n.t.	6	1	1	n.t.	n.t.	n.t.
Carbon disulphide	2	1	n.t.	0	1	0	0	n.t.	n/r	0	6	6
Carbon tetrachloride	2	1	1	1	4	n.t.	n.t.	n.t.	1	n.t.	n.t.	n.t.
Caustic potash solution, saturated	6	6	n.t.	6	n.t.	n.t.	n.t.	n.t.	6	n.t.	n.t.	n.t.
Chloroform	1	1	1	0	0	n.t.	n.t.	0	0	n.t.	1	n.t.
Cyclohexane	2	2	1	1	5	n.t.	n.t.	n.t.	0	n.t.	n.t.	n.t.
Dichloromethane (Methylene chloride)	1	1	0	0	0	n.t.	n.t.	n.t.	0	n.t.	1	6
Diesel fuel	5	4	3	4	5	n.t.	n.t.	0	2	n.t.	n.t.	n.t.
Diethylamine	2	1	n.t.	0	0	n.t.	n.t.	n.t.	0	0	6	0
Diethyl ether (Ether)	1	1	n.t.	0	1	n.t.	n.t.	n.t.	0	n.t.	6	n.t.
Ethanol (Ethylalcohol)	6	6	6	3	4	n.t.	n.t.	1	1	2 (95 %)	6	n.t.
Ethyl acetate (Acetic acid ethyl)	4	3	3	1	1	0	n.t.	0	0	0	6	6
Formaldehyde 37 % (Formalin)	6	6	n.t.	5	6	n.t.	n.t.	6	0	6 (35 %)	n.t.	n.t.
Formic acid 98 %	6	6	n.t.	6	6	n.t.	n.t.	n.t.	3	3	6	n.t.
Glycerine	6	6	n.t.	6	6	n.t.	n.t.	n.t.	6	n.t.	n.t.	n.t.
n-Heptane	1	1	0	3	6	5	4	0	0	n.t.	6	6
n-Hexane	2	2	0	1	6	n.t.	n.t.	0	1	0	6	6
Hydrochloric acid 32 %	6	6	6 (37 %)	6	6	6 (37 %)	6 (37 %)	n.t.	3	6 (conc.)	6 (conc.)	n.t.
Hydrofluoric acid 10 %	6	6	n.t.	6	6	n.t.	n.t.	n.t.	6	n.t.	n.t.	n.t.
Hydrofluoric acid 40 %	6	6	6 (48 %)	6	5	n.t.	n.t.	n.t.	4	6 (48 %)	6 (48 %)	n.t.
Hydrogen peroxide 30 %	6	6	n.t.	6	6	n.t.	n.t.	n.t.	6	6	n.t.	n.t.
Isopropyl alcohol (Isopropanol)	6	6	6	5	6	n.t.	6	1	0	4	n.t.	3
Lactic acid 90 %	6	6	n.t.	6	6	n.t.	n.t.	n.t.	6	n.t.	n.t.	n.t.
Methanol (Methyl alcohol)	6	6	6	2	4	6	3	0	0	2	6	0
Methylethylketone (2-Butanone)	5	5	2	1	1	n.t.	n.t.	n.t.	0	0	6	2
Nitric acid 50 %	6	6	6 (70 %)	5	5	n.t.	n.t.	5	6	4 (70 %)	6 (65 %)	n.t.
Nitrobenzene	6	6	6	2	2	n.t.	n.t.	n.t.	2	n.t.	6	6
Perchloroethylene (Tetrachlorethylene)	1	1	0	1	4	n.t.	n.t.	n.t.	0	n.t.	6	n.t.
Petroleum	3	2	n. g.	1	5	n.t.	n.t.	n.t.	0	n.t.	n.t.	n.t.
Phenol, 85 % in water	6	6	6	6	5	n.t.	n.t.	1	4	4 (90%)	6 (90 %)	n.t.
Phosphoric acid, saturated	6	6	6 (85 %)	6	6	6	6	n.t.	6	6	n.t.	n.t.
Potassium hydroxide solution, saturated	6	6	n.t.	6	6	n.g.	n.g.	n.t.	6	n.t.	n.t.	n.t.
Pyridine	5	4	n.t.	1	1	n.t.	n.t.	0	1	1	6	0
Sodium hydroxide 40 %	6 (50 %)	6	6 (50 %)	6 (45 %)	6 (45 %)	6 (50%)	6 (50%)	6	6	6 (50 %)	6 (50 %)	0 (50 %)
Sodium hypochlorite (12 % Active chlorine)	6	6	n.t.	6	6	n.t.	n.t.	n.t.	6	n.t.	n.t.	n.t.
Sulphuric acid 50 %	6	6	n.t.	6	6	n.t.	n.t.	n.t.	6	n.t.	n.t.	n.t.
Sulphuric acid 96 %	4	3	6 (97 %)	3	3	5	5	4	1	4	6 (95 %)	0
Tetrahydrofurane	1	1	1	0	1	n.t.	n.t.	n.t.	0	n.t.	6	2
Toluene	1	1	0	0	1	n.t.	n.t.	n.t.	0	0	6	6
m-Xylene	2	2	1	0	1	n.t.	n.t.	n.t.	0	n.t.	6	6

Level / Permeation time

Level 1 >10 min

Level 2 >30 min

Level 3 >60 min

Level 4 >120 min

Level 5 >240 min

Level 6 >480 min

n/r: no recommendation available to date

n.t.: not tested

This table is meant as a **guideline when selecting the correct chemical protection gloves**

All information is based on EN 374. Permeation is the molecular penetration through the glove material.

The time required by the chemical to permeate is listed in levels.

Resistance against chemicals - protective gloves

Material	PVC			Nitrile								Viton	
Art. No. (and following)	8203ff	X410ff	YP00ff	Y452ff/ CH44ff	HH73ff	PT65ff	PA83ff	AXY9ff	XX07ff	LY54ff	LY59ff	LH87ff	CY66ff
Page	p. 602	p. 602	p. 602	p. 605/604	p. 604	p. 613	p. 604	p. 605	p. 605	p. 606	p. 606	p. 607	p. 607
Substance	Level (Permeation time)												
Accumulator acid (Sulphuric acid 25%)	n.t.	n.t.	n.t.	6	n.t.	6	n.t.	n.t.	n.t.	n.t.	n.t.	6	n.t.
Acetic acid 10 %ig	n.t.	n.t.	n.t.	6	n.t.	6	n.t.	n.t.	n.t.	n.t.	n.t.	6	n.t.
Acetic acid conc. (pure acetic acid)	6	1	n.t.	2	0	2	3	2	4	1	2	3	n.t.
Acetone (2-Propanon)	0	0	n.t.	0	0	0	0	0	n.t.	n.t.	0	0	0
Acetonitril	0	n.t.	1	0	0	0	1	0	1	n.t.	0	1	0
Ammonia 25 %	n.t.	61	2	5	1	5	5	4	n.t.	n.t.	4	6	6 (29 %)
Amyl alcohol (1-Pentanol)	n.t.	n.t.	n.t.	6	n.t.	6	n.t.	n.t.	n.t.	n.t.	n.t.	6	n.t.
Benzene	0	0	n.t.	1	0	1	1	0	1	n.t.	0	6	3
Butyl alcohol (1-Butanol)	6	n.t.	4	6	n.t.	6	n.t.	n.t.	n.t.	n.t.	n.t.	6	6
Carbon disulphide	n.t.	0	n.t.	0	n.t.	n.t.	1	1	0	n.t.	n.t.	6	n.t.
Carbon tetrachloride	1	n.t.	n.t.	5	n.t.	4	n.t.	n.t.	n.t.	n.t.	n.t.	6	6
Caustic potash solution, saturated	n.t.	n.t.	n.t.	6	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	n.t.	6	n.t.
Chloroform	0	n.t.	n/r	0	n.t.	0	n.t.	n.t.	n.t.	n.t.	n.t.	6	6
Cyclohexane	6	n.t.	n.t.	6	n.t.	6	6	6	n.t.	n.t.	6	6	6
Dichlormethane (Methylene chloride)	0	n.t.	n.t.	0	n.t.	0	0	n.t.	n.t.	n.t.	n.t.	4	0
Diesel fuel	n.t.	n.t.	n.t.	6	n.t.	6	n.t.	6	n.t.	n.t.	6	6	6
Diethylamine	n.t.	n.t.	n.t.	1	0	1	1	1	2	n.t.	1	4	n.t.
Diethyl ether (Ether)	n.t.	n.t.	0	1	n.t.	1	2	n.t.	n.t.	n.t.	n.t.	2	n.t.
Ethanol (Ethylalcohol)	6	n.t.	1	4	1	4	5 (95 %)	n.t.	n.t.	n.t.	5	6	6
Ethyl acetate (Acetic acid ethyl)	0	0	n/r	1	0	0	1	1	n.t.	n.t.	1	1	1
Formaldehyde 37 % (Formalin)	n.t.	n.t.	6	6	6 (35 %)	6	6	n.t.	n.t.	n.t.	6 (35 %)	6	n.t.
Formic acid 98 %	n.t.	4	n.t.	1	n.t.	2	2	1	n.t.	n.t.	n.t.	6	n.t.
Glycerine	n.t.	n.t.	n.t.	6	n.t.	6	n.t.	n.t.	n.t.	n.t.	n.t.	6	n.t.
n-Heptane	6	n.t.	1	6	6	6	6	6	6	6	6	6	6
n-Hexane	6	0	1	6	6	6	n.t.	6	6	6	6	6	6
Hydrochloric acid 32 %	5 (36 %)	6 (conc.)	n.t.	6	4 (37 %)	6	6 (conc.)	6 (30 %)	6 (37 %)	n.t.	6 (37 %)	6	6 (37 %)
Hydrofluoric acid 10 %	n.t.	n.t.	6	6	n.t.	6	n.t.	n.t.	n.t.	n.t.	n.t.	6	n.t.
Hydrofluoric acid 40 %	n.t.	6	2	4	0 (48 %)	3	n.t.	4 (48 %)	n.t.	n.t.	4 (48 %)	6	6 (48 %)
Hydrogen peroxide 30 %	6	6	6	6	4	6	6	6	n.t.	n.t.	6	6	6
Isopropyl alcohol (Isopropanol)	6	4	4	6	3	6	6	6	n.t.	n.t.	6	6	6
Lactic acid 90 %	n.t.	n.t.	n.t.	6	n.t.	6 (85 %)	n.t.	n.t.	n.t.	n.t.	n.t.	6	n.t.
Methanol (Methyl alcohol)	6	2	1	2	0	1	3	1	4	1	3	4	6
Methylethylketone (2-Butanone)	0	n.t.	n.t.	0	0	0	1	0	n.t.	n.t.	0	1	0
Nitric acid 50 %	3 (16 %)	2 (70 %)	5	4	0 (70 %)	4	2 (70 %)	1 (70 %)	n.t.	1 (70 %)	2 (70 %)	6	6 (70 %)
Nitrobenzene	n.t.	n.t.	n.t.	2	n.t.	1	4	3	5	n.t.	n.t.	6	n.t.
Perchloroethylene (Tetrachlorethylene)	1	0	n.t.	5	1	5	5	4	5	n.t.	4	6	6
Petroleum	n.t.	n.t.	n.t.	6	n.t.	6	n.t.	3	n.t.	n.t.	n.t.	6	n.t.
Phenol, 85 % in water	n.t.	4 (90 %)	3 (95 %)	3	n.t.	2	3 (90 %)	3 (90 %)	n.t.	n.t.	3 (90 %)	6	6
Phosphoric acid, saturated	n.t.	n.t.	n.t.	6	n.t.	6 (85 %)	6 (conc.)	6	n.t.	n.t.	n.t.	6	6 (85 %)
Potassium hydroxide solution, saturated	n.t.	n.t.	n.t.	6	n.t.	6	n.t.	n.t.	n.t.	n.t.	n.t.	6	n.t.
Pyridine	n.t.	0	n.t.	1	n.t.	0	1	1	n.t.	n.t.	n.t.	1	n.t.
Sodium hydroxide 40 %	6 (50 %)	6 (50 %)	6	6 (45 %)	6	6 (50 %)	6 (50 %)	6	6 (50 %)	6	6	6 (45 %)	6 (50 %)
Sodium hypochlorite (12 % Active chlorine)	n.t.	n.t.	n.t.	6	n.t.	6 (13 %)	n.t.	n.t.	n.t.	n.t.	n.t.	6	n.t.
Sulphuric acid 50 %	n.t.	n.t.	n.t.	6	n.t.	6	n.t.	n.t.	n.t.	n.t.	6 (30 %)	6	n.t.
Sulphuric acid 96 %	n.t.	2	3	2	1	2	3	2	4	2	3	6	6 (97 %)
Tetrahydrofurane	n.t.	0	n.t.	0	n.t.	0	0	0	n.t.	n.t.	n.t.	1	0
Toluene	0	0	0	1	0	0	1	1	2	n.t.	1	6	4
m-Xylene	1	0	n.t.	2	0	2	2	2	4	1	2	6	6

Level / Permeation time

Level 1 >10 min

Level 2 >30 min

Level 3 >60 min

Level 4 >120 min

Level 5 >240 min

Level 6 >480 min

n/r: no recommendation

n.t.: not tested

Attention:

The information in the table was established under laboratory conditions (new gloves, no additional mechanical strain, room temperature). As the conditions in everyday practical use often vary from the above conditions, the information is only meant as a guideline when choosing suitable chemical protection gloves. The table does not replace the need for suitability tests to be carried out by the end consumer. For this reason Carl Roth GmbH + Co. KG will not be held responsible and/or accept liability in connection with the information in the above list.

Chemical protection gloves



Cat. III

Vinyl protective gloves sempersoft, phthalate-free

Acc. to EN 420, EN 388 and EN 374, AQL 1.5. Anatomically shaped, skin-friendly vinyl gloves. Free of phthalates and natural latex. Colour: light-blue. Palm and finger are structured on the outside for secure grip in the wet. Dense soft viscose flock lining. Chemically resistant to a number of aggressive and skin irritant substances. Suitable for grease-free foodstuffs. Wall thickness: approx. 0.5 mm Length 320 mm.

Size	Art. No.	Pack Qty. (Pair)	€
7 (S)	YP00.1	12	31,15
8 (M)	YP01.1	12	31,15
9 (L)	YP02.1	12	31,15
10 (XL)	YP03.1	12	31,15



Cat. III

PVC protective gloves Snorkel®

By Ansell. Acc. to EN 420, EN 388 and EN 374. AQL 1.5. Inner lining made of cotton jersey. With good grip profile for safe handling. Excellent abrasion resistance. Suitable for working with acids, caustic substances and solvents. Length 355 mm, 1.2 mm thick.

Size	Art. No.	Pack Qty. (Pair)	€
9	X410.1	1	11,80
10	X411.1	1	11,80



Cat. III

PVC-long gloves

Acc. to EN 420, EN 388 and EN 374. With cuff, made of soft PVC foil. High wearing comfort and excellent touch sensitivity. Also features patterned grip area and skin friendly inner flocked lining. Free from latex and phthalate. Largely resistant against diluted acids and alkali, alcohol, etc. Approx. 0.6 mm thick, length 700 mm.

Size	Art. No.	Pack Qty. (Pair)	€
M	8203.1	1	23,60
L	8204.1	1	23,60
XL	8206.1	1	23,60



Cat. III

Latex/neoprene combination gloves Bi-Colour™

By Ansell. Acc. to EN 420, EN 374, EN 388, EN 421, AQL 0.65. Double latex/neoprene outer coating, high-quality pure cotton inner flocklining. With protective cuff. Diamond-pattern grip profile for outstanding wet and dry grip. High resistance to salts and cleaning agents. Reliable protection against a wide range of chemicals.

Colour: green/yellow. Wall thickness 0.68 mm. Length 320 mm.

Size	Art. No.	Pack Qty. (Pair)	€
6½-7	YA59.1	12	36,55
7½-8	YA60.1	12	36,55
8½-9	YA61.1	12	36,55
9½-10	YA62.1	12	36,55
10½-11	YA63.1	12	36,55


Cat. III

Chloroprene gloves Camapren® 720

Acc. to EN 420, EN 388, EN 374, AQL 0,65. made of polychloroprene with natural latex layer. Profiled palms for secure grip even when handling wet, greasy and oily parts. Cotton flock lining. Forend with elastic edging. Highly elastic and flexible even at low depths temperatures.

Resistant to diluted and semi-concentrated acids, diluted to concentrate bases, saturated saline solutions, glycol and glycerol, long-chained alcohols, vegetable and animal fats and oils.

Length 290-310 mm, total layer thickness approx. 0,65 mm.

Size	Art. No.	Pack Qty. (Pair)	€
7	K347.1	2	10,45
8	K348.1	2	10,45
9	K349.1	2	10,45
10	K350.1	2	10,45
11	K351.1	2	10,45


Cat. III

Neoprene gloves Scorpio® 09-924

By Ansell. Acc. to EN 420, EN 388 and EN 374. AQL 1.5.

Black, neoprene-coated protective gloves, cotton jersey backed.

For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents.

Good abrasion and cutting resistance. Smooth grip profile. Length 350 mm. Standard size 10.

Applications: handling chemicals and petrochemicals, for degreasing and coating etc.

Art. No.	Pack Qty. (Pair)	€
XY14.1	1	23,60


Cat. III

Chloroprene gloves Tricopren® 723

Latex-free. Acc. to EN 420, 388, EN 374, AQL 0,65. Made of polychloroprene, with interior cotton lining. Highly resistant to mechanical and a variety of chemical hazards. Anatomic fit. The palm is ribbed for safe grip.

Suitable for working with diluted and semi-concentrated acids and diluted and concentrated alkaline solutions, for glycols and glycerins, long-chain alcohols, Perhydrol, aliphatic and alicyclic hydrocarbons.

Length approx. 300 mm. Total layer thickness 1.3 mm.

Size	Art. No.	Pack Qty. (Pair)	€
8	AA08.1	1	28,95
9	AA09.1	1	28,95
10	AA10.1	1	28,95
11	AA11.1	1	28,95


Cat. III

Neoprene gloves Scorpio® 09-022

By Ansell. Acc. to EN 420, EN 388, EN 374, EN 407 and EN 511. AQL 1.5.

Black, neoprene-coated protective gloves **with foam insulation**.

For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents.

Also suitable for working in hot and cold conditions. Suitable for short-time contact with liquids at temperatures from max. 180 °C to min. -25 °C. Not suitable for temperatures above 200 °C. Good abrasion and cutting resistance.

Smooth grip profile. Length 350 mm. Standard size 10.

Applications: handling chemicals and petrochemicals, for degreasing and coating etc.

Art. No.	Pack Qty. (Pair)	€
XY15.1	1	47,00

Chemical protection gloves



Cat. III

Nitopren®-gloves 717

Acc. to EN 420, 388 and EN 374. Made with 2 layers of material, top layer **chloroprene**, inner layer **nitril**, with thin velour coating. Anatomic fit. Has an extremely high resistance to a number of chemicals and to many aggressive gases. Highly flexible, also enable sensitive work. Secure grip when working with wet and oily objects. Very good mechanical resistance. Free of natural latex.

Suitable for the chemical and pharmaceutical industry, galvanic work. Length approx. 310 mm, thickness of layer approx. 0.65 mm.

Size	Art. No.	Pack Qty. (Pair)	€
7	ET40.1	2	10,55
8	ET41.1	2	10,55
9	ET42.1	2	10,55
10	ET43.1	2	10,55
11	ET44.1	2	10,55



Cat. III

Nitrile gloves Virtex™

By Ansell. Acc. to EN 420, EN 421, EN 388 and EN 374. Antistatic acc. to EN 1149.

Interior with new, extremely thin polymer-composite coating - Aquadri™. Give off fewer particles, absorb more moisture. Glove exterior is not chlorinated and is abraded for a better grip. Comfortable fit and extremely flexible.

Suitable for light assembly work and for working with parts which require a secure grip when dry, wet or oily: Light assembly work in contact with chemicals, the automotive industry, paint and spray jobs, working with solutions on an oil and hydrocarbon base. Thickness 0.225 mm, length approx. 310 mm.

Size	Art. No.	Pack Qty. (Pair)	€
7	HH73.1	5	11,30
8	HH74.1	5	11,30
9	HH75.1	5	11,30
10	HH76.1	5	11,30
11	HH77.1	5	11,30



Cat. III

Nitrile gloves Tricotril® 736

Acc. to EN 420, EN 388, EN 374, AQL 0.65. Anatomic fit, with profiled palm. Latex-free, authorized for food processing and preparation. With cotton tricot interior. **Suitable** for diluted and semi-concentrated acids, alkaline solutions, glycols and glycerin, long-chain alcohols, aliphatic and alicyclic hydrocarbons. Length approx. 300 mm. Total layer thickness 1.0 mm.

Size	Art. No.	Pack Qty. (Pair)	€
8	CH44.1	1	23,25
9	CH45.1	1	23,25
10	CH46.1	1	23,25
11	CH47.1	1	23,25



Cat. III

Nitrile gloves Sol-Vex® 37-900

By Ansell. Acc. to EN 420, EN 374, EN 388. AQL 0.065.

- Inside: with velour
- Outside: textured surface in palm
- Length 380 mm, wall thickness 0.425 mm
- Each glove is tested using compressed air
- Excellent protection against abrasion and puncture

Suitable for laboratory analyses, chemical applications, e.g. chemical processing, handling corrosive chemicals and chemical mixtures.

Size	Art. No.	Pack Qty. (Pair)	€
7	PA83.1	2	13,45
8	PA84.1	2	13,45
9	PA85.1	2	13,45
10	PA86.1	2	13,45
11	PA87.1	2	13,45

Chemical protection gloves



Nitrile gloves Sol-Vex®

By Ansell. Acc. to EN 420, EN 374, EN 388, AQL 0.65.

- Structured palm gives increased grip
- Colour green
- Suitable for foodstuffs

Applications: chemical processes, refining oil and petroleum, metalworking, agrochemicals and printing industry. Ideal for dry and wet work environments where chemical protection and high abrasion resistance are crucial.

① **Sol-Vex® 37-675: length 330 mm, wall thickness 0.38 mm**
Inner: with flocklining for improved wear comfort.

Size	Art. No.	Pack Qty. (Pair)	€
7	AXY9.1	12	35,70
8	AXX0.1	12	35,70
9	AXX1.1	12	35,70
10	AXX2.1	12	35,70
11	AXX3.1	12	35,70

② **Sol-Vex® 37-185: length 455 mm, wall thickness 0.5 mm**
Inner: without flocklining, therefore no contamination by flock fibres.

Size	Art. No.	Pack Qty. (Pair)	€
7	XX07.1	1	10,25
8	XX08.1	1	10,25
9	XX09.1	1	10,25
10	XX10.1	1	10,25
11	XX11.1	1	10,25



Camatril®-nitrile gloves

Acc. to EN 420, EN 388 and EN 374. AQL 0.65. Largely cut and puncture proof. Free of silicone and antibacterial. With high chemical resistance especially to oils, fats, solvents and fuels.

Camatril® 730: Length 310 mm, approx. 0.4 mm thick, flock lined.
Approved for foodstuffs.

Size	Art. No.	Pack Qty. (Pair)	€
7	Y452.1	2	9,80
8	Y453.1	2	9,80
9	Y454.1	2	9,80
10	Y455.1	2	9,80
11	Y456.1	2	9,80

Camatril® 732: Length 400 mm, approx. 0.4 mm thick, flock lined.
Approved for foodstuffs.

Size	Art. No.	Pack Qty. (Pair)	€
7	T923.1	2	17,15
8	A909.1	2	16,45
9	A910.1	2	16,45
10	A911.1	2	16,45
11	T924.1	2	17,15

Camatril® 733: Length 600 mm, approx. 0.5 mm thick

Size	Art. No.	Pack Qty. (Pair)	€
8	8197.1	1	30,25
9	8198.1	1	30,25
10	8199.1	1	30,25
11	8200.1	1	30,25

Resistance against chemicals-protective gloves

This table is meant as a **guideline when selecting the correct chemical protection gloves**.

All information is based on EN 374. Permeation is the molecular penetration through the glove material.

The time required by the chemical to permeate is listed in levels.

Attention:

The information in the table was established under laboratory conditions (new gloves, no additional mechanical strain, room temperature). As the conditions in everyday practical use often vary from the above conditions, the information is only meant as a guideline when choosing suitable chemical protection gloves. The table does not replace the need for suitability tests to be carried out by the end consumer. For this reason Carl Roth GmbH + Co. KG will not be held responsible and/or accept liability in connection with the information in the above list.

Permeation time (Level):

Level 1 >10 min	Level 4 >120 min	n.r. = no recommendation
Level 2 >30 min	Level 5 >240 min	
Level 3 >60 min	Level 6 >480 min	n.t. = not tested



► For a Chemical Resistance List of Gloves, see page 600-601

Chemical protection gloves



Cat. III

Nitrile gloves AlphaTec®

By Ansell. Acc. to EN 420, EN 388 and EN 374. AQL 0.65.

Evenly nitrile coated glove with seamless knit nylon liner. Textured finish provides excellent grip of wet and oily objects. Good finger mobility.

Suitable for: short-time use with chemicals, working with oily or greasy objects and materials, handling paints, inks, dyes, glues and adhesives, oil and petroleum refining.

① Length 300 mm, with safety cuff

Size	Colour	Art. No.	Pack Qty. (Pair)	€
7	black/grey	LY54.1	2	15,60
8	black/grey	LY55.1	2	15,60
9	black/grey	LY56.1	2	15,60
10	black/grey	LY57.1	2	15,60
11	black/grey	LY58.1	2	15,60

② Length 305 mm, with protection cuff

Size	Colour	Art. No.	Pack Qty. (Pair)	€
7	wine red/black	LY59.1	2	17,15
8	wine red/black	LY60.1	2	17,15
9	wine red/black	LY61.1	2	17,15
10	wine red/black	LY62.1	2	17,15
11	wine red/black	LY63.1	2	17,15



Cat. III

PVA®-solvent gloves

By Ansell. Acc. to EN 420, EN 388 and EN 374, AQL 1.0. Antistatic acc. to EN 1149. Red covered with a layer of polyvinylalcohol and flock lined.

Resistant against aromatic (xylene), chlorinated (tri, per) and other organic solvents. Sensitive to high temperatures. **Dissolve in water and fluids containing water!** Length 355 mm. Thickness 1.1 mm.

Size	Art. No.	Pack Qty. (Pair)	€
9	1681.1	1	37,45
10	NH46.1	1	37,45



Cat. III

Special gloves Barrier®

By Ansell. Compliant with EN 420, EN 374 and EN 388. AQL 0.065. Made of 5-ply HPPE-laminate. Anatomic-fitting chemical resistant PE gloves. For protection against a wide range of hazardous chemicals. Each glove is individually tested with compressed air. Thickness of PE film approx. 0.062 mm.

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
7	380	P157.1	1	15,60
8	385	LY64.1	1	15,60
9	390	N964.1	1	15,60
10	395	N965.1	1	15,60
11	410	P158.1	1	15,60



Cat. III

Butoject® 897+ butyl gloves

By KCL. Acc. to EN 420, EN 388 and EN 374. AQL 0.65.

Highly flexible and effective chemical protection gloves made of butyl rubber, suitable for work with esters and ketones, among other chemicals. Ideal for laboratory use.

- With special surface roughening for increased grip when handling wet objects
- Designed for tight fit, and therefore also suitable for precision work or as undergloves
- Excellent mechanical resistance and gas tightness
- Exceptional flexibility at low temperatures and good ozone resistance

With beaded cuff, powdered on the inside, length 350 mm, wall thickness 0.3 mm.

Size	Art. No.	Pack Qty. (Pair)	€
7	AXN0.1	1	45,50
8	AXN1.1	1	45,50
9	AXN2.1	1	45,50
10	AXN3.1	1	45,50
11	AXN4.1	1	45,50



Cat. III

Butyl-gloves Butoject® 898

Acc. to EN 420, EN 421, EN 388 and EN 374. AQL 0,65. For use in the chemical industry, at production sites of paint, lacquer, glue and plastics and for the production and use of herbicides. Resist short chained esters, ketones and aldehydes, diluted and concentrated acids and alkali, saturated saline solutions, alcohols, softeners etc. With roll-up cuff. Length approx. 350 mm, **0.7 mm thick**.

Size	Art. No.	Pack Qty. (Pair)	€
8	K626.1	1	29,00
9	A621.1	1	29,00
10	A622.1	1	29,00
11	A623.1	1	29,00



Cat. III

Viton-gloves Vitoject®

Made of 100 % fluororubber (Viton®). In accordance with EN 420, 388 and EN 374. AQL 0,65. Gastight. Anatomically formed, with roll-up cuff, smooth, powdered. Wide fit allows glove liners to be worn underneath. Suitable for working with particularly aggressive chemicals such as aliphatic, aromatic and chlorinated hydrocarbons, diluted and concentrated acids, saturated salt solutions, long-chain alcohols, glycol and glycerin, aniline, benzene etc. Not resistant against esters and ketones. **Please see chemical resistance table!** Length approx. 350 mm, 0.7 mm thick.

Size	Art. No.	Pack Qty. (Pair)	€
8	LH87.1	1	155,90
9	A398.1	1	155,90
10	A399.1	1	155,90
11	A400.1	1	155,90



Cat. III

Butyl-gloves

Acc. to EN 420, 388, 374. Thin chemical protection glove with rough surface in hand area to increase grip of smooth and wet objects. Good finger mobility and sens of touch. Long roll-up cuff. Unlined. Length 350 mm, **0.35 mm thick**.

Size	Art. No.	Pack Qty. (Pair)	€
7	CE42.1	1	31,75
8	CE43.1	1	31,75
9	CE44.1	1	31,75
10	CE45.1	1	31,75
11	CE46.1	1	31,75



Cat. III

Viton® II-gloves

Acc. to EN 420, 388 and 374. Thin gloves for chemical protection that are made out of a Viton®-top layer and Butyl-bottom layer, unlined. Very good flexibility and good touch sensitivity. Hand-specific form, rolled band on cuff. **Suitable for working with** aromatic, aliphatic and chlorinated hydrocarbons, organic and anorganic acids, alkaline solutions, animal fats and oils. Smooth surface, length 300 mm, thickness 0.3 mm.

Size	Art. No.	Pack Qty. (Pair)	€
7	CY66.1	1	76,25
8	CY67.1	1	76,25
9	CY68.1	1	76,25
10	CY69.1	1	76,25
11	CY70.1	1	76,25

Cut resistant gloves

Cut-resistant gloves

The cut-resistant gloves are controlled according to EN Standard 388 (mechanical risks). This standard defines four tests and determines the level. The levels illustrate the efficiency of a glove.

Test	Level 1	Level 2	Level 3	Level 4	Level 5
Abrasion resistance (cycles)	100	500	2000	8000	-
Cut resistance (factor)	1.2	2.5	5.0	10.0	20.0
Tear resistance (Newton)	10	25	50	75	-
Puncture resistance (Newton)	20	60	100	150	-

Abrasion resistance:

Number of test cycles required to fray test glove.

Cut resistance:

Number of test cycles required at constant speed to cut test glove.

Tear resistance:

Force required to tear test glove.

Puncture resistance:

Force required to puncture test glove with a standardized test product.



Cat. II

Multipurpose gloves SensiLite®

By Ansell. Acc. to EN 420 and EN 388 (003X). Lightweight multipurpose glove for work requiring selective abrasion resistance and a secure grip.

- Made of seamless nylon, with knitted welt and PU-coated fingertips
- Only the fingertips are coated, ensuring maximum breathability and good wear comfort
- Outstanding fit and good mobility allow precise handling of small objects
- For protection against skin abrasion
- Length 210-265 mm

Size	Art. No.	Pack Qty. (Pair)	€
7	LY23.1	12	30,10
8	LY24.1	12	30,10
9	LY25.1	12	30,10
10	LY26.1	12	30,10

Cut resistant gloves

Art. No.	Abrasion resistance	Cut resistance	Tear resistance	Puncture resistance	Page
0024.1 ff.	Level 2	Level 1	Level 3	Level 2	614
0025.1 ff.	Level 2	Level 1	Level 4	Level 3	614
CA01.1 ff.	Level 4	Level 3	Level 4	Level 0	611
CAN2.1 ff.	Level 2	Level 1	Level 4	Level 2	610
CC05.1 ff.	Level 3	Level 1	Level 4	Level 0	608
CYC0.1ff	Level 3	Level 5	Level 4	Level 0	612
E441.1 ff.	Level 1	Level 3	Level 4	Level 0	611
EA32.1 ff.	Level 0	Level 3	Level 4	Level 2	612
ECP7.1 ff.	Level 3	Level 5	Level 3	Level 1	613
ECT2.1 ff.	Level 3	Level 5	Level 4	Level 3	613
EP06.1 ff.	Level 3	Level 1	Level 3	Level 1	610
HE68.1 ff.	Level 2	Level 1	Level 2	Level 1	614
HH29.1 ff.	Level 2	Level 1	Level 3	Level 1	610
K290.1 ff.	Level 3	Level 1	Level 1	Level 1	614
K961.1 ff.	Level 3	Level 4	Level 4	Level 4	612
KL18.1 ff.	Level 4	Level 3	Level 4	Level 1	611
KL22.1 ff.	Level 3	Level 3	Level 4	Level 0	611
LY23.1 ff.	Level 0	Level 0	Level 3	-	608
PA77.1 ff.	-	Level 5	Level 4	Level 3	613
PT65.1 ff.	Level 4	Level 5	Level 4	Level 4	613
T076.1 ff.	Level 2	Level 1	Level 4	Level 0	609
T084.1 ff.	Level 1	Level 3	Level 4	Level 0	615
TT87.1 ff.	Level 2	Level 1	Level 1	Level 1	614
X797.2 ff.	Level 4	Level 1	Level 3	Level 1	609
XC93.1 ff.	Level 4	Level 1	Level 3	Level 1	610
XY00.1 ff.	Level 2	Level 1	Level 4	-	609
XY04.1 ff.	Level 4	Level 3	Level 4	Level 2	612
XY83.1 ff.	Level 4	Level 1	Level 3	Level 1	609



Cat. II

Knitted gloves PolyTRIX®

Acc. to EN 420, EN 388 (3140). Light protective gloves made of 70 % polyamide and 30 % cotton, white. Can be worn on both sides. Cellular, seamless knit, adapt to the skin. With elastic knitted cuff. Application range: Laboratory work, fine work, light assembly work.

Size	Art. No.	Pack Qty. (Pair)	€
7	CC05.1	5	15,60
8	CC06.1	5	15,60
9	CC07.1	5	15,60
10	CC08.1	5	15,60

Cut resistant gloves



Stringknits™ multipurpose gloves

By Ansell. Acc. to EN 420, EN 388 (2140). Seamless knit gloves made of lightweight nylon (soft, comfortable, flexible and low-fluff). With knitted welt. Breathable. Ambidextrous. Colour: white. Length 190-235 mm. Washable up to max. 40 °C.

Applications: general work, precision work, precision assembly of dry components and packing work. Also suitable as undergloves.

Size	Art. No.	Pack Qty. (Pair)	€
7	XY00.1	12	23,40
8	XY01.1	12	23,40
9	XY02.1	12	23,40
10	XY03.1	12	23,40



Knitted safety gloves PolyTRIX® B

Acc. to EN 420, EN 388 (2140). Light safety gloves made of polyamide. Skin-friendly, breathing gloves. Good fit with elastic knitted welt, seamless. Length 230 mm.

Size	Art. No.	Pack Qty. (Pair)	€
7	T076.1	5	17,75
8	T077.1	5	17,75
9	T078.1	5	17,75
10	T079.1	5	17,75



Sekuroka®-finely-knitted gloves

Acc. to EN 420 and EN 388 (4131). Made of nylon, white. Protect against cuts and pricks. With polyurethane coating on the palm of the hand. Elasticated knitted welt. Seamless. Is silicone-free. Washable max. 30 °C.

Size	Art. No.	Pack Qty. (Pair)	€
6	X797.2	12	20,40
7	X798.2	12	20,40
8	X799.2	12	20,40
9	EH70.2	12	20,40
10	EH71.2	12	20,40



Multipurpose gloves SensiLite® type 48-101

By Ansell. Acc. to EN 420, EN 388 (4131). Rugged finely knitted nylon gloves, with knitted welt and polyurethane-coated palm. Colour: black. Length 210-265 mm. For protection against chafing. Good mobility for handling small parts.

Applications: general work, assembly, inspection and packing of small components.

Size	Art. No.	Pack Qty. (Pair)	€
6	XY83.1	12	34,15
7	XY84.1	12	34,15
8	XY85.1	12	34,15
9	XY86.1	12	34,15
10	XY87.1	12	34,15
11	XY88.1	12	34,15

► Cutproof-protective sleeves, see page 615

Cut resistant gloves



Cat. II

Anti-static gloves Camapur® Comfort

Acc. to EN 420, EN 388 (2131), EN 1149 Part 1 and 2. Made of polyamide with copper thread. Polyurethane coating on palm of the hand, back of the hand is not coated. With knitted cuff. Good fit and sensitivity. Fulfills all the requirements for classification as an anti-static glove. Values in compliance with EN 1149: Part 1 $<10^6$ surface resistance, Part 2 $<10^6$ volume resistance. Suitable for assembly work in the electro-industry or handling and processing chips. Washable, anti-static properties do not dwindle away.

Size	Art. No.	Pack Qty. (Pair)	€
7	HH29.1	5	36,05
8	HH30.1	5	36,05
9	HH31.1	5	36,05
10	HH32.1	5	36,05



Cat. II

HyFlex® Foam knitted gloves

By Ansell. Acc. to EN 420, EN 388 (3131). Seamless, knitted, multi-purpose gloves made of elastic nylon. Dip coated with specially foamed, breathable nitril except on back of hand.

- With excellent freedom of movement
- Excellent grip
- Ideal for handling dry or slightly oiled components
- Offers some protection when working with mechanical parts
- High abrasion resistance

Areas of application: light assembly work in the automobile, plastic, textile and consumer goods industry, warehouse and logistics work. All substances in compl. with FDA 21 CFR 177.2600. Washable max. 40 °C.

Size	Art. No.	Pack Qty. (Pair)	€
7	EP06.1	2	10,55
8	EP07.1	2	10,55
9	EP08.1	2	10,55
10	EP09.1	2	10,55



Cat. II

Showa Grip Green 310 protective gloves

By SHOWA BEST GLOVE. Acc. to EN 420, EN 388 (2142). Seamless polyester/cotton fabric with latex coated palm and elasticated cuff. A flexible and robust glove offering great dexterity and good resistance to tearing.

- Breathable back for reduced moisture
- Suitable for use in wet and moist environments
- Surface is specially treated for a more tactile feel and better grip
- Anatomically shaped for greater freedom of movement and extra comfort during extended periods of wear

Applications: farming, gardening, construction, outdoor work.

Size	Art. No.	Pack Qty. (Pair)	€
7 (S)	CAN2.1	10	38,65
8 (M)	CAN3.1	10	38,65
9 (L)	CAN4.1	10	38,65
10 (XL)	CAN5.1	10	38,65
11 (XL)	CAN6.1	10	38,65



Cat. II

phynomic M1 WET cut resistant gloves

By UVEX. Acc. to EN 420, EN 388 (4131). Made of polyamide/Elasthan, Aqua-Polymer foam coating on palm and fingers. With knitted welt.

- Absolute cleanliness - **uvex pure standard**, excellent skin tolerability
- Perfect fit, outstanding natural feel
- Maximum flexibility
- Outstanding dry and wet grip
- Oil/emulsions roll off, oil is absorbed
- High breathability ensures optimum wear comfort
- Length 210-250 mm

Suitable for precision work, fine assembly work, general maintenance work, dry areas and moist/oily working conditions.

Size	Art. No.	Pack Qty. (Pair)	€
7	XC93.1	2	12,85
8	XC94.1	2	12,85
9	XC95.1	2	12,85
10	XC96.1	2	12,85

Cut resistant gloves



Cut resistant gloves Camapur®

Acc. to EN 420, EN 388 (3340).

- Made of polyethylene (HPPE), seamless tricot with knitted welt
- High touch sensitivity and mechanical load, extremely comfortable
- Good cut protection value
- Washable up to 40 °C
- Areas of application: e.g. electro-industry, precision mechanics and metal processing and manufacturing or as a cut-resistant glove liner
- Length approx. 240 mm

Size	Art. No.	Pack Qty. (Pair)	€
7	KL22.1	1	11,80
8	KL23.1	1	11,80
9	KL24.1	1	11,80
10	KL25.1	1	11,80



Cut resistant gloves 542X HPPE Fit

Acc. to EN 420 and EN 388 (4340). Seamless knit gloves made from polyethylene (HPPE). Without coating, thin and flexible, good protection against cutting. Excellent for precision working. Washable at 40 °C with a neutral washing powder. (The performance level according to standard EN 388 is no longer guaranteed after washing).

Size	Art. No.	Pack Qty. (Pair)	€
7	CA01.1	1	12,90
8	CA02.1	1	12,90
9	CA03.1	1	12,90



Cut resistant gloves K-MEX®

Acc. to EN 420 and EN 388 (1340). Made of Para-Aramid. Medium knit-strength. Fit both hands, breathing. Facilitates long, non-fatiguing work. High touch sensitivity. Washable. Used for all kinds of assembly works, metal processing, chemical and plastic industry.

PVC spotted for excellent wet grip

Size	Art. No.	Pack Qty. (Pair)	€
7	E441.1	1	15,80
8	E442.1	1	15,80
9	E443.1	1	15,80
10	E444.1	1	15,80



Protective gloves Camapur® Cut

Acc. to EN 420, EN 388 (4341).

- Seamless tricot made of Polyethylene (HPPE-fibre), with knitted welt and thin Polyurethane-layer
- The back of the hand remains uncovered, minimizes sweating of hand
- Very high cut protection value
- High touch sensitivity and mechanical load, extremely comfortable
- Good grip even when handling wet and slippery objects
- Approx. 1.2 mm thick, length approx. 240 mm

Size	Art. No.	Pack Qty. (Pair)	€
7	KL18.1	2	32,20
8	KL19.1	2	32,20
9	KL20.1	2	32,20
10	KL21.1	2	32,20

Cut resistant gloves



Cut protection gloves T-Flex

Acc. to EN 420 and EN 388 (0342). Very thin glove made of Polyethylene. Offers high protection against cuts, very good tactile touch and high finger sensitivity. Circular knit, can be worn on both hands. Universal use, e.g. for sharp-edged glass or metal parts. Suitable for either working with or for processing food.

Size	Art. No.	Pack Qty. (Pair)	€
7	EA32.1	1	23,60
8	EA33.1	1	23,60
9	EA34.1	1	23,60
10	EA35.1	1	23,60



HyFlex®-cut resistant gloves type 11-624

By Ansell. Acc. to EN 420, EN 388 (4342). Grey backing material Polyethylene (ultra-high-molecular-weight PE), Elasthan (Lycra®), nylon. Polyurethane coated palm. With knitted welt.

- Comfortable gloves with good mobility
- Pleasant to wear, also suitable for prolonged work use
- Special polyurethane coating offers flexibility and fit, as well as secure grip on dry and slightly oily objects
- High cutting resistance for safe handling and assembly of sharp-edged parts
- Length 220-270 mm

Applications: glass production, handling sharp-edged objects, preassembly, cutting dry or slightly oily small parts, maintenance work etc.

Size	Art. No.	Pack Qty. (Pair)	€
7	XY04.1	1	12,65
8	XY05.1	1	12,65
9	XY06.1	1	12,65
10	XY07.1	1	12,65



NEU
NOUVEAU
NEW



Cut resistant gloves NevoCut® 923

By KCL by Honeywell. Acc. to EN 420, EN 388 (3540). Made of seamless tricot (polyamide and high-strength polyethylene HPPE fibre) with knitted welt.

Very high level of protection against cutting (Level 5), without limiting mobility. Excellent tactile sensitivity and high wearing comfort. Can be worn on both hands, washable. Length 250 mm.

Applications: work which involves a high risk of cutting, e.g. work with scalpels or doctor blade. Suitable for contact with foodstuffs.

Size	Art. No.	Pack Qty. (Pair)	€
7	CYC0.1	1	17,45
8	CYC1.1	1	17,45
9	CYC2.1	1	17,45
10	CYC3.1	1	17,45



Cut resistant gloves K-TEX®

Acc. to EN 420 and EN 388 (3444). Coated. Made of 100 % Kevlar®. Finger tips and inner surface dipped in natural latex. Excellent flexibility and grip. Comfortable to wear. Washable. Total length 250 mm. Ideal for following applications: metal processing, glass industry, plastic industry, etc. Heavy-weight glove.

Size	Art. No.	Pack Qty. (Pair)	€
7	K961.1	1	18,25
8	K962.1	1	18,25
9	K963.1	1	18,25
10	K964.1	1	18,25



NEU
NOUVEAU
NEW



Cut resistant gloves 8110 D-Flex

By SHOWA BEST GLOVE. Acc. to EN 420, EN 388 (3543) Acc. to Reg. (EC) 1935/2004 - suitable for contact with foodstuffs. Seamless fabric made of high-performance polyethylene (HPPE, Spectra fibres). Uncoated, untreated. With elasticated cuff. Ambidextrous.

- Active protection against cutting and long life
- Excellent dexterity and tactile feel
- Minimum allergy risk
- No skin irritation by stitching
- High freedom of movement of wrist joint
- 240 mm long.

Areas of use:

Work requiring a high level of protection against cutting and dexterity. Food processing.

Size	Art. No.	Pack Qty. (Pair)	€
6	ECT2.1	1	28,50
7	ECT3.1	1	28,50
8	ECT4.1	1	28,50
9	ECT5.1	1	28,50
10	ECT6.1	1	28,50



NEU
NOUVEAU
NEW



Heat and cut resistant gloves 240

By SHOWA BEST GLOVE. Acc. to EN 420, EN 388 (3531), EN 407 (42212X) Seamless fine knit made of Kevlar®, modacrylic, glass fibre with foam neoprene palm.

- Flame resistant materials
- Kevlar backing fabric offers high cutting resistance: Level 5
- Flat dipped neoprene coating ensures extra-secure grip
- The ergonomic design matches the natural shape of the hand and thus reduces operator fatigue and improves fit and wearing comfort
- Protection against arcing: arcing protection class 2
- 240 mm long.

Range of uses:

Work requiring a high level of protection against cutting and heat. Building trade, metallurgy, oily working conditions.

Size	Art. No.	Pack Qty. (Pair)	€
7 (S)	ECP7.1	1	21,45
8 (M)	ECP8.1	1	21,45
9 (L)	ECP9.1	1	21,45
10 (XL)	ECT0.1	1	21,45
11 (XXL)	ECT1.1	1	21,45



Protective gloves PROTECTOR CHEMICAL

By UVEX. Acc. to EN 374 and EN 388 (4544).

- Multi Layer Technology provides optimal chemical/cut protection Cotton/polyethylene (HPPE)/glass and double nitrile rubber coating
- Comfortable, anatomically shaped glove
- Coarse surface for secure grip

Suitable for chemicals industry, machine and tool making, work involving cutting hazards and protection from chemicals.

Length 270 mm

Size	Art. No.	Pack Qty. (Pair)	€
9	PT65.1	1	67,65
10	PT66.1	1	67,65

Length 400 mm

Size	Art. No.	Pack Qty. (Pair)	€
9	PT67.1	1	82,70
10	PT68.1	1	82,70



Cut resistant gloves PowerFlex®

By Ansell. Acc. to EN 388 (X543), EN 407.

- Excellent protection against cuts, abrasion and puncture
- Made of steel, nylon, fiber-glass, cotton and Kevlar®
- Safe grip with rough coat of natural rubber
- ¾ coated, liquid-repellent
- Blue coating on green flecked base
- Length 260-295 mm
- Extended knitted wrist for ideal forearm protection
- Machine washable

Suitable for handling broken glass, sharp metal edges, waste separation (glass, tin cans, metallic parts, etc.).

Size	Art. No.	Pack Qty. (Pair)	€
6	PA77.1	1	21,45
7	PA78.1	1	21,45
8	PA79.1	1	21,45
9	PA80.1	1	21,45
10	PA81.1	1	21,45
11	PA82.1	1	21,45

Work gloves



Sekuroka® safety gloves E and S

① Sekuroka® safety gloves E

Acc. to EN 420, EN 388 (2132). Grey split cowhide leather, does not include rubber cord. Cuffs and backs made of green drill. Length approx. 260 mm

Size	Art. No.	Pack Qty. (Pair)	€
10.5	0024.1	5	15,00

② Sekuroka® safety gloves S

Acc. to EN 420, EN 388 (2143). Made of beige-coloured, soft full grain leather, fleece lined, with rubber cord. Cuff and back made of green drill. Full leather reinforced palm, thumb and index finger. Length approx. 270 mm

Size	Art. No.	Pack Qty. (Pair)	€
10	0025.1	2	16,60



Protective gloves Sahara®

Acc. to EN 420 and EN 388 (3111). Made of cotton. The **high-quality nitrile coating** guarantees excellent physical properties. Gloves are light, flexible and robust and provide safe and comfortable protection during mechanical stress. For example, protect against puncture injuries and cuts. Made of cotton tricot and without coating on back of hands gloves have excellent touch sensitivity and are comfortable to wear.

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
7	ca. 235	K290.1	2	11,30
8	ca. 250	K291.1	2	11,30
9	ca. 255	K292.1	2	11,30
10	ca. 265	K293.1	2	11,30



Working gloves RewoMech®

Acc. to EN 420, EN 388 (2121). Grey/black. Good alternative to conventional leather gloves.

- Breathable backing fabric made of 97 % polyester with 3 % elastane
- Palm reinforced with resistant synthetic leather (60 % polyamide / 40 % polyurethane)
- Thumb back with cotton wool Terry cloth for sweat absorption
- Cuff with Velcro fastening system for secure fit
- Strong grip even when parts are wet
- Good fit enables long and fatigue-free working
- Sensitive, therefore ideal for working with filigree objects
- Vent holes between the fingers
- Flexible to cold up to approx. max -20 °C
- Temperature resistant up to approx. max 130 °C
- Length approx. 240-260 mm, 0.70 mm thick

Size	Art. No.	Pack Qty. (Pair)	€
7	HE68.1	2	30,00
8	HE69.1	2	30,00
9	HE70.1	2	30,00
10	HE71.1	2	30,00
11	HE72.1	2	30,00



Protective gloves Man at Work®

In acc. to EN 420, EN 388 (2111). Made of cotton with nitrile coating and canvas cuff. Knuckle protection and elastic back. Rugged design.

Ideal replacement for leather gloves.

High flexibility compared to leather, good thermal flexibility. High breathability. Oil, grease and moisture repellent. Provides good grip on smooth surfaces. Washable up to 30 °C. Length: 260-280 mm, thickness: 1,25 mm.

Applications: craft trades, forestry and agriculture, construction and machinery sector, metalworking.

Size	Art. No.	Pack Qty. (Pair)	€
8	TT87.1	2	12,60
9	TT88.1	2	12,60
10	TT89.1	2	12,60
11	TT90.1	2	12,60



Cat. I

Sekuroka®-cotton gloves

Finely woven, made of pure cotton, with high stretch capacity. Anatomic thumb. Colour white.

Size	Art. No.	Pack Qty. (Pair)	€
ladies' size 7	0514.1	6	17,15
men's size 11	0557.1	6	17,15



Chain stitch gloves

Acc. to EN 1082. Protect hands against **cuts, punctures and bites**. Made completely from high-grade steel. Can be thoroughly cleaned of all residue and easy to disinfect. Adjustable clasp on cuff for optimal fit. This new dual-closure-system enables the same glove to be worn by left- or right-handed users. Ring \varnothing 4.2 mm, wire thickness 0.55 mm.

Size	Art. No.	Pack Qty.	€
S	K173.1	1	105,90
M	K174.1	1	105,90
L	K175.1	1	105,90



Cat. I

Sekuroka®-glove liners

Mutton cloth made of cotton, natural-coloured. Thin and stretchable, one size only. Protect sensitive skin, make unlined gloves easier to pull on and off. Protect against cold or heat and prevent molten rubber/plastic of burned gloves from sticking to skin.

Size	Art. No.	Pack Qty. (Pair)	€
10	0068.1	6	7,50

► Film gloves for wearing under chain gloves see page 589



Cat. II

Arm protectors ArMEX

Acc. to EN 388. Made of Para-Aramid. With thumb-hole for good fit. Protect the forearm **against cuts** and **temperatures to 100 °C**. Washable.

Size (mm)	Length (mm)	Art. No.	Pack Qty.	€
2	360	T084.1	2	18,60
3	420	TT10.1	2	20,45



Cat. II

Sekuroka®-nappa leather gloves

Acc. to EN 420. For cold and hot conditions, comfortable fit, not fully tear- and waterproof.

Size	Art. No.	Pack Qty. (Pair)	€
8	1744.1	2	12,90
9	1747.1	2	12,90
10	1748.1	2	12,90

Cold resistant gloves

Cold protection gloves

Tested according to **EN 511 standard (gloves for protection against the cold)**. This applies to all gloves designed for protection of the hand against convective and contact cooling to -50 °C. The standard defines three performance indicators in conjunction with specific protective properties.

A: Resistance to convective cooling (performance levels 0-4)

Thermal insulation against through-cooling, measured by convection transfer.

B: Contact cooling (performance levels 0-4)

Thermal insulation of the glove material in direct contact with a cold object.

C: Waterproofing (0 or 1)

The test for water-tightness is voluntary.

0 = water penetration

1 = no water penetration

X = the glove was not submitted for testing, or the test or test method is not appropriate or irrelevant.

Cold protection gloves

Art. No.	Performance indicators according to EN 511		
	A	B	C
0922.1ff	3	2	x
5233.1f	1	1	x
CC00.1ff	1	2	x
EA80.1f	1	0	0
K970.1ff	1	2	1
KH93.1ff	3	2	1
KL11.1ff	3	3	1
T664.1ff	3	2	1
XE54.1f	1	1	1
XY15.1	1	1	1

In addition all gloves must achieve at least performance level 1 for abrasive resistance and tear strength according to EN 388 (protection against mechanical risks).

Performance indicators according to EN 388

Art. No.	Abrasive resistance	Cutting resistance	Tear resistance	Penetration force
0922.1ff	1	3	2	3
5233.1f	1	x	4	x
CC00.1ff	2	1	2	1
EA80.1f	3	1	4	x
K970.1ff	3	2	2	1
KH93.1ff	1	3	2	3
KL11.1ff	3	2	2	2
T664.1ff	1	2	2	3
XE54.1f	3	3	4	1
XY15.1	3	2	3	2



Resistant gloves proFood® Insulated

By Ansell. Acc. to EN 420, EN 388, EN 511 and EN 407.

- With special hollow fibers for working in cold and hot conditions
- Draw off moistness from skin and forms a heat insulation barrier between skin and surroundings
- Light and pliable, can be worn on both hands
- Seamless design prevents rubbing and skin irritation
- Made of material which is also suitable for handling food
- Machine washable up to 40 °C
- Protection against exposure up to 100 °C: max. 15 sec

Recommended areas of application:

- Gloves can also be worn to protect against cold or frost, e.g. non-sterile working with dry food
- As a glove liner when working with meat or fish

Size	Art. No.	Pack Qty. (Pair)	€
7	EA80.1	2	12,90
9	EA81.1	2	12,90



Sekuroka®-deep freeze gloves

Acc. to EN 420, EN 388 and EN 511. Heavyweight, made of dense, knitted white an impregnating cotton and terry towel like outer structure.

Size	Art. No.	Pack Qty. (Pair)	€
8 / S (red braid)	5233.1	1	42,95
9 / M (blue braid)	2086.1	1	42,95

Cold resistant gloves



Cat. II

Winter Monkey Grip®-work gloves

By Ansell. Acc. to EN 388, EN 420, EN 511.

- PVC dip coated with foam insulation
- Keeps hands warm and dry and protects against chafing
- Oil and grease repellent
- Excellent grip and abrasion resistance
- Maintains flexibility even at subzero temperatures
- With protective cuff

Applications: working with oily or greasy objects and materials, working with chemical containers at low temperatures, transporting oil in winter, cold storage room and warehouse maintenance.

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
10	265	XE54.1	1	15,95
11	295	XE55.1	1	15,95



Cat. II

Ice Grip® cold resistant gloves

Acc. to EN 511 and EN 388. RAL-certified, suitable for use in the food industry. Made of PVC, inner lining made of breathable Thinsulate®. Very good grip, especially of wet parts, due to special slipstop coating on palm. Moisture repellent. The knitted wrist stops cold from getting into the glove. Cold-stable to max. -50 °C.

Size	Art. No.	Pack Qty. (Pair)	€
7	CC00.1	1	12,90
8	CC01.1	1	12,90
9	CC02.1	1	12,90
10	CC03.1	1	12,90



Cat. II

Cold resistant gloves Cama Iso® 690+

Acc. to EN 420, EN 388, EN 511. Made of PVC. Specially developed for working in cold. Extremely comfortable, abrasion-proof and highly flexible. With seamless, warm cotton lining inside. Impervious to fluids. Textured surface for secure grip when handling wet parts. Length approx. 300 mm, total layer thickness approx. 3.5 mm. Stable to approx. -20 °C.

Size	Art. No.	Pack Qty. (Pair)	€
9	K970.1	1	24,65
10	K971.1	1	24,65



Cat. III

Neoprene gloves Scorpio® 09-022

By Ansell. Acc. to EN 420, EN 388, EN 374, EN 407 and EN 511. AQL 1.5. Black, neoprene-coated protective gloves with foam insulation. For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents.

Also suitable for working in hot and cold conditions. Suitable for short-time contact with liquids at temperatures from max. 180 °C to min. -25 °C. Not suitable for temperatures above 200 °C. Good abrasion and cutting resistance.

Smooth grip profile. Length 350 mm. Standard size 10.

Applications: handling chemicals and petrochemicals, for degreasing and coating etc.

Art. No.	Pack Qty. (Pair)	€
XY15.1	1	47,00

Cold resistant gloves



Cryo-Gloves®-cold resistant gloves

By Tempshield. Acc. to EN 420, EN 388 and EN 511. Provides protection in extremely cold temperature ranges up to -160 °C. Autoclavable. Suitable for handling dry ice (-79 °C), for working in the gas phase of cryogenic media, such as **liquid nitrogen in the gas phase**.

Attention: Do not submerge in cryogenic liquids! Material: Semi-permeable skin made of sewn nylon. Seamless, laminated inside. Light polyolefin/ polyester lining in cotton-knit inner glove.

Type ① and ② for applications in the laboratory:

- Filling and decanting from large tanks to Dewars
- Shock freezing and deep freezing
- Filling cryo traps and metrological devices
- Cryo banks, blood banks
- Deep-freeze conservation

Model ①: Standard design, water repellent

With knitted trim

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
S (8 - 8½)	290, wrist length	0922.1	1	165,55
M (9 - 9½)	320, wrist length	0923.1	1	165,55
L (10 - 10½)	320, wrist length	0924.1	1	165,55

With cuffs

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
S (8 - 8½)	345, forearm length	0926.1	1	170,95
M (9 - 9½)	345, forearm length	0927.1	1	170,95
L (10 - 10½)	390, forearm length	0928.1	1	170,95
XL (11 - 11½)	390, forearm length	0929.1	1	179,55
M (9 - 9½)	440, elbow length	5462.1	1	222,55
L (10 - 10½)	485, elbow length	5468.1	1	222,55
XL (11 - 11½)	485, elbow length	5483.1	1	227,90
M (9 - 9½)	625, shoulder length	5506.1	1	256,95
L (10 - 10½)	685, shoulder length	5508.1	1	256,95
XL (11 - 11½)	685, shoulder length	5511.1	1	263,40

Model ②: 100 % waterproof design, with additional seamless inner glove.

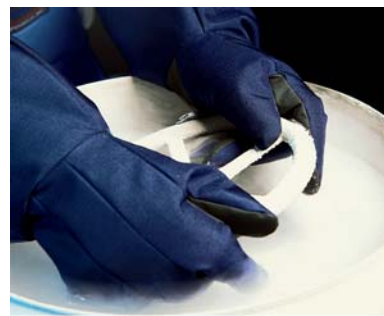
For long-term work in the gas phase and when there is a danger of exposure to liquids, e.g. also to infectious or toxic substances. Possible penetration through seams at fingers is prevented.

With knitted trim

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
S (8)	approx. 290, wrist length	KH93.1	1	217,15
M (9)	approx. 320, wrist length	KH94.1	1	217,15
L (10)	approx. 320, wrist length	KH95.1	1	217,15
XL (11)	approx. 320, wrist length	KH96.1	1	221,45

With cuffs

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
S (8)	approx. 345, forearm length	T664.1	1	219,30
M (9)	approx. 345, forearm length	T665.1	1	219,30
L (10)	approx. 390, forearm length	T666.1	1	219,30
XL (11)	approx. 390, forearm length	T667.1	1	224,70
M (9)	approx. 440, elbow length	KH97.1	1	265,55
L (10)	approx. 485, elbow length	KH98.1	1	265,55
XL (11)	approx. 485, elbow length	KH99.1	1	269,85
M (9)	approx. 625, shoulder length	KL00.1	1	324,65
L (10)	approx. 685, shoulder length	KL01.1	1	324,65
XL (11)	approx. 685, shoulder length	KL02.1	1	331,10



Cryo-Industrial® cold resistant gloves

By Tempshield. Design according to Cryo-Gloves®-cold resistant gloves.

Model ③: Industrial design 100 % waterproof:

Specially for industrial applications, hard-wearing and robust. Ideal for applications where wear resistance, durability and good grip are necessary. Inner glove consists of three layers (two insulating layers and lining). There is an additional 100 % waterproof seamless inner glove between the outer layer and the insulating layers.

Areas of application: Chemical/pharmaceutical (cryogenic product cooling), food technology (cryogenic freezing processes, pelletising), metal processing industry (cold dilation and shrinkage), maintenance and repair work to cryo-systems, during cryo-cleaning processes, technical gas industry (decanting cryogenic gases, argon, oxygen, nitrogen, helium).

With cuffs, forearm length

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
M (9)	ca. 400	KL11.1	1	231,15
L (10)	ca. 400	KL12.1	1	231,15
XL (11)	ca. 400	KL13.1	1	235,45

With wide cuffs, elbow length

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
M (9)	ca. 500	YL11.1	1	349,40
L (10)	ca. 500	YL12.1	1	349,40
XL (11)	ca. 500	YL13.1	1	356,90

Heat resistant gloves

Heat protection gloves

Tested according to **EN 407 standard** (gloves for protection against the thermal risks). The standard defines six performance indicators in conjunction with specific protective properties and performance levels from 0-4.

- A: Flammability
- B: Contact heat
- C: Convective heat
- D: Radiation heat
- E: Small amounts of molten metal spatter
- F: Small amounts of liquid metal

Heat protection gloves

Art. No.	Performance indicators					
	A	B	C	D	E	F
0745.1	4	2	2	2	x	x
6584.1ff.	x	2	x	x	x	x
ALA1.1ff.	x	1	x	x	x	x
ALA3.1ff.	x	1	x	x	x	x
APX6.1ff.	4	1	3	4	4	4
CNH6.1	4	2	3	4	4	4
ECP7.1ff.	4	2	2	1	2	x
H297.1ff.	4	3	4	2	x	x
HE74.1	4	3	x	2	x	x
HE75.1	4	4	x	2	2	4
HE76.1	4	4	x	2	1	x
LY89.1ff.	x	2	x	x	x	x
TT82.1	4	1	3	4	4	4
TT84.1ff.	4	2	4	3	x	x
TX89.1	4	3	4	3	x	x
XE56.1	4	1	3	x	4	x
XY15.1	3	2	x	x	x	x
Y351.1ff.	x	2	4	2	x	x
Y431.1ff.	4	2	4	1	x	x

In addition, all gloves must achieve at least performance level 1 for abrasive resistance and tear strength according to EN 388 (protection against mechanical risks).

Performance indicators according to EN 388

Art. No.	Abrasive resistance	Cutting resistance	Tear resistance	Penetration force
0745.1	1	x	2	x
6584.1ff.	1	x	1	x
ALA1.1ff.	1	x	1	x
ALA3.1ff.	1	x	1	x
APX6.1ff.	1	x	2	x
CNH6.1	3	4	4	3
ECP7.1ff.	3	5	3	1
H297.1ff.	4	x	1	x
HE74.1	1	5	4	x
HE75.1	2	3	x	x
HE76.1	1	x	2	2
LY89.1ff.	3	2	3	2
TT82.1	4	x	4	x
TT84.1ff.	1	4	4	1
TX89.1	2	4	4	2
XE56.1	3	2	4	3
XY15.1	3	2	3	2
Y351.1ff.	2	2	4	1
Y431.1ff.	1	4	4	1



Sekuroka®-heat protection gloves

Acc. to EN 420, EN 388 and EN 407. Made of polyamide fibres Nomex® by DuPont. Long product life, good form stability, very comfortable fit, highly flame and chemical resistant. The finely-knitted jersey quality gloves are suitable for precision work. Washable at max. +95 °C.

Protect against exposure to max contact heat of:

- 100 °C: max. 26 sec
- 250 °C: max. 7.6 sec

Size	Length (mm)	Art. No.	Pack Qty. (Pair)	€
6½	260	ALA1.1	1	29,60
7½	260	0138.1	1	29,60
8	260	0141.1	1	29,60
8½	260	0143.1	1	29,60
9	260	ALA2.1	1	29,60
6½	350	ALA3.1	1	40,45
7½	350	0145.1	1	40,45
8	350	0147.1	1	40,45
8½	350	0148.1	1	40,45
9	350	ALA4.1	1	40,45



Sekuroka®-5-finger gloves

Acc. to EN 420, EN 388 and EN 407. Made of polyamide Nomex® from DuPont. Ideal for protection against flames and heat. Size 10½.

Protective capacity on contact with heat:

- 60,5 sec at 100 °C
- 4,7 sec at 250 °C

Length (mm)	Art. No.	Pack Qty. (Pair)	€
270	6584.1	1	41,85
350	6599.1	1	45,70
400	6604.1	1	57,00

Heat resistant gloves



NEU
NOUVEAU
NEW



Cat. II

Heat and cut resistant gloves 240

By SHOWA BEST GLOVE. Acc. to EN 420, EN 388 (3531), EN 407 (42212X) Seamless fine knit made of Kevlar®, modacrylic, glass fibre with foam neoprene palm.

- Flame resistant materials
- Kevlar backing fabric offers high cutting resistance: Level 5
- Flat dipped neoprene coating ensures extra-secure grip
- The ergonomic design matches the natural shape of the hand and thus reduces operator fatigue and improves fit and wearing comfort
- Protection against arcing: arcing protection class 2
- 240 mm long.

Range of uses:

Work requiring a high level of protection against cutting and heat. Building trade, metallurgy, oily working conditions.

Size	Art. No.	Pack Qty. (Pair)	€
7 (S)	ECP7.1	1	21,45
8 (M)	ECP8.1	1	21,45
9 (L)	ECP9.1	1	21,45
10 (XL)	ECT0.1	1	21,45
11 (XXL)	ECT1.1	1	21,45



Cat. III

Neoprene gloves Scorpio® 09-022

By Ansell. Acc. to EN 420, EN 388, EN 374, EN 407 and EN 511. AQL 1.5. Black, neoprene-coated protective gloves **with foam insulation**. For protection against a wide range of bases, acids, alcohols and diluted aqueous solvents.

Also suitable for working in hot and cold conditions. Suitable for short-time contact with liquids at temperatures from max. 180 °C to min. -25 °C. Not suitable for temperatures above 200 °C. Good abrasion and cutting resistance.

Smooth grip profile. Length 350 mm. Standard size 10.

Applications: handling chemicals and petrochemicals, for degreasing and coating etc.

Art. No.	Pack Qty. (Pair)	€
XY15.1	1	47,00



Cat. II

Clavies™-autoclavable gloves

Acc. to EN 420, EN 388, and EN 407. Made of 100 % cotton terry cloth. Anatomic glove cut. Temperature stable up to 232 °C. Ideal when handling autoclavable material. Machine washable. Can be tumble-dried at max. 70 °C.

Overall length (mm)	Cuff length (mm)	Art. No.	Pack Qty. (Pair)	€
330	130	Y351.1	1	37,45
470	280	Y352.1	1	52,50



Cat. III

KarboTECT® heat resistant gloves

Acc. to EN 420, EN 388, EN 407. Made of para-aramide, carbon and wool. Heavy knit.

- Good thermal insulation
- High cutting resistance
- Good and tight fit for exact and precise handling
- Good wearing comfort thanks to cotton inner glove
- Reduced static charging

Applications: laboratories, heating and drying ovens, metal production and metalworking, commercial bakeries, retooling hot machines, refineries, all dry contact heat environments.

With knitted welt, length 250 mm.

Good thermal protection up to 250 °C. Washable up to 30 °C.

Size	Art. No.	Pack Qty. (Pair)	€
7	Y431.1	1	33,90
9	Y432.1	1	33,90
10	Y433.1	1	33,90

With leather cuff, length 390 mm.

This combination allows work to be carried out at temperatures of up to 350 °C and protects large areas of the lower arm.

Suitable for use with foodstuffs.

Size	Art. No.	Pack Qty. (Pair)	€
7	TT84.1	1	49,35
9	TT85.1	1	49,35
10	TT86.1	1	49,35

Heat resistant gloves



Charguard® heat resistant gloves

Compliant with EN 420, EN 388 and EN 407.
In conformity with 21CFR, 170-199.

- Special, non-woven heat-insulating lining with heat-resistant coating
- Textured surface
- Slip-on design for easy use
- Heat resistant up to 260 °C
- Washable to 65 °C
- Length 355 mm

Size	Art. No.	Pack Qty. (Pair)	€
S	LY89.1	1	19,25
M	LY90.1	1	19,25
L	LY91.1	1	19,25
XL	LY92.1	1	19,25



Leather-aluminium heat resistant gloves

By JUTEC®. Acc. to EN 388, EN 407.

- Mitten. Outer hand and cuff of flexible aluminium coated Preox-Aramid fabric, inner hand of heat resistant Sebatan leather. Very soft and flexible.
- Protects against radiated heat to 1000 °C
 - Protects against contact heat (spatter) to 250 °C for a limited time
- Standard size 10. Length 38 cm.

Applications: light welding work, foundries, metalworking, ceramic furnaces.

Art. No.	Pack Qty. (Pair)	€
TT82.1	1	62,25



Heat resistant gloves providing protection to 500 °C

By JUTEC®. Acc. to EN 388, EN 407, EN 420.

Made of Aramid fabric. Cut resistant, abrasion resistant, double insulated. Good mechanical strength even at high temperatures. Usable on both sides.

Protection against contact heat to:

- 350 °C: max. 20 sec
- 500 °C: max. 12 sec

Standard size 10. Length 30 cm.

Type	Art. No.	Pack Qty. (Pair)	€
Mitten	TX89.1	1	37,55
5-finger glove	HE73.1	1	45,10



Aramid-aluminium heat resistant gloves

By JUTEC®. Acc. to EN 388, EN 407.

5-finger glove. Aluminised Preox-Aramid fabric outer hand and cuff, Aramid palm. Cut and abrasion resistant with insulation.

- Protects against radiated heat to 1000 °C
- Protects against contact heat (spatter) to 500 °C for a limited time
- Length 380 cm

Applications:

foundries, welding shop, furnace construction, metalworking, container construction.

Size	Art. No.	Pack Qty. (Pair)	€
9	APX6.1	1	75,20
10	TT81.1	1	75,20

Heat resistant gloves



Isotemp®-R-mittens

Asbestos-free, acc. to EN 407, EN 420, with raw leather on palm. The back of the hand and the 15 cm long cuffs are made of ISOTEMP®. Thick wooly fur lining. Reliable secure protection of hands and lower arms, excellent grip on smooth surfaces. Largely waterproof and stable against contact temperature up to +300 °C and radiation heat up to +600 °C. Total length 35 cm.

Art. No.	Pack Qty. (Pair)	€
0745.1	1	57,00



Cat. III

Preox aramid-aluminium heat resistant gloves

By JUTEC®. Acc. to EN 388, EN 407.

5-finger gloves. Outer shell and cuff of Preox aramid fabric with aluminium, palm of Preox aramid, carbon fibre reinforced. Cut and abrasion resistant with insulation. Soft aluminium coating, good handling.

- Protects against radiated heat up to 1000 °C
- Min. 15 sec. resistance to contact heat at 250 °C, short-time spatter resistance up to 600 °C

Standard size 10, length 380 mm.

Applications: foundries, furnace construction, glass processing, metal construction, etc.

Size	Art. No.	Pack Qty. (Pair)	€
10	CNH6.1	1	85,50



Cat. III

ZETEX™-gloves

Acc. to EN 388, EN 407, EN 420. Made of a silicate-based yarn. Stable against contact temperature up to +600 °C and cold-resistant to -73 °C. With extreme chemical and abrasion resistance and excellent dielectric strength. The gloves are free of asbestos. One-size 10.

Length (mm)	Art. No.	Pack Qty. (Pair)	€
280	H297.1	1	78,50
355	H298.1	1	88,15
580	H299.1	1	132,25



Cat. III

Heat protection gloves for max. 650 °C

By JUTEC®. Acc. to EN 388, EN 407, EN 420. 5-finger gloves made of preox-aramid blended fibres, can withstand mechanical stress, cut-resistant. Heat protection up to 650 °C.

Protect against exposure to max. contact heat:

- 350 °C: max. 19 sec
- 500 °C: max. 11 sec

One-size 10, length 30 cm.

Art. No.	Pack Qty. (Pair)	€
HE74.1	1	62,35

Heat resistant gloves



Heat protection gloves for max. 900 °C

By JUTEC®. Acc. to EN 388, EN 407, EN 420, EN 531. Mittens made of a fabric with a special high-temperature coating, can withstand mechanical load capacity, cut-resistant.

Protect against exposure contact heat:

- 500 °C: max. 16 sec
- 900 °C: max. thermal resistance

Also protects against small metal splashes as well as liquid iron and aluminium. Thumb on side, can be used on both sides.

One-size 10, length 30 cm.

Art. No.	Pack Qty. (Pair)	€
HE75.1	1	72,05



Welder gloves WorkGuard™

By Ansell. Acc. to EN 388, EN 407, EN 420, EN 12477 type A. Rugged 5-finger leather glove with jersey liner and Kevlar stitching®. With protective cuff.

Special-purpose glove for heavy-duty work with excellent protection against molten metal spatter. Also suitable for general thermal protection. Outstanding durability and excellent protection against cutting. Reinforced palm for even higher abrasion resistance.

For thermal protection in many types work, e.g. welding work, machine operation and work in environments where there is a danger of molten metal spatter.

Standard size 10. Length 41 cm.

Art. No.	Pack Qty. (Pair)	€
XE56.1	1	15,95



Heat protection gloves for max. 1100 °C

By JUTEC®. Acc. to EN 388, EN 407, EN 420. Mittens made of silicate fabric, 3-fold special isolation. Marginal mechanical load capacity, very flexible even at high temperatures, soft surface, doesn't stick to hot glass.

Protects against exposure contact heat:

- 500 °C: max. 24 sec
- 1100 °C: max. thermal resistance

One-size 10, length 40 cm.

Art. No.	Pack Qty. (Pair)	€
HE76.1	1	116,10



Heat protection aprons

By JUTEC®. For simple protection against radiated heat.

- Flexible, lightweight, soft
- With adjustable neck suspender
- Dimensions: approx. L 1000 x W 800 mm

① Made of glass fabric with Alufix coating on one side. Protects against contact heat up to 600 °C.

② Made of aluminised Aramid fabric. Protects against radiated heat up to 1000 °C.

DIN EN ISO 11612 certified (clothing for protection against heat and naked flame).

Applications:

Extreme radiated heat, welding work, glass industry, etc.

Image	Type	Art. No.	Pack Qty.	€
①	Heat protection apron, contact heat up to 600 °C	APX4.1	1	42,95
②	Heat protection apron, radiated heat up to 1000 °C	APX5.1	1	118,25



Sekuroka®-heat protections

Ideal for manipulating hot or frozen goods. Made of silicone rubber, temperature stable from -60 to +250 °C. No slipping due to rubber burl surface. With loop to hang up glove.

Type	Size (mm)	Art. No.	Pack Qty.	€
F finger	137 x 30	4694.1	1	11,30
M hand	170 x 86	4693.1	1	18,25

Workwear



Sekuroka®-lab coats

Made of blended fabrics (65 % polyester, 35 % cotton).

- **Concealed press-stud buttons** - can be ripped open quickly in an emergency
- **Pen pocket** - pens or spatulas don't fall out when bending
- **Sleeve ends can be adjusted 3 times** - narrower cuffs allow gloves to be pulled on more easily and stop the sleeves from being caught on corners or other objects.
- 2 side pockets - the right pocket as a **double pocket, one of which has a zip**
- The back seam has a practical vent, no belt on back

Properties:

- Crease-resistant
- Comfortable to wear
- Easy-to-clean
- Washable at max. 60 °C, can be dry-cleaned
- German sizes
- Fabric weight approx. 215 g/m²

For ladies - length 114 cm

Size	Art. No.	Pack Qty.	€
36	T410.1	1	42,50
38	T411.1	1	42,50
40	T412.1	1	42,50
42	T413.1	1	42,50
44	T414.1	1	42,50
46	T415.1	1	42,50
48	T416.1	1	42,50

For men - length 120 cm

Size	Art. No.	Pack Qty.	€
46	T417.1	1	44,65
48	T418.1	1	44,65
50	T419.1	1	44,65
52	T420.1	1	44,65
54	T421.1	1	44,65
56	T422.1	1	44,65
58	T423.1	1	44,65



Sekuroka®-ladies' and men's coat UNISEX

Reversible collar, concealed buttons, long sleeve, 1 breast pocket, 2 side pockets, with a slit at the back. Length 103 cm. 100% cotton Öko-Tex Standard 100. Easy care, machine washable and dry cleanable. Fabric weight approx. 205 g/m².

Size	equivalent to women's size	equivalent to men's size	Art. No.	Pack Qty.	€
XS	32/34	40/42	KT03.1	1	36,05
S	36/38	44/46	KT04.1	1	36,05
M	40/42	48/50	KT05.1	1	36,05
L	44/46	52/54	KT06.1	1	36,05
XL	48/50	56/58	KT07.1	1	36,05
XXL	52/54	60/62	KT08.1	1	36,05



Sekuroka®-UNISEX laboratory coats

Acc to. DIN 10524:2004 and HACCP.

With inner pockets. Concealed stud fastenings, 1 inside breast pocket, 2 inside side pockets, long sleeves with adjustable sleeve vents, turn-down collar.

60 % cotton, 40 % polyester, fabric weight approx. 200 g/m². Suitable for industrial washing at up to 95 °C. Inside leg: 103 cm. Colour: white.

Size	equivalent to women's size	equivalent to men's size	Art. No.	Pack Qty.	€
XS	32/34	40/42	XE73.1	1	33,00
S	36/38	44/46	XE74.1	1	33,00
M	40/42	48/50	XE75.1	1	33,00
L	44/46	52/54	XE76.1	1	33,00
XL	48/50	56/58	XE77.1	1	33,00
XXL	52/54	60/62	XE78.1	1	33,00



Work coats

By UVEX. With reversible collar, concealed stud fastenings, 1 left-hand breast pocket, 2 side pockets, long sleeves with straight cuff. Öko-Tex Standard 100. Washable at 60 °C. Colour: cornflower blue.

① Ladies' work coats

Slightly waisted. 100 % cotton. Fabric weight approx. 210 g/m². Length approx. 105 cm.

Size	Art. No.	Pack Qty.	€
36	NN99.1	1	44,10
38	NP00.1	1	44,10
40	NP01.1	1	44,10
42	NP02.1	1	44,10
44	NP03.1	1	44,10
46	NP04.1	1	44,10
48	NP05.1	1	47,85
50	NP06.1	1	47,85
52	NP07.1	1	47,85
54	NP08.1	1	47,85

② Men's work coat

With short side vents. 65 % cotton, 35 % polyester. Fabric weight approx. 245 g/m². Length approx. 96 cm.

Size	Art. No.	Pack Qty.	€
40/42	NP09.1	1	37,55
44/46	NP10.1	1	37,55
48/50	NP11.1	1	37,55
52/54	NP12.1	1	37,55
56/58	NP13.1	1	39,70
60/62	NP14.1	1	39,70
64/66	NP15.1	1	39,70



① Sekuroka®-ladies' coats

- Stand-up collar with V-neck
- Body-fitting cut
- Hidden snap fasteners with one visible fastener
- 2 side pockets and 1 buzzer pocket
- Length 90 cm
- 100 % cotton, Öko-Tex Standard 100
- Fabric weight approx. 205 g/m²
- **Suitable for industrial washing, boil-proof and easy care**

Size	Art. No.	Pack Qty.	€
36	PE25.1	1	39,80
38	PE26.1	1	39,80
40	PE27.1	1	39,80
42	PE28.1	1	39,80
44	PE29.1	1	39,80
46	PE30.1	1	39,80
48	PE31.1	1	39,80
50	PE32.1	1	39,80
52	PE33.1	1	39,80

② Sekuroka® ladies short lab coats

Made of 50 % cotton, 50 % polyester. With reversible collar. Concealed buttons, 1 breast pocket, 2 side pockets, with a slit at the back and back strap. Length 105 cm. Body-fitting. Fabric weight: approx. 215 g/m². **Industrial washable, boil-proof and easy care.**

Size	Art. No.	Pack Qty.	€
32	PT46.1	1	39,90
34	PT47.1	1	39,90
36	PT48.1	1	39,90
38	PT49.1	1	39,90
40	PT50.1	1	39,90
42	PT51.1	1	39,90
44	PT52.1	1	39,90
46	PT53.1	1	39,90
48	PT54.1	1	39,90
50	PT55.1	1	39,90
52	PT56.1	1	39,90
54	PT57.1	1	39,90

Workwear



Sekuroka®-ladies' coats

With stand-up collar and hidden buttons, sewed on buttons. Centre seam in the back with vent. Length 105 cm. 100 % cotton, Öko-Tex Standard 100. Boil proof, easy to iron and **suitable for industrial wear**, extremely easy-care. German sizes. Fabric weight approx. 230 g/m².

Size	Art. No.	Pack Qty.	€
36	EE17.1	1	58,60
38	EE18.1	1	58,60
40	EE19.1	1	58,60
42	EE20.1	1	58,60
44	EE21.1	1	58,60
46	EE22.1	1	58,60
48	EE23.1	1	58,60
50	KE01.1	1	60,85
52	KE02.1	1	60,85



Sekuroka®-ladies' work coats

With lapel and concealed buttons, buttons are permanently sewn on, centre seam on back with slit, length 105 cm. 100 % Cotton, Öko-Tex Standard 100. May be boiled, easy to iron and **ideal for industrial use**, easy-care. Fabric weight approx. 230 g/m².

Size	Art. No.	Pack Qty.	€
36	KE10.1	1	59,70
38	KE11.1	1	59,70
40	KE12.1	1	59,70
42	KE13.1	1	59,70
44	KE14.1	1	59,70
46	KE15.1	1	59,70
48	KE16.1	1	59,70
50	KE17.1	1	59,70
52	KE18.1	1	59,70



① Sekuroka®-men's lab coats

With concealed buttons, 1 breast pocket, 1 inner pocket and 2 side pockets, length 96 cm. 65 % cotton, 35 % polyester Öko-Tex Standard 100. Easy-care, washable at 95 °C. Fabric weight approx. 230 g/m².

Size	Art. No.	Pack Qty.	€
48/50	KC56.1	1	45,90
52/54	KC57.1	1	45,90
56/58	KC58.1	1	45,90
60/62	KC59.1	1	45,90

② Sekuroka®-men's lab coat

Made of 100 % cotton Öko-Tex Standard 100. With concealed buttons, 1 breast pocket, 1 inner pocket and 2 side pockets (including 1 with multipurpose pocket). Length 96 cm. Fabric weight approx. 230 g/m².

Size	Art. No.	Pack Qty.	€
48/50	PT58.1	1	42,80
52/54	PT59.1	1	42,80
56/58	PT60.1	1	42,80
60/62	PT61.1	1	42,80



Sekuroka®-men's lab coats

With lapel and hidden, sewn on buttons and belt on back. Length 110 cm. 100 % cotton, Öko-Tex Standard 100. Boil-proof, easy to iron and **suitable for industrial wear**, easy-care. German sizes. Fabric weight approx. 230 g/m².

Size	Art. No.	Pack Qty.	€
46	EC50.1	1	63,25
48	EC51.1	1	63,25
50	EC52.1	1	63,25
52	EC53.1	1	63,25
54	EC54.1	1	63,25
56	EC55.1	1	63,25
58	KE05.1	1	65,40
60	KE06.1	1	65,40
62	KE07.1	1	65,40



Long laboratory tunics

With fashionable contrasting inserts at the sides and mobile phone pocket. $\frac{3}{4}$ Sleeve, slightly tapered, with side slits. With stand-up collar and push-button. 2 pockets, 1 mobile phone pocket in the right pocket and 1 breast pocket, key loop. Easy care blended fabric made of 65 % polyester, 35 % cotton. Washable at 60°. Length approx. 90 cm.

Colour white/berry

Size	Art. No.	Pack Qty.	€
36	CAC8.1	1	41,90
38	CAC9.1	1	41,90
40	CAE0.1	1	41,90
42	CAE1.1	1	41,90
44	CAE2.1	1	41,90
46	CAE3.1	1	41,90
48	CAE4.1	1	41,90
50	CAE5.1	1	41,90
52	CAE6.1	1	41,90
54	CAE7.1	1	41,90

Colour white/dark navy

Size	Art. No.	Pack Qty.	€
36	CAE8.1	1	41,90
38	CAE9.1	1	41,90
40	CAH0.1	1	41,90
42	CAH1.1	1	41,90
44	CAH2.1	1	41,90
46	CAH3.1	1	41,90
48	CAH4.1	1	41,90
50	CAH5.1	1	41,90
52	CAH6.1	1	41,90
54	CAH7.1	1	41,90



Ladies' tunics

Fashionable, practical and comfortable. Normal fit, slightly tapered with side slits. $\frac{1}{2}$ Sleeve, with stand-up collar and stud fastenings. 2 double pockets with stud, key loop in the right pocket and 1 breast pocket. Dart and pleats in the back for better movement. Suitable for industrial laundering at 95° acc. to EN ISO 15797.

Blended fabric made of 49 % polyester, 49 % cotton, 2 % elastolefin. ÖKO-TEX STANDARD 100. Material weight: 200 g/m². Length: approx. 75 cm.

Colour white/berry

Size	Art. No.	Pack Qty.	€
36	AYY8.1	1	41,90
38	AYY9.1	1	41,90
40	CAA0.1	1	41,90
42	CAA1.1	1	41,90
44	CAA2.1	1	41,90
46	CAA3.1	1	41,90
48	CAA4.1	1	41,90
50	CAA5.1	1	41,90
52	CAA6.1	1	41,90
54	CAA7.1	1	41,90

Colour white/dark navy

Size	Art. No.	Pack Qty.	€
36	CAA8.1	1	41,90
38	CAA9.1	1	41,90
40	CAC0.1	1	41,90
42	CAC1.1	1	41,90
44	CAC2.1	1	41,90
46	CAC3.1	1	41,90
48	CAC4.1	1	41,90
50	CAC5.1	1	41,90
52	CAC6.1	1	41,90
54	CAC7.1	1	41,90

Workwear



Sekuroka®-ladies' tunics

½ arm. With V-neck, no collar rear web. Length 75 cm. **Suitable for industrial washing**, boil-proof and easy care.

Made of 65 % polyester, 35 % cotton, Öko-Tex Standard 100. With snap fasteners. 1 breast pocket and 2 side pockets. Fabric weight approx. 215 g/m².

Size	Art. No.	Pack Qty.	€
34	PE14.1	1	24,95
36	PE15.1	1	24,95
38	PE16.1	1	24,95
40	PE17.1	1	24,95
42	PE18.1	1	24,95
44	PE19.1	1	24,95
46	PE20.1	1	24,95
48	PE21.1	1	24,95
50	PE22.1	1	24,95
52	PE23.1	1	24,95
54	PE24.1	1	24,95



Sekuroka®-UNISEX bib overalls

Acc. to DIN 10524:2004 and HACCP.

With inner pockets. Zip, elastic cord waist adjustment, 1 inner bib pocket, 1 closable inner side pocket, ribbed inserts.

60 % cotton, 40 % polyester, Weight of fabric: approx. 250 g/m². Suitable for industrial washing at up to 95 °C. Inside leg: 80 cm. Colour: white.

Size	equivalent to women's size	equivalent to men's size	Art. No.	Pack Qty.	€
XS	32/34	40/42	XE67.1	1	37,55
S	36/38	44/46	XE68.1	1	37,55
M	40/42	48/50	XE69.1	1	37,55
L	44/46	52/54	XE70.1	1	37,55
XL	48/50	56/58	XE71.1	1	37,55
XXL	52/54	60/62	XE72.1	1	37,55



Slip over apron UNISEX

Comfortable and practical. ½ Sleeve, with V-cut. 1 breast pocket, 2 pockets, double pocket on right with push-button, pen partition and key loop. Side slits. Suitable for industrial laundering at 95° acc. to EN ISO 15797. Blended fabric made of 49 % polyester, 49 % cotton and 2 % elastolefin, ÖKO-TEX STANDARD 100. Material weight: 200 g/m². Length: approx. 77 cm.

Colour white

Size	Art. No.	Pack Qty.	€
XS	CAH8.1	1	39,25
S	CAH9.1	1	39,25
M	CAK0.1	1	39,25
L	CAK1.1	1	39,25
XL	CAK2.1	1	39,25
XXL	CAK3.1	1	39,25
L	CAK4.1	1	39,25

Colour dark navy

Size	Art. No.	Pack Qty.	€
XS	CAK5.1	1	39,25
S	CAK6.1	1	39,25
M	CAK7.1	1	39,25
L	CAK8.1	1	39,25
XL	CAK9.1	1	39,25
XXL	CAL0.1	1	39,25
L	CAL1.1	1	39,25

Protective clothing



① Sekuroka®-men's and women's jeans

Straight five-pocket-form, close fitting. 100 % cotton, easy-care. Inside leg 34 inch = 86 cm. Fabric weight approx. 340 g/m².

US-size (inch)	equivalent to women's size	equivalent to men's size	Art. No.	Pack Qty.	€
28	34	-	Y085.1	1	53,55
29	34/36	-	Y086.1	1	53,55
30	36	44	Y087.1	1	53,55
31	36/38	44/46	Y088.1	1	53,55
32	38	46	Y089.1	1	53,55
33	40	48	Y090.1	1	53,55
34	42	50	Y091.1	1	53,55
36	44	52	CY98.1	1	53,55
38	46	54	CY99.1	1	53,55
40	48	56	EA00.1	1	53,55
42	50	58	EA01.1	1	53,55

② Sekuroka®-ladies' and men's trousers

Comfortable fit: elasticised waistband with integrated drawstring and 2 side pockets. Hardwearing blended fabric: 50 % cotton, 50 % polyester. Soft on the inside, smooth on the outside and resistant. **Suitable for industrial laundering** up to 95 °C. Inside leg 82 cm. Weight of fabrics approx. 215 g/m².

Size	Art. No.	Pack Qty.	€
XS	EE24.1	1	26,15
S	EE25.1	1	26,15
M	EE26.1	1	26,15
L	EE27.1	1	26,15
XL	EE28.1	1	26,15
XXL	EE29.1	1	26,15

Protective clothing - type overview



Type 1:
Gas tight protective
clothing



Type 2:
Non gas tight protective
clothing



Type 3: Liquid tight
protective clothing
EN 14605



Type 4: Splashproof
protective clothing
EN 14605



Type 5:
Particle tight
protective clothing
Protection against
solid airborne
particles
EN ISO 13982



Type 6:
Limited splashproof
protective clothing
Protection against
chemical splashes
EN 13034



Protective clothing
against pathogens
EN 14126



Protection against
contamination by
radioactive particles (no
protection against
radioactive radiation)
EN 1073-2



Protective clothing
with antistatic
properties
EN 1149-1



Flame protection
EN ISO 14116



Cat. III

Overalls decontex® CONCEPT

Type 4. Acc. to EN 14605 (chemically resistant). Antistatic acc. to EN 1149-1. Flame-retarding acc. to EN ISO 14116 (Index 1). Made of elastomerised special PVC. Light, flexible and comfortable. Washable at 40 °C. Seams are welded for liquid proof. With integrated hood, front zip covered with velcro fastening and protective bib. Sleeve bottoms feature inner safety catch and trouser legs have a velcro fastening. German sizes.

Size	Art. No.	Pack Qty.	€
M (50/52)	P787.1	1	156,95
L (54/56)	P788.1	1	156,95
XL (58/60)	P789.1	1	164,50
XXL (62/64)	P790.1	1	170,95

- Safety spectacles from page 529
- Fire extinguishers, see page 646

Protective clothing



TYCHEM®-overalls C and F

Types 3, 4, 5 and 6 are in compliance with European standards for protective clothing against chemicals.

The special PE-spun fleece is extremely comfortable to wear.

- 100 % particle-tight
- Non-fluffing, tear- and abrasionproof
- Antistatic in acc. with EN 1149-1
- With hood, and elasticated face, arms, legs and waist
- Double zip covering can be removed by unsticking
- With special chin covering for optimal sealing of respiratory protection masks
- 100 % tight seams

Model	① TYCHEM® C, yellow	② TYCHEM® F, orange
Protection against	many conc. anorganic acids, alkaline and saline solutions	many organic chemicals; many conc. anorganic acids, alkaline and saline solutions
Impermeable to splashes	up to max. 2 bar	up to max. 5 bar
Material	coated PE-spun fleece	laminated PE-spun fleece
Weight	83,2 g/m ²	120 g/m ²
Thickness	183 µm	206 µm

① Model TYCHEM® C, yellow

Size	Body size (cm)	Art. No.	Pack Qty.	€
M	168-176	AK28.1	1	33,30
L	174-182	AK29.1	1	33,30
XL	180-188	AK30.1	1	33,30
XXL	186-194	AK31.1	1	33,30

② Model TYCHEM® F, orange

Size	Body size (cm)	Art. No.	Pack Qty.	€
M	168-176	AK33.1	1	55,70
L	174-182	AK34.1	1	55,70
XL	180-188	AK35.1	1	55,70
XXL	186-194	AK36.1	1	55,70

Fields of application:

TYCHEM® C

- Handling powdery hazardous materials
- Working with anorganic acids and alkaline solutions
- Protection against radioactive particles
- Handling blood and viruses transmitted through blood e.g. hepatitis and HIV
- Treating crops and plants by pressure-spraying agrochemicals

TYCHEM® F

- Handling solid, liquid or gaseous hazardous substances
- Decontamination
- Disposal of hazardous chemicals
- When working with hazardous substances under pressure
- Checking and securing areas exposed to unknown substances



TYVEK®-overalls

Special PE-spun fleece, extremely comfortable to wear.

- Lint-free, suitable for cleanroom classes ISO 7/8 (C/D acc. to GMP)
- Tear- and abrasionproof
- Light and flexible
- High protection against splashing, aerosols and particles (>1 µm)
- Weight approx. 41 g/m², 130 µm thick
- Antistatic in accordance with EN 1149-1

① Model Classic Xpert, white

This model is qualified under types 5 and 6 in accordance with the European Standards for protective clothing against chemicals. The hood, arm, leg, and waist holes have both elastic and covered zipper seals. Antistatic, cellular.

Size	Body size (cm)	Art. No.	Pack Qty.	€
S	162-170	AK17.1	1	10,95
M	168-176	AK18.1	1	10,95
L	174-182	AK19.1	1	10,95
XL	180-188	AK20.1	1	10,95
XXL	186-194	AK21.1	1	10,95

② Model Classic Plus, white

Types 4, 5 and 6 in accordance with the European Standards for protective clothing against chemicals. Similar to Model Classic, but with velcro fastening on the covered zip. With special chin covering for optimal sealing of respiratory protection masks. 100 % tight seams.

Size	Body size (cm)	Art. No.	Pack Qty.	€
M	168-170	AK23.1	1	13,10
L	174-182	AK24.1	1	13,10
XL	180-188	AK25.1	1	13,10
XXL	186-194	AK26.1	1	13,10

Fields of application:

TYVEK® Model Classic Xpert

- Handling solid hazardous materials
- Laboratory work, food industry, pharmaceuticals industry, agriculture
- Police investigations
- Decontamination
- Pest and weed control
- Agricultural chemistry
- Clean rooms
- Nuclear power stations

TYVEK® Model Classic Plus

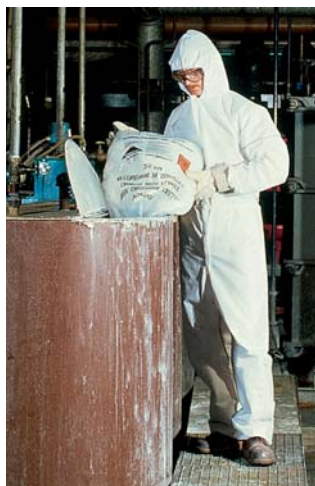
- Same as Model Classic Xpert
- All areas of application which require additional protection through tight seams (particles rejected by the material cannot penetrate through the seam holes)



Overalls secutex® pro

Type 5 and 6. One-piece, made of polypropylene spunbond with polyethylene coating. Cellular. Antistatic, dustproof, water-repellant and partially splashproof against aggressive substances. Highly resistant and abrasion proof. With hood and two-way zip with cover. Elasticated waist, arms and legs. German sizes.

Size	Art. No.	Pack Qty.	€
48/50	A844.1	2	13,95
52/54	A845.1	2	13,95
56/58	A846.1	2	13,95
60/62	A847.1	2	13,95



Overall KLEENGUARD® A50

Type 5 and 6. Protects against chemical splashes and particles. Antistatic acc. to EN1149-1.

- Low-fluffing and with inner seams to prevent contamination through fibres
- Silicone-free, ideal for spray-painting task.
- Two-way zip for easier access to clothing worn underneath
- Cellular material for reduced heat build up
- With special hood for masks and good freedom of movement
- Robust triple whip stitches with high resistance to tear

Ideal for following applications: Chemical, pharmaceutical and processing industry, supply and disposal, electronics, agriculture and spray-painting processes.

Size	Art. No.	Pack Qty.	€
M (46-50)	0455.1	1	23,65
L (50-54)	0497.1	1	23,65
XL (54-58)	0498.1	1	23,65



uvex sil-Wear disposable overalls

By UVEX.

- Hood is highly compatible with protective face masks
- Middle finger loops prevent the sleeves from riding up, e.g. during overhead work
- Silicone-free
- Antistatic to EN 1149-1
- Suitable for clean rooms

① Type 5/6, white/lime

Breathable PE laminate with air-permeable SMS back for excellent moisture management and breathability. With bound seams for effective protection against chemical splashes and particles.

Uses:

- Working with powdery chemicals
- Painting and lacquering
- Glass fibre production and processing
- General maintenance work

Size	Art. No.	Pack Qty.	€
M	PP20.1	1	13,45
L	PP21.1	1	13,45
XL	PP22.1	1	13,45
XXL	PP23.1	1	13,45
XXXL	PP24.1	1	13,45

② Type 4B, 5, 6, acc. to EN 14126, protection against pathogens, white/orange

Made of breathable, lightweight and flexible material for wear comfort. Self-adhesive zip cover and bound seams provide protection against penetration of liquid aerosols and particles.

Tested for **protection against pesticides according to DIN 32781**.

Uses:

- Handling of low-toxic inorganic chemicals
- Industrial cleaning work using low pressures (spray)
- Shipbuilding and automobile manufacturing
- Handling of paints and lacquers
- Agriculture and horticulture
- Electronics

Size	Art. No.	Pack Qty.	€
S	PP25.1	1	15,00
M	PP26.1	1	15,00
L	PP27.1	1	15,00
XL	PP28.1	1	15,00
XXL	PP29.1	1	15,00
XXXL	PP30.1	1	15,00

Protective clothing



TYVEK®-lab coats

By DuPont. Made of TYVEK® (spunbond polyethylene fibre). With stand-up collar and inner seams. Colour: white. Lint-free and antistatic. Permeation barrier protection against particles and fibres >1 µm.

Applications: laboratories, non-critical environments, pharmaceuticals production, electronics, food processing.

With 5 press studs and 3 pockets

Size	Art. No.	Pack Qty.	€
M	2142.2	10	65,80
L	NK08.1	10	65,80
XL	2143.2	10	65,80
XXL	NK09.1	10	65,80

With zipper, 2 pockets and elasticated cuffs

Size	Art. No.	Pack Qty.	€
S	NK10.1	10	67,20
M	NK11.1	10	67,20
L	NK12.1	10	67,20
XL	NK13.1	10	67,20
XXL	NK14.1	10	67,20



Cat. III

KIMTECH SCIENCE® A7 Lab Coat

Acc. to EN 13034 Type PB [6], part-body protective clothing with limited splash protection. Antistatic acc. to EN 1149-1.

Made from breathable, textile-like SMS material. Triple stitched seams. With attached pockets and buttons. Durable and tear resistant, comfortable to wear. Silicone free.

Size	Art. No.	Pack Qty.	€
S	2144.1	5	78,30
M	2145.1	5	78,30
L	2146.1	5	78,30
XL	2147.1	5	78,30



Cat. I

Sekuroka®-disposable coats

Made of PP. white, 40 g/m². With snap-fasteners. Individually wrapped. In acc. with HACCP.

With 2 pockets, straight cuffs

Size	Art. No.	Pack Qty.	€
L	KE77.1	10	12,05
XL	KE78.1	10	12,05
XXL	KE79.1	10	12,05

Without pockets, elasticated cuffs

Size	Art. No.	Pack Qty.	€
L	KE80.1	10	12,05
XL	KE81.1	10	12,05
XXL	KE82.1	10	12,05



① Sekuroka®-aprons

Made of PP with PE-coating. Water repellent. Anti-static, lint free and tearproof. Skin-friendly.

Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
96,5	98	A246.1	10	21,00

② TYVEK®-aprons

By DuPont. Made from specially spun, non-woven PE material, weight 41 g/m², white. Lint-free. Antistatic. Temperature stable up to max. 134 °C.

Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
90	70	HY31.1	25	67,70


Cat. I

Sekuroka®-disposable aprons

Made of PE. Colour white or blue. Waterproof.

Colour	Thickness (µm)	Width (cm)	Length (cm)	Art. No.	Pack Qty.	€
white	25	75	125	KE83.1	50	7,50
white	35	75	145	KE84.1	50	11,80
blue	25	75	145	KE85.1	50	8,10
blue	35	75	145	KE86.1	50	11,80


Cat. III

TYCHEM®-aprons, chemical resistant

By DuPont. Partial body chemical protective clothing, category III, type PB [3] to EN 14605:2005+A1:2009. Fastening straps at the neck and waist. Standard size, width 70 cm, length 108 cm.

TYCHEM® C: Protection against inorganic chemicals.

TYCHEM® F: Protection against organic chemicals.

Material	Colour	Art. No.	Pack Qty.	€
TYCHEM® C	yellow	NK15.1	5	27,55
TYCHEM® F	grey	NK16.1	5	38,85



Sekuroka®-lab aprons

Made of sturdy proofed fabric on both sides. Light and pliable, yet extremely stable. Neck and waist ties. Can be shortened to fit.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
1100	900	1806.1	1	58,60
1200	900	H589.1	1	58,60


Cat. III

TYCHEM® C-aprons with sleeves

By DuPont. Acc. to EN 14605:2005+A1:2009 Type PB[3]. Part-body chemical protective clothing. Surface weight 83 g/m². Lab coat with back-closing ties. Protection of the front of the body and arms. Rubber cuff sleeves. Tight, overtaped seams. Calf-length.

Material protects against:

- Dust and powder-like harmful substances
- Inorganic acids and alkali
- Splashes of various organic chemicals
- Aerosols and spray mist of many mixtures
- Blood or viruses passed on through blood

Size	Chest girth (cm)	Body size (cm)	Art. No.	Pack Qty.	€
S/M	84-100	162-176	K179.2	4	77,35
L/XXL	100-124	176-194	HY32.1	4	79,35

Protective clothing



Cat. III

PVC-aprons

By Ansell. Acc. to EN 340. Made of flexible, robust PVC. Highly resistant against many chemicals, fats and oils. Extremely abrasion proof. With welded PVC eyelets for longer durability. Manufactured exclusively from FDA-approved materials and therefore suitable for the food industry. Watertight. Dimensions: L 115 x W 90 cm.

Thickness (mm)	Type	Colour	Art. No.	Pack Qty.	€
0,508	pretied	green	L073.1	3	28,85



X-ray protection aprons

Acc. to DIN 6813 and RÖV. Lead value 0.5 mm Pb. Very light apron with velcro fastening and elastic band. Fastens crosswise on the hip. The vinyl exterior can be cleaned with a mild detergent at max. 30 °C. Colour: royal blue.

Size	Length (mm)	Shoulder size (mm)	Hip size (mm)	Weight (kg)	Art. No.	Pack Qty.	€
S	900	400	600	3,0	X423.1	1	419,25
M	1000	480	600	3,4	X424.1	1	467,65

► Labels Radtape® / Autoradiography Pen see chapter biochemistry.



Cat. III

Cryo aprons

Acc. to EN 340. Ideal for operations in deep-freezing processes and **with liquid nitrogen in gas phase**. Also suitable for clean-rooms. Reversible. Made of water repellent nylon with polyolefin/polyester lining. Temperature stable from -160 to +150 °C. High chemical resistance. With adjustable ties for waist and neck. Antistatic and washable.

Length (cm)	Art. No.	Pack Qty.	€
89	0525.1	1	204,25
105	0526.1	1	213,95

► CRYO-safety gloves, see page 618



Heat protection aprons

By JUTEC®. For simple protection against radiated heat.

- Flexible, lightweight, soft
- With adjustable neck suspender
- Dimensions: approx. L 1000 x W 800 mm

① Made of glass fabric with Alufix coating on one side. Protects against contact heat up to 600 °C.

② Made of aluminised Aramid fabric. Protects against radiated heat up to 1000 °C.

DIN EN ISO 11612 certified (clothing for protection against heat and naked flame).

Applications:

Extreme radiated heat, welding work, glass industry, etc.

Image	Type	Art. No.	Pack Qty.	€
①	Heat protection apron, contact heat up to 600 °C	APX4.1	1	42,95
②	Heat protection apron, radiated heat up to 1000 °C	APX5.1	1	118,25

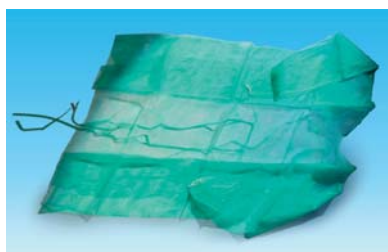


BEESANA®-surgical gowns

By Meditrade®. Acc. to 93/42/EEC, medical product class I. Disposable protective gown made of 3-layer PP SMS (spunbond meltblown spunbond), 40 g/m². With tricot cuffs on the sleeves, ties at the back of the neck and waist. Colour blue, length 150 cm, size XL/XXL. Non-sterile.

For protection against liquids and particles. Breathable and comfortable, low-linting, tear and puncture resistant. Ideal for use in industry, laboratories, electronics and pharmaceuticals.

Art. No.	Pack Qty.	€
CAL9.1	10	17,00



BEESANA® disposable protective gowns for visitors

By Meditrade®. Made of PP nonwoven material, 23 g/m². With ties at the back of the neck and waist. Elasticised cuffs. Lightweight, breathable and moisture repellent. Protects both personnel and visitors against germs. Standard size, length 140 cm.

Colour	Art. No.	Pack Qty.	€
white	CAN0.1	10	10,70
green	CAN1.1	10	11,30



Disposable caps

① Detectable caps

Acc. to 2002/72/EC. Made of PP fleece with integral metal strips. With latex free elastic band. Size Ø 50 cm.

Applications: hospitals & clinics, laboratories and foodstuffs industry.

Colour	Art. No.	Pack Qty.	€
white	XL10.1	100	11,85
blue	XL11.1	100	11,30

② Caps with screen

Made of PP fleece, lightweight, breathable. With latex free elastic band. Size Ø 48 mm.

Colour	Art. No.	Pack Qty.	€
white	XL12.1	100	13,95


Cat. I

Disposable caps

Made of PP fleece, lightweight. Protect hair from dust and other particles, but also products from contamination.

Applications: foodstuffs industry, pharmacy, electrical industry etc.

① Standard caps - high quality

Acc. to HACCP. Latex free elastic bands. Size Ø 50 mm.

Colour	Art. No.	Pack Qty.	€
white	2089.1	100	17,75

② Bouffant caps

Allround elastic band. Size Ø 53 mm.

Colour	Art. No.	Pack Qty.	€
white	L092.1	100	11,65
blue	XL09.1	100	9,15


Cat. I

① Sekuroka®-hoods

Made of PP with PE-coating. Features elastic band and shoulder protection. Highly resistant and abrasion proof, water repellent and anti-static. Protects against harmful dusts and some chemicals.

Art. No.	Pack Qty.	€
L272.1	20	29,00

② Surgical caps

Made of PP fleece. With two latex free elastic bands for securing behind the neck. One size fits all.

Applications: hospitals & clinics, laboratories and foodstuffs industry.

Colour	Art. No.	Pack Qty.	€
white	XL13.1	100	18,85
blue	XL14.1	100	18,85

Protectice Clothing / Foot guard



Sekuroka®-protective sleeves

Made of PE, 20 µm thick, 40 cm long. Elastic closures at the ends. Moisture-proof, hard wearing. Food-safe according.

Art. No.	Pack Qty.	€
KP24.1	5 x 100	24,40



Sekuroka®-protective sleeves PP

Made of PP with PE coating. With elastic bands. Anti-static, lint-free, tearproof and water repellent.

Length approx. 38 cm

Art. No.	Pack Qty. (Pair)	€
8193.1		13,95

Length approx. 58 cm - shoulder length

Art. No.	Pack Qty. (Pair)	€
8202.2		19,30



TYCHEM®-sleeves, chemical resistant

By DuPont. Partial body chemical protective clothing, category III. Type PB [3] to EN 14605:2005+A1:2009.

Wide elasticated wrist band and upper arm for comfortable and secure fitting. Tight, overtaped seams. Length 50 cm.

TYCHEM® C: Resistant to inorganic chemicals.

TYCHEM® F: Resistant to organic solutions.

Material	Colour	Art. No.	Pack Qty.	€
TYCHEM® C	yellow	NK18.1	10	21,30
TYCHEM® F	grey	NK19.1	10	32,80



Sekuroka®-protective sleeves, air-permeable

For the food industry. Colour white. Length 45 cm.

Model ① Made of PP-fleece, 25 g/m². Elastic bands on both ends.

Air-permeable and moisture repellent.

Model ② Made of SMS-fleece, 55 g/m², PE-coated inside. With elastic band on one end and soft knitted cuff on other. Allows skin to breathe and are moisture repellent.

Type	Art. No.	Pack Qty.	€
①	LH96.1	500 (5 x 100)	64,45
②	LH97.1	100	31,15



Disposable PE-overboots

Made of embossed transparent polyethylene, very sturdy and moisture repellent. An integrated elastic ensures a good fit. Suitable for use in the meat and foodstuffs industry and for working in wet conditions. Length: 38 cm, height: 47 cm.

Art. No.	Pack Qty.	€
NP38.1	100	22,90



Sekuroka®-disposable overshoes

Made of textured PE film. Interchangeable. Colour: blue.

L x W (mm)	Type	Art. No.	Pack Qty.	€
360 x 150	Standard	1258.1	100	6,35
410 x 150	Large	PK96.1	100	7,00



Sekuroka®-overshoes

Made of PP with PE-layer. Water repellent. Specially treated to be antistatic. Tearproof, lint-free. Skin-friendly. Length approx. 39 cm.

Art. No.	Pack Qty. (Pair)	€
A248.1	25	26,80
A248.3	100	89,05



TYVEK®-overboots

Made of PE spunbond, white. Water repellent, lint free, antistatic. With rubber cord and fastening straps. Standard size, height 48 cm, length 42 cm.

Art. No.	Pack Qty. (Pair)	€
2084.2	10	40,35



Overshoes

Suitable for use with overshoe dispensers.

① CPE overshoes

Made of CPE, hard wearing and impermeable to liquids.

Size (mm)	Colour	Art. No.	Pack Qty.	€
47	blue	XA12.1	110	21,45

② Fleece overshoes with CPE sole

Fleece upper, reinforced CPE sole. Robust and tear resistant. Provides protection against liquids, air permeable. Anti-slip, suitable for smooth floors.

Size (mm)	Colour	Art. No.	Pack Qty.	€
44	white/blue	XA13.1	70	28,10

③ Fleece overshoes with CPE coating

Fleece lining, CPE coated outer. Anti-slip, suitable for smooth surfaces.

Size (mm)	Colour	Art. No.	Pack Qty.	€
44	white	XA14.1	80	35,45

④ PP overshoes with non-slip sole

Made of PP. Hard wearing and extra slip resistant.

Size (mm)	Colour	Art. No.	Pack Qty.	€
46	light-blue	XA15.1	100	25,75

⑤ PP-fleece overshoes with antistatic band

Made of PP-fleece, antistatic, discharges static electricity through a black contact band requiring skin contact to ground the body.

Size (mm)	Colour	Art. No.	Pack Qty.	€
46	blue	XA16.1	100	76,90



Cat. III

TYCHEM® C overboot, chemical resistant

By DuPont. Category III partial body chemical protective clothing. Type PB [3] to EN 14605:2005+A1:2009.

Good resistance to concentrated inorganic chemicals. Knee-length overboots with slip-retardant sole, fixation ties and elasticated cuff. Overlapped seams, same tightness as TYCHEM® C suit material. Double layer sole, partially stitched, splash proof but not completely impervious to fluids.

Standard size, height 48 cm, length 42 cm, fits shoes sizes up to 45 (UK size 11). Colour: yellow.

Art. No.	Pack Qty.	€
NK17.1	10	40,45

Protectice Clothing / Foot guard



Hygomat overshoe dispensers

- Improves hygiene & cleanliness, reduces germs and infections
- Low-noise mechanical action – no electrical power required
- With different filling capacities and level indicator windows
- Reliable and robust
- Easy to operate and refill
- Overshoes adapt automatically to shoes

Applications: for employees of and visitors to laboratories, restaurants and canteens, hospitals, dairies, showrooms, production facilities, cleanrooms and protected zones.

Note:

the overshoe dispensers can only be filled with matching-sized overshoes (Art. No. XA12.1 to XA16.1)!

① Hygomat Classic mobile overshoe dispenser

- For product, factory and personal hygiene
- For mobile use
- Capacity: 110 overshoes

Size: L x W x H (cm)	Art. No.	Pack Qty.	€
70 x 32 x 28	XA09.1	1	317,15

② Hygomat Comfort overshoe dispenser

- With larger capacity for large numbers of employees and visitors
- With handle for even more convenient fitting
- Capacity: 220 overshoes

Size: L x W x H (cm)	Art. No.	Pack Qty.	€
74 x 32 x 90	XA10.1	1	456,90

② Hygomat Cleanroom overshoe dispenser

- Specially designed for use in cleanrooms and pharmaceuticals industry
- With handle for even more convenient fitting
- Stainless steel rear and side panels for optimal hygiene
- Easy to clean and disinfect
- Two rollers on the back allow fast and easy moving
- Capacity: max. 220 overshoes

Size: L x W x H (cm)	Art. No.	Pack Qty.	€
74 x 32 x 90	XA11.1	1	591,25



Nomad™ Adhesive mats for fine dust

By 3M. Multi-layered adhesive mat. White vinyl backing, adhesive surface layers of clear PE. With self-adhesive surface for retention of fine dirt and dust particles. Thickness 1.99 mm. 40 layers per mat.

- Excellent absorption of dirt and fine dust from soles of shoes and wheels
- All layers are numbered and the number of remaining layers is visible
- The mat is suitable for driving over as it frameless and flat. Can also be placed under doors.

Suitable for use at cleanroom entrances, in the computer, semiconductor and electronics industry, in laboratories, hospitals and in the pharmaceuticals industry.

Width (mm)	Length (mm)	Art. No.	Pack Qty.	€
450	900	PY75.2	6	622,45
450	1150	PY76.2	6	772,95
600	1150	PY77.2	6	1030,95
900	1150	PY78.2	6	1542,65



Sekuroka®-adhesive mats for fine dust

Multi-ply, blue tacky mats for cleaning the soles of shoes before entering cleanroom areas in medicine, industry, food processing, electronics etc. Self-adhesive backing holds the mat securely in place. Used films can be removed hygienically and quickly. Mat comprises 30 self-adhesive, removable, numbered films.

Dimensions L x W (cm)	Art. No.	Pack Qty.	€
45 x 90	NK53.1	10	123,65
60 x 90	NK54.1	10	138,70
66 x 114	NK55.1	10	166,65

First aid



Sekuroka®-first-aid cabinets

Made of sheet steel, stove-enamelled in white. Security lock with 2 keys. With filling acc. to **DIN 13157** or **13169**. With adjustable shelving units and folding tray.

Type	W x D x H (mm)	Art. No.	Pack Qty.	€
Acc. to DIN 13157	302 x 140 x 362	K931.1	1	78,50
Refill set acc. to DIN 13157		K166.1	1	23,45
Acc. to DIN 13169	402 x 112 x 462	K932.1	1	109,65
Refill set acc. to DIN 13169		K165.1	1	53,55



First aid cabinets

White, single door.

- ① Made of plastic
 - For first-aid kits & supplies acc. to DIN 13 157
 - Impact resistant, antistatic
 - Subdivided into 10 compartments, with 4 removable compartments
 - Security lock with key
- ② Made of sheet steel
 - **With poison compartment;** extra lock with 2 keys
 - For first-aid kits & supplies acc. to DIN 13 169
 - With solid base, stove-enamelled
 - Security lock with 2 keys

Delivery without dressing materials. Please order first-aid kits & supplies separately.

Type	W x D x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
①	330 x 160 x 450	approx. 2.2	XE80.1	1	53,65
②	455 x 175 x 550	approx. 9.8	XE81.1	1	90,10

A first-aid kit/cabinet acc. to DIN 13169 contains the same dressing materials, however double the amount, as a small first-aid kit/cabinet acc. to DIN 13157. Two first-aid kits/cabinets acc. to DIN 13157 replace one acc. to DIN 13169.



First aid refill packs and replacement sets

① First aid refill packs

Quality first aid refill packs are in accordance with the latest accident prevention guidelines. All first aid refill packs come illustrated and labelled in multiple languages for easy use.

Type	Art. No.	Qty. (set)	€
First aid refill packs acc. to DIN 13 157	XH21.1	1	15,60
First aid refill packs acc. to DIN 13 169	XH22.1	1	27,45

② Replacement sets for DIN first aid refill packs

Sterile. The complete set allows convenient replacement of all sterile products in a DIN first aid refill pack.

Type	Art. No.	Qty. (set)	€
Replacement set acc. to DIN 13 157	XH23.1	1	6,35
Replacement set acc. to DIN 13 169	XH24.1	1	10,65
Replacement set acc. to DIN 13 164	XH25.1	1	6,35



Sekuroka®-first-aid box

With contents in compliance with **DIN 13157**, made of high impact plastic, orange. With hinge and straps. L 260 x W 160 x H 80 mm.

Type	Art. No.	Pack Qty.	€
Sekuroka®-first-aid box	T295.1	1	25,60
Wall mounting plastic, orange	T296.1	1	3,75
Refill set acc. to DIN 13157	K166.1	1	23,45

First aid



Sekuroka®-first-aid box

Acc. to **DIN 13169**, made of sheet steel, painted white. Rounded edges, profile packing. With toggle catch. L 350 x W 250 x H 100 mm.

Type	Art. No.	Pack Qty.	€
Sekuroka®-first-aid box	K934.1	1	97,85
Wall mounting made of sheet steel	T297.1	1	14,30
Refill set acc. to DIN 13169	K165.1	1	53,55



MEZZO FOX® first aid set

With contents according to DIN 13157. The arrangement of the interior compartments is variable, with wall holder and handle.

- Translucent for a good view inside
- Robust and durable
- Easy to operate: Can be used from the wall or can be removed from holder for on-site aid
- Is securely mounted and therefore theft-proof
- High-quality dressing material, printed in four languages
- The compartments inside can be moved around and altered

Art. No.	Pack Qty.	€
HA37.1	1	41,15



Sekuroka®-first-aid kit

Compact design made of plastic, rugged and long lasting. Suitable for mobile and stationary use, with wall mount. Easy to use, sealable. Colour: translucent red, dimensions: L 270 x W 300 x H 110 mm.

Delivery incl. first aid materials acc. to DIN 13 157.

Type	Art. No.	Pack Qty.	€
Sekuroka® first-aid kit	NP39.1	1	32,05
First aid refill packs acc. to DIN 13 157	XH21.1	1	15,60



Sekuroka®-mobile-first-aid kits

Made of ABS-plastic. All-round rubber sealing protects against dust and splashing. Cases can be lead-sealed. Wall attachment with 90° stop-lock, which enables case to be opened in the attachment and items to be removed.

Model with contents as per **DIN 13157**:

Dimensions: L 260 x W 110 x H 170 mm.

Model with contents as per **DIN 13169**:

Dimensions: L 400 x W 150 x H 300 mm.

Type	Art. No.	Pack Qty.	€
Contents acc. to DIN 13157	0598.1	1	77,95
Refill set acc. to DIN 13157	NH88.1	1	39,80
Contents acc. to DIN 13169	1721.1	1	177,40
Refill set acc. to DIN 13169	NH89.1	1	81,60

► Hazard signs from page 662

According to BGV-A1/GUVA1 § 24 IV Section 6, a record must be kept of every occasion on which first aid was administered and retained for 5 years.



Sekuroka®-first-aid book

Ideal for entering all information on work accidents or assistance given. Preprinted columns, DIN A5, bound in paper boards. In german.

Art. No.	Pack Qty.	€
T298.1	1	4,15



Motor vehicle first aid box

The content meets the requirements of DIN 13164. Box made of high impact strength plastic, colour: black. With hinge and sealing flaps. Interior with extra tray for a better view of the contents.
Dimensions: L 260 x W 160 x H 80 mm.

Art. No.	Pack Qty.	€
KL96.1	1	16,70



Reflective safety vests

Acc. to EN ISO 20471:2013, class 2 (size S acc. to EN 1150). 100 % Polyester. With double Velcro fasteners for variable size fitting and two reflective stripes.

Use: for better recognition of persons in traffic and handling zones or as equipment for company vehicles.

Size	Colour	Art. No.	Pack Qty.	€
S	yellow	TP38.1	5	16,70
L-XL	orange	TP39.1	5	16,70
L-XL	yellow	TP40.1	5	16,70
XXL	orange	TP41.1	5	16,70
XXL	yellow	TP42.1	5	16,70

Bag for Reflective safety vest

100 % Polyester, with Velcro fastener. Size: 180 x 220 mm.

Colour	Art. No.	Pack Qty.	€
yellow	TP43.1	5	4,50
orange	TP44.1	5	4,25



Sakuroka®-emergency first aid bag

Your own personal first aid kit for immediate aid. Small, compact, can be taken everywhere: on excursions, trips, sports or work.

Bag with zip, 210 x 140 mm. Contents: gauze pads, quick-dressings, bandages, assortment of band aids, SIRIUS® rescue blanket.

Art. No.	Pack Qty.	€
N531.1	1	17,15



Sakuroka®-first-aid kits Special

Burns and cauterizations

With acids, alkaline solutions, steam and liquids. Specially put together for chemical and galvanic work areas.

Laboratory and chemistry

Base contents in accordance with DIN 13157 and expanded after risk assessment for chemical industry, medical, technical, and chemical laboratories.

Science and research

Base contents in accordance with DIN 13157 and expanded after risk assessment for scientific colleges and universities, research institutes and laboratories.

All kits incl. wall attachment with 90° stop-lock, which enables case to be opened in the attachment and items to be removed.

Dimensions of kit: L 400 x W 150 x H 300 mm.

Type	Art. No.	Pack Qty.	€
Burns and cauterizations	0515.1	1	191,35
Refill set for Art.no. 0515.1	P098.1	1	116,10
Laboratory and chemistry	X292.1	1	179,55
Refill set for Art.no. X292.1	X298.1	1	104,30
Science and research	X293.1	1	184,90
Refill set for Art.no. X293.1	X299.1	1	112,90



First-aid case for special occupations - foodstuffs

Basic contents to DIN 13157, extended and tailored to specific occupational hazards. Equipped for foodstuffs and food processing industry, frozen and tinned foods, butchers, dairies and bakeries.

Case made of orange-coloured ABS plastic. Shape-holding, impact resistant, temperature stable, splashproof, dust-proof. Adjustable inner partitions, transparent cover panels. Easy-action turn-lock fasteners, reinforced carry handle. Case is sealable, with security seal. Wall fixing with 90° stop.

Case dimensions: L 400 x W 150 x H 300 mm.

Art. No.	Pack Qty.	€
TX11.1	1	170,95

First aid



Traveller First aid set

Softbag with first aid supplies for use on the go. Made of synthetic fibre. Two carrying straps, parallel zipper, flap with button, insertable straps. Dimensions: L 230 x W 115 x H 55 mm. Contents: emergency blanket, compresses, quick bandages, finger and wound dressing, Silk adhesive plaster strips, surgical disinfectant, sutures, scissors, tweezers, protective gloves.

Art. No.	Pack Qty.	€
TL60.1	1	27,45



Sekuroka®-first-aid miniset

Bag made of laminated nylon fabric, blue, with zip, 135 x 90 mm. Contains most commonly required items: sticky plaster strips, packets of dressings, gauze pad, elastic bandage.

Art. No.	Pack Qty.	€
T299.1	1	4,25



Sekuroka®-rescue blanket

Silver and gold-coloured. Aluminium-vaporised PE-foil, reflects up to 85 % body heat, can eliminate radiation loss, prevents cooling down and hypothermia, can also be used as heat protection. Size: 210 x 160 cm.

Art. No.	Pack Qty.	€
1846.1	1	3,80



Hansaplast®-finger tip Bandages

Made of elastic polyamide fabric. Air permeable.

Art. No.	Pack Qty.	€
0629.1	50	26,85

Hansaplast®-strips

Available in 4 sizes. Waterproof and dirt-repellent. With reliable all-round adhesion. Skin-friendly, individually wrapped strips. Box contains 40 strips.

Packaging	Art. No.	Pack Qty.	€
Box of 40 strips	0630.1	3	20,50

Leukosilk®-adhesive plasters

Made of white cellulose acetate. Extremely skin-friendly, easy to tear with high tensile strength. The plaster is hypo-allergic, painless to remove, and can be labelled. 5 m roll, 2.5 cm wide.

Art. No.	Pack Qty. (roll)	€
0631.1	3	22,25

Leukoplast®-adhesive plasters

With extremely high adhesive power. Is air permeable, water-repellent with high tensile strength skin-coloured. 5 m roll.

Width (cm)	Art. No.	Pack Qty. (roll)	€
1,25	N532.1	3	11,65
2,50	N533.1	3	19,60



① Cold-ready to use-compresses

Quick "ice bag" without precooling. Bag is activated when squeezed together and it immediately turns extremely cold. For rapid cooling of acute injuries such as bruises, pulled muscles or sprains. Can only be used once.

Size (mm)	Art. No.	Pack Qty.	€
21 x 15	AP16.1	5	9,65
25 x 15	AP17.1	5	9,65

② Cold-/warm-compresses

Reusable compresses for local pain relief of bruises, pulled muscles, sprains, acute inflammation, insect bites, etc. Remain's flexible and easy to form even down -30 °C. Can also be used as a heating pad. Place in the freezer to cool or in a hot water bath to heat (up to +60 °C). Contents: environmentally friendly, non-toxic gel.

Size (mm)	Art. No.	Pack Qty.	€
ca. 7,5 x 13	AP13.1	5	7,35
ca. 13 x 14	AP14.1	5	8,95
ca. 15 x 28	AP15.1	5	16,70



Actiomedic® AQUATIC first aid bandages

Water repellent, elastic first aid dressing. Supple and easy to tear off, suitable for all minor finger injuries, even in awkward places.

- Sticks to itself and not to the wound, skin or hair
- Easy to remove
- Water repellent and elastic
- Allows maximum freedom of movement
- Keeps grease, water and oil away from the wound

Roll size: 3 cm x 7 m

Colour	Art. No.	Pack Qty.	€
white	XH07.1	4	13,95
blue	XH08.1	4	13,95
skin colour	XH09.1	4	13,95

Roll size: 5 cm x 7 m

Colour	Art. No.	Pack Qty.	€
white	XH10.1	2	8,90
blue	XH11.1	2	8,90
skin coloured	XH12.1	2	8,90



Cellulose swabs

Acc. to DAB. Made of highly bleached cellulose, highly absorptive, non-fibrous. For skin cleansing, or as absorbent pads for treatment of minor injuries. Non-sterile. Size 4 x 5 cm.

Art. No.	Pack Qty.	€
NK84.1	2 rolls à 500 pieces	5,30

Cellulose swab dispenser

For hygienic storage and removal of cellulose swabs. Suitable for 1 roll of 500.

Art. No.	Pack Qty.	€
NK85.1	1	21,45



Sticking plaster dispensers Salvequick®

Half of the plaster is ready for sticking on when pulled out. Can be used without any assistance.

Set contains:

- Dispenser box with special key for opening and refilling dispenser L 220 x W 52 x H 115 mm
- 1 refill set X288.1 elastic with 24 strips 72 x 19 mm and 16 strips 72 x 25 mm
- 1 refill set X289.1 waterproof with 27 strips 72 x 19 mm and 18 strips 72 x 25 mm

Type	Art. No.	Qty. (set)	€
Sticking plaster dispenser set	X287.1	1	36,55
Refill elastic	X288.1	1	10,55
Refill waterproof	X289.1	1	8,50



aluderm®-aluplast®-bandage dispensers

Made of ABS-plastic. Base with three compartments for strips, finger knuckle and fingertip dressings, transparent lid with compartment for finger dressings. Wall mounting possible. Dimensions: approx. 160 x 122 x 57 mm.

Contains:

- 25 fingertip dressings
- 30 strips 7.2 x 2.5 cm
- 30 strips 7.2 x 1.9 cm
- 20 finger dressings 12 x 2 cm
- 10 finger knuckle dressings

All sticky plasters are individually and hygienically sealed. The aluminized gauze layer does not stick to the wound. Cellular, water repellent, hypoallergenic, skin-friendly, also suitable for sensitive skin or allergies to sticky plasters.

Type	Art. No.	Pack Qty.	€
Sticky plaster dispensers, filled	AH56.1	1	24,20

Refill packs:

Type	Art. No.	Pack Qty.	€
25 fingertip dressings	AH57.1	1	7,00
30 strips 7.2 x 2.5 cm	AH58.1	1	4,20
30 strips 7.2 x 1.9 cm	AH59.1	1	4,25
20 finger dressings 12 x 2 cm	AH60.1	1	4,25
10 finger knuckle dressings	TP45.1	1	4,00

First aid



First Aid Station

By Plum. Guarantees speedy and optimal care of eye accidents and cuts. All elements can be operated single-handedly; no additional person is needed.

Wall assembly station (L 515 mm x W 300 mm) incl.:

- **Disposable eye wash flask 500 ml** (Y828.1)
Sterile salt solution 0.9 %, maintenance-free. The ergonomically designed eye dish holds eyelid open during rinsing process.
- **QuickFix sticky plaster dispenser**
Filled with 45 plaster strips apiece. Type 1 (waterproof) and Type 3 (elastic).
- **QuickClean-Dispenser box**
With 40 individually wrapped tissues for cleaning wound.
Size: 130 x 200 folded 40 x 40 mm.

Art. No.	Pack Qty.	€
LH92.1	1	67,65

Accessories:

Refill pack Type ①, waterproof	HC45.1	2	13,90
Refill pack Type ②, detectable	HC46.1	2	21,45
Refill plasters Type ③, elastic	LH94.1	2	14,95
Refill pack, wound cleansing tissues	LH93.1	1	10,70
Disposable eye wash flask 500 ml	Y828.1	1	18,10



QuickFix Bandage systems

By Plum.

- Individually wrapped sticky plaster strips
- Can be removed from the bottom of the dispenser; Sticking side is opened completely on one side; **Advantage:** Plaster strip can be placed on wound immediately with one hand.
- With additional compartments for storing first-aid material in the dispenser
- The system can be locked, protects against theft
- Contains following plasters:
 - Type ①:** Waterproof, extremely skin-friendly, made of perforated, air-permeable substrate. Plaster size: 72 x 25 mm
 - Type ②:** Detectable blue sticky plaster strips with integrated metal strips to enable detection by metal detectors in hygienically sensitive areas (e.g. the food industry); made of elastic textile fabric. Plaster size: 72 x 25 mm
 - Type ③:** Elastic, extremely skin-friendly and breathable. Made of perforated, air-permeable textile fabric. Plaster size: 72 x 25 mm.
- Dispenser dimensions: W 23.25 x H 13.34 x D 3.3 mm

Delivery incl. QuickFix Plaster dispenser system, incl. two refill packs, mounting material and key to protect against theft.

Type	Art. No.	Pack Qty.	€
Dispenser system incl. 2 x HC45.1, Type ①	HC43.1	1	27,75
Dispenser system incl. 2 x HC46.1, Type ②	HC44.1	1	37,65
Dispenser system incl. 2 x LH94.1, Type ③	LK67.1	1	31,95
Refill pack Type ①, 45 plasters	HC45.1	2	13,90
Refill pack Type ②, 45 plasters	HC46.1	2	21,45
Refill pack Type ③, 45 plasters	LH94.1	2	14,95



Sekuroka®-pocket mask for mouth-to-mouth resuscitation

Ideal for untrained personnel in first aid. Air supply via mouth and nose simultaneously without contact with the patient's exhaled air. Transparent mask enables observation of patient (saliva excretion, etc.). Suitable for adults and children. Extendable semi-soft plastic dome with mouth piece. Air filled press-on rim made of soft plastic. L 120 mm. Easy to clean, reusable. Complete with case and instruction.

Art. No.	Pack Qty.	€
4799.1	1	24,75



Alcohol swabs

For cleaning. Pads made of synthetic fleece, impregnated with 70 % isopropyl alcohol. Individually shrink-wrap, non-sterile. Dimensions: 60 x 30 mm, folded: 30 x 30 mm.

Art. No.	Pack Qty.	€
AT15.1	100	4,95

First aid



Detectable plasters

Elastic, hypoallergenic and detectable plasters, individually sealed.

Detectable

Type	Dimensions (mm)	Art. No.	Pack Qty.	€
Plaster strips	19 x 72	XH14.1	100	8,10
Knuckle dressings	38 x 75	XH15.1	50	8,55
Finger dressings	120 x 20	XH16.1	100	10,55

Detectable and water repellent

Type	Dimensions (mm)	Art. No.	Pack Qty.	€
Plaster strips	19 x 72	XH17.1	100	6,80
Finger dressings	120 x 20	XH18.1	100	7,90
Fingertip dressings	43 x 68	XH19.1	50	6,35

Plaster dispenser

Plastic wall-mountable dispenser box, blue/transparent. The plaster container detaches from the wall.

Dimensions: W 155 x H 125 x D 55 mm.

Delivery incl. wall mount, mounting kit and 100 detectable plaster strips (19 x 72 mm).

Art. No.	Pack Qty.	€
XH20.1	1	12,40



Ampoule case

Made of coated nylon fabric in red, with all-round zipper.

For 55 ampoules in various standard sizes, can be individually configured.

Dimensions: L 310 x W 320 x H 30 mm.

Delivery without ampoules.

Art. No.	Pack Qty.	€
NH87.1	1	36,55



Gauze swabs

Acc. to EN 14079, type 20. Made of medical gauze, 100 % cotton.

Non-sterile. For absorbing blood and secretion, external wound care and hand disinfection. Highly absorptive. Swab size 20 x 20 cm, round, plum-sized, in PE bag.

Art. No.	Pack Qty.	€
NK83.1	250	13,95



Rest room loungers

Frame made of square profiled steel tubing, white powder-coated, sturdy and load bearing. Upholstery made of fabric-reinforced synthetic leather, hardwearing, easy care, dirt repellent, colour black.

- Multi-position adjustable
- Sanitary paper reel holder integrated into frame

Reclining surface: 2000 x 700 mm, reclining height approx. 500 mm.

Type	Art. No.	Pack Qty.	€
① Adjustable head rest, rigid foot rest	NH47.1	1	310,70
② Adjustable head and foot rests	NH48.1	1	342,95



Examination table paper covers

Hygienic paper on a roll, made of double-layer recycled cellulose, absorptive, tear resistant, white. Roll length 50 m, width 59 cm.

Art. No.	Pack Qty. (roll)	€
NK82.1	1	8,55

Fire protection



FLAME STOP fire blanket

Acc. to DIN EN 1869 (2001), TÜV-certified. Made of impregnated glass fiber cloth (300 g/m²). Temperature stable up to 1250 °C. Blankets are specially folded and have two pull tags for speedy opening. Self-inflating. For single use. For extinguishing small fires, for protection against fire. Does not release toxic fumes.

Dimensions L x W (cm)	Art. No.	Pack Qty.	€
100 x 100	AH78.1	1	32,05
180 x 125	AH79.1	1	46,20



Sekuroka®-fire extinguishing blanket

Made of fibre glass Isotemp®. BAM-tested. Free of asbestos, stable against high temperatures, fully capable of extinguishing, reusable. Standard format 200 x 160 cm, weight approx. 2100 g. With loops. In stand-by pack with wall attachment.

Dimensions of stand-by pack: D 130 x W 255 x H 275 mm.

Art. No.	Pack Qty.	€
0084.1	1	96,65

- Fire warning signs see page 661
- Fire-rescue hoods see page 563



Sekuroka®-dry powder extinguisher Bavaria Colt P6

In acc. with DIN EN 3. To be used for **ABC-fires** and for **electric devices of max. 1000 volt**. Highgrade dry powder extinguisher. All-purpose use in industry, commerce, public buildings and the home. Contents: 10 extinguishing components according to BGR 133. Weight 10,9 kg. Operating conditions -30 to +60 °C. Dimensions (L x W x H): 300 x 155 x 535 mm.

Art. No.	Pack Qty.	€
T321.1	1	123,65

Sekuroka®-CO₂-fire extinguisher

For **fire class B**. Ideal for rooms with sensitive electronic and electric devices. Content 2 kg. Weight 7 kg. Dimensions: Ø 110 x H 555 mm. With wall mounting.

Art. No.	Pack Qty.	€
1028.1	1	167,70



Sekuroka®-fire protection tub

Ideal for collecting burning liquids from laboratory devices. Fire is extinguished due to lack of oxygen. Chrome-nickel-steel resists heat and corrosion. Capacity approx. 13 litres. Removable inner grid. W 450 x L 450 x H 120 mm. Weight 12 kg. DBGM 7701672

Art. No.	Pack Qty.	€
1658.1*	1	771,85

* Please check with our Sales Department for delivery period of these products.



Safety cabinets Q-Classic-90

By Asecos. For the storage of flammable liquids. Acc. to DIN EN 14470-1, 90 min fire resistance (FWF 90). Ceramic-compliant, GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Highly rugged design**, scratchproof textured paint finish
- The panel doors lock in any position for easy storage and removal from storage
- **Automatic locking of doors in event of fire** by integrated thermal cut-out
- Forklift-accessible base - easy transport, high flexibility, lockable with optional plinth panel
- **Easy alignment** - adjusting aids to compensate for uneven floor
- **Quick commissioning** - air ducts ready for connection (NW 75) to a technical exhaust system

Design: anthracite grey body (similar to RAL 7016), light grey doors (RAL 7035), with panel doors. Ventilation system, recirculating air filter system and plinth panel are optional (please order separately).

Types (inner fittings):

- ① With 3 shelves, perforated sheet insert and bottom tray (33 l, powder-coated sheet steel)
- ② With 4 full extension drawers (powder-coated sheet steel)
- ③ With 6 full extension drawers (powder-coated sheet steel)
- ④ With 3 shelves, perforated sheet insert and bottom tray (22 l, powder-coated sheet steel)
- ⑤ With 6 full extension drawers (powder-coated sheet steel)

Type	Door stop	Outer dimensions (mm) W x D x H	Art. No.	Pack Qty.	€
①	2/right, left	1193 x 615 x 1953	CCA0.1 *	1	3036,90
②	2/right, left	1193 x 615 x 1953	CCA1.1 *	1	3578,70
③	2/right, left	1193 x 615 x 1953	CCA2.1 *	1	3950,65
④	1/left	599 x 615 x 1953	CCA3.1 *	1	2359,65
④	1/right	599 x 615 x 1953	CCA4.1 *	1	2359,65
⑤	1/left	599 x 615 x 1953	CCA5.1 *	1	2890,70
⑤	1/right	599 x 615 x 1953	CCA6.1 *	1	2890,70

* Please note: longer delivery times may occur! Delivery free of charge behind the first lockable door within Germany. Costs for further transport to the point of use within the building in Germany as well as for the transport outside Germany are available on request. For further information please contact our Sales Department.

Plinth panels for safety cabinets Q-CLASSIC-90

By Asecos. Please order separately.

Type	Art. No.	Pack Qty.	€
Plinth panel for 2-door cabinets	CCA7.1 *	1	32,20
Plinth panel for 1-door cabinets	CCA8.1 *	1	22,55

* Longer delivery times possible. Delivery plus packing and transport costs. Please check with our Sales Department



Accessories for safety cabinets Q-Classic-90

By Asecos.

① Ventilation system without exhaust monitor

Safe detection of vapour and gas emissions at the outlet or source. Housing made of powder-coated high-grade sheet steel.

- Plug ready - fast and easy assembly
- Extra low noise, ideal for use directly in the workspace
- NW 75 hose connection
- ATEX-compliant: Ceric II 3/-G Ex c IIC T4

Delivery incl. connecting cable and power plug.

② Recirculating air filter system for safety cabinets

Vents safety cabinets safely and economically without exhaust lines. Recirculating air filter housing made of powder-coated high-grade sheet steel.

- Installation without wall breakthroughs and exhaust lines
- Flexible selection of installation location
- Safe detection of hazardous vapours with retention in the filtration system
- Silent - only approx. 39 dB (A)
- ATEX-compliant: Ceric II 3/-G Ex ic nA IIB T4Gc

Delivery incl.:

- Multiple-stage filtration system, connecting cable and power plug
- VDE-approved monitoring electronics for exhaust air and filter monitoring
- Visual and audible alarms incl. floating alarm contact

Type	Outer dimensions (mm) W x D x H	Art. No.	Pack Qty.	€
① Ventilation system	200 x 400 x 200	CCA9.1 *	1	623,50
② Recirculating air filter system	305 x 555 x 210	CCC0.1 *	1	1471,70

* Longer delivery times possible. Delivery plus packing and transport costs. Please check with our Sales Department



Safety cabinets



Combined safety cabinets K-PHOENIX-90

By Asecos.

Two in one - storage of flammable and aggressive hazardous substances in one cabinet. Acc. to DIN EN 14470-1, 90 min fire resistance (FWF 90). Ceric-compliant, GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Rugged and durable** - safety elements assembled outside the storage compartment for increased protection against corrosion
- **Safety isolated** - storage chambers hermetically separated by central partition
- **Comfortable and safe** - doors lock in the standard stop position, safe storage and removal from storage of drums, all doors can be operated and locked separately
- **Easy alignment** - adjusting aids to compensate for uneven floor
- **Quick commissioning** - integrated air ducts ready for connection (NW 75) to a technical exhaust system

Outer body made of epoxy resin coated high-grade sheet steel. Inner body made of highly resistant melamine resin coated special panels. Colour light grey (RAL 7035), outer dimensions W x D x H : 1200 x 615 x 1968 mm. Ventilation system (Art. No. CCA9.1) is optional, please order separately.

Types:

① **Left side of cabinet**, compartment for flammable liquids: with folding door, 3 shelves (75 kg load capacity), perforated sheet insert and 22 l bottom tray (powder-coated sheet steel).

Right side of cabinet, compartment for acids and bases: with panel doors, 4 pull-out shelves (25 kg load capacity) incl. removable plastic tray.

② **Left side of cabinet**, compartment for flammable liquids: with folding door, 6 full extension drawer (powder-coated sheet steel).

Right side of cabinet, compartment for acids and bases: with panel doors, 6 pull-out shelves (25 kg load capacity) incl. removable plastic tray.

Image	Art. No.	Pack Qty.	€
①	CCC1.1 *	1	3503,45
②	CCC2.1 *	1	4230,15

* Please note: longer delivery times may occur! Delivery free of charge behind the first lockable door within Germany. Costs for further transport to the point of use within the building in Germany as well as for the transport outside Germany are available on request. For further information please contact our Sales Department.



SL-Classic acid and base cabinets

By Asecos. Safe and correct storage of aggressive, non-flammable hazardous substances in work zones. GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Rugged and durable** - epoxy resin coated high-grade sheet steel, locking mechanism is located outside the store room for increased protection against corrosion
- **Safely isolated** - two hermetically separated storage chambers
- **No unauthorised use** - doors are fitted with profile cylinder locks (master-key system compatible)
- **Easy alignment** - integrated adjusting aids to compensate for uneven floor
- **Quick commissioning** - air ducts ready for connection (NW 75) to a technical exhaust system
- **Clean ventilation** - corrosion-resistant, metal-free air ducts, separate ventilation of storage chambers, only one air vent in roof area

Equipment: pull-out shelves - high-quality, sturdy construction with leak-proof, removable plastic tray (18 l), 25 kg load capacity. With panel doors, colour light grey (RAL 7035). Ventilation system (Art. No. CCA9.1) is optional, please order separately.

Inner fittings:

① with 12 pull-out shelves incl. plastic collecting tray

② with 6 pull-out shelves incl. plastic collecting tray

Type	Door stop	Outer dimensions (mm) W x D x H	Art. No.	Pack Qty.	€
①	left/right	1197 x 603 x 1965	CCC8.1 *	1	3288,45
②	left	597 x 603 x 1965	CCC9.1 *	1	2105,95
②	right	597 x 603 x 1965	CCE0.1 *	1	2105,95

* Please note: longer delivery times may occur! Delivery free of charge behind the first lockable door within Germany. Costs for further transport to the point of use within the building in Germany as well as for the transport outside Germany are available on request. For further information please contact our Sales Department.



Gas cylinder cabinets G90

By Asecos. For safe indoor storage of pressurised gas cylinders (decentralised). Type-tested acc. to DIN EN 14470-2, 90 min fire resistance (FVWF 90). Ceric-compliant, GS approved, acc. to DIN EN 14727 (laboratory furniture).

- **Easy assembly of fittings and pipework** - large inner height (1858 mm), 24 leadthroughs in the cabinet ceiling
- **No unauthorised use** - door is fitted with profile cylinder locks (master-key system compatible)
- **Easy alignment** - adjusting aids to compensate for uneven floor
- **Quick commissioning** - integrated air ducts ready for connection (NW 75) to a technical exhaust system, complete and even floor-to-ceiling ventilation inside cabinet

① For safe storage of up to two 50-litre steel pressurised gas cylinders or two 40-litre aluminium pressurised gas cylinders, each Ø 230 mm. With standard inner fittings complete - consisting of mounting rail, roll-in flap, cylinder holder and matching tensioning straps.

② For safe storage of one 50 litres pressurised gas cylinder or two 10 litre pressurised gas cylinders. With standard inner fittings - complete with mounting rail, roll-in flap, cylinder holder and matching tensioning straps - optional accessories: lateral cylinder holder for 2 x 10-litres cylinders.

③ Small gas cylinder cabinet for two 10-litres cylinders. With standard inner fittings - complete with mounting rail, roll-in flap, cylinder holder and matching tensioning straps.

Design: with panel door, left stop. Body and door light grey (RAL 7035).

Image	For gas cylinders:	Outer dimensions (mm) W x D x H	Art. No.	Pack Qty.	€
①	2 x 50 l	598 x 616 x 2050	CCC3.1 *	1	3208,90
②	1 x 50 l	598 x 616 x 2050	CCC4.1 *	1	2772,45
③	2 x 10 l	598 x 616 x 1450	CCC5.1 *	1	2772,45

* Please note: longer delivery times may occur! Delivery free of charge behind the first lockable door within Germany. Costs for further transport to the point of use within the building in Germany as well as for the transport outside Germany are available on request. For further information please contact our Sales Department.

Accessories for gas cylinder cabinets:

By Asecos.

Type	Art. No.	Pack Qty.	€
2 cylinder holders with 2 tensioning straps for additional securing of small 10 l pressurised gas cylinders	CCC6.1 *	1	54,95
Gas cylinder trolley for 1 x 50 l gas cylinder	CCC7.1 *	1	299,95

* Longer delivery times possible. Delivery plus packing and transport costs. Please check with our Sales Department

Poison cabinets

Floor units, made of polyurethane coated sheet steel, with folded edges for extra strength has removable, slanting shelves and a tub-shaped bottom shelf.



Large Sekuroka®-cabinets for toxins

With 4 height adjustable shelves. W 800 x H 1850 x D 500 mm. Weight 72 kg.

Delivery without hazard warning signs.

Art. No.	Pack Qty.	€
5493.1 *	1	858,95

With suction nozzle for ventilation, Ø 100 mm.

Art. No.	Pack Qty.	€
6201.1 *	1	1021,25

Small Sekuroka®-cabinets for toxins

With 3 height adjustable shelves. W 800 x H 1000 x D 500 mm. Weight 43.4 kg. **Comes without hazard warning signs.**

With suction nozzle for ventilation, Ø 100 mm.

Art. No.	Pack Qty.	€
6203.1 *	1	886,90

* Please check with our Sales Department for delivery period of these products. Prices are ex work.

Sekuroka®-wall cupboard for toxins

With 2 fixed shelves. Made of polyurethane coated sheet steel. With folded edges for extra strength. W 400 x H 800 x D 200 mm. Weight 15 kg.

Delivery without hazard warning signs.

Art. No.	Pack Qty.	€
5226.1	1	231,15

Fume hoods / Workstations



Pharmacy workstations (pharmacy fume hoods)

Workstations for hazardous materials according to DIN 12924-4: 2012

- Safe handling of chemicals, protection against harmful vapours and explosive atmospheres
- Easy to mount on bench top
- Ruggedly constructed from chemical resistant, antibacterial plastic coated high-grade sheet steel
- Each unit is functionally tested by a recognised testing agency

Standard equipment

- Monitoring electronics
- 2 power sockets
- Work light
- Continuously height-adjustable acrylic glass sliding window
- Exhaust fan

Delivery without media supply (natural gas, wastewater, cold water) and ventilation sets (please order separately).

Technical specifications:

Type	APA.145.075	APA.145.090
Outer dimensions W x D x H (mm)	750 x 600 x 1450	900 x 600 x 1450
Inner dimensions W x D x H (mm)	740 x 440 x 930	890 x 440 x 930
Effective working area W x D (mm)	745 x 480	895 x 450
Overall weight (kg)	55	65
Exhaust connection (NW/mm)		100
Recommended exhaust air volume (m³/h)		330
Pressure loss (approx. Pa)		315
PE power sockets, IP 54 rated		2
Media supply (optional)	Drainage outlet, natural gas, water	
Wastewater connection (inches)		1.5
Gas/water connection (mm)		12
Electrical system: power supply 230 V, 50 Hz, energy-saving lamp, on-off switch, light switch, monitoring electronics, fresh air fan(s), with 2 230 V PE power sockets, 50 Hz. Unit is fuse-protected to 4 A.		

With standard equipment

Type	Art. No.	Pack Qty.	€
APA.145.075	CEH3.1*	1	2041,45
APA.145.090	CEH4.1*	1	2080,15

* Please note: longer delivery times may occur! Delivery free of charge behind the first lockable door within Germany. Costs for further transport to the point of use within the building in Germany as well as for the transport outside Germany are available on request. For further information please contact our Sales Department.

Accessories for pharmacy workstations (pharmacy fume hoods)

Media supply

Type	For	Art. No.	Pack Qty.	€
Cold water, drainage outlet	APA.145.075	CEH5.1*	1	202,10
Natural gas, cold water, drainage outlet	APA.145.075	CEH6.1*	1	375,20
Cold water, drainage outlet	APA.145.090	CEH7.1*	1	202,10
Natural gas, cold water, drainage outlet	APA.145.090	CEH8.1*	1	375,20
Natural gas	APA.145.075/ APA.145.090	CEH9.1*	1	213,95

Ventilation sets

Ventilation set 1

- 1 m flexible hose DN100
- 2 hose clamps
- 1 wall duct

Ventilation set 2

- 7.5 m flexible hose DN125
- 2 hose clamps
- 1 wall duct
- 1 reducer DN100/125

Ventilation set 3

- 1 duct fan DN150
- 2 reducers DN150/125
- 7.5 m flexible hose DN125
- 2 hose clamps
- 6 drilling screws 4.2 x 16 mm

Type	For	Art. No.	Pack Qty.	€
Ventilation set 1	APA.145.075/APA.145.090	CEK0.1*	1	158,05
Ventilation set 2	APA.145.075/APA.145.090	CEK1.1*	1	267,70
Ventilation set 3	APA.145.075/APA.145.090	CEK2.1*	1	600,95

* Please note: longer delivery times may occur! Delivery free of charge behind the first lockable door within Germany. Costs for further transport to the point of use within the building in Germany as well as for the transport outside Germany are available on request. For further information please contact our Sales Department.





Filter trolley Jumbo

Ideal for extracting and filtering gases and vapours directly from place of origin.

- With wheels which enable flexible use at different workplaces
- Very quiet
- With 3 articulated arms for more flexibility
- Low energy consumption
- With ultra filter effect for pure air
- The filtered air is routed back to the workplace
- Filter can be easily removed for changing

Technical specifications:

Range of suction arm	750 mm
Performance	80 m³/h at 1400 Pa
Electrical connection	230 V, 50 Hz
Power consumption	150 W
Sound level	49 dB (A)
Hood	
Dimensions (L x W)	296 x 248 mm
Material	PC
Filter trolley	
Dimensions	450 x 340 x 530 mm
Weight	18 kg
Material	ABS

Type	Art. No.	Pack Qty.	€
Filter trolley, complete	Y928.1 *	1	2740,20
Spare filter	Y929.1 *	1	246,20
New filter	Y930.1 *	1	256,95

* Please check with our Sales Department for delivery period of these products.



Sekuroka®-Glove bags

Made of PE, with integrated gloves. Ideal for handling substances in an air or moisture free milieu.

Handling: fill all working material through opening into glove bag, close with clip and then fill with inert gas through gas adapter. Plastic coupling for gas adapter, closing clips, and glove liners come with bag.

Bags with 1 opening and 1 hose connection

L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
420 x 420 x 280	275	1936.1	1	49,35
690 x 690 x 380	565	K352.1	1	85,90
940 x 940 x 640	860	K353.1	1	93,45

Glove-Bag-set

3 x 1936.1; 2 x K352.1 and 1 x K353.1.

L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
-	see above	1910.1	1	289,20

Bag with 2 openings and 2 hose connections

L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
490 x 490 x 290	each 300 mm	1937.1	1	61,30



Sekuroka®-safety tubs

Made of PVC in bright signal colours. Ideal for working with radioactive substances. For protection of worktops and lab benches against contamination by spilled reagents. Easy to clean.

With robust rim 20 mm in height. Tubes should be used with anti-static inserts made of APET.

Delivery incl. safety tub and tub insert.

Inner L x W (mm)	Outer L x B (mm)	Art. No.	Pack Qty.	€
1000 x 420	1130 x 540	LN78.1	1	160,20
445 x 430	570 x 540	LN79.1	1	102,15

Sekuroka® inserts for safety tubs

Made of APET, transparent. The flexible anti-static inserts fit into the tubs and can be reused or discarded.

Inner L x W (mm)	Outer L x B (mm)	Art. No.	Pack Qty.	€
1000 x 420	1130 x 540	LN80.1	25	231,15
445 x 430	570 x 540	LN81.1	25	145,15

Safety shields



Sekuroka®-safety shields

Collapsible. Made of transparent acrylic glass, 8 mm thick. Protects against splinters and splashes. Three parts, can be folded out to 120°.

Type 450

Main shield W 450 x H 450 mm, 2 side shields each W 200 x H 450 mm. Weight approx. 3.7 kg.

Art. No.	Pack Qty.	€
2967.1	1	263,40

Type 750

Main shield W 450 x H 750 mm, 2 side shields each W 200 x H 750 mm. Weight approx. 6.0 kg.

Art. No.	Pack Qty.	€
2968.1	1	349,40

Table holder

Consists of acrylic glass support and screw clamp with ring screws. Securely attaches shield to work benches and tables up to 38 mm thickness.

Art. No.	Pack Qty.	€
5099.1	1	58,80



Sekuroka®-beta radiation protection screen

Made of transparent acrylic glass. Ideal for working with radio-isotope solutions which emit Beta-radiation, e.g. ^{32}P , ^{14}C or ^{35}S . With tilted front screen and rounded edges. With 4 rubber feet on base plate for extra stability. Made of one piece. Total height 50 cm, width 35 cm, depth 30 cm. Wall thickness 1 cm.

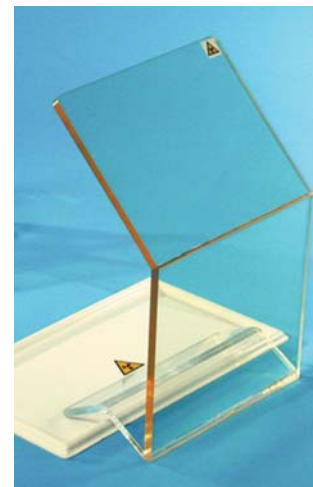
Art. No.	Pack Qty.	€
9764.1	1	166,65



Sekuroka®-radiation protection screens

Ideal for working with radio-isotope solutions which emit either beta (^{32}P) or gamma radiation (^{125}J), depending on the model. Made of transparent or leaded acrylic glass depending on type of radiation. Screen has 15° inclination to reduce glare.

Protection against	W x D x H (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β-radiation	300 x 300 x 450	10	E041.1	1	216,10
γ-radiation	300 x 150 x 450	12	E042.1	1	1435,15



Sekuroka®-protection shields

Made of transparent or leaded acrylic glass. Protects against beta or gamma-radiation. By adjusting the feet, the screens can be used at inclination of 15°. Dimensions: W 350 x H 540 mm.

Protection against	Wall thickness (mm)	Art. No.	Pack Qty.	€
Beta-radiation	10	E008.1	1	216,10
Gamma-radiation	12	E009.1	1	1847,95

Sekuroka®-radiation protection screens

Protect against radio-isotope solutions. Two models available: for either beta protection (^{32}P) or gamma radiation (^{125}J); made of transparent or leaded acrylic glass. With 45° canted frontage. With offset base for hanging into the safety tub.

Protection against	W x D x H (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
β-radiation	300 x 150 x 450	10	K562.1	1	217,15
γ-radiation	300 x 150 x 450	12	K564.1	1	1568,45

► Cryo safety gloves see page 618



Sekuroka®-beta-protection round container

Made of transparent acrylic glass. Holds flasks, beakers and other vessels. Wall thickness 1 cm.

Outer Ø (mm)	Inner Ø (mm)	Outer height (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
120	100	170	150	9766.1	1	167,70
150	130	280	260	9767.1	1	223,60



Sekuroka®-radiation protection waste boxes

Made of leaded acrylic glass for protection against beta rays. For collecting contaminated pipettor tips, cannulas, centrifuge tubes, etc. Opening Ø 25 mm in lid. Extra hinged lid for closing the opening. Comes with 4 rubber feet to prevent slipping.

Dimensions: W 150 x D 150 x H 150 mm.

Type	Art. No.	Pack Qty.	€
Protection against beta-radiation	E267.1	1	310,70

Sekuroka®-radiation protection waste bags

Suitable for waste box E267.1. Made of reinforced polyethylene. With double welded seams for extra leak proofing and a double cord sealing mechanism for secure storage of radioactive waste during disposal. A line marking the maximum fill level and warning symbol for radioactive waste is printed on the bags.

Dimensions: L 120 x W 130 x H 140 mm.

Art. No.	Pack Qty.	€
K178.1	25	104,25



Sekuroka®-radiation protection waste bins

With hinged lid. Made of transparent acrylic glass. Protect against beta-radiation (³²P).

L x W x H inner (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
150 x 150 x 150	10	C975.1	1	360,15
200 x 200 x 250	10	C976.1	1	407,45
490 x 270 x 400	10	C977.1	1	614,90

Sekuroka®-radiation protection waste bags

Made of reinforced polyethylene. To fit waste bins C975.1 and following. With double welded seams for extra leak proofing and a double cord sealing mechanism for secure storage of radioactive waste during disposal. A line marking the maximum filling level and warning symbol for radioactive waste is printed on the bags.

L x W x H (mm)	suitable for	Art. No.	Pack Qty.	€
120 x 120 x 190	C975.1	E062.1	25	85,95
210 x 210 x 380	C976.1	E103.1	25	146,20
490 x 270 x 400	C977.1	E279.1	25	132,25



Sekuroka®-radiation protection boxes

For transport or safe storage of radio-isotope solutions. Made of transparent acrylic glass for protection against beta-rays or of leaded acrylic glass for protection against gamma-rays. Each box features hinged lid. 1 rack can be placed into the mini-boxes and up to 3 racks in the large-boxes.

Inner dimensions: Mini-boxes: W 165 x D 85 x H 60 mm, large-boxes: W 280 x D 165 x H 140 mm.

Type	W x D x H (mm) outer	Art. No.	Pack Qty.	€
Mini, against Beta-rays	185 x 105 x 80	K565.1	1	272,00
Mini, against Gamma-rays	189 x 109 x 84	K566.1	1	962,15
Maxi, against Beta-rays	300 x 185 x 160	L424.1	1	413,90
Maxi, against Gamma-rays	304 x 189 x 164	L425.1	1	2396,20

Rack for Sekuroka®-radiation protection boxes

Dimensions: W 160 x D 80 x H 40 mm.

Type	Number of holes	Art. No.	Pack Qty.	€
For centrifuge tubes 1.5 ml	32	K568.1	1	57,75

Safety warning:

Screens made of lead impregnated acrylic glass only protect against radiation of ¹²⁵Iodine, not against radiation of other iodine isotopes.

We recommend not using these screens to shield against beta-radiation since X-rays occur.

Marking



Sekuroka®-hazard warning labels "Radioactive"

Self-adhesive. Ideal for labelling micro-centrifuge tubes, twist top vials, test tubes, etc. Supplied in dispenser box.

Ø (mm)	Packaging	Art. No.	Pack Qty. (roll)	€
6,0	roll à 1000	E289.1	1	49,80

Self-adhesive. For microcentrifuge tubes with flat lid. Sticks during autoclaving, in boiling waterbaths, during freezing. Chemically resistant against most organic solvents and caustic substances. Autoclavable.

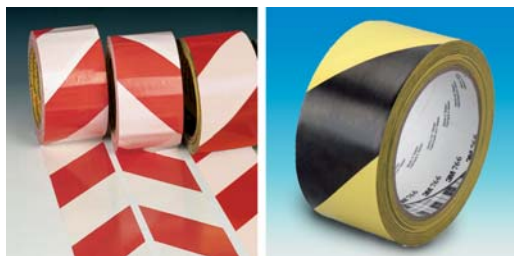
Ø (mm)	Packaging	Art. No.	Pack Qty. (roll)	€
9,5	roll à 1000	X285.1	1	38,20



Sekuroka®-warning tape

Made of plastic, yellow background with black print, self-adhesive. 25 mm wide. Comes in 66 m roll. In German. Inner-Ø 7.6 cm.

Type	Art. No.	Pack Qty. (roll)	€
RADIOAKTIV	1730.1	3	17,75



Adhesive hazard warning tape

By 3M. Self-adhesive, abrasion resistant adhesive hazard warning tape for indoor use. Made of PVC film, highly elastic and conformable even on irregular or uneven surfaces. Ideal for marking hazards, bundling, holding and sealing.

Roll width 50 mm, length 33 m.

Colour	Art. No.	Pack Qty. (roll)	€
red / white	0744.2	1	23,25
yellow / black	NK94.1	1	21,45



Sekuroka®-signal barrier tape

Tear-resistant tape made of PE film, red/white striped, plain printed, non-adhesive. For indicating, marking and warning against obstacles and hazards.

Dimensions: L 500 m x W 80 mm.

Art. No.	Pack Qty. (roll)	€
NH42.1	1	21,90



tesa Easy Cut®-table-dispenser

Heavy weight and with non-slip base for extra stability.

Model ①: dimensions L 240 x W 70 x H 130 mm, weight 1500 g

Model ②: dimensions L 155 x W 55 x H 80 mm, weight 900 g

Model	for roll length (m)	Useable width (mm)	Art. No.	Pack Qty.	€
①	66	25	1731.1	1	39,80
②	33	19	4918.1	1	31,30



Roti®-Tape-marking tapes

Self-adhesive, coloured marking tape. Ideal for various applications, e.g. marking samples, lab glasses, vessels, etc.

- Can be written on with pencil, biro, pen, marker, ink, etc.
- Can be peeled off without leaving a trace
- Resistant to oil, water and acids
- Temperatur stable from -23 to +121 °C
- Autoclavable

Length 12.7 m, inner-Ø 2.54 cm

	Width 13.0 mm	Width 19.1 mm	Width 25.4 mm
Colour	Art. No.	Art. No.	Art. No.
white	7981.1	7999.1	8036.1
yellow	7987.1	8008.1	8055.1
green	7985.1	8003.1	8042.1
pink	AL31.1	AL32.1	AL33.1
red	7982.1	8000.1	8037.1
orange	7988.1	8014.1	8057.1
blue	7983.1	8002.1	8041.1
beige	AL34.1	AL35.1	AL36.1
salmon	AL37.1	AL38.1	AL39.1
copper	AL40.1	AL41.1	AL42.1
pink	AL43.1	AL44.1	AL45.1
violet	AL46.1	AL47.1	AL48.1
lavender	AL49.1	AL50.1	AL51.1
grey	AL52.1	AL53.1	AL54.1
black	AL55.1	AL56.1	AL57.1
€/roll	7,75	8,95	12,80

Length 55 m, inner-Ø 7.62 cm

	Width 13.0 mm	Width 19.1 mm	Width 25.4 mm
Colour	Art. No.	Art. No.	Art. No.
white	7990.1	8024.1	8058.1
yellow	7996.1	8034.1	8065.1
green	7994.1	8033.1	8064.1
rosé	AL58.1	AL59.1	AL60.1
red	7991.1	8026.1	8061.1
orange	7997.1	8035.1	8069.1
blue	7993.1	8027.1	8062.1
beige	AL61.1	AL62.1	AL63.1
salmon	AL64.1	AL65.1	AL66.1
copper	AL67.1	AL68.1	AL69.1
pink	AL70.1	AL71.1	AL72.1
violet	AL73.1	AL74.1	AL75.1
lavender	AL76.1	AL77.1	AL78.1
grey	AL79.1	AL80.1	AL81.1
black	AL82.1	AL83.1	AL84.1
€/roll	16,60	19,90	24,85



Roti®-Tape-marking tapes starter set

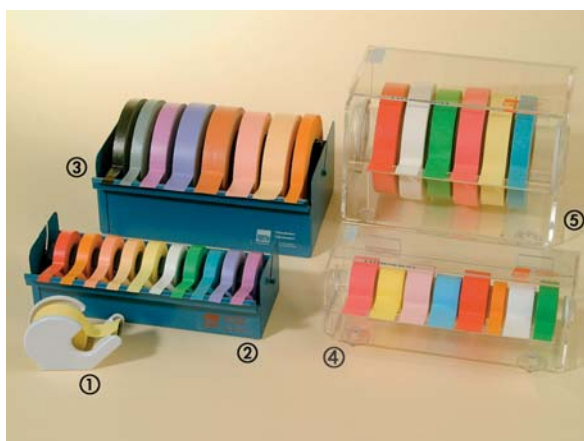
Set consists of 1 metal-tape dispenser (L314.1) and 10 rolls marking tape (13 mm x 12.7 m) in the colours white, red, blue, green, yellow, orange, beige, salmon, violet, and lavender.

Art. No.	Pack Qty.	€
AL85.1	1	104,30

Roti®-Tape-marking tape assortments

Contains 5 rolls in white, red, blue, green and yellow.

Length (m)	Width (mm)	Art. No.	Pack Qty. (assortment)	€
12,7	13,0	AK65.1	1	31,15
12,7	19,1	AK66.1	1	37,10
12,7	25,4	AK67.1	1	50,45
55	13,0	E287.1	1	58,60
55	19,1	E288.1	1	71,55
55	25,4	K325.1	1	99,90



Roti®-Tape-marking tape dispensers

For Roti®-Tape-marking tape. Dispenser and rolls can be combined individually.

Plastic dispenser: for 1-2 rolls of length 12.7 m.

Metal dispenser: with 4 rubber knobs to prevent slipping and with bore holes for wall attachment. Colour brilliant blue.

Acrylic glass dispenser: with lid and 4 rubber knobs.

Image	for roll length (m)	Useable width (mm)	Material	L x W x H (mm)	Art. No.	Pack Qty.	€
①	12,7	34	Plastic	117 x 47 x 90	CT05.1	1	9,90
②	12,7	240	Metal	260 x 120 x 80	L314.1	1	63,35
③	55	240	Metal	250 x 175 x 100	K346.1	1	66,55
④	12,7	220	Acrylic glass	251 x 125 x 92	AL87.1	1	94,60
⑤	55	240	Acrylic glass	248 x 191 x 162	AL88.1	1	117,20

Marking



PerfTape™ perforated marker tapes

Self-adhesive coloured marker tape, with perforations for easy and clean separation of identical-sized strips. The coated paper surface is durable, abrasion resistant and does not discolour. Oil and water resistant. Excellent adhesion to most surfaces, such as glass, plastic and metal. Can be removed without leaving a residue.

Ideal for general identification and colour coding. Suitable for labelling with ball-point pen, pencil, felt tipped pen or permanent marker.

Temperature stable from -23 to +121 °C.
Distance between perforations: 31.75 mm.

Length 12.7 m, width 19 mm, core Ø 25.4 mm

Colour	Art. No.	Pack Qty. (roll)	€
white	ATY8.1	1	15,35
yellow	ATY9.1	1	15,35
green	AXA0.1	1	15,35
light blue	AXA1.1	1	15,35
red	AXA2.1	1	15,35

Length 55 m, width 19 mm, core Ø 76.2 mm

Colour	Art. No.	Pack Qty. (roll)	€
white	AXA3.1	1	37,60
yellow	AXA4.1	1	37,60
green	AXA5.1	1	37,60
light blue	AXA6.1	1	37,60
red	AXA7.1	1	37,60

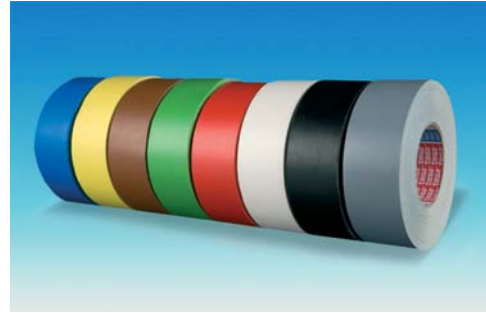


Sekuroka®-standard textile adhesive tapes

PE-coated cloth tape with natural rubber adhesive backing. 80 mesh (threads per inch²). High tear strength, good adhesive power, also adheres to rough surfaces. Hand tearable. Waterproof, highly UV and oil resistant. Wide variety of uses indoors and outdoors. Writable, temperature stable from -35 to +80 °C.

Length 50 m, width 19 mm, thickness 0.30 mm, core Ø 76.1 mm.

Colour	Art. No.	Pack Qty.	€
white	YX05.1	1	14,20
yellow	YX06.1	1	14,20
red	YX07.1	1	14,20
blue	YX08.1	1	14,20
green	YX09.1	1	14,20
silver	YX10.1	1	14,20



tesa® premium textile adhesive tapes

Acrylic-coated cloth tape with natural rubber adhesive. 148 mesh (threads per inch²). Abrasion resistant, very high tear strength. Hand tearable. Waterproof, UV and oil resistant. Wide variety of uses indoors and outdoors. Writable, temperature stable from -40 to 130 °C. Length 50 m, width 19 mm, thickness 0.31 mm, core Ø 76.1 mm. Autoclavable.

Colour	Art. No.	Pack Qty.	€
white	YX11.1	1	25,30
yellow	YX12.1	1	25,30
red	YX13.1	1	25,30
blue	YX14.1	1	25,30
green	YX15.1	1	25,30
grey	YX16.1	1	25,30
brown	YX17.1	1	25,30
black	YX18.1	1	25,30



Temperature stable adhesive tapes

Self-adhesive tape. Ideal for extreme temperatures. Temperature stable from -196 to +287 °C. Suitable for use in the cryo sector, incubators, autoclaves, sterilizers, etc. Surface with textile finish, can be marked.

Width (mm)	Length (m)	Art. No.	Pack Qty.	€
12,7	7,6	L034.1	1	31,10
19,0	7,6	L035.1	1	34,95
25,4	7,6	L036.1	1	52,15

Marking



Sekuroka®-hazard warning labels "Biohazard"

Self-adhesive, Ø 9.5 mm. Ideal for 0.5 to 2.0 ml tubes and other containers. Sticks to all plastics without drying out and falling off, e.g. in freezers or in boiling water baths. Chemically resistant against most organic solvents and caustic materials. Autoclavable. 1000 labels per roll.

Art. No.	Pack Qty. (roll)	€
KL45.1	1	38,20

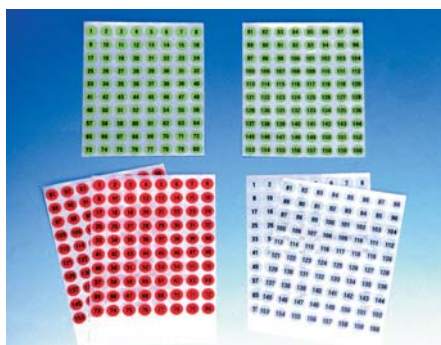


Write-Protect™ label protection film

Self-adhesive, perforated, fits Cryo labels for 0.5, 1.5 and 2.0 ml tubes or other vessels. Protects the label against organic solvents and corrosive chemicals. Holds labels in place, and prevents labels from becoming detached or falling off. Adheres to most surfaces, plastics, glass and metals. Resistant in temperature range from -196 to +150 °C.

Delivery incl. dispenser. 1000 labels per roll.

L x W (mm)	Art. No.	Pack Qty.	€
31,75 x 12,7	ECH6.1	1000	37,65
40,65 x 16,0	ECH7.1	1000	37,65



Sekuroka®-labels

Numbered from 1-160 in red, green and blue. Self-adhesive, made of paper Ø 8 mm. Ideal for labelling test tubes, vials, microcentrifuge tubes, etc. Should be used together with numerical racks to prevent any mix-up. Labels ensure correct positioning of test tubes even during bulk sampling.

Art. No.	Pack Qty.	€
N376.1	1	4,20

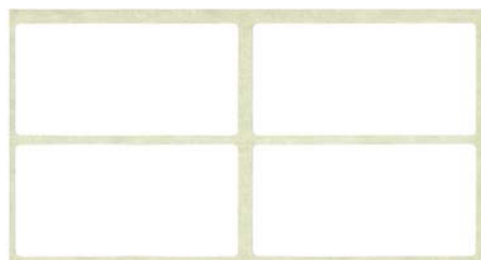


Tough-Tag Station

For easy and convenient storage of up to 6 rolls of Tough-Tags®, Tough-Spots® or Cryo-Tags® (unsuitable for round labels Ø 25 mm). With ledge for writing labels, cutting edge and no-skid rubber feet.

Delivery without labels, please order separately.

Art. No.	Pack Qty.	€
NL18.1	1	88,15



Sekuroka®-blank labels

Made of paper. Ideal for writing or printing on.

Size (mm)	Packaging	Art. No.	Pack Qty.	€
50 x 100	200 sheets x 4 labels = 800 labels	5831.1	1	42,95
50 x 19	200 sheets x 24 labels = 4800 labels	5823.1	1	42,95



Marking



Labels on rolls

Ideal for 0.2/0.5/0.65 and 1.5/2 ml tubes and other containers made of chemically inert polyester. Sticks to plastics without drying out and falling off during steam sterilization, in boiling waterbaths, refrigerators, stirrers, shakers, centrifuges, etc. Are extremely close-fitting and do not hinder removal or loading of tubes in stands or centrifuges. Tearproof. Can be marked with almost all markers.

Labels, angular (Tough Tags™), for manually marking.
Temperature stable from **-40 to +121 °C**. 1000 per roll.
(1500 per roll at Art. No. K436.1).

For vials (ml)	Colour	Length (mm)	Width (mm)	Art. No.	Pack Qty. (roll)	€
0,2	white	20,5	6,5	K436.1	1	40,05
0,5	white	23	13	K556.1	1	38,20
0,5	blue	23	13	K440.1	1	40,05
0,5	yellow	23	13	K441.1	1	40,05
0,5	green	23	13	L666.1	1	39,70
0,5	red	23	13	K442.1	1	40,05
0,5	transparent	23	13	K443.1	1	40,05
1,5/2	white	32	13	K557.1	1	38,20
1,5/2	blue	32	13	K444.1	1	45,70
1,5/2	yellow	32	13	K445.1	1	45,70
1,5/2	green	32	13	L667.1	1	45,70
1,5/2	red	32	13	K446.1	1	45,70
1,5/2	transparent	32	13	K447.1	1	45,70
Test tubes etc.	white	38	19	L676.1	1	57,55
Microtest plates	white	38	6	K435.1	1	40,05

Labels, round (Tough Spots™), for manually marking.
Temperature stable from **-196 to +80 °C**. 1000 per roll.

For vials (ml)	Colour	Ø (mm)	Art. No.	Pack Qty. (roll)	€
0,5	white	9,5	K164.1	1	39,25
0,5	blue	9,5	X612.1	1	36,55
0,5	green	9,5	X613.1	1	36,55
0,5	red	9,5	X614.1	1	36,55
0,5	yellow	9,5	X615.1	1	36,55
1,5/2	white	12,7	N120.1	1	38,20
1,5/2	red	12,7	N121.1	1	38,20
1,5/2	green	12,7	N122.1	1	38,20
1,5/2	yellow	12,7	N123.1	1	38,20
1,5/2	blue	12,7	N124.1	1	38,20



Labels for laser printers

Ideal for 0.2/0.5/0.65 and 1.5/2 ml tubes and other containers made of chemically inert polyester. Sticks to all plastics without drying out and falling off during steam sterilization, in boiling waterbaths, refrigerators, stirrers, shakers, centrifuges, etc. Are extremely close-fitting and do not hinder removal or loading of tubes in stands or centrifuges. Tearproof.

Labels, angular, for laser printers (Laser Tough Tags™)
Come on sheets, sheet size (US-Letter) 21.6 x 27.9 cm.
Temperature stable from **-40 to +121 °C**

*sorted acc. to colour: contains 4 sheets each of following colours (blue, green, orange, red, yellow)

For vials (ml)	Colour	Length (mm)	Width (mm)	Labels/ Sheet	Art. No.	Pack Qty. (Sheet)	€
0,5	white	24	13	119	TH53.1	25	85,50
0,5	sorted acc. to colour*	24	13	119	TH54.1	25	85,50
1,5/2	white	33	13	85	TH55.1	25	85,50
1,5/2	sorted acc. to colour*	33	13	85	TH56.1	25	85,50
Test tubes etc.	white	38	19	60	TH57.1	25	85,50
Test tubes etc.	sorted acc. to colour*	38	19	60	TH58.1	25	85,50
Microscope slides etc.	white	22	22	96	TH59.1	25	85,50
Microscope slides etc.	sorted acc. to colour*	22	22	96	TH60.1	25	85,50

Labels, round, for laser printers (Laser Tough Spots™)
Come on sheets, sheet size (US-Letter) 21.6 x 27.9 cm.
Temperature stable from **-196 to +100 °C**.

*sorted according to colour: contains 4 sheets each of following colours (blue, green, orange, red, yellow)

For vials (ml)	Colour	Ø (mm)	Labels/ Sheet	Art. No.	Pack Qty. (Sheet)	€
0,5-0,65	white	9,5	192	KP57.1	20	64,30
0,5-0,65	red	9,5	192	KP61.1	20	62,50
0,5-0,65	sorted acc. to colour*	9,5	192	KP63.1	20	64,30
1,5-2,0	white	11	234	KP64.1	20	64,30
1,5-2,0	white	13	192	KP65.1	20	64,30
1,5-2,0	red	13	192	KP69.1	20	62,50
1,5-2,0	sorted acc. to colour*	13	192	KP71.1	20	64,30
15-50	white	19	108	KP72.1	20	62,50

- Microcentrifuge tubes from p. 455
- Stands for centrifuge tubes from p. 215
- Cryo gloves see page 618



Cryo-labelsheets

Made with acrylate. Sticks to plastic, glass or metal without drying out or peeling off. Glass and metal surfaces must be completely free of grease. Can also be used in boiling water baths, in refrigerators, under cryo-conditions (liquid nitrogen). Temperature stable from **-196 to +100 °C**. Can be removed without leaving any traces. Sheets are printable with a laser printer.

Sheet size (US-Letter) 21.6 x 27.9 cm.

White

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
38	6	Microtiter-plates	156	X545.1	20	72,60
24	13	0.5 ml tubes	119	X547.1	20	72,60
33	13	1.5-2 ml tubes	85	X548.1	20	72,60
25	25	Microscope slides	80	EL06.1	20	72,60
38	19	Cryo-vials	60	X549.1	20	72,60
64	13	0.5-2 ml tubes	60	EL07.1	20	72,60
43	19	Cryo vials	52	EL08.1	20	72,60
29	44	Centrifuge tubes	42	EL09.1	20	72,60
67	25	Racks, boxes	30	X550.1	20	72,60
76	51	Bottles, glasses	12	X551.1	20	72,60

Blue

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
24	13	0.5 ml tubes	119	HX32.1	20	72,60
33	13	1.5-2 ml tubes	85	HX33.1	20	72,60
38	19	Cryo-vials	60	HX34.1	20	72,60
67	25	Racks, boxes	30	HX35.1	20	72,60

Green

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
24	13	0.5 ml tubes	119	HX36.1	20	72,60
33	13	1.5-2 ml tubes	85	HX37.1	20	72,60
38	19	Cryo-vials	60	HX38.1	20	72,60
67	25	Racks, boxes	30	HX39.1	20	72,60

Orange

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
24	13	0.5 ml tubes	119	HX40.1	20	72,60
33	13	1.5-2 ml tubes	85	HX41.1	20	72,60
38	19	Cryo-vials	60	HX42.1	20	72,60
67	25	Racks, boxes	30	HX43.1	20	72,60

Red

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
24	13	0.5 ml tubes	119	HX44.1	20	72,60
33	13	1.5-2 ml tubes	85	HX45.1	20	72,60
38	19	Cryo-vials	60	HX46.1	20	72,60
67	25	Racks, boxes	30	HX47.1	20	72,60

Yellow

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
24	13	0.5 ml tubes	119	HX48.1	20	72,60
33	13	1.5-2 ml tubes	85	HX49.1	20	72,60
38	19	Cryo-vials	60	HX50.1	20	72,60
67	25	Racks, boxes	30	HX51.1	20	72,60

Coloured assorted (4 sheets of each: blue, green, orange, red, yellow)

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
24	13	0.5 ml tubes	119	HX52.1	20	72,60
33	13	1.5-2 ml tubes	85	HX53.1	20	72,60
38	19	Cryo-vials	60	HX54.1	20	72,60
67	25	Racks, boxes	30	HX55.1	20	72,60

Cryo-labels on the roll, colour white

White, for manually marking

Length (mm)	Width (mm)	For	Labels/Roll	Art. No.	Pack Qty. (roll)	€
24	13	0.5 ml tubes	1000	HX56.1	1	39,80
38	19	Cryo vials	1000	L673.1	1	39,70
33	13	1.5-2 ml tubes	1000	L672.1	1	39,70

Cryo-Clear™ - labels for laser printers

Transparent labels made of flexible vinyl with acrylic adhesive. The label surface is specially coated for printing with laser printers. Temperature stable from **-196 to +70 °C**. Also suitable for liquid nitrogen. Good chemical resistance against most organic solutions.

Come on sheet, format (US-Letter) 21.6 x 27.9 cm

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
24	13	0.5 ml tubes	119	HT44.1	20	72,60
33	13	1.5-2.0 ml tubes	85	HT45.1	20	72,60



WETGRIP™-labels

On sheets, sheet size (US-Letter) 21.6 x 27.9 cm, suitable for laser printers. Labels stick to moist and frozen surfaces made of glass, plastic, metal and cardboard. Make sure that surfaces are free of grease and silicone! Made of chemically inert polyester. Temperature stable from **-40 to +100 °C**.

Length (mm)	Width (mm)	For	Labels/Sheet	Art. No.	Pack Qty. (Sheet)	€
24	13	0.5 ml-tubes	119	KP74.1	20	72,60
33	13	1.5-2 ml-tubes	85	KP75.1	20	72,60
38	19	Other applications	60	KP76.1	20	72,60
22	22	Microscope slides	96	KP77.1	20	72,60

Marking



Thermal transfer labels

White, angular cornered labels with acrylate-based adhesive backing. Excellent adhesion to plastic, glass or metal at low temperatures without drying out or peeling off. Care must be taken to ensure that glass and metallic surfaces are absolutely free of oil and grease. Abrasion resistant, resistant to chemicals and moisture. Suitable for use in refrigerators, freezers and under cryogenic conditions (liquid nitrogen). Can be removed without leaving any traces. Coated for use with a resin ribbon. Designed for high resolution and very precise labelling, e.g. for barcode. Suitable for most thermal transfer printers. 2000 labels per roll, wound externally, roll core dia. 25.4 mm (1 inch).

Cryo-Tags® cryogenic labels

Temperature stable from **-196 to +80 °C**.

Length (mm)	Width (mm)	For	Art. No.	Pack Qty. (roll)	€
20,6	7	0.2 ml tubes	NL05.1	1	79,55
24	13	0.5 ml tubes	NL06.1	1	79,55
27	13	0.5 ml tubes	NL07.1	1	72,60
32	13	1.5-2 ml tubes	NL08.1	1	98,40
35	16	0.5-2 ml cryo vials	NL09.1	1	83,35
38	13	0.5-2 ml cryo vials	NL10.1	1	106,45
38	19	Racks/containers	NL11.1	1	131,15
51	6	Microtitration plates	NL12.1	1	75,15

Tough-Tags®

Temperature stable from **-40 to +150 °C**.

Length (mm)	Width (mm)	For	Art. No.	Pack Qty. (roll)	€
24	13	0.5 ml tubes	NL13.1	1	76,90
32	13	1.5-2 ml tubes	NL14.1	1	80,10
35	16	0.5-2 ml cryo vials	NL15.1	1	80,10
38	19	Racks/containers	NL16.1	1	141,90
51	6	Microtitration plates	NL17.1	1	80,10



Thermal transfer labels, xylene-resistant

Made of polyester. Excellent solvent resistance, specifically against xylene. Versatile - also suitable for use in boiling water baths. Surface coated for use with resin ribbon. Designed for high resolution and very precise labelling, e.g. for barcode. Suitable for most thermal transfer printers. Good adhesion to PP tubes; not for use on siliconised surfaces. Temperature stable from -40 to 121 °C, autoclavable. 2000 labels per roll, wound externally, 25.4 mm roll core (1 inch).

L x W (mm)	Suitable for:	Art. No.	Pack Qty.	€
22 x 22	Microscope slide	ECH8.1	2000	81,70
43 x 16	General use	ECH9.1	2000	81,70



High-temperature labels (Bake Tags™)

Made of acrylate, for manual labelling. For permanent labelling of plastic, glass and metal containers. Can be used for hot air sterilizing (180 °C) and for deactivating RNase/DNase and other enzymes. Also ideal for use during sterilizing, autoclaving, in boiling waterbaths, refrigerators and for storing in freezers (liquid nitrogen). Resistant to most organic solvents, acids and alkalis. Strength 0.008 mm. Temperature stable from **-196 to +180 °C**. Size of labels 38 x 19 mm. Colour: white. 250 labels on roll.

Art. No.	Pack Qty. (roll)	€
L675.1	1	95,70



Wash-Off Labels™

Washable, white labels on sheets. Labels and adhesive are completely removable within 30 seconds at any water temperature and without leaving any traces of adhesive. 100 % biodegradable. Temperature stable from 0 to 21 °C. Suitable for racks, boxes and containers. Suitable for most laser printers. Sheet format (US letter) 21.6 x 27.9 cm.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
67	25,4	NL21.1	750	117,20
102	25,4	NL22.1	500	117,20

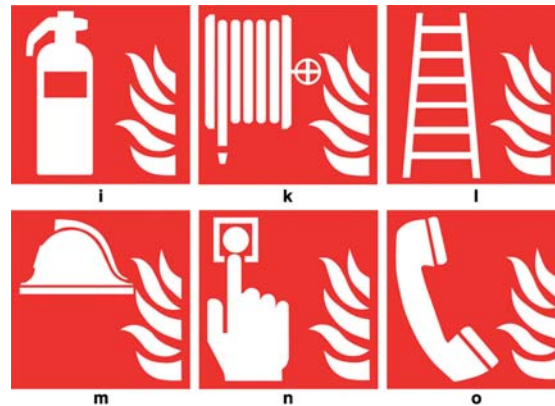


Removable Tough-Tags® for manual labelling

Removable, white labels with rounded corners; ideal for labelling reusable containers, laboratory equipment, racks and pipettes. No residues - easily removable without leaving any traces of adhesive. Resistant to most solvents, including (for short periods) acetone and xylol. 1000 labels per roll.

Length (mm)	Width (mm)	Art. No.	Pack Qty. (roll)	€
38	13	NL19.1	1	32,20
38	19	NL20.1	1	32,20

Hazard identification



Sekuroka®-fire protection sign acc. to ISO 7010

Acc. to ASR A1.3, DIN EN ISO 7010.

Self-adhesive film. Adheres permanently to clean, grease-free and smooth surfaces. Resistant to many chemicals.

Temperature stability: -40 to +80 °C. Suitable for indoor use. Minimum bonding temperature: +10 °C. Material thickness: approx. 0.08 to 0.55 mm.

Type	Symbol	W x H (mm)	Art. No.	Pack Qty.	€
i	Fire extinguisher	148 x 148	YX19.1	1	3,50
i	Fire extinguisher	200 x 200	YX20.1	1	4,50
k	Fire hose	200 x 200	YX21.1	1	4,95
l	Fire ladder	200 x 200	YX22.1	1	5,30
m	Firefighting media and apparatus	200 x 200	YX23.1	1	4,95
n	Fire alarm	200 x 200	YX24.1	1	5,30
o	Fire emergency telephone	200 x 200	YX25.1	1	5,30

Long-lasting luminescence

175 % over DIN 67510. Ideal for power failure or darkness.

Type	Symbol	W x H (mm)	Art. No.	Pack Qty.	€
i	Fire extinguisher	200 x 200	YX26.1	1	9,60
k	Fire hose	200 x 200	YX27.1	1	9,60
l	Fire ladder	200 x 200	YX28.1	1	9,85
m	Firefighting media and apparatus	200 x 200	YX29.1	1	9,60
n	Fire alarm	200 x 200	YX30.1	1	9,85
o	Fire emergency telephone	200 x 200	YX31.1	1	9,85

Only available in Germany!



Sekuroka®-magnetic signs

Come on tape roll. Made of plastic with magnetic finish and white PVC layer. Can be marked with pencil, pen, typewriter, etc.

Width (mm)	Roll length (m)	Art. No.	Pack Qty.	€
30	5	0182.1	1	26,35
50	5	0181.1	1	42,50



Sekuroka®-fire protection signs

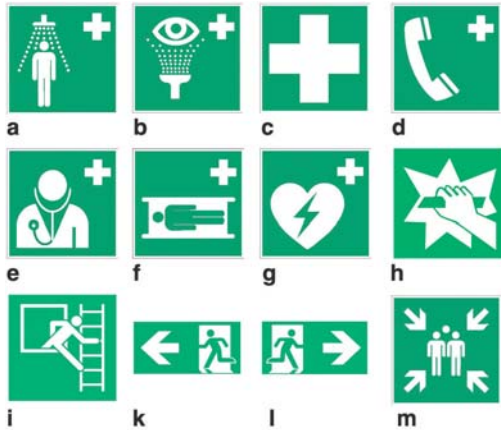
Field-proven safety marking. Made of self-adhesive PVC foil, 0.1 mm, with permanent-glue and colour-fast print.

Type	Symbol	B x H (mm)	Art. No.	Pack Qty.	€
d	Direction arrow	200 X 200	K217.1	1	5,35

Following table indicates visibility range of signs

Side length (mm)	200	300	400	
Visibility range (m)	6	9	12	
Ø (mm)	200	400		
Visibility range (m)	8	16		
Size W x H (mm)	200 x 200	297 x 105	400 x 140	297 x 148
Visibility range (m)	12	8	10,5	9

Hazard identification



First-aid and emergency signs acc. to ISO 7010

Acc. to ASR 1.3 and DIN EN ISO 7010.

Film

Self-adhesive individual labels, made of PE film, colourfast print. Resistant to water, oil and alkalis. Temperature stable from -40 to +80 °C.

Image	Symbol	Side length (mm)	Art. No.	Pack Qty.	€
a	Body safety shower	200 x 200	NP67.1	1	5,40
b	Eyewash	200 x 200	H497.1	1	5,05
c	First aid	100 x 100	NP68.1	1	3,80
c	First aid	200 x 200	0232.1	1	5,90
d	Emergency telephone	200 x 200	NP69.1	1	5,35
e	Doctor	200 x 200	NP70.1	1	5,35
f	Stretcher	200 x 200	NP71.1	1	5,35
g	Defibrillator	200 x 200	NP72.1	1	5,15
h	Emergency exit system	100 x 100	NP73.1	1	3,85
k	Emergency exit, left	400 x 200	NP74.1	1	8,20
l	Emergency exit, right	400 x 200	NP75.1	1	8,20

Film, long-lasting luminescence

Self-adhesive, long-lasting luminescence exceeding DIN 67510 by 175 %. Ideal for power failure or darkness.

Image	Symbol	Side length (mm)	Art. No.	Pack Qty.	€
a	Body safety shower	200 x 200	NP76.1	1	9,85
b	Eyewash unit	200 x 200	H493.1	1	11,70
c	First aid	200 x 200	H492.1	1	11,70
h	Emergency exit system	100 x 100	NP77.1	1	6,05
i	Emergency exit with escape ladder	200 x 200	NP78.1	1	9,85
k	Emergency exit, left	400 x 200	NP79.1	1	18,30
l	Emergency exit, right	400 x 200	NP80.1	1	18,50

Plastic

Plastic sign for indoor and outdoor use. Temperature stable from -30 to +50 °C, resistant to moisture and weak acids, flame retardant.

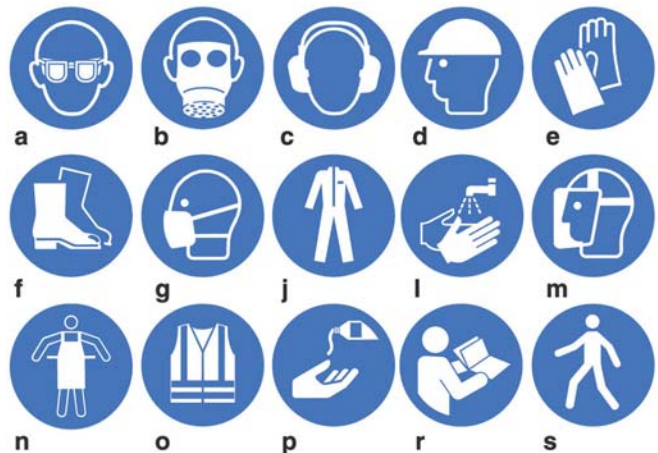
Image	Symbol	Side length (mm)	Art. No.	Pack Qty.	€
m	Collection point	400 x 400	NP81.1	1	23,10



a



b



Safety symbols to ISO 7010

Acc. to ASR 1.3 and DIN EN ISO 7010.

Made of PE film with colour-fast print. Self-adhesive individual labels.

Resistant to water, oil and alkalis. Temperature stable from -40 to +80 °C.

Type	Symbol	Ø (mm)	Art. No.	Pack Qty.	€
a	Wear eye protection	50	NK20.1	1	2,10
a	Wear eye protection	100	NK21.1	1	2,80
a	Wear eye protection	200	NK22.1	1	4,65
b	Wear respiratory protection	100	NK23.1	1	3,20
b	Wear respiratory protection	200	NK24.1	1	4,90
c	Wear ear protection	50	NK25.1	1	2,10
c	Wear ear protection	100	NK26.1	1	2,80
c	Wear ear protection	200	NK27.1	1	4,65
d	Wear protective headgear	100	NK28.1	1	3,20
d	Wear protective headgear	200	NK29.1	1	4,90
e	Wear protective gloves	50	NK30.1	1	2,10
e	Wear protective gloves	100	NK31.1	1	2,80
e	Wear protective gloves	200	NK32.1	1	4,65
f	Wear protective footwear	100	NK33.1	1	3,20
f	Wear protective footwear	200	NK34.1	1	4,90
g	Wear mask	100	NK35.1	1	3,20
g	Wear mask	200	NK36.1	1	4,90
j	Wear protective clothing	100	NK37.1	1	3,20
j	Wear protective clothing	200	NK38.1	1	4,90
l	Wash hands	100	NK39.1	1	3,20
l	Wash hands	200	NK40.1	1	4,90
m	Wear face shield	100	NK41.1	1	3,20
m	Wear face shield	200	NK42.1	1	4,90
n	Wear protective apron	100	NK43.1	1	3,20
o	Wear safety vest	50	NK44.1	1	2,10
o	Wear safety vest	100	NK45.1	1	3,20
p	Apply skin protection creme	100	NK46.1	1	3,20
r	Follow instructions	100	NK47.1	1	3,20
s	Use footpath	200	NK48.1	1	4,90



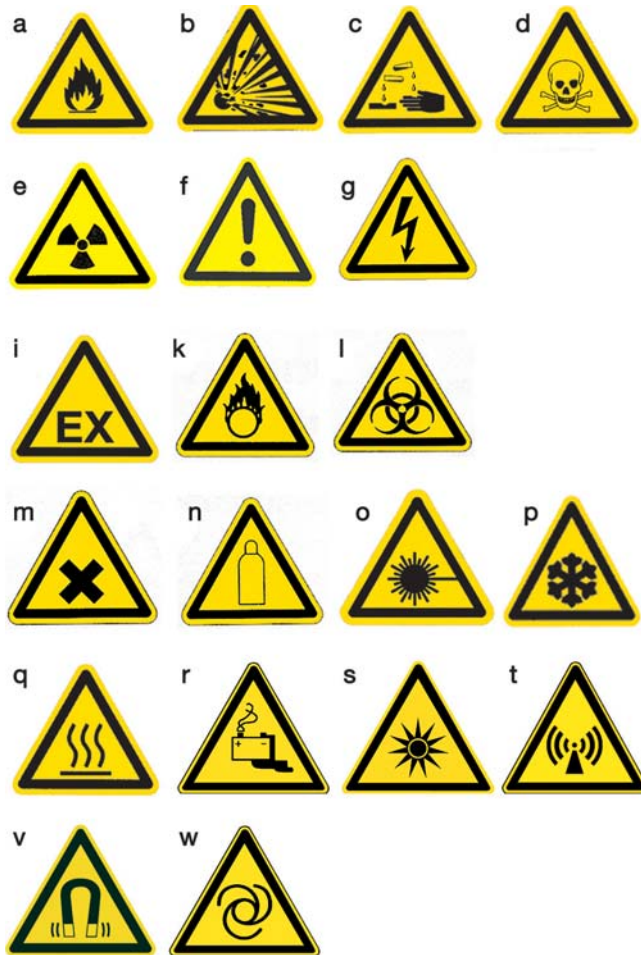
h

Sekuroka®-mandatory signs

Field-proven, self-adhesive PVC foil, 0.1 mm, with permanent-glue and colour-fast print.

Type	Symbol	Ø (mm)	Art. No.	Pack Qty.	€
h	Protective cap must be used	100	N419.1	1	3,50
h	Protective cap must be used	200	L252.1	1	5,95

Hazard identification



Warning symbols

Acc. to ISO 7010, ASR A1.3 and practice tested.

Made of **PE film** with colourfast print. Self-adhesive warning symbol labels.

Permanent. Resistant to water, oil and alkalis.

Temperature stable from -40 to +80 °C. Suitable for indoor use.

*Tried and tested

On sheets, 10 pce./sheet

Type	Warning!	Side length (mm)	Art. No.	Pack Qty.	€
c*	Corrosive substances	50	XL40.1	10	9,95
e	Radioactive substances or ionising radiation	25	XL42.1	10	7,55
e	Radioactive substances or ionising radiation	50	XL43.1	10	8,75
f	Hazardous area	50	XL44.1	10	8,75
g	Hazardous, electrical voltage	25	XL45.1	10	7,20
g	Hazardous, electrical voltage	50	XL46.1	10	8,45
o	Laser beam	50	XL47.1	10	7,45
q	Hot surface	50	XL48.1	10	8,50
t	Electromagnetic field	50	XL49.1	10	9,25

Individual labels

Type	Warning!	Side length (mm)	Art. No.	Pack Qty.	€
a	Flammable substances	100	XL15.1	1	4,45
a	Flammable substances	200	TA07.1	1	5,35
b	Explosive substances	200	XL16.1	1	5,70
b	Explosive substances	300	0458.1	1	9,30
c*	Corrosive substances	100	XL17.1	1	4,05
c*	Corrosive substances	200	XL18.1	1	6,25
c	Corrosive substances	400	0451.1	1	12,80
d	Toxic substances	100	XL19.1	1	3,80
d	Toxic substances	200	XL20.1	1	6,25
d	Toxic substances	400	0454.1	1	12,80
e	Radioactive substances or ionising radiation	100	XL21.1	1	3,80
e	Radioactive substances or ionising radiation	200	XL22.1	1	6,35
f	Hazardous area	100	XL23.1	1	3,80
f	Hazardous area	200	XL24.1	1	5,70
f	Hazardous area	400	0220.1	1	11,50
g	Hazardous, electrical voltage	100	XL25.1	1	5,95
g	Hazardous, electrical voltage	200	XL26.1	1	5,35
g	Hazardous, electrical voltage	300	0219.1	1	9,65
i*	Explosive atmosphere	200	XL27.1	1	5,35
i*	Explosive atmosphere	400	H487.1	1	11,50
k*	Inflammable substances	100	XL28.1	1	3,80
k*	Oxidising substances	200	H488.1	1	5,05
l	Biohazard	100	XL29.1	1	3,80
l	Biohazard	200	H489.1	1	5,35
m*	Harmful or irritant substances	200	H490.1	1	5,35
n*	Gas cylinders	100	XL30.1	1	4,05
n*	Gas cylinders	200	H491.1	1	5,35
o	Laser beam	200	XL31.1	1	5,35
o	Laser beam	300	H498.1	1	10,55
p	Low temperature	100	XL32.1	1	4,25
p	Low temperature	200	K213.1	1	5,30
q	Hot surface	100	XL33.1	1	3,80
q	Hot surface	200	K214.1	1	5,60
r	Hazards due to batteries	100	XL34.1	1	4,00
s	Optical radiation	100	XL35.1	1	3,80
t	Electromagnetic field	200	XL36.1	1	5,60
v	Magnetic field	200	XL37.1	1	5,60
w	Automatic start-up	200	XL38.1	1	6,95

On a roll, 500 pce./roll

Type	Warning!	Side length (mm)	Art. No.	Pack Qty.	€
o	Laser beam	25	XL50.1	500	57,00
o	Laser beam	50	XL51.1	500	75,15
q	Hot surface	25	XL52.1	500	57,00
q	Hot surface	50	XL53.1	500	75,15

Following table indicates visibility range of signs

Side length (mm)	200	300	400	
Visibility range (m)	6	9	12	
Ø (mm)	200	400		
Visibility range (m)	8	16		
Size W x H (mm)	200 x 200	297 x 105	400 x 140	297 x 148
Visibility range (m)	12	8	10,5	9

Hazard identification



Sekuroka®-prohibition symbols to ISO 7010

To ASR A1.3, DIN EN ISO 7010.

Self-adhesive film. Adhere permanently to clean, grease-free and smooth surfaces. Resistant to many chemicals.

Temperature stable from -40 to +80 °C. Suitable for indoor use. Minimum bonding temperature +10 °C. Material thickness approx. 0.08 to 0.55 mm.

Type	Symbol	Ø (mm)	Art. No.	Pack Qty.	€
a	No smoking	100	YX32.1	1	2,85
a	No smoking	200	YX33.1	1	4,30
b	Fire, naked flame and smoking prohibited	200	0204.1	1	5,35
b	Fire, naked flame and smoking prohibited	400	0205.1	1	12,85
c	Not drinking water	100	YX34.1	1	2,85
d	No eating or drinking	200	YX35.1	1	4,60
e	No pedestrian access	200	YX36.1	1	4,60
f	No storage permitted	200	YX37.1	1	4,60
g	Do not touch	200	YX38.1	1	4,60
h	Do not enter	200	YX39.1	1	4,60
i	No mobile phones	200	X450.1	1	5,50
k	No access for persons with pace-makers or implanted defibrillators	200	YX40.1	1	4,60
L	No photography	200	YX41.1	1	4,60

Sekuroka®-prohibition signs, double-sided

Self-adhesive films for glass doors.

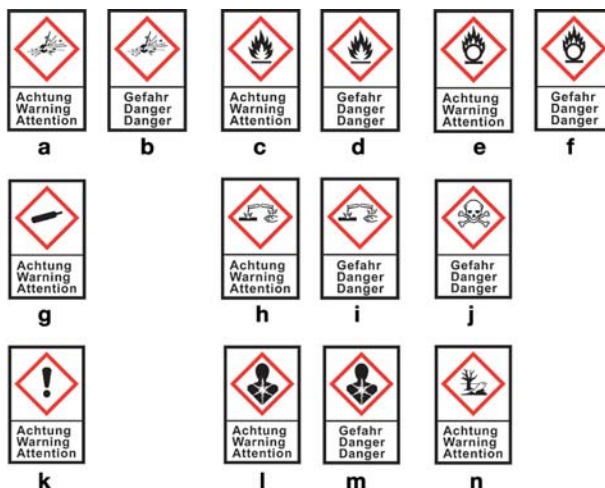
Type	Symbol	Ø (mm)	Art. No.	Pack Qty.	€
i	No mobile phones	100	YX42.1	1	12,85
a	No smoking	100	YX43.1	1	12,85



Sekuroka®-prohibition signs

Field-proven safety marking. Made of self-adhesive PVC foil, 0.1 mm, with permanent-glue and colour-fast print.

Type	Symbol	Ø (mm)	Art. No.	Pack Qty.	€
f	Access forbidden to all unauthorized persons	200	H483.1	1	5,35
h	Eating and drinking forbidden	200	H486.1	1	6,35



GHS hazardous substances labels

High-glossy PE-foil, 100 µm thick. permanent adhesive, waterproof, temperature stable from -20 to +80 °C. Signal words trilingual: German, English, French. 250 per roll in practical dispenser box.

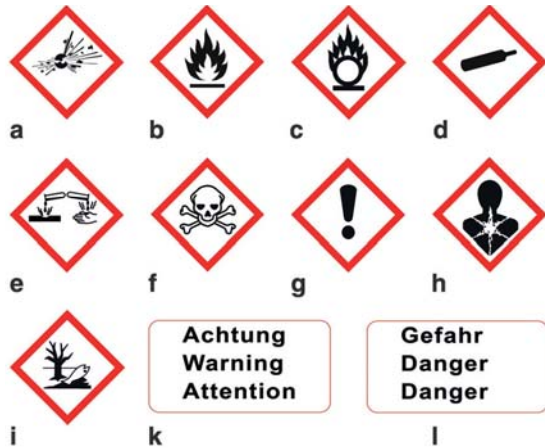
Dimensions: W 22 x H 30 mm

Image	Pictogram/signal word	Code	Art. No.	Pack Qty.	€
a	Exploding bomb/Warning	GHS01	LN47.1	250	9,85
b	Exploding bomb/Danger	GHS01	LN48.1	250	9,85
c	Flame/Warning	GHS02	LN49.1	250	9,85
d	Flame/Danger	GHS02	LN50.1	250	9,85
e	Flame over circle/Warning	GHS03	LN51.1	250	9,85
f	Flame over circle/Danger	GHS03	LN52.1	250	9,85
g	Gas cylinder/Warning	GHS04	LN53.1	250	9,85
h	Chemical burns/Warning	GHS05	LN54.1	250	9,85
i	Chemical burns/Danger	GHS05	LN55.1	250	9,85
j	Skull and crossbones/Danger	GHS06	LN56.1	250	9,85
k	Exclamation mark/Warning	GHS07	LN57.1	250	9,85
l	Health hazard/Warning	GHS08	LN58.1	250	9,85
m	Health hazard/Danger	GHS08	LN59.1	250	9,85
n	Environment/Warning	GHS09	LN60.1	250	9,85

Dimensions: W 27 x H 40 mm

Image	Pictogram/signal word	Code	Art. No.	Pack Qty.	€
a	Exploding bomb/Warning	GHS01	LN61.1	250	13,65
b	Exploding bomb/Danger	GHS01	LN62.1	250	13,65
c	Flame/Warning	GHS02	LN63.1	250	13,65
d	Flame/Danger	GHS02	LN64.1	250	13,65
e	Flame over circle/Warning	GHS03	LN65.1	250	13,65
f	Flame over circle/Danger	GHS03	LN66.1	250	13,65
g	Gas cylinder/Warning	GHS04	LN67.1	250	13,65
h	Chemical burns/Warning	GHS05	LN68.1	250	13,65
i	Chemical burns/Danger	GHS05	LN69.1	250	13,65
j	Skull and crossbones/Danger	GHS06	LN70.1	250	13,65
k	Exclamation mark/Warning	GHS07	LN71.1	250	13,65
l	Health hazard/Warning	GHS08	LN72.1	250	13,65
m	Health hazard/Danger	GHS08	LN73.1	250	13,65
n	Environment/Warning	GHS09	LN74.1	250	13,65

Hazard identification



Combinable GHS hazard pictograms

High-gloss **PE film**, thickness 100 µm. Permanent adhesive, waterproof, temperature stable from -20 to +80 °C.
250 pce. per roll in a handy dispenser box.

Pictograms without signal word, label size 22 x 22 mm.

Image	Pictogram/signal word	Code	Art. No.	Pack Qty.	€
a	Exploding bomb	GHS01	NP43.1	250	11,10
b	Flame	GHS02	NP44.1	250	11,10
c	Flame over circle	GHS03	NP45.1	250	11,10
d	Gas bottle	GHS04	NP46.1	250	11,10
e	Burns	GHS05	NP47.1	250	11,10
f	Skull	GHS06	NP48.1	250	11,10
g	Exclamation mark	GHS07	NP49.1	250	11,10
h	Health hazard	GHS08	NP50.1	250	11,10
i	Environment	GHS09	NP51.1	250	11,10

Signal words in three languages: German, English and French.
Label size: W 27 x H 15 mm.

Image	Pictogram/signal word	Art. No.	Pack Qty.	€
k	Caution	NP52.1	250	12,70
l	Hazard	NP53.1	250	12,70



GHS hazard symbols assortment

High-gloss, self-adhesive **PE film**, thickness 100 µm. Permanent adhesive, waterproof, temperature stable from -20 to +80 °C.
20 labels per sheet, sorted by frequency of use.

Type	Label size (mm)	Art. No.	Pack Qty.	€
Hazard symbols GHS01-GHS09	22 x 22	ATY6.1	500	55,85
Signal words for caution/hazard	27 x 15	ATY7.1	500	88,15



Sekuroka®-labels

For wash bottles and reagent bottles. Suitable for ordinary laboratory use. Made of PVC, dimensions L 105 x W 75 mm. With the name of substance and hazard pictograms. Trilingual: German, English, French.

Label	Art. No.	Pack Qty.	€
Acetone	8416.1	10	11,10
Distilled water	8420.1	10	11,10
Ethanol	8419.1	10	11,10
Isopropanol	8430.1	10	11,10



Labels on DIN A4 sheets

Rectangular labels, white, matt.

Standard paper labels

With permanent adhesive. Suitable for laser, colour and inkjet printers, as well as copiers.

W x H (mm)	Labels/sheet	Art. No.	Pack Qty. (sheets)	€
70 x 50,8	15	HY36.1	100	21,45
105 x 74	8	HY37.1	100	21,45
105 x 148	4	HY38.1	100	21,45

Impregnated paper labels

Made of wood-free paper, with high-strength rubber-based adhesive. Latex-impregnated surface is water repellent. Suitable for laser printers and copiers.

W x H (mm)	Labels/sheet	Art. No.	Pack Qty. (sheets)	€
70 x 50,8	15	NK99.1	30	32,05
105 x 74	8	NL00.1	30	32,05
105 x 148	4	NL01.1	30	32,05

Chemical resistant PET labels

Made of polyester film, with permanent acrylic adhesive. Suitable for laser printers, copiers and inkjet printers (with solvent based inks only). Weather resistant and suitable for outdoor use. Saltwater resistant and resistant to many solvents, diluted acids and alkalis.

W x H (mm)	Labels/sheet	Art. No.	Pack Qty. (sheets)	€
70 x 50,8	15	NL02.1	30	32,05
105 x 74	8	NL03.1	30	32,05
105 x 148	4	NL04.1	30	32,05

Absorbents



ROTH® Mercurisorb

Contains silver nitrate. For speedy and easy absorption of mercury. Emits no more vapours after absorption. Absorption capacity 1:1.

Emergency kit in plastic case delivery incl. 100 g Mercurisorb-ROTH®, gloves, scoop, brush, pasteur pipettes, empty vessel.



Danger H314-H411

Art. No.	Pack Qty.	€
9461.1	1 Emergency kit in plastic case	80,10
9461.4	1 Emergency kit in carton	62,25
9461.2	1 Refill pack Mercurisorb-ROTH® 250 g, plastic	107,40
9461.3	1 Refill pack Mercurisorb-ROTH® 1 kg, plastic	418,20

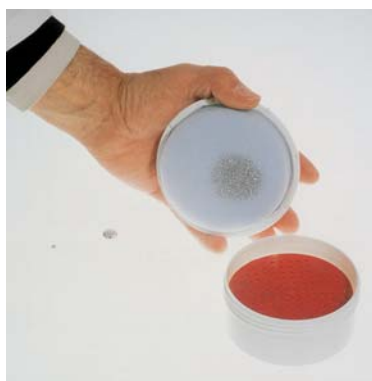
Mercury is, at room temperature, a liquid metal, (freezing point -38.84 °C, boiling point 356.95 °C). Saturation pressure at room temperature is only 0.0013 mm. Mercury vapours are highly toxic and can often lead to chronic mercury poisoning. Inhaled mercury accumulates in the human organ's and can be secreted only very slowly with the urine. Mercury should therefore always be stored in closed containers and should only be used in well-ventilated rooms with a respiratory filter (e.g. screw-filter Hg-P3 up to 0.5 Vol %).



Iodized activated coal

For permanent absorption of **mercury vapours**. A thin layer is sprinkled on unused shelves in exposed rooms, and should be replaced every six months. **Not to be used in rooms where people constantly work.** Iodine contents approx. 5 %, powder density approx. 0.4 g/cm³.

Art. No.	Pack Qty.	€
6153.1	250 g	28,95
6153.2	1 kg	94,10



Mercury collector

Mercury is absorbed by a specially-designed foamed insert inside the collector. When the collector is screwed down the pellets loosen, fall through a perforated separating disc and can be reused.

Type	Art. No.	Pack Qty.	€
Mercury collector	P941.1	1	25,75
Spare foamed insert	P942.1	1	4,65



Pyracidosorb-ROTH®

For **neutralizing acids**. With colour indicator. 1 kg absorbs approx. 0.3 l concentrated sulphuric acid, 0.6 l concentrated nitric acid and 1 l concentrated hydrochloric acid.

⚠ **Warning** H319

Art. No.	Pack Qty.	€
0411.1	5 kg	39,70

Basosorb

For **neutralizing alkaline** solutions. With colour indicator. 1 kg absorbs approx. 1 l concentrated ammonia solution (25 %), 1 l concentrated potassium hydroxide (50 %) and ¾ l concentrated sodium hydroxide (50 %).

⚠ **Warning** H319

Art. No.	Pack Qty.	€
3287.1	5 kg	61,20

Universal absorber Rotisorb®

Ideal for absorption of inflammable, oily, and aggressive liquids such as anorganic and organic acids, alkaline solutions, alcohols, aldehydes, amines, esters, aromatic, chlorinated and aliphatic hydrocarbons, substance compounds, e. g. paint, heating oil, fuels, lacquers, motor lubricants.

Art. No.	Pack Qty.	€
1710.1	800 g (in square HDPE container)	21,40
1710.2	25 kg (in PE flat bag)	79,05



Sekuroka®-safety station

Wall shelf W 530 x H 300 x D 220 mm, made of aluminium.

Delivery incl. 3 special absorbents for acids, alkali and solvents (0411.1, 3287.1 and 1710.1), plastic bags, dustpan and brush.

⚠ **Warning** H319

Art. No.	Pack Qty.	€
1288.1	1	203,20



Entsorger-Set-ROTH® (Disposal-Kits)

Ideal for absorbing and disposing spilled chemicals.

Contents: absorbent and neutralizer, safety glasses, scoop and brush, sponge, disposal bags with clips and labels.

Acids

2 x 5 kg Pyracidosorb-ROTH®

⚠ **Warning** H319

Art. No.	Pack Qty.	€
1801.1	1 kit	98,90

Alkali

2 x 5 kg Basosorb

⚠ **Warning** H319

Art. No.	Pack Qty.	€
1802.1	1 kit	121,50

Acids and alkali

5 kg Pyracidosorb-ROTH®, 5 kg Basosorb

⚠ **Warning** H319

Art. No.	Pack Qty.	€
1808.1	1 kit	121,50

Organic solvents

2 x 800 g universal absorber Rotisorb®

Art. No.	Pack Qty.	€
1803.1	1 kit	87,10

Fluoric acid

2-component system for neutralizing spilt hydrofluoric acid. Set contains: substances to mix. 1.5 l FLUOROSORB-ROTH® component A, 1 l FLUOROSORB-ROTH® component B with pH indicator, 800 g universal absorber Rotisorb®

Art. No.	Pack Qty.	€
1804.1	1 kit	112,90
H066.1	FLUOROSORB-ROTH®, Component A	22,05
H067.1	FLUOROSORB-ROTH®, Component B	27,85

Disposal-Mix

⚠ **Warning** H319

Art. No.	Pack Qty.	€
0055.1	1 kg Pyracidosorb-ROTH®, 1 kg Basosorb, 400 g Rotisorb®	89,25

Absorbents



UNI-SAFE chemical and oil binder

All-in-one binder!

Polymer-based all-purpose chemical and oil binder. Suitable for absorbing and containing liquids such as acids, alkalis, oils, fuels, brake fluid etc., but also battery acid, coolant, oil-water mixtures, paints and lacquers. Also suitable for strong oxidants, such as fuming nitric acid and peroxides.

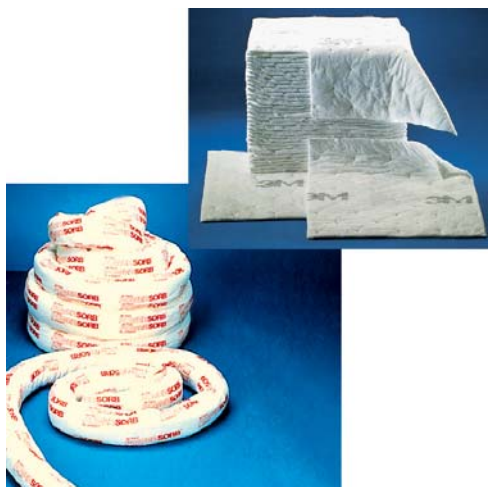
- High absorption capacity
- No hazardous reactions
- Dam-forming

Absorption capacity of aqueous media up to 1:75

Oil binder type III/R (suitable for paved traffic areas), 1 kg binds 0.56 l heating oil

Areas of use: laboratories, chemical and commercial operations, transportation of hazardous materials, emergency vehicles, etc.

Art. No.	Pack Qty.	€
EEA8.1	800 g laboratory pack	46,80
EEA8.2	5 kg bucket	165,55



Oil sorbent

By 3M. Ideal for absorbing and checking oil and organic liquids. Is also oleophilic and water repellent. Ideal for absorbing oil in both still and running water. Easy disposal and limited reuse possible.

Type	Length (cm)	Width (cm)	Ø (mm)	Capacity	Art. No.	Pack Qty.	€
Wipes	43	48	-	2 l	A377.1	10	31,00
Tubes	120	-	75	3,75 l	E186.1	1	16,80



Oil binder Penta 99

Fast-acting and highly effective fine granulate for absorbing oil, waste oil, grease, lubricants, fuels, paints and lacquers and other nonpolar organic liquids on firm surfaces. Stays hard and slip-resistant after use and can easily be removed. Do not use in combination with acids and oxidants.

- Oil binder type III/R (suitable for traffic surfaces)
- Calcium silicate hydrate based
- Oil absorption capacity: approx. 60 % fuel oil by weight
- Bulk weight: approx. 545 g/l.

Type	Art. No.	Pack Qty.	€
40 l bag (approx. 21 kg)	CTC2.1	1	34,30



Sekuroka®-Fleece wipes Rhodia®-Sorb

For fast absorption of **oil and organic, non-aggressive liquids**. Repel water, do not fluff. Suitable for emergency measures during oil accidents. Capacity per wipe 270 g oil, 400 g other liquids. Size 30 x 30 cm.

Art. No.	Pack Qty.	€
5128.2	50	34,85



Sekuroka®-Special wipes Zetsorb®

For absorption of **oil and other non-water-soluble, non-aggressive substances**. Can also be used in water. Capacity up to 12 times its own weight. Size 400 x 400 mm.

Art. No.	Pack Qty.	€
5212.1	20	21,45

Waste disposal



Chemicals absorbant fleece

By 3M. Ideal for absorbing and containing **agressive** liquids, such as acids, bases, ketones, alcohols, aromatic compounds, glycols, hydrocarbons. **High absorption capacity.**

Type	Length (cm)	Width (cm)	Ø (mm)	Capacity	Art. No.	Pack Qty.	€
Pillows	23	38	-	2 l	2888.1	4	60,75
Wipes	28	33	-	0,25 l	2920.1	50	59,05
Mini-tubes	120	-	75	3,75 l	2930.1	1	32,80



Industrial sorbent

By 3M. Ideal for absorbing and containing **non-agressive liquids** such as oil, coolants, lubricants and emulsions. High absorption power. Easy disposal, recovery of absorbed liquid possible. When folded, the fleece looks like a tube, when unfolded once like a pillow and a second time similar to a wipe. Perforated every 40 cm. Length 15 m, width 12 cm. Total absorption approx. 34 l, comes in dispenser.

Art. No.	Pack Qty.	€
E391.1	1	61,85



Laboratory emergency kit

By 3M. Absorption capacity for approx. 5 l of spilled liquids. Contents: 10 sorbent pads, 1 sorbent pillow, 1 waste disposal bag.

Art. No.	Pack Qty.	€
AKX3.1	1	56,90



Broken glass disposal boxes

For safe collection and disposal of broken glass materials.

- Made of extra-strength cardboard, with a 50 µm thick PE-insert bag to prevent residual fluid from escaping
- Large flap in lid for simple filling
- Seal safety lid for disposal when box is full
- Printed in four languages (German, English, French and Spanish)
- Folded flat for space-saving storage
- 2 sizes; small container suitable for the lab bench

Type	Max. loading weight (kg)	Dimensions W x D x H (cm)	Art. No.	Pack Qty.	€
small	5.5	20 x 20 x 25	KN69.1	6	57,95
large	18	30 x 30 x 69	KN70.1	6	87,10



Disposal boxes

For all types of waste that is neither pointed nor sharp (e.g. full safety bins for needles) and not fluid (e.g. swabs and for compresses).

- Made of cardboard with 2 hand grips
- Cardboard is 6 mm thick
- LDPE bag insert is 60 µm thick to extensively prevent residual fluids running out
- Bag closure made of PP
- Cable ties as final seal in lid
- Capacity 50 l
- Printed in four languages (German, English, French and Dutch)
- UN number 4G/Y18
- Maximum net weight 13 kg
- Dimensions: 400 x 300 x 500 mm

Art. No.	Pack Qty.	€
LP22.1	10	53,70

Waste disposal



Benchtop waste container

Practical and space-saving. Ergonomic design with large opening for easy disposal of articles.

- Slip-resistant rubber feet for secure positioning on the lab bench
- Lid can be secured in open position
- Extra-large lid rim for easy opening
- The divider can be removed from the green waste container as required
- Wall mountable

Delivery incl. mounting kit.

Type	Capacity (l)	Dimensions W x D x H (mm)	Art. No.	Pack Qty.	€
1 compartment, blue	4	155 x 155 x 170	AXL3.1	1	73,00
2 compartments, green	5	180 x 155 x 165	AXL4.1	1	71,95



Sekuroka®-mini safety bins

Acc. to BGR 250/TRBA 250: biological substances in the health sector and welfare work.

Made of PP, bright yellow. With sealing lid and removal device for needles/syringes. Ideal when on the go, fits in all doctor's bags, emergency kits, or labcoat pockets. The reinforced base prevents the needles from piercing through. Height 115 mm, Ø 50 mm, volume 170 ml.

Art. No.	Pack Qty.	€
HA52.1	10	14,55



Biohazard waste collection containers

From Nalgene®. Made of PP. For collecting and storing biohazardous waste materials. For easy sterilisation in a single operation. It is not necessary to remove the autoclavable bag. Opening in lid makes for safe disposal. Wall and base of container are **leak-proof**. Autoclavable.

Capacity (l)	Outer Ø x H (mm)	Matching bag	Art. No.	Pack Qty.	€
5,5	210 x 270	KN77.1	APL8.1	1	152,65
19	280 x 380	KN78.1	APL9.1	1	246,20
67	330 x 690	A192.1, 0385.1	APN0.1	1	297,80



Multi-Safe twin waste disposal bin

Made of PP. Conforms to: TRBA 250, DIN EN ISO 23907.

- Universal extractor for the disposal of needles, scalpels, disposable syringes, tubing, etc.
- The size of the slot can be gradually enlarged by breaking out the flaps (except for E329.1)
- All-round sealing rim and double lid
- Lid can always be reopened by closing the lid to the first locking position
- A secure final seal is obtained by pushing the lid through to the second locking position
- With UN inspection number
- Oval slot: 55 x 106 mm (except for E329.1, round Ø 50 mm)
- Filling capacity: max. 85 %

Capacity (l)	Ø base/lid (mm)	Height (mm)	Opening Ø (mm)	Art. No.	Pack Qty.	€
0,7	77/98	135	50	E329.1	20	26,70
1,8	112/143	162	55 x 106	E330.1	20	36,50
2,1	112/143	186	55 x 106	E331.1	10	24,55
3,0	112/143	259	55 x 106	T709.1	5	17,15



Multi-Safe euroMatic®-waste disposal bins

Made of PP. With self-opening, automatic lid. For the disposal of pointed and sharp objects (needles, scalpels, broken glass etc.). With detaching device, e.g. for scalpels.

Single-hand operation: lid lifts automatically when button is pressed and can be opened and closed repeatedly. The slit is not secured or tightly closed until after the final closure. A retaining ring then automatically moves to an upright position and serves as a handle.

Compliant with: TRBA 250, AFNOR, DIN EN ISO 23907.

With UN inspection number. Oval opening Ø: 110 x 60 mm, standing area: 132 x 132 mm, filling: max. 85 %.

Capacity (l)	Dimensions with lid L x W x H (mm)	Art. No.	Pack Qty.	€
3,0	173 x 173 x 185	EL18.1	5	21,45
4,0	173 x 173 x 245	EL19.1	5	23,60
6,0	173 x 173 x 330	EL20.1	5	28,95
7,0	173 x 173 x 390	EL21.1	5	29,60



Medibox® disposable bins

By B. Braun. Made of PP. Complies with TRBA 250, DIN EN ISO 23907 and international standards (Norme Francaise NF X 30-500 (1999); British Standard BS 7320 (1990)).

- No-touch insertion of needles and scalpel blades
- Break-proof, stable and puncture-proof
- Irreversible final lock mechanism
- Visible content level on side to monitor for overfill
- Application explained using pictograms on label

Type	Max. filling cap. (l)	W x D x H (mm)	Art. No.	Pack Qty.	€
Medibox® 0.7 l	0,58	116 x 75 x 130	PA97.1	10	29,35
Medibox® 3 l	2,40	198 x 141 x 156	PA98.1	10	43,55
Medibox® 5 l	4,00	198 x 141 x 258	PA99.1	10	58,30



Sekuroka®-waste disposal bins

Made of PP, shock and perforation proof. Ideal for safe collection of sharp, dangerous or infected waste such as needles, Petri dishes, syringes, scalpels, etc. Autoclavable up to 134 °C (18 min.).

- Acc. to DIN EN ISO 23907, TRBA 250, AFNOR NX30-500, BS 7320
- Waterproof when vertical
- With handle for safe transport
- Large opening with transparent inner chamber and automatic closure which prevents vapours from escaping to the ambient air
- Lid of outer chamber has two positions: temporary or permanent closure
- Distinct maximum level mark
- Label is the indelibly stamped into the container
- Container can be autoclaved when open

1 l bin with pull-off device for insulin pens, Luer-Lock syringes and Luer-Slip syringes. Label in German/French/Italian/Spanish/English.

2, 4 and 7 l bins with pull-off device for all needle types as well as insulin pens and scalpel blades. Label in German/French/Italian/Spanish/English.

9 and 13 l bins with pull-off devices for all needle types and scalpel blades. With wide horizontal opening for large quantities of waste such as 60 or 90 mm Ø Petri dishes. Label in French/Dutch.

9h l bin, high type, specially designed for pipettes and long instruments.

24 and 30 l bins with pull-off device for scalpels and universal pull-off device as well as wide non-return trap for the disposal of bulky waste. Label in English.

Capacity (l)	L x W x H (mm)	Opening (mm)	Art. No.	Pack Qty.	€
1	108 x 90 x 180	55 x 35	YK90.1	10	26,15
2	195 x 120 x 180	55 x 50	PA88.1	5	14,80
4	175 x 175 x 245	55 x 50	E812.1	5	18,05
7	175 x 175 x 380	55 x 50	E813.1	5	24,65
9	292 x 195 x 291	210 x 60	HT25.1	5	34,95
9h	175 x 175 x 498	55 x 50	YK91.1	5	34,70
13	292 x 195 x 353	210 x 60	HT26.1	5	45,50
24	450 x 230 x 335	365 x 95	YK92.1	1	17,95
30	450 x 230 x 415	365 x 95	YK93.1	1	21,80

Accessories for Sekuroka®-waste disposal bins

Stand made of PP, self-adhesive. For safe mounting of the waste disposal bin on a level surface.

Suitable for bins	Art. No.	Pack Qty.	€
1 litre	YK94.1	1	7,90
2 litres	PA89.1	1	9,50
4 litres, 7 litres and 9h	KA66.1	1	9,90
9 and 13 litres	KA67.1	1	10,55

Wall hook. Made of stainless steel.

Suitable for bins	Art. No.	Pack Qty.	€
2, 4 and 7 litres	YK97.1	1	13,45

Laminar flow stand. Made of stainless steel. Stand for use of the waste disposal bin under laminar flow.

Suitable for bins	Art. No.	Pack Qty.	€
4 litres, 7 litres and 9h	YK98.1	1	17,20

Trays made of PP, with storage compartments.

Suitable for 1 and 2 litre bins.

Type	L x W x H (mm)	Art. No.	Pack Qty.	€
with 1 storage compartment	280 x 260 x 45	YK95.1	1	9,70
with 2 storage compartments	355 x 290 x 45	YK96.1	1	8,40

Waste disposal



Waste bins

By Nalgene®. **Autoclavable**, made of polypropylene for safe handling of biologically harmful substances. Ideal for storing and sterilizing waste, clothing, lab articles, appliances and contaminated materials. Complies with OSHA-standard 29 CFR part 1910.1030 for use as protection against disease-causing agents in blood. With recessed handles.

Note: lid must be removed before autoclaving. Thermal conductivity of plastic (as compared to that of metal and glass) and the large volume of the container may lead to requiring longer autoclaving times. Duration of autoclaving to achieve sterility also depends upon the material being autoclaved and users own experience.

Capacity (l)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
23	279	457	H984.1	1	180,60
45	356	584	H985.1	1	289,20



Sekuroka®-wide neck barrels

Made of **HDPE**, with rubber seal. UN-approval (X-approval) for storage and transport of solid materials and pastes. Approved for food, chemical and pharmaceutical products. Impermeable to air, water and water vapours. Art. No. CY90.1 to 5459.1 with handles. Maximum filling temperature is 80 °C. Sealable.

Capacity (l)	Ø (mm)	Neck inner Ø (mm)	Height (mm)	UN-approval	Art. No.	Pack Qty.	€
3,6	198	136	173	1H2/X12/S	K280.1	1	13,80
6,4	198	136	265	1H2/X20/S	0788.1	1	16,70
10,4	274	204	239	1H2/X22/S	L958.1	1	26,05
15,4	274	204	328	1H2/X22/S	0789.1	1	30,65
20	274	204	418	1H2/X27/S	L959.1	1	34,40
26	316	204	426	1H2/X33/S	0790.1	1	38,20
42	410	282	416	1H2/X51/S	CY90.1	1	54,85
55	410	282	518	1H2/X66/S	CY91.1	1	60,45
68,5	410	280	632	1H2/X81/S	5459.1	1	63,25



Safety waste disposal systems

By Nalgene®. Made of break-resistant (fluorinated) HDPE. For temporary storage of chemical, biological and solvent waste. System consists of waste container and removable safety funnel with lid.

- Reduces emission's of volatile substances in the laboratory
- The funnel has a large diameter for easy filling
- Easy-Snap-safety lock on lid minimises spillage should the system fall over accidentally
- Integrated ventilation valve with PTFE-syringe filter on cover adapter accelerates the flow of the chemicals and prevents any overflowing
- Removable sieve insert (PP) on bottom of funnel stops particles from falling through

Materials: 4 l-container HDPE, 10 l-container FLPE, funnel and lid HDPE.

Bottle volume (l)	Ø of funnel at top (mm)	Length of funnel tube (mm)	Art. No.	Pack Qty.	€
4	140	254	EL99.1	1	84,40
10	254	254	EN00.1	1	126,85



Safety funnels

By Nalgene®. Made of HDPE, with lid.

- The funnel has a large diameter for easy filling
- Easy-Snap-safety lock on lid minimises spillage should the canister fall over accidentally
- Integrated ventilation valve with PTFE-syringe filter on cover adapter accelerates the flow of the chemicals and prevents any overflowing
- Removable sieve insert (PP) on bottom of funnel stops particles from falling through
- Cover adapter can be removed for cleaning

Please order matching bottles separately:

4 l bottle (Art. No. C475.1) fits small funnel
10 l bottle (Art. No. C476.1) fits large funnel

Ø of funnel at top (mm)	Length of funnel tube (mm)	Art. No.	Pack Qty.	€
140	254	EN01.1	1	59,45
254	254	EN02.1	1	63,90

► Scoops see page 178

Waste disposal



Sekuroka®-waste disposal cans

For storing and transporting aggressive waste in the laboratory.

Advantages:

- High stability
- Glass insert made of borosilicate glass 3.3, resistant against almost all chemicals. The glass meets the requirements of hydrological class 1, acidic class 1, caustic class 2 in compliance with DIN 12111, 12116, 52322
- With screw cap, overpressure protection and handle
- Red-coated enclosure
- Hazardous goods - label

Capacity (l)	Height (mm)	Outer Ø (mm)	Neck inner Ø (mm)	Art. No.	Pack Qty.	€
4	360	230	87	1397.1	1	413,90
8	420	265	87	1398.1	1	448,30



Sekuroka®-high-grade steel funnel

With lid, overflow and flame safety device. The flame arrester which deeply penetrates the container prevents ignition sparks from entering. The hinged lid almost totally prevents harmful fumes from escaping and must be closed after each filling process. The overflow device causes an insulating air cushion to arise once the filling level has been reached. The funnel contents do not drain. Contents only drain off when the funnel has been released. After draining, the funnel is removed and container closed. Opening app. 120 mm. Flame arrester approx. 150 mm long. With 2"-Trisure® thread. With PE sealing ring. Suitable for Rotitainers® and all other standard vessels with 2"-Trisure® screw fittings.

Art. No.	Pack Qty.	€
K345.1	1	170,95



Safety collection containers for flammable liquids

For safe collection of flammable liquids.

Made of high-grade stainless steel (1.4571=V4a, unpolished), wall thickness: 0.8 mm. High stability. Capacity 10 l. Cap size: IG2" fine pitch thread, with PTFE seal, without flame arrester. Dimensions: H 330 x Ø 260 (mm) (incl. ring).

Usable with Sekuroka® stainless steel funnel K345.1.

With level indicator for ATA3.1.

Delivery without accessories (please order separately).

Type	Art. No.	Pack Qty.	€
① without level indicator	ATA2.1	1	245,10
② with level indicator	ATA3.1	1	446,15

Accessories for 10 l safety collection containers

Made of stainless steel (1.4301=V2a).

For safe filling and draining of containers. Fits 10 l safety collection container, Rotitainer® and other drums with cap with 2" fine pitch thread. Safety funnel: H 125 x Ø 140 mm

Spout: H 180, tube Ø: 40 mm

Type	Art. No.	Pack Qty.	€
Sekuroka® stainless steel funnel	K345.1	1	170,95
Flame arrester	ATA4.1	1	62,90
Spout 2"	ATA5.1	1	51,60



Sekuroka®-safety funnels for plastic canisters

Made of stainless steel, unpolished. Seal made of Alveocel (polyolefin foam). With lid, overflow protection and flame arrester, as well as earth connection. Can be screwed onto plastic canisters. Height 125 mm, funnel head Ø 140 mm.

Delivery without screen filter insert (please order separately).

Type	Art. No.	Pack Qty.	€
Closure size DIN 50	ATA6.1	1	170,95
Closure size DIN 61	ATA7.1	1	170,95

Accessories: screen filter insert for Sekuroka® safety funnels for plastic canisters

Suitable for safety funnels: K345.1, ATA6.1 and ATA7.1, as well as for insertable funnels PC04.1 and PC13.1.

Art. No.	Pack Qty.	€
ATA8.1	1	12,90

Waste disposal



Sekuroka®-waste disposal stations

For collecting chemical waste. Canisters come in different colours for easy distinguishing of waste. The funnels come with a sieve on the inside to catch solids and level indicator.

4-place waste disposal station

Four canisters (10 l) made of HDPE with 4 funnels Ø 120 mm and spillage tub made of PP.

Dimensions with open lids: L 870 x W 370 x H 610 mm.

Colour	Art. No.	Pack Qty.	€
assorted	5074.1	1	536,45

1-place waste disposal station

One canister (10 l) made of HDPE with one funnel Ø 120 mm and spillage tub made of PP.

Dimensions with open lid: L 240 x W 370 x H 610 mm.

Colour	Art. No.	Pack Qty.	€
natural	5084.1	1	256,95
yellow	5087.1	1	256,95
green	5090.1	1	256,95
blue	5096.1	1	256,95



Sekuroka®-spare canisters

Made of HDPE, capacity 10 l. With handle and replacement ventilation screw. L 280 x W 180 x H 325 mm. Neck-Ø 42 mm.

Colour	Art. No.	Pack Qty.	€
natural	A251.1	1	25,20
yellow	A252.1	1	25,20
green	A253.1	1	25,20
blue	A254.1	1	25,20



Sekuroka®-spare spillage tubs

For 10 l canisters, grey.

Type	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
1-place	240 x 370 x 165	P318.1	1	193,50
4-place	870 x 370 x 165	P319.1	1	235,45



Sekuroka®-spare funnels

Made of PP, with integrated screw connection, collecting sieve, level indicator and self-closing lid. Diameter 120 mm.

Art. No.	Pack Qty.	€
5083.1	1	127,95

Sekuroka®-adapter

For funnel 5083.1. 2"-fine-pitch thread, to fit Roth-Rotaitainer®-flasks.

Art. No.	Pack Qty.	€
9070.1	1	75,80



Waste disposal units, electro-conductive

Specially for the disposal of highly flammable liquids. All components made of black, electro-conductive, conducting PE-HD, build-up of electric charge is not possible.

- 10 l-canister, leakproof screw cap and handle. UN-authorization (Y) for the transport of hazardous goods.
- Screw-on funnel with automatically closing, patented floating ball valve. Therefore, no vapours or odours can escape from the waste disposal bin. Also comes with overflow and splash protection.
- Robust spillage tub can hold 100 % of canister contents in an emergency.

Delivery incl. disposable funnel, 10 l-canister with metal ring (for connecting earthing cable), spillage tub and 3 earth cables.

Type	Art. No.	Pack Qty.	€
Waste disposal units, electro-conductive	HE62.1	1	432,15



Spare parts for waste disposal units

Type	Art. No.	Pack Qty.	€
Funnel, electro-conductive	HE63.1	1	122,55
Canister 10-l, electro-conductive	HE64.1	1	89,00
Spillage tubs, electro-conductive	HE65.1	1	186,00
Grounding tension clip, Cr-Ni-Steel	HE66.1	1	75,80
Grounding cable	HE67.1	1	49,15



Sekuroka®-30 l chemical collection pans

PE collection pan, galvanised steel grid. Suitable for small drums. Also usable for storage shelves and chemicals cabinets. Can be lined with chemical binding fleece. Outer dimensions: L 980 x W 600 x H 85 (mm). Retention capacity 30 l. Load-bearing capacity of pan with grid: 50 kg.

Type	Weight (kg)	Art. No.	Pack Qty.	€
Collection pan	4	NH66.1	1	141,90
Collection pan with grid	10	NH67.1	1	203,20



Sekuroka®-spillage tubs

Made of glass-fiber reinforced plastic with DIBt-Berlin approval Z40.12-227. Ideal for correct storage of highly water incompatible substances. High chemical resistance, corrosion-proof, durable, UV-resistant, recyclable. Suitable for barrels, plastic carboys, small drums, canisters, etc.

Spillage tub without grating, with stop catch

150 l capacity. Dimensions: L 1200 x W 800 x H 165 mm, approx. 9 kg. With stop catch on the underside of tub for attaching to Europallets 800 x 1200 mm (only stable with pallets).

Art. No.	Pack Qty.	€
2915.1 *	1	309,60

* Delivery ex work.

Spillage tub without grating and stop catch

150 l capacity. Dimensions: L 1200 x W 800 x H 165 mm, approx. 9 kg. Can be placed directly on the ground.

Art. No.	Pack Qty.	€
N530.1 *	1	252,65

* Delivery ex work.

Spillage tub with steel grating

220 l capacity. Dimensions: L 1280 x W 850 x H 270 mm, approx. 33 kg. Galvanized steel grating for max. 800 kg surface load.

Art. No.	Pack Qty.	€
X426.1 *	1	364,45

* Delivery ex work.



Sekuroka®-drip pans

Made of acid-proof PE; acid, chemical, oil and petroleum resistant.

① With pouring spout transferring liquids and sturdy carry handles.

② 4-chamber system for safe transportation and drainage via the 4 pouring edges with raised lip to prevent spillage of contents.

Type	Retention capacity (l)	Outer dimensions (L x W x H) mm	Art. No.	Pack Qty.	€
①	15	550 x 450 x 120	NH63.1	1	50,55
②	20	690 x 440 x 105	NH64.1	1	118,25
②	55	1010 x 730 x 125	NH65.1	1	152,65



Programme extension!

Sekuroka®-solvent collecting vessels

Stackable, painted sheet metal drum. Suitable for interim storage of liquid waste – mainly used solvents. 60 mm filler neck, with plastic screw plug.

Delivery incl. pouring aid, 2" coarse thread.

6 litre collecting vessel

with Lupolen® lining, upper carry handle, H 20 cm, Ø 23.5 cm, unladen weight approx. 1.3 kg. UN number: 6HA1/X/300/

Art. No.	Pack Qty.	€
CHK8.1	1	29,00

12 litre collecting vessel

with Lupolen® lining, upper carry handle, H 35 cm, Ø 23.5 cm, unladen weight approx. 1.8 kg. UN number: 6HA1/X/300/

Art. No.	Pack Qty.	€
0750.1	1	36,45

30 litre collecting vessel

with Lupolen® lining, 2 side carry handle, H 57 cm, Ø 27 cm, unladen weight approx. 3.5 kg. UN number: 6HA1/X1.6/300/

Art. No.	Pack Qty.	€
0751.1	1	41,85

Accessorie for Sekuroka®-solvent collectors

Sekuroka®-funnel

To screw on top, made of polypropylene. Ø 120 mm. Features sieve to catch solids, lid and floating indicator to show filling level. With adapter for 2"-coarse thread.

Art. No.	Pack Qty.	€
9081.1	1	222,55

Waste disposal



Sekuroka® multipurpose disposal container

For collecting used solvents. Outer container made of lacquered sheet steel (0.5 mm gauge), with galvanised clamping ring and rubber seal.

Inside Ø 230 mm, outer height 390 mm. Adjustable narrow mouth container made of Lupolen®, with 2" coarse thread closure. Nominal capacity 12 l.

Usage: initially as a collecting container. Once full, the container is taken to a disposal centre.

Here, the filled Lupolen® liner is tipped.

The sheet metal container is then reused with a new Lupolen® liner.

UN number: 6HA1/X1.6/250

Type	Art. No.	Pack Qty.	€
Sekuroka® disposal container, complete	1393.1	1	38,65
Lupolen® insert	1394.1	1	19,90



Sekuroka®-problem waste containers

For collection of non-liquid waste. Conical container made of dark blue PP with bulging handles on both sides and yellow profiled lid made of same material, with rubber seal. Lid can not be removed after final closing.

Container and lid are totally free from metal and can be incinerated.

UN-number: 1H2/Y15/S bzw. 1H2/Y30/S

Capacity (l)	Weight (kg)	W x D x H (mm)	Art. No.	Pack Qty.	€
30	ca. 1,3	400 x 330 x 305	A854.1	1	15,10
60	ca. 1,8	400 x 330 x 630	1066.1	1	19,90



Waste bins for cleaning rags

By JUSTRITE®. Rags soaked with solvent, thinner, linseed oil, flammable adhesives and other flammable liquids and represent a serious fire hazard if they are not disposed of correctly.

- Made of galvanised sheet steel with rugged, highly chemical resistant powder-coat finish
- The opening angle of the lid does not exceed 60°
- The lid is self-closing when not in use
- Protects contents against sparks, heat sources and spontaneous combustion
- With foot pedal, colour red

Capacity (l)	Outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	302	403	CAX1.1	1	75,05
34	354	464	CAX2.1	1	92,35
52	408	514	CAX3.1	1	102,15



NEU
NOUVEAU
NEW

Disposal containers for corrosive waste

Made of PE, red. Safe collection and disposal of corrosive, non-solvent-based waste. Use directly at the workplace. Reduces leakage of vapours. Self-closing lid. Safe foot pedal operated opening mechanism.

Capacity (l)	Outer Ø x H (mm)	Art. No.	Pack Qty.	€
23	420 x 400	CEH0.1	1	135,45
38	420 x 470	CEH1.1	1	147,30
53	560 x 530	CEH2.1	1	158,05



Sekuroka®-disposal bags

Ideal for laboratory waste such as used pipettor tips, test tubes and vials. Sterilizable to +121 °C. Bags should be left open during autoclaving. Dimensions: W 200 x L 300 mm.
Made of 40 µm thick PP in a dispenser box.

Art. No.	Pack Qty.	€
E706.1	100	9,15

Made of 30 µm thick PP. Not autoclavable.
100 bags pre-perforated from roll

Art. No.	Pack Qty.	€
H736.1	500	18,10

Sekuroka®-disposal bag holders

Wire frame with white powder coating and anti-slip rubber feet. Dimensions: Upper Ø 125 mm, height 250 mm. Ideal for all lab benchtops. Autoclavable. For disposal bags W 200 x L 300 mm.

Type	Art. No.	Pack Qty.	€
Sekuroka®-disposal bag holder	H508.1	1	10,35
Set: Sekuroka®-disposal bag holder, incl. 100 PP bags (E706.1)	E705.1	1	17,45



Bench-Top disposal bags

- Made of HDPE, red, thickness 18 µm. Material acc. to ASTM D 1922 (propagation tear resistance) and ASTM D 1709 (puncture resistance)
- With printed-on "Biohazard" warning symbol
- **Autoclavable, with sterility indicator field**
- Dimensions: B 220 x H 280 mm

Art. No.	Pack Qty.	€
YA55.1	100	25,50

Bench-Top stands and covers for disposal bags

Cover made of PP. Epoxy coated wire frame. Suitable for disposal bags in sizes W 200 x L 300 and W 220 x L 280 mm. For lab benches, extractors and examination rooms. Autoclavable.

Type	Dimensions (mm)	Art. No.	Pack Qty.	€
Stands	127 x 85 x 216	YA56.1	1	35,60
Covers	127 x 89 x 16	YA57.1	1	19,25



Sekuroka®-disposal bags

Designed for hygienic disposal of contaminated laboratory articles. Autoclavable. Seal bag loosely during sterilisation!

① PP bag, film thickness 50 µm.

For steam sterilisation at temperatures of up to +134 °C.

Dimensions W x L (mm)	Total volume (l)	Usable volume (l)	Art. No.	Pack Qty.	€
300 x 500	8	6	0384.1	500	83,75
400 x 780	38	22	L371.1	500	146,20
600 x 800	60	32	0385.1	500	167,70
700 x 1100	110	72	L372.1	350	192,45
600 x 800	60	32	0385.2	100	51,50
700 x 1100	110	72	L372.2	75	56,45

PP bag, extra strong, film thickness 100 µm.

For steam sterilisation at temperatures of up to +134 °C.

Dimensions W x L (mm)	Total volume (l)	Usable volume (l)	Art. No.	Pack Qty.	€
600 x 800	60	32	XP67.1	125	160,20
700 x 1100	110	72	XP68.1	75	138,70

PA bag, film thickness 50 µm.

Suitable for hot air sterilisation at temperatures up to +160 °C.

Dimensions W x L (mm)	Total volume (l)	Usable volume (l)	Art. No.	Pack Qty.	€
300 x 500	10	6	L373.1	500	277,35
400 x 780	30	22	L374.1	500	536,45
600 x 780	65	32	L375.1	300	418,20

② PP bag, film thickness 50 µm. With extra-strong bottom seam.

Suitable for steam sterilisation to +134 °C.

With imprinted **biohazard symbol** and affixed sterilisation indicator box. Safety imprint in German, English and French.

Dimensions W x L (mm)	Total volume (l)	Usable volume (l)	Art. No.	Pack Qty.	€
300 x 500	8	6	ATY2.1	100	42,50
400 x 780	38	22	ATY3.1	100	68,30
600 x 800	60	32	ATY4.1	100	83,75
700 x 1100	110	72	ATY5.1	100	146,20

Sekuroka®-bag ties

Made of plastic coated wire. Ideal for closing all types of bags. Length 300 mm.

Art. No.	Pack Qty.	€
C790.1	1000	27,85

► Sterile indicator tapes see page 245

Waste disposal



Sekuroka®-disposal bags

Made of 40 µm thick PP. Heat stable to +145 °C. Transparent, with „Biohazard“ warning. Ideal for safe disposal of lab waste, e.g. used petri dishes, test tubes, sample vials, etc. Bags should be left open during autoclaving. Autoclavable

Dimensions W x L (mm)	Art. No.	Pack Qty.	€
305 x 660	A195.1	100	32,80
420 x 600	A194.1	100	34,30
600 x 780	A192.1	100	58,60



Disposal bags with sterilisation indicator

- For steam sterilisation at 135 °C
- Made of PP, thickness 38 µm, material acc. to ASTM D 1922 (propagation tear resistance) and ASTM D 1709 (puncture resistance)
- With sterilisation indicator field that turns dark after autoclaving
- With imprinted "Biohazard" warning symbol
- Labelled in German, English, French and Spanish
- Matches disposal bag stand KN74.1.1ff

Dimensions W x L (mm)	Volume max. (l)	suitable for	Art. No.	Pack Qty.	€
300 x 610	11,5	KN74.1	KN71.1	100	78,70
610 x 760	45,4	KN75.1	KN72.1	100	188,15
610 x 910	75,7	KN76.1	KN73.1	100	203,20



One-way clips

Made of PP. For keeping disposal bags sealed during transportation and sterilisation. Can be opened and closed with one hand. Suitable for bags in sizes W 300 x L 610 and W 480 x L 580 mm. Autoclavable.

Art. No.	Pack Qty.	€
YA58.1	100	22,40



Disposal bags extra strong, with sterilisation indicator

- For steam sterilisation at 135 °C
- Red, made of HDPE, thickness 50 µm
- With sterilisation indicator field that turns dark after autoclaving
- With imprinted "Biohazard" warning symbol
- Labelled in German, English, French and Spanish

Dimensions W x L (mm)	Volume max. (l)	Art. No.	Pack Qty.	€
360 x 480	15,1	KN77.1	200	247,25
480 x 580	34,1	KN78.1	200	348,30
640 x 890	45,4	KN79.1	200	704,15
790 x 960	113,6	KN80.1	200	800,90
940 x 1220	189,3	KN81.1	100	628,90



Disposal bags stands

Suitable for disposal bags with sterilisation indicator KN71.1ff. Stainless steel frame, keeps the bag open at all times. Bottom made of PP, serves as a receptacle for leaking bags. Small stand, ideal for lab benches. Autoclavable.

Cover for stand sizes M and L is optional; please order separately.

Type	Dimensions W x L x H (cm)	Matching bag	Art. No.	Pack Qty.	€
S	18.5 x 35.6 x 47	KN71.1	KN74.1	1	58,05
M	35.6 x 35.6 x 54.6	KN72.1	KN75.1	1	83,35
L	35.6 x 35.6 x 69.6	KN73.1	KN76.1	1	89,25

Accessories: cover for disposal bag stands

Made of PP, with labelling space. Suitable for disposal bag stands KN75.1 and KN76.1. Dishwasher safe. Autoclavable.

Art. No.	Pack Qty.	€
YA64.1	1	38,65

- Autoclavable baskets see p. 248
- Sterile indicator tapes see p. 245

Waste disposal



Disposal bags, self-adhesive

Made of HMHD (High Molecular Weight High Density) PE, thickness 25.4 µm. Material acc. to ASTM D1922 (propagation tear resistance) and ASTM D1709 (puncture resistance). For disposal of laboratory waste at the workplace, e.g. lab bench. Space-saving. Load capacity max. 1.36 kg. Dimensions: W 305 x L 406 mm. Autoclavable.

Art. No.	Pack Qty.	€
YA65.1	50	43,00



Sekuroka®-multi-purpose bags

Made of PE with adhesive strip. For attaching to all smooth and clean surfaces, such as walls, tables, scales, etc. Can be peeled off without leaving a trace. Bags can be sealed with adhesive strip if required.

Dimensions W x L (mm)	Art. No.	Pack Qty.	€
200 x 300	Y104.1	100	12,85
300 x 300	Y105.1	100	14,55
300 x 450	Y106.1	100	17,10



Sekuroka®-waste collectors clappy

Made of stainless steel. Bin base made of plastic (ABS). With solid rubber wheels. The ring for attaching the waste bag also serves as closure. Opens by pressing the pedal. Integrated brake device prevents collector from rolling away.

Capacity (l)	L x W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
40	585 x 490 x 825	6,5	X441.1 *	1	353,70
70	585 x 490 x 975	7,5	X442.1 *	1	375,20

* Delivery ex work

Matching waste disposal bags for waste collectors

Made of PE, blue.

40 litres: 550 x 650 x 0.03 mm, 50 bags on roll.

Art. No.	Pack Qty.	€
Y386.1	200	19,90

70 litres: 575 x 1000 x 0.05 mm, 25 bags on roll.

Art. No.	Pack Qty.	€
Y387.1	100	18,25



ProfiLine waste collecting system ASS 120

Upright system for 120 l bags

- Use foot to open
- Light aluminium/plastic construction
- Automatic, muffled closing
- Always closed, even without lid
- Easy assembly
- Coloured self-adhesive plastic foils for waste separation
- Connecting elements with 2 and 3 combinations

Model	W x D x H (cm)	Art. No.	Pack Qty.	€
① Uno	33 x 49 x 108	KL36.1	1	66,60
② Duo	66 x 49 x 108	KL37.1	1	134,40
③ Trio	99 x 46 x 108	KL38.1	1	201,05

Matching waste disposal bags for waste collectors

Made of PE, blue.

120 litres: 700 x 1100 mm, made of extremely tearproof and tensile octen-foil, roll with 50 sacks.

Art. No.	Pack Qty.	€
5382.1	50	14,55

Waste collectors



WS 120 profiLine waste collectors

- Stand for 120 l waste bags
- With holder for waste bags
- Aluminium tubular holder
- Hinged lid
- Lid frame and bottom made of plastic (ABS)
- Integrated frame with rubber ring for easy attachment of bags
- Models with and without rollers
- Includes set of labels for separating waste

Model	W x D x H (cm)	Art. No.	Pack Qty.	€
without castors	43 x 45 x 97	KL39.1	1	58,95
with castors	43 x 45 x 103	KL40.1	1	63,35

Matching waste disposal bags for WS 120 profiLine waste collectors

Made of PE, blue.

120 litres: 700 x 1100 mm, made of extremely tearproof and tensile octen-foil, roll with 50 sacks.

Art. No.	Pack Qty.	€
5382.1	50	14,55



Sekuroka®-Push Bin

Functional design. Removable lid with extra wide (210 x 210 mm) opening. Bin made of chrome steel, base made of plastic to avoid damage to the floor. Capacity 60 l. Ø 400 mm x H 820 mm.

Art. No.	Pack Qty.	€
Y404.1	1	170,95

Matching waste disposal bags for Sekuroka®-Push Bin

50-60 litres. Dimensions: 370/250 x 850, thickness 0.05 mm. 50 bags pre-perforated on roll.

Art. No.	Pack Qty.	€
Y405.1	200	27,20



Self-extinguishing paper basket

By Brabantia. With removable incombustible zinc insert. TÜV-tested. The ring around basket has been formed in such a way that the oxygen supply is cut off by rising smoke and the fire is subsequently smothered. Capacity 20 litres, height 655 mm, Ø 250 mm, opening of basket Ø 120 mm.

Colour	Art. No.	Pack Qty.	€
chrome	N442.1	1	83,85



Sekuroka®-dual system paper basket

Ideal for dual waste disposal. Paper and other waste can be collected separately. Paper in the 20 l basket, wet waste in the attached 9 l basket with lid. Both baskets can be emptied separately. The circular grip rim enables both to be carried at the same time. H 350 mm, W 280 mm. Ø top 154 + 291 mm.

Art. No.	Pack Qty.	€
A338.1	1	45,15



Sekuroka®-used batteries waste box

Made of recyclable plastic, blue with 2 recessed handles. One opening each for standard batteries and round cell batteries. Dimensions: L 300 x W 200 x D 217 mm, volume 9 litres, weight 0.7 kg.

Art. No.	Pack Qty.	€
P345.1	1	32,20



Sekuroka®-pedal bins

Made of steel plate. Comes either with polyethylene or incombustible zinc insert.

Colour	Insert-material	Capacity (l)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
chrome	PE	12	400	250	N434.1	1	51,10
chrome	zinc	12	400	250	N435.1	1	61,30
white	zinc	12	400	250	N436.1	1	48,40
white	zinc	19	450	300	1873.1	1	64,45
chrome	zinc	19	450	300	N437.1	1	79,45
chrome	zinc	30	680	300	N438.1	1	102,15
white	zinc	30	680	300	N439.1	1	83,85

Matching waste disposal bags

Sekuroka®-pedal bins

For 12 l bins: 16 litres: Dimensions: 450 x 520 mm, 50 pre-perforated bags on roll, white.

Art. No.	Pack Qty.	€
P388.1	250	6,10

For 18 l bins: 24 litres: Dimensions 540 x 550 mm, 1000 bags in box. Recyclable waste bags made of HDPE.

Art. No.	Pack Qty.	€
P389.1	1000	25,40

For 19 l bins: 40 litres: Dimensions 550 x 650 mm, 50 bags on roll, blue.

Art. No.	Pack Qty.	€
Y386.1	200	19,90

For 30 l bins: 50 litres: Dimensions: 370/250 x 850, thickness 0.05 mm. 50 bags, white, pre-perforated on roll.

Art. No.	Pack Qty.	€
Y405.1	200	27,20



Sekuroka®-paper baskets

Made out of galvanized steel plates, stainless. Rim at top of basket has beads to provide a more secure grip.

Colour	Capacity (l)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
black	7	235	205	L908.1	1	19,15
black	15	320	251	L909.1	1	23,60



Sekuroka®-waste bins

Made of PP. With swinging lids that lock into place when pushed backwards.

Capacity (l)	L x W x H (mm)	Colour	Art. No.	Pack Qty.	€
15	285 x 230 x 435	grey / marble	K520.1	1	19,30
25	330 x 270 x 510	grey / marble	K522.1	1	24,65
50	390 x 330 x 635	grey / marble	K524.1	1	30,00

Matching waste disposal bags

Sekuroka®-waste bins

For 15 l bins: 16 litres: Dimensions: 450 x 520 mm, 50 pre-perforated bags on roll, white.

Art. No.	Pack Qty.	€
P388.1	250	6,10

For 25 l bins: 40 litres: Dimensions 550 x 650 mm, 50 bags on roll, blue.

Art. No.	Pack Qty.	€
Y386.1	200	19,90

For 50 l bins: 50 litres: Dimensions: 370/250 x 850, thickness 0.05 mm. 50 bags, white, pre-perforated on roll.

Art. No.	Pack Qty.	€
Y405.1	200	27,20



Laboratory Equipment, Transport & Tools

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Chairs, Stools



Office chairs, standard models

Acc. to DIN 68877.

- Seat and backrest made of PU foam or beechwood, ergonomically designed
- Backrest adjustment and seat height adjustment infinitely variable
- Depth of seat can be adjusted
- Safety gas spring with spring suspension for depth
- All double rollers have a load-controlled brake, suitable for hard and soft floors
- PU-moulded parts with steel core
- Stable and robust plastic cross-shaped base

Model	Seat and backrest	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	PU black	400-600	Y708.1 *	1	153,75
Castors	PU black	420-620	Y709.1 *	1	166,65
Glides	Beech natural	400-600	Y710.1 *	1	130,10
Castors	Beech natural	420-620	Y711.1 *	1	144,05

* Please check with our Sales Department for delivery period of these products.



Office chairs

- Large PU seat and PU backrest, black
- Continuous seat and backrest adjustment
- 12° seat inclination adjustment
- Plastic feet with concealed safety gas spring
- Large, non-slip floor glides or load-responsive braked double castors
- Optionally available with footrest, footrest height is adjustable independently of seat height
- Compliant with DIN 68877

Model	Seat height (mm)	Art. No.	Pack Qty.	€
① Glides, without footrest	440-630	ALC5.1 *	1	193,50
② Castors, without footrest	500-690	ALC6.1 *	1	204,25
③ Glides, with footrest	440-630	ALC7.1 *	1	226,85

* Delivery times may apply to these products. Please ask our sales staff.

Accessories:

Replacement rollers for working stools	CTY8.1	5	27,85
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Office chairs, high

- Seat and backrest made of PU foam
- Tilting backrest can be adjusted in height and inclination
- Infinitely variable seat height adjustment
- Type ② with adjustable seat inclination (12°)
- Extremely stable tubular steel feet
- Three integrated footrests at different heights
- Glides
- Safety gas spring
- Compliant with DIN 68877

Type	Seat and backrest	Seat height (mm)	Art. No.	Pack Qty.	€
①	PU, black	480-880	Y712.1 *	1	235,45
①	Beech, natural	480-880	Y713.1 *	1	213,95
②	PU, black	480-880	ALC8.1 *	1	256,95

* Delivery times may apply to these products. Please ask our sales staff.



Office chairs, stainless steel

- Large PU seat and PU backrest with stainless steel inlay
- Infinitely variable seat and backrest adjustment
- Stainless steel feet with stainless steel safety gas spring
- Easy to clean
- Rust free
- Optionally available with footrest, folds up variably (please order separately)
- Compliant with DIN 68877

Colour	Model	Seat height (mm)	Art. No.	Pack Qty.	€
blue	Glides	440-630	ALE7.1 *	1	599,85
blue	Castors	500-690	ALE8.1 *	1	633,20
black	Glides	440-630	ALE9.1 *	1	590,20
black	Castors	500-690	ALH0.1 *	1	612,75

Accessories:

Footrest made of stainless steel	ALH1.1 *	1	155,90
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* Delivery times may apply to these products. Please ask our sales staff.



Stools

- Infinitely variable seat height adjustment
- Seat made of durable PU foam or beech
- Super-sturdy plastic star base
- Safety gas spring for quick seat height adjustment
- LGA approved

Standard stool

Model	Seat	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	PU, black	400-600	Y702.1	1	100,55
Rollers	PU, black	420-620	Y703.1	1	107,00

Stools with release ring

Model	Seat	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	PU, black	400-590	CXA5.1	1	104,10
Glides	Beech, natural	400-600	Y704.1	1	101,05
Rollers	PU, black	430-620	CXA6.1	1	112,90
Rollers	Beech, natural	420-620	Y705.1	1	107,30
Glides + foot ring	PU, black	540-800	CXA7.1	1	135,45



Stool, comfort models

- Infinitely variable seat height adjustment
- Seat made of extremely robust PU-foam or beechwood
- Beechwood seat with circular trigger
- Pedestal made of stable plastic, with rollers
- Safety gas spring for speedy seat height adjustment
- LGA-tested

Seat	Seat height (mm)	Art. No.	Pack Qty.	€
PU-black	440-630	Y706.1	1	103,20
Beech natural	440-630	Y707.1	1	103,20



Stool with all-round footrest

Thanks to the integrated footrest, seat heights of up to 740 mm are possible.

- Seat made of PU foam, black
- Safety gas spring
- Sturdy steel feet, glides
- All-round footrest for excellent support

Seat height (mm)	Art. No.	Pack Qty.	€
540-740	ALH5.1	1	134,40



Swivel stools, padded

- Soft seat made of durable synthetic leather
- Seat Ø 360 mm, seat thickness 90 mm, padded
- Release ring
- Plastic feet Ø 630 mm, with double castors
- Safety gas spring for quick seat height adjustment

Colour	Seat height (mm)	Art. No.	Pack Qty.	€
red	480-680	ALH2.1	1	123,65
blue	480-680	ALH3.1	1	123,65
black	480-680	ALH4.1	1	123,65

Chairs, Stools



Swivel stools, stainless steel

- Seat made of PU foam with stainless steel inlay
- Stainless steel feet with stainless steel safety gas spring
- Easy to clean
- Rust free
- Optionally available with footrest, folds up variably (please order separately)

Colour	Model	Seat height (mm)	Art. No.	Pack Qty.	€
blue	Glides	440-630	ALC9.1	1	312,85
blue	Castors	500-690	ALE0.1	1	335,40
black	Glides	440-630	ALE1.1	1	298,85
black	Castors	500-690	ALE2.1	1	321,45

Accessories:

Footrest made of stainless steel	ALH1.1	1	155,90
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Stools and standing supports, high

- Seat made of soft PU foam or PP
- Continuously variable seat height adjustment by means of gas spring
- Large seat area, width 370 mm
- Front/back seat angle adjustment: 7.5°
- Sturdy plastic cross base
- High backrest for upright seating

Articles CXA3.1 and CXA4.1 can be used flexibly as a standing support or stool: incline seat forwards to stand, align straight for sitting.

Model	Seat	Seat height (mm)	Art. No.	Pack Qty.	€
Glides	PU, blue	490-680	CTY9.1	1	192,45
Rollers	PU, blue	520-710	CXA0.1	1	198,90
Glides	PP, black	490-680	CXA1.1	1	156,95
Rollers	PP, black	520-710	CXA2.1	1	163,40
Glides + base ring	PU, blue	600-860	CXA3.1	1	220,40
Glides + base ring	PP, black	600-860	CXA4.1	1	192,45



Stackable stools, stainless steel

- Seat made of PU foam with stainless steel inlay
- Tubular stainless steel frame
- Easy to clean
- Rust free

Colour	Seat height (mm)	Art. No.	Pack Qty.	€
blue	500	ALE3.1	1	172,00
blue	580	ALE4.1	1	182,75
black	500	ALE5.1	1	150,50
black	580	ALE6.1	1	158,05



Stackable stools

- Seat made of PU foam or beech, Ø 350 mm
- Sturdy tubular steel frame
- Ready to hand and can be stacked to save space

Seat	Frame	Seat height (mm)	Art. No.	Pack Qty.	€
PU, black	black	500	CXA8.1	1	71,85
PU, black	light grey	500	CXA9.1	1	71,85
Beech, natural	light grey	500	CXC0.1	1	55,90
PU, black	black	580	CXC1.1	1	73,10
PU, black	light grey	580	CXC2.1	1	73,10
Beech, natural	light grey	580	CXC3.1	1	57,55



Standing support

For taking the strain off work carried out standing. Stable steel tube frame. Black PU seat, foamed, steel cored. Seat and foot rest are collapsible. Seat height is adjustable and can be locked in place: 650-850 mm.

Colour	Art. No.	Pack Qty.	€
black	AH91.1	1	159,10
red	AH92.1	1	159,10



Roller stools

Acc. to DIN 4569. TÜV and BG tested. Runs on 3 spring-bearing wheels (attachable). With thick plastic stand ring. Steps covered with nonslip rubber covering. Max. load 150 kg. Immovable, stationary stand from 5 kg load.

Metal stools

Made of powder-coated metal, lead and cadmium free.

Dimensions: H 430 mm, upper Ø 290 mm, lower Ø 435 mm. Weight 4.9 kg.

Colour	Art. No.	Pack Qty.	€
blue	X429.1	1	62,60
light grey	X430.1	1	62,60

Plastic stools

Made of breakproof PP.

Dimensions: H 425 mm, upper Ø: 290 mm, lower Ø 445 mm. Weight 2.8 kg.

Colour	Art. No.	Pack Qty.	€
white	X431.1	1	49,05
light grey	X432.1	1	49,05



Standing supports

Folding, made of plastic covered steel tubing. To relieve feet and spinal cord at work in standing positions. Padded seat and back rest made of air permeable imitation leather.

Infinitely variable adjustment from 550 to 900 mm.

Colour	Art. No.	Pack Qty.	€
red	9042.1	1	189,20
black	9045.1	1	189,20
aluminium	9050.1	1	189,20



Stepladder

Made of robust plastic. With two steps. Folding. Antislip feet and steps. Easy to clean. Max. load 150 kg.

Outer dimensions 486 x 172 x 630 mm, colour anthracite/red.

Art. No.	Pack Qty.	€
T224.1	1	49,35

Supports / Ladders



Mobile step-ladder

Acc. to DIN 4569. TÜV and BG tested. Made of aluminium with edge protection. With spring-bearing wheels for full mobility. 2 corrugated steps. Immoveable, stationary stand when under load. Folding.

Technical specifications:

Dimensions (L x W x H)	440 x 425 x 445 mm
When folded together	440 x 230 x 485 mm
Maximum load / weight	150 / 2.2 kg

Art. No.	Pack Qty.	€
Y645.1	1	64,75



Safety ladders

By Hailo. Made of aluminium. With anti-slip grooves. Safe, high-tech rivetted rail step connection and anti-slip foot. Load capacity 150 kg.

① Safety ladder with steel platform.

Steps	W x H (mm)	Height of platform (mm)	Weight (kg)	Art. No.	Pack Qty.	€
4	450 x 1580	840	3,9	LT09.1	1	64,45

② Safety ladder with aluminium platform.

Steps	W x H (mm)	Height of platform (mm)	Weight (kg)	Art. No.	Pack Qty.	€
5	480 x 1820	1060	4,6	LT12.1	1	82,70



Folding step ladders

By Hailo. With Soft-Grip base for optimal stability on various surfaces. High-curved aluminium safety rail for secure grip or simply to lean against, with tray. Extra-large, non slip ribbed aluminium steps for optimal comfort when standing. Maximum load capacity 150 kg.

Steps	W x H (mm)	Weight (kg)	Art. No.	Pack Qty.	€
2	520 x 1270	4,9	ACP5.1	1	73,05
3	550 x 1540	6,6	ACP6.1	1	85,95



Trolleys



NEU
NOUVEAU
NEW

Gas cylinder trolley

Made of sturdy **PE**, with handle. For safe transportation of a single gas bottle, Ø max. 320 mm. Large surface area provides excellent stability. Solid rubber tyres, wheel Ø 200 mm. Load capacity: 80 kg.

Delivery incl. lashing strap for securing the bottle.

Type	W x D x H (mm)	Art. No.	Pack Qty.	€
① Without stabiliser wheel	495 x 630 x 1110	CTC3.1	1	263,40
② With stabiliser wheel	495 x 800 x 1110	CTC4.1	1	287,05



Trolley for transporting crates

Steel tubing. Colour black-silver effect. Pneumatic/cleated tires. Roller bearing wheels. **Load capacity 250 kg.** Dimensions: H 1100 mm, shovel W 260 x D 280 mm.

Art. No.	Pack Qty.	€
X828.1 *	1	220,40

* Please check with our Sales Department for delivery period of these products.



NEU
NOUVEAU
NEW

Gas bottle holders

Made of galvanised steel. For wall-mounting of a single gas bottle.

Delivery incl. safety chain.

For bottle Ø (mm)	Art. No.	Pack Qty.	€
140	CTC5.1	1	51,55
230	CTC6.1	1	51,55
320	CTC7.1	1	54,85



Universal transport trolley

Foldable. Made of fiber-reinforced plastics in conjunction with aluminium and steel tube. With adjustable strap to secure goods. Solid rubber tyres on wheels (Ø 200 x W 40 mm) made of cushion-type polymer (easy-to-handle, puncture-proof).

Load capacity 125 kg. Weight 5.4 kg.

Dimensions when folded/open: W 490/490 x H 685/1030 mm.

Shovel unfolded: W 490 x D 250 mm.

Art. No.	Pack Qty.	€
9305.1	1	147,05

Platform trolleys



Rotilabo®-transport trolleys

Made of stainless steel. Welded circular tubing frame, Ø 25 mm. With 1.5 mm thick, firmly attached shelf. One narrow side features 450 mm high barred construction, curved handle. With four firmly screwed on plates to attach the rubber tyred wheels, Ø 200 mm. With 2 fixed rollers and 2 lockable, steerable wheels. Platform height 270 mm. **Total load 500 kg.**

Platform size (mm)	L x W x H outer (mm)	Weight (kg)	Art. No.	Pack Qty.	€
850 x 500	970 x 500 x 940	27	N138.1*	1	966,45
1000 x 700	1120 x 700 x 940	34	N139.1*	1	1138,45

* Please check with our Sales Department for delivery period of these products.



Rotilabo®-platform trolleys

Made of stainless steel. The smooth, sound absorbing, undercoated platform has 80 mm folded edges with safety crimping to the inside. Curved handle is made of rectangular tubing Ø 25 mm and is firmly welded onto trolley. The 4 rubber wheels (2 are lockable), Ø 125 mm, are screwed on at the reinforced corners. 2 sturdy corner guards protect the trolley from damage. Platform height 243 mm, **total load 120 kg.**

Platform size (mm)	L x W x H outer (mm)	Weight (kg)	Art. No.	Pack Qty.	€
545 x 545	740 x 600 x 1020	16	N136.1*	1	568,70
820 x 545	1000 x 600 x 1020	20	N137.1*	1	600,95

* Please check with our Sales Department for delivery period of these products.



Rotilabo®-platform trolleys

Tabular steel construction with reinforced beech plywoods. Black-silver enamel steel plate. With 2 steerable and 2 fixed wheels, solid rubber, Ø 200 mm. Platform height 270 mm. **Loading capacity 500 kg.**

Platform size (mm)	Art. No.	Pack Qty.	€
850 x 500	N176.1*	1	342,95
1200 x 700	N177.1*	1	413,90

* Please check with our Sales Department for delivery period of these products.



Lab services trolley

Metal frame and steel angles with black-silver enamel powder coating. Plates made of multilayer beech plywood. **Capacity load 200 kg.** Weight 33 kg. With two castor wheels and two fixed wheels 125 mm, solid rubber soft running wheels with ball-bearing. Two loading platforms 100 x 60 cm at a height of 28 and 80 cm. Dimensions without handle: W 62 x H 81 x L 104 cm. Overall height 90 cm.

Art. No.	Pack Qty.	€
5390.1*	1	424,65

* Please check with our Sales Department for delivery period of these products.

Transport trolleys



Laboratory shelf trolleys

Made of high-grade 18/10 steel. With welded bases, max. load per base 40 kg. Comes on extra large wheels with wall fender guards and two wheel locks. Diameter of wheels is 125 mm. Without protruding edges and screws, therefore safe and easy to clean. Wheels are anti-static. Shelf size L 800 x W 500 mm.

Model	With 2 and 3 shelves	With 4 shelves
Outer dimensions L x W x H (mm)	900 x 600 x 940	900 x 600 x 1260

No. of shelves	Distance between shelves (mm)	Weight (kg)	Total load capacity (kg)	Art. No.	Pack Qty.	€
2	590	approx. 15	80	0033.1	1	353,70
3	280	approx. 22	120	A206.1	1	392,40
4	280	approx. 27	130	Y497.1	1	499,90



Rotilabo®-shelf trolleys

Made of stainless steel 18/0. Sturdy shelves, 0.8 mm thick. Load-bearing capacity of each shelf: 40 kg. Bases are coated with sound-insulating material.

Technical specifications:

Model	With 2 plates	With 3 plates
Total load-bearing capacity (kg)	80	120
Rack Ø (mm)		25
Swivel castor Ø (mm)		125
Plate spacing (mm)	570	260
Plate inner dimensions L x W (mm)		760 x 440
Plate outer dimensions L x W (mm)		830 x 510
Overall plate dimensions: L x W x H (mm)		860 x 560 x 950
Weight (kg)	13	17

Delivery incl. 4 swivel castors, 2 lockable. Fully disassembled.

Type	Art. No.	Pack Qty.	€
With 2 plates	YE87.1	1	212,85
With 3 plates	YE88.1	1	256,95



Rotilabo®-compact multi-function trolleys

With 2 or 3 shelves made of PE. Middle shelf can be adjusted in height by 25 mm. Shelves either have a retaining rim or a tub shape. Load capacity of shelves: model with tub-shaped shelves 65 kg, other models 30 kg. Delivery incl. 4 rubber castors, unmounted.

① Without tub shelves, height 940 mm

Depth (mm)	Width (mm)	Number of shelves	Useable surface (mm)	Distance between shelves (mm)	Art. No.	Pack Qty.	€
535	857	2	475 x 735	550	K492.1*	1	385,95
535	857	3	475 x 735	250	K493.1*	1	467,65
686	1003	2	620 x 880	550	K494.1*	1	435,40
686	1003	3	620 x 880	250	K495.1*	1	532,15

② With tub shelves, height 1060 mm

Depth (mm)	Width (mm)	Number of shelves	Useable surface (mm)	Distance between shelves (mm)	Art. No.	Pack Qty.	€
540	840	2	480 x 730	610	X446.1*	1	450,45
540	840	3	480 x 730	280	X447.1*	1	504,20
690	995	2	625 x 885	610	X448.1*	1	482,70
690	995	3	625 x 885	280	X449.1*	1	564,40

* Please check with our Sales Department for delivery period of these products.



Laboratory trolley

Made of stainless steel 1.4301.

- Sturdy and hygienic design
- 4 swivel castors, including 2 with full locking brake
- Castor Ø 125 mm, in corrosion-resistant housing, low-friction bearings
- Castors are not electrically conductive
- With smooth side shelves, thickness 1.0 mm, with sound-absorbing lining
- Shelves rigidly welded with 4 round tubes, Ø 25 mm

Dimensions: W 450 x D 450 x H 510 mm. Load capacity: 120 kg.

Art. No.	Pack Qty.	€
AXL5.1	1	424,65

Transport trolleys



Stainless steel shelf trolley

Made of stainless steel 1.4301. With four solid rubber swivel castors (non-marking), wheel Ø 125 mm. Load capacity of trolley 200 kg. Dimensions: L 620 x W 460 x H 1200 mm. Shelf spacings 300 mm. Shelves (XE29.1) and matching stackable container (TC11.1) (optional), please order separately.

Art. No.	Pack Qty.	€
TC09.1	1	510,65

Shelves

Made of RESOPAL®. Suitable for stainless steel shelf trolley TC09.1. Dimensions: L 610 x W 410 x H 8 mm.

Art. No.	Pack Qty.	€
XE29.1	3	198,90

Stackable containers

Made of plastic, impact resistant. Container TC11.1 suitable for stainless steel shelf trolley TC09.1 (can be used with or without XE29.1 shelves).

Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
20	400 x 300 x 235	TC10.1	1	32,25
45	600 x 400 x 235	TC11.1	1	55,40



Plastic tubs

Made of HDPE. Chipproof and breakproof. Resistant against most acids and alkali. Temperature stable from -40 to +110 °C.

Tub C973.1 suitable for lab cart C972.1.

Colour	Capacity (l)	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
red	85	800 x 550 x 300	C973.1	1	58,05
white	100	900 x 550 x 360	E285.1	1	85,80



Lab-wire trolley

Made of steel tubing and sheet steel. Two baskets, 65 and 24 l volume, corrosion protected and covered with soft plastic.

Dimensions: W 410 x L 730 x H 850 mm (total height 970 mm), weight 13.5 kg. Wheels, Ø 10 cm, can rotate in all directions. Loading capacity per basket 30 kg.

Art. No.	Pack Qty.	€
1927.1	1	482,70

Security separating grating

For use inside trolley. Made of plastic covered metal. Ideal for subdividing lab trolley basket. Suitable for safe transport of small containers and glass flasks. Dimensions: W 370 x H 240 mm.

Art. No.	Pack Qty.	€
B001.2	1	57,95



Programme extension!

Lab cart

For removable tub or basket. Multi-purpose use. **Max. load 200 kg.** Frame made of 28 mm steel tubing, plastic coated. 4 wheels (Ø 75 mm) with solid rubber tyres and thread protection to ensure mobility. Is secure due to 2 lockable steering wheels with double stop. Height of tub seat 430 mm. **Delivery without tub.** Please order suitable plastic tub separately.

for tub	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
C973.1	730 x 490 x 580	C972.1	1	167,70
E285.1	730 x 350 x 530	CPY5.1	1	177,40

Transport containers



Tub trolleys

For all-purpose use in labs, clinics, production sites. The carriage is made of plastic-coated steel pipe with four solid rubber castor wheels Ø 75 mm. The tub is made of white **LDPE**, stable from -40 to +120 °C.

Dimensions:

- Tub: inside/top 480 x 480 mm, H 400 mm, capacity approx. 85 l, weight 2.8 kg
- Trolley with tub: H 870 mm, weight 8.2 kg

Type	Art. No.	Pack Qty.	€
Tub	4524.1	1	38,65
Lid for tub	5826.1	1	37,55
Trolley	K625.1	1	170,95



DuraPorter™ safety containers

Made of **PC**, with watertight silicon seal. Ideal for in-house transportation of biological and chemical samples, instruments or for storage. Transparent box with hinged lid, three snap locks and carry handle, stackable. Partitionings for smaller samples can be removed to make use of the entire interior. Lid can be fully opened for easy filling and cleaning.

Dimensions: outer L 380 x W 196 x H 160 mm, inner L 335 x W 155 x H 135 mm. Autoclavable.

Colour	Art. No.	Pack Qty.	€
transparent/blue	AAA0.1	1	80,65
red	AAA1.1	1	80,65
yellow	AAA2.1	1	80,65



Sekuroka®-transport boxes

Made of **PP**. With recessed grip on the side. Very robust, stackable. UN-authorized for storing and transporting solids, granulates and powders (Packing group I, II and III) if used together with UN-seal tape to secure lid. **Delivery without** seal tapes, please order separately.

Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
20	400 x 300 x 275	T325.1	1	56,45
45	600 x 400 x 275	LL32.1	1	61,20

Accessories:

UN-seal tapes	LL31.1	50	20,40
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Rotilabo®-safety container

Made of **PC**. For dustfree storage of samples and reagents or for safe transport of test tubes and other vessels with dangerous substances. Features tightly sealing lid and 4 catches. Plus two side-handles and a main one made out of high-grade steel. Break- and leakproof. Dimensions: outer L 330 x W 175 x H 180 mm, inner L 300 x W 125 x H 160 mm. Autoclavable.

Type	Art. No.	Pack Qty.	€
Safety container	8331.1	1	93,10
Spare clips	LK68.1	4	18,20

Transport containers



NEU
NOUVEAU
NEW

Rotilabo® transport boxes

Made of plastic. With sturdy fold-away carry handle; removable compartment and 2 removable small parts magazines in lid. For transporting measuring instruments, tools and small parts. Dimensions: L 580 x W 290 x H 300 mm.

Art. No.	Pack Qty.	€
CYX1.1	1	33,90



Rotilabo®-plastic cases

With lid. Very robust version, slip-proof and stackable. With handle and spring-loaded latches, can be lead-sealed. Suitable for many applications (e.g. transport of measuring instruments, analytical samples, tools, etc.).

Capacity (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
10	400	300	133	C236.1	1	36,35
15	400	300	183	C237.1	1	39,70
20	600	400	135	C238.1	1	52,65
40	600	400	235	C239.1	1	63,35

With two extra side handles

Capacity (l)	Outer length (mm)	Outer width (mm)	Outer height (mm)	Art. No.	Pack Qty.	€
32	400	300	282	H310.1	1	53,70
40	400	300	338	H311.1	1	53,70



Rotilabo®-baskets

Made of aluminium. Slide strip made of plastic. Ergonomically formed handles on the front side. The straight baskets can be stacked on top of each other, the conical ones inside each other.

Model	Outer dimensions L x W x H (mm)	Inner dimensions L x W x H (mm)	Volume (l)	Weight (kg)
① straight	580 x 380 x 300	540 x 340 x 280	55	2.5
② straight	740 x 480 x 300	700 x 440 x 280	90	3.5
③ conical	top: 740 x 485 x 290 bottom: 640 x 380 x 290	top: 700 x 445 x 290 bottom: 630 x 375 x 290	89	3.0

Type	Art. No.	Pack Qty.	€
① straight	EX45.1	1	127,95
② straight	EX46.1	1	160,20
③ conical	EX47.1	1	166,65



Rotilabo®-instrument cases

Very robust aluminium cases with extra stabilizing aluminium frame. Instruments are protected from shock and breakage due to the removeable knopped foam liner in lid and the pre-perforated foam squares in base. Can be locked. **Delivery incl. key.**

Small case

Outer dimensions: W 340 x H 270 x D 145 mm
Inner dimensions: W 320 x H 245 x D 125 mm
Weight 2 kg.

Art. No.	Pack Qty.	€
Y377.1	1	80,85

Large case

Outer dimensions: W 460 x H 360 x D 155 mm
Inner dimensions: W 440 x H 330 x D 140 mm
Weight 3 kg.

Art. No.	Pack Qty.	€
Y378.1	1	112,90

Transport containers



Rotilabo®-laboratory basket

Spot-welded, PE coated wire trellis basket, 10 x 10 x 1.5 mm. Handle can be folded down and locks into place. The grip of the handle is plastic-coated. Base is reinforced by two rods for additional safety. Dimensions: L 400 x W 300 x H 200 mm.

Art. No.	Pack Qty.	€
L048.1	1	155,90



Hand baskets

Can be stacked inside one another when empty.

① **Made of plastic**, double-handled. Colour red.

Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
22	430 x 300 x 230	TC06.1	1	24,40

② With plastic-coated metal handle **zinc chromate finish**.

Capacity (l)	L x W x H (mm)	Art. No.	Pack Qty.	€
7	365 x 250 x 120	TC07.1	1	44,65
20	470 x 310 x 210	TC08.1	1	44,10



Rotilabo®-collapsible boxes

Made of PP. Folding baskets. Capacity 30 l. Max. load 10 kg. Dimensions: L 470 x W 340 x H 240 mm.

Colour	Art. No.	Pack Qty.	€
black	X857.1	1	12,85



Rotilabo®-plastic containers

Made of PP. For safe transport of bottles. Segment divisions in box can be removed easily. Containers are robust, scratch-proof and easy to clean. Outer dimensions: L 400 x W 300 mm.

With 12 subdivisions

Each 85 x 85 mm. Height of container 220 mm.

Art. No.	Pack Qty.	€
C013.1	1	42,95

With 8 subdivisions

Each 97 x 97 mm. Height of container 270 mm.

Art. No.	Pack Qty.	€
C014.1	1	47,25

Accessories:

Lid with hinges

Art. No.	Pack Qty.	€
P094.1	1	8,40

Spring-loaded catches

Art. No.	Pack Qty.	€
P095.1	2	3,05



Rotilabo®-transport box

Made of PP. Ideal for chemical bottles, tools and small parts. Handle is integrated into lower part of box. With hollow groove in bottom to allow boxes to be stacked. Features two removable compartments of approx. 50 mm in height. Lid can be removed completely, lockable with padlock. Outer dimensions: W 310 x H (without handle) 150 x L 430 mm. Inner dimensions: W 270 x H 120 x L 390 mm. Weight 1800 g.

Art. No.	Pack Qty.	€
0563.1	1	39,25

Transport containers



Multi-purpose transport baskets

By Nalgene®. Ideal for transporting samples, bottles, tools, etc. With moulded divider. Dimensions of compartments: L 340 x W 89 x H 111 mm. Overall dimensions (incl. handle): L 378 x W 241 x H 114 mm.

Made of HDPE

Art. No.	Pack Qty.	€
K571.1	1	29,00

Made of PP

Autoclavable. Ideal in biological and clinical laboratories for collecting and transporting samples. Conforms to OSHA Standard 29 CFR, part 1910.1030 for use as protection against haematogen pathogens.

Art. No.	Pack Qty.	€
K572.1	1	29,90



Rotilabo®-samples transport basket

Made of stainless high-grade steel. With folding handle and label area on the narrow side. Stackable. Overall dimensions: 325 x 230 x 115 (230 mm with handle). 8 compartments: 30 x 32 mm, 12 compartments: 60 x 60 mm, 22 compartments: 18 x 18 mm.

Art. No.	Pack Qty.	€
L439.1	1	177,40



Sekuroka®-bottle baskets

Ideal for transporting dangerous liquids. Made of plastic covered steel wire. Handle with slight suspension effect.

Basket 4 x 1 l

Dimensions: L 235 x W 235 x H 130 mm, H with handle 300 mm, compartment width 105 x 105 mm.

Art. No.	Pack Qty.	€
0869.1	1	37,10

Basket 2 x 2.5 l

Dimensions: L 340 x W 180 x H 130 mm, H with handle 320 mm, compartment width 160 x 160 mm.

Art. No.	Pack Qty.	€
0130.1	1	33,90



Rotilabo®-bottle baskets

Ideal for transporting different-sized laboratory samples. With feet and stable handle. Made of wire, covered with white PE.

Inner Ø (mm)	Number of compartments	Height (mm)	Art. No.	Pack Qty.	€
100	4	330	L431.1	1	60,10
100	6	330	L432.1	1	74,85
100	8	330	L433.1	1	92,45
100	10	330	L434.1	1	110,75
130	4	370	L435.1	1	69,35
130	6	370	L436.1	1	77,95
130	8	370	L437.1	1	107,45
130	10	370	L438.1	1	130,10
80	12	320	N146.1	1	105,60

Transport containers



Sekuroka® bottle transport bucket

Made from thermoplastic elastomer. Suitable for shockproof transport of breakable glass bottles or goods for cooling. Max. tensile loading capacity: 50 kg. Resistant to most aqueous solvents, acids and bases. Temperature stable from -45 to +110 °C. Autoclavable.

For bottles	Height incl. handle (mm)	Height without handle (mm)	Outer Ø (mm)	Inner Ø (mm)
0.5 to 1 l	254	165	114	100
2.5 to 4 l	406	267	190	175

For bottles	Colour	Art. No.	Pack Qty.	€
0.5 to 1 l	red	ATC1.1	1	37,55
2.5 to 4 l	red	C804.1	1	79,55
2.5 to 4 l	black	C806.1	1	79,55

Transport of dangerous substances

According to laboratory guidelines (BGR 120), breakable objects should be supported in some way during transport. In particular, containers which have been removed from refrigerators or cold rooms may be wet and slippery through condensation (5.3.4.6). Fragile objects may only be transported to other rooms with a support that enables safe holding and carrying, e.g. buckets or transporting boxes (5.3.4.7).



Bottle carriers

Made of PP, with handle and 8 slots. Ideal for transporting oxygen bottles acc. to Winkler (Art. No. HH78.1, 150 ml). Dimensions: L 330 x W 170 x H 70 mm. Opening Ø 72 mm. Handle height 72 mm. Autoclavable.

Art. No.	Pack Qty.	€
YC18.1	2	113,95



Sekuroka®-safety container for bottles

By Nalgene®. Made of LDPE with PC lid. Ideal for transporting and storing 2.5 l narrow neck bottles (for ex. Art. No. T503.1). The screw cap enables pouring without removing bottle from the container.

Art. No.	Pack Qty.	€
P333.1	1	83,85



Rotilabo®-small parts storage boxes PORTAFIX

Made of PE. Ideal for transport or wall attachment. With 12 drawers each made of PP and transparent front covers made of PS.

PORTAFIX SMALL

W 360 x H 350 x D 100 mm. Weight 1.8 kg.

Drawers W 100 x H 52 x D 90 mm.

Two PORTAFIX SMALL can be attached together with clip hinges that are included in the set and locked with a padlock.

Art. No.	Pack Qty.	€
0545.1	1	39,70

PORTAFIX LARGE

W 360 x H 470 x D 170 mm. Weight 3 kg.

Drawers W 100 x H 75 x D 160 mm.

Art. No.	Pack Qty.	€
0546.1	1	53,70

Storage containers



MultiStore storage systems

Made of **PS**, white, tip-out drawers made of transparent polystyrene.

- For small items and accessories, versatile
- Dust-free and clean storage of contents
- Can be combined in a variety of ways to provide customised storage solutions

Number of drawers	Overall plate dimensions: L x W x H (mm)	Drawer size L x W x H (mm)
9	601 x 65 x 77	49 x 45 x 46
6	601 x 94 x 113	80 x 67 x 69
3	601 x 198 x 238	176 x 149 x 161

Number of drawers	Art. No.	Pack Qty.	€
9	ANP5.1	1	15,60
6	ANP6.1	1	19,90
3	ANP7.1	1	42,80



Magnetic storage containers

Made of **ABS**, with four magnets.

For attaching to clean benches, extractors or other metallic surfaces.

Delivery incl. metal plate for attaching, self-adhesive.

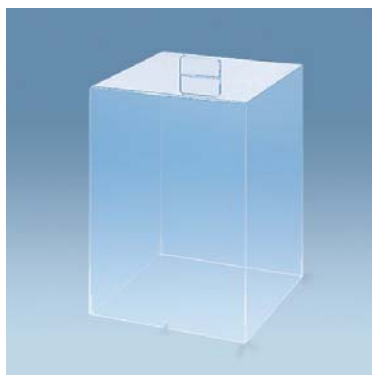
Type	For	L x W x H (mm)	Art. No.	Pack Qty.	€
①	Tissue boxes AA64.1 (213 x 114 mm)	130 x 91 x 98	ACL3.1	1	21,45
②	4 x 50 ml + 9 x 15 ml centrifuge tubes	131 x 112 x 64	ACL4.1	1	21,45
③	2 microlitre pipettes	131 x 112 x 76	ACL5.1	1	21,45
④	Small items	130 x 78 x 102	ACL6.1	1	21,45



Rotilabo®-storage boxes

Made of **PP**. Blue. Resistant against oil and acids. Breakproof, stackable.

L x W x H (mm)	Art. No.	Pack Qty.	€
115 x 100 x 75	Y388.1	6	6,70
165 x 100 x 75	Y389.1	4	6,70
240 x 145 x 125	Y390.1	2	6,40
335 x 205 x 155	Y391.1	2	13,80
495 x 315 x 185	Y392.1	2	23,55



Hood for small instruments

Made of **PMMA**. Transparent cover with square base for protecting microscopes and other sensitive instruments against dust and contamination. Also suitable as draft shield for balances.

Dimensions: L 300 x W 307 x H 400 mm.

Art. No.	Pack Qty.	€
CPX2.1	1	95,70

Storage containers



Sorting container for small items

Made of acrylic glass. Easy to fill from above. Pipette tips, reaction vials and other small items can easily be removed through second opening. With non-slip rubber feet.

Number of compartments	L x W x H (mm)	Art. No.	Pack Qty.	€
1	180 x 175 x 235	AXE0.1	1	66,45
2	139 x 160 x 368	AXE1.1	1	76,35
3	210 x 155 x 212	AXE2.1	1	87,10
4	278 x 158 x 217	AXE3.1	1	93,55



Rotilabo®-small parts boxes

Made of PS

L 210 x W 120 x H 36 mm.

With 7 compartments: 1 compart. 203 x 57 mm, 6 compart. 32 x 57 mm.

Art. No.	Pack Qty.	€
8544.1	1	7,35

Made of PP

L 250 x W 170 x H 46 mm. With 8 compartments: 1 compartment 240 x 64 mm, 1 compartment 78 x 79 mm, 2 compartments 38 x 97 mm, 4 compartments 38 x 47 mm.

Art. No.	Pack Qty.	€
H354.1	1	9,85

Made of PP

L 335 x W 225 x H 55 mm.

With 8 compartments: 1 compartment 323 x 106 mm, 1 compartment 106 x 106 mm, 2 compartments 106 x 51 mm, 4 compartments 51 x 51 mm.

Art. No.	Pack Qty.	€
H355.1	1	12,70



Storage boxes

Made of PP. With hinged lid, stackable.

Art. No. YC76.1 and YC77.1 with label holder on lid.

L x W x H (mm)	Art. No.	Pack Qty.	€
136 x 87 x 35	YC76.1	1	5,95
136 x 87 x 55	YC77.1	1	6,40
185 x 140 x 80	YC78.1	1	8,85
228 x 130 x 60	YC79.1	1	8,85



Rotilabo®-small parts boxes

Made of clear PS. With different-sized compartments.

Outer dimensions (mm)	Number of compartments	Dimensions compartments (mm)	Art. No.	Pack Qty.	€
250 x 170	12	82 x 38 x H 40	K154.1	1	11,95
250 x 170	18	48 x 38 x H 40 (12 x) 65 x 38 x H 40 (6 x)	K155.1	1	11,95
210 x 120	9	36 x 67 x H 30	K156.1	1	9,15
210 x 120	12	56 x 32 x H 30	K157.1	1	9,15
170 x 105	10	50 x 32 x H 27	K159.1	1	8,10

Drawer trays



Rotilabo®-drawer tray

Made of **PVC**, with 12 storage compartments 87 x 87 mm (inside) for small parts. Outer dimensions: L 410 x W 300 x H 65 mm.

Art. No.	Pack Qty.	€
8110.1	1	53,25



Rotilabo®-drawer tray

Made of **PS**. With 4 compartments 205 x 155 mm for neat storage of larger, small devices.

Overall dimensions approx. W 440 x D 340 x H 70 mm.

Art. No.	Pack Qty.	€
L064.1	1	75,15



Rotilabo®-drawer tray

Made of **PVC**, with 5 compartments for pipettes, thermometers, small parts, etc. Outer dimensions: L 410 x W 300 x H 70 mm.

Compartment inner dimensions:

- 1 compartment L 380 x W 96 mm
- 2 compartments L 187 x W 100 mm
- 2 compartments L 187 x W 66 mm

Art. No.	Pack Qty.	€
9521.1	1	52,25



Rotilabo®-drawer tray for microlitre pipettors

Made of **PS**. Ideal for pipettors, syringes

- 5 compartments L 275 x W 60 mm
- 2 compartments L 155 x W 140 mm

Overall dimensions approx. W 440 x D 340 x H 70 mm.

Art. No.	Pack Qty.	€
L060.1	1	75,15



Rotilabo®-drawer tray, 9 compartments

Made of **PVC**, with subdivided lengthwise. Ideal for pipettes, thermometers, columns, etc. Outer dimensions: L 355 x W 300 x H 45 mm.

Dimensions of the compartments: L 345 x W 27 mm.

Art. No.	Pack Qty.	€
8111.1	1	47,75



Rotilabo®-pipette tray

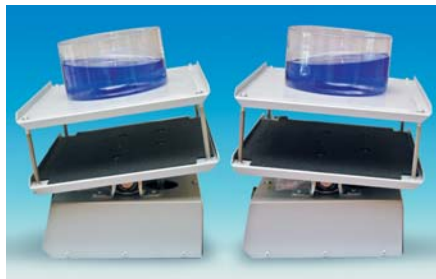
Made of **PVC**, fits most drawers. Divided lengthways into 4 parts.

Dimensions: L 420 x W 300 x H 40 mm.

Art. No.	Pack Qty.	€
7230.1	1	31,40

- Pipettes from page 394
- Drawer container for microscope slides, see page 284

Non-slip mats/Laboratory mats



Rocker Tape Adhesive films for shakers

Made of Polyester. Adhesive on both sides, provides a secure hold for different laboratory vessels on agitators or in incubators. Suitable for gentle shaking movements, dependent on load and contact area. Washable, reusable.

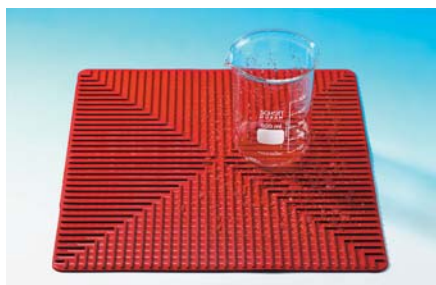
Type	Length (cm)	Width (cm)	Art. No.	Pack Qty.	€
Roll	610	3,8	TH52.1	1	41,85
Sheets	30,5	30,5	TX33.1	3	52,15



Rotilabo®-adhesion mat

Made of soft PVC. Prevents slipping and is suitable for use as padding. Both sides can be used. Washable and durable. Roll W 400 x L 1000 mm, approx. 1 mm thick.

Art. No.	Pack Qty. (roll)	€
0668.1	1	32,20



Rotilabo®-laboratory mats

Made of silicone. Non-slip. Temperature stable from -60 to +260 °C. Can be sterilized.

Colour	Dimensions (mm)	Art. No.	Pack Qty.	€
red	250 x 250	EE86.1	1	15,95
black	250 x 250	EE87.1	1	15,95
red	350 x 350	EE88.1	1	24,65
black	350 x 350	EE89.1	1	24,65



Anti-vibration laboratory mats

Made of neoprene. For absorbing vibration produced by laboratory equipment. Suitable for a large number of vortexers, shakers, rotators, microscopes and other equipment. Slip-resistant, creates a stable surface. Stackable for bearing heavy equipment, place side by side to produce a larger surface area.

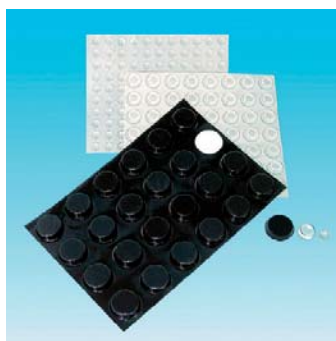
Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
178	216	AXC1.1	2	44,00
216	279	AXC2.1	2	51,40



Sekuroka®-safety lab sink mat

Made of soft PVC to prevent glass breakage when washing. Round profile prevents splashing of running water. The smooth surface prevents dirt from settling. Weight of mat is sufficient to insure secure position in flowing water. An additional advantage: Magnetic rods do not slip through mesh easily into drain pipe. Dimensions: L 750 x W 450 x H 15 mm. Width of profile 8 mm. Width of web 40 mm.

Art. No.	Pack Qty.	€
C374.1	1	62,25



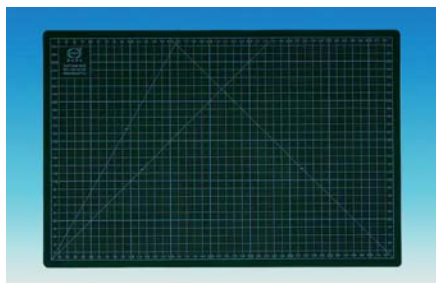
Rotilabo®-elastic buffer pads

Ideal for preventing slipping, vibrating, rattling of instruments, machines, lids, etc. Made of soft-elastic plastic. Self-adhesive.

Ø (mm)	Height (mm)	Colour	Art. No.	Pack Qty.	€
8	2	clear	5351.1	125	11,80
13	3	clear	5352.1	112	24,65

► Bench-Top protection paper see page 498

Cutting tools



Cutting mats

Made of **PVC**, in 3 layers with special interior core. With grid imprint and self-closing surface. Colour: green, with white grid pattern. Thickness 3 mm.

Dimensions L x W (mm)	Art. No.	Pack Qty.	€
450 x 300	KN07.1	1	12,70
600 x 450	PK51.1	1	21,40



Cutting boards

Made of **PE**. Non-toxic. Temperature stable up to +90 °C.

Dimensions L x W x H (mm)	Type	Art. No.	Pack Qty.	€
300 x 200 x 10	with recessed grip, without rubber feet	N115.1	1	9,35
350 x 250 x 20	without recessed grip, with rubber feet	N116.1	1	22,60



Safety cutter

With bevelled, rotating round knife, self-sharpening, in closed plastic top. Automatic pressing on of the cutting material at the cutting point. With transparent press-down ruler. Also features two angle layouts with cm and inch scales, degree graduation and format marking. Cutting height max. 1 mm.

Small model:

Cutting length max. ca 320 mm. Dimensions: W 430 x H 70 x D 210 mm.

Art. No.	Pack Qty.	€
X860.1	1	42,50

Large model:

Cutting length max. ca 460 mm. Dimensions: W 570 x H 70 x D 210 mm.

Art. No.	Pack Qty.	€
X861.1	1	53,25



Safety knife

Made of cast aluminium, black heat-baked paint and blue plastic parts. For left and right handed users. Blade is drawn back into handle by a spring when lever is released. With ergonomically formed handle. Knife is handy, safe and secure in grip. Length 150 mm, width 35 mm. Blade thickness 0.65 mm (trapeze shape).

Type	Art. No.	Pack Qty.	€
Safety knife	C649.1	1	16,15
Spare blades	C650.1	10	6,30



MARTego safety knife

With automatic blade retractor. Operating lever can be locked to prevent accidental opening. Anatomically shaped aluminium long grip with soft-component handle for slip-resistant and fatigue-free working. For left and right handed users. Easy blade replacement without tools. Application advantage: blade is usable on 4 sides. Suitable for all routine cutting work, ideal for opening boxes.

Type	Art. No.	Pack Qty.	€
Safety knife	XK02.1	1	31,75
Replacement blades	XK03.1	10	8,10



Cutter 2-in-1

With automatic blade retractor and auto-lock feature. Metal handle with rubberised grip zone and integrated break-off device. Usable as a standard cutter or safety knife. Spring-loaded blade retracts automatically when the blade slips off the cutting object. The standard break-off blade can, however, also be pushed forwards in the conventional fashion using the auto-lock feature. Dimensions: L 186 mm x W 38 mm, blade width 18 mm. **Delivery incl. blade.**

Type	Art. No.	Pack Qty.	€
Cutter	PK49.1	1	12,15
Replacement blades	PK50.1	10	3,95



Cutter ARGENTAX

With button to push blade forward. Length 150 mm. Weight 90 g. With 5 blades.

Type	Art. No.	Pack Qty.	€
Cutter	0507.1	1	10,70
Spare blades	A856.1	5	4,25

Glass and ceramic scratcher

With fitted blade. For hobs and other smooth surfaces. Adjustable. Width 50 mm, length 140 mm. Weight 30 g.

Type	Art. No.	Pack Qty.	€
Scratcher	0508.1	1	4,95
Replacement blades (L 43 x W 22 x strength 0,22 mm)	CLT7.1	10	4,85



Safety laboratory knife

Strong, rounded blade made of stainless steel 1.4034. Plastic safety handle reduces risk of injury. Blade length 90 mm, overall length 225 mm.

Art. No.	Pack Qty.	€
PX19.1	1	14,45



Ceramic knives

With extremely hard, stainless and anti-magnetic blade. Very light. Ergonomically designed handle. No resharpening.

Blade length (mm)	Art. No.	Pack Qty.	€
90	T752.1	1	32,15
120	T753.1	1	53,70
150	T754.1	1	57,95



Knives

For cutting foils, tubing, insulation, mats, etc. Blade is made of ice-hardened and hand-sharpened stainless steel. Knives are dishwasher proof.

Blade length (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
75	180	A572.1	1	34,40
90	190	A573.1	1	35,50
120	225	A574.1	1	36,55
160	270	A575.1	1	41,40
200	330	A577.1	1	59,15
260	380	A579.1	1	67,20



Lab clasp knife

Special knife with lockable, stainless blade and rubber-like textured handle for secure grip. Dimensions: length blade ca. 70 mm, knife unfolded 175 mm, folded ca. 105 mm. Weight 78 g.

Art. No.	Pack Qty.	€
1036.1	1	15,00



① Swiss pocket knife

10 parts. With lockable 65 mm-blade, scissor, saw, crosstip screwdriver, screwdriver with bottle opener, tin opener, corkscrew, forceps, nail file, awl, tooth pick and key ring. Handle length 85 mm. Weight 88 g. 5 years warranty.

Art. No.	Pack Qty.	€
0022.1	1	42,90

② Swiss mini pocket knife

5 piece. Lightweight and easy to use. With a 45 mm blade, scissors, nail file, tweezers, toothpick and key ring. Length 65 mm. Weight 21 g.

Art. No.	Pack Qty.	€
PY14.1	1	18,60

Scissors



Scissors

Made of stainless high-grade steel, rated 56 on the Rockwell hardness scale and shock-resistant plastic. Can be readjusted and sharpened. TÜV-tested. Comes in plastic case.

For papers, textiles, foils and more

Fig.	Blade length (mm)	Overall length (mm)	Type	Art. No.	Pack Qty.	€
④	130	260	for right-handed users	0821.1	1	17,75
①	66	164	for right-handed users	9674.1	1	14,85
-	66	164	for left-handed users	9676.1	1	17,10

For cardboard, leather, plastic, carpets and more

Fig.	Blade length (mm)	Overall length (mm)	Type	Art. No.	Pack Qty.	€
②	41	170	for right-handed users	5489.1	1	12,80
③	93	212	for right-handed users	9677.1	1	17,10
-	93	212	for left-handed users	9678.1	1	19,90



All purpose scissor

With xylan-coated fine cut blades, safety lock and plastic handles. Total length 215 mm, weight 250 g.

Art. No.	Pack Qty.	€
1259.1	1	24,70



Combinations scissors

Made of stainless steel. Cut wire, tin, cardboard, textile, leather, rubber and plastic. Can be locked. Total length 190 mm, blade length 40 mm, weight 110 g.

Art. No.	Pack Qty.	€
1901.1	1	17,15



All-purpose sharpener

Electric. Ideal for smooth blades, wave cut blades and scissors. Also for screwdrivers and drills. After taking off front cap free rotating disc can be used for all type of grindings. 1 m cable can be retracted into housing. Dimensions: W 55 x H 82 x L 150 mm. Weight app. 460 g. Power supply: 220 V/50 Hz/20 W.

Type	Art. No.	Pack Qty.	€
Electric all-purpose sharpener	5505.1	1	45,45

► Further scissors, see page 307



Rotilabo®-hose- and tube-cutter

Made of stainless steel 18/10, with high gloss finish. Ideal for cutting hoses and centrifuge tubes of max. outer Ø 10 mm. Blade length 2.5 cm. Total length 10 cm.

Delivery incl. artificial leather case.

Art. No.	Pack Qty.	€
CK56.1	1	19,35



Tube cutter

For all tubes with Ø max. 13 mm.

Type	Art. No.	Pack Qty.	€
Tube cutter	6737.1	1	19,30
Spare blades for tube cutter	6738.1	5	34,40

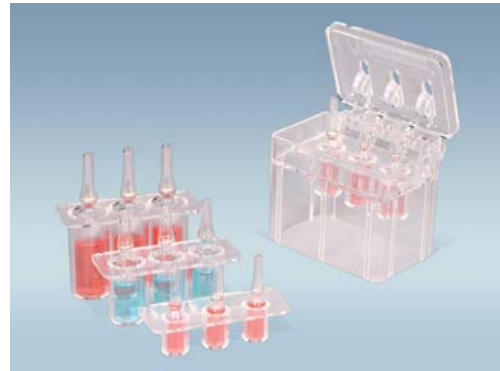
Glass cutters/Engravers



Rotilabo®-glass tube cutter

Made of die cast zinc, nickel plated. Carbide cutter wheel. Suitable for tube Ø from 3 to 30 mm.

Type	Weight (g)	Art. No.	Pack Qty.	€
Glass tube cutter	68	YT66.1	1	11,85
Replacement cutter wheel for glass tube cutter	2	YT67.1	1	3,80



Ampoule opener

Opens ampoules from 1 to 10 ml easily and safely. Transparent material allows renders the contents of the ampoule visible. Single-handed opening of up to three ampoules at the same time. Dimensions: 95 mm long x 76 mm wide x 83 mm high.

Delivery incl. 1 ampoule box and 4 inserts for opening 1 ml, 2 ml, 5 ml and 10 ml ampoules.

Art. No.	Pack Qty.	€
CXT2.1	1	48,20



Capillary tubing cutter

For Ø up to 1/16" (1.59 mm) outside and 0.1 mm inside. Prevents sharp or warped edges when cutting. The depth of cut can be adjusted. Also suitable for clean cuts on PTFE tubes or electric wires. Can be used approx. 2000 times.

Art. No.	Pack Qty.	€
5116.1	1	53,70



Rotilabo®-glass cutter

With plastic handle. Standard format with Toplife cutting roller. Extremely light cover strip made of special metal alloy. Cuts very finely and smoothly. Universal glass cutter for glass thickness 2 to 12 mm. Cutting angle 135°. 2.5 mm from ruler. Cutter roller not interchangeable.

Art. No.	Pack Qty.	€
L124.1	1	19,90



Glass cutter

With replaceable blade made. Length 190 mm.

Type	Art. No.	Pack Qty.	€
Glass cutter	8209.1	1	50,35
Spare blade	8210.1	1	38,70



Marker pen

With sharp tungsten carbide tip for indelible marking of glass, ceramic and plastic. Tip can be retracted into the pen body for safe storage. Dimensions: L 137 x Ø 9.8 mm.

Art. No.	Pack Qty.	€
AXL2.1	1	32,15

Glass cutters/Engravers



Diamond grinding pen

With octaeder tip and wooden handle. For engraving glass.

Art. No.	Pack Qty.	€
1530.1	1	24,20



Rotilabo®-glass scribe

With carbide tip scribe, for permanent marking of glass or metal. Ergonomic handle made of plastic, sturdy pen made of aluminium with rugged tip holder for safe handling. Tip can be retracted into the pen body for safe storage.

Dimensions: L 150 x Ø 11 mm.

Art. No.	Pack Qty.	€
CHN4.1	1	26,80



Signograph

Engraver, for marking or decorating metal, stone, plastic, glass, porcelain. Works acc. to the vibration principle, using AC frequency. Intensity can be infinitely adjusted.

Delivery incl. adapter and steel tip. 1.75 m extension cord. Power supply 220 V/50 Hz/25 W. Weight incl. cable 320 g.

Type	Art. No.	Pack Qty.	€
Engraver Signograph	1951.1	1	40,85
Modelling tip, spherical	5251.1	1	4,25
Modelling tip, pointed	0203.1	1	4,25
Diamond tip	0901.1	1	35,45



Engraving set, complete

Ideal for engraving, frosting, signing glass, ceramics, acrylic or metal. Dimensions approx. L 300 x W 200 x H 60 mm. Comes in plastic case.

- 1 engraver 12-18 volt, 20.000 Umin⁻¹, with mounted ball bearing
- 1 TÜV-tested power pack (220-240/12 volt, 0.5 A)
- 1 piece of test glass
- 1 sample and instruction manual

Delivery incl. all the necessary tools: spherical Diamond pens for making 1.0 and 1.8 mm lines and notches. Each grinding pen is made of silicium-carbide, with a cone and ball shaped for frosting.

Art. No.	Pack Qty.	€
N411.1	1	65,60

Spare pens

Type	Art. No.	Pack Qty.	€
Diamond grinding pen, spherical Ø 1.0 mm	N976.1	2	5,95
Diamond grinding pen, spherical Ø 1.8 mm	N977.1	2	5,95
Silicium-carbide grinding pens, cone and ball shaped	N978.1	2	3,80



Hand cork borers

Made of brass. For drilling in cork, rubber, leather, styrofoam, etc.

18 drills from Ø 5 to 26 mm.

Art. No.	Qty. (set)	€
0581.1	1	145,15

Cork borer sharpener

For sharpening blunt drills.

Art. No.	Pack Qty.	€
0582.1	1	19,70

- Sampling, see page 324
- Cork plates, see page 128
- Cutting boards, see page 702



Hole punching pliers

With 6 hole punchers from Ø 2 to 5 mm. Ideal for cardboard, plastic foil, leather. Can be locked. L 220 mm, weight 250 g.

Art. No.	Pack Qty.	€
0837.1	1	18,20



Diamond steel saw

With tungsten-carbide blade. Ideal for cutting wood, plastic, rubber, ceramics, soft metal, clay and glass tubes, etc. without knife jamming. Blade length 210 mm. Total length 400 mm (255 mm when clasped). Weight 150 g.

Art. No.	Pack Qty.	€
1857.1	1	25,70



Fastening tool

Made of metal. For fastening and cutting cable ties. The corrugated cable ties or fasteners are secured in a single operation and then cut.

The required tension can be individually set.

Colour: blue or red.

Assorted ties Art. No. 1729.1 and 1735.1.

Art. No.	Pack Qty.	€
H977.1	1	85,95

Rotilabo®-ties

Made of PA. Temperature stable from -40 to +85 °C.

Suitable for fastening tool H977.1.

Length (mm)	Width (mm)	For binding to max	Art. No.	Pack Qty.	€
180	4,5	Ø 50 mm	1729.1	100	9,65
102	2,5	Ø 22 mm	1735.1	100	4,85



Rotating vice

With ball-and-socket joint. For benches up to 80 mm thick. Has two aluminium holding blocks with different profiles. Max. opening 55 mm. Weight 2.2 kg. Colour grey hammer enamel (not picture colour).

Art. No.	Pack Qty.	€
1940.1	1	200,25

Holding blocks made of plastic. For highly sensitive objects.

Art. No.	Pack Qty.	€
1942.1	2	36,50

Tools



Precision caliper gauge

Made of hardened high grade steel, with round scale under acrylic glass cover. Knurled thumb screws are used for adjustment and locking. Range up to 160 mm. Resolution: 0.02 mm. Accuracy acc. to DIN 862. With case.

Art. No.	Pack Qty.	€
0813.1	1	61,60



Digital caliper gauge

Made of stainless steel, hardened. Suitable for indoor and outdoor measurement. Working temperature 5 to 40 °C. With locking screw device. Power supply via 1.5 V cell battery. Features automatic switch-off and mm/inch change-over.

Technical specifications:

Range	0 to 150 mm
Scale graduation	0.01 mm
Toleranz	±0.03 mm
Max. operating speed	1.5 m/s

Art. No.	Pack Qty.	€
L826.1	1	105,35



Screwdriver set Progrip ESD/EGB

7-piece ESD/EGB set. Conductive screwdrivers for working with electronic components.

Slotted:	Phillips:
3.0 x 100 mm	PH 0 x 60 mm
4.0 x 100 mm	PH 1 x 80 mm
3.0 x 150 mm	PH 2 x 100 mm
4.0 x 150 mm	

Art. No.	Qty. (set)	€
X461.1	1	29,65

When working with electronic components, electrostatic charging can lead to damage or destruction of sensitive semiconductors and/or other components. Conductive tools offer additional protection when working with electrostatically endangered areas (EGB).

To combat this, VDE-screwdrivers should be used to enable safe working with live parts.



Screwdriver set

Acc. to EN 60900. For live parts up to 1000 V. 6-piece set:

Slotted:	Phillips:
2.5 x 80 mm	PH 1/80 mm
3.5 x 100 mm	PH 2/100 mm
4.0 x 100 mm	
5.5 x 125 mm	

Art. No.	Qty. (set)	€
Y258.1	1	25,95

Tools



Multi-function tools

Hinged holder for hexagon, slotted, Phillips and TORX® screws. Ergonomic design, fiber-glass reinforced casing. Spanner made of chrome vanadium steel. Lifting button enables easy selection of the required spanner. Dimensions: L 120 x W 32 x H 39 mm.

Technical specifications:

Slotted	4.5 mm
Phillips	PH2
TORX®	T10, T15, T20
Hexagon	3, 4, 5, 6 mm

Art. No.	Pack Qty.	€
HE15.1	1	25,50



Pin spanner set

Hexagonal hinged holder for standard inch screws. Has an ergonomic design and a fiber-glass reinforced casing. Spanners are made of chrome vanadium steel. Lifting button enables easy selection of the required spanner. For screws $\frac{5}{64}$, $\frac{3}{32}$, $\frac{1}{8}$, $\frac{5}{32}$, $\frac{3}{16}$, $\frac{1}{4}$ inch. Dimensions: L 120 x W 32 x H 39 mm.

Art. No.	Pack Qty.	€
HE16.1	1	20,25



Expert toolbox

By Heyco. By Heyco. Made of ABS, with load-carrying capacity of up to 30 kg, double aluminium frame and barrel lock. High-quality foam insert for secure tool holding during transit. Dimensions: L 480 x W 320 x H 150 mm.

Contents:

- 1 removable socket wrench set $\frac{1}{4}$ " , 17-piece
- 1 lever wrench $\frac{1}{2}$ " + 5 accessories
- 12 socket wrench inserts $\frac{1}{2}$ " from 10 to 24 mm (hexagonal)
- 1 pipe and water pump wrench 240 mm
- 13 combination wrench from 6 to 24 mm
- 1 combination pliers 180 mm
- 1 side cutter 160 mm
- 8 offset screwdriver from 2 to 10 mm (hexagonal)
- 8 offset screwdriver T9 to T40 (TORX®)
- 1 voltage tester, insulated
- 1 engineer's hammer
- 1 boxcutter
- 1 torch (LED, 1 W, L 100 mm)
- 1 tape measure, 5 m, with belt clip
- 2 Phillips screwdriver (75 mm, No. 1 / 100 mm, No. 2)
- 2 screwdrivers (100 x 5.5 mm / 150 x 8.0 mm)

Art. No.	Qty. (set)	€
NH23.1	1	891,20



Tool kit bag

Made of sturdy imitation leather with chrome vanadium tools:

- 1 enamelled hammer 250 g
- 1 adjustable pliers 235 mm
- 1 insulated combination pliers 180 mm with side cutting
- 3 insulated screwdrivers 125 x 6, 100 x 5 and 75 x 4
- 1 cross-point screwdriver 100 x 2
- 1 voltage tester 150-250 V as screwdriver
- 8 chrome plated double open-ended spanners, width 6 to 22

Bag when open: W 400 x L 400 mm.

Bag when closed: W 150 x H 70 x L 400 mm. Weight 2.1 kg.

Art. No.	Pack Qty.	€
1829.1	1	147,30



Box spanner set

47 parts. Made of chrome vanadium steel, chrome-plated. 1/4" + TORX.

Contents:

- Box spanner adapters 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
- Box spanner adapters long 8; 10; 11; 13 mm
- Adapters for slotted head screws 4; 5.5; 6.5 mm
- Adapters for crosspin screws PH 1, 2, 3, PZ 1, 2, 3
- Adapters for Allen screws 3, 4, 5, 6, 7, 8 mm
- Adapters for inner-TORX-screws T10; T15; T20; T25; T30; T40
- Handle with sliding block
- Reversible lever ratchet with ejection mechanism
- Hand adapter with plastic hilt
- Cardan joint
- Extension 50 + 105 mm
- Hexagon wrench key with pilot 1.5; 2; 2.5

Supplied in plastic box, dimensions: L 230 x W 160 x H 40 mm.

Weight 1050 g.

Art. No.	Qty. (set)	€
L148.1	1	55,70



Pliers

Made from special steel, chromium-plated, polished. With protective covering for handles.

① Combination pliers

Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
160	270	X191.1	1	11,30

② Telephone pliers, straight

Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
200	180	X192.1	1	13,45

③ Telephone pliers, 45° offset

Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
200	180	X193.1	1	12,90

④ Diagonal cutting pliers

Length (mm)	Weight (g)	Art. No.	Pack Qty.	€
160	190	X194.1	1	18,25



Pliers/wrench

Made of chrome vanadium steel. Pliers and spanner in one. The loose jaw opening can be adjusted 13 times by press of a button - jaws are therefore always parallel. Extremely high clamping power.

Opening (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
42	250	K336.1	1	61,10
35	180	K965.1	1	54,80



Strap wrench

For easy loosening of connected parts. Max. range 160 mm, weight 220 g.

Art. No.	Pack Qty.	€
X190.1	1	10,15

Openers/clips



Programme extension!

Opening keys

For plastic canisters with DIN-thread.

Type	Dimensions L x W (mm)	Art. No.	Pack Qty.	€
DIN 51	195 x 80	CNC9.1	1	4,25
DIN 61	200 x 85	TX61.1	1	6,30



Tri-Sure®-barrel and keg key

Ideal for taking off tin seals and caps and for unscrewing plugs by Tri-Sure® containers. The narrow side of the tool is 15 mm, the wide side is 45 mm wide. Total length 260 mm. Weight app. 380 g.

Suitable for ROTITAINER®.

Art. No.	Pack Qty.	€
0398.1	1	29,90



Tin opener

For tins of all sizes. Length 200 mm. Weight 210 g. 5 years warranty.

Art. No.	Pack Qty.	€
0505.1	1	10,70

All-purpose opener

For screw lids from tube caps to wide neck lids. Length 260 mm. Weight 200 g. 5 years warranty.

Art. No.	Pack Qty.	€
0506.1	1	10,70



Universal spring clamps

Made of PA. For powerful clamping with constant tension force. With ergonomic, antislip handle and flexible, movable soft pads. Excellent for sensitive materials such as glass plates, wood and plastics. Extremely light and handy, but with highest stability.

Overall length (mm)	Span (mm)	Art. No.	Pack Qty.	€
60	20	LK35.1	1	4,95
90	34	LK36.1	1	5,65
120	44	LK37.1	1	6,20
160	60	LK38.1	1	7,70



Rotilabo®-universal clamps

Made of powder coated metal, nickel-plated, with strong coil spring. For storing, binding, pressing or glueing, large clamping width. Also suitable for hanging up.

Width (mm)	Span (mm)	Art. No.	Pack Qty.	€
75	20	AEA0.1	10	32,80
125	30	AEA1.1	10	40,80



Rotilabo®-clips

Made of spring steel. For DC plates, x-ray films, sheets of paper, etc. Can be hung up.

Width (mm)	Span (mm)	Art. No.	Pack Qty.	€
19	7	ACY9.1	12	5,05
25	10	0826.1	12	5,60
41	18	0827.1	6	7,20
51	28	0850.1	6	11,20

Office organization



Laboratory notebooks

For the documentation of research findings, experiment logs, important notes and data. Numbered, acid-free pages, gridded, with preprinted fields for project names, project number, date and signature. With waterproof cover.

Dimensions: W 218 x L 281 mm.

Colour	Number of pages	Art. No.	Pack Qty.	€
black	100	YY89.1	1	22,50
black	100	YY89.2	12	234,35
blue	200	YY90.1	1	27,90



Paging machine

Made of metal, robust. For consecutive 6-digit numbering, possible to print without the number zero in front. Repetitive stamping 0, 1, 2, 3, 4, 5, 6, 12 and 20 times possible. With self-inking pad. Font size: 4.5 mm. Dimensions: L 155 x W 45 x H 45 mm.

Type	Weight (g)	Art. No.	Pack Qty.	€
Paging machine	401	HX75.1	1	71,30
Spare tank (black)	7	HX76.1	1	9,60

- Coloured marking tapes see page 655
- Labels, see page 657



Lab notebook

By Nalgene®. For documenting important notes and data. Book cover made of polyethylene, pages made of PolyPaper. Waterproof and highly chemical-resistant. Each with 100 numbered and green squared (6.3 mm) pages. Total dimensions: L 292.1 x W 241.3 x H 15.9 mm. Page size: W 235 x L 285.8 mm.

Art. No.	Pack Qty.	€
HT17.1	1	70,85



Lab Markers

All-purpose fibre-tip. For nearly all type of surfaces made of glass, metal and most plastics, e.g. PS-petri dishes. Writes on wet or cold surfaces. Waterproof, also while autoclaving. With quick-drying ink. Can be wiped off high-gloss surfaces. Length 135 mm. Stroke width 1.0 mm.

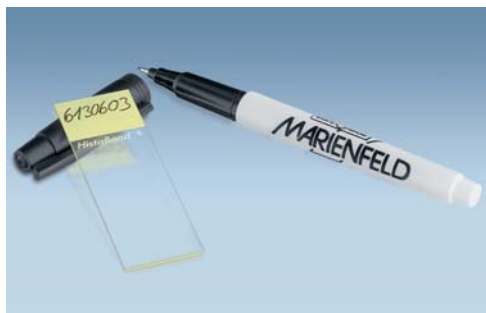
Colour	Art. No.	Pack Qty.	€
black	3083.2	10	24,30
blue	3084.2	10	24,30
red	3085.2	10	24,30
Assortment: 4 black, 4 blue, 4 red	1701.1	12	28,50



Lab Markers II

All-purpose fibre-tip. Ideal for glass and most plastics, e.g. embedded casting moulds and microscope slides. Waterproof. With quick-drying ink. Can be wiped off high-gloss surfaces. Length 135 mm. Stroke width 0.6 mm.

Colour	Art. No.	Pack Qty.	€
black	9028.1	10	31,00
red	9036.1	10	31,00
Assortment: 5 black, 5 red	9040.1	10	31,00



Laboratory markers

By Marienfeld. Permanent marker suitable for nearly all surfaces made of glass, plastic and paper. Suitable for indelible labelling of microscope slides, embedding cassettes and Petri dishes.

- Ultrafine tip
- High-contrast black ink
- Writes without pretreatment of surfaces
- Waterproof, resistant to most laboratory chemicals
- Odourless
- Non-toxic
- Non-dry, long-lasting

Art. No.	Pack Qty.	€
CET9.1	12	30,65



Writing pad support

Made of break-proof plastic. Suitable for all formats up to DIN A4. Rubber lip holds the paper tightly in place. Clamping width ca. 9 mm. Can be hung up. Dimensions: L 330 x W 220 x H 15 mm.

Art. No.	Pack Qty.	€
0382.1	1	15,70

Draft copy holder, basic

Comes with stand which can be adjusted in 4 stages. For A4-format paper. 20 mm ledge holds up to 12 mm sheets of paper. The line gauge made of unreflective smoked glass can be moved up and down over the total height. Line gauge also serves as a clamp.

Art. No.	Pack Qty.	€
Y348.1	1	23,80



Sharpie® lab markers

Waterproof permanent marker for glass, metal, porcelain or similar surfaces. Fast-drying. Single-tip marker with 1 mm stroke width, double-tip marker with additional stroke width of 0.5 mm.

Type	Colour	Art. No.	Pack Qty.	€
Double tip	Sorted (black, blue, violet, bordeaux, light blue, light green, turquoise, orange)	XT85.1	8	32,15
Single tip	black	KN09.1	12	37,55



Waterproof ink pen set

Fine-line, stroke width 0.4 mm. Quick drying. Two pens each in black, blue, green, red.

Art. No.	Qty. (set)	€
0883.1	1	15,60



Universal protective case for tablet PCs

Made from high-quality synthetic leather, easy care, with soft lining. Universal all-round protection in A5 format with stand function for all tablets with screen sizes from 9.7" to 10.1". The tablet is held securely in place by four rubber band holders. To watch videos and presentations etc., the tablet holder can be set up in any desired viewing angle. Connections and functions are easily accessible, with cut-outs for camera lenses. With elastic rubber loop for touch pen and magnetic catch with concealable loop. Suitable for Apple iPad 1 to 4 + AIR, Samsung Galaxy + Note, Asus MeMo, Sony Xperia, Acer Iconia and all other tablets from 9.7" to 10.1". Dimensions: L 270 x W 210 x H 30 mm (max. tablet size: approx. 267 x 192 mm).

Art. No.	Pack Qty.	€
ANY4.1	1	27,55

Touch Pen 2 in 1 for tablet case

Conductive stylus with ball-point pen. Soft rubber tip for precise navigation on all touch screens of smartphones and tablet PCs. Allows accurate composition of messages and easy navigation and scrolling without leaving fingerprints on the display. Even works through protective film and antireflective film. Ball-point pen with rotary mechanism and jumbo cartridge (blue). Length 130 mm.

Art. No.	Pack Qty.	€
ANY5.1	1	12,40

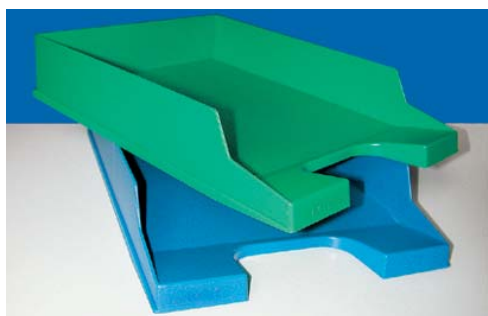
Office organization



Files, A4

For magazines, catalogues, books and documents. With grid in opening to protect corners. Dimensions: H 293 x W 75 x D 251 mm.

Colour	Art. No.	Pack Qty.	€
green	X007.1	1	5,20
blue	X008.1	1	5,20



Standard file boxes A4-C4

Stackable. Boxes with grip and labelling area. Compatible with other makes. Dimensions: W 256 x D 350 x H 67 mm.

Colour	Art. No.	Pack Qty.	€
blue	X020.1	1	5,35
green	X017.1	1	5,35



Business card box

Made of plastic. With sliding lid and eight plastic dividers. Dimensions: L 235 x W 135 x H 65 mm. Colour black/blue.

Art. No.	Pack Qty.	€
8194.1	1	40,35



Programme extension!

tesa Easy Cut® table dispenser

Non-slip base and heavy weight for extra stability.

Model ①: dimensions L 240 x W 70 x H 130 mm, weight 1500 g

Model ②: dimensions L 155 x W 55 x H 80 mm, weight 900 g

Model	for roll length (m)	Max. tape width (mm)	Art. No.	Pack Qty.	€
①	66	25	1731.1	1	39,80
②	33	19	4918.1	1	31,30

tesafilm® PP adhesive tape

Transparent universal adhesive tape for packaging, e.g. for sealing small boxes, tins and bags.

for dispenser	Roll length (m)	Strip width (mm)	Art. No.	Pack Qty. (roll)	€
1731.1	66	19	CPY6.1	1	3,05
4918.1	33	19	CPY7.1	1	2,40



tesa®-hand tape dispenser comfort

Ideal for sealing packages. **Blade is covered** for extra protection against injury. Manually adjustable roll brake. Dimensions: Length, height: 22 cm, width 6 cm, weight 500 g. Core Ø 76.2 mm, roll Ø max 140 mm, roll width max 50 mm.

Art. No.	Pack Qty.	€
X163.1	1	28,60

tesapack®-PVC adhesive tape

Parcel brown. Length 66 m x width 50 mm.

Art. No.	Pack Qty. (roll)	€
6111.1	3	21,40

tesapack®-paper adhesive tape

Foil-free, manufactured from smooth paper with silicone-free, impregnated surface and a synthetic rubber paste. 0.1076 mm thick. Tensile strength 50 N/cm. Elongation at tear 8 %. On 50 m long and 50 mm wide rolls.

Art. No.	Pack Qty. (roll)	€
8574.1	3	16,40



Optical Instruments & Lamps

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Cold light source



PL 2000 cold light lamp

- Continuous adjustment of light
- **With halogen-reflector lamp 100 W**
- Colour temperature max. 3250 K
- Low noise level
- With overheating protection
- Stackable
- Dimensions: W 168 x H 120 x D 268 mm

Delivery incl. 2-armed fiber optic light guide and gooseneck casing (length 45 cm, 3 mm thick glass-fiber bundle).

Art. No.	Pack Qty.	€
Y458.1	1	682,65



Cold light source

With adapter for gooseneck light guide.

- **Integral halogen mirror lamp 8 V, 20 W**
- With continuous adjustable electronic adjustment of light
- Ideal for illuminating objects during microscopy
- Dimensions: W 175 x D 150 x H 90 mm
- Electrical supply 220 V

Delivery without gooseneck light guide, please order separately.

Art. No.	Pack Qty.	€
C018.1	1	456,90

Gooseneck light guides

With glass-fibre cable. Fully flexible. With metal casing. Front Ø 4.5 mm, external Ø 10 mm. Length 500 mm.

Type	Art. No.	Pack Qty.	€
1-armed	C019.1	1	186,00
2-armed	C020.1	1	295,65
Spare halogen mirror lamp	K641.1	2	66,15



Cold light source macrospot 1500

Light source with **150 watt halogen metal oxide vaporized mirror lamp** and colour temperature of 3200 kelvin. Extremely quiet fan cooling. Two-stage switching for full and reduced illumination (50 %) at constant colour temperature. With handle.

Delivery without fiber optic light guide, please order separately.

Art. No.	Pack Qty.	€
P348.1	1	525,70

Fiber optical light guides for macrospot 1500

With gooseneck casing (Length approx. 500 mm, 4 mm thick glass-fiber bundle). The self-locking light guides can be moved in almost any position.

Type	Art. No.	Pack Qty.	€
2-armed	P349.1	1	461,20
3-armed	P350.1	1	514,95



Accessories for macrospot 1500

① Iris diaphragm

Ideal for adjusting the luminous angle of emersion from ca. 38° down to a minimum 20° and for simultaneous dimming by max. 5 diaphragm stages. Includes filter compartment. Can be attached to P349.1 and P350.1.

Type	Art. No.	Pack Qty.	€
Iris diaphragm	P351.1	1	140,85

② Focus adapter

For reducing the luminous angle of emersion of app. 38°. Includes filter compartment. Can be attached to P349.1 and P350.1.

Type	Art. No.	Pack Qty.	€
Focus adapter	P352.1	1	87,65

③ Insert filters

Filter discs for loading into iris diaphragm P351.1.

Type	Art. No.	Pack Qty.	€
Conversion filter	P353.1	1	17,10
Colour filter set, one filter each in red, blue, green, yellow	P354.1	1	39,75
Polarizing filter	P356.1	1	21,45

Spare light source

Type	Art. No.	Pack Qty.	€
Spare light source for halogen metal oxide vaporized mirror lamp	P355.1	1	30,05

Stereo microscopes



Pocket microscope

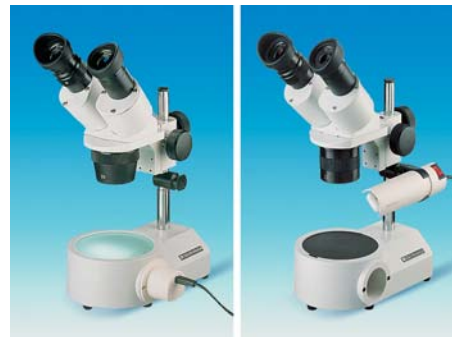
30x magnification. With focusing device and swivel illumination of the viewing area. Dimensions: 140 x 45 x 20 mm.

Delivery without batteries, please order separately.
2 batteries Mignon 1.5 V are required.

Art. No.	Pack Qty.	€
P387.1	1	29,00

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Reflected and transmitted light-stereo microscope

By Eschenbach.

- **Total magnification:** 20x, 40x - expandable up to 80x
- **Stereo head:** 45° angular observation, rotatable by 360°, interocular distance adjustable from 54 to 74 mm
- **Oculars:** eyepiece barrel with diopter adjustment of ± 5 dpt, eyepiece cups, wide-field 10x (also available: 5x, 15x, 20x see accessories for models 33213/33263)
- **Lenses:** rotation of turret, 2x and 4x
- **Illumination:** reflected light from a 5 W fluorescent tube. Can be put into base for transmitted light.
- **Focussing:** coarse pinion knob on both sides
- **Stand:** robust metal stand (L 180 x W 120 mm). Pillar length 180 mm, black/white plastic plate for reflected light, frosted plate for transmitted light. \varnothing each 95 mm.

Art. No.	Pack Qty.	€
9665.1	1	427,85



Hand-held microscope

For examining transparent and solid objects and liquids. With precision optic for detailed images.

- Splashproof
- Total magnification: 35x
- Ocular can be removed and used as a magnifier with 10 times magnification.
- Ocular shells can be rotated by 180° and can therefore be used for the right or left eye
- LED-lamp can be switched on for better illumination of solid objects
- With focusing device
- Dimensions: \varnothing 100, H 25 mm

Delivery incl. magnet holder for fixing microscope slides or flat objects to sample tables, microscope slides with moulds for liquid samples, storage bags, and battery E-block 9 V.

Art. No.	Pack Qty.	€
EL05.1	1	79,20

Accessories:

E-Block 9 V battery	1025.1	1 piece	4,85
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Reflected light-stereo microscope, 33213 and 33263 model

By Eschenbach.

- **Total magnification:** 10x, 20x - expandable up to 40x
- **Stereo head:** 45° angular observation, rotatable by 360°, interocular distance adjustable from 54 to 74 mm
- **Oculars:** wide-field 10x, eyepiece barrel with diopter adjustment of ± 5 dpt, eyepiece cups
- **Lenses:** rotation of turret, 1x and 2x
- **Focussing:** coarse pinion knob on both sides
- **Illumination:** LED-reflected ring light. Assembly on turret rotation, can be turned in any direction, ballast with 2 m lead
- **Model 33213:** flat base 200 x 150 mm
- **Model 33263:** with stable 850 mm long metal swivelling arm with 3 adjustable screws in spring joints. Can be adjusted to any position

Delivery incl. table clamps and screw-on desk-top foot.

Type	Art. No.	Pack Qty.	€
Model 33213	X822.1	1	568,70
Model 33263	X823.1	1	747,15

Accessories:

By Eschenbach.

Type	Art. No.	Pack Qty. (Pair)	€
Magnification WF 5x	P239.1	1	130,10
Magnification WF 15x	9667.1	1	141,90
Magnification WF 20x	P240.1	1	140,85

Stereo microscopes



SMZ-161-series LED stereo microscopes

By Motic. With **LED lighting**. Compact design, high-quality optics, rugged mechanism.

- Continuously variable zoom with detent positions for reproducible magnification
- Increased working distance allows sufficient space for sample handling
- Optionally available with a trinocular head for attachment of a microscope camera to the phototube using a C-Mount adaptor (please order C-Mount camera adaptor separately)

Technical specifications:

Total magnification	7.5 to 45x
Eyeieces	Wide field 10x Field of view 20 mm Diopter compensation on both ocular tubes (± 5 dpt)
Head	Binocular or trinocular 45° viewing angle 360° rotatable Adjustable eye distance (50-75 mm)
Lens	Magnification 0.75x-4.5x Zoom factor 1:6
Working distance	110 mm
Lighting	3 W LED, reflected and transmitted light can be controlled separately
Image focusing	Coarse drive
Power supply	100-240 V

Delivery incl. black/white and matte glass stage inserts as well as dust cover.

Type	Type	Art. No.	Pack Qty.	€
① SMZ-161-BLED (R2LED)	Binocular	ATP9.1	1	762,20
② SMZ-161-TLED (R2LED)	Trinocular	ATT0.1	1	819,15

Accessories:

0.5x C-Mount camera adaptor for 1/3" or 1/2" chip sensors	ATT1.1	1	149,45
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- Dissecting sets see p. 317
- Precision tweezers see p. 294



Microscope cameras

By Motic. Digital microscope cameras with measurement software. The cameras can be connected to the third tube of the microscope by the C-Mount thread. This requires a matching C-Mount adaptor of the microscope manufacturer. The supplied eyepiece adaptor allows the cameras to be used on almost any commercially available microscope. Connection via PC, system requirements: Windows XP operating systems and higher or Apple Mac OSX, USB 2.0 port. The camera is powered via the USB port. Larger objects can also be viewed independently of the microscope using the macro tube.

Technical specifications:

Model	① Moticam 1SP	② Moticam 3	③ Moticam 5
CMOS sensor format	1/3"	1/2"	1/2.5"
Attachment lens, focusable	12 mm / CCD	16 mm / CCD	12 mm / CCD
Number of pixels	1.3 MP	3.0 MP	5.0 MP
Maximum resolution	1280 x 1024	2048 x 1536	2592 x 1944
Live image measurements	yes		

Delivery incl. 2 variable eyepiece adaptors (suitable for sizes 28, 30, 34 and 35 mm), detachable USB 2.0 cable, macro tube with macro lens, Motic (4-point) calibration scale with crosshair and Motic Images 2.0 Software.

Type	Art. No.	Pack Qty.	€
① Moticam 1SP	TX08.1	1	331,10
② Moticam 3	TX09.1	1	796,60
③ Moticam 5	TX10.1	1	995,45



Bellows with cleaning brushes

Made of rubber. Clip-on brushes. For contact-free removal of dust and/or loose dust particles on optical or other sensitive surfaces. Easy handling. With large elastic bellows for strong blowing action. Sturdy air nozzle at front, air inlet valve at rear. Dimensions about: L 180 x \varnothing 60 mm.

Art. No.	Pack Qty.	€
KP30.1	1	12,40

Stereo microscopes



SMZ-168-series reflected and transmitted light stereo microscopes

By Motic. High-end stereo microscope for science, research and quality control.

- 50x total magnification, up to max. 200x with optional widefield ocular and attachment lenses
- Larger field of view and working distance
- Sturdy transmitted light stand with wide base plate
- Continuously variable zoom with lock positions for reproducible magnification
- Optionally available with trinocular head for attachment of a microscope camera to the phototube using a C-Mount adaptor (please order C-Mount camera adaptor separately)

Technical specifications:

Total magnification	7.5 to 50x - up to max. 200x with optional lenses
Eyeieces	Widefield 10x Field of view 23 mm Diopter compensation on both ocular tubes (±5 dpt)
Head	Binocular or trinocular 35° viewing angle 360° rotatable Adjustable eye distance (52.5-75 mm)
Lens	Magnification 0.75x-5x Zoom factor 1:6.7
Working distance	113 mm
Lighting	12 V / 10 W Halogen, reflected and transmitted light can be adjusted separately
Image focusing	Coarse drive
Power supply	100-240 V

Delivery incl. black/white and matte glass stage inserts, blue filter and dust cover.

Type	Type	Art. No.	Pack Qty.	€
① SMZ-168 BL	Binocular	KA17.1	1	999,75
② SMZ-168 TL	Trinocular	KA18.1	1	1085,75

Accessories for SMZ-168 series

Wide field eyepieces

Type	Art. No.	Pack Qty.	€
WF 15 x (vision field 13 mm)	KA19.1	1 pair	145,15
WF 20 x (vision field 10 mm)	KA20.1	1 pair	145,15

Ancillary lenses

Type	Art. No.	Pack Qty.	€
0.45x (operating distance 192 mm)	KA21.1	1 pce.	113,95
2x (operating distance 34,5 mm)	KA22.1	1 pce.	113,95

C-Mount adaptor

Type	Art. No.	Pack Qty.	€
0.45x C-Mount-adaptor for 1/3" chip-sensors	PE02.1	1 pce.	98,90
0.65x C-Mount-adaptor for 1/2" chip-sensors	KA23.1	1 pce.	97,85

Replacement bulb

Type	Art. No.	Pack Qty.	€
Halogen (reflected light), 12 V / 10 W	PE00.1	1 pce.	18,10
Halogen (transmitted light), 12 V / 10 W	PE49.1	1 pce.	22,60



Protective sleeves for microscopes

Made of Vikem®-vinyl. Protects high-end devices and instruments against dust and liquids.

Size	Bottom range x top range x H (mm)	Art. No.	Pack Qty.	€
Standard	660 x 460 x 420	XY16.1	1	18,45
L	820 x 560 x 460	XY17.1	1	25,20
XL	920 x 760 x 590	XY18.1	1	29,05

Microscopes



Monocular biology microscope model SFC-100FL

By Motic.

Total magnification: 40x, 100x, 400x

Monocular barrel: 45° tilt, 360° revolvable

Design: Basic microscope with integrated light (Tungsten light 20 W / 220-240 V). Stable metal stand. 3-times revolving lensepiece. Coarse and fine pinion adjustable. Microscope stage 120 x 110 mm with retaining clamps.

Optical equipment:

- Wide-field eyepiece 10x WF / Field of vision 18 mm
- Three achromatic objectives: DIN 4x, 10x, 40x (Spring)
- Condenser NA 0.65
- Iris diaphragm with filter holder

Delivery incl. dust protection hood and blue filter.

Art. No.	Pack Qty.	€
KP98.1	1	155,90

Accessories for SFC-100FL

Replacement bulb

Type	Art. No.	Pack Qty.	€
Tungsten, 220-240 V / 20 W	PC95.1	1	18,25



SFC-100FLED monocular microscope

By Motic. Rugged microscope for pupils and students.

With **LED lighting**. Battery or mains operation.

Technical specifications:

Total magnification	40x, 100x, 400x
Eyepiece	Wide field 10x Field of view 18 mm With pointer and ocular retainer
Head	Monocular 45° viewing angle 360° rotatable
Lens turret	3-way, tilted forwards
Lenses, achromatic	- 4x / N.A. 0.10 - 10x / N.A. 0.25 - 40x (spring) / N.A. 0.65
Microscope stage	120 x 110 mm, with 2 spring clamps
Condenser	N.A. 0.65 with iris diaphragm and filter holder
Lighting	LED (20 mA / 3.5 V / 70 mW), chargeable, continuously variable
Image focusing	Coarse and fine drive
Power supply	100-240 V

Delivery incl. charger, batteries and dust cover.

Art. No.	Pack Qty.	€
ATT2.1	1	178,45

Accessories:

Replacement LED (20 mA / 3.5 V / 70 mW)	ATT3.1	1	18,10
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Paper wipes for lenses

Lint-free tissue paper. Ideal for cleaning optical glasses, cuvettes and as protective paper for metallographic cuts. Pack of 50 sheets, 80 x 100 mm.

Art. No.	Pack Qty.	€
1068.1	10	43,00



Lens cleaning tissues

Cleans without smearing, also remove dust and oil. 500 wipes per pack.

Art. No.	Pack Qty.	€
LH30.1	1	14,95



Laboratory and course microscope SHB 45

By Motic.

Total magnification: 40x, 100x, 400x, can be increased to 1000x

Head: binocular, 45° inclination, rotatable through 360°

Eyepiece: wide-field 10x, visual field 18 mm

Lens turret:

4x with three standard achromatic lenses

- 4x / N.A. 0.10
- 10x / N.A. 0.25
- 40x / N.A. 0.65 (spring)

Condenser: N.A. 1.25, focusable, iris membrane with filter holder

Drive: coaxial coarse and fine drives

Microscope stage: 120 x 120 mm with clamps for microscope slide

Stand: solid metal stand, made of zinc die casting

Illumination: adjustable 12 V / 10 W halogen lamp

Delivery incl. protective dust cover, microscope slide, power cord, blue filter and dark-field membrane.

Art. No.	Pack Qty.	€
Y421.1	1	397,75

Accessories for SHB 45

Standard achromatic lens with a parfocal length of 45 mm

Type	Art. No.	Pack Qty.	€
20x / N.A. 0.40	Y424.1	1 pce.	58,60
60x / spring / N.A. 0.85	Y425.1	1 pce.	98,90
100x / spring / oil / N.A. 1.25	Y426.1	1 pce.	98,90

Wide-field eyepiece

Type	Art. No.	Pack Qty.	€
WF 15x (visible field 12 mm)	CH58.2	1 pair	62,90

Replacement bulb

Type	Art. No.	Pack Qty.	€
Halogen (transmitted light), 12 V / 10 W	PE49.1	1 pce.	22,60

► Microscope slides and cover slips see p. 276



Biology microscope B3 Professional series

By Motic. With infinity optics.

- Brightfield microscope for the analysis of high-contrast, coloured samples
- Optionally available with a trinocular head for attachment of a microscope camera to the phototube using a C-Mount adaptor (please order C-Mount camera adaptor separately)

Technical specifications:

Total magnification	40x, 100x, 400x, 1000x
Eyepieces	Widfield 10x Field of view 20 mm Diopter compensation on left ocular tube (±5 dpt)
Head	Binocular or trinocular 30° viewing angle 360° rotatable Adjustable eye distance (55-75 mm)
Lens turret	5x, inclined backward, with four achromatic super contrast lenses
Lens	- 4x / N.A. 0.10, W.D. 17.0 mm - 10x / N.A. 0.25, W.D. 6.4 mm - 40x (spring) / N.A. 0.65, W.D. 0.45 mm - 100 x (spring oil) / N.A. 1.25, W.D. 0.14 mm
Microscope stage	140 x 135 mm, height adjustable coaxial x/y travel range 78 x 50 mm
Condenser	Focusable Abbe condenser N.A. 1.25 with iris diaphragm and filter holder
Lighting	Köhler halogen (12 V / 20 W), variable
Image focusing	Coaxial coarse and fine focus
Power supply	100-240 V

Delivery incl. colour filter set (blue, yellow, green), immersion oil and dust cover.

Type	Type	Art. No.	Pack Qty.	€
B3-220ASC	Binocular	CH56.1	1	752,50
B3-223ASC	Trinocular	CH57.1	1	907,30

Accessories for B3 Professional series

Wide-field eyepiece

Type	Art. No.	Pack Qty.	€
WF 15x (visible field 12 mm)	CH58.2	1 pair	62,90

Graduated eyepiece

Type	Art. No.	Pack Qty.	€
WF 10x (for ASC), scale grad.: 10 mm into 100 increments	PC97.1	1 pce.	92,45

C-Mount adaptor

Type	Art. No.	Pack Qty.	€
0.5x C-Mount adapter for 1/3" chip-sensors	CH59.1	1 pce.	74,20
0.5x C-Mount adapter for 1/2" chip-sensors	PC98.1	1 pce.	92,45

Replacement bulb

Type	Art. No.	Pack Qty.	€
Halogen, 12 V / 20 W	PC99.1	1 pce.	18,10

Microscopes



BA210-series laboratory microscopes

By Motic. With **LED lighting** and **infinite optics** for optimum image quality.

- Brightfield microscope for analysis of high-contrast, coloured samples; supplied lenses: 4x, 10x, 40x and 100x
Phase contrast version for examination of colourless preparations with low natural contrast; supplied lens: Ph10x + Ph40x for phase contrast and 4x + 100x for brightfield
- Optionally available with a trinocular head for attachment of a microscope camera to the phototube using a C-Mount adaptor (please order C-Mount camera adaptor separately)

Technical specifications:

Total magnification	40x, 100x, 400x, 1000x
Eyepieces (incl. eyecups)	Wide field 10x Field of view 20 mm Diopter compensation on both eyepieces (± 5 dpt)
Head	Binocular or trinocular 30° viewing angle 360° rotatable Adjustable eye distance (55-75 mm)
Lens turret	4-way, tilted backwards
Lens for brightfield, planachromatic (EF-H PL)	- 4x / N.A. 0.10, W.D. 6.3 mm - 10x / N.A. 0.25, W.D. 4.4 mm - 40x S / N.A. 0.65, W.D. 3.5 mm - 100x S-Oil / N.A. 1.25, W.D. 0.13 mm
Lens for phase contrast, planachromatic (EC-H-PL)	- Ph10x / N.A. 0.25, W.D. 17.4 mm - Ph40x S / N.A. 0.65, W.D. 0.50 mm
Microscope stage	140 x 135 mm coaxial x/y travel range 76 x 50 mm
Condenser	Focusable Abbe condenser N.A. 1.25 with iris diaphragm and slider slot
Specially designed for phase contrast	3x phase shifter for Ph1/2 and brightfield Centring telescope
Lighting	LED (3 W), controllable Colour temperature: 5 500 K
Image focusing	Coarse and fine drive
Power supply	100-240 V

Delivery incl. immersion oil and dust cover.

Type	Art. No.	Pack Qty.	€
① BA210 LED binocular, brightfield	ATT7.1	1	983,65
② BA210 LED trinocular, brightfield	ATT8.1	1	1154,55
① BA210 LED binocular, phase contrast	ATT9.1	1	1523,30
② BA210 LED trinocular, phase contrast	ATTX0.1	1	1694,20

Accessories:

0.5x C-Mount camera adaptor for 1/3" or 1/2" chip sensors	ATT1.1	1	149,45
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AE2000-series inverse microscopes

By Motic. During inverse microscopy the lenses are positioned under the benchtop. This results in a larger gap between the benchtop and condenser, allowing analysis of thicker preparations such as living cells in culture vessels/microtiter plates.

- With **infinite optics** for optimum image quality
- Optionally available with **LED lighting** (please order separately)
- Optionally available with a trinocular head for attachment of a microscope camera to the phototube using a C-Mount adaptor (please order C-Mount camera adaptor separately)

Technical specifications:

Total magnification	40x and 400x in brightfield 100x and 200x in phase contrast
Eyepieces (incl. eyecups)	Wide field 10x Field of view 20 mm Diopter compensation on both eyepieces
Head	Binocular or trinocular 45° viewing angle 360° rotatable Adjustable eye distance (48-75 mm)
Lens turret	4-way, tilted sideways
Lenses for brightfield, planachromatic	- PL 4x / N.A. 0.10, W.D. 12.6 mm - LWD PL 40x / N.A. 0.50, W.D. 3.0 mm
Lenses for phase contrast	- PL Ph 10x / N.A. 0.25, W.D. 4.1 mm - LWD PL Ph 20x / N.A. 0.30, W.D. 4.7 mm
Worktop	200 x 239 mm With glass/metal stage insert
Condenser	ELWD N.A. 0.30 with phase shifter (Ph1, BF) W.D. with condenser for 72 mm W.D.
Lighting	Halogen (6 V / 30 W) with sleep mode, variable
Image focusing	Coarse and fine drive, coaxial
Power supply	100-240 V

Delivery incl. blue filter, interference filter green, neutral filter with slider, centring telescope and dust cover.

Type	Art. No.	Pack Qty.	€
① AE2000 binocular	ATT4.1	1	2554,20
② AE2000 trinocular	ATT5.1	1	2936,90

Accessories:

LED module (6 V / 30 W, 6 000 K)	AXA8.1	1	78,50
0.5x C-Mount camera adaptor for 1/3" or 1/2" chip sensors	ATT1.1	1	149,45
Replacement halogen lamp (6 V / 30 W)	ATT6.1	1	35,45

► Immersion oil see chapter Histologie/ Microscopy accessories!

Illuminated magnifiers



Desk magnifying glass with LED lamp

With frameless plastic lens, Ø 102 mm. **2x magnification**, with integrated small lens **4x**. Separate LED lamp with 4 LEDs. With removable clamp for attaching to table edges.

Delivery incl. 2 x 1.5 V batteries.

Art. No.	Pack Qty.	€
PK48.1	1	27,70

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Approximation formula for calculating diopters in magnification:

$$\frac{\text{Dpt.}}{4} + 1 = \text{x-times magnified}$$



Stand magnifier and mini light panel

Stand magnifier

With swivel-mounted plastic lens, **magnification 1.75x**.

Lens size 140 x 100 mm, frame height 185 mm.

Use with mini light panel NL24.1 is optional.

Art. No.	Pack Qty.	€
NL23.1	1	92,45

Mini light panel

Battery-operated.

Dimensions: housing L 161 x W 135 x H 44 mm, illuminated surface L 127 x W 100 mm.

Use with stand magnifier NL23.1 is optional.

Delivery incl. 4 Mignon (1.5 V) batteries.

Art. No.	Pack Qty.	€
NL24.1	1	130,10

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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LED magnifier lamps, compact

- **3 diopter** glass lens, field of vision Ø 100 mm
- Embedded **12-diopter** lens, field of vision Ø 25 mm
- 60 LEDs, over 20,000 hours lamp life, maintenance free
- Colour temperature: daylight white 6500 K
- Light intensity 1 200 lx at 35 cm distance, 330 lumen
- Low energy consumption of approx. 5 watts (energy efficiency class A)
- Ball-and-socket joint allows three-dimensional head rest adjustment
- Plastic linkage, arm length: bottom 155 mm, top 180 mm
- Sturdy base with ballasting, 150 x 180 mm
- Power supply 230 V, 50 Hz, cable length 1.40 m

Colour	Art. No.	Pack Qty.	€
white	NK01.1	1	69,35
black	NK02.1	1	69,35



LED magnifier lamps

- **3 diopter** glass lens, field of vision Ø 127 mm
- 90 LEDs, over 15 000 hours lamp life, maintenance free
- Colour temperature: daylight white 6500 K
- Light intensity 1 600 lx at 35 cm distance, 495 lumen
- Low energy consumption of approx. 8 watts (energy efficiency class „A“)
- Ball-and-socket joint allows three-dimensional head rest adjustment
- Rugged metal linkage, arm length at bottom and top 450 mm
- Clamp base for clamping widths of up to 65 mm
- Power supply 230 V, 50 Hz, cable length 1.70 m

Colour	Art. No.	Pack Qty.	€
white	NH99.1	1	127,95
black	NK00.1	1	127,95

Illuminated magnifiers



Circular illuminated magnifier

Available as **clamp version** with epoxy-coated steel tubes. Energy-saving 22 watt fluorescent lamp for high intensity light at minimum heat levels. Overall radius 1200 mm. **Lenses-Ø 127 mm. Lense with 3 diopters** and folding lens cover. Amplifications possible with clip-on additional lens. Pearl white.

Technical specifications:

Diopters:			Magnification:
primary lens	additional lens	total	% incl. original size
3	-	-	175
3	4	7	275
3	8	11	375

Delivery incl. light bulbs and table clamp.

Type	Art. No.	Pack Qty.	€
Circular illuminated magnifier, clamping version	N362.1	1	310,70
Spare circular fluorescent tube	N366.1	1	23,60
Additional lens 4 diopters	N363.1	1	109,65
Additional lens 8 diopters	N364.1	1	109,65



LED-illuminated round magnifier

By Waldmann. Very sturdy and rugged, resistant to vibration. Excellent colour rendering and homogeneous light distribution.

- Scratch-resistant plastic lens with **6 diopters**
- Field of vision Ø **72 mm**, undistorted
- 63 x Low Power LEDs
- Low energy consumption of approx. 6 watts (energy efficiency class A)
- Colour temperature: neutral white 3 700 -4 300 K
- Colour rendering Ra = 85
- Illumination level approx. 2 660 lx at a distance of 15 cm
- Stand length approx. 730 mm
- Comfortable switching on/off using sensor button on lamp head
- Housing made of anodised aluminium and black plastic
- Power supply 100-240 V, 50/60 Hz, cable length 2.3 m

Delivery incl. base and protective lens casing to avoid fire when not in use. Table clamp and table base is optional (please order separately).

Type	Art. No.	Pack Qty.	€
LED illuminated round magnifier	CCE1.1	1	432,15
Table clamp	LK23.1	1	33,90
Table base	LK24.1	1	87,65



varioLEDflex magnifier lamp

By Eschenbach. With shadow-free ring illumination and structure-accentuating segment illumination. A flexible gooseneck stand with a smooth action and the lens which also tilts in two directions ensures precise adjustment of the magnifier head to suit individual requirements.

- Aspheric PXM® lightweight lens, cera-tec® coated
- **Lens Ø 76 mm**
- **2.5x magnification (6 dpt)**, high edge definition
- 63 LEDs, up to 50 000 hours lamp life, maintenance free
- Illumination level: approx. 6 000 lx at only 5 W (ring illumination)
- Colour temperature >6 000 K
- Stand length 410 mm
- Power supply 110-230 V, 50-60 Hz, cable length approx. 2.5 m

Delivery incl. mains adaptor (EU/GB/US) and sturdy table clamp made from steel, max. clamping range 60 mm.

Art. No.	Pack Qty.	€
AEA3.1	1	375,20



Tevisio magnifier lamps

By Waldmann. For demanding applications in research, manufacturing, quality assurance and assembly.

- Scratch-resistant **3.5 diopter** glass lens
- **Large field of vision, Ø 153 mm**, distortion free
- 48 LEDs, up to 50,000 hours lamp life, maintenance free
- Various light segments can be switched on and off to create structure-accentuating effects
- Continuously variable dimming to 10 %
- Colour temperature: neutral white 4000 K
- Light intensity: 6000 lx at only 14 W
- 40 % energy saving compared to standard magnifier lamps
- 3D head joint for individual adjustments
- Housing made of colourless anodised aluminium and black plastic
- Power supply 100-240 V, 50/60 Hz, cable length 3.8 m

Overall reach (mm)	Art. No.	Pack Qty.	€
784 (400/384)	NH40.1	1	719,20
984 (500/484)	NH41.1	1	736,40

Illuminated magnifiers



Circular illuminated magnifier

By Waldmann. Made of metal, painted light grey. Features heavy base plate for secure stand. Can be used as table lamp. **Lens visual area 120 mm in Ø, magnification 2x**, in high magnification area of lens (Ø 30 mm) **4 - 5x magnification**. With non-glaring 22 W circular fluorescent tube. Magnifier has spring-balanced arms and is variably adjustable and rotatable to all sides. Max. height approx. 88 cm. Total weight approx. 9 kg. With 150 cm cable and plug for 220 V electric supply.

Type	Art. No.	Pack Qty.	€
Circular illuminated magnifier	0054.1	1	590,20
Spare circular fluorescent tube	N366.1	1	23,60

Accessories: Auxiliary lens

By Waldmann.

Art. No.	Pack Qty.	€
6194.1	1	130,10



varioLED illuminated magnifiers

By Eschenbach. With flicker-free, dimmable LED ring light, approx. 5000 Lux at 200 mm working distance. Folding and removable lens cover.

- 1.9x magnification (**3.55 dpt**), optional 25x (**6 dpt**)
- **Lens-Ø 132 mm**
- Aspheric PXM® lightweight lens, with cera-tec® hard coating
- Edge-to-edge distortion-free images
- Swivel range of magnifier head: 180°
- 6 joints and 0.9 m operating radius for optimal magnifier head alignment
- Table clamp for tabletop thickness from 18-74 mm
- Dimensions: length of swivel arms 400 mm, Lamp head Ø 209 mm

Power supply 110 V-230 V, 50-60 Hz.

Delivery incl. plug adaptor (EU/GB/US/AUS).

Type	Art. No.	Pack Qty.	€
varioLED 1.9x magnifier lamp	PX01.1	1	622,45
varioLED 2.5x magnifier lamp	PX02.1	1	697,70
Spare lens 6 dpt/2.5x	PX03.1	1	117,20
Table base	PX04.1	1	197,80
Lens protector	PX05.1	1	24,10



① Precision magnifiers with graticule

By Eschenbach. Has a distortion-free, high quality, achromatic lens. **Lens Ø 23 mm**. Features handy focussing ring. With 20 mm range and 0.1 mm subdivision. Casing made of glass-fibre reinforced polyamide.

Magnification	Art. No.	Pack Qty.	€
7x	H570.1	1	98,90
10x	H571.1	1	111,80

② Illuminating attachment LED

By Eschenbach. For precision magnifiers. Handy case for two batteries, type Baby 1.5 V. **Delivery without** batteries, please order separately.

Art. No.	Pack Qty.	€
H572.1	1	72,60

Accessories:

Baby/C 1.5 V battery	1023.2	2 pieces	4,85
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Measuring lens

With **magnification 8x**, variably adjustable.

With graticule length 10 mm, subdivisions 0.1 mm. Outer Ø 32 mm.

Art. No.	Pack Qty.	€
1285.1	1	96,65

Illuminated magnifiers



Illuminated pocket magnifiers

By Eschenbach.

- Ergonomically shaped handle
- Large, easy-to-operate light switch
- Aspheric PXM® lightweight lens, dia. 35 mm
- Lenses are hard coated on both sides
- Setting distance (distance between eye and virtual image): 400 mm
- Easy battery replacement

Delivery incl. batteries (2 Mignon 1.5 V, type AA), folding dust cap (type ② only).

Type ①: with 2.5 V light bulb, 250 mA, E10

Magnification	Art. No.	Pack Qty.	€
7x / 28.0 dpt.	H506.1	1	31,75
10x / 38.0 dpt.	H507.1	1	33,80

Type ②: with LED white light, 52 mA

With attachable filters for various light colours.

Magnification	Art. No.	Pack Qty.	€
10x / 38.0 dpt.	PT98.1	1	57,95
12.5x / 50.0 dpt.	PT99.1	1	62,15

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Illuminated precision magnifier

By Eschenbach. With removable **graticule**. **Magnification 10x, 38 (dpt).** With aspheric PXM®-light lens, lens-Ø 35 mm. Graticule with 0.5 mm and 1/64 inch graduation. Power supply via 2 x 1.5 V batteries (type Baby).

Delivery without batteries, please order separately.

Art. No.	Pack Qty.	€
H568.1	1	72,90

Accessories:

Baby/C 1.5 V battery	1023.2	2 pieces	4,85
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Hand-held magnifiers with additional lens

By Eschenbach. Suitable for use when a large field of vision is required with low level magnification.

- Biconvex PXM® lightweight lens
- Plano-convex additional lens with 5x magnification integrated in the handle
- Eyelet in the handle for round-the-neck carry cord

Lens Ø (mm)	Magnification (dpt / x times)	Art. No.	Pack Qty.	€
60	6,4/2,5	AXL6.1	1	14,75
80	5,0/2,25	AXL7.1	1	22,55



All-purpose pocket lens

By Eschenbach. Can be used as a **handheld or desktop magnifier**.

With a simply twist, you can easily transform the hand-held magnifier into a desktop magnifier that always ensures correct height and a sharp image. The aspheric PXM® lightweight lens (Ø 60 mm) produces a sharp image right to the edge of the lens with **3.5x magnification (14.0 dpt.)**.

Art. No.	Pack Qty.	€
H569.1	1	33,90



Folding magnifier

Made of plastic, with PXM® lightweight lens (Ø 23 mm).

10x magnification. Aplanatic lens for edge-to-edge distortion-free images.

Art. No.	Pack Qty.	€
PX00.1	1	23,15

Magnifying lenses



Folding magnifiers

High-resolution. With aspheric lens. Dust-tight casing protects lens from scratching. Ø of lens 35 mm. Total Ø 52 mm.

Delivery incl. neck strap

Magnification	Colour	Art. No.	Pack Qty.	€
4x	red	H502.1	1	22,15
7x	anthracite	H503.1	1	25,75
10x	white	H504.1	1	30,65



Reading lens

Collapsible. Made of camera plastic, with steel wire support. Lens **10.0 diopters glass with 3,5 x magnification**. Large **visual field 75 x 50 mm** for 3 D vision. Distance to table approx. 60 mm.

Delivery incl. case.

Art. No.	Pack Qty.	€
2619.1	1	40,55

Approximation formula for calculating diopters in magnification:

$$\frac{\text{Dpt.}}{4} + 1 = x\text{-times magnified}$$



Standing magnifiers

Multipurpose magnifiers made of shockproof plastic. Lenses made of PMMA. Transparent glass base. With aspheric lenses. Model ② also has colour-corrected lens and diopter compensation.

Technical specifications:

Model	Magnification	Lens-Ø (mm)	Height (mm)	Ø-Field of vision (mm)
①	8-times	24	approx. 45	45
②	10-times	26	approx. 38	66

Model	Art. No.	Pack Qty.	€
①	X294.1	1	17,10
②	KP29.1	1	18,50



Illuminated pocket magnifiers easyPOCKET

By Eschenbach.

- Aspherical lens
- **Magnification: 3-times**
- Lens diameters: L 50 x W 46 x H 3 mm
- Ultra-flat
- With LED illumination
- Can be switched on and off by pulling magnifier out of protective case
- Fibre glass reinforced plastic case protects lens
- Dimensions of plastic case: L 85 x W 55 x H 6 mm

Delivery incl. Battery (Button cell, 3 V, Type CR 2025)

Colour	Art. No.	Pack Qty.	€
silver	KC50.1	1	57,00
black	KC51.1	1	57,00

Accessories:

CR 2025 button cell battery (3 V)	CH14.1	1 pce.	5,35
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Binocular magnifiers for spectacles

By Eschenbach. Simple and effective magnifying aid for spectacle users.

Advantages:

- Can be clipped on to almost any spectacle frames
- Field of vision is not restricted
- Both hands are free for working

Operating distance (mm)	Magnification	Art. No.	Pack Qty.	€
400	1.7x	P103.1	1	59,15
250	2x	P104.1	1	59,15
180	2.5x	P105.1	1	59,15
160	3x	H577.1	1	59,30

Magnifying lenses



Magnifying glasses MaxDetail

By Eschenbach. **Magnification 2-times.** Multi-purpose magnifying glasses for all tasks where you need to use both hands.

Advantages:

- Adjustable side-pieces for a close fit
- Optimal working distance 400 mm
- Large field of vision (~150 mm at 400 mm working distance)
- Diopter compensation of ± 3 dpt. possible
- Low weight 49 g

Art. No.	Pack Qty.	€
HE06.1	1	93,55



Head band magnifiers

By Eschenbach. Binocular lenses enable stereoscopic sight with both eyes. Suitable for spectacle users. Screen is closed on all sides to protect against diffused light. Screen can be folded back when not in use.

Operating distance (mm)	Magnification	Art. No.	Pack Qty.	€
400	1.7x	P106.1	1	98,90
250	2x	P107.1	1	98,90
180	2.5x	P108.1	1	98,90
130	3x	P109.1	1	98,90



Headlight LED

By Eschenbach. High-performance LED light for shadow-free, ergonomic and fatigue-free working at near-constant illumination levels. Light swivels vertically into the desired position. For attachment to headband magnifiers (P106.1 ff.) and the MaxDetail magnifier (HE06.1).

Technical specifications:

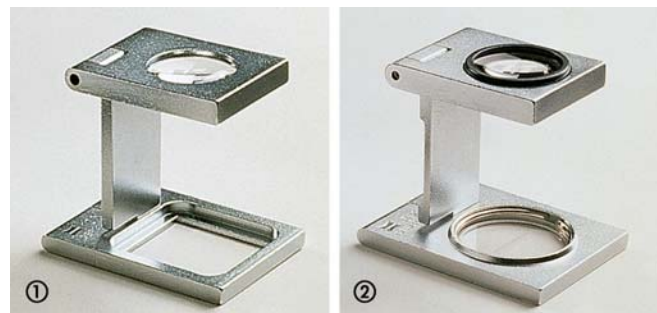
Lighting	2 high-performance LEDs
Illumination level	approx. 3200 lx in 250 mm approx. 1200 lx in 400 mm
Length of cable	1 m
Dimensions: lamp housing battery housing (incl. clip)	32 x 20 x 34 mm 90 x 55 x 40 mm
Weight: lamp housing battery housing (excl. batteries)	11 g 60 g
Lighting duration	approx. 8 h in normal mode approx. 14 h in Eco mode
Power supply	3 mignon/AA 1.5 V batteries

Delivery incl. adaptor for headband magnifiers and MaxDetail magnifier, hard foam case and batteries.

Art. No.	Pack Qty.	€
CPT7.1	1	95,70

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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① Precision linen tester

By Eschenbach. In chromium plated brass housing. Biconvex lens made of optically ground silicate glass. Collapsible.

Magnification	Height (mm)	Aperture (mm)	Art. No.	Pack Qty.	€
10x	27	15 x 15	H573.1	1	41,85
5x	53	30 x 30	H574.1	1	57,45

② Linen tester

By Eschenbach. In chromium plated brass housing. With **graticule** length 10 mm, 0.1 mm subdivision. Collapsible.

Magnification	Height (mm)	Aperture (mm)	Art. No.	Pack Qty.	€
8x	33	Ø 18	H575.1	1	144,05

Lamps



Energy saving bench lamps

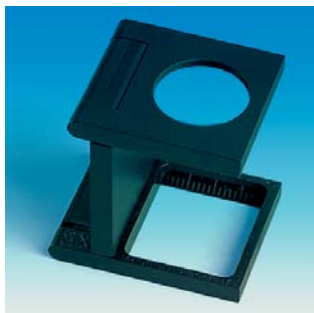
- Reflector for optimal light utilisation
- Colour temperature: daylight white 6 500 K
- Light intensity: 1 700 lx at 350 cm distance, 840 lumen
- Arm, lamp head and base made of shatterproof plastic
- Lamp head 360 x 70 mm
- Switch on lamp head for convenient switching on and off
- Arm length 310 mm, variable height
- Height in normal working position: 420 mm
- Sturdy base, 230 x 120 mm, with ballasting
- Energy efficiency class „A“
- Power supply 230 V, 50 Hz, cable length 1.80 m

Delivery incl. bulbs.

Colour	Art. No.	Pack Qty.	€
white	NK60.1	1	38,30
black	NK61.1	1	38,30
silver	NK62.1	1	38,30

Accessories:

Replacement energy saving bulb, 11 W, G23 base	NK63.1	1	9,80
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Linen tester

Made of plastic. With graticule on side, 1 mm subdivision.
Magnification 8x. Aperture 20 x 20 mm. Height 35 mm. Collapsible.

Art. No.	Pack Qty.	€
H576.1	1	18,45

► UV-lamps, see page 735



Table lamps Study

Arm, shade and clamp base made of metal.

- Length of arm, top and bottom approx. 35 cm (height adjustable)
- Reflector can be moved
- Lamp head Ø 17 cm
- Span width of clamp max. 55 mm
- Can be rotated 360°
- Cord length approx. 1.75 m
- Supply 230 V, 50/60 Hz

Delivery without light bulb, please order separately.

Colour	Art. No.	Pack Qty.	€
silver	EP57.1	1	30,65
black	EP58.1	1	30,65

Accessories:

Energy-saving bulb E27	TA18.1	1	21,15
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Desktop lamp "Office"

Output 20 W. With adjustable aluminium arm (max. 82 cm). Can be rotated horizontally 360°. Arm and reflector (Length 21 cm) can be adjusted.
 Lamp head with antiglare protection. Rotatable metal foot, alternatively available with metal clamping foot (max opening 55 mm). Cable length 2 m.
 Power supply: 230 V, 50/60 Hz.

Delivery incl. light bulb, foot and table clamp.

Art. No.	Pack Qty.	€
AH77.1	1	80,65

Accessories:

Spare lamp	XC72.1	1	10,00
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Lamps



LED bench lamps

- 48 LEDs, over 15 000 hours lamp life, maintenance free
- Colour temperature: daylight white 6 500 K
- Light intensity: 1 500 lx at 350 cm distance, 200 lumen
- Low energy consumption of approx. 6.5 watts (energy efficiency class „A“)
- Arm and lamp head made of aluminium and plastic
- Lamp head 130 x 110 mm, rotatable and tiltable
- Switch on lamp head for convenient switching on and off
- Arm length: 400 mm
- Height in normal working position: 430 mm
- Sturdy base, 200 x 165 mm, made of plastic with ballasting
- Power supply 230 V, 50 Hz, cable length 1.75 m

Colour	Art. No.	Pack Qty.	€
black	NK64.1	1	79,55
silver	NK65.1	1	79,55



Workplace luminaire

Colour: white. Ideal for laboratories, workshops and engineering offices. With electronic ballast for flicker-free start, flicker-free light, low current consumption and longer bulb life.

- Colour temperature: daylight white 6 500 K
- Light intensity: 2 800 lx at 350 cm distance, 1 250 lumen
- Lamp head with aluminised parabolic louvre for glare-free use
- Switch on lamp head for convenient switching on and off
- Rugged metal arm, rotatable through 360°
- Arm length at bottom and top 400 mm
- Height in normal working position 400 mm
- Metal clamp base, plastic coated (for clamping widths up to 65 mm)
- Energy efficiency class „A“
- Power supply 230 V, 50 Hz, cable length 1.50 m

Delivery incl. bulbs (3 x 14 W).

Art. No.	Pack Qty.	€
NK58.1	1	123,65

Accessories:

Replacement energy saving bulb, 14 W, G5 base	NK59.1	1	15,40
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LED workplace luminaires

By Waldmann. For homogeneous wide area illumination of the workplace without glare or shadows. Good contrast vision and excellent colour detection.

- Maintenance-free LED technology, up to 50 000 hours lamp life
- 30 % energy saving compared to standard work lights
- Variable dimming down to 10 %, with memory function
- Colour temperature: neutral white 5 000 K
- Glare suppression is provided by cone prism aperture
- Flicker-free light without IR and UV content
- Housing made of colourless anodised aluminium and black fibre-reinforced plastic

Technical specifications:

Model	①	②	③	④
Number of LEDs	24	36	12	24
Power consumption (W)	31	47	15	31
E _m /E _{max} (lx)*	958/2603	1425/3596	479/1394	958/2603
Total reach (mm)	1036		431	-
Lamp dimensions L x W x H (mm)	398 x 136 x 33	577 x 136 x 33	179.5 x 136 x 33	359.5 x 136 x 33

*E_m = medium illuminance, E_{max} = max. illuminance, measuring field 100 x 100 cm, measuring distance 50 cm.

Models ① and ② for benchtop mounting. With frame and 3D head joint.

Delivery incl. table clamp.

Type	Art. No.	Pack Qty.	€
①	NK90.1	1	628,90
②	NK91.1	1	725,65

Models ③ and ④ for space-saving under-cabinet assembly . Rotatable head joint.

Delivery incl. bracket.

Type	Art. No.	Pack Qty.	€
③ with swivel arm	NK92.1	1	327,90
④ with fixed mounting	NK93.1	1	381,65

Torches



Halogen hand torch

Rechargeable. Very bright. Ergonomically shaped handle with wrist strap and mounting magnet. Shines up to 150 m, lasts up to 90 min each time it is charged. Removable charging unit with NC storage batteries for current 110 to 240 V. 25 hours recharging time. With bulb Prefocus halogen 4.8 V-0.5 A. Length 150 mm, Ø front 60 mm. Weight approx. 100 g.

Art. No.	Pack Qty.	€
5367.1	1	39,80



Hand-held lamp, Compact

9 W. With ballast in plug, unbreakable plastic protection tube and tiltable wire hook. Length of lamp 205 mm. 5 m cable. Protection class II. Current 220 V/50Hz.

Art. No.	Pack Qty.	€
2986.1	1	163,40



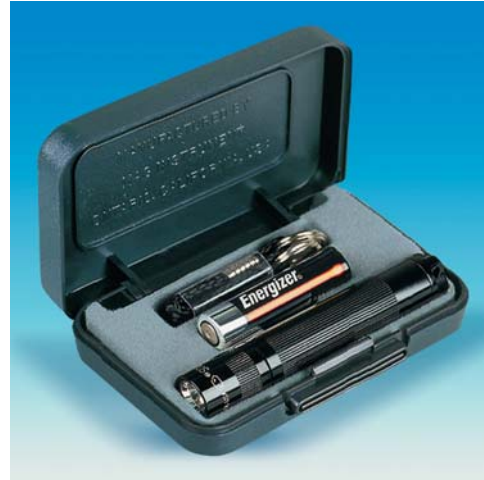
Infrared lamp IL21

Compressed glass bulb for intensive infrared light. Inclination of angle adjustable in 5 stages from 0 to 45°. Capacity ca. 150 W. Voltage: 230 V, 50/60 Hz.

Type	Art. No.	Pack Qty.	€
Infrared lamp IL21	X435.1	1	60,10

Accessories:

Spare lamp for IL21	X436.1	1	21,45
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Solitaire® Rod-shaped torch

By MAG. Black. With aluminium casing. 8 cm long. A simple turning movement enables switch over from spot- to floodlight. **With battery and spare bulb** in cap. Extra long-life and economical energy usage. With key-chain hook in case.

Art. No.	Pack Qty.	€
N257.1	1	18,20

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
Ersatzglühbirnen	N261.1	2	7,50



Torches, Micro-Mag and Mini-Mag

By MAG. Black with aluminium casing. Can be switched over from spot- to floodlight. Anodized inside and outside for optimal protection against corrosion.

Delivery incl. 2 x 1.5 V Micro batteries for Micro-Mag, 2 x 1.5 V Mignon batteries for Mini-Mag. Includes case and spare lamp.

Type	Art. No.	Pack Qty.	€
Micro-Mag, 125 mm long with pocket clip	N258.1	1	31,00
Mini-Mag, 145 mm long (without pict.)	N259.1	1	38,15

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
Ersatzglühbirnen	N263.1	2	7,50

Torches



LED torch

By TFA-Dostmann. **With zoom** for stray light/focusing. Rugged aluminium housing with carry strap.

Technical specifications:

Power output	3 W
Illumination range	120 m
Lifetime of LED bulb	100 000 h
Energy consumption	800 mA/h
Dimensions (L x Ø)	115 x 34 mm
Weight incl. battery	160 g
Power supply	3 x 1.5 V AAA batteries

Delivery incl. batteries.

Art. No.	Pack Qty.	€
YK82.1	1	18,75

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Laser pointer

All-metal casing with clip. Range approx. 150 m. Laser class 2. Dimensions: L 140 mm, Ø 10 mm.

Delivery incl. case and 2 batteries Micro/AAA 1.5 V.

Art. No.	Pack Qty.	€
AH29.1	1	25,75

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Warning:

Avoid looking directly into the laser beam and do not point the beam into another person's eyes!



Rod-shaped torch 3D cell

With extremely intense beam. With aluminium casing. Can be switched over from spot- to floodlight. Water repellent sealing for splash resistance. Shockproof. Length 315 mm. Supplied with crypton bulb. 3 batteries Mono 1.5 V are required.

Delivery without batteries, please order separately.

Art. No.	Pack Qty.	€
N260.1	1	53,65

Accessories:

Battery Mono/D 1.5 V	1024.2	2 pieces	6,35
Ersatzglühbirnen	N264.1	2	7,50



Explosion-proof torches



Ex-safe LED mini flash light eLED®PEN

By Ecom. Pen-sized for zone 1/21 hazardous areas (areas in which an explosive atmosphere is likely to be present intermittently). Wide beam with powerful, evenly distributed light.

Technical specifications:

Lamp	0.5 W power LED
Lighting power at a distance of 1 m	approx. 1000 lx
Ex-code: Suitable for use in gas atmosphere Suitable for use in dust atmosphere	II 2G Ex ib IIB T4 Gb II 2D Ex ib IIIC T60 °C IP6X Db
Operating time	approx. 3 hours (continuous operation)
Ambient temperature	-20 to +40 °C
IP protection class	IP67
Dimensions (L x W x H)	135 x 22 x 25 mm
Weight	approx. 100 g

Note: Please use only type-tested replacement batteries (see operating instructions)!

Delivery incl. 2 batteries.

Art. No.	Pack Qty.	€
NT20.1	1	41,90



Ex-safe LED torch eLED®CPO TS

By Ecom. For zone 1/21 hazardous areas (areas in which an explosive atmosphere is likely to be present intermittently).

Technical specifications:

Lamp	2 W power LED
Lighting power at a distance of 1 m	approx. 2000 lx
Ex-code: Suitable for use in gas atmosphere Suitable for use in dusty atmospheres	II 2G Ex e ib IIC T6 II 2D Ex ibD 21 T61 °C
Operating time	approx. 6-8 hours (continuous operation)
Ambient temperature	-20 to +40 °C
IP protection class	IP67
Dimensions (L x W x H)	134 x 35 x 41 mm
Weight	approx. 150 g

Note: Please use only type-tested replacement batteries (see operating instructions)!

Delivery incl. 3 batteries.

Art. No.	Pack Qty.	€
NT21.1	1	76,35



Ex-safe LED torch Lite-Ex PL 10

By Ecom. For zone 0/20 hazardous areas (areas in which an explosive atmosphere is likely to be present continuously for long periods or frequently). With ring switch and coated, scratch-resistant protective filter.

Technical specifications:

Lamp	High-performance LED
Lighting power at a distance of 1 m	approx. 3000 lx
Ex-code: Suitable for use in gas atmosphere Suitable for use in dust atmosphere	II 1G Ex ia op is IIC T4 Ga II 1D Ex ia IIIC T130 °C Da
Operating time	approx. 55 hours
Ambient temperature	-20 to +50 °C
IP protection class	IP65/IP67
Dimensions (L x W x H)	147 x 36 x 36 mm
Weight	approx. 120 g

Note: Please use only type-tested replacement batteries (see operating instructions)!

Delivery incl. belt clip, hand strap and 3 batteries.

Art. No.	Pack Qty.	€
NT19.1	1	109,65

Light boxes



Lighting panels, flat-line series

By Rex. Extremely flat light, and easy-to-handle boxes.
Colour temperature 5000 K.

Model FL-3 with folding stand and clamping rail feature.

Technical specifications:

Type	Illuminated surface L x W (mm)	Dimensions of box L x W x D (mm)	Power source
FL-1	125 x 100	158 x 150 x 14	Delivery incl. batteries and power pack. 6 batteries Micro 1.5 V are required.
FL-2	178 x 127	220 x 190 x 21	Delivery without batteries and power pack. 6 batteries Mignon 1.5 V are required.
FL-3	300 x 200	370 x 275 x 25	Delivery incl. power pack. Cannot be battery operated.

Delivery incl. protective sleeve.

Type	Art. No.	Pack Qty.	€
FL-1	AA55.1	1	77,95
FL-2	AA56.1	1	101,60
FL-3	AA57.1	1	164,50
Power pack adapter for FL-1 and FL-2	AA58.1	1	27,35

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95

Warning: UV-C radiation is detrimental to health!

Fields of application:

- UV-A = 320 to 380 nm (max 366 nm): effect lighting, testing of materials, commencement of photochemical reaction, fluorescence excitation e.g. with DC chromatogrammes and gels.
- UV-B = 280 to 320 nm (max 312 nm): e.g. analytic evaluation of chromatography plates without destroying separated substances.
- UV-C = 100 to 280 nm (max 254 nm): e.g. chromatographic investigation for identifying (absorption or fluorescence) substances.



Lighting panels

By Rex.

Field of application:

Ideal for viewing and for precise colour evaluation of slides, for examining large-sized films and transparencies, for illuminating X-rays. Also suitable for selecting and evaluating photographic material or for comparing superimposed graphs or chromatogrammes, etc.

Design:

- Sturdy sheet steel case, powder-coated (white)
- Extremely flat construction
- Plane, scratch resistant plastic opal pane
- **Non-flashing, non-flickering light**, for non-fatiguing viewing
- Without border and good illumination
- Light temperature 5000 K
- Only slight warming of surface during permanent run
- Comes with integrated wall mounting
- Length of leads 2 m
- Mains supply 230 V, 50-60 Hz

Technical specifications:

Type	Dimensions L x W x D (mm)	Illuminated area L x W (mm)	Luminance (cd/m ²)	Light fittings (Watt)
Size 6 E	320 x 250 x 60	300 x 230	1700	2 x 8
Size 1 E2	415 x 270 x 60	395 x 250	1400	2 x 8
Size 1 E4	415 x 270 x 60	300 x 250	3000	4 x 8
Size 2 E	550 x 380 x 60	530 x 360	1300	2 x 13
Size 2 RE	550 x 380 x 60	530 x 360	1800	3 x 13
Size 3 RE	600 x 550 x 60	580 x 530	2000	5 x 13

Type	Art. No.	Pack Qty.	€
Size 6 E	P262.1	1	205,35
Size 1 E2 (2 x 8 W)	P263.1	1	213,95
Size 1 E4 (4 x 8 W)	H988.1	1	299,95
Size 2 E	P265.1	1	272,00
Size 2 RE	P266.1	1	327,90
Size 3 RE	P268.1	1	456,90



Rotilabo®-X-ray-cassettes

Light, stable aluminium cassette. **Optimal film-screen contact.** With safety catch for easy opening. Press to close. High cold stability to -70 °C.

Size (cm)	Art. No.	Pack Qty.	€
13 x 18	X264.1	1	104,85
18 x 24	X265.1	1	123,65
18 x 43	X266.1	1	147,30
24 x 30	X272.1	1	155,90
30 x 40	X267.1	1	158,05

Intensifying screens

Suitable for isotopes ³²P.

Delivery incl. 1 set of screens for front and back.

• Type, Universal (sensitivity 100)

Combines relatively high sensitivity with excellent detail recognition. Luminous substance: calcium tungstate. For blue-sensitized films.

Size (cm)	Art. No.	Pack Qty.	€
13 x 18	X273.1	1	44,95
18 x 24	X274.1	1	60,10
18 x 43	X275.1	1	87,10
24 x 30	X277.1	1	87,10
30 x 40	X276.1	1	118,25

• Type, Special/Rapid (sensitivity 200)

Sensitivity of special screens is almost twice as high as that of standard universal screens. Luminous substance: calcium tungstate. Blue-emitting.

Size (cm)	Art. No.	Pack Qty.	€
13 x 18	X278.1	1	53,15
18 x 24	X279.1	1	71,95
18 x 43	X280.1	1	118,25
24 x 30	X282.1	1	110,75
30 x 40	X281.1	1	168,80



UV-handheld lamps

By Herolab. Suitable for fluorescence excitation in microbiology, textile material technology, mineralogy, botany etc. The lamps are equipped with and can be switched over between **two wavelengths (254 nm/366 nm)**. Supplied complete with outlet cable, on/off switch and handle. Electrical supply 220 V/50 Hz.

Also available as an accessory: Desktop stand made of metal.

Technical specifications:

Model	Output (W)	Dim. Filter L x W (mm)	Dim. lamp L x W x H (mm)	Weight (kg)
I	2 x 4	100 x 50	195 x 70 x 65	0.7
II	2 x 6	150 x 50	260 x 70 x 65	0.8
III	2 x 8	200 x 50	335 x 70 x 65	0.9
IV	2 x 15	300 x 70	485 x 85 x 80	1.65

Model	Art. No.	Pack Qty.	€
I	H466.1	1	316,05
II	H467.1	1	350,45
III	H468.1	1	362,30
IV	H469.1	1	479,45

Accessories:

Replacement UV tube, 4 W, 254 nm, L135 x Ø 16 mm	H391.1	1	42,95
Replacement UV tube, 4 W, 366 nm, L135 x Ø 16 mm	H392.1	1	30,85
Spare fluorescent tubes - White light	H390.1	1	10,45
Replacement UV tube, 6 W, 254 nm, L210 x Ø 16 mm	P368.1	1	42,95
Replacement UV tube, 6 W, 366 nm, L210 x Ø 16 mm	P369.1	1	32,25
Replacement UV tube, 8 W, 254 nm, L288 x Ø 16 mm	P370.1	1	42,95
Replacement UV tube, 8 W, 366 nm, L288 x Ø 16 mm	P371.1	1	33,35
Replacement UV tube, 15 W, 254 nm, L437 x Ø 26 mm	P372.1	1	55,40
Replacement UV tube, 15 W, 366 nm, L437 x Ø 26 mm	P373.1	1	42,95

Desktop stand made of metal

By Herolab. For UV-handheld lamps. Height adjustable from 50 to 270 mm.

Art. No.	Pack Qty.	€
H470.1	1	123,65

► X-ray protection aprons see p. 634

- UVA-meters, see page 818
- UV-safety spectacles see page 536

Surface illuminators



Blue light LED transilluminators

For the gentle excitation of fluorescent DNA strands in gel. No damage to DNA by UV radiation. Specially designed for SYBR dyes (excitation at 420-500 nm, emission above 520 nm). Dimensions: L 266 x W 186 x H 80 mm. Please order UV protective goggles with orange lens for the detection of DNA strands separately.

Type	Filter size (mm)	Art. No.	Pack Qty.	€
UVT-14 BE-LED	110 x 140	NN23.1	1	582,65
UVT-22 BE-LED	140 x 220	NN24.1	1	617,05

Accessories:

UV protective goggles with orange lens	NN25.1	1	14,85
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UV transilluminators

For use in all areas (standard gel analysis, preparation of nucleic acids, etc.).

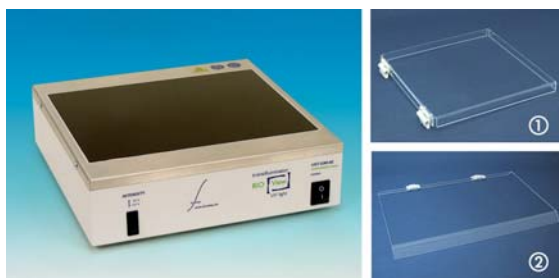
- **Filter size: 110 x 140 mm**
- Stainless steel filter cover
- Special reflectors made of ultra-pure aluminium for homogeneous illumination with high utilisation of tube UV intensity
- Flicker-free quick starting
- Low thermal output
- Dimensions: W 266 x D 186 x H 80 mm

Delivery without UV protective screen. Please order separately.

Type	Wavelength (nm)	Tubes	Art. No.	Pack Qty.	€
UVT-14 SE	254	4 x 6 W	NK03.1	1	780,45
UVT-14 ME	312/302	4 x 6 W	NK04.1	1	780,45
UVT-14 LE	365	4 x 6 W	NK05.1	1	682,65

Accessories:

Hinged UV protective screen	NK06.1	1	105,35
Replacement UV tube, 6 W, 254 nm, L210 x Ø 16 mm	P368.1	1	42,95
Replacement UV tube, 6 W, 312/302nm, L210 x Ø 16 mm	P850.1	1	50,45
Replacement UV tube, 6 W, 365 nm, L210 x Ø 16 mm	P369.1	1	32,25



UV-transilluminators with high light intensity

By Biostep.

- Filter cover made of rust-proof stainless steel
- Homogenous illumination
- High intensity light
- Model UST-30M-8E has an intensity switch 50/100 % and quiet, temperature-controlled ventilation system

Delivery without UV-protective covers, please order separately.

Filter size: 230 x 300 mm

Dimensions: W 325 x D 322 x H 105 mm

Type	Wavelength (nm)	Tubes	Art. No.	Pack Qty.	€
UST-30M-8E	312	12 x 8 W	LY10.1	1	1342,70

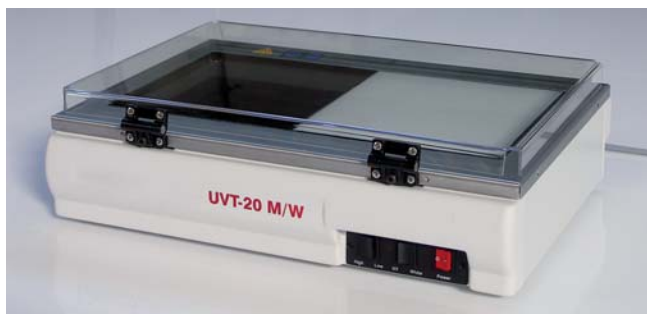
Filter size: 200 x 400 mm

Dimensions: W 478 x D 322 x H 135 mm

Type	Wavelength (nm)	Tubes	Art. No.	Pack Qty.	€
UXDT-40SL-15K	254/365	2 x (3 x 15 W)	LY11.1	1	1987,70
UXDT-40SL-15K	254/312	2 x (3 x 15 W)	LY12.1	1	1987,70

Accessories:

UV-protective cover for LY10.1, canted on 4 sides, W 325 x D 322 x H 25 mm	LY13.1	1	71,85
UV-protective cover for LY11.1, LY12.1, canted on 2 sides, W 478 x D 322 x H 25 mm	LY14.1	1	66,60
Replacement UV tube, 8 W, 312 nm, L285 x Ø 12 mm	LL71.1	1	31,10
Replacement UV tube, 15 W, 254 nm, L437 x Ø 26 mm	P372.1	1	55,40
Replacement UV tube, 6 W, 254 nm, L210 x Ø 16 mm	P851.1	1	64,00
Replacement UV tube, 15 W, 366 nm, L437 x Ø 26 mm	P373.1	1	42,95



UV/white light transilluminator

By Herolab.

Multifunction device with **100/75 % intensity switch.**

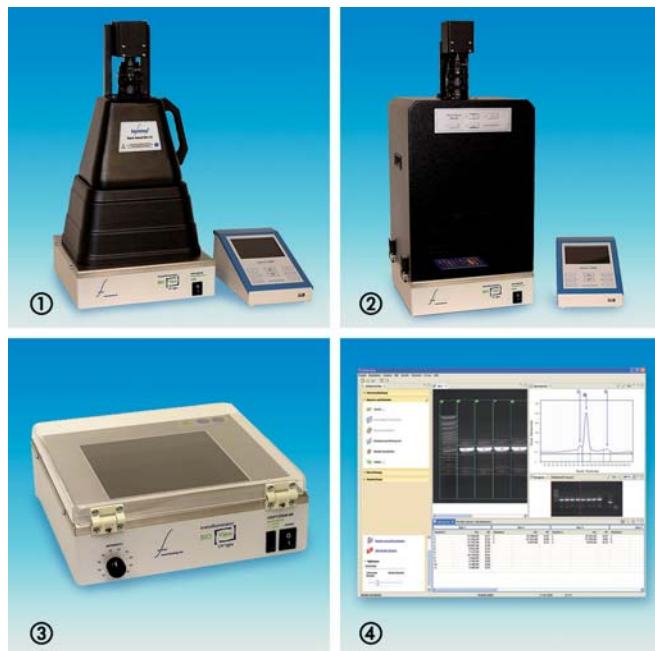
- **Filter size: 200 x 200 mm**
- Stainless steel filter cover, plastic coated housing, recessed switch
- Special reflectors made of ultra-pure aluminium for homogeneous illumination with high utilisation of tube UV intensity
- Dimensions: W 470 x D 340 x H 135 mm

Delivery incl. UV protective screen.

Type	Wavelength (nm)	Tubes	Art. No.	Pack Qty.	€
UVT-20 M/W	312/white light	6 x 8 W/3 x 6 W	LY09.1	1	1478,15

Accessories:

Replacement white light tube, 6 W, L210 x Ø 16 mm	X306.1	1	33,35
Replacement UV tube, 8 W, 312 nm, L285 x Ø 12 mm	LL71.1	1	31,10



Gel documentation systems

By Biostep. PC-independent imaging systems e.g. for acquisition of DNA/ RNA bands in agarose gels or protein bands in polyacrylamide gels. Standard version with ethidium bromide filter.

CCD-Camera model B8-437G

- Resolution 752 x 582 pixel
- Manual zoom objective 8 - 48 mm
- Camera control via external operation terminal 5.6" LCD display, keypad and USB-connection
- Functions: Live image mode for easy positioning of gels, setting of exposure time (manual or automatic), image inverting, recognition of image manipulation (GLP), storing image settings and storage data onto a USB-stick

① Typ Gerix 1005

Attachable dark hood for use in combination with a transilluminator with UV-protection shield.

② Typ Gerix 1020

Stationary dark hood with white top light and sliding door. Integrated UV protective shield can be pushed up for gel positioning. Attachable to transilluminator with 4 clamps. Transilluminator will automatically switch off in the case of overheating.

Delivery incl. dark hood, CCD-camera and operation terminal. Please order transilluminator, thermal printer and evaluation software separately.

Type	Dimensions W x D x H (cm)	Art. No.	Pack Qty.	€
① Gerix 1005	30 x 25 x 59	LL53.1	1	4025,90
② Gerix 1020	32,5 x 32 x 67	LL54.1	1	4708,50

Accessories for gel documentations systems

By Biostep.

③ Transilluminators

- Homogenous illumination
- Temperature-controlled ventilation (except K-model)
- Filter lid made of stainless steel
- Dimensions W 32.5 x D 32.2 x H 10.5 cm
- Filter size 20 x 20 cm

Please order UV-protection and blue light filter shield separately.

Type	Wave-length (nm)	Tubes	Intensity	Art. No.	Pack Qty.	€
UST-20M-8K	312	6 x 8 W	-	LL55.1	1	822,40
UST-20M-8E	312	8 x 8 W	50-100 %	LL56.1	1	1073,95
UST-20M-8R	312	8 x 8 W	10-100 %	LL57.1	1	1177,15
USDT-20SM-8K	254/312	2 x (4 x 8) W	-	LL58.1	1	1127,70
USDT-20SM-8R	254/312	2 x (4 x 8) W	10-100 %	LL59.1	1	1342,70
USDT-20ML-8K	312/365	2 x (4 x 8) W	-	LL60.1	1	1127,70
USDT-20ML-8R	312/365	2 x (4 x 8) W	10-100 %	LL61.1	1	1342,70
BST-20G-D2R	470	LED-Matrix 224	10-100 %	LL62.1	1	1235,20

UV-tubes

- 8 watt
- Dimensions: L 300 x Ø 12 mm

Wavelength (nm)	Art. No.	Pack Qty.	€
254	LL70.1	1	20,55
312	LL71.1	1	31,10
365	LL72.1	1	21,45

Protection/filter shields for transilluminators

- Dimensions: W 32.5 x D 32.2 x H 2.5 cm
- 4 sides blocking edges

Type	Art. No.	Pack Qty.	€
UV-protection shield	LY13.1	1	71,85
Filter shield for blue light	LL65.1	1	79,05

④ Analysis software Gelix One® 210, single license

- Imports bmp, png, tif, jpg images
- Reduces background noise
- Manual band detection and processing
- Molecular weight determination
- Manual standard allocation
- Exports data table
- Reporting and printing function
- For operating systems: Win XP, Win 7

Art. No.	Pack Qty.	€
LL67.1	1	471,95

Thermal printer Mitsubishi P93E

- Thermosensitive print technology, 256 shades of grey
- Resolution 325 dpi
- Printing speed approx. 3 s/printout
- Standard paper: Thermal paper roll K61B, width 110 mm, approx. length 21 m
- High density paper: Thermal paper roll K65HM, width 110 mm, approx. length 21 m

Type	Art. No.	Pack Qty.	€
Printer	LL68.1	1	966,45
Paper K61B	LL69.1	4	38,70
Paper K65HM	LL66.1	4	85,50

Refractometers



Programme extension!

Handheld refractometers, analog

By Kern. For measuring the refractive index of transparent substances in a liquid state.

- Eyepiece with diopter compensation
- Scale is precisely calculated and checked, with very thin and clear lines
- With or without automatic temperature compensation (ATC):
Measured temperature with ATC: 10 to 30 °C
Measured temperature without ATC: 20 °C

Delivery incl. calibration solution and storage box.

Application area: laboratory

Model	Scale	Measurement range	Graduation	ATC
ORA 4RR	Refractive index	1.440-1.520 nD	0.001 nD	-
ORA 1RE	Refractive index	1.333-1.405 nD 1.405-1.468 nD 1.468-1.517 nD	0.005 nD 0.005 nD 0.005 nD	-

Model	Art. No.	Pack Qty.	€
ORA 4RR	CEX9.1	1	85,00
ORA 1RE	CEY0.1	1	320,00

Application area: food industry/quality control

Model	Scale	Measurement range	Graduation	ATC
ORA 10BA	Brix	0-10 %	0.1 %	+
ORA 20BA	Brix	0-20 %	0.1 %	+
ORA 32BA	Brix	0-32 %	0.2 %	+
ORA 80BB	Brix	0-80 %	0.5 %	-

Model	Art. No.	Pack Qty.	€
ORA 10BA	CEY1.1	1	85,00
ORA 20BA	CEY2.1	1	85,00
ORA 32BA	CEY3.1	1	85,00
ORA 80BB	CEY4.1	1	80,00

Application area: food industry/wine making

Model	Scale	Measurement range	Graduation	ATC
ORA 3WA	Brix Oechsle	0-32 % 30-140 °Oe	0.2 % 1 °Oe	+
ORA 1WA	Brix Oechsle (°Oe) KMW (Babo)	0-32 % 0-140 °Oe 0-25 °KMW	0.2 % 1 °Oe 0.25 °KMW	+
ORA 2AB	Vol (weight)	0-50 % by vol 50-80 % by vol	1 % by vol 2.5 % by vol	-

Model	Art. No.	Pack Qty.	€
ORA 3WA	CEY5.1	1	85,00
ORA 1WA	CEY6.1	1	85,00
ORA 2AB	CEY7.1	1	80,00

Application area: food industry/fishkeeping

Model	Scale	Measurement range	Graduation	ATC
ORA 1SA	Salinity Spec. weight	0-100 ‰ 1.000-1.070 sg	1 ‰ 0.001 sg	+
ORA 3SA	Salt (NaCl) Brix	0-28 % 0-32 %	0.2 % 0.2 %	+

Model	Art. No.	Pack Qty.	€
ORA 1SA	CEY8.1	1	85,00
ORA 3SA	CEY9.1	1	85,00

Applications: industry/automotive

For analysing the glycol concentration (ethylene: EG and propylene: PG) of battery fluid (BF), antifreeze and windscreen wash fluid (CW).

Model	Scale	Measurement range	Graduation	ATC
ORA 4FA	EG (G13) PG (G11 / 12) CW BF	-50 - 0 °C -50 - 0 °C -40 - 0 °C 1.10 - 1.40 kg / l	1 °C 1 °C 5 °C 0.01 kg / l	+

Model	Art. No.	Pack Qty.	€
ORA 4FA	CYN3.1	1	85,00



Digital refractometer HI 96801

By Hanna. Portable, digital refractometers for determining sugar content in liquids.

- Automatic temperature compensation
- Simultaneous display of % brix and temperature
- Automatic switch-off after 3 min
- Simple calibration via keystroke with distilled or deionised water

Technical specifications:

Measuring range	0 to 85.0 % brix
Resolution	0.1 % brix
Accuracy	±0.2 % brix
Temperature compensation range	5 to 40 °C
Dimensions (W x D x H)	192 x 102 x 67 mm
Weight	420 g
Power supply	E-Block battery 9 V

Delivery incl. battery.

Art. No.	Pack Qty.	€
LP29.1	1	180,00

Refractometers



Refractometer, digital

By Kern. Digital refractive index measuring instrument for laboratories and industry.

- Compact, rugged design
- With automatic temperature compensation (ATC)
- Depending on model, measurement data is output on different measurement scales

Technical specifications:

Measurement temperature	10 to 30 °C
Accuracy	±0.5 °C
Minimum sample volume	approx. 2-3 droplets
Auto Off function	after 5 min
Battery life	approx. 10000 measurements
Dimensions H x W x D	40 x 135 x 65 mm
Weight	approx. 180 g
Power supply	2 x Micro/AAA 1.5 V battery

Delivery incl. calibration solution, leather case, storage case and batteries.

Application area: laboratory

For refractive index measurement, with extra-large measurement range.

Model	Scale	Measurement range	Accuracy	Graduations
ORD 1RS	Refractive index	1.3330-1.5400 nD	±0.0003 nD	0.0001 nD

Type	Art. No.	Pack Qty.	€
ORD 1RS	ECL0.1	1	430,00

Application area: food industry/quality control

For calculating the Brix value (refractive index) for the quantification of sugar content in foodstuffs (e.g. fruit, vegetables, juices and beverages containing sugar). Also suitable for monitoring industrial processes (monitoring of cooling lubricants, oils and greases). Refractive index display is optional.

Model	Scale	Measurement range	Accuracy	Graduations
ORD 45BM	Brix	0-45 %	±0.2 %	0.1 %
	Refractive index	1.3330-1.4098 nD	±0.0003 nD	0.0001 nD
ORD 85BM	Brix	0-85 %	±0.2 %	0.1 %
	Refractive index	1.3330-1.5100 nD	±0.0003 nD	0.0001 nD

Type	Art. No.	Pack Qty.	€
ORD 45BM	ECL1.1	1	340,00
ORD 85BM	ECL2.1	1	395,00

Application area: food industry/fishkeeping

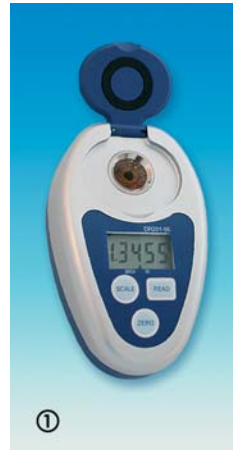
For calculating the Brix value (refractive index) and determining the concentration of sodium chloride in water. Refractive index display is optional.

Model	Scale	Measurement range	Accuracy	Graduations
ORD 3SM	Brix	0-35 %	±0.2 %	0.1 %
	Salt (NaCl)	0-28 %	±0.2 %	0.1 %
	Refractive index	1.3330-1.3900 nD	±0.0003 nD	0.0001 nD

Type	Art. No.	Pack Qty.	€
ORD 3SM	ECL3.1	1	340,00

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Digital refractometers

By Krüss. Digital refractometers for analyzing the concentration and calculation index of liquids. Measuring, temperature compensating and adjusting take place automatically. The DR301-95 model also includes a tolerance alarm, serial port, data transfer cable and evaluation software.

Technical specifications:

Model	① DR 201-95	② DR 301-95
Range	1.3330 - 1.5320 nD	1.3330 - 1.5318 nD
	0-95 % Brix	0-95 % Brix
	-	0-30 % salt content
Accuracy	±0.0003 nD	±0.00015 nD
	±0.2 % Brix	±0.1 % Brix
	-	±0.1 % salt content
Resolution	0.0001 nD	0.0001 nD
	0.1 % Brix	0.1 % Brix
	-	0.1 % salt content
Temperature compensation range	5-40 °C	5-40 °C
Dimensions	130 x 80 x 40 mm	180 x 100 x 60 mm
Weight	150 g	900 g
Power supply	Battery Mignon 1.5 V	Battery E-block 9 V

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
① DR 201-95	HH60.1	1	471,95
② DR 301-95	EP62.1	1	934,20

Refractometers



Abbe refractometer ORT 1RS

By Kern. For determining the refraction index of transparent liquid, solid and pasty samples.

Application area: laboratory/industry/pharmaceuticals.

- Easy-to-use, rugged design
- Eyepiece with diopter adjustment
- Scale refers to +20 °C
- Includes thermometer for reading the measuring temperature
- Calibrated with distilled water or calibration block and special contact fluid
- Can be connected to a water circulation system for temperature control of measurement prism and illumination prism (outer diameter of connecting piece: 9.5 mm)

Technical specifications:

Scale	Brix	Refraction index
Measurement range	0-95 %	1.3000-1.7000 nD
Accuracy	±0.1 %	±0.0002 nD
Graduations	0.25 %	0.0005 nD
Dimensions W x D x H (mm)	90 x 180 x 240	
Weight (g)	approx. 1950	

Delivery incl. thermometer, calibration block and contact fluid. Transportation and storage box made of aluminium is optional (please order separately).

Abbe refractometer

⚠ **Warning** H302-H319

Art. No.	Pack Qty.	€
ECK5.1	1	695,00

Replacement contact fluid 1-brom-naphthalene

for ORT 1 RS, contents: 2.5 ml

⚠ **Warning** H302-H319

Art. No.	Pack Qty.	€
ECK9.1	1	25,00

Accessories:

Aluminium case (L 310 x W 120 x H 240 mm)	ECK6.1	1	90,00
Replacement thermometer	ECK7.1	1	65,00
Replacement calibration block for ORT 1RS	ECK8.1	1	40,00



Laboratory refractometer, model RMI

Abbe refractometer for determining the refractive index and the Brix value (refractive index) of liquid, solid, semi-solid and powdery substances.

- Large prisms (6 cm²)
- Connectivity to a thermostat
- Optical reading system for determining the coefficient of refraction and Brix value, with built-in high-luminosity scale lighting system (6 V, 5 W lamp)
- Eyepiece with focusing
- Manual temperature compensation up to 100 °C

Technical specifications:

Scale	Brix	Refractive index
Measurement range	0-95 %	1.300-1.700 nD
Accuracy	±0.2 %	±0.001 nD
Graduations	0.25 %	0.001 nD
Dimensions (W x D x H)	125 x 260 x 300 mm	
Weight	approx. 4.2 mm	

Delivery incl. calibration prism, brom-naphthalene (approx. 5 ml) for calibration, check thermometer, plastic cover and power adapter.

Art. No.	Pack Qty.	€
X062.1	1	1665,20



Dry batteries High Energy

By Varta. System: Alkali-manganese.

Type	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
① Lady/LR 1	1,5	800	CH38.1	1	3,80
② Micro/AAA	1,5	1200	1021.2	4	6,35
③ Mignon/AA	1,5	2600	1022.2	4	5,95
④ Baby/C	1,5	7800	1023.2	2	4,85
⑤ Mono/D	1,5	16500	1024.2	2	6,35
⑥ E-Block	9,0	550	1025.1	1	4,85

Round cell batteries

By Varta.

Model	System	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
CR 1220	lithium	3,0	35	CH41.1	1	5,35
CR 1225	lithium	3,0	48	AEC3.1	1	5,35
CR 1616	lithium	3,0	55	KE59.1	1	5,35
CR 1620	lithium	3,0	60	CH42.1	1	5,35
CR 2016	lithium	3,0	90	CH43.1	1	5,35
CR 2025	lithium	3,0	170	CH14.1	1	5,35
CR 2032	lithium	3,0	230	P858.1	1	5,35
CR 2430	lithium	3,0	280	EY56.1	1	5,35
V 10 GA	alkali-manganese	1,5	50	CH39.1	1	5,35
V 13 GA	alkali-manganese	1,5	125	1938.1	1	4,25
V 301	silver	1,55	115	CH40.1	1	5,35
V 392	silver	1,55	38	X563.1	1	5,35
V 675 AT	zinc-air	1,4	630	9800.2	6	8,55



Rechargeable Power Accu

By Varta. Environment-friendly Ni-MH storage batteries. No memory effect. Constant, always recurrent capacity standard.

Type	Voltage (V)	Capacity (mAh)	Art. No.	Pack Qty.	€
① Micro/AAA	1,2	800	T409.2	4	16,10
② Mignon/AA	1,2	2100	1301.2	4	15,95
③ Mignon/AA	1,2	2400	HT32.1	4	22,05
④ Baby/C	1,2	3000	1302.2	2	18,25
⑤ Mono/D	1,2	3000	X228.2	2	18,25
⑥ E-Block	8,4	200	1304.1	1	15,00



Battery charger, 15-minutes Ultra Fast Charger

By Varta. Suitable for 1 to 4 Ni-MH-batteries, size Mignon/AA and Micro/AAA.

- LED indicates charge state
- Charging time 10 to 20 min
- Automatic charging control prevents overcharging, the device switches over to trickle charging
- External power unit
- Dimensions: W 180 x D 110 x H 265 mm
- Mains voltage 110 to 240 V

Delivery incl. 4 batteries, Mignon/AA 2500 mAh, power unit and 12 V-adapter

Art. No.	Pack Qty.	€
CA77.1	1	73,65



Measuring Instruments

Airflow measuring devices	816
Air quality measuring devices	781
Balances, analytical and precision balances	823
Barometers	778
Carbon dioxide measuring devices	781
Combined measuring instruments (pH, conductivity, etc.)	812
Conductivity tester, measuring devices, test solutions	805
Counters	822
Data loggers (humidity, temperature)	766
Densimeters	782
Infrared thermometers	769
Luxmeters	817
Measuring devices (radiation measurement, sound level meter, tachometer)	818
Monitoring (Aquastop® II)	821
Oxygen measuring devices	811
Outlets (multiple socket outlets, socket strips)	846
pH-electrodes, pH-testers, pH-meters	793
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Temperature measurements	744
Test weights / calibration weights	844
Test papers, test kits, photometers	783
Thermohygrometers	772
Thermometers, analogue	745
Thermometers, digital	752
Turbidimeters	788
Watches (time switches, timers, stopwatches, wall clocks)	849
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Temperature measurement

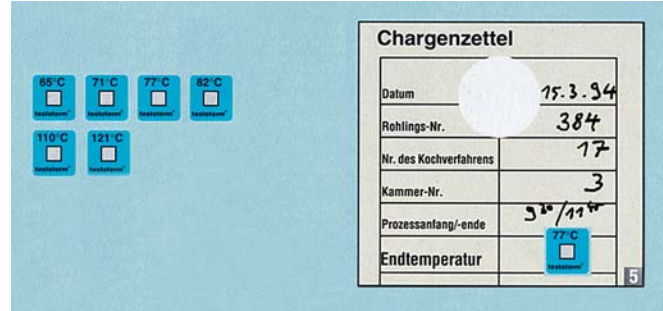


Colour-change crayons - irreversible

Ideal for monitoring temperature of equipment and machines via colour change. The colour clings to paper, rubber, textiles, plastic, glass, iron, and steel. Can also be used in aluminium processing or in enamel and welding operations. Exact measuring result with a tolerance of $\pm 5^\circ\text{C}$ per temperature value.

Colour change after reaching the temperature within 1-2 seconds.

Temperature value ($^\circ\text{C}$)	Art. No.	Pack Qty.	€
120	9307.1	1	17,15
245	9312.1	1	17,15
600	9547.1	1	17,15



Temperature measuring dots - irreversible

Self-adhesive, temperature stable foils with heat sensitive elements for temperature monitoring and control. Once temperature has been reached, there is an irreversible change of colour within one second from the pale grey or yellow dot to black.

Dimensions of each check point: L 15 x W 14 mm.

Accuracy: $\pm 1\%$. 1 booklet with 50 check points.

Measuring point ($^\circ\text{C}$)	Art. No.	Pack Qty.	€
65	N276.1	1	22,60
71	N277.1	1	22,60
77	N278.1	1	22,60
82	N279.1	1	22,60
110	N284.1	1	22,60
121	N286.1	1	22,60



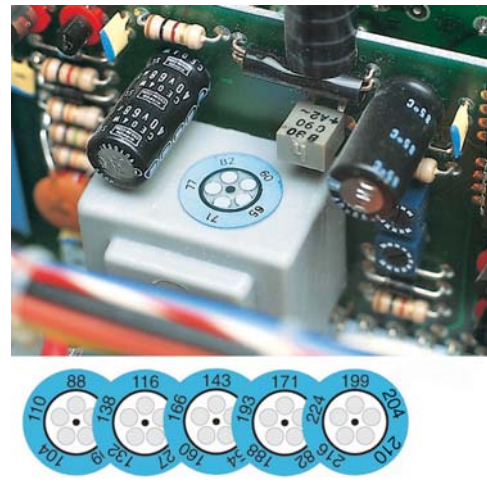
Temperature measuring strips - irreversible

Self-adhesive. They indicate current temperatures on surfaces. The light indicator dots on the self-adhesive strips darken after reaching temperature value next to dot.

Dimensions per check strip: L 48 x 18 mm. Measuring accuracy: $\pm 1\%$.

Delivered in bags with 10 strips.

Measurement range ($^\circ\text{C}$)	Art. No.	Pack Qty. (Bag)	€
40-43-46-49-54-60-66-71	1890.1	1	18,20
77-82-88-93-99-104-110-116	2077.1	1	18,20
121-127-132-138-143-149-154-160	2079.1	1	18,20
166-171-177-182-188-193-199-204	5231.1	1	18,85
210-216-224-232-241-249-254-260	5232.1	1	18,85



Mini-temperature indicators – irreversible

Self-adhesive, temperature stable foils with heat sensitive elements for monitoring and controlling temperature. Particularly suitable for temperature control of small objects. The colour changes irreversibly within 2 seconds as soon as the respective temperature has been reached.

Accuracy from 88°C to 154°C : $\pm 1.5^\circ\text{C}$; over 160°C : $\pm 1^\circ\text{C}$ and $\pm 1\%$ of respective temperature value. 1 booklet with 10 indicators (\varnothing 15 mm each measuring point).

Measurement range ($^\circ\text{C}$)	Art. No.	Pack Qty.	€
88-93-99-104-110	AY04.1	1	30,10
116-121-127-132-138	AY05.1	1	30,10
143-149-154-160-166	AY06.1	1	30,10
171-177-182-188-193	AY07.1	1	30,10
199-204-210-216-224	AY08.1	1	30,10

Thermometer, analogue



Thermometer

Range -10 to +60 °C. Graduation 1 °C. Ø 56 mm, depth 15 mm. With self-adhesive area on backside.

Art. No.	Pack Qty.	€
0952.1	1	5,70



Thermometer for autoclaves

For monitoring the temperature during autoclaving. Max. temperature is indicated by the moving red marker. Manual resetting by turn screw. Bimetallic thermometer with housing and removable base made of stainless steel, dust cap made of silicone rubber. Watertight glass window, pressure resistant. Autoclavable.

Technical specifications:

Measurement range	-20 to +150 °C
Graduations	2 °C
Accuracy	±1.5 °C
Dimensions	Ø 81 x D 85 x H 95 mm

Art. No.	Pack Qty.	€
CXP0.1	1	52,15



Deep-freeze thermometer

With bimetallic indicator. Range -50 to +50 °C. Graduated by 1 °C. Measuring accuracy ±2 °C. Ø 70 mm. With loop for hanging.

Art. No.	Pack Qty.	€
H717.1	1	5,60



Plastic thermometer

With a **special blue filling**. Measuring range -50 to +50 °C. Graduation 1 °C. Measuring accuracy ±2 °C. Length 200 mm, Ø 20 mm.

Art. No.	Pack Qty.	€
H718.1	1	5,25



Soil thermometer

With pointed probe. Ideal for determining the temperature of deeper layers. Measuring range -20 to +60 °C. Graduation 1 °C. Accuracy ±2 °C. Probe: Length 200 mm, Ø 3 mm. Head: Ø 40 mm.

Art. No.	Pack Qty.	€
E755.1	1	14,85



Universal thermometers

Tube contains a **special red filling**, coated white. Comes in a yellow plastic case with clip. 1 °C graduation. Accuracy ±2 °C. Size: Length 165 mm, Ø 10 mm.

Measurement range (°C)	Art. No.	Pack Qty.	€
-30 to +50	Y931.1	1	6,40
-10 to +100	Y932.1	1	6,40

Thermometer, analogue



General-purpose stirring thermometers

With reinforced base for stirring in beakers etc.
Yellow back, mercury filled capillary (accuracy 1-2 °C) or red capillary on white back glass (thermometer fluid and colour are biodegradable, accuracy ±3-4 °C). 1 °C graduations, rod-Ø 7-8 mm.

With Hg-filling

Measurement range (°C)	Length (mm)	Art. No.	Pack Qty.	€
-35 to +50	260	PE76.1	1	11,30
-10 to +60	200	PE77.1	1	9,50
-10 to +110	260	PE78.1	1	10,25
-20 to +110	260	PE79.1	1	10,55
-10 to +150	260	PE80.1	1	11,20
-10 to +200	300	PE81.1	1	12,40

With special filling, red

Measurement range (°C)	Length (mm)	Art. No.	Pack Qty.	€
-35 to +50	260	PE82.1	1	11,40
-10 to +60	200	PE83.1	1	9,80
-10 to +110	260	PE84.1	1	9,80
-20 to +110	260	PE85.1	1	11,00
-10 to +150	260	PE86.1	1	11,75
-10 to +200	300	PE87.1	1	15,50



Standard glass thermometers

Rod-shaped for daily laboratory operations. Ø 5.5 to 7.0 mm.
Accuracy ±3 to 200 °C. Graduated by 1 °C.

Hg-filling, with permanent stain

Measurement range (°C)	Length (mm)	Art. No.	Pack Qty.	€
-10 to +300	340	E737.1	1	15,40
-10 to +360	340	E738.1	1	16,70
-10 to +420	340	E739.1	1	19,15

Special filling of mineral basis, red (E745.1 - blue)

Measurement range (°C)	Length (mm)	Art. No.	Pack Qty.	€
-35 to +50	300	E740.1	1	11,10
-10 to +60	200	E741.1	1	11,10
-20 to +110	300	E742.1	1	11,10
-20 to +150	300	E743.1	1	11,10
-10 to +200	300	E744.1	1	11,10
-10 to +250	300	E745.1	1	25,60



Glass thermometers with temperature limiter

With red or blue special filling and safety casing (PTFE/FEP).
For monitoring cooling units and temperature control units. Supplied in plastic bottle containing filling medium for precise temperature determination. Can be mounted using magnets (exception: YE26.1).

Bottle filling medium: sand

Measurement range (°C)	Graduations (°C)	Accuracy (°C)	Length (mm)	Art. No.	Pack Qty.	€
-90 to +20	1,0	±2.0	180	YE17.1	1	66,45

Bottle filling medium: ethylene glycol mixture

Measurement range (°C)	Graduations (°C)	Accuracy (°C)	Length (mm)	Art. No.	Pack Qty.	€
-25 to -5	0,1	±0.2	235	YE18.1	1	81,30
-30 to 0	0,5	±1.0	130	YE19.1	1	54,20
-2 to +10	0,1	±0.2	230	YE20.1	1	68,80
-5 to +15	0,5	±1.0	130	YE21.1	1	50,35
+15 to +30	0,1	±0.2	180	YE22.1	1	73,00
+18 to +50	0,5	±1.0	130	YE23.1	1	52,15
+25 to +45	0,1	±0.2	190	YE24.1	1	77,40

Bottle filling medium: Vermiculite

Measurement range (°C)	Graduations (°C)	Accuracy (°C)	Length (mm)	Art. No.	Pack Qty.	€
+20 to +130	1,0	±2.0	135	YE25.1	1	56,45
+35 to +200	1,0	±2.0 (>100 °C ±3.0)	180	YE26.1	1	153,75
+50 to +115	0,5	±1.0	240	YE27.1	1	92,25

Information on filling liquids for glass thermometers

A distinction is made between wetting (organic) and non-wetting (metallic) filling liquids.

Wetting filling liquids are often referred to as red, blue, green or special fillings. Wetting means that the filling precipitates on the glass surface of the capillary tube, resulting in less precise measurement results. In addition, its expansion is linear over a smaller temperature range, which can also result in a higher deviation. The key advantage is its excellent environmental compatibility.

Mercury is an example of a **non-wetting filling liquid**.

The filling does not precipitate on the glass capillary tube and its expansion is linear over a wide temperature range. Thermometers with this type of filling are particularly well suited to taking precise measurements. However, mercury is a highly toxic heavy metal.

To reduce the amount of mercury in the environment, a regulation was adopted with the aim of banning the distribution of measurement instruments containing mercury. Under the transitional provisions (effective until 10 October 2017), however, they may be procured for commercial and industrial purposes if tests are conducted on the basis of standards mandating the use of mercury thermometers (Annex XVII Paragraph 6b of Regulation (EC) No. 1907/2006).

Thermometer, analogue



Precision thermometers with special filling

Red filling. Calibrated fully immersed.

Rod type

Yellow backed capillary, round. $\varnothing 6 \pm 1$ mm.

*suitable for certification

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
-10 to +100*	1	305	ALH6.1	1	18,50
-10 to +150*	1	305	ALH7.1	1	20,55
-10 to +200*	1	350	ALH8.1	1	28,10
-10 to +50*	0,5	220	ALH9.1	1	20,90
-10 to +100*	0,5	270	ALK0.1	1	22,80
-10 to +150	0,5	350	ALK1.1	1	30,55
-5 to +50	0,2	350	ALK2.1	1	24,75
-5 to +100	0,2	420	ALK3.1	1	30,45
-1 to +200	0,2	610	ALK4.1	1	71,70
-10 to +30	0,1	300	ALK5.1	1	41,60
-10 to +50	0,1	420	ALK6.1	1	36,45
-1 to +101	0,1	610	ALK7.1	1	67,55

Enclosed type, with factory test certificate

Colourless capillary, prismatic. $\varnothing 9 \pm 1$ mm.

*suitable for certification

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
-10 to +100*	1	305	ALK8.1	1	104,50
-10 to +150*	1	305	ALK9.1	1	107,40
-10 to +200*	1	350	ALL0.1	1	112,90
-10 to +50*	0,5	220	ALL1.1	1	105,35
-10 to +100*	0,5	270	ALL2.1	1	112,90
-10 to +150	0,5	350	ALL3.1	1	117,20
-10 to +200	0,5	450	ALL4.1	1	123,65
-5 to +50	0,2	350	ALL5.1	1	110,75
-5 to +100	0,2	420	ALL6.1	1	123,65
-10 to +30	0,1	300	ALL7.1	1	126,85
-10 to +50	0,1	420	ALL8.1	1	127,95
0 to +100	0,1	550	ALL9.1	1	159,10

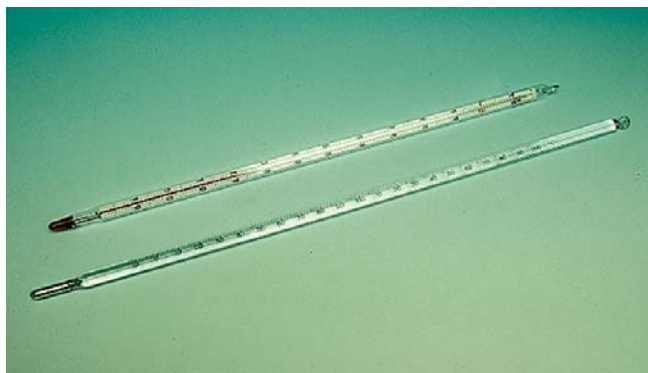
- Please note our digital thermometers overview on page 752
- Thermometer adapters see page 132
- Material for stands see page 195



Environmental-friendly glass thermometers

Rod-shaped. With a **special green filling**. Thermometer fluid and colour are biodegradable. Coated white. $\varnothing 5.5$ to 7.0 mm. Accuracy ± 3 °C. With band around top.

Measurement range (°C)	Graduations (°C)	Length (mm)	Immersion depth (mm)	Art. No.	Pack Qty.	€
-10 to +110	1	300	76	ET02.1	1	12,40
-10 to +110	0.5	300	76	ET03.1	1	13,45
-10 to +150	1	300	76	ET04.1	1	13,25
-10 to +250	2	300	76	ET05.1	1	19,05
-10 to +360	2	300	76	ET06.1	1	21,45



Precision lab thermometers

Calibratable. Acc. to DIN 12775. Enclosed-scale thermometer $\varnothing 9$ mm. Capillary and filling uncoated, prismatic. **Hg filling.**

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
0 to +50	0,5	220	P188.1	1	22,05
0 to +50	0,1	420	P189.1	1	34,30
0 to +100	0,5	270	P190.1	1	26,15
0 to +100	0,2	420	P191.1	1	35,40
0 to +200	0,5	400	P192.1	1	34,20

Lab thermometers with PTFE protective layer

Calibratable. Acc. to DIN 12775. PTFE layer protects against broken glass and mercury should thermometer get broken. Enclosed-scale thermometer. $\varnothing 9$ mm. Capillary and filling, uncoated, prismatic. **Hg filling.**

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
0 to +50	0,5	220	P193.1	1	51,50
0 to +50	0,1	420	P194.1	1	82,15
0 to +100	0,5	270	P195.1	1	52,35
0 to +100	0,2	420	P196.1	1	78,45
0 to +200	0,5	400	P197.1	1	69,80

Thermometer, analogue



Precision thermometers with blue filling

Very high accuracy, contains no mercury. Rod type.
Capillary form: white back, round.

Without calibration certificate

*according to ASTM

Measurement range (°C)	Graduations/accuracy (°C)	Immersion depth	Length (mm)	Art. No.	Pack Qty.	€
-38 to +2*	0,1 / ±0,1	total	401	ANK4.1	1	108,60
-20 to +102*	0,2 / ±0,2	total	435	ANK5.1	1	112,90
-20 to +150	1,0 / ±0,5	76 mm	335	ANK6.1	1	62,90
-7 to +105*	0,5 / ±0,5	total	300	ANK7.1	1	61,85
+20 to +100	0,2 / ±0,2	total	325	ANK8.1	1	85,95
+30 to +200	0,5 / ±0,3	total	415	ANK9.1	1	91,40

With DAKKS calibration certificate

*according to ASTM

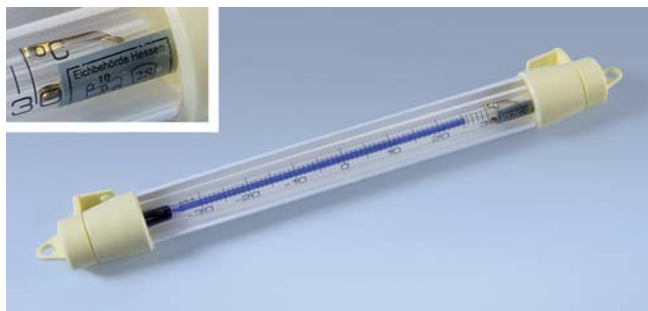
Measurement range (°C)	Graduations/accuracy (°C)	Immersion depth	Length (mm)	Art. No.	Pack Qty.	€
-20 to +102*	0,2 / ±0,2	total	435	ANL0.1	1	295,65
-20 to +150	1,0 / ±0,5	76 mm	335	ANL1.1	1	235,45
+30 to +200	0,5 / ±0,3	total	415	ANL2.1	1	267,70



Precision thermometer, DAKKS-calibrated

Special red filling. Enclosed type. Capillary form: colourless, prismatic.
Ø 9 ± 1 mm. Calibrated for total immersion.

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
-10 to +50	0,5	220	CKX7.1	1	180,60
-10 to +100	0,5	270	CKX8.1	1	235,45
-10 to +100	1	305	CKX9.1	1	180,60
-10 to +150	1	305	CKY0.1	1	180,60
-10 to +200	1	350	CKY1.1	1	180,60



Calibrated glass thermometer

With calibration stamp, 10 years validity. Acc. to DIN 12770. Special blue filling. Comes in oval, plastic housing. Range -30 to +30 °C. Graduation 1 °C. With permanent, burnt-in print. Display column optically magnified. Excess temperature-safe (can be extended to +60 °C). Length 220 mm, Ø 20 mm.

Art. No.	Pack Qty.	€
H719.1	1	81,60



Lab thermometers, calibrated with certificate

Prismatic capillary tube, uncoated. Ø 8.0 to 9.0 mm.
Enclosed-scale thermometer.

Hg-filling. Acc. to DIN 12775 or DIN 12778.

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
0 to +50	0,5	220	K786.1	1	138,70
0 to +50	0,1	420	K787.1	1	192,45
0 to +100	0,5	270	K788.1	1	149,45
0 to +100	0,2	420	K789.1	1	198,90
0 to +200	0,5	400	K780.1	1	241,90
0 to +250	1	350	K782.1	1	170,95
0 to +250	0,5	420	K783.1	1	299,95
0 to +360	1	380	K784.1	1	177,40

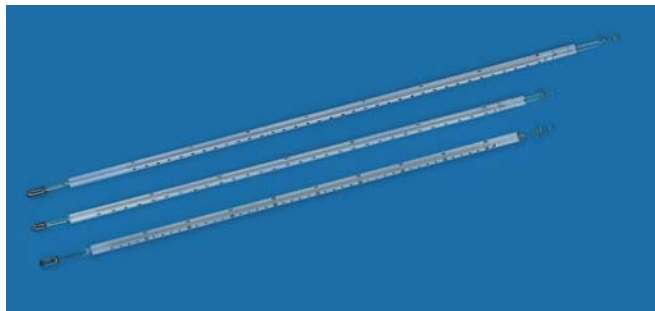
With Hg-filling

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
-10 to +50	0,1	400	KT44.1	1	403,15
-20 to +50	0,1	450	KT45.1	1	428,95
-10 to +100	0,5	300	KT46.1	1	278,45
-10 to +200	0,5	380	KT47.1	1	353,70
-10 to +200	1	300	K781.1	1	213,95
-10 to +250	1	320	KT48.1	1	349,40
-10 to +300	1	320	KT49.1	1	370,90
-10 to +410	1	380	KT50.1	1	385,95

With special filling, red. Of mineral basis (eco-friendly).

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
-10 to +50	0,5	220	KT51.1	1	256,95
-10 to +100	0,5	270	KT52.1	1	263,40
-10 to +100	1	305	KT53.1	1	256,95
-10 to +150	1	305	KT54.1	1	306,40
-10 to +200	1	350	KT55.1	1	306,40

Thermometer, analogue



Precision low-temperature laboratory thermometers

Calibratable. Enclosed type. Ø 8 to 9.5 mm. Capillary and filling uncoated. **Hg filling.**

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
-20 to +50	0,1	450	TA57.1	1	60,55
-30 to +30	0,1	420	TA58.1	1	80,65
-38 to +20	0,1	400	TA59.1	1	80,65
-25 to +100	0,2	450	TA60.1	1	60,55
-38 to +50	0,2	400	TA61.1	1	60,55



Precision low-temperature thermometers

Calibratable. Enclosed-scale thermometer. Graduated by 1 °C. **Capillary: luminous blue, prismatic, pentane filling.**

Measurement range (°C)	Length (mm)	Art. No.	Pack Qty.	€
-200 to +30	350	X575.1	1	93,55
-150 to +30	300	X576.1	1	50,75

Capillary: uncoated, prismatic. Alcohol filling.

Measurement range (°C)	Length (mm)	Art. No.	Pack Qty.	€
-100 to +100	300	X577.1	1	50,00
-100 to +30	300	X578.1	1	36,55

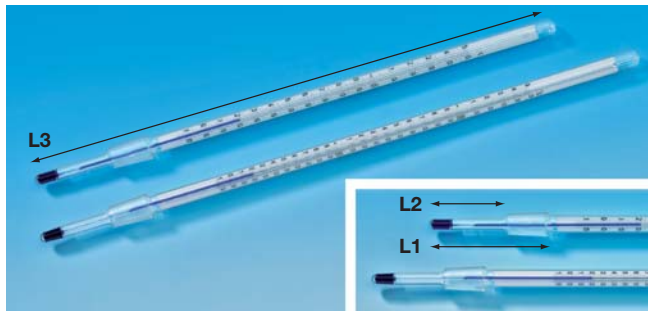
Calibrated, with certification. Enclosed form. Graduated by 1 °C.

Capillary: luminous blue, prismatic, pentane filling.

Measurement range (°C)	Length (mm)	Art. No.	Pack Qty.	€
-200 to +30	350	KH57.1	1	590,20
-150 to +30	300	KH58.1	1	353,70

Capillary: uncoated, prismatic. Alcohol filling.

Measurement range (°C)	Length (mm)	Art. No.	Pack Qty.	€
-100 to +100	300	KH59.1	1	353,70
-100 to +30	300	KH60.1	1	310,70



Precision ground joint thermometers with special filling

Compliant with DIN 12784. With NS 14.5/23 ground joint. Enclosed type. **Blue filling.** Capillary form: colourless, prismatic. Graduations 1 °C. Upper Ø 11 ±0.5 mm.

*suitable for certification

Measurement range (°C)	Length L1 (mm)	Immersion depth L2 (mm)	Overall length L3 (mm)	Art. No.	Pack Qty.	€
-10 to +150*	68	45	318	ALN0.1	1	39,25
-10 to +150*	75	52	325	ALN1.1	1	39,45
-10 to +150*	95	72	345	ALN2.1	1	39,90
-10 to +150*	125	102	375	ALN3.1	1	43,25
-10 to +250	68	45	368	ALN4.1	1	47,10
-10 to +250	75	52	375	ALN5.1	1	46,05
-10 to +250	95	72	395	ALN6.1	1	48,30
-10 to +250	125	102	425	ALN7.1	1	51,20



Flask- and distillation thermometers

Calibratable. Acc. to DIN 12784. With standard ground joint NS 14.5/23. Capillary uncoated, prismatic. Graduated by 1 °C. **Hg filling.** Upper part Ø approx. 11 mm, lower part Ø approx. 7.5 mm.

Measurement range (°C)	Length (mm)	Immersion depth (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
-10 to +150	68	45	318	Y498.1	1	34,95
-10 to +150	75	52	325	Y499.1	1	37,85
-10 to +250	68	45	368	Y500.1	1	40,65
-10 to +250	75	52	375	Y501.1	1	42,25
-10 to +360	68	45	418	Y502.1	1	47,65
-10 to +360	75	52	425	Y503.1	1	49,15

► Clear lubricant see page 1096

Thermometer, analogue



Straight stem thermometers with special filling

Calibratable. Similar to DIN 16178. With flat scale. **Red filling.** Capillary form: colourless, prismatic. Upper $\varnothing 20.5 \pm 1$ mm, lower $\varnothing 8 \pm 0.5$ mm.

Measurement range/graduations (°C)	Length L1 (mm)	Immersion depth L2 (mm)	Overall length L3 (mm)	Art. No.	Pack Qty.	€
-30 to +50 / 1	105	89	340	ALT0.1	1	39,35
0 to +160 / 2	165	149	400	ALT1.1	1	36,35
0 to +160 / 2	255	239	490	ALT2.1	1	40,35
0 to +200 / 2	105	89	340	ALT3.1	1	37,85



Precision stick thermometers

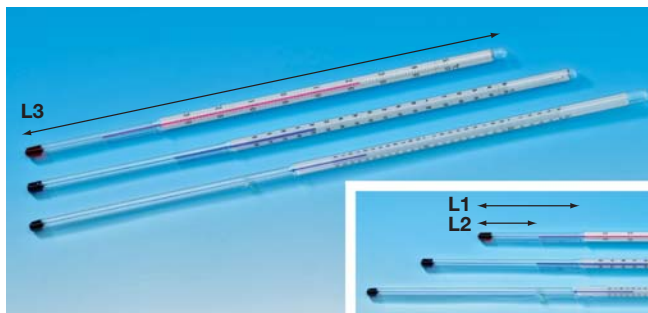
Calibratable. Acc. to DIN 16178. Hg filling. Stick \varnothing approx. 8 to 9 mm, upper part \varnothing approx. 20 mm.

Capillary: luminous blue. Prismatic. Graduation 1 °C.

Measurement range (°C)	Overall length (mm)	Length lower part (mm)	Immersion depth (mm)	Art. No.	Pack Qty.	€
-30 to +50	340	105	89	X583.1	1	38,95

Capillary: yellow coated. Prismatic. Graduation 2 °C.

Measurement range (°C)	Overall length (mm)	Length lower part (mm)	Immersion depth (mm)	Art. No.	Pack Qty.	€
0 to +160	400	165	149	X584.1	1	39,80
0 to +160	490	255	239	X585.1	1	41,75
0 to +200	340	105	89	X586.1	1	39,35
0 to +300	400	165	149	X587.1	1	43,90
0 to +300	640	405	389	X588.1	1	56,25



Precision straight stem thermometers with special filling

Compliant with DIN 12781. Enclosed type. Blue filling (except for ALP0.1, which has a red filling). Capillary form: colourless, prismatic. Graduations 1 °C. Upper $\varnothing 11 \pm 0.5$ mm, lower $\varnothing 8 \pm 0.5$ mm.

*suitable for certification

Measurement range (°C)	Length L1 (mm)	Immersion depth L2 (mm)	Overall length L3 (mm)	Art. No.	Pack Qty.	€
-30 to +50*	100	80	375	ALP0.1	1	36,15
-20 to +150*	150	130	425	ALP1.1	1	42,80
-20 to +150*	250	230	525	ALP2.1	1	47,20
-20 to +150*	300	280	575	ALP3.1	1	51,75
-20 to +150*	400	380	675	ALP4.1	1	54,85
-20 to +250	100	80	375	ALP5.1	1	51,60
-20 to +250	150	130	425	ALP6.1	1	54,65
-20 to +250	200	180	475	ALP7.1	1	54,75
-20 to +250	300	280	575	ALP8.1	1	62,60
-20 to +250	400	380	675	ALP9.1	1	65,80

General information on calibration and calibrating meters

Calibrated meters:

Calibration of a meter is performed by the competent calibrating body. Each unit must fulfill certain criteria prior to receiving a certificate (e.g. automatic check when switched on, suitable connection for standard probes, etc.).

A calibrated meter is not automatically a highly accurate unit, it must simply keep within the given tolerances.

Each calibrated unit receives a seal and certificate of testing. Tests should be repeated at regular intervals.

Meters with DAKKS Certificates of Calibration:

A DAKKS Certificate of Calibration is issued by a accredited testing agency (must be approved and is monitored by Deutsche Akkreditierungsstelle [German Accreditation Agency]). Meter meets national standard requirements and can be used in accordance with ISO 9000 Quality Assurance Standards.

Very low preset tolerance (lower than required for works certificate).

The user of DAKKS certified meters can therefore issue internal works certificates.

This is particularly of advantage in the Quality Assurance Department of larger firms where measuring instruments used in the Production Department must be tested and calibrated at specific intervals.

Individual test points should be customized depending upon temperature ranges under measurement.

Meters with a Works Certificate of Calibration:

A works certificate of calibration is issued after carrying out a comparison measurement with a DAKKS calibrated meter.

Unit meets national standard requirements and can be used in accordance with ISO 9000 Quality Assurance Standards.

Tolerance of measurement with works certificates is slightly higher than of a DAKKS certified unit. Individual test points should be customized depending upon temperature ranges under measurement.

Thermometer, analogue



Maximum thermometers with steel marker

Enclosed-scale thermometer. Graduated by 1 °C. Capillary uncoated, prismatic. **Hg filling.** T607.1 to T610.1 are calibrated fully immersed, T611.1 and T612.1 have an immersion depth of 80 mm. Maximum indicator consists of steel marker. The steel marker in the capillary is pushed upwards through the mercury column when temperature rises and remains at the temperature limit. Is returned with a magnet. Comes in square case with magnet.

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
-10 to +50	1	200	T607.1	1	40,35
-10 to +100	1	260	T608.1	1	40,85
-10 to +150	1	260	T609.1	1	42,70
-10 to +250	1	300	T610.1	1	56,45
-10 to +300	1	340	T611.1	1	58,30
-10 to +360	1	360	T612.1	1	60,75



Maximum thermometers to shake

Calibratable. Enclosed-scale thermometer. Capillary and filling uncoated. Prismatic. Hg filling.

Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
-35 to +50	1	260	P203.1	1	40,35
-10 to +100	1	260	P204.1	1	29,15
-10 to +150	1	260	P205.1	1	31,85
-10 to +200	1	300	P206.1	1	34,85



Maximum-Minimum thermometer sets

For monitoring maximum and minimum temperatures in refrigerators, freezers etc. Enclosed. Uncoated capillary. Dimensions: L 260 mm, Ø ca. 7-9 mm.

Set consists of 2 instruments:

- 1 maximum thermometer for centrifuging. Measuring range: -35 to +60 °C. Graduated by 1 °C. **Hg filling.**
- 1 minimum thermometer with trailing mark for horizontal use. Measuring range -40 to +50 °C. Graduated by 1 °C. **Alcohol filling.**

Type	Art. No.	Pack Qty.	€
Thermometer set, calibratable	EH48.1	1	90,85
Thermometer set, calibrated , with official certificate	EH49.1	1	471,95



Environmentally friendly maximum/minimum thermometer

With mercury-free thermometer liquid (**special red filling**). Measuring range: -30 to +50 °C. Graduated by 1 °C marks. Metal markers indicate max/min temperatures. Reset via push-button. With suspension eye.

Image	Material housing	Abmessungen B x H (mm)	Art. No.	Pack Qty.	€
①	Plastic	79 x 230	KA34.1	1	9,45
②	Aluminium	50 x 220	CK40.1	1	15,00



Bimetallic strip maximum-minimum thermometer

Measurement range: -50 to +50 °C. Graduated by 1 °C. Plastic housing. Adjustable red markers indicate the Max/Min temperatures. Reset by turning the dial. Dimensions: W 95 x D 35 x H 135 mm. With hanger eyelet.

Art. No.	Pack Qty.	€
LX81.1	1	13,45

Thermometer, digital

Overview - Digital Thermometers

Measurement range (°C)	Accuracy (°C)	Features	Art. No.	Page
+32 to +44	±1 to ±2	Fever thermometer for the measurement of body temperature in humans and animals	PY79.1	757
-10 to +50	±1	Solar thermometer, Min/Max-storage	KT83.1	754
-10 to +200	±1	Thermometers with timer function	X256.1	758
-20 to +55	±0.4	°C and rF data logger; memory with capacity for 1 mill. measured values; data readout via PC or SD card	PH32.1	767
-20 to +50	±1	Refrigerator thermometer	TA56.1	756
-20 to +50	±1	Min/Max-temperature values; Suitable for inside and outside; Splashproof	CK39.1	755
-20 to +70	±0.5	°C- and rF data logger with display for 16000 measured values	NA07.1	766
-30 to +70	±1	Digital fridge/freezer thermometer with stand	PE75.1	756
-30 to +50	±0.5	Wireless data logger with integrated NTC temperature sensor	ECK0.1	769
-30 to +60	±1	°C and rF data logger with wireless sensor; connectivity for 8 transmitters	PL21.1	768
-30 to +70	±0.5	°C data logger with display for 16000 measured values	NA06.1	766
-30 to +220	±0.5 / 1 %	Folding thermometer for core temperature and random measurement	PE63.1	759
-30 to +220	±1.5 to ±2 or 2 %	Non-contact thermometer with hold and lock function	Y400.1	770
-33 to +500	±2 or ±2 %	Infrared thermometer with thermocouple inlet and pistol handle	CH99.1	771
-35 to +55	±0.5	°C data logger; memory with capacity for 1 mill. measured values; data readout via PC or SD card	PH31.1	767
-35 to +70	±0.5	°C data logger with display for 40 000 measured values	CXC4.1	767
-35 to +365	±2 to ±2 %	Infrared thermometer with measuring spot marking and pistol grip	LY46.1	770
-35 to +950	±0.75 to ±0.75 %	Infrared thermometer with thermocouple input, laser cross and memory	HH65.1	771
-30 to +70	±1	Wireless transmission of measured values	HY40.1	753
-40 to +65	±1	Wireless transmission of outer temperature, min/max memory	LP27.1	753
-40 to +60	±1	Wireless transmission of measured values; Min/Max storage with time data	HL18.1	753
-40 to +70	±0.5 to ±1	For monitoring refrigerators	KA32.1	756
-40 to +70	±1	Solar-operated indoor/outdoor thermometer, Min/Max-storage	KT84.1	754
-40 to +70	±0.5 to ±1	°C data logger with integrated USB port for 60000 measured values	CCE2.1	766
-40 to +70	±1 to ±2	Inner-/outer thermometer Rotilabo®	YE41.1	754
-40 to +200	±0.5 to ±1	Min/Max-storage, display lighting	N359.1	764
-40 to +200	±1 to ±1.5	Penetration thermometer with HOLD-, Min- and Max-function	T332.1	757
-40 to +200	±0.5 to ±1.5	With Min/Max storage and limit value alarm; IP 65	KA33.1	756
-40 to +200	±0.8 to ±1	Insertion thermometer with revolving display, Min/Max-display	AK16.1	758
-40 to +250	±0.5	Folding thermometer for core temperature and random measurement	TA94.1	759
-40 to +250	±0.5 to ±1 or 1 %	Penetration thermometer with min/max function, water and dustproof acc. to IP 67	LN45.1	757
-40 to +550	±2	Suitable for use with different K-Type-probes	S855.1	759
-50 to +60	±1	Inner-/outer thermometer Min/Max-storage	AN34.1	754
-50 to +70	±0.3 to ±0.5	For monitoring refrigerators	Y238.1	757
-50 to +70	±1 to ±2	Inner-/outer thermometer with limit value alarm, Min/Max-display	HA34.1	755
-50 to +70	±1	Inner-/outer thermometer, Min/Max-storage	CH86.1	755
-50 to +70	±1.5	Thermometer with timer-function and temperature trend	Y845.1	753
-50 to +70	±1	Indoor-/outdoor thermometer, officially calibrated with certificate	EH47.1	755
-50 to +125	±0.5 to ±1	°C data logger with display for 60 000 measured values. Connection of external sensor	NA22.1	768
-50 to +150	±0.3 to ±0.5	Test function, high measuring accuracy	G001.1	760
-50 to +150	±0.2 or ±0.4	Precision-NTC-thermometer with acoustic limit value alarm	EL54.1	761
-50 to +150	±0.3 to ±0.5	Test function, high measuring accuracy	G002.1	760
-50 to +220	±0.3 or ±0.4 %	Pocket thermometer with self-diagnosis function	T235.1	758
-50 to +200	±1	Penetration probe thermometer	A321.1	758
-50 to +250	±0.5 to ±1/1 %	Folding thermometer for core temperature and random measurement with Min/Max-function	PE64.1	759
-50 to +250	±0.5 to ±2.5	Penetration probe and infrared thermometer for core and surface temperature measurement	XK00.1	770
-50 to +300	±0.2 to ±0.3	Calibrated, PTB-approved for official check measurements	EH93.1	763
-50 to +300	±1.5 to ±2	Non-contact temperature quicktester with laser spot marker	P855.1	769
-50 to +1000	±0.5 to ±0.7 / ±0.3 % to ±0.5 %	An extensive range of accessories is available; Min/Max-function; with lighting	EH73.1	762
-50 to +1350	±0.2 %	Suitable for use with different K-Type-probes, Min/Max-display	HA65.1	761
-60 to +1000	±2 or ±2 %	Infrared thermometer with thermocouple input and double laser	KA38.1	771
-64 to +1370	±1 or ±1 %	For simple temperature measurements, various K-type sensors can be connected	KL30.1	760
-80 to +70	±0.5 to ±0.8	°C data logger for 40 000 measured values, specially designed for low temperatures	CXC5.1	767
-99.9 to +850	±0.3 to ±1.5	Pt 100-thermometer with Min/Max-function, RS 232-interface	AY90.1	764
-99.9 to +1370	±0.5	Min-/Max-memory, RS 232 interface	P269.1	764
-100 to +800	±0.2 to 0.2 %	Pt 100-thermometer with Min/Max-function and limit value alarm	EH87.1	763
-200 to +220	±1.5 to ±2.5	Wireless data logger with 2 connections for external temperature sensors	ECK1.1	769
-200 to +250	±0.5	°C-data logger with display for 60000 measured values. Connection of external sensor	NK56.1	768
-200 to +1760	±0.1 to ±1.5	With calibrating function, can be connected either to Pt 100 probe or thermocouple	X717.1	765
-200 to +1760	±0.1 to ±1.5	With calibrating function, can be connected either to Pt 100 probe or thermocouple	X718.1	765
-200 to +1760	±0.03 to ±1.5	With calibrating function and extremely high accuracy	X719.1	765
-200 to +1760	±0.03 to ±1.5	With calibrating function and extremely high accuracy	X720.1	765

Thermometer, digital



Indoor/outdoor thermometer

By Amarell. Memory function for min/max temperature (indoor and outdoor). Outdoor sensor fitted with 3 m cable. With temperature trend display. Also includes clock and date display. Ideal for table top or wall mounting.

Technical specifications:

Measuring range/Resolution	Indoor: 0.0 to +50.0 °C Outdoor: -50.0 to +70.0 °C
Accuracy	±1.5 °C
Dimensions (L x W x D)	100 x 70 x 25 mm

Delivery incl. 1.5 V Micro battery.

Art. No.	Pack Qty.	€
Y845.1	1	23,05

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Radio-controlled thermometer

By TFA-Dostmann. Wireless transmission of outside temperature from 1 transmitter. Range max. 100 m. Simultaneous display of interior and ambient temperatures, including high and low values. Indication of inside temperature. Additional Min/Max storage with manual resetting and indication of time and date. With radio-controlled clock. Can be stood up or hung up.

Technical specifications:

Measuring range / Resolution	Inside Outside	-10.0 to +40.0 °C -40.0 to +60.0 °C
Dimensions (L x W x H)	Receiver Transmitter	95 x 19 x 136 mm 41 x 19 x 128 mm
Power supply	Receiver Transmitter	2 batteries Micro 1.5 V 2 batteries Micro 1.5 V

Delivery incl. 1 receiver unit and 1 transmitter.
Without batteries, please order separately.

Art. No.	Pack Qty.	€
HL18.1	1	42,95

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Radio-controlled thermometer Ratio

By TFA-Dostmann. Wireless transmission of outside temperature from up to 3 different transmitters. Range max. 100 m. Indication of inside temperature. Max/Min-memory. Also with radio-controlled clock. For hanging or upright use.

Technical specifications:

Measuring range/Resolution	Inside Outside	0 to +60.0 °C -40.0 to +65.0 °C
Dimensions (L x W x H)	Receiver Transmitter	113 x 67 x 28 mm 86 x 32 x 15 mm
Power supply	Receiver Transmitter	2 Batteries Mignon 1.5 V 2 Batteries Micro 1.5 V

Delivery incl. 1 receiver and 1 transmitter. Without batteries, please order separately.

Type	Art. No.	Pack Qty.	€
Radio-controlled thermometer	LP27.1	1	21,00
Additional transmitter	LP28.1	1	14,00

Accessories:

Mignon/AA 1.5 V battery	1022.2	4	5,95
Micro/AAA 1.5 V battery	1021.2	4	6,35



Radio-controlled thermometer, Type Wave

By TFA-Dostmann. Wireless transmission of outside temperature. Range max. 100 m. Indication of inside temperature. Min/Max-memory. Also with clock and date display. Suitable for desktop or hanging.

Technical specifications:

Measuring range/ Resolution	Inside Outside	-10.0 to +60.0 °C -40.0 to +60.0 °C
Dimensions (L x W x H)	Receiver Transmitter	115 x 70 x 29 mm 132 x 39 x 28 mm
Power supply	Receiver Transmitter	2 Batteries Mignon 1.5 V 2 Batteries Mignon 1.5 V

Delivery incl. receiver, transmitter and batteries.

Type	Art. No.	Pack Qty.	€
Radio-controlled thermometer	HY40.1	1	23,65

Accessories:

Mignon/AA 1.5 V battery	1022.2	4	5,95
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Thermometer, digital



Digital solar thermometer, Eco Basic

By TFA-Dostmann. Shows actual inside temperature and comes with memory function for min/max values. With integrated and replaceable backup-battery - should energy supply from solar panel not be sufficient. With stand and hanging device.

Technical specifications:

Measuring range/resolution	-10.0 to +50.0 °C
Accuracy	±1 °C
Dimensions (W x D x H)	90 x 20 x 90 mm
Weight	100 g

Delivery incl. 1.5 V button cell battery.

Art. No.	Pack Qty.	€
KT83.1	1	16,35

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Rotilabo®-indoor/outdoor thermometers

With Min/Max function. Outdoor sensor with approx. 1.5 m of cable.

Technical specifications:

Measurement range/resolution	Indoor: -10.0 to +50.0 °C Outdoor: -40.0 to +70.0 °C
Accuracy	±1.0 °C (0.0 to +50.0) ±2.0 °C (residual measurement range)
Dimensions (H x W x D)	68 x 58 x 12 mm
Weight including battery	approx. 37 g

Delivery incl. button cell battery CR 2032 (3 V).

Type	Art. No.	Pack Qty.	€
white	YE41.1	1	11,75
red	YE42.1	1	11,75

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1	5,35
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Solar-operated indoor/outdoor thermometer Eco Pro

By TFA-Dostmann. Displays actual indoor or outdoor temperature. Memory function for min-/max values. With integrated and replaceable backup-battery - should energy supply from solar panel not be sufficient. With stand and hanging device. Outside sensor with approx. 3 m cable.

Technical specifications:

Measuring range/resolution	Indoor: -10.0 to +50.0 °C Outdoor: -40.0 to +70.0 °C
Accuracy	±1 °C
Dimensions (W x D x H)	90 x 20 x 90 mm
Weight	100 g

Delivery incl. 1.5 V button cell battery.

Art. No.	Pack Qty.	€
KT84.1	1	17,20

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Indoor/outdoor thermometer

By TFA-Dostmann.

- Simultaneous-display of inside and outside temperatures
- Save-function for min-/max-temperature readings (inside and outside)
- Reset-key for save-function
- Outdoor sensor with 3 m cord
- Desktop stand, wall fixture

Technical specifications:

Measuring range/resolution	Indoor: -10.0 to +50.0 °C Outdoor: -50.0 to +60.0 °C
Accuracy	±1 °C
Dimensions (L x W x D)	105 x 65 x 20 mm
Weight	105 g

Delivery incl. 1.5 V Mignon battery.

Art. No.	Pack Qty.	€
AN34.1	1	13,95

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Thermometer, digital



Indoor/outdoor thermometer

By TFA-Dostmann. With large display and max/min value control. Ideal for desktops or hanging. Outdoor sensor with approx. 3 m cord.

Technical specifications:

Measuring range/resolution	Indoor: -10 to +60 °C Outdoor: -50 to +70 °C
Dimensions (L x W x D)	110 x 95 x 20 mm
Weight	180 g

Delivery incl. battery Micro 1.5 V.

Art. No.	Pack Qty.	€
CH86.1	1	18,25

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Electronic maxima-minima-thermometer with limit value alarm

By TFA-Dostmann. Simultaneous display of indoor and outdoor temperatures. Memory function for min/max values. **Outdoor temperature alarm with adjustable upper and lower limit values** (interval alarm only rings whenever the set temperatures have been exceeded or not reached). Outer probe with 1.5 m lead. Ideal for hanging or standing.

Technical specifications:

Measuring range/resolution	Indoor: -10.0 to +50.0 °C Outdoor: -50.0 to +70.0 °C
Accuracy	±1 °C (0 to +50 °C) ±2 °C (rest Measuring range)
Dimensions (L x W x H)	110 x 70 x 20 mm
Weight	130 g

Delivery incl. Micro 1.5 V battery.

Art. No.	Pack Qty.	€
HA34.1	1	14,30

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Indoor-/outdoor thermometer, officially calibrated

By Amarell. With display light and Min/Max-value control. Simultaneous display of inside and outside temperatures. Outdoor sensor with approx. 3 m cord. Suitable for desktop or wall assembly.

Technical specifications:

Measuring range/resolution	Indoor: 0,0 to +40 °C Outdoor: -50 to +70 °C
Accuracy	±1 °C
Dimensions (H x L x W)	55 x 20 x 80 mm

Delivery incl. official calibration certificate with test point at +4 °C and battery Micro 1.5 V.

Art. No.	Pack Qty.	€
EH47.1	1	137,60

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Electronic maximum-minimum-thermometer

Shows current temperature as well as highest and lowest values. Suitable for inside and outside; splash-proof. With reset-button for resetting max/min-values. For wall assembly.

Technical specifications:

Measuring range/resolution	-20.0 to +50.0 °C
Accuracy	±1 °C
Dimensions (H x L x W)	75 x 44 x 115 mm
Weight	161 g

Delivery incl. Mignon 1.5 V battery.

Art. No.	Pack Qty.	€
CK39.1	1	18,25

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Thermometer, digital



Refrigerator thermometer

By Dostmann. For indication of current temperature in rooms, refrigerators etc. With fold-out holder for attaching to grids etc. Includes magnet for affixing. Refrigerator symbol is displayed at temperatures between +4 and +8 °C.

Technical specifications:

Measurement range/resolution	-20.0 to +50.0 °C
Accuracy	±1 °C
Dimensions (W x D x H)	68 x 14 x 43 mm

Delivery incl. CR 2025 button cell battery (3 V).

Art. No.	Pack Qty.	€
TA56.1	1	9,65

Accessories:

CR 2025 button cell battery (3 V)	CH14.1	1 pce.	5,35
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Digital fridge/freezer thermometer

By TFA-Dostmann. For displaying current, maximum and minimum temperatures. With stand and frame for attachment to surfaces or behind glass (display cabinet etc.) by means of self-adhesive film.

Technical specifications:

Measurement range/resolution	-30.0 to +50.0 °C
Accuracy	±1 °C
Dimensions (L x W x D)	91 x 72 x 13 mm
Weight	66 g

Delivery incl. CR 2032 button cell battery.

Art. No.	Pack Qty.	€
PE75.1	1	14,55

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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Laboratory thermometers with limit alarm and Min/Max function

By Dostmann. Applications: measurements in refrigerators and deep freezers, storage of foodstuffs etc. Watertight housing (IP 65). Min/Max and Hold function. Audio and visual warning alarm when freely adjustable temperature limits are exceeded. Magnetic back for attachment to metal surfaces.

Technical specifications:

Model	① Lab Basic	② Lab Pro
Measuring range/resolution (°C)	-40.0 to +70.0	-40.0 to +200.0
Accuracy (°C)	±0.5 (-20.0 to +25.0) ±1.0 (rem. measurement range)	±0.5 (0 to +50.0) ±1.0 (-40.0 to 0) ±1.0 (+50.0 to +100.0) ±1.5 (rem. measurem. range)
Sensor dimensions L x Ø (mm)	20 x 5	100 x 3.5
Cable length (m)	3	1
Dimensions L x W x D (mm)	86 x 57 x 30	
Weight (g)	40	

Delivery incl. button cell battery CR 2032, 3 V.

Standard version

Type	Art. No.	Pack Qty.	€
① Lab Basic	KA32.1	1	20,65
② Lab Pro	KA33.1	1	27,00

Measuring equipment Kit with works certificate

Test point at +5 °C

Type	Art. No.	Pack Qty.	€
① Lab Basic	PY66.1	1	31,75

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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Temperature limiter for thermometer

By Dostmann. **Reference object for constant temperature measurement in refrigerators.** Avoids large temperature fluctuations, e.g. due to frequent opening of the refrigerator door. The sensor is inserted into one of the accurate-fitting holes and fixed in place with a screw. The reference object acts as a buffer and provides a homogeneous temperature distribution, because mass (and not air) is measured. Suitable for sensors with Ø of 3.5 mm, 4.2 mm and 5.0 mm. Dimensions: W 60 x D 25 x H 25 mm.

Art. No.	Pack Qty.	€
PT43.1	1	23,15

Thermometer, digital



Thermometer Checkridge

By Hanna.

- For monitoring inside temperature of refrigerators
- High measuring accuracy
- "Checkcal function" for testing the electronics inside unit
- Thermistor sensor (with 1 m cord) for the interior of the cooling appliance
- Thermometer is attached to the outside of the cooling appliance with a magnet

Technical specifications:

Measuring range/resolution	-50.0 to +70.0 °C
Accuracy	±0.3 °C (-20 to +70 °C) / ±0.5 °C (rest)
Probe	L 40 mm x Ø 5 mm
Dimensions of enclosure	92 x 36 x 25 mm

Delivery incl. battery Mignon 1.5 V.

Art. No.	Pack Qty.	€
Y238.1	1	58,30

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Electronic fever thermometer

By TFA-Dostmann. For the measurement of body temperature in humans and animals. An alarm signal indicates when the measurement is finished. Automatic shut-off after 10 min.

Technical specifications:

Measurement range/resolution	+32.00 to +43.00 °C
Accuracy	±0.1 °C (35.00 to 39.00) ±0.2 °C (residual measurement range)
Sensor dimensions (L x Ø)	6 x 3 mm
Dimensions (L x W x D)	127 x 18 x 10 mm
Weight	10 g

Delivery incl. protective sleeve and button cell battery V 392. 1.55 V.

Art. No.	Pack Qty.	€
PY79.1	1	6,40

Accessories:

Button cell battery V 392	X563.1	1 pce.	5,35
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Inserting thermometer

By Dostmann. Ideal for simple temperature measurements in liquids, powdery and plastic substances. HOLD-, MAX-, and MIN-function. Automatic switch-off after 10 minutes.

Technical specifications:

Measuring range/resolution	-40.0 to +200.0 °C
Accuracy	±1.0 °C (-20.0 to 100.0 °C) ±1.5 °C (residual measuring range)
Dimensions with probe	205 x 20 x 16 mm
Dimension of probe	125 mm, Ø 3.5 mm

Delivery incl. protective case (for probe) and 1.5 V button cell battery.

Art. No.	Pack Qty.	€
T332.1	1	20,35

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Laboratory pocket thermometer LABTHERM

By Dostmann. With robust insertion tip, ideal for measuring temperature in liquids, food, etc. **Water and dustproof acc. to IP 67.** Hold-, Max- and Min-Function. AUTO-OFF function after 15 min to save battery, can be switched off. 0 °C calibrating function.

Technical specifications:

Measuring range/resolution	-40.0 to +250.0 °C
Accuracy	±0.5 °C (-10 to +100 °C), ±1.0 °C or ±1.0 % (rest measuring range)
Dimensions total (L x W x H)	220 x 25 x 20 mm
Dimensions of probe	106 mm, Ø 3.5 mm

Delivery incl. protective cover (for probe), attachment clip and 1.5 V button cell battery.

Art. No.	Pack Qty.	€
LN45.1	1	24,30

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Thermometer, digital



Pocket-thermometer

By Amarell. With sensor probe tip of high-grade steel. Ideal for measurements in liquids, semi-solid substances and for solids. Plastic housing useful as handle or as pocket clip. With hold function to store spot measurements.

Technical specifications:

Measuring range/resolution	-50.0 to +200.0 °C
Accuracy	1.0 °C (-20 to +100 °C)
Dimensions (L x W)	150 x 58 mm
Dimensions of probe	L 120 mm x Ø 3.5 mm

Delivery incl. 1.5 V button cell battery.

Art. No.	Pack Qty.	€
A321.1	1	23,15

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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- Please take note of our digital thermometers-overview on page 752



Insertion thermometer Pro-DigiTemp

By Dostmann. With 180°-swivel display for easy readability. MAX-, MIN- and HOLD-function. Automatic switch-off after 5 min.

Technical specifications:

Measuring range/resolution	-40.0 to +200.0 °C
Accuracy	±1.0 °C (0 to +100 °C) ±2.0 °C (other measuring ranges)
Dimensions total	L 240 mm, Ø 50 mm
Dimension of probe	L 180 mm, Ø 3.5 mm

Delivery incl. protective case (for the probe) and 1.5 V button cell battery.

Art. No.	Pack Qty.	€
AK16.1	1	22,25

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Pocket thermometer HI 145

By Hanna. With stainless steel penetration probe. Internal self-diagnosis function ensures high accuracy. Excellent for daily routine checking.

Technical specifications:

Measuring range	-50.0 to +220 °C
Resolution	0.1 °C (-50.0 to +199.9 °C) 1 °C (+200 to +220 °C)
Accuracy	±0.3 °C (-20 to +90 °C) ±0.4 % (other meas. ranges)
Dimensions total	92 x 165 x 38 mm
Dimensions of probe	L 125 mm, Ø 5 mm

Delivery incl. battery Micro 1.5 V.

Art. No.	Pack Qty.	€
T235.1	1	49,50

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Thermo-timer

By TFA-Dostmann. For measuring temperature. **Alarm sounds once a specific temperature has been reached** (can be set as upper and lower limit). Stainless steel probe (L 160 x Ø 4 mm) with 1 m heat-resistant cord. Min/max function. Measuring range -10 to +200 °C, Resolution/Accuracy: 1 °C. Clock with 12- or 24-h-display. **Timer-function (up to 24 h). With signal at "zero"**. Mountable display. Dimensions W 67 x H 12 x D 16 mm.

Delivery incl. 1.5 V Micro battery.

Art. No.	Pack Qty.	€
X256.1	1	26,15

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Thermometer, digital



Pocket thermometer, model Key®-C

By Hanna. For **K-type sensor probes**. Robust and extremely versatile. Suitable for use with 4 different sensor probes.

Technical specifications:

Measuring range/resolution	-40 to +550 °C
Accuracy	±2 °C
Dimensions	175 x 41 x 23 mm
Weight	92 g

Delivery incl. penetration probe and 4 x 1.5 V cell-batteries.

Art. No.	Pack Qty.	€
5855.1	1	69,30

Probes for pocket thermometer model Key®-C

Type	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
General-purpose	165	3	H902.1	1	29,15
Surface probe	200	5	H903.1	1	26,95

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1	4,25
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ThermoJack folding pocket thermometer

By Dostmann. For core temperature and random measurements. Suitable for foodstuffs acc. to EN 13485. Protection class IP 65.

Technical specifications:

Measurement range/resolution	-40.0 to +250.0 °C
Accuracy	±0.5 °C (-20.0 to +150.0 °C) ±1 or ±1 °C (residual measurement range)
Housing dimensions, folded out fully (L x W x H)	190 x 38 x 20 mm
Sensor dimensions (length / Ø)	70 x 3.5 mm (tip tapered to approx. 1.7 mm)
Weight	43 g

Delivery incl. CR 2032 button cell battery (3 V).

Art. No.	Pack Qty.	€
TA94.1	1	27,35

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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Folding thermometers testo 103/104

By Testo. For core temperature and random measurements. On/Off via folding mechanism (approx. 30°). Auto Off after 60 min.

Technical specifications:

Model	testo 103	testo 104
Measuring range/resolution (°C)	-30.0 to +220.0	-50.0 to +250.0
Accuracy (°C)	±0.5 (-30.0 to +99.9) ±1 % (+100.0 to +220.0)	±1.0 (-50.0 to -30.1) ±0.5 (-30.0 to +99.9) ±1 % (+100.0 to +250.00)
Housing dimensions, folded out fully L x W x H (mm)	189 x 35 x 19	265 x 48 x 19
Sensor dimensions length/Ø (mm)	75 / 3	106 / 3
Other functions	-	Auto Hold, Hold, Min/Max
Protection rating	IP 55	IP 65
Housing material	ABS	ABS / TPE / PC, die cast zinc, stainless steel
Battery type	2 x button cell battery CR 2032 (3 V)	2 x Micro/AAA 1.5 V
Weight (g)	49	165

Delivery incl. batteries.

Type	Art. No.	Pack Qty.	€
testo 103	PE63.1	1	48,40
testo 104	PE64.1	1	83,85

Accessories:

Micro/AAA 1.5 V battery	1021.2	4	6,35
Button cell battery CR 2032 (3 V)	P858.1	1	5,35

Information on temperature measurement

There are various methods to make a temperature visible or readable: Colour reaction (e.g. with colour change crayons), defined solid or liquid extension (e.g. glass thermometers) and electric signals (e.g. digital thermometers). There are a number of sensor elements available to change the temperature values into electric signals.

Thermocouples (NiCr-Ni)

Thermocouples consist of two point welded wires of different metals. The most common thermocouple is NiCr-Ni (Designation K).

Resistance sensors (Pt 100)

Here the resistance change of platinum resistance, which is independent of temperature, is used. The multiplier resistor is driven with a constant current and the fall of voltage measured.

Thermistors (NTC)

Temperature measurement with thermistors is also based on a temperature-independent resistance change of the thermocouple. Unlike the Pt 100 thermometers, thermistors have a very negative temperature coefficient.

General rule

Thermocouple probes are fast and have a large measuring range. Pt 100 and NTC probes are slower, but more precise. There is a special probe for each application, e.g. insertion probe for measuring in plastic or pasty media.

Thermometer, digital



Checktemp series precision thermometers

- Ideal for daily temperature measurement in the laboratory and in industry
- High measurement accuracy of $\pm 0.3^\circ\text{C}$ in the measurement range from -20 to $+90^\circ\text{C}$
- **CAL CHECK-function** for testing the internal device electronics
- Stainless steel sensor probe

Technical specifications:

Model	① Checktemp basic	② Checktemp 1
Measurement range/resolution ($^\circ\text{C}$)	-50.0 to $+150.0$	
Accuracy ($^\circ\text{C}$)	± 0.3 (-20 to $+90$) ± 0.5 (residual measurement range)	
Sensor dimensions L x \varnothing (mm)	106 x 3,6	97 x 3,5
Housing dimensions H x W x D (mm)	71 x 51 x 22	107 x 59 x 17
Cable length (m)	-	1
Protection rating	IP 65	
Weight (g)	52	80
Battery	1 x CR 2032 button cell (3 V)	Micro/AAA 1.5 V

Delivery incl. battery.

Type	Art. No.	Pack Qty.	€
Checktemp basic	G001.1	1	40,15
Checktemp 1	G002.1	1	42,35

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1	5,35
Micro/AAA 1.5 V battery	1021.2	4	6,35



Compact thermometer Mini-K

By Dostmann. For simple temperature measurement. For connection with thermocouple probe, Type K.

- Waterproof enclosure (IP 65)
- Automatic switch-off after 15 min to prolong battery life
- Hold display
- With magnet for attachment to metal surfaces

Technical specifications:

Measuring range/resolution	-64.0 to $+1370.0^\circ\text{C}$
Accuracy	$\pm 1\%$ or 1°C (larger value is valid)
Dimensions (L x W x D)	43 x 20 x 78 mm
Weight	41 g

Delivery incl. Cell battery CR 2032, 3 V.

Supplied without probe (please order separately).

Art. No.	Pack Qty.	€
KL30.1	1	50,00

Temperature probes, Type K for Mini-K

Cord length 1.0 m.

Immersion-/penetration probes

With centred tip. Measuring range -40 to $+400^\circ\text{C}$.

Length (mm)	\varnothing (mm)	Art. No.	Pack Qty.	€
120	3,5	KL31.1	1	31,75

Immersion-/penetration probes

With centred tip. Measuring range -60 to $+550^\circ\text{C}$.

Length (mm)	\varnothing (mm)	Art. No.	Pack Qty.	€
130	1,5	KL32.1	1	44,20

Immersion probe

Ideal for measuring in liquid, gaseous and powdery media.

Measuring range -100 to $+1100^\circ\text{C}$

Length (mm)	\varnothing (mm)	Art. No.	Pack Qty.	€
300	1.5	KL33.1	1	63,65

Immersion probes without handle.

Bendable. Measuring range -200 to $+900^\circ\text{C}$.

Without handle and connecting lead. Please order separately if required.

Length (mm)	\varnothing (mm)	Art. No.	Pack Qty.	€
220	3	KL34.1	1	27,95

PTFE-insulated thermo wire without handle

Bendable. Measuring range -65 to $+260^\circ\text{C}$.

Without handle and connecting lead. Please order separately if required.

Length (mm)	\varnothing (mm)	Art. No.	Pack Qty.	€
1000	1	KL35.1	1	21,45

Accessories:

Handle with connecting lead, cord length 1.2 m, suitable for all K-Type sensors	EH83.1	1	70,95
Button cell battery CR 2032 (3 V)	P858.1	1	5,35



Compact-thermometer HI 935005

By Hanna. Waterproof casing (IP 67). For connecting of thermocouple probes, Type K. Simultaneous display of current, highest and lowest measured values. HOLD-button for holding a reading in the display. Battery-charge indicator. Automatic switch-off.

Technical specifications:

Measuring range	-50.0 to +1350.0 °C
Accuracy	±0.2 %
Resolution	0.1 °C (-50 to +199.9 °C) 1 °C (rest measuring range)
Dimensions (L x W x D)	150 x 80 x 36 mm
Weight	300 g

Delivery incl. 3 batteries, Mignon 1.5 V.
Comes without probe (please order separately).

Art. No.	Pack Qty.	€
HA65.1	1	111,00

Temperature sensor K-type for HI 935005

By Hanna.

Standard probe

With handle and 1 m cable. For liquids and standard applications. L 120 mm, Ø 3 mm, max. temperature +900 °C.

Art. No.	Pack Qty.	€
C823.1	1	66,00

Penetration sensor

With handle and 1 m cable. For semi-solid media like meat. L 120 mm, Ø 3 mm, max. temperature +900 °C.

Art. No.	Pack Qty.	€
C824.1	1	66,00

Surface sensor

With handle and 1 m cable. L 130 mm, Ø 8 mm, max. temp. +900 °C.

Art. No.	Pack Qty.	€
T250.1	1	77,00

Handle with 1 m cable. Suitable for K-type sensors.

Art. No.	Pack Qty.	€
T248.1	1	42,90



Precision thermometer testo 110

By Testo. High-precision control thermometer for connection to NTC-sensors.

- Acoustic alarm (adjustable limit values)
- Display of Max/Min-values
- Display light
- Auto-hold automatically identifies the final value

Technical specifications:

Measuring range/resolution	-50.0 to +150.0 °C
Accuracy	±0.2 °C (-25 to +75 °C) ±0.5 % of mean value. (+100 to +150 °C) ±0.4 °C (rest. range)
Working temperature	-20 to +50 °C
Dimensions (W x D x H)	64 x 40 x 182 mm
Weight	171 g

Delivery incl. E-Block battery 9 V and calibration protocol.
Supplied without probe (please order separately).

Art. No.	Pack Qty.	€
EL54.1	1	105,35

NTC-Temperature sensors for testo 110

Measuring range -50 to +150 °C. Length of lead approx. 1.2 m.

Air sensor

Robust and waterproof.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
115	5	EL55.1	1	69,90

Surface probe

Waterproof. For smooth surfaces. With broadened measuring tip Ø 6 mm.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
115	5	EL56.1	1	78,50

Immersion/Penetration probe

Waterproof. With chamfered tip.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
115	5	EL57.1	1	67,75

Food probe

Waterproof (IP 67). Made of stainless steel. Pointed, robust.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
125	4	EL58.1	1	123,65

Thermometer kit testo 110 with certificate

By Testo. **Delivery incl.** thermometer testo 110 (Art. No. EL54.1), Immersion-/penetration probe (Art. No. EL57.1) and ISO-calibration certificate with three calibration points (-18 °C; 0 °C; +60 °C).

Type	Art. No.	Pack Qty.	€
Thermometer kit testo 110	EL59.1	1	270,90

Accessories:

	Art. No.	Pack Qty.	€
Protective cover TopSafe	EH74.1	1	31,20
Transport case (for meter and probe)	EH75.1	1	40,85
E-Block 9 V battery	1025.1	1	4,85

Thermometer, digital



Allround-thermometer testo 925

By Testo. Robust thermometers for daily measuring. For connecting with thermocouple probes, Type K. Acoustic alarm goes off immediately when the set limits are either exceeded or under-run. Max/Min-value display. Hold-button. With display-light. **Transfer of measured data is possible via radio with optional radio probe and radio module.**

Technical specifications:

Measuring range	-50.0 to +1000.0 °C
Accuracy	±0.5 °C or 0.3 % o. measured (-40 to +900 °C) ±0.7 °C or 0.5 % of mv. (rem. (outside))
Resolution	0.1 °C (-50 to +199.9 °C) 1 °C (rem. (outside))
Working temperature	-20 to +50 °C
Dimensions (W x D x H)	64 x 40 x 182 mm
Weight	171 g

Delivery incl. E-block-battery 9 V and calibration protocol. Supplied without probe (please order separately).

Art. No.	Pack Qty.	€
EH73.1	1	94,60

Accessories for Allround-thermometer testo 925

Protective cover TopSafe, protects against blows and dirt.

Art. No.	Pack Qty.	€
EH74.1	1	31,20

Transport case for meter and probe.

Art. No.	Pack Qty.	€
EH75.1	1	40,85

Extension lead

For thermocouple probe Type K. Length 5 m.

Art. No.	Pack Qty.	€
EH76.1	1	52,70

Spare battery E-Block 9 V for meter testo 925

Art. No.	Pack Qty.	€
1025.1	1	4,85

Spare battery Micro/AAA 1.5 V for radio handle

Art. No.	Pack Qty.	€
1021.2	4	6,35

Temperature probes Type K for testo 925

Cord length 1.2 m.

Immersion probes (Cl. 1)

Bendable. Precise and fast. Waterproof. Measuring range -60 to +1000 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
300	1.5	EH77.1	1	93,55

Immersion-/Penetration probes (Cl. 2)

Watertight With chamfered tip. Measuring range -60 to +400 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
114	5	EH78.1	1	40,85

Food probe (Cl. 2)

Made of stainless steel. Pointed, robust. Watertight (IP 65).

Measuring range -60 to +400 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
125	4	EH79.1	1	74,20

Surface probes (Cl. 2)

For flat surfaces. Waterproof. With widened measurement tip (Ø 6 mm). Measuring range -60 to +400 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
115	5	EH80.1	1	58,05

Surface probes (Cl. 2)

For surfaces which are not flat. Watertight and sturdy.

With elastic thermocouple band (measuring tip: Ø 12 mm).

Measuring range -60 to +300 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
115	5	EH81.1	1	119,35

Immersion measurement tip (Cl. 1)

Pliable. Measuring range -200 to +1000 °C.

Without handle and connecting lead (please order separately).

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
500	1,5	EH82.1	1	26,90

Accessories:

Handle with connecting lead, cord length 1.2 m, suitable for all K-Type sensors	EH83.1	1	70,95
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Radio module, radio handle and radio probe for testo 925

Radio module

For cordless transfer of measured data.

Frequency 869.85 MHz FSK. Please order radio handle and probe separately (are required when transferring measured data via radio).

Type	Art. No.	Pack Qty.	€
Radio module	EH84.1	1	40,85

Radio handle and radio probe, technical specifications:

Measuring cycle	0.5 or 10 s, adjustable on handle
Range	max. 20 m (open air test site)
Working temperature	-20 to +50 °C
Battery type	radio handle: 2 x Micro/AAA 1.5 V batteries

Radio handle for radio probe

Type	Art. No.	Pack Qty.	€
Radio handle incl. batteries	EH85.1	1	96,75

Radio probe for air-/immersion-penetration measurements (Cl. 2)

With chamfered tip. Measuring range -50 to +350 °C.

Type	Art. No.	Pack Qty.	€
Radio probe, L 120 mm, Ø 5 mm	EH86.1	1	50,55

Thermometer, digital



Precision thermometer testo 720

By Testo. For sophisticated measuring in the laboratory and industry.

- Acoustic alarm (adjustable limit values)
- Min/Max-value display
- Display light
- Ideal for laboratory work because the glass-sheathed temperature probe is suitable for connection

Technical specifications:

Measuring range/resolution	-100.0 to +800.0 °C
Accuracy	±0.2 % of mean value (+200 to +800 °C) ±0.2 °C (reest. range)
Working temperature	-20 to +50 °C
Dimensions (W x D x H)	64 x 40 x 182 mm
Weight	171 g

Delivery incl. E-Block-battery 9 V and calibrating protocol.
Supplied without probe (please order separately).

Art. No.	Pack Qty.	€
EH87.1	1	160,20

Temperature probes Pt 100 for testo 720

Measuring range -50 to +400 °C. Cord length approx. 1.2 m.

Laboratory probe, glass-sheathed (Cl. A)

Glass tube is removable. Resistant to aggressive media.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
200	6	EH88.1	1	106,45

Food probe (Cl. A)

Made of stainless steel. Pointed, robust. Watertight (IP 65).

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
125	4	EH89.1	1	135,45

Immersion-/Penetration probes (Cl. A)

With chamfered tip. Waterproof.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
114	5	EH90.1	1	75,25

Surface probes (Cl. B)

Watertight. With widened measurement tip (Ø 9 mm).

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
114	5	EH91.1	1	107,50

Accessories:

Protective cover TopSafe	EH74.1	1	31,20
Transport case (for meter and probe)	EH75.1	1	40,85
E-Block 9 V battery	1025.1	1	4,85



Calibrated precision thermometer testo 112, conformity assessed

By Testo. **Application range:**

- Suitable for certified measuring by public authorities, institutions and for expert reports
- For measuring product temperature in the food industry
- For routine operations in everyday work
- For check measurements during refrigerated transports

Properties:

- PTB-type testing
- Integrated self-check
- Acoustic alarm goes off immediately when limit values have been exceeded or under-run
- Display light
- Min/Max-values
- Declaration of conformity for device and sensor

Technical specifications:

Measuring range/resolution	-50.0 to +300.0 °C
Accuracy	±0.2 °C (-50 to +200 °C) ±0.3 °C (rest meas. range)
Working temperature	-20 to +50 °C
Dimensions (W x D x H)	64 x 40 x 182 mm
Weight	171 g

Note: A new calibration law (MessEG) and new calibration regulations (MessEV) came into force in Germany on 01.01.2015. The previous initial calibration procedure has been replaced by a new procedure, the so-called conformity assessment procedure. Instead of the certificate of calibration, a declaration of conformity is now issued by the equipment manufacturer and checked by a conformity assessment agency (e.g. Office of Weights and Measures). Equipment can, as before, be recalibrated after two years through any Office of Weights and Measures.

Delivery incl. Pt 100 Immersion-/Penetration probe (L 115 mm, Ø 5 mm) with attached cable (cable length approx. 1.2 m), declaration of conformity and E-Block battery 9 V.

Art. No.	Pack Qty.	€
EH93.1	1	564,40

Accessories for thermometer testo 112

Safety cover TopSafe, protects from blows and dust

Art. No.	Pack Qty.	€
EH94.1	1	32,20

Transport case for thermometer and probe

Art. No.	Pack Qty.	€
EH75.1	1	40,85

Spare battery E-Block 9 V

Art. No.	Pack Qty.	€
1025.1	1	4,85

Thermometer, digital



Thermometers P300/410

By Dostmann.

Model P300: Splashproof. With display light. Min/Max- and hold function. Integral probe holder.

Model P410: splashproof Min/Max- and hold function. Integral probe holder. **RS 232-interface.** **Internal memory** for 16 measurement readings via keyboard. Thermocouple access (NiCrNi).

Technical specifications:

Model	P300	P410
Measuring range	-40.0 to +200.0 °C	-99.9 to +1370 °C
Resolution	0.1 °C	0.1 °C (-99.9 to +399.9 °C) 1 °C (rest outside)
Accuracy	±0.5 °C (0 to 100 °C) ±1.0 °C (rest outside)	±0.5 °C
Dimensions (H x L x W)	130 x 65 x 25 mm	

Delivery incl. 2 Mignon 1.5 V batteries.

P300, with fixed penetration probe.
Dimensions of probe: L 120 mm x Ø 3.5 mm.

Art. No.	Pack Qty.	€
N359.1	1	67,20

Measuring instruments kit P300 with certificate

Delivery incl. P300 meter with fixed penetration probe.
Probe size: L 120 mm x Ø 3.5 mm.
ISO-Calibration Certificate with two calibration points (0 °C; 60 °C)

Art. No.	Pack Qty.	€
HT78.1	1	92,45

P410, with removeable penetration probe
(can be used from -40 to +400 °C) and RS 232 interface.
With thermocouple socket for K-type temperature sensors.
Dimensions of probe: L 120 mm, Ø 3 mm.

Art. No.	Pack Qty.	€
P269.1	1	137,60

Measuring instruments complete-set P410

Delivery incl. Meter P410 with removeable penetration probe (can be used from -40 to +400 °C), RS 232-interface, Windows Software for online documentation, PC-adaptor cable and plastic case.
With thermocouple socket for K-type temperature sensors.

Art. No.	Pack Qty.	€
P271.1	1	203,20

Accessories for thermometer P410

Immersion probe

Useable from -100 to +1100 °C. Dimensions of probe: L 300 mm, Ø 3 mm.

Art. No.	Pack Qty.	€
X196.1	1	67,75

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Compact-thermometer P400

By Dostmann. **With Pt 100 four-conductor-sensor technology.**

- Hold- and min/max-function
- Integrated sensor holder
- 1-point-CAL-function
- RS 232-interface
- Internal memory for 19 readings via keypad

Technical specifications:

Measuring range	-99.9 to +850 °C
Resolution	0.1 °C (-99.9 to +399.9 °C) 1 °C (rest)
Accuracy	±0.3 °C (-99.9 to +399.9 °C) ±1.5 °C (rest. range)
Max. operating temp.	0 to +50 °C
Dimensions (L x W x H)	130 x 65 x 25 mm
Weight	240 g

Delivery with 2 Mignon 1.5 V batteries.
Supplied without probe (please order separately).

Art. No.	Pack Qty.	€
AY90.1	1	112,90

Temperature sensors Pt 100 for P400

With handle. Cord length 1 m.

Immersion probes (Cl. B)

Ideal for measuring in liquid, gaseous and powdery media.
Measuring range: -50 to +350 °C

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	3	AY91.1	1	75,20
300	3	AY92.1	1	78,80

Penetration probes (Cl. B)

Ideal for measuring solid and powdery media. Temp. range: -50 to +350 °C

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	4	AY93.1	1	75,20

Surface probe (Cl. B)

With sprung bearing surface. Measuring range -40 to +300 °C

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	6	AY94.1	1	170,95

Air sensor (Cl. B)

For speedy measurement of air and gas temp.
Measuring range: -50 to +250 °C

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
250	4	AY95.1	1	97,30

Immersion probes (Cl. B 1/3 DIN)

Ideal for measuring in liquid, gaseous and powdery media.
Measuring range: -200 to +450 °C

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	3	AY96.1	1	130,10
300	3	AY97.1	1	137,60

Accessories:

Windows software for P400 for online documentation, incl. RS 232-cable	AY98.1	1	106,45
Mignon/AA 1.5 V battery	1022.2	4	5,95

Thermometer, digital



Precision thermometers P700-series

By Dostmann. With integral calibrating function for simple compensation of sensor tolerances. Can be connected either to Pt 100 probe or thermocouple type K, J, L, N, R, S, T. Storage of min/max-values, hold- and mean value. USB-Online-PC-Interface. Integral probe holder. With collapsible clip for standing on desktop. Battery and wall socket operated.

Technical specifications:

Model	P700 and P705	P750 and P755
Measuring range		
Pt 100	-200 to +850 °C	
Type K	-200 to +1760 °C	
Accuracy		
Pt 100	±0.1 °C (-100 to +200 °C) ±0.1 % of (rest)	±0.03 °C (-50 to +199,99 °C) ±0.05 °C (-200 to +200 °C) ±0.1 % of (rest)
Type K	±0.2 (0 to +200 °C) ±0.5 (+200 to +1000 °C) ±1.0 °C (rest)	
Resolution Pt 100 and type K	0.1 °C	0.01 °C (-200 to +200 °C) 0.1 °C (rest)
Dimensions (L x W x H)	200 x 93 x 44 mm	
Current supply	1 battery block 9 V	

1-channel thermometer P700

Delivery incl. battery, sensor and power pack please order separately.

Art. No.	Pack Qty.	€
X717.1	1	241,90

2-channel thermometer P705

Like model P700. With additional simultaneous display of 2 measured values or differential temperature display.

Delivery incl. battery, sensor and power pack please order separately.

Art. No.	Pack Qty.	€
X718.1 *	1	295,65

1-channel thermometer P750

Extremely high accuracy of ±0.03 °C. Ideal as a reference for testing ancillary thermometers. Humidity and flow sensors can be attached.

Delivery incl. battery, sensor and power pack please order separately.

Art. No.	Pack Qty.	€
X719.1 *	1	473,00

2-channel thermometer P755

Like model 750. With additional simultaneous display of 2 measured values or differential temperature display.

Delivery incl. battery, sensor and power pack please order separately.

Art. No.	Pack Qty.	€
X720.1 *	1	526,75

Service kit for thermometer P750

Contents: 1-channel thermometer P750 (art.no. X719.1), immersion probe (Art.No. X726.1), 9 V storage battery with battery charger, plug-in power pack and block-battery 9 V, PC-adaptor cable and software, case for transporting.

Art. No.	Pack Qty.	€
X721.1 *	1	876,15

* Please check with our Sales Department for delivery period of this products.

Temperature sensors Pt 100 for P700-series

With 4-conductor technics. Cord length 1 m.

Immersion probes (Cl. B)

Ideal for measuring in liquid, gaseous and powdery media.

Range: -50 to +350 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	3	X722.1	1	78,50
300	3	X723.1	1	83,85

Penetration probes (Cl. B)

For measuring in liquid and powdery media.

Range: -50 to +350 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	4	X724.1	1	75,25

High-precision immersion probe (Cl. B 1/3 DIN)

Ideal for measuring in liquid, gaseous and powdery media.

Range: -200 to +450 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
300	3	X726.1	1	129,00

High-precision immersion probe (Cl. B 1/10 DIN)

For measuring in solid and powdery media.

Range: -200 to +450 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
300	3	AY99.1	1	189,20

Temperature sensors type K for P700-series

Cord length 1 m.

Immersion/penetration probe (Cl. 2)

For measuring in liquid, gaseous media. Measuring range: -40 to +400 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
120	3,5	X727.1	1	36,55

Immersion probe (Cl. 1)

For measuring in liquid and gaseous media.

Measuring range: -100 to +1100 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
300	1,5	X728.1	1	65,60
500	3	X729.1	1	74,20

Clip-on probe (Cl. 1)

For measuring on pipes. Measuring range: -40 to +200 °C.

Ø (mm)	Art. No.	Pack Qty.	€
to max. 35	X730.1	1	59,15

Multi-purpose sensor (for meters P750/P755)

For humidity and temperature. Cord length 1 m.

Measuring ranges: 0 to 100 % RH, -30 to +80 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
120	20	X825.1	1	174,15

Flow sensor (for meters P750/P755)

For air and gas. Cord length 1 m. Measuring range: 0.3 to 20 m/s.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
175	22	X731.1	1	685,85

Accessories:

	Art. No.	Pack Qty.	€
Power supply for P700-series	H198.1	1	32,20
E-Block 9 V battery	1025.1	1	4,85

Humidity / Temperature data logger



1-/2-channel data logger for temperature/humidity

By Dostmann. For measurement data monitoring, e.g. storage and transport conditions, production facilities, greenhouses and refrigerators.

- Pre-programmed data logger (measuring interval: 5 min), ready for immediate use
- Automatic data output as PDF file, no driver installation required
- Integrated USB port
- Windows-compatible software is available for programming the logger (e.g. measuring cycle, alarm limits, start/end of recording), please download software free of charge
- Status and alarm LEDs with audio signal

Technical specifications:

Model		LOG32T	LOG32TH
Measuring range/ resolution	°C	-40.0 to +70.0	
	% RH	-	0.0 to 100.0
Accuracy	°C	±0.5 (-10 to +40) ±1 (residual range)	
	% RH	-	±3 (40 to 60) ±3.5 (20 to 40, 60 to 80) ±5 (residual range)
Data memory		60 000 datasets	
Measuring cycle		30 s to 24 h	
Dimensions (L x W x D)		100 x 19 x 19 mm	
Weight		70 g	

Delivery incl. wall mount and 3.6 V lithium battery.

Type	Art. No.	Pack Qty.	€
LOG32T	CCE2.1	1	59,15
LOG32TH	CCE3.1	1	73,65

Accessories:

Replacement 3.6 V / ½ AA lithium battery	LT32.1	1	8,60
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General information on calibrating meters

Meters with DAkkS Certificates of Calibration:

A DAkkS Certificate of Calibration is issued by a accredited testing agency (must be approved and is monitored by Deutsche Akkreditierungsstelle [German Accreditation Agency]). Meter meets national standard requirements and can be used in accordance with ISO 9000 Quality Assurance Standards.

Very low preset tolerance (lower than required for works certificate).

The user of DAkkS certified meters can therefore issue internal works certificates. This is particularly of advantage in the Quality Assurance Department of larger firms where measuring instruments used in the Production Department must be tested and calibrated at specific intervals. Individual test points should be customized depending upon temperature ranges under measurement.

Meters with a Works Certificate of Calibration:

A works certificate of calibration is issued after carrying out a comparison measurement with a DAkkS calibrated meter.

Unit meets national standard requirements and can be used in accordance with ISO 9000 Quality Assurance Standards.

Tolerance of measurement with works certificates is slightly higher than of a DAkkS certified unit. Individual test points should be customized depending upon temperature ranges under measurement.



1-/2-channel mini data logger testo 174 for temperature and humidity

By Testo. For monitoring climatic conditions, for example in storage, in offices and in production areas.

- Memory for 16000 measured values
- With LCD display for current measured value (with model testo 174H display of the current temperature or humidity value), battery status as well as min/max values
- Optical limit alarm (freely selectable values)
- Windows compatible software (data logger programming, for outputting data, graphic and tabular display, printout of data) download software free of charge or order separately. USB interface required for communication between software and data logger.

Technical specifications:

Model	① 1-channel °C logger testo 174T	② 2-channel °C/RH logger testo 174H
Measuring ranges/resolution	-30.0 to +70.0 °C	-20.0 to +70.0 °C 0.0 to 100.0 % RH
Accuracy	±0.5 °C	±0.5 °C ±3 % RH (2 to 98 % RH)
Protection class	IP65	IP20
Measurement data memory	16000	
Measuring cycle	1 min to 24 h	
Dimensions (L x W x D)	60 x 40 x 20 mm	

Delivery incl. 2 x CR 2032 button cell batteries, wall attachment and calibration protocol. Please order USB interface for logger programming separately.

Type	Art. No.	Pack Qty.	€
1-channel °C logger testo 174T	NA06.1	1	53,70
2-channel °C/RH logger testo 174H	NA07.1	1	85,80

Accessories for 174-series data logger

Type	Art. No.	Pack Qty.	€
USB interface for programming and reading data from the 174T and 174H loggers	NA08.1	1	85,80
CD Comsoft Basic (if free download not required)	NA09.1	1	26,80
Button cell battery CR 2032 (3 V)	P858.1	1	5,35

Humidity / Temperature data logger



testo 175 series 1-/2-channel mini data logger for temperature and humidity

By Testo. Temperature monitoring of cooling and refrigeration rooms as well as long-term monitoring of working and storage areas.

- Memory with capacity for 1 million measured values
- With LCD display for current measured value (with model testo 175 H1 display of current temperature and humidity values), battery status as well as min/max values
- Optical limit alarm (freely selectable values)
- Long battery life using standard batteries
- Simple read-out of data via USB cable or using an SD card (if a USB cable or SD card is required, please order separately). Only data can be collected with the SD card (reprogramming is not possible).
- Windows-compatible software (logger programming, read-out of data, graphic and tabular display of data and printout of data) please download free of charge or order separately. An USB cable is required for communication between the software and logger.

Technical specifications:

Model	1-channel °C logger testo 175 T1	2-channel °C/rH logger testo 175 H1
Temperature		
Measurement range	-35 to +55 °C	-20 to +55 °C
Resolution/accuracy	0.1 °C / ±0.5 °C	0.1 °C / ±0.4 °C
Humidity		
Measurement range	-	0 to 100 % rel. hum.
Resolution/accuracy	-	1 % rH / ±2 % rH (2 to 98 % rH)
Measured data storage	1 million readings	
Measuring cycle	10 s to 24 h	
Dimensions (H x W x D)	89 x 53 x 27 mm	149 x 53 x 27 mm
Protection class	IP 65	IP 54
Battery type	3 micro batteries 1.5 V	

Delivery incl. wall attachment, lock, calibration report and batteries.
Please order software and USB cables for logger programming separately.

Type	Art. No.	Pack Qty.	€
1-channel C logger testo 175 T1	PH31.1	1	127,95
2-channel C/rH logger testo 175 H1	PH32.1	1	267,70

Accessories:

CD Comsoft Basic (if free download not required)	NA09.1	1	26,80
USB cable (mini USB to USB), L 2 m	PH33.1	1	23,55
2 GB SD card for collecting data	PH34.1	1	27,45
Micro/AAA 1.5 V battery	1021.2	4	6,35



1-channel data logger testo 184 series for temperature

By Testo. For monitoring temperature-sensitive products. Model testo 184 T4 is specially for low temperatures (down to -80 °C).

- With alarm management:
Adjustable min/max function and cumulative alarm
- The configuration file for logger programming is stored directly on the data logger (no software installation required)
- Automatic data output as PDF file via USB port
- Mobile readout via NFC

Technical specifications:

Model	① testo 184 T3	② testo 184 T4
Measuring range/resolution	-35.0 to +70.0 °C	-80.0 to +70.0 °C
Accuracy (°C)	±0.5	±0.8 (-80.0 to -35.1) ±0.5 (-35.0 to +70.0)
Sensor type	NTC	Pt 1000
Display	yes	no
Measured values	40 000	
Measuring cycle	1 min to 24 h	
Protection class	IP 67	
Dimensions W x D x H (mm)	44 x 12 x 97	
Weight (g)	45	
Battery type	1 CR 2450 battery (3 V)	1 ER 2450 battery (3 V)

Delivery incl. battery and inspection report stored on logger.

Type	Art. No.	Pack Qty.	€
① testo 184 T3	CXC4.1	1	106,45
② testo 184 T4	CXC5.1	1	181,70

Accessories:

CR 2450 button cell battery (3 V)	CXC6.1	1	5,35
ER 2450 button cell battery (3 V)	CXC7.1	1	24,75

Humidity / Temperature data logger



LOG100 series 2/3-channel temperature/humidity data logger

By Dostmann. For quality control in the lab and in production, as well as monitoring storage and transport conditions.

- Memory for 60.000 measured values
- LCD display for indication of current measured value, battery status, min/max value and average value
- Limit alarm, audible and visual
- Integrated USB port
- Optionally available with Windows-compatible software (logger programming, data transfer, graphical and tabular representation of data) and external temperature sensor

Technical specifications:

Model	2-channel °C logger	2-channel °C cryogenic logger	3-channel °C/rf logger
Internal °C sensor: Measurement range/ resolution Accuracy	-30.0 to +70.0 ±0.5 (-20 to +50) ±0.7 (residual range)	-10.0 to +70.0 ±0.3 (-20 to +50) ±0.7 (residual range)	-30.0 to +70.0 ±0.5 (-10 to +40) ±1.0 (residual range)
External °C sensor: Measurement range/ resolution Accuracy	-50.0 to +125.0 ±0.5 (0 to +40) ±1.0 (residual range)	-200.0 to +250.0 ±0.5	-50.0 to +125.0 ±0.5 (0 to +40) ±1.0 (residual range)
Internal rF sensor: Measurement range/ resolution Accuracy	- - -	- - -	0.1 to 99.0 ±3
Measuring cycle	1 s to 24 h		
Display operating range (°C)	-10 to +70		
Dimensions L x W x D (mm)	88 x 55 x 20		
Weight (g)	95		

Delivery incl. button cell battery CR 2032, 3 V.

Please order external temperature sensor (sensor dimensions L 40 mm, Ø 3 mm, cable length 3 m) and logger programming software separately.

Type	Art. No.	Pack Qty.	€
2-channel °C logger	NA22.1	1	102,15
2-channel °C cryogenic logger	NK56.1	1	149,45
3-channel °C/rf logger	NA23.1	1	155,90

Accessories:

Windows logger programming software with USB cable	NA24.1	1	68,80
External °C sensor for NA22.1 and NA23.1, measurement range -50 to +125 °C	NA25.1	1	59,15
External °C sensor for NK56.1, measurement range -200 to +250 °C	NK57.1	1	73,10
Temperature limiter, W 60 x D 25 x H 25 mm	PT43.1	1	23,15
Button cell battery CR 2032 (3 V)	P858.1	1	5,35



KlimaLogg Pro thermal hygrometer with data logger and wireless sensor

By TFA-Dostmann. For monitoring temperature and humidity.

① Thermal hygrometer:

- Display of humidity and temperature values
- Max/Min display with time of day
- **Connectivity for up to 8 RF transmitters**
- Text display with fixed serial number or individual name allocation for stored transmitters
- Custom alarm limits can be set for all channels with audio or visual alarm indication
- Ring buffer with capacity for up to 50 000 datasets
- Datasets can be retrieved directly from the device and via PC
- Data transfer via USB wireless transceiver (range: up to 10 m)
- Windows-compatible data transfer software is available for download free of charge. This software is required for transferring data. Measured values can also be exported as a text file.
- Radio clock with date display
- Battery charge level indicator

Choose between the 2 wireless sensors:

② Wireless °C/rel. humidity sensor type FS1

Measurement range/resolution: -30.0 to +60.0 °C, 1 to 99 % rel. humidity
Accuracy: ±1 °C, ±3 % rel. humidity (30 to 75 %)

Range: max. 100 m (free-field)

Dimensions: 160 mm high x 44 mm wide x 23 mm deep

Delivery incl. 2 1.5 V Mignon/AA batteries.

③ Wireless °C sensor with external probe type FS2

Measurement range/resolution: -30.0 to +60.0 °C

Accuracy: ±1 °C

Range: max. 100 m (free-field)

Dimensions: 128 mm high x 40 mm wide x 23 mm deep

With external probe (cable length 3 m). Temperature is measured at the probe only

Delivery incl. 2 1.5 V Micro/AAA batteries.

Technical specifications:

Measuring range / resolution	Indoors 1 to +99.0 % rel. humidity Outdoors 1 to +99 % rel. humidity	Indoors -20.0 to +50.0 °C Outdoors -30.0 to +60.0 °C
Accuracy	±3 % rel. hum. (30 to 75 % rel. hum)	±1 °C
Measurement data memory	50 000 datasets	
Measuring cycle	Adjustable in increments of 1/5/10/15/30 min or 1/2/3/6 h	
Dimensions (W x H x D)	137 x 98 x 26 mm	

Delivery incl. USB wireless transceiver and 3 1.5 V Mignon/AA batteries.

Wireless sensors not included. Please order separately.

Please download Windows software free of charge.

Type	Art. No.	Pack Qty.	€
① KlimaLogg Pro thermal hygrometer	PL21.1	1	90,30

Accessories:

② Wireless °C/ rel. humidity sensor type FS1	PL22.1	1	24,75
③ Wireless °C sensor with external probe type FS2	PL23.1	1	23,25
Mignon/AA 1.5 V battery	1022.2	4	5,95
Micro/AAA 1.5 V battery	1021.2	4	6,35

Infrared thermometers



NEU
NOUVEAU
NEW

Wireless data logger Saveris 2

By Testo. Modern solution for temperature measurement and monitoring in storage, cooling and work rooms.

- Data transfer via WiFi
- Online data storage directly to cloud
- Temperature data can be retrieved and evaluated via Internet-compatible smartphones, tablets or PCs
- Logger configuration via the testo basic cloud (free access), no software installation required
- An e-mail alert is generated if limits are exceeded
- With display for reading current measurement data, limit violations and residual battery life

Model **Saveris 2-T1** with integrated NTC temperature sensor.

Model **Saveris 2-T3** with 2 connections for external TE temperature sensor (please order sensor separately).

Technical specifications:

Model	① Saveris 2-T1	② Saveris 2-T3	
Temperature sensor	internal	external	
		ECK2.1	ECK3.1
Measurement range/ resolution (°C) Accuracy (°C)	-30.0 to +50.0 ±0.5	-40.0 to +220.0 ±1.5	-200.0 to +40.0 ±2.5
Measuring cycle (min)	15		
Measurement data memory	up to 3 months (ring buffer)		
Reports	manual (.pdf/.csv)		
Protection class	IP65	IP54	
Dimensions H x W x D (mm)	95 x 75 x 30.5		
Weight (g)	240		

Delivery incl. basic cloud access, micro USB cable, wall mount with lock, 4 Mignon 1.5 V batteries, calibration report.

Type	Art. No.	Pack Qty.	€
① Saveris 2-T1	ECK0.1	1	129,00
② Saveris 2-T3	ECK1.1	1	215,00

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Type K temperature sensor for Saveris 2-T3

By Testo.

Insertion sensor (terminal 1)

For temperature measurement in climate control cabinets, incubators and refrigerators. Measurement range: -40 to +220 °C. Accuracy ±1.5 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
60	5	ECK2.1	1	59,35

Low temperature sensor (terminal 3)

For temperature measurement in liquid nitrogen, blast freezers and freezers. Measurement range: -200 to +40 °C. Accuracy ±2.5 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
90	5	ECK3.1	1	117,20



Non-contact temperature quick testers

By Testo.

① Quicktemp 826-T2

- For non-contact measuring without destroying the packaging
- For monitoring upper **or** lower limits with visual alarm
- **Laser spot marker** for marking the measuring point
- **Acoustic alarm** for upper/lower deviation

② Quicktemp 826-T4 with nuclear temperature measurement

- For non-contact measuring without destroying the packaging
- A thin, robust test prod also enables measurement of nuclear temperatures
- For monitoring upper **or** lower limits with visual alarm
- **Supplied with deep-frozen food borer**
- **Laser spot marker** for marking the measuring point
- **Acoustic alarm** for upper/lower deviation

Technical specifications: general (for both models)

Measuring range infrared	-50 to +300 °C
Resolution infrared	0.1 °C
Accuracy infrared	±1.5 °C (-20 to +100 °C) ±2 °C (residual range)
Ratio measuring distance : spot	6 : 1
Emissivity	E = 0.95 (adjustable at 1.00)

Technical specifications:

Contact side with penetration probe for type 826-T4

Measuring range	-50 to +230 °C
Resolution	0.1 °C
Accuracy	±0.5 °C (-20 °C to +99 °C) ±1 °C or ±1 % of measured value (residual range), the higher value being valid

Delivery incl. 2 batteries Micro 1.5 V, belt/wall attachment, watertight protective case Top Safe (IP 67).

Type	Art. No.	Pack Qty.	€
826-T2	P855.1	1	95,70
826-T4	P857.1	1	149,45

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Infrared thermometers



testo 104-IR multipurpose infrared and penetration thermometer

By Testo. Penetration thermometer combined with an infrared sensor for core and surface temperature measurements.

- Foldaway immersion/penetration probe
- 2-point laser mark for indicating the actual measurement spot
- Large LCD display for easy reading of measurement results

Technical specifications:

Immersion/penetration probe (NTC sensor type)	
Measurement range/resolution	-50.0 to +250.0 °C
Accuracy	±1 °C (-50.0 to -30.1 °C) ±0.5 °C (-30.0 to +99.9 °C) ±1 % of meas. value (residual measurement range)
Infrared sensor	
Measurement range/resolution	-30.0 to +250.0 °C
Accuracy	±2.5 °C (-30.0 to -20.1 °C) ±2.0 °C (-20.0 to -0.1 °C) ±1.0 °C or 1.5% of meas. value (residual measurement range)
Ratio measuring distance : measuring spot	10 : 1
Emissivity/increments	0.10 to 1.00
General	
Protection rating	IP65
Dimensions (W x D x H)	48 x 21 x 281 mm (probe folded out) 48 x 21 x 178 mm (probe folded back)
Weight	197 g

Delivery incl. 2 micro 1.5 V batteries and calibration report.

Art. No.	Pack Qty.	€
XK00.1	1	117,20

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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① Mini-Flash infrared thermometer

By Dostmann. For non-contact measuring.

Automatic hold-function for approx. 15 s. Lock-function for continuous use.

Technical specifications:

Measuring range/resolution	-33.0 to +220.0 °C
Accuracy infrared	±1.5 °C (0 to +50 °C) ±2.0 °C or 2 % (rest meas. range)
Ratio measuringdistance : spot	1.3 : 1
Emissivity	E = 0.95 permanently set
Reaction infrared	approx. 500 ms
Working temperature	0 to +50 °C
Dimensions (L x W x D)	68 x 37 x 18 mm
Weight	25 g

Delivery incl. cellbattery CR 2032, 3 V.

Art. No.	Pack Qty.	€
Y400.1	1	35,30

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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② Scantemp 385 infrared thermometer

By Dostmann. For non-contact surface temperature measurement.

With spot laser for marking the measurement zone. Backlight display. Lock function for continuous use.

Technical specifications:

Measurement range	-35.0 to +365 °C
Resolution	0.1 °C (-35 to 199.9) 1.0 °C (residual measurement range)
Accuracy	2 °C to ±2 % (largest value applies)
Ratio measurement distance : measurement spot	12 : 1
Emissivity	E=0.95 to E=0.70 (switchable)
Dimensions (L x W x D)	167 x 64 x 34 mm
Weight	150 g

Delivery incl. 2 Micro 1.5 V batteries.

Art. No.	Pack Qty.	€
LY46.1	1	53,25

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Infrared thermometers



Infrared thermometers with thermocouple input Scantemp-series

By Dostmann.

① Scantemp 440

- Measuring range Infrared max. +500 °C
- With target-laser for marking measuring point
- **Input for thermocouple sensor NiCr-Ni (Type K)**
- Min/Max/Hold-function
- Differential and mean value storage
- Optical and acoustic alarm when limit value has been exceeded
- LCD-indicator for simultaneous display of reading and min/max- or limit values
- Adjustable emission ratio from 0.10 to 1.00
- With background lighting

Delivery incl. 2 batteries Micro 1.5 V.

Comes without thermocouple sensor, please order separately if needed.

② Scantemp 490

Like model Scantemp 440, however comes with double target-laser which indicates the real measuring field for each measured distance. Measuring range Infrared max. +1000 °C.

Technical specifications:

	Infrared	Thermocouple input
Measuring range	Scantemp 440: -33.0 to +500 °C Scantemp 490: -60.0 to +1000 °C	-64.0 to +1370 °C
Resolution	0.1 °C (-33.0/-60.0 to +199.9) 1 °C (rest measuring range)	
Accuracy	±2.0 °C or 2 % of higher value applies	±1.0 °C or 1 % of higher value applies
Ratio Measured distance : Measured spot	Scantemp 440: 11 : 1 Scantemp 490: 50 : 1	
Dimensions (W x D x H)	Scantemp 440: 39 x 79 x 175 mm Scantemp 490: 45 x 145 x 215 mm	
Weight	Scantemp 440: 180 g Scantemp 490: 380 g	

Image	Type	Art. No.	Pack Qty.	€
①	Scantemp 440	CH99.1	1	107,00
②	Scantemp 490	KA38.1	1	225,75

Accessories for Scantemp-series

Immersion probes (Type K)

Can be used up to max. 1100 °C. Dimensions of probe: L 300 x Ø 3 mm.

Art. No.	Pack Qty.	€
X196.1	1	67,75

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Infrared thermometer testo 845 with thermocouple input

By Testo.

- Switch-over optics for measuring far field and for point focusing.
- **Far field optics:** For large distance to measuring field. A laser cross marks the actual measuring field for all distances.
- **Point focus optics:** For surface temperature measuring with a spot size-Ø up to 1 mm (at 70 mm distance). 2-point laser marks the spot in point focusing.
- Three-spaced illuminated display with indicator for temperature, min-/max-values, alarm signal limit (freely adjustable) and emission ratio
- Optical and acoustic alarm when limiting value has been exceeded
- Adjustable emission ratio from 0.1 to 1.0
- Input for thermocouple NiCr-Ni (Type K). Please order sensor separately.
- With memory for 90 readings.
- With USB-interface for reading out from memory and online measurements

Technical specifications:

	Infrared	Thermocouple input
Measuring range/resolution	-35.0 to +950.0 °C	
Accuracy	±2.5 °C (-35.0 to -20.1 °C) ±1.5 °C (-20.0 to +19.9 °C) ±0.75 °C (+20.0 to +99.9 °C) ±0.75 % of meas. value (rest meas. range)	±0.75 °C (-35.0 to +75.0 °C) ±1 % of meas. value (rest meas. range)
Ratio Measured distance: Measured spot	Far field: 75 : 1 Focusing point: 1 mm, distance 70 mm	-
Dimensions (L x W x H)	155 x 58 x 195 mm	
Weight	465 g	

Delivery incl. PC-software with USB-data transmission cable, stand holder, aluminium case, 2 batteries Mignon 1.5 V and calibration certificate.

Art. No.	Pack Qty.	€
HH65.1	1	643,95

Accessories for infrared thermometers testo 845

Surface sensors (Cl. 2)

For uneven surfaces. Watertight and quick-reacting. With springy thermocouple band (Measuring tip: Ø 12 mm). Measuring range -60 to +300 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
115	5	EH81.1	1	119,35

Immersion probes (Cl. 1)

Pliable. Precise and fast. Waterproof. Measuring range -60 to +1000 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
300	1.5	EH77.1	1	93,55

Thermohygrometers



Precision hygrometer

Hygrometer and thermometer. For measuring humidity, dewpoint, steam pressure. Range thermometer: -30 to +50 °C. Height 250 mm, Ø 100 mm, weight 192 g.

Art. No.	Pack Qty.	€
1908.1	1	59,05



Thermohygrometer

By TFA-Dostmann. Max/min value monitoring. Ideal for desktops or hanging.

Technical specifications:

Measuring range/ resolution	+10 to +99 % RH	-10.0 to +60.0 °C
Accuracy	±5 % RH	±1 °C
Dimensions (L x W x D)	110 x 95 x 20 mm	
Weight	171 g	

Delivery incl. battery Micro 1.5 V.

Art. No.	Pack Qty.	€
Y401.1	1	24,85

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Thermohygrometer

By TFA-Dostmann. Max/min value monitoring. Wall or table mount.

Technical specifications:

	Humidity	Temperature
Measurement range/ resolution	20 to 99 % RH	-20.0 to +50.0 °C
Accuracy	±4 % RH (35 to 75 % RH), ±5 % RH (residual measurement range)	±1.0 °C (0 to +40 °C) ±1.5 °C (residual measurement range)
Dimensions (L x W x D)	104 x 104 x 13 mm	
Weight	50 g	

Delivery incl. cell battery V 2032 GA, 3 V.

Art. No.	Pack Qty.	€
NA63.1	1	19,90

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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Thermohygrometer with alarm-LED

By Dostmann. Robust meter for measuring room temperature in laboratories, production and storage areas etc.

- Quick responding capacitive humidity sensor
- Dew point calculation (td)
- Max-/Min-function
- **LED-alarm indicates when humidity limit value has been exceeded**
- Battery life app. 1000 h at permanent run

Technical specifications:

Measuring range/resolution	0.0 to 99.0 % RH	-40.0 to +70.0 °C
Accuracy	±3.5 % RH (20 at 80 % RH) ±4 % RH (outside)	±0.5 °C
Dimensions (L x W x H)	105 x 105 x 44 mm	
Weight	125 g	

Delivery incl. 2 Micro 1.5 V batteries.

Art. No.	Pack Qty.	€
CK97.1	1	46,05

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Thermohygrometers



Indoor-/outdoor thermohygrometer

By TFA-Dostmann. With °C- and RH-outdoor sensor (cable length approx. 1.5 m). Simultaneous display of °C- and RH-values for inside and outside. Max-/Min-function. Ideal for desktop or wall assembly.

Technical specifications:

Measuring range/resolution	10 to 99 % RH	-10.0 to +60.0 °C
Accuracy	±5 % RH	±0.5 °C
Dimensions (L x W x D)	110 x 101 x 20 mm	
Weight	185 g	

Delivery incl. Micro 1.5 V battery.

Art. No.	Pack Qty.	€
HH28.1	1	37,10

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Pocket thermohygrometer testo 610

By Testo.

- With display light
- AUTO-OFF function saves batteries, can be switched off
- Min/Max function, hold function
- Dewpoint calculation (td)

Technical specifications:

Measuring range/resolution	0.0 to 100.0 % RH	-10.0 to +50.0 °C
Accuracy	±2.5 % RH (5.0 up to 95.0 % RH)	±0.5 °C
Dimensions (L x W x H)	119 x 46 x 25 mm	
Weight	250 g	

Delivery incl. wrist strap, belt pouch, protective cap, calibration protocol and 2 batteries Micro 1.5 V.

Art. No.	Pack Qty.	€
HY44.1	1	129,00

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Thermohygrometer with jumbo-display

By Amarell. Large display (W 79 x H 66 mm) for air humidity, temperature and clock (24-h-display with alarm clock). Memory for min/max-values. Daily memory reset and freezing point alarm (alarm at outdoor temperature ≤ 0 °C) can be activated. Removable temperature outdoor sensor with 3 m cable. Suitable for desk top or wall attachment.

Technical specifications:

Measuring range/resolution	20 to 99 % RH	Indoor 0.0 to +50.0 °C Outdoor -50.0 to +70.0 °C
Accuracy	±3 % RH	±1.0 °C
Dimensions (L x W x D)	110 x 98 x 21 mm	

Delivery incl. battery Micro 1.5 V.

Art. No.	Pack Qty.	€
AY02.1	1	39,70

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Humidity sticks testo 605-H1

By Testo. Precise humidity sensor with long durability. With calculation of dew point. Sensor is insensitive to dew. AUTO-OFF-function (10 mins). With pivotable display.

Technical specifications:

Measuring range/resolution	5.0 to 95.0 % RH	0.0 to +50.0 °C
Accuracy	±3 % RH	±0.5 °C
Dimensions (L x W x D)	180 x 37 x 36 mm	

Delivery incl. mounting clip and 3 batteries Micro 1.5 V.

Type	Art. No.	Pack Qty.	€
Humidity stick	P302.1	1	95,70
Humidity stick with ISO Certificate of Calibration, 75.3 % RH	P303.1	1	180,60

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Thermohygrometers



Thermohygrometer Dewpoint Pro

By Dostmann. Robust meter for measuring room climate in laboratories, buildings, etc.

- Fast-response capacitive humidity sensor (measuring cycle 1 s)
- Dew point calculation (td)
- Max/Min- and hold-function
- IP54-splashproof
- Battery life app. 1000 h at permanent run

Technical specifications:

Measuring range/resolution	0.0 to 99.0 % RH	-40.0 to +70.0 °C
Accuracy	±3 % RH (10 to 90 % RH) ±4 % RH (outside)	±0.5 °C
Dimensions (L x W x H)	170 x 50 x 17 mm	
Weight	100 g	

Delivery incl. 2 batteries, Micro 1.5 V.

Art. No.	Pack Qty.	€
CK09.1	1	70,65

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Hygro-thermometer

Precise, compact thermometer with simultaneous display of humidity and temperature. Two humidity reference cells 33 and 75 % RH enable monitoring and calibration. Also features min/max. display. Automatic switch-off.

Technical specifications:

Measuring range/resolution	0,0 to 99.8 % RH	-16.0 to +50.0 °C
Accuracy	±3 % RH	±1 °C
Dimensions (L x W x H)	175 x 42 x 16 mm	

Delivery incl. sturdy case, two reference cells and batteries.

Art. No.	Pack Qty.	€
L895.1	1	251,55

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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Thermohygrometer testo 608-H1/H2

By Testo. Ideal for monitoring room temperature and dew point in storage and clean rooms, laboratories, etc.

- Simultaneous display of **humidity and temperature**
- Dew point calculation td
- Max/min value monitoring
- Humidity sensor is insensitive to dew
- Ideal for desktops or hanging
- **Testo 608-H2 includes LED alarm which indicates when limit has been exceeded**

Technical specifications:

Model	testo 608-H1	testo 608-H2
Measuring range/resolution	+10.0 to +95.0 % RH 0.0 to +50.0 °C -20.0 to +50.0 °C td	+2.0 to +98.0 % RH -10.0 to +70.0 °C -40.0 to +70.0 °C td
Accuracy	±3 % RH ±0.5 °C	±2 % RH ±0.5 °C
Working temperature	0 to +50 °C	-10 to +70 °C
Dimensions (W x H x D)	120 x 89 x 40 mm	

Hygrometer testo 608-H1

Delivery incl. 9 V block battery.

Art. No.	Pack Qty.	€
X226.1	1	74,20

Alarm hygrometer testo 608-H2

Delivery incl. calibrating protocol and battery.

Art. No.	Pack Qty.	€
X227.1	1	107,50

Accessories:

E-Block 9 V battery	1025.1	1 piece	4,85
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General information on calibrating meters

Meters with DAkkS Certificates of Calibration:

A DAkkS Certificate of Calibration is issued by a accredited testing agency (must be approved and is monitored by Deutsche Akkreditierungsstelle [German Accreditation Agency]). Meter meets national standard requirements and can be used in accordance with ISO 9000 Quality Assurance Standards.
Very low preset tolerance (lower than required for works certificate).

The user of DAkkS certified meters can therefore issue internal works certificates. This is particularly of advantage in the Quality Assurance Department of larger firms where measuring instruments used in the Production Department must be tested and calibrated at specific intervals.
Individual test points should be customized depending upon temperature ranges under measurement.

Meters with a Works Certificate of Calibration:

A works certificate of calibration is issued after carrying out a comparison measurement with a DAkkS calibrated meter.
Unit meets national standard requirements and can be used in accordance with ISO 9000 Quality Assurance Standards.
Tolerance of measurement with works certificates is slightly higher than of a DAkkS certified unit. Individual test points should be customized depending upon temperature ranges under measurement.

Thermohygrometers



Thermohygrometer P330

By Dostmann. Robust hand-held meter for determining temperature and humidity.

- Capacitance humidity sensor
- Max/Min- and hold function
- Integral sensor holder
- Display background lighting

Technical specifications:

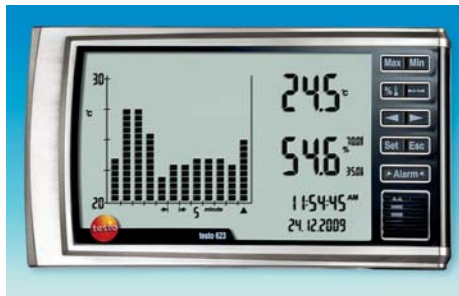
Measuring range/resolution	0 to 99 % RH	-40.0 to +70.0 °C
Accuracy	±3 % RH	±0.5 °C
Max. operating temp.	-40 to +70 °C	
Dimensions (L x W x H)	130 x 70 x 25 mm	
Weight	130 g	

Delivery incl. 2 batteries Mignon/AA 1.5 V.

Art. No.	Pack Qty.	€
AH55.1	1	105,35

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Thermohygrometer testo 623 with history function for measured values

By Testo.

- The large display shows the current and past temperature and humidity values as well as the date and time
- Selection option for temperature or humidity histogram
- Bar graph display of measured values over the last hour (for 5 min measuring cycle), 2 hours (for 10 min measuring cycle), 12 hours (for 1 h measuring cycle), 24 hours (for 2 h measuring cycle) or 12 days (for 24 h measuring cycle)
- Optical alarm (limit freely selectable)
- Min/max function
- Use as desktop or wall-mount unit

Technical specifications:

Measurement range/resolution	0,0 to 100,0 % RH	-10,0 to +60,0 °C
Accuracy	±2 % RH at +25 °C (10 to 90 % RH) ±3 % RH (remaining measuring range)	±0,4 °C
Operating temperature	-10 to +60 °C	
Dimensions (L x W x D)	185 x 105 x 36 mm	
Weight	240 g	

Delivery incl. calibration protocol and 4 Mignon 1.5 V batteries.

Art. No.	Pack Qty.	€
LY99.1	1	162,35

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Pocket thermohygrometer Pro

By TFA-Dostmann. Simultaneous display of temperature and air humidity. Min/max and differential functions. Metal casing with clip.

Technical specifications:

Measuring range/resolution	20 to 95 % RH	-20.0 to +60.0 °C
Accuracy	±3 % RH (30 to 80 % rh), ±5 % RH (rest measuring range)	±1.0 °C
Dimensions (L x Ø)	160 x 14 mm	
Weight	100 g	

Delivery incl. battery Micro 1.5 V.

Art. No.	Pack Qty.	€
LN46.1	1	46,25

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Pocket-thermohygrometer

By TFA-Dostmann. Simultaneous display of temperature and air humidity. Stores min-/max-values in °C and RH.

Technical specifications:

Measuring range/resolution	20 to 90 % RH	-20.0 to +50.0 °C
Accuracy	±5 % RH (35 to 75 % RH) ±7 % RH (rest measuring range)	±1.0 °C
Dimensions (L x W x D)	150 x 20 x 16 mm	

Delivery incl. cell battery 1.5 V.

Art. No.	Pack Qty.	€
X684.1	1	32,20

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Thermohygrometers



Thermohygrometer testo 625

By Testo. With integral capacitive humidity sensor head for measuring air humidity and temperature. Two row display for indicating relative humidity or dewpoint as well as temperature. The humidity sensor head can be removed when measuring inaccessible places and attached to the handle with sensor lead (please order separately). **Further cordless measurement transfer to the meter is possible via radio handle and radio module (please order separately).**

- Min/Max-values
- Hold-button for retaining measured value
- Display light
- Auto-Off function

Technical specifications:

Measuring ranges/resolution	0.0 to 100.0 % RH	-10.0 to +60.0 °C
Accuracy	±2.5 % RH (+5 to +95 % RH)	±0.5 °C
Working temperature	-20 to +50 °C	
Dimensions (W x D x H)	64 x 40 x 182 mm	
Weight	195 g	

Delivery incl. attachable humidity sensor head, E-Block-battery 9 V and calibrating protocol.

Art. No.	Pack Qty.	€
EH97.1	1	213,95

Accessories for Thermohygrometer testo 625

By Testo.

Type	Art. No.	Pack Qty.	€
Handle for humidity sensor head	EH98.1	1	44,10

Accessories:

Protective cover TopSafe	EH74.1	1	31,20
E-Block 9 V battery	1025.1	1 piece	4,85

Radio module and radio handle for testo 625

Radio module for cordless transfer of measured data

Frequency 869.85 MHz FSK.

Please order radio handle separately.

Type	Art. No.	Pack Qty.	€
Radio module	EH84.1	1	40,85

Radio handle, technical specifications:

Measuring cycle	0.5 or 10s, adjustable on handle
Range	max. 20 m (open air test site)
Battery type	2 x Micro/AAA 1.5 V batteries

Type	Art. No.	Pack Qty.	€
Radio handle incl. batteries	EH85.1	1	96,75

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Precision hygrometer P770

By Dostmann. **For analysing relative and absolute humidity, temperature, dew-point and flow.** Integrated calibration function for easy compensation of sensor tolerances. **With two sensor connections.** Storage of max-, min-, hold- and average values. USB-Online-PC-interface. Can be battery or wall socket operated. Dimensions: L 200 x W 93 x 44 mm.

Technical specifications:

Measuring range/resolution	
Humidity	0.0 to 100.0 % RH
Pt 100	-200.0 to +850.0 °C
Flow	0.00 to 40.00 m/s
Accuracy	
Humidity	±1.5 % RH
Pt 100	±0.1 °C (-100 to +200 °C) / ±0.1 % of mv (rest)
Flow	1 % of final value

Delivery incl. battery 9 V block.

Comes without probe and power pack (please order separately).

Art. No.	Pack Qty.	€
X732.1	1	344,00

Accessories:

E-Block 9 V battery	1025.1	1 piece	4,85
Power supply for P700-serie	H198.1	1	32,20

Service kit for hygrometer P770

By Dostmann. Contents: **precision hygrometer P770** (Art. No. X732.1), **multi-purpose** probe (Art. No. X825.1), humidity calibrating kit with calibrating solution for 50 % RH, transporting case, 9 V-storage battery and battery charger, 9 V battery and outlet pack, PC adapter cable and software.

Art. No.	Qty. (set)	€
X733.1	1	837,45

Accessories for precision hygrometer P770

By Dostmann.

Multi-purpose probe

For measuring humidity and temperature.

Measuring range: 0 to 100 % RH; -30 to +80 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
120	20	X825.1	1	174,15

Flow sensor

For air and gases. Measuring range: 0.3 to 20 m/s.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
175	22	X731.1	1	685,85

Temperature sensor Pt 100

For measuring in liquid, gaseous and powdery media.

Measuring range -50 to +350 °C.

Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
150	3	X722.1	1	78,50
300	3	X723.1	1	83,85

Thermohygrometers



Precision thermohygrometer HygroPalm 22

- By Rotronic. For determining relative humidity and temperature
- Also for measuring equilibrium moisture content and temperature in powders and granulates (only with penetration probe Pro)
 - 1-point probe-adjustment via buttons
 - With display light
 - Battery control
 - Casing material: ABS

Technical specifications:

Measuring range/resolution	0.0 to 100.0 % RH	-10.0 to +200.0 °C
Accuracy	±1.5 % RH	±0.3 K
Dimensions (L x W x D)	196 x 72 x 35 mm	
Weight	200 g	

Delivery incl. 9 V block battery. Without measuring probe, calibrating device and humidity standard, please order separately.

Art. No.	Pack Qty.	€
KX08.1	1	306,40

Accessories for thermohygrometer HygroPalm 22

Temperature sensor HC2-S

Application areas: Indoor temperature control, temperature control during storage etc. With polyethylene filter as sensor protection. Measuring range: 0 to 100.0 % RH, -50.0 to +100.0 °C.

Type	Art. No.	Pack Qty.	€
Length 83 mm, Ø 15 mm	KX05.1	1	263,40

Penetration probe, Basic

For measurement in dustfree bulk and building materials such as concrete, brick etc. Also suitable for corn, wheat and granulates. Not suitable for powdery substances. Measuring range: 0 to 100.0 % RH, -40.0 to +85.0 °C. With handle and cable (Length 2 m).

Type	Art. No.	Pack Qty.	€
Length 200 mm, Ø 5 mm	KX06.1	1	661,15

Penetration probe Pro

Robust probe for measuring in dusty bulk materials such as flour, sugar and building materials like concrete, brick etc. With steel sinter filter. Measuring range: 0 to 100.0 % RH, -40.0 to +85.0 °C. With handle and cable (Length 2 m).

Type	Art. No.	Pack Qty.	€
Length 280 mm, Ø 10 mm	KX07.1	1	731,00

Calibrating device

Type	Art. No.	Pack Qty.	€
for temperature probe HC2-S	CE88.1 *	1	123,65
for penetration probe Basic	CE89.1 *	1	150,50
for penetration probe Pro	CE90.1 *	1	150,50

Humidity standards each with 5 ampoules per humidity value

Type	Art. No.	Pack Qty.	€
10.0 % RH (±0.3 % RH)	CE92.1 *	1	52,70
35.0 % RH (±0.5 % RH)	CE93.1 *	1	52,70
80.0 % RH (±1.2 % RH)	CE94.1 *	1	52,70

* Please check with our Sales Department for delivery period of this product.

Accessories:

E-Block 9 V battery	1025.1	1 piece	4,85
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Mini material humidity meter, HumidCheck

By Dostmann. With measurement scale for building material and wood. Automatic switch-off. Easy to operate: Remove protective cap and stick measuring electrodes into object to be measured. With temperature display.

Technical specifications:

Measuring range/resolution	Wood Building material	6 to 42 % 0.2 to 2.0 %
Accuracy	Wood Building material	±2 % (<30 %) ±4 % (>30 %) ±0.1 % (<1.4 %) ±0.2 % (>1.4 %)
Dimensions (L x W x H)	80 x 4 x 20 mm	
Weight	50 g	

Delivery incl. wrist strap and 4 x1.5 V button cell batteries.

Art. No.	Pack Qty.	€
KT96.1	1	25,70

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Material hygrometer

For measuring moisture in wood and buildings, e.g. for derived timber products, veneer, plaster, stone floors, paperboard etc. With graphic measuring scale for both parameters. Easy to operate: Remove the protective cap and stick the electrode into the object to be measured.

Technical specifications:

Measuring range	Wood: 6 to 44 % building material: 0.2 to 2.0 %
Accuracy:	Wood: ±1 % building material: ±0.05 %
Dimensions (W x D x H)	40 x 32 x 130 mm
Weight	100 g

Delivery incl. 3 button cell batteries CR 2032, 3 V.

Art. No.	Pack Qty.	€
EX62.1	1	64,45

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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Barometer



① Pocket absolute pressure gauge, testo 511

By Testo.

- Display-light
- AUTO-OFF function saves batteries, can be switched off
- With barometric levelling
- Min/Max-function
- Tube connections for ID 4 and 6 mm

Technical specifications:

Measuring range/resolution	300.0 to 1200.0 hPa
Accuracy	±3.0 hPa
Units	hPa, mbar, Pa, mmH ₂ O, mmHg, inH ₂ O, inHg, psi, m, ft
Max. operating temperature	0 to +50 °C
Dimensions (L x W x D)	119 x 46 x 25 mm
Weight	255 g

Delivery incl. wrist strap, belt bag, protection cap, calibration protocol and 2 batteries Micro 1.5 V.

Art. No.	Pack Qty.	€
HY43.1	1	160,20

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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② Pocket differential pressure gauge testo 510

By Testo. For measuring low differential pressures (e.g. checking filter permeability), gasflow pressure measurement etc.

- With display light
- AUTO-OFF function saves batteries, can be switched off
- With temperature compensation
- Min/Max function, hold function
- With magnets on back for free-hand operation
- Tube connections for ID 4 and 6 mm

Technical specifications:

Measuring range/resolution	0.00 to 100.00 hPa
Accuracy	±0.03 hPa (0 to 0.30 hPa) ±0.05 hPa (0.31 to 1.00 hPa) ±(0.1 hPa + 1.5 % of mean value) (1.01 to 100 hPa)
Units	hPa, mbar, Pa, mmH ₂ O, mmHg, inH ₂ O, inHg, psi
Max. operating temperature	0 to +50 °C
Dimensions (L x W x D)	119 x 46 x 25 mm
Weight	255 g

Delivery incl. wrist strap, belt pouch, protective cap, calibration protocol and 2 batteries Micro 1.5 V.

Art. No.	Pack Qty.	€
HY42.1	1	138,70

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Digital vacuum-/barometer GDH 12 AN

By Greisinger.

- With piezoresistive absolute pressure sensor in external casing
- Cable length 1 m
- With battery change display and analogue output
- Sensor is suitable for non-corrosive and non-ionising gases and liquids

Technical specifications:

Measuring range	0 to 1300 mbar (hPa) absolute
Overload	2 bar absolute (without destruction or new calibration of sensor)
Accuracy	±1 mbar (meter) at +25 °C / ±0.2 % (sensor)
Working temperature	0 to +50 °C (meter) / -40 to +85 °C (sensor)
Dimensions, meter (W x H x D)	150 x 86 x 30 mm
Dimensions, sensor (W x H x D)	26 x 67.5 x 15 mm
Weight	320 g

Delivery incl. battery 9 V.

Art. No.	Pack Qty.	€
K785.1	1	252,65

Accessories:

E-Block 9 V battery	1025.1	1 pce.	4,85
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Weather stations



Weather station

For inside measurements only. With thermometer, hygrometer and barometer. Round, with plastic case, Ø 160 mm. Weight approx. 180 g. Accuracy: hygrometer $\pm 5\%$, temperature $\pm 1^\circ\text{C}$, barometer $\pm 5\text{-}10\%$.

Art. No.	Pack Qty.	€
A889.1	1	32,20



Weather station

For inside and outside. With thermometer, hygrometer and barometer. Stainless steel case, Ø 160 mm. Weight approx. 440 g. Accuracy: barometer $\pm 5\text{-}10\%$, thermometer $\pm 1^\circ\text{C}$, hygrometer $\pm 5\%$ RH.

Art. No.	Pack Qty.	€
Y246.1	1	65,60



Climate centre

For inside and outside. With hygrometer, barometer and thermometer. Stainless steel case. Dimensions: W 95 x H 280 x D 18 mm, display instruments Ø 70 mm, weight 380 g.

Art. No.	Pack Qty.	€
X257.1	1	48,35



Satellite-supported meteorological radio station Galileo Plus

By TFA-Dostmann. Regional weather forecasting for 50 different areas in Germany. The meteorological radio stations identify the correct weather region automatically. Data is transmitted several times a day via satellite over a special radio network in 466 MHz frequency range.

- Weather forecast for today and the next 3 days
- Forecast with symbols (36 different weather symbols) for the 4 times of the day (morning, afternoon, evening, night)
- Indication of the highest and lowest temperatures expected for each day
- Transmission of local outside temperature (measuring range -40.0 to $+60.0^\circ\text{C}$) and air humidity (measuring range 1 to 99 % RH) via wireless outer sender (868 MHz) with max. range 100 m (free field)
- Outside sensor indicates either the current temperature or air humidity. Dimensions of sensor: L 40 x W 130 x D 25 mm
- Clock with alarm and date
- Dimensions of receiver: L 121 x W 131 x D 40 mm

Delivery incl. Receiver with 2 batteries Baby/C 1.5 V, sensor with 2 batteries Mignon 1.5 V.

Art. No.	Pack Qty.	€
HT61.1	1	73,10

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
Baby/C 1.5 V battery	1023.2	2 pcs.	4,85

Rain gauges



Digital wireless rain gauge Monsun

By TFA-Dostmann. For wireless transmission of precipitation amount (up to 9999 mm) and ambient temperature (max. 30 m range in open air).

- Display of precipitation during the previous hour, 24 hours and total precipitation (since last reset), including time and date of storage
- Display of precipitation amount in a bar chart, the previous 7 days, 7 weeks or 7 months can be successively displayed
- Audible and visual alarms at onset of rainfall
- Max/Min function for interior and exterior temperature
- Programmable temperature alarm for interior and exterior
- Trend arrow for ambient temperature
- Self-draining rainwater tank
- Wall or table mountable receiver.

Technical specifications:

Measurement range	Precipitation amount	0 to 9999 mm
	Exterior temperature	-50 to +70 °C
	Interior temperature	-10 to +50 °C
Dimensions	Receiver unit	W 94 x D 25 x H 122 mm
	Transmitter unit	Ø 132 x H 160 mm
Power supply	Receiver unit	3 1.5 V batteries
	Transmitter unit	2 1.5 V batteries

Delivery incl. rainwater tank (transmitter unit) and batteries.

Art. No.	Pack Qty.	€
XA41.1	1	43,30

Accessories:

Spare exterior transmitter	XH13.1	1 piece	19,30
Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95



Analog rain gauges

By TFA-Dostmann. Made of **SAN**. For measuring precipitation amounts in meteorology, environmental analysis or field research. Graduations: 1 mm or 1 l/m².

- ① **Funnel-shaped**, with removable lid for reduced evaporation. Rain is collected through holes in the centre of the lid. Inner cone allows good readability of low precipitation amounts. Spike holder for inserting into the ground. Attaches to a rod with two screws (hole Ø 5 mm).

Delivery incl. cover, inner cone and spike holder.

Max. precipitation (mm)	Height (mm)	Opening Ø (mm)	Art. No.	Pack Qty.	€
70	310	112	TT48.1	1	9,35

- ② **Cylindrical**. Setting ring allows precipitation amounts to be recorded.

Delivery incl. retaining ring for attachment to a rod (hole Ø 25 mm).

Max. precipitation (mm)	Height (mm)	Opening Ø (mm)	Art. No.	Pack Qty.	€
40	205	75	TT49.1	1	6,60





Carbon dioxide meter Air CO₂ntrol 3000

By Dostmann. For monitoring the CO₂-concentration in buildings e.g. schools, universities and all public facilities.

- Case made of ABS plastic
- **Integrated 24-h data loggers** with READ function (measured values can be retrieved via display) and preset 30-min storage cycle
- Acoustic alarm goes off when a freely set CO₂-value is exceeded
- Battery or outlet operation (Battery life approx. 48 operating hours)

Technical specifications:

	Carbon dioxide	Temperature
Range	0 to 3000 ppm	0 to +50.0 °C
Resolution	1 ppm (0 to 1000 ppm) 5 ppm (1001 to 2000 ppm) 10 ppm (2001 to 3000 ppm)	0.1 °C
Accuracy:	±50 ppm or 5 % (larger value is valid)	±1 °C or ±1 % (larger value is valid)
Dimensions (L x W x D)	165 x 80 x 23 mm	
Weight	600 g	
Current	230 V, 50/60 Hz	

Delivery incl. Power unit and 4 batteries Mignon 1.5 V.

Art. No.	Pack Qty.	€
KL61.1	1	220,40

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Carbon dioxide measuring device CP11

By Rotronic. Monitors CO₂ concentration, relative humidity and temperature.

- Integrated measured value memory and real-time clock
- Audible CO₂ alarm
- Maximum, minimum and average value display
- Calculates the dewpoint (TP) and wet bulb temperature (FKT)
- Large backlit display
- Adjustable auto power off function
- Logger programming, data transfer and representation with Windows compatible software
- Mini USB interface

Technical specifications:

Measurement range/resolution	
CO ₂	0 to 5 000 ppm
Humidity	0.10 to 99.95 % rel. hum.
Temperature	-20 to +60 °C
Accuracy	
CO ₂	±30 ppm, ±5 % of the measured value
Humidity	2.5 % rel. hum. (10 to 90 % rel. hum)
Temperature	±0.3 K
General notes	
Measurement data memory	18,000 values with time stamp, automatic recording (ppm, % rF, °C) 99 single values with time stamp, manual recording (ppm, % rF, °C, TP, FKT)
Battery lifetime	approx. 50 h
Dimensions incl. sensor (H x W x D)	234 x 77 x 42 mm
Weight	290 g

Delivery incl. SW2.1 software, mini USB data cable, storage bag and 4 1.5 V Mignon batteries.
Please order mains adapter separately.

Art. No.	Pack Qty.	€
NL25.1	1	322,50

Accessories:

5 VDC mains adapter	NL26.1	1 pce.	46,25
Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95

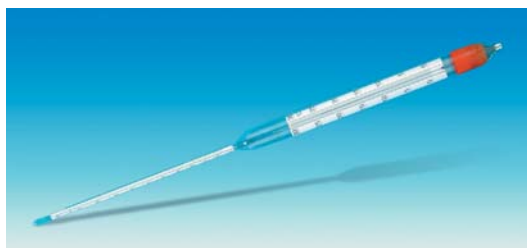
Densimeters



Alcoholometer (breathalyzer)

To European directive class III, to DIN 12803. Includes thermometer. Calibratable. Hg-filled. Reference temperature 20 °C. Body-Ø 22 mm. Length 330 mm.

Measuring range (% Vol.)	Graduation (% vol.)	Measurement range (°C)	Graduations (°C)	Art. No.	Pack Qty.	€
0-5	0.1	+5 to +25	0,2	TA34.1	1	56,95
5-10	0.1	+5 to +25	0,2	TA35.1	1	56,95
10-15	0.1	+5 to +25	0,2	TA36.1	1	56,95
15-20	0.1	+5 to +25	0,2	TA37.1	1	56,95
20-25	0.1	+5 to +25	0,2	TA38.1	1	56,95
25-30	0.1	+5 to +25	0,2	TA39.1	1	56,95
30-35	0.1	+5 to +25	0,2	TA40.1	1	56,95
35-40	0.1	+5 to +25	0,2	TA41.1	1	56,95
40-45	0.1	+5 to +25	0,2	TA42.1	1	60,00
45-50	0.1	+5 to +25	0,2	TA43.1	1	60,00
50-55	0.1	+5 to +25	0,2	TA44.1	1	60,00
55-60	0.1	+5 to +25	0,2	TA45.1	1	60,00
60-65	0.1	+5 to +25	0,2	TA46.1	1	60,00
65-70	0.1	+5 to +25	0,2	TA47.1	1	60,00
70-75	0.1	+5 to +25	0,2	TA48.1	1	52,35
75-80	0.1	+5 to +25	0,2	TA49.1	1	52,35
80-85	0.1	+5 to +25	0,2	TA50.1	1	52,35
85-90	0.1	+5 to +25	0,2	TA51.1	1	52,35
90-95	0.1	+5 to +25	0,2	TA52.1	1	52,35
95-100	0.1	+5 to +25	0,2	TA53.1	1	52,35
98-103	0.1	+5 to +25	0,2	TA54.1	1	52,35



Alcoholometer (breathalyzer)

With thermometer. Reference temperature 20 °C.

Standard alcoholometer, with blue special filling

Meas. range (% Vol.)	Graduation (% vol.)	Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
0-100	1	0 to 30	1	340	AT55.1	1	39,45

Precision alcoholometer, with Hg filling

Meas. range (% Vol.)	Graduation (% vol.)	Measurement range (°C)	Graduations (°C)	Length (mm)	Art. No.	Pack Qty.	€
10-67	0,5	0 to 30	1,0	480	AT56.1	1	59,70
65-100	0,2	0 to 30	0,5	480	AT57.1	1	62,15
90-100	0,1	0 to 30	0,2	480	AT58.1	1	68,40



Density hydrometers

Without thermometer. Graduations: 0.005 g/cm³. Reference temperature 20 °C. Overall length 300 mm. Body Ø 16 mm, stem Ø approx. 7-10 mm.

Measurement range (g/cm³)	Art. No.	Pack Qty.	€
0.700 to 1,000	PY81.1	1	9,60
1,000 to 1.500	PY82.1	1	10,65
1.500 to 2,000	PY83.1	1	12,05

Hydrometer spindle with twin scales

Without thermometer. Graduations: 0.01 and 1 °Bé. Reference temperature 20 °C. Overall length 350 mm. Body Ø 18 mm, stem Ø 9 mm.

Measurement range	Art. No.	Pack Qty.	€
0.70 to 2.00 g/cm³ / 0 to 70 °Bé	PY84.1	1	17,15



Density hydrometers

Without thermometer. Graduation 0.001 g/cm³. Reference temperature 20 °C. Total length 300 mm. Body-Ø 16 mm, stem-Ø 6.25 mm.

Measurement range (g/cm³)	Art. No.	Pack Qty.	€
0.600 to 0.700	HH87.1	1	10,70
0.700 to 0.800	HH88.1	1	10,70
0.800 to 0.900	HH89.1	1	10,70
0.900 to 1.000	HH90.1	1	10,70
1.000 to 1.100	HH91.1	1	11,30
1.100 to 1.200	HH92.1	1	11,30
1.200 to 1.300	HH93.1	1	11,30
1.300 to 1.400	HH94.1	1	12,05
1.400 to 1.500	HH95.1	1	12,05
1.500 to 1.600	HH96.1	1	12,05
1.600 to 1.700	HH97.1	1	12,05
1.700 to 1.800	HH98.1	1	12,05
1.800 to 1.900	HH99.1	1	12,05
1.900 to 2.000	HK03.1	1	12,05

Test-papers



Density hydrometers acc. to Baumé

Without thermometer. Graduation 0.1 °Bé. Reference temperature 15 °C. Total length 280 mm. Body-Ø 16 mm, stem-Ø 5.25 mm.

Measuring range (°Bé)	Art. No.	Pack Qty.	€
0.0 to 10.0	HH80.1	1	10,70
10.0 to 20.0	HH81.1	1	10,70
20.0 to 30.0	HH82.1	1	10,70
30.0 to 40.0	HH83.1	1	11,75
40.0 to 50.0	HH84.1	1	11,75
50.0 to 60.0	HH85.1	1	12,15
60.0 to 70.0	HH86.1	1	13,65



DURAN GROUP
Material
DURAN®
121°C

Hydrometer cylinders

Made of DURAN®. Not graduated. With round base and polished rim. Autoclavable.

Volume (ml)	Height (mm)	Ø (mm)	Art. No.	Pack Qty.	€
500	400	40	KE08.1	1	16,15
1000	500	50	KE09.1	1	26,65



Standard colour selection fan RAL K5

With **213 colour cards**, with a dull finish. Contains colour register RAL 840-HR, coding colours RAL-F 14 and colours RAL-F 81. Ideal for exact determination of colour tone in paper and TLC chromatography, and to determine colours of chemicals, crystals and natural dyes for textile and food colouring.

Art. No.	Pack Qty.	€
0426.1	1	50,45



OZONE test sticks

Simple test for analysis of the OZONE-content in the air. Test sticks should be placed in a wind-sheltered area and compared to a scale after 10 minutes.

Analysis	O ₃
Scale graduation	<90 / 90-150 / 150-210 / >210 µg/m ³
Colour change	from white to brown

Art. No.	Pack Qty.	€
L828.1	12	16.50



Oil test papers

For speedy detection of oil in water and/or soil. The pale blue paper changes colour to dark blue upon contact with hydrocarbons, especially benzene, fuel oil, lubricating oil, etc.

Technical specifications:

Substance	Colour reactions just visible (mg/l water)	Colour reactions clearly visible (mg/l water)
Petroleum ether (bp. 40-80 °C)	250	400
Motor gasoline (super)	10	25
Fuel oil EL	5	10
Lubricating oil	1	5

Art. No.	Pack Qty.	€
L832.1	100	22,90

Test swabs



Test papers

By Macherey-Nagel. For qualitative determination of ions and chemical compounds. The test paper changes colour above a specific detection limit.

Technical specifications:

Test paper	Verification of	Sensitivity limit / colour change
Plumbtesmo	Lead (Pb) Lead ions (Pb ²⁺)	5 mg/l Pb ²⁺ white-yellow to pink-red
Potassium iodide starch paper	Nitrite ions (NO ₂ ⁻) Free chlorine (Cl ₂)	1 mg/l NO ₂ ⁻ 1 mg/l free Cl ₂ white to blue-violet
Lead acetate paper	Hydrogen sulphide (H ₂ S) Sulphide ions (S ²⁻)	5 mg/l S ²⁻ white to brown/black
Phosphatesmo KM	Sperm, acid phosphatase	in trace amounts white to violet
Watesmo	Water (e.g. in organic solvents)	in trace amounts light blue to dark blue

Test paper	Packaging	Art. No.	Pack Qty.	€
Plumbtesmo	Paper strips, L 40 x W 25 mm	1252.1	40	48,00
Potassium iodide starch paper	Roll, L 5 m x W 7 mm	AXT3.1	1	12,40
Lead acetate paper	Roll, L 5 m x W 7 mm	AXT4.1	1	11,95
Phosphatesmo KM	Paper strips, L 30 x W 15 mm	AXT5.1	25	109,00
Watesmo	Roll, L 5 m x W 10 mm	AXT6.1	1	30,95



Rotilabo®-odour strips

For liquids. Made of filter carton 240 g/m². 5 blocks = 300 strips. Dimensions: W 6 x L 135 mm in blocks of 60 strips.

Art. No.	Pack Qty.	€
1679.1	5	16,50



Test sticks Quantofix®

By Macherey-Nagel. For semi-quantitative analysis of different substances. The test sticks consist of an 0.2 mm thick plastic strip with test paper sealed on at lower end. After the test strip has been wetted, the visible staining can be compared with the colour scale on the welt of the can. The concentration value can be read and/or a concentration area estimated. One container contains 100 test sticks 6 x 95 mm.

Type	Scale grading (mg/l)	Art. No.	Pack Qty.	€
Aluminium Al ³⁺	0-5-20-50-200-500	L865.1	100	41,10
Ammonium NH ₄ ⁺	0-10-25-50-100-200-400	H920.1	100	38,50
Ascorbic acid C ₆ H ₈ O ₆	0-50-100-200-300-500-1000-2000	LT42.1	100	26,80
Carbonate hardness CO ₃ ²⁻	0-3-6-10-15-20	L863.1	100	25,50
Chlorine Cl ₂	0-1-3-10-30-100	H921.1	100	49,80
Chloride Cl ⁻	0-500-1000-1500-2000 ≥3000	H922.1	100	28,40
Cyanide CN ⁻	0-1-3-10-30	L864.1	100	52,00
EDTA	0-100-200-300-400	LT47.1	100	25,50
Iron 100 Fe ²⁺ /Fe ³⁺	0-2-5-10-25-50-100	L830.1	100	21,00
Potassium K ⁺	0-200-400-700-1000-1500	LT48.1	100	38,80
Copper Cu ⁺ /Cu ²⁺	0-10-30-100-300	L831.1	100	21,80
Molybdenum Mo ⁶⁺	0-5-20-50-100-250	P921.1	100	55,80
Nickel Ni ²⁺	0-10-25-50-100-250-500-1000	LT49.1	100	25,90
Nitrate/Nitrite NO ₃ ⁻ /NO ₂ ⁻	0-10-25-50-100-250-500 / 0-1-5-10-20-40-80	C733.1	100	24,50
Nitrite NO ₂ ⁻	0-1-5-10-20-40-80	C734.1	100	23,50
Nitrite/pH NO ₂ ⁻ /pH	0-100-300-600-1000-2000-3000	LT43.1	100	24,90
	NO ₂ ⁻ 0-1-5-10-20-40-80 / pH 6,0-6,4-6,7-7,0-7,3-7,6-7,9-8,2-8,4-8,6-8,8-9,0-9,3-9,6	HL20.1	100	29,30
Per acetic acid C ₂ H ₄ O ₃	0-5-10-20-30-50	LT44.1	100	28,50
	0-50-100-200-300-400-500	LT45.1	100	28,50
	0-500-1000-1500-2000	LT46.1	100	32,50
Peroxide H ₂ O ₂	0-0,5-2-5-10-25	L829.1	100	22,95
	0-1-3-10-30-100	C735.1	100	22,70
Phosphate PO ₄ ³⁻	0-3-10-25-50-100	H923.1	100	36,50
Sulphate SO ₄ ²⁻	0->400->800->1200->1600	P922.1	100	26,30
Sulphite SO ₃ ²⁻	0-10-25-50-100-250-500-1000	C736.1	100	23,50
Tin Sn ²⁺	0-10-25-50-100-250-500	L866.1	100	36,20

Test kits



Quick test sticks AquaDur®

Ideal for semi-quantitative evaluation of **water mineral content (total hardness)**. Suitable as a fast first test of hardness values. Range from 0 °d to over 25 °d. Division into the following degrees of hardness: <3 °d, >5 °d, >10 °d, >15 °d, >20 °d, >25 °d. Test stick is dipped into the water sample. The colour changes and hardness can be evaluated after 1 min by comparing it with the supplied scale. Attention: Test paper should not be touched with fingers. One pack contains 100 test sticks 6 x 95 mm. Conversion: 1 °d = 1.8 °f = 1.25 °e = 17.8 mg/l CaCO₃

Art. No.	Pack Qty.	€
C725.1	100	22,95



Water hardness kit

Testing reagent is added drop by drop to 5 ml water sample until colour changes. Each drop equals 1 °dH. Pack with 2 x 15 ml reagent.

Warning H226-H319-H336

Art. No.	Pack Qty.	€
0519.1	1	19,15



Salt content test kit HI 3835

The basis is mercurimetric titration. Pack contents: 1 burette syringe with 2 ml pipettor tips, 3 reagent solutions, 1 ml vial and case.

Technical specifications:

Range	to 40 ppt (g/kg)
Sample volume	1 ml
Analytical method	titrimetric
Number of tests	100
Dimensions of case	200 x 120 x 60 mm
Weight	460 g

Danger H301-H310-H315-H319-H331-H373-H410

Art. No.	Pack Qty.	€
H479.1	1	63,80



Oxygen test kit HI 3810

Quick test for titrimatic **analysis of dissolved oxygen** using a modified method acc. to Winkler. Titrations are carried out with calibrated syringe and a standardized sodium thiosulphate solution. Measurement range 0 to 10 ppm oxygen. Adequate for 110 tests.

Art. No.	Pack Qty.	€
G013.1	1	73,70

- Winkler oxygen bottles, see page 29
- Oxygen meters, see page 811

Test kits



Environment combination-test kit HI 3814

With the 6 of the most commonly used tests to analyse acidity, alkalinity, pH-value, carbon dioxide, hardness and dissolved oxygen in water.
Contents: Ready-to-use solutions for 110 tests each with sample volumes of 5 ml, 10 ml, 15 ml, 50 ml and a pH meter. Case L 430 x W 300 x H 80 mm. Total weight 2700 g.

Range of testing:

Alkalinity	0 to 100 mg/l CaCO_3 0 to 300 mg/l CaCO_3
Acidity	0 to 100 mg/l CaCO_3 0 to 500 mg/l CaCO_3
Carbon dioxide	0 to 10 mg/l CO_2 0 to 50 mg/l CO_2 0 to 100 mg/l CO_2
Dissolved oxygen	0 to 10 mg/l O_2
Hardness	0 to 30 mg/l CaCO_3 0 to 300 mg/l CaCO_3
pH- value	0 to 14

Art. No.	Pack Qty.	€
0541.1	1	213,00

Water test kit HI 3817

Ideal for testing alkalinity, hardness, chloride, sulfite, iron content and pH in water.

Contents: Ready-to-use solutions for 110 tests each with sample volumes of 5 ml, 15 ml and 50 ml and a pH meter. Case L 430 x W 300 x H 80 mm. Total weight approx. 2700 g.

Range of testing:

Alkalinity	0 to 100 mg/l CaCO_3 0 to 300 mg/l CaCO_3
Chlorine	0 to 100 mg/l Cl^- 0 to 1000 mg/l Cl^-
Hardness	0 to 30 mg/l CaCO_3 0 to 300 mg/l CaCO_3
Sulfite	0 to 20 mg/l Na_2SO_3 0 to 200 mg/l Na_2SO_3
Iron	0 to 5 mg/l Iron
pH- value	0 to 14

Art. No.	Pack Qty.	€
0551.1	1	259,00



① VISOCOLOR® alpha test kits

By Macherey-Nagel. For colorimetric and volumetric procedures. The use of **multi-component reagents** means that **only 1 reagent is required for analysing** (2 reagents for Cl_2).

Contents: Sample vial with 5 ml ring marking, bottles with drops or powder of required reagents, dosing spoon for powder and colour card.

Type	Measuring range (mg/l)	No. of analysis	Art. No.	Pack Qty.	€
Ammonium NH_4^+	0-0,2-0,5-1-2-3	50	X319.1	1	32,00
Carbonate hardness	1 drop = 1°d	100	T361.1	1	17,90
Chlorine, Cl_2	0,25-0,5-1,0-1,5-2,0	150	T362.1	1	18,50
Total hardness	1 drop = 1°d	50	T363.1	1	20,40
Nitrate NO_3^-	2-8-15-30-50	100	X320.1	1	31,50
Nitrite NO_2^-	0,05-0,10-0,25-0,5-1,0	200	T364.1	1	21,00
Phosphate PO_4^{3-}	2-5-10-15-20	70	X321.1	1	30,80
Rest hardness °d	0,00-0,04-0,08-0,15-0,30	200	X322.1	1	34,50
pH 5,0-9,0	pH 5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0	200	T365.1	1	25,10

② VISOCOLOR® HE test kits

By Macherey-Nagel. This highly sensitive colorimetric measuring technique enables analysis of minimal substance concentrations. Combined with the application of highly sensitive substances and the application of an optical trick, double irradiation, the **sensitivity compared to other VISOCOLOR® test kits is enhanced by 10 - 100 times**.

Contents: sturdy plastic box, the required reagents, a comparator block for holding the revolving 10-colour disc and the 2 measuring glasses.

* Method in accordance with basic chemical factors of German unit processes.

Type	Measuring range (mg/l)	No. of analysis	Art. No.	Pack Qty.	€
Ammonium NH_4^+	0-0,02-0,04-0,07-0,10-0,15-0,20-0,30-0,40-0,50	110	T379.1	1	82,00
Chlorine Cl_2 free+total	0-0,02-0,04-0,06-0,10-0,15-0,20-0,30-0,40-0,60	each 160	T380.1	1	82,00
Cyanide CN^-	0-0,002-0,004-0,007-0,010-0,015-0,020-0,025-0,030-0,040	55	T381.1	1	82,00
Iron Fe	0-0,01-0,02-0,03-0,04-0,05-0,07-0,10-0,15-0,20	300	T382.1	1	82,00
Copper Cu^{2+}	0-0,04-0,07-0,10-0,15-0,20-0,25-0,30-0,40-0,50	150	T383.1	1	82,00
Manganese Mn	0-0,03-0,06-0,10-0,15-0,20-0,25-0,30-0,40-0,50	100	T384.1	1	82,00
Nitrite NO_2^-	0-0,005-0,010-0,015-0,02-0,03-0,04-0,06-0,08-0,10	150	T385.1	1	82,00
Phosphate P	0-0,05-0,10-0,15-0,20-0,3-0,4-0,6-0,8-1,0	300	T388.1	1	82,00
Phosphate P (DEV)*	0-0,01-0,02-0,03-0,05-0,07-0,10-0,15-0,20-0,25	100	T387.1	1	82,00
Silicium Si	0-0,01-0,02-0,03-0,05-0,07-0,10-0,15-0,20-0,30	120	T389.1	1	82,00
pH 4,0 - 10,0	pH 4,0-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0-10,0	500	T386.1	1	82,00



VISOCOLOR® ECO test kits

By Macherey-Nagel. For colorimetric and volumetric procedures. ECO-test kits are suitable for **the analysis of water contents with low limiting values whereby environmentally hazardous or toxic substances are not used**. With pictogram for easy operation. Contents: 2 measuring glasses, 20 mm, with screw cap, sliding comparator for holding measuring glasses, colour card, plastic syringe 5 ml, bottles with reagents and dosing spoons.

Assays are suitable for use in photometer PF12, except Art. Nos. X323.1, T367.1, T372.1, T378.1, Y559.1 and T376.1.

Type	Measuring range (mg/l)	No. of analysis	Art. No.	Pack Qty.	€
Ammonium NH_4^+	0-0,2-0,3-0,5-0,7-1-2-3	50	T366.1	1	44,50
Calcium Ca^{2+}	1 drop = 5 mg/l	100	X323.1	1	28,70
Carbonate hardness	1 drop = 1°d	100	T367.1	1	37,60
Chlorine Cl_2	<0,1-0,1-0,2-0,3-0,4-0,6-0,9-1,2-2,0	150	T368.1	1	39,80
Chloride Cl^-	1-2-4-7-12-20-40-60	90	T369.1	1	46,00
Chrome (VI) Cr	0,02-0,05-0,10-0,15-0,20-0,30-0,40-0,50	140	T370.1	1	46,80
Cyanide CN^-	0-0,01-0,02-0,03-0,05-0,07-0,10-0,15-0,20	100	X324.1	1	59,60
Cyanuric acid Cya	10-15-20-30-40-60-80-100	100	X325.1	1	73,70
Iron Fe	0-0,04-0,07-0,10-0,15-0,20-0,30-0,50-1,0	100	T371.1	1	40,80
Total hardness	Drop = 1°d	100	T372.1	1	37,50
Potassium K^+	2-3-4-6-8-10-15	60	Y556.1	1	86,90
Silicic acid SiO_2	0-0,2-0,4-0,6-1,0-1,5-2,0-2,5-3,0	80	Y557.1	1	50,90
Copper Cu^{2+}	0-0,1-0,2-0,3-0,5-0,7-1,0-1,5	100	T373.1	1	44,40
Manganese Mn	0-0,1-0,2-0,3-0,5-0,7-0,9-1,2-1,5	70	Y558.1	1	55,00
Nickel Ni^{2+}	0-0,1-0,2-0,3-0,5-0,7-0,9-1,2-1,5	150	X326.1	1	67,10
Nitrate NO_3^-	0-4-10-20-30-50-70-90-120	120	T374.1	1	39,10
Nitrite NO_2^-	0-0,02-0,03-0,05-0,07-0,1-0,2-0,3-0,5	150	T375.1	1	39,50
Phosphate $\text{PO}_4\text{-P}$	0-0,2-0,3-0,5-0,7-1-2-3-5	80	T377.1	1	39,10
Swimming pool (Chlorine + pH)	Cl_2 0,1-0,2-0,3-0,4-0,6-0,9-1,2-2,0 pH 6,9-7,2-7,4-7,6-7,8-8,2	150	T378.1	1	52,50
Sulphide S^{2-}	0-0,1-0,2-0,3-0,4-0,5-0,6-0,7-0,8	90	Y560.1	1	52,90
Sulfite SO_3^{2-}	1 drop = 1 mg/l	60	Y559.1	1	40,80
pH 4,0 - 9,0	pH 4,0-5,0-6,0-6,5-7,0-7,5-8,0-8,5-9,0	400	T376.1	1	39,50



Photometer PF-12^{Plus} for water analysis

By Macherey-Nagel. Portable photometer for field and laboratory use with preprogrammed Visocolor®-ECO and Nanocolor® round cuvette tests

- Illuminated graphic display
- Automatic wavelength setting
- Cell shaft for round cells 16 mm AD
- USB-interface for data transfer and power supply
- Dust and waterproof casing according to IP 68

Technical specifications:

Optic	Automatic filter wheel with 7 interference filters
Wave lengths	345/436/470/540/585/620/690 nm
Wave length precision	±2 nm
Light source	Wolfram lamp
Photometric range	±3 E
Photometric accuracy	±1 %
Memory	1000 readings, GLP-conform
Interface	USB 2.0
Dimensions (L x W x D)	215 x 100 x 65 mm

Delivery incl. software DVD, 4 Mignon 1.5 V batteries, 4 empty cuvettes, funnel, beaker, syringe, USB-cord, calibrating cuvette and transport case. Please order USB-power adapter separately if required.

Art. No.	Pack Qty.	€
LP73.1 *	1	890,00

Accessories:

USB-power adapter	LP74.1 *	1 piece	31,00
Spare cuvettes 16 mm AD with screw cap	X367.1 *	20 pcs.	29,00
Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95

* Longer delivery times possible. Please check with our Sales Department

Photometer



AL100 chlorine photometer

By Aqualytic. For free, bound and total chlorine.

- Internal ring buffer for 16 datasets with real-time clock and date
- Auto-Off function
- Countdown function to maintain reaction time

Determination of chlorine content using reagent tablets.

- Measurement of free chlorine using DPD No. 1
- Measurement of total chlorine using DPD No. 1 + DPD No. 3

Checking the detection accuracy and reproducibility of measurement results using reference standard kit (please order separately).

Technical specifications:

Measurement range/resolution	0.01 to 6.00 mg/l
Measurement tolerances of DPD reagent tablets	0.00 to 1.00 mg/l: ± 0.05 mg/l 1.01 to 2.00 mg/l: ± 0.10 mg/l 2.01 to 3.00 mg/l: ± 0.20 mg/l 3.01 to 4.00 mg/l: ± 0.30 mg/l 4.01 to 6.00 mg/l: ± 0.40 mg/l
Optics	LEDs, interference filter and photosensor
Wavelength	530 nm $\Delta\lambda = 5$ nm
Wavelength accuracy	± 1 nm
Photometric accuracy at 20-25 °C	3 % FS
Protection class	IP 68
Permissible ambient conditions	5 to 40 °C at 30 to 90 % rel. humidity
Dimensions (L x W x H)	155 x 75 x 35 mm
Weight (incl. batteries)	approx. 260 g

Delivery incl. 3 glass round vials with covers, 1 stirring bar, 1 brush, DPD No. 1 + No. 3 reagent tablets, plastic case and 4 type Micro/AAA batteries.

Art. No.	Pack Qty.	€
YE08.1	1	407,45

Accessories:

DPD No. 1 reagent tablets (free chlorine)	YE09.1	100 pcs.	22,05
DPD No. 3 reagent tablets (total chlorine)	YE10.1	100 pcs.	22,05
Replacement cells with cover, H 48 x Ø 24 mm	YE11.1	12 pcs.	68,50
Reference standard kit for chlorine (0.5 and 2.0 mg/l)	YE12.1	1 piece	63,35
Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35



Turbidimeter AL250 T-IR

By Aqualytic. With a broad measuring range of 0.01 to 1100 NTU

(= TE/F = FNU) and a detection limit of 0.01 NTU, it can be used in different areas from sewage to drinking water. For stained and colourless water.

- With infrared light source
- Backlight LCD display
- Automatic switch-off after 10 min to prolong battery life
- Internal ring buffer for 16 data records with real time clock and date
- Key pad

Technical specifications:

Measuring range	0.01 to 1100 NTU (Auto-range)
Resolution	0.01 to 9.99 NTU 10.0 to 99.9 NTU 100 to 1100 NTU
Accuracy	± 2.5 % measured value or 0.01 NTU (0 to 500 NTU) ± 5 % of measured value (500 to 1100 NTU)
Optic	Temperature-compensated LED (Wavelength 860 nm)
Dimensions (L x W x H)	190 x 110 x 55 mm
Weight	400 g

Delivery incl. 4 turbidity standards (<0.1, 20, 200, 800 NTU), E-Block-battery 9 V, 2 cuvettes and transport cases.

Art. No.	Pack Qty.	€
LP38.1	1	677,25

Accessories:

Set of turbidity standards (<0.1, 20, 200, 800 NTU)	LP39.1	1 piece	213,95
Set of measuring cuvettes with black lid, height 55 mm, Ø 24 mm	LP40.1	12 pcs.	105,90
E-Block 9 V battery	1025.1	1 piece	4,85



Rotilabo®-universal indicator papers type Eco

For fast and exact measurement of coloured or cloudy and aqueous solutions. Plastic tin with colour scale. On rolls, 5 m long, 7 mm wide.

pH-measuring range	pH graduation	Art. No.	Pack Qty.	€
0,0-10,0	1,0	AP99.1	1	5,95
1,0-11,0	1,0	AX00.1	1	5,95
1,0-14,0	1,0/2,0	AX01.1	1	5,95
0,5-5,0	0,5	AX02.1	1	5,95
5,0-9,0	0,5	AX03.1	1	5,95
6,5-10,0	0,5	AX04.1	1	5,95
9,0-13,0	0,5	AX05.1	1	5,95
12,0-14,0	0,5	AX06.1	1	5,95



Universal pH indicator paper Tritest

Comes on rolls. With 3 indicator zones (1 main and 2 secondary zones) for better estimation of intermediate values. Range pH 1-11, steps 1.0 pH. A pack contains 2 rotating plastic tins with indicator paper and colour scale. Two different types available.

Width 10 mm, length 5 m per tin.

Type	Art. No.	Pack Qty.	€
Pack of 2 tins	C726.1	1	23,80
Refill pack of 3 rolls	C727.1	1	24,60

Width 14 mm, length 6 m per tin.

With 2 hydrophobic zones for clearer readings in alkaline range.

Type	Art. No.	Pack Qty.	€
Pack of 2 tins	C728.1	1	30,70
Refill pack of 3 rolls	C729.1	1	31,60



Unisol Indicator solutions

By Macherey-Nagel. For pH measurement in weak buffered solutions, in pure water, in surface water and in highly diluted acids or alkalis. Droplets of an indicator solution are added to the sample and the reaction colour is compared to a colour chart.

Delivery incl. 100 ml dropper bottle containing reagent (sufficient for approx. 500 pH measurements), colour chart and 1 type 13/72 measuring cuvette.

Danger H225

Type	pH graduation	Art. No.	Pack Qty.	€
UNISOL 410	4.0-4.5-5.0-5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0-9.5-10.0	TK45.1	1	25,50
UNISOL 113	1-2-3-4-5-6-7-8-9-10-11-12-13	TK46.1	1	25,50

Accessories:

Replacement rectangular measuring cuvettes, made of PMMA, type 13/72	TK47.1	5	30,50
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Litmus papers

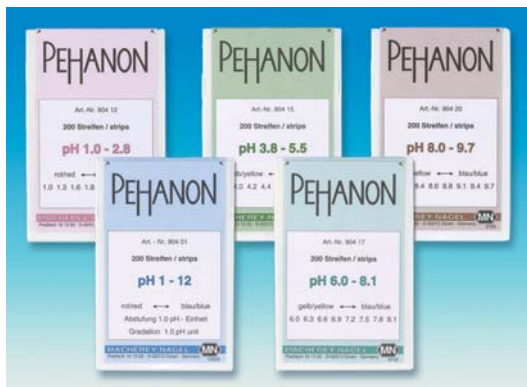
Comes on rolls, 10 mm wide and 5 m long.

Measurement range	Transition	Colour change	Art. No.	Pack Qty. (roll)	€
blue pH 8.0-5.0	alkalic/acidic	blue/red	8222.1	1	9,50
neutral pH 5.0-8.0	to acidic to alkalic	violet/red (violet/blue)	8223.1	1	9,50
red pH 5.0-8.0	acidic/alkalic	red/blue	8224.1	1	9,50

Refill packs

Measurement range	Transition	Colour change	Art. No.	Pack Qty. (roll)	€
blue pH 8.0-5.0	alkalic/acidic	blue/red	8409.1	3	13,90
neutral pH 5.0-8.0	to acidic to alkalic	violet/red (violet/blue)	8410.1	3	13,90
red pH 5.0-8.0	acidic/alkalic	red/blue	8411.1	3	13,90

pH-papers



PEHANON® indicator papers

By Macherey-Nagel. With colour comparison scale on each test strip. Ideal for stained solutions and suspensions, as the resultant colour shift has the same effect on the indicator and comparison colours. The individual colour zones are separated by hydrophobic gaps. One tin contains 200 strips (W 11 x L 100 mm).

pH-measuring range	pH graduation	Art. No.	Pack Qty.	€
1-12	1-2-3-4-5-6-7-8-9-10-11-12	EA47.1	200	15,40
0-1,8	0-0,3-0,6-0,8-1,0-1,2-1,5-1,8	AXT7.1	200	12,95
1,0-2,8	1,0-1,3-1,6-1,8-2,0-2,2-2,5-2,8	EA48.1	200	13,50
1,8-3,8	1,8-2,1-2,4-2,7-3,0-3,2-3,5-3,8	AXT8.1	200	12,95
2,8-4,6	2,8-3,1-3,4-3,6-3,8-4,0-4,3-4,6	AXT9.1	200	12,95
3,8-5,5	3,8-4,0-4,2-4,4-4,6-4,9-5,2-5,5	EA49.1	200	13,50
4,0-9,0	4,0-4,5-5,0-5,5-6,0-6,5-7,0-7,5-8,0-8,5-9,0	AYA0.1	200	12,95
5,2-6,8	5,2-5,5-5,7-5,9-6,1-6,3-6,5-6,8	AYA1.1	200	12,95
6,0-8,1	6,0-6,3-6,6-6,9-7,2-7,5-7,8-8,1	EA50.1	200	13,50
7,2-8,8	7,2-7,4-7,6-7,8-8,0-8,2-8,5-8,8	AYA2.1	200	12,95
8,0-9,7	8,0-8,2-8,4-8,6-8,8-9,1-9,4-9,7	EA51.1	200	13,50
9,5-12,0	9,5-10,0-10,5-11,0-11,5-12,0	AYA3.1	200	12,95
10,5-13,0	10,5-11,0-11,5-12,0-12,5-13,0	AYA4.1	200	12,95
12,0-14,0	12,0-12,5-13,0-13,5-14,0	AYA5.1	200	12,95



Universal indicator sticks pH-Fix

Test field made of colour-impregnated cellulose. Colour scale with colour grading included. Reliable, **non-bleeding**. Pack contains 100 sticks (L 85 x W 6 mm).

① In square plastic box

pH-measuring range	pH graduation	Art. No.	Pack Qty.	€
0-14	1.0	0549.2	100	10,90
0.0-6.0	0.5	C730.2	100	11,95
2.0-9.0	0.5	H913.2	100	11,30
4.5-10.0	0.5	C731.2	100	10,70
7.0-14.0	0.5	C732.2	100	11,95
0.3-2.3	0.3/0.4	H914.2	100	11,50
1.7-3.8	0.3	H915.2	100	11,50
3.6-6.1	0.3/0.5	H916.2	100	11,50
5.1-7.2	0.3	H917.2	100	11,50
6.0-7.7	0.3/0.4	H918.2	100	11,50
7.5-9.5	0.2-0.4	H919.2	100	11,50

② In round plastic box with snap-on lid

Single-handed opening and closing of lid with thumb.

pH-measuring range	pH graduation	Art. No.	Pack Qty.	€
0-14	1.0	KH69.1	100	11,90
3.6-6.1	0.3/0.5	LH91.1	100	11,50



Universal indicator paper pH 1-11 and pH 1-14

Plastic rotating container with colour scale. Contains 1 roll, 5 m long and 7 mm wide. 1.0 pH intervals. Rolls individually packaged in refill pack.

Type	Art. No.	Pack Qty.	€
Tin pH 1-11	L861.1	1	10,80
Refill pack pH 1-11 of 3 rolls	L862.1	1	16,20
Tin pH 1-14	N360.1	1	10,50
Refill pack pH 1-14 of 3 rolls	N361.1	1	15,50



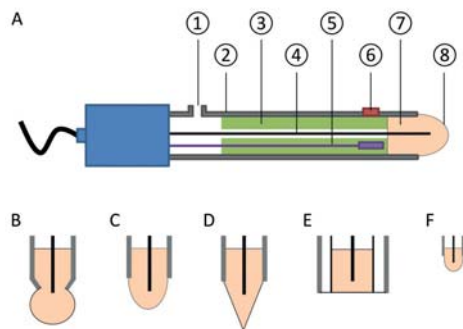


Fig.:

A: Longitudinal section through a pH single-rod measuring cell:

① Filler neck, ② Electrode, ③ Reference electrolyte, ④ Outlet, ⑤ Reference inlet, ⑥ Diaphragm, ⑦ Internal buffer, ⑧ pH-sensitive glass membrane

B-F: Application-specific types of pH-sensitive glass membrane

Choosing the right pH single-rod measuring cell

During the pH measurement a pH single-rod measuring cell (see Fig. A) is inserted into the sample solution in such a way that the pH-sensitive glass membrane interacts with the hydrogen ions ("protons") in the sample solution. The resultant voltage potential is dependent on the concentration and is measured by the measuring instrument and converted to a pH value.

pH single-rod measuring cells are distinguished, among other things, by the reference electrolyte, the diaphragms, the shape of the glass membrane and the electrode material (glass or plastic). The sample solution dictates which electrode is most suitable for the pH measurement.

The **reference electrolyte** is stored inside the pH single-rod measuring cell. It is in contact with the sample solution via a special connection, the so-called diaphragm, and can flow into the sample solution in a controlled manner. Reference electrolytes are roughly subdivided into two categories - liquid electrolytes and gel electrolytes.

- pH single-rod measuring cells containing **liquid electrolyte** have a faster response time, greater measurement certainty and longer life. The electrolyte is refillable, but is also completely exchangeable and more heat resistant.
- pH single-rod measuring cells containing **gel electrolyte** incur virtually no loss of electrolyte during the measurement and do not need to be refilled. They are rugged, require little maintenance and affordable, but they are unsuitable for highly acidic/basic solutions with a low ion content.

The connection between the electrolyte and the sample solution is made in a different way. It is important that the diaphragm not become clogged by the sample solution (e.g. by viscous solutions, suspensions, aqueous samples with a high protein content), as otherwise it will not be possible to obtain a correct pH measurement.

- The **ceramic diaphragm** has a porous structure which has a high chemical resistance, but is highly sensitive to contamination. This diaphragm is suitable for standard measurements in aqueous solutions which are free of suspended matter.
- The **platinum diaphragm** consists of fine, smooth platinum wires which are twisted together and fused into the glass shaft of the pH single-rod measuring cell. The electrolyte flows out through cavities between the platinum wires. The platinum diaphragm does not clog up as quickly as the ceramic diaphragm, but it is unsuitable for sample solutions with a strong oxidising or reducing effect.
- The **fibre diaphragm** is similar to the platinum diaphragm, but is less chemically stable. It comprises a non-metallic fibre bundle (e.g. made of nylon) and often contains a gel electrolyte.
- The **ground joint diaphragm** is suitable for measuring pH in contaminated solutions, sludge, suspensions, emulsions and viscous media. The bottom section of the electrode is ground and covered by a sleeve. The electrolyte flows out from the fine gap between the shaft and sleeve at a high velocity. This also allows the pH of sample solutions with a low ion content to be measured. The diaphragm can be cleaned very easily by pushing up the sleeve.
- The **hole diaphragm** is a small connecting hole between the gel electrolytes and the sample medium. This diaphragm is highly resistant to clogging because it does not have a reticular structure.

Depending on application, the pH-sensitive glass membrane is shaped in a specific way (see Fig. B-F).

- For standard applications, the glass membrane has either a **spherical** structure (B) or a **hemispherical** structure (C).
- For insertion measurements in semi-solid, pasty and solid samples, the glass membrane is **tapered** (D).
- For surface measurements and droplet-sized samples, the glass membrane is **flat** (E).
- For small quantities of fluid and sample solutions in narrow vessels, there is a micro version in which the glass membrane is **narrow** and **hemispherical** (F).

Temperature compensation

One of the key factors influencing pH measurements is the temperature. For this reason, only pH values which have been measured at the same temperature should be compared with one another. In order to correlate the pH value with the actual temperature of the sample solution, temperature compensation should be carried out. The temperature can either be entered manually into the pH meter or measured automatically by an additional temperature sensor.

Calibration

A pH single-rod measuring cell is characterised by its zero point and its slope. At a pH of 7 the electrical voltage at the zero point is approx. 0 mV. The slope describes the change of voltage between two pH units. Since these characteristics change as a function of time, the sensor should be calibrated regularly using a calibration solution with a known pH. This is particularly important **after cleaning, maintenance or long periods of storage** of the pH electrode. To obtain more exact test results, **2-point calibration** should be carried out at least once and the **pH buffer solutions** is use should have a pH nearest to the expected pH values.

Storage

pH single-rod measuring cells are stored in an **aqueous, solution with a high ion content**. A solution which matches the inner electrolyte is recommended. The pH 4 buffer solution can be used as an alternative. However, pH single-rod measuring cells should never be stored in distilled water.

For longer periods of storage (several weeks to months), pH single-rod measuring cells can also be stored in a dry state. The electrodes will age more slowly as a result, but the outer hydrated layer on the pH-sensitive glass membrane which forms through contact with aqueous solutions will be irreparably damaged. Therefore, pH single-rod measuring cells which have been stored in a dry state have to be wetted again prior to initial use. For this purpose, the pH single-rod measuring cell is regenerated overnight in the storage solution.

Care and maintenance

With proper care and maintenance, pH single-rod measuring cells will deliver more exact measurement results, shorter response times and last longer.

- After each measurement the electrode must be flushed with deionised water and stored in the storage solution. If the electrode is dabbed with a paper towel, its rough surface should not come into contact with the pH-sensitive glass membrane.
- pH single-rod measuring cells containing liquid electrolyte have to be refilled. It is important that the electrolyte level does not drop below that of the sample solution because it will otherwise flow into the electrode.
- To prevent crystallisation of the electrolyte, the electrolyte should be completely exchanged on a regular basis.
- If air bubbles form inside the measuring cell, they can be removed by carefully shaking the electrode. Air trapped in the vicinity of the glass membrane leads to unstable measurement values.
- If the electrodes or the diaphragm are contaminated, various cleaning solutions can be used.

Useful life

The pH single-rod measuring cell is a **consumable** subject to diminishing performance over time. Its useful life is considerably reduced by high temperatures (>50 °C) and measurements at extreme pH values in particular. However, the type of sample solution, duration and frequency of measurement and, not least, electrode maintenance are also factors which influence the useful life of the measuring cell. Ageing symptoms include longer response time, decreasing slope and zero shift.

pH-buffer solutions



pH buffer tablets

For pH tester. Accuracy ± 0.05 pH.

Dissolve one pH buffer tablet in 20 ml of deionised/distilled water.

pH value	Art. No.	Pack Qty.	€
4	YT50.1	100	19,30
7	YT51.1	100	19,30
10	YT52.1	100	19,30



pH-buffer solutions

For pH-meter. Accuracy ± 0.01 pH.

pH-value	500 ml without certificate		1000 ml without certificate		500 ml with manufacturer's certificate	
	Art. No.	€	Art. No.	€	Art. No.	€
4,01	9602.1	13,20	H906.1	15,40	AK52.1	19,25
6,86	9603.1	13,75	H907.1	15,95	AK53.1	19,25
7,01	9604.1	13,20	H908.1	15,40	AK54.1	19,25
9,18	9605.1	13,75	H909.1	15,95	AK55.1	19,25
10,01	9606.1	13,20	H910.1	15,40	AK56.1	19,25



Precision-pH-buffer solutions

For pH-meter with high resolution and accuracy.

With original works certificate. Accuracy ± 0.002 pH.

pH-value	Art. No.	Pack Qty. (ml)	€
4,010	EN87.1	500	30,80
7,010	EN88.1	500	30,80
10,010	EN89.1	500	30,80



pH-buffer solutions, ready-to-use

- Manufactured from high-purity buffer substances
- No need for time-consuming drying and weighing of reagents
- Quick and precise calibration of measuring equipment
- Stabilised against algae and bacterial action

pH-value	Type	Art. No.	Pack Qty.	Packaging	€
1,00 $\pm 0,05$ (20 °C)	colourless	T180.2	500 ml	plastic	15,60
		T180.1	1 l	plastic	22,05
1,679 $\pm 0,03$ (25 °C)		8112.1	1 l	plastic	38,60
2,00 $\pm 0,02$ (20 °C)	colourless	P715.2	500 ml	plastic	15,60
		P715.1	1 l	plastic	22,05
3,00 $\pm 0,02$ (20 °C)	colourless	T181.2	500 ml	plastic	15,60
		T181.1	1 l	plastic	22,05
3,776 $\pm 0,012$ (25 °C)	colourless	4280.1	500 ml	plastic	16,70
		4280.2	1 l	plastic	24,20
4,00 $\pm 0,02$ (20 °C)	colourless	P712.3	500 ml	plastic	15,60
		P712.1	1 l	plastic	22,05
		P712.2	10 l	plastic	143,55
4,00 $\pm 0,02$ (20 °C)	tinted red	A517.3	250 ml	twin neck bottle	12,40
		A517.2	500 ml	plastic	15,60
		A517.4	500 ml	twin neck bottle	17,10
		A517.1	1 l	plastic	22,05
4,005 $\pm 0,02$ (25 °C)	colourless	4281.1	500 ml	plastic	16,70
		4281.2	1 l	plastic	24,20
4,62 $\pm 0,02$ (20 °C)	colourless	T182.1	1 l	plastic	22,50
5,00 $\pm 0,02$ (20 °C)	colourless	T183.2	500 ml	plastic	15,60
		T183.1	1 l	plastic	22,05
6,00 $\pm 0,02$ (20 °C)	colourless	T184.2	500 ml	plastic	15,60
		T184.1	1 l	plastic	22,05
6,865 $\pm 0,02$ (25 °C)	colourless	4284.1	500 ml	plastic	16,70
		4284.2	1 l	plastic	24,20
6,88 $\pm 0,02$ (20 °C)	colourless	T185.1	1 l	plastic	22,50
7,00 $\pm 0,02$ (20 °C)	colourless	A518.3	500 ml	plastic	15,60
		A518.1	1 l	plastic	22,05
		A518.2	10 l	plastic	143,55
7,00 $\pm 0,02$ (20 °C)	tinted green	P713.3	250 ml	twin neck bottle	12,40
		P713.2	500 ml	plastic	15,60
		P713.4	500 ml	twin neck bottle	17,10
		P713.1	1 l	plastic	22,05
7,413 $\pm 0,02$ (25 °C)	colourless	4285.1	500 ml	plastic	16,70
		4285.2	1 l	plastic	24,20
8,00 $\pm 0,02$ (20 °C)	colourless	T186.2	500 ml	plastic	15,60
		T186.1	1 l	plastic	22,05
9,00 $\pm 0,02$ (20 °C)	colourless	A519.3	500 ml	plastic	15,60
		A519.1	1 l	plastic	22,05
		A519.2	10 l	plastic	143,55
9,00 $\pm 0,02$ (20 °C)	tinted blue	P714.3	250 ml	twin neck bottle	12,40
		P714.2	500 ml	plastic	15,60
		P714.1	1 l	plastic	22,05
9,180 $\pm 0,02$ (25 °C)	colourless	4294.1	500 ml	plastic	16,70
		4294.2	1 l	plastic	24,20
10,00 $\pm 0,02$ (20 °C)	colourless	P716.2	500 ml	plastic	15,60
		P716.1	1 l	plastic	22,05
10,00 $\pm 0,02$ (20 °C)		8086.1	250 ml	twin neck bottle	14,55
		8086.2	500 ml	plastic	15,60
		8086.3	500 ml	twin neck bottle	17,75
		8086.4	1 l	plastic	23,15
10,00 (20 °C)	for complexometric titration	T188.1	1 l	plastic	22,05
11,00 $\pm 0,05$ (20 °C)	colourless	T187.2	500 ml	plastic	15,60
		T187.1	1 l	plastic	22,05
12,00 $\pm 0,05$ (20 °C)	colourless	T189.2	500 ml	plastic	15,60
		T189.1	1 l	plastic	22,05

- Further informations see chapter Chemicals A-Z.

pH-testers



① pH-buffer solutions

In 20 ml bags. The reagent contents of a bag are sufficient for one calibration. Bag is light- and airtight. Accuracy ± 0.01 pH.

Without Certificate

pH-value	Art. No.	Pack Qty.	€
4,01	N320.1	25	28,00
7,01	N321.1	25	28,00
10,01	N322.1	25	28,00

With Certificate

pH-value	Art. No.	Pack Qty.	€
4,01	Y477.1	25	31,90
7,01	Y478.1	25	31,90
10,01	Y479.1	25	31,90

Calibration kits without Certificate

pH-value	Art. No.	Pack Qty.	€
4.01 and 7.01	Y480.1	10 (2 x 5)	15,70
10.01 and 7.01	Y481.1	10 (2 x 5)	15,70

Calibration kits with Certificate

pH-value	Art. No.	Pack Qty.	€
pH 4.01 and 7.01	Y482.1	10 (2 x 5)	16,80
pH 10.01 and 7.01	Y483.1	10 (2 x 5)	16,80

② Storage solution HI 70300

For pH-electrodes. Guarantees rapid reaction time and exact measuring results of electrodes. Bottle with 460 ml.

Art. No.	Pack Qty.	€
9608.1	1	13,75

Cleaning solutions

Art. No. 9611.1:

Type	Art. No.	Pack Qty.	€
General cleaning solution HI 7061	9609.1	460 ml	13,75
Cleaning solution for protein-containing media HI 7073	9610.1	460 ml	28,85
Cleaning solution for inorganic substances HI 7074	9611.1	460 ml	28,85
Cleaning solution for oils HI 7077	9612.1	460 ml	28,85

Electrolytes

For reference electrodes.

Type	Art. No.	Pack Qty.	€
KCl 3 mol/l saturated with AgCl	A925.1	250 ml	18,75
KCl 3 mol/l	A926.1	250 ml	18,75



Checker®-pH-tester

By Hanna. Handy digital pH-tester with replaceable electrode. Ideal for testing even low liquid quantities in narrow vessels. Manual 1-/2-point calibration (pH 7,01; 4,01; 10,01) via trimmer.

Technical specifications:

Measuring range/resolution	0.00 to 14.00 pH
Accuracy	± 0.2 pH
Dimensions head	66 x 50 x 25 mm
Shaft length / \varnothing	80/8 mm
Weight	63 g

Delivery incl. 2 cell batteries 1.5 V.

Type	Connection	Art. No.	Pack Qty.	€
With electrode	S7-screwhead	A873.1	1	36,30

Accessories:

Spare-electrode for pH-tester Checker®	E463.1	1	26,30
Cell battery V 13 GA (1.5 V)	1938.1	1	4,25

pH-testers



pHeP® and pHeP+® pH-Testers

By Hanna. Base model with robust, ergonomically designed case and large LCD-display. Manual 1-/2-point-calibration via trimmer.

Technical specifications:

Measuring range/resolution	0.0 to 14.0 pH
Accuracy	±0.1 pH
Ambient conditions	0 to +50 °C
Dimensions	175 x 41 x 23 mm

Delivery incl. protective lid and 4 x 1.5 V cell batteries.

pH-tester pHeP®

Without temperature compensation. Case-red.

Art. No.	Pack Qty.	€
X208.1	1	53,40

pH-Tester pHeP+®

With automatic temperature compensation (0 to +50 °C). Case white.

Art. No.	Pack Qty.	€
AK69.1	1	58,30

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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② pHeP®-4 and pHeP®-5 pH- and °C-testers

By Hanna. In IP67 waterproof casing. LCD-display. Automatic 1-/2-point-calibration with two pre-programmed standard buffer series (pH 7.01; 4.01; 10.01 or 4.01; 6.86; 9.18). Stability indicator. **Simultaneous display of pH- and °C-values.** Automatic temperature compensation. Automatic switch-off after 8 min measuring break. Hold-function.

Technical specifications:

Model		pHeP®-4	pHeP®-5
Measuring range/resolution	pH	-2.0 to 16.0	-2.00 to 16.00
	°C	-5.0 to 60.0	
Accuracy	pH	±0.1	±0.05
	°C	±0.5	
Dimensions (L x W x D)		163 x 40 x 26 mm	
Weight		100 g	

Delivery incl. replaceable pH-electrode, protective cap and 4 batteries, cell 1.5 V.

Type	Art. No.	Pack Qty.	€
pH- and °C-tester pHeP®-4	X283.1	1	96,80
pH- and °C-tester pHeP®-5	HA66.1	1	107,00

Accessories:

Spare electrode for pHeP®-4 and pHeP®-5	X284.1	1	60,50
Cell battery V 13 GA (1.5 V)	1938.1	1	4,25



Piccolo pocket pH-meters

By Hanna. With electrode and integrated amplifier for higher reading stability. Includes built-in temperature sensor for automatic temperature compensation. 2-point calibration possible. Dimensions (unit) 172 x 29 x 15 mm, weight 80 g.

Technical specifications:

Model	Piccolo I and II	Piccolo Plus
Measuring range/resolution	1.00 to 13.00 pH	1.00 to 13.00 pH / 0 to +70 °C
Accuracy	±0.01 pH	±0.01 pH (±1 °C)

Delivery incl. electrode, pH buffer pH 4 and 7, screwdriver for 2-point calibration, batteries (3 Cell batteries 1.5 V).

Type	Electrode	Art. No.	Pack Qty.	€
Piccolo I (pH)	90 mm	0590.1	1	185,00
Piccolo II (pH)	160 mm	8324.1	1	202,00
Piccolo Plus (pH, °C)	160 mm	E016.1	1	225,00

Accessories for Piccolo pocket pH-meters

Spare-electrodes

Type	Art. No.	Pack Qty.	€
Spare-electrode for Piccolo I, 90 mm	0592.1	1	58,30
Spare-electrode for Piccolo II, 160 mm	8325.1	1	58,30
Spare-electrode for Piccolo Plus, 160 mm	E017.1	1	69,30



SD 50 pH tester

By Aqualytic.

- Rugged, water resistant housing (IP67)
- Automatic 1/2/3 point calibration
- Automatic temperature compensation
- Auto Off after 8 min
- Memory with storage space for 25 datasets incl. time and date

Technical specifications:

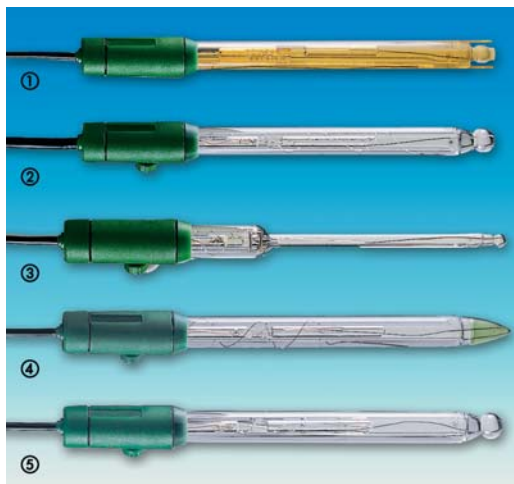
Measuring range/ resolution	pH mV °C	0.01 to 14.00 -1800 to 1800 mV 0.1 to 60.0 °C
Accuracy	pH mV mV °C	±0.05 0.1 mV (up to ±1000 mV) 1 mV (remaining measurement range) ±1 °C
Dimensions (L x W x D)		177 x 43 x 29 mm
Weight		128 g

Delivery incl. electrode; 10 buffer tablets for pH 4, pH 7 and pH 10; carry strap, plastic box and 2 CR 2032 button cell batteries (3 V).

Art. No.	Pack Qty.	€
YP28.1	1	155,90

Accessories:

Replacement electrode for pH tester SD 50	YP29.1	1 pce.	66,65
Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35



HI-series pH single-rod measuring cells

By Hanna. With fixed cable, length 1 m, BNC connection.

Please order recommended storage solution HI 70 300 (Art. No. 9608.1) separately.

Technical specifications:

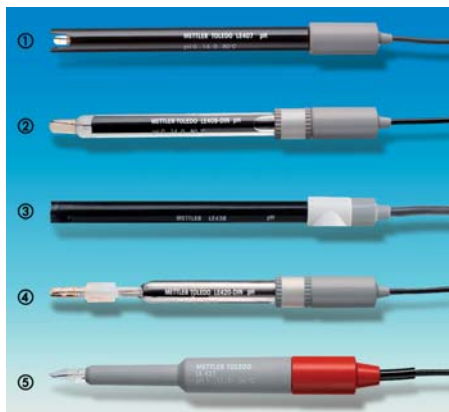
Type	HI 1332 B	① HI 1230 B	② HI 1131 B
pH range	0 to 13	0 to 13	0 to 13
Operating range (°C)	0 to +80	0 to +80	0 to +100
Diaphragm	Ceramic	Ceramic	Ceramic
Electrolyte	3.5 mol/l KCl (HI 7082)	Gel	3.5 mol/l KCl (HI 7082)
Length (mm)	120	120	120
Shaft Ø (mm)	12	12	12
Shaft material	Plastic (PEI)	Plastic (PEI)	Glass
Application	Standard electrodes for general applications		

Type	③ HI 1330 B	④ HI 1053 B	⑤ HI 1043 B
pH range	0 to 13	0 to 12	0 to 14
Operating range (°C)	0 to +100	0 to +100	0 to +100
Diaphragm	Ceramic	Ceramic	Ceramic
Electrolyte	3.5 mol/l KCl + AgCl (HI 7071)	3.5 mol/l KCl (HI 7082)	3.5 mol/l KCl (HI 7082)
Length (mm)	95	120	120
Shaft Ø (mm)	5	12	12
Shaft material	Glass	Glass	Glass
Application	Low volumes and narrow vessels	Soil samples, emulsions, media with a low ion content	Strong acids and bases, aqueous solvents, Tris buffers

Image	Type	Art. No.	Pack Qty.	€
-	HI 1332 B	C984.1	1	93,50
①	HI 1230 B	G008.1	1	101,00
②	HI 1131 B	G011.1	1	139,00
③	HI 1330 B	AL24.1	1	147,00
④	HI 1053 B	AL23.1	1	171,00
⑤	HI 1043 B	AL22.1	1	184,00

► Standard pH meter connections on page 803

pH-electrodes



LE series pH single-rod measuring cells

By Mettler-Toledo. Affordable pH single-rod chains for various applications.

Technical specifications:

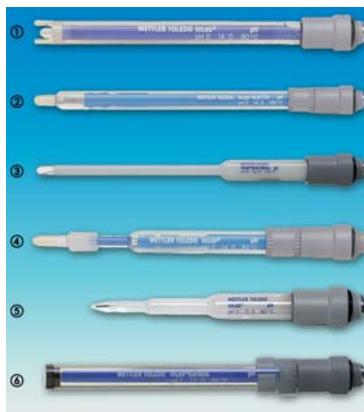
Type	① LE407	② LE409	③ LE438
pH range	0 to 14	0 to 14	0 to 14
Operating range (°C)	0 to +80	0 to +80	0 to +80
Diaphragm	Nylon	Ceramic	Nylon
Electrolyte/ storage solution	Gel / 3 mol/l KCl	3 mol/l KCl + AgCl / 3 mol/l KCl	Gel/3 mol/l KCl
Length (mm)	120	120	120
Shaft Ø (mm)	12	12	12
Shaft material	Plastic (POM)	Glass	Plastic (POM)
Application	Simple pH measurements	General aqueous solutions	Temperature-compensated measurements (NTC 30 kΩ)

Type	④ LE420	⑤ LE422	⑥ LE427
pH range	0 to 14	0 to 14	0 to 11
Operating range (°C)	0 to +80	0 to +80	0 to +50
Diaphragm	Ground joint	Ceramic	Ceramic
Electrolyte/ storage solution	3 mol/l KCl	Gel/3 mol/l KCl	Gel/3 mol/l KCl
Length (mm)	120	90	16
Shaft Ø (mm)	12	4.3	6
Shaft material	Glass	Glass	Glass
Application	TRIS buffers, emulsions, viscous samples, suspensions, media with a low ion content	Low quantities of fluid, narrow vessels	Insertion measurements

Image	Type	Connection	Art. No.	Pack Qty.	€
①	LE407	Fixed cable, length 1 m, DIN 19262	TC48.1	1	72,90
①	LE407	Fixed cable, length 1 m, BNC	TC47.1	1	73,50
②	LE409	Fixed cable, length 1 m, DIN 19262	TC49.1	1	89,20
②	LE409	Fixed cable, length 1 m, BNC	HY58.1	1	90,40
③	LE438	Fixed cable, length 1.2 m, DIN 19262 + banana plug (1x 4 mm)	TC50.1	1	142,00
③	LE438	Fixed cable, length 1.2 m, BNC + cinch plug	HY59.1	1	144,00
④	LE420	Fixed cable, length 1 m, DIN 19262	NP40.1	1	135,00
④	LE420	Fixed cable, length 1 m, BNC	NP41.1	1	135,00
-	LE422	Fixed cable, length 1 m, BNC	NP42.1	1	155,00
⑤	LE427	Fixed cable, length 1.2 m, BNC	TH61.1	1	156,00
-	LE427	S7 connector, please order connecting cable separately	TH62.1	1	129,00

Accessories:

Connecting cable, length 1.2 m, S7 + DIN 19262	A921.1	1	52,10
Connecting cable, length 1.2 m, S7 + BNC	A923.1	1	36,10



InLab® series pH single-rod measuring cells

By Mettler-Toledo. High-quality pH single-rod chains for various applications. With S7 connector.

Technical specifications:

Type	① InLab®-Easy	② InLab®Routine	③ InLab®Semi-Micro
pH range	0 to 14	0 to 14	0 to 12
Operating range (°C)	0 to +80	0 to +100	0 to +100
Diaphragm	Ceramic	Ceramic	Hole
Electrolyte / storage solution	Gel / 3 mol/l KCl	3 mol/l KCl	Gel / 3 mol/l KCl
Length (mm)	120	120	100
Shaft Ø (mm)	12	12	6
Shaft material	Polysulfon	Glass	Glass
Application	Simple pH measurements	General aqueous solutions	Low quantities of fluid, narrow vessels

Type	④ InLab®Science	⑤ InLab®Solids	⑥ InLab®Surface
pH range	0 to 12	1 to 11	1 to 11
Operating range (°C)	0 to +100	0 to +80	0 to +50
Diaphragm	Ground joint	Hole	Ceramic ring
Electrolyte / storage solution	3 mol/l KCl	Gel / 3 mol/l KCl	3 mol/l KCl + AgCl
Length (mm)	120	25	110
Shaft Ø (mm)	12	6	12
Shaft material	Glass	Glass	Polysulfon
Application	Emulsions, viscous samples, suspensions, media with a low ion content e.g. wastewater, dissolved earth, water-based paints, milk	Insertion measurements e.g. in cream, yoghurt, butter, cheese, meat, fish, dough	surface measurement e.g. on skin, leather, textiles, paper, agar plates; measurement of droplet-sized sample volumes

Delivery without connecting cable. Please order separately.

Image	Type	Art. No.	Pack Qty.	€
①	InLab®Easy	H948.1	1	80,20
②	InLab®Routine	A915.1	1	141,00
③	InLab®Semi-Micro	A916.1	1	218,00
④	InLab®Science	A917.1	1	196,00
⑤	InLab®Solids	A918.1	1	240,00
⑥	InLab®Surface	KL07.1	1	192,00

Accessories:

Connecting cable, length 1.2 m, S7 + DIN 19262	A921.1	1	52,10
Connecting cable, length 1.2 m, S7 + BNC	A923.1	1	36,10



InLab® series pH single-rod measuring cells with integrated temperature sensor

By Mettler-Toledo. High-quality pH single-rod measuring cells for temperature-compensated measurements.

- pH range: 0 to 14
- Operating range: 0 to +100 °C
- Installed length: 120 mm, shaft Ø: 12 mm

Technical specifications:

Type	① InLab® Expert NTC30	② InLab® Expert Pt 1000
Diaphragm	Hole	Hole
Electrolyte / storage solution	Gel / 3 mol/l KCl	Gel / 3 mol/l KCl
Temperature sensor	NTC 30 kΩ	Pt 1000
Shaft material	Plastic (PEEK)	Plastic (PEEK)
Application	Wide range of applications, including emulsions, suspensions, wastewater and solutions containing proteins and sulphides	

Type	③ InLab® Routine Pro	④ InLab® Versatile Pro
Diaphragm	Ceramic	Ceramic
Electrolyte / storage solution	3 mol/l KCl	3 mol/l KCl
Temperature sensor	NTC 30 kΩ	NTC 30 kΩ
Shaft material	Glass	Polysulfon
Application	General aqueous solutions	

Connecting cable **not included**. Please order separately.

Image	Type	Connection	Art. No.	Pack Qty.	€
①	InLab® Expert NTC30	MultiPin™, connecting cable please order separately	X571.1	1	170,00
②	InLab® Expert Pt 1000	MultiPin™, connecting cable please order separately	A920.1	1	183,00
③	InLab® Routine Pro	MultiPin™, connecting cable please order separately	N504.1	1	212,00
④	InLab® Versatile Pro	Fixed cable, length 1.2 m, BNC + cinch plug	TA11.1	1	202,00

Accessories:

Connecting cable, length 1.2 m, MultiPin™ + DIN 19262 + banana plug 1x4 mm	X572.1	1	81,50
Connecting cable, length 1.2 m, MultiPin™ + BNC + banana plug 1x4 mm	X573.1	1	81,50
Connecting cable, length 1.2 m, MultiPin™ + BNC + cinch plug	N505.1	1	80,30



BlueLine series pH single-rod measuring cells

By SI Analytics. For general applications: 22 pH, 23 pH, 25 pH and 28 pH. For more critical measurements: 12 pH, 14 pH and 15 pH.

Technical specifications:

Type	① 22 pH, 23 pH, 25 pH, 28 pH	② 12 pH, 14 pH, 15 pH
pH range	0 to 14	0 to 14
Operating range (°C)	-5 to +80	-5 to +100
Diaphragm	Fibre	Platinum
Electrolyte / storage solution	Gel / 3 mol/l KCl	3 mol/l KCl
Length (mm)	120	120
Shaft Ø (mm)	12	12
Shaft material	Plastic (Noryl)	Glass

Image	Type	Temp. sensor	Connection	Art. No.	Pack Qty.	€
①	22 pH	-	Schott connector, please order connecting cable separately	N525.1	1	90,65
①	23 pH	-	Fixed cable, L 1 m, DIN 19262	N523.1	1	119,35
①	25 pH	-	Fixed cable, L 1 m, BNC	N524.1	1	119,35
①	28 pH	Pt 1000	Fixed cable, L 1 m, DIN 19262 + banana plug (1x 4 mm)	H772.1	1	195,65
②	12 pH	-	Fixed cable, L 1 m, DIN 19262	N520.1	1	148,35
②	14 pH	NTC 30 kΩ	Fixed cable, L 1 m, DIN 19262 + banana plug (1x4 mm)	N521.1	1	226,85
②	15 pH	NTC 30 kΩ	Fixed cable, L 1 m, BNC + banana plug (1x4 mm)	N522.1	1	226,85

Accessories:

Connecting cable, Schott connector + DIN 19262	N526.1	1	54,30
Connecting cable, Schott connector + BNC	N527.1	1	54,30



SentTix® series pH single-rod measuring cells

By WTW. For routine measurements. With fixed cable, length 1 m.

Technical specifications:

pH range	0 to 14
Operating range	0 to +80 °C
Diaphragm	Platinum
Electrolyte / storage solution	Gel / 3 mol/l KCl
Installed length	120 mm
Shaft Ø	12 mm
Shaft material	Plastic (PPE/PS)

Type	Temperature sensor	Connection	Art. No.	Pack Qty.	€
SentTix®21	-	DIN 19262	X174.1	1	123,65
SentTix®41	NTC 30 kΩ	DIN 19262 + banana plug (1x4 mm)	X173.1	1	195,65

pH-electrodes and accessories



ScienceLine series pH single-rod measuring cells

By SI Analytics. With fixed cable, length 1 m.

- pH range: 0 to 14
- Operating range: -5 to + 100 °C
- Electrolyte/storage solution: 3 mol/l KCl
- Shaft material: glass

Technical specifications:

Type	① N 42 A	② N 52 BNC
Diaphragm	Ceramic	Platinum
Length (mm)	120	120
Shaft Ø (mm)	12	12
Application	Standard glass electrodes for aqueous solutions	

Type	③ N 1042 A / N1042 BNC	④ N 6000 A / N 6000 BNC
Diaphragm	Ceramic	Platinum
Length (mm)	120	96
Shaft Ø (mm)	12	3
Application	Temperature-compensated measurements (Pt 1000)	Low quantities of fluid (0.1 ml or higher), narrow vessels

Image	Type	Connection	Art. No.	Pack Qty.	€
①	N 42 A	DIN 19262	C887.1	1	211,80
②	N 52 BNC	BNC	C894.1	1	218,25
③	N 1042 A	DIN 19262+banana plug (1x4 mm)	C889.1	1	327,90
③	N 1042 BNC	BNC + banana plug (1x4 mm)	C896.1	1	327,90
④	N 6000 A	DIN 19262	C892.1	1	278,45
④	N 6000 BNC	BNC	C899.1	1	278,45



Redox-electrodes

By SI Analytics. With cable has platinum sensor material. Reference system used silver/silver chloride. Electrolyte KCl 3 mol/l. With ceramic diaphragm. Length 120 mm. Sensor diameter 1 mm. Work temperature range 0 to 100 °C.

Type	Art. No.	Pack Qty.	€
With BNC connection	C900.1	1	289,20
With DIN connection	C893.1	1	230,05



Storage sets for electrodes

For safe, standby storage of electrodes with shaft Ø 12 mm.

Set - standard equipment:

Screw cap GL 45 incl. 5 seals (upper side made of PTFE, lower side made of silicone-elastomer). Bore hole for storing electrodes.

Set 1:

Delivery without screw thread bottle and storage solution (please order separately).

Set 2:

Delivery incl. 100 ml screw thread bottle and 460 ml storage solution HI 70300.

Type	Art. No.	Pack Qty.	€
Set 1	KH88.1	1	33,90
Set 2	LK39.1	1	40,35

Accessories for storage sets

Screw thread vials

Made of DURAN®, transparent. Autoclavable. With GL 45 thread and subdivisions. Without pouring ring and cap.

Type	Art. No.	Pack Qty.	€
Screw thread bottles, 100 ml, H 100 mm	T426.1	10	36,50
Screw thread bottles, 250 ml, H 138 mm	T427.1	10	43,70

Storage solution HI 70300

For pH-electrodes. Guarantees rapid reaction time and exact measuring results of electrodes. Volume 460 ml.

Type	Art. No.	Pack Qty.	€
Storage solution HI 70300	9608.1	1	13,75

Screw cap GL 45

With bore hole Ø 34 mm. Without silicone gaskets.

Type	Art. No.	Pack Qty.	€
Screw cap GL 45	L994.1	1	3,95

Pocket pH-meters



AL10 hand-held pH meter

By Aqualytic.

- Splash-proof membrane keyboard
- Manual single-point or double-point calibration via trimmer

Technical specifications:

Measurement range/resolution	0.01 to 14.00 pH
Accuracy	±0.1 (pH 4.0-10.0) ±0.2 (pH 1.1-3.9 and pH 10.1-13.0) ±0.3 (pH 0.1-1.0 and pH 13.1-14.0)
Dimensions (L x W x H)	208 x 110 x 34 mm

Delivery incl. pH plastic electrodes with gel electrolyte and BNC connector, pH buffer solutions (pH 4.01 and pH 7.00, each 90 ml), protective cover for measuring in difficult conditions, case and E-type block 9 V battery.

Art. No.	Pack Qty.	€
YP68.1	1	174,15

Accessories:

Spare pH plastic electrodes	YP69.1	1	75,05
E-Block 9 V battery	1025.1	1 piece	4,85



Electrode holder

Suitable for 3 electrodes. Fully flexible for almost any position. Stable base plate (L 300 x W 150 mm), made of coated steel. Ø of 3 openings = 12 mm each. Weight 1500 g.

Art. No.	Pack Qty.	€
9287.1	1	105,00



Pocket-pH-/°C-meters FiveGo™

By Mettler-Toledo.

- Simultaneous display of pH- or mV-value and temperature as well as status of electrode
- Automatic 1-/2 point calibration with 3 predefined buffer groups
- Automatic or manual temperature compensation
- Memory for 30 readings
- Calibration data display

Technical specifications:

Measuring range/resolution	pH mV °C	0.00 to 14.00 -1999 to +1999 0.0 to 100.0
Accuracy	pH mV °C	±0.01 ±1 ±0.5
Connections	pH °C	BNC Cinch (NTC 30 kΩ)
Dimensions (L x W x H)	169 x 82 x 36 mm	

Pocket-pH-/°C meter FiveGo™ FG2-Basic

Delivery incl. electrode clip, wrist strap and 4 batteries Micro 1.5 V. Comes without pH-electrode, please order separately.

Art. No.	Pack Qty.	€
HY66.1	1	281,00

Pocket-pH-/°C meter FiveGo™ Starter-Kit FG2-Kit

Delivery incl. pH-electrode model LE438 with integrated temperature probe, electrode clip, wrist strap, buffer solutions pH 4.01/7.00 (2 x 30 ml bags of each) and 4 batteries Micro 1.5 V.

Art. No.	Pack Qty.	€
HY67.1	1	390,00

Pocket-pH-/°C meter FiveGo™ Professional-Kit FG2 field kit

Delivery incl. pH-electrode model LE438 with integrated temperature probe, electrode clip, wrist strap, buffer solutions pH 4.01/7.00 (2 x 30 ml bags of each), pouch with 4 sample vials and 4 batteries Micro 1.5 V.

Art. No.	Pack Qty.	€
HY68.1	1	423,00

Accessories for pH-meters FiveGo®

By Mettler-Toledo.

Art. No.	Pack Qty.	€
HY59.1	1	144,00

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Pocket pH-meters



Digital-pH-/mV-/°C-meters HI 83141

By Hanna. Easy-to-use pH-/mV-/°C-handy meter.

- With membrane keyboard
- Splashproof push keys
- Automatic temperature compensation
- Manual 2-point calibration via neutral and slope pad trimmer

Technical specifications:

Measuring range/resolution	pH mV °C	0.00 to 14.00 -1999 to +1999 0.0 to +100.0
Accuracy	pH mV °C	±0.01 ±1 ±0.4
Dimensions (L x W x D)	164 x 76 x 45 mm	

Delivery incl. plastic-pH-electrode HI 1230 B (BNC-connector), with separate stainless steel-temperature probe, battery E-Block 9 V, calibrating screwdriver.

Art. No.	Pack Qty.	€
N541.1	1	275,00

Accessories:

Spare-pH-plastic electrode HI 1230 B	G008.1	1	101,00
E-Block 9 V battery	1025.1	1 piece	4,85



Pocket pH-/°C-meter HI 991001

By Hanna.

- Waterproof, meets requirements for protection class IP 67
- Simultaneous display of pH value and temperature
- Stability indicator
- Automatic temperature compensation
- Automatic 1-/2-point calibration with 2 pre-programmed standard buffer series possible (4.01 - 7.01 - 10.01 or 4.01 - 6.86 - 9.18)
- Automatic switch-off after 8 min

Technical specifications:

Measuring range/resolution	-2.00 to 16.00 pH -5.0 to +105.0 °C
Accuracy	±0.02 pH ±0.5 to 60 °C; ±1 °C to 105 °C
Dimensions (L x W x D)	150 x 80 x 36 mm

Delivery incl. pH-/°C-Electrode HI 1296 D made of Titan with integrated temperature sensor; 3 batteries Micro 1.5 V; case for transporting.

Art. No.	Pack Qty.	€
Y490.1	1	346,00

Spare-PH-electrode HI 1296 D

By Hanna. For pH-meter HI 991001. Made of titanium. With integrated temperature sensor.

Art. No.	Pack Qty.	€
Y491.1	1	180,00

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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- For information on pH measurement see page 791

Pocket pH-meters



Portable pH-/mV-/°C-meters HI 9125 and HI 9126
By Hanna.

General specifications for both models

- Water and dustproof in accordance with IP 67
- Simultaneous display of pH- or mV value and temperature
- Graphic symbols guide user through calibration
- Automatic 1-/2-point calibration with 5 pre-programmed standard buffers (4.01 - 6.86 - 7.01 - 9.18 - 10.01)
- Automatic or manual temperature compensation
- Automatic switch-off can be activated

Additional features HI 9126

- Display indicating condition of electrode
- Automatic 1-/2-point calibration with 7 pre-programmed standard buffers (1.68 - 4.01 - 6.86 - 7.01 - 9.18 - 10.01 - 12.45)
- Programming of 2 user-defined buffers for special applications
- With backlighting

Technical specifications:

Measuring range/resolution	pH mV °C	-2.00 to 16.00 -1999 to +1999 -20.0 to +120.0
Accuracy	pH mV °C	±0.01 ±1 ±0.4
Dimensions (L x W x D)		192 x 71.6 x 36 mm

Delivery incl. pH-plastic electrode HI 1230 B gel-filled (BNC-connector), temperature probe, transport case, buffer solutions pH 4.01 and 7.01 (20 ml each) and 3 batteries Micro 1.5 V.

Image	Type	Art. No.	Pack Qty.	€
①	HI 9125	KP53.1	1	456,00
②	HI 9126	KP54.1	1	489,00

Accessories:

Spare-pH-plastic electrode HI 1230 B	G008.1	1	101,00
Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35

► pH-buffer solutions see page 792



Pocket pH-meters, models pH 3110 and pH 3310

By WTW. Dust and waterproof. Come singly or in set.

Standard set equipment: professional case with integrated measuring station and separate compartments for accessories. Complete with stand, beaker, pH-buffer solutions and batteries.

Set 1: standard equipment with pH-meter, model 3110: electrode Sentix® 41 with **integrated temperature sensor**

Set 2: standard equipment with pH-meter model 3310: electrode Sentix® 41 with **integrated temperature sensor**, driver software for USB and USB cable (Length 1 m).

Technical specifications:

Model	pH 3110	pH 3310
Measuring range / Resolution	pH mV °C	-2.0 to +19.9, -2.00 to +19.99, -2.000 to +19.999 ±2000 -5.0 to +105.0
Accuracy	pH mV °C	±0.1, ±0.01, ±0.005 ±1 mV ±0.1
Connections	pH °C	DIN 19262 banana, 2 x 4 mm (NTC 30 kΩ/Pt 1000)
AutoRead	Automatic	Automatic/Manual
Calibration		1-/2-/3-point
Calibration storage	Current calibration	5 calibrations retrievable
Display	7 segment LCD	LCD graphics, backlit
Data storage	-	Manual 200 records and 5000 time-controlled
Interface	-	Mini-USB
Dimensions (H x W x D)		180 x 80 x 55 mm
Power supply		4 Mignon/AA 1.5 V batteries

Model	Type	Art. No.	Pack Qty.	€
3110	without accessories	KT20.1	1	498,80
3110	Set 1	KT21.1	1	681,55
3310	without accessories	KT25.1	1	619,20
3310	Set 2	KT26.1	1	800,90

Spare-pH-electrode

By WTW. For models pH 3110, 3310.

Type	Art. No.	Pack Qty.	€
Sentix® 41 with integrated temperature sensor	X173.1	1	195,65
Sentix® 21 without temperature sensor	X174.1	1	123,65

Accessories:

Temperature sensor TFK 325	AN69.1	1	170,95
Mignon/AA 1.5 V battery	1022.2	4	5,95

Desktop pH-meters



Seven2Go™-series pocket pH meters

By Mettler-Toledo. Rugged pH meter designed to withstand the harshest environments. Waterproof and dustproof to IP 67. Impact protection housing.

- Automatic and manual temperature compensation
- Automatic, manual and timer-controlled endpoint determination
- User-defined intermittent measurement possible (max. operating time 1 h)
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

Other features of the Seven2Go™ pro pH/lon S8 professional pH meter:

- Menu structure with full-text display in 12 languages
- Graphical LCD display
- Memory capacity for 2000 datasets incl. date and time (GLP-compliant)
- Data readout via Micro USB port

Technical specifications:

Model		Seven2Go™ S2	Seven2Go™ pro S8
Measuring range/ resolution	pH mV °C	-2.00 to 20.00 -1999 to +1999 -5.0 to +105.0	-2.000 to 20.000 -2000.0 to +2000.0 -5.0 to +130.0
Accuracy	pH mV °C	±0.01 ±1 ±0.5	±0.001 to ±0.01 ±0.2 (0 to +105) ±0.5 (residual range)
Connections	pH °C	BNC Cinch (NTC k30 Ω)	BNC Cinch (NTC 30 kΩ)
Calibration points		1-/2-/3-/4-/5-point calibration	1-/2-/3-/4-/5-point calibration
Buffer series: predefined/user-defined		4/1	8/5
Data memory		200 pH values	2000 datasets
Communication port		-	Micro USB
Dimensions H x W x D (mm)		222 x 70 x 35	222 x 70 x 35

Delivery incl. pH plastic electrode InLab® Expert Pro-ISM®-IP67 with built-in temperature sensor (for aqueous samples, including emulsions, suspensions and solutions containing proteins), electrode clip, pH buffer solution in 4.01, 7.00 and 9.21 packs (2 x 30 ml sachets each) and 4 Mignon 1.5 V batteries.

Seven2Go™ pro pH/lon S8 Standard Kit including software and data cable.

Type	Art. No.	Pack Qty.	€
Seven2Go™ pH/mV S2 Standard Kit	CAL2.1	1	568,00
Seven2Go™ pro pH/lon S8 Standard Kit	CAL3.1	1	888,00

Accessories:

pH plastic electrode InLab® ExpertPro-ISM®-IP 67, incl. 1.8 m fixed cable (BNC/Cinch), stem length/Ø: 120/12 mm, gel-filled	LN43.1	1	323,00
pH plastic electrode InLab® 413 with IP 67, without ISM, incl. fixed cable 2 m (BNC/Cinch), stem length/Ø: 120/12 mm, gel-filled	CY88.1	1	260,00
Mignon/AA 1.5 V battery	1022.2	4	5,95



Desktop pH/mV/°C meter HI 2211-02

By Hanna.

- Simultaneous display of pH or mV value and temperature
- Stability indicator prevents faulty measurements
- Automatic 1/2-point calibration with 5 pre-programmed standard buffers (pH 4.01; 6.86; 7.01; 9.18; 10.01)
- Automatic or manual temperature compensation

Technical specifications:

Type		HI 2211-02
Measurement range/ Resolution	pH mV °C	-2.00 to 16.00 ±399.9 (ISE) ±2000 (ORP) -9.9 to +120.0
Accuracy	pH mV °C	±0.01 ±0.2 (ISE) ±1 (ORP) ±0.5
Dimensions (L x W x H)		240 x 182 x 74 mm

Delivery incl. pH glass electrode HI 1131 B (BNC-connector), temperature sensor, electrode arm, buffer solution pH 7.01 and pH 4.01 (20 ml each), electrolytic solution and 12 V adaptor.

Art. No.	Pack Qty.	€
PA65.1	1	473,00

Accessories for pH-meter HI 2211-02

Replacement pH-glass electrode HI 1131 B

For general applications. Temperature range from -5 to +100 °C.

Ceramic diaphragm model. Shaft Ø 12 mm. With fixed cable, length 1 m.

Type	Art. No.	Pack Qty.	€
Replacement pH electrode HI 1131 B	G011.1	1	139,00

► HI-series pH single-rod measuring cells
see page 795



Benchtop pH meters FiveEasy™/FiveEasyPlus™

By Mettler-Toledo.

- Simultaneous display of pH or mV value and temperature as well as electrode status
- Automatic 1-/2-point calibration with 4 stored buffer series
- Automatic or manual temperature compensation
- Automatic or manual measurement stop
- Calibration data display

Additional features of FiveEasyPlus™ (FEP20):

- Automatic 1-/2-/3-point calibration
- Data memory for storage of 99 measurements
- RS 232 port

Technical specifications:

Measuring range/resolution	pH mV °C	0.00 to 14.00 -1999 to +1999 to +100.0
Accuracy	pH mV °C	±0.01 ±1 ±0.5
Connections	pH °C	BNC Cinch (NTC k30 Ω)
Dimensions (L x W x H)		200 x 175 x 52 mm

Desktop-pH-meter FiveEasy™ FE20-Basic

Delivery incl. mains adapter. Comes without pH-electrode, temperature probe and electrode arm, please order separately.

Art. No.	Pack Qty.	€
HY56.1	1	404,00

Desktop-pH-meter FiveEasy™ Starter-Kit FE20-Kit

Delivery incl. pH-glass electrode model LE409, electrode arm, buffer solutions pH 4.01/7.00 (2 x 30 ml bags of each) and mains adapter. Delivery without temperature probe, please order separately if required.

Art. No.	Pack Qty.	€
HY57.1	1	506,00

Desktop-pH-meter FiveEasy™ Profi-Kit FE20 ATC

Delivery incl. pH-electrode Typ LE438 with built-in temperature sensor, electrode arm, pH 4.01/7.00 buffer solutions (two 30 ml sachets of each) and mains adapter.

Art. No.	Pack Qty.	€
PE70.1	1	533,00

Benchtop pH meter FiveEasyPlus™ FEP20-Basic

Delivery incl. mains adapter. Comes without pH single-rod measuring cell and electrode arm. Please order separately.

Art. No.	Pack Qty.	€
TE49.1	1	580,00

Benchtop pH meter FiveEasyPlus™ Starter Kit FEP20-ATC Kit

Delivery incl. pH electrode type LE438 with integrated temperature sensor, electrode arm, buffer solutions pH 4.01/7.00 (2 x 30 ml sachets each) and mains adapter.

Art. No.	Pack Qty.	€
TE50.1	1	753,00

Accessories for pH-meter FiveEasy™ / FiveEasyPlus™

Spare glass electrode model LE409

With fixed cable, length 1.2 m. Shaft length/Ø 120/12 mm. Electrolyte 3 mol/l KCL/AgCl. BNC-plug.

Art. No.	Pack Qty.	€
HY58.1	1	90,40

pH-electrode model LE438 with integrated temperature probe

With fixed cable, length 1.2 m. Plastic shaft. Shaft length/Ø 120/12 mm. Filled with gel. BNC/Cinch plug.

Art. No.	Pack Qty.	€
HY59.1	1	144,00

Temperature probe NTC 30 kΩ, Cinch

Art. No.	Pack Qty.	€
Y734.1	1	77,40

Electrode arm for desktop-pH-meter FiveEasy™ / FiveEasyPlus™

Art. No.	Pack Qty.	€
HY60.1	1	67,50

- LE-series pH single-rod measuring cells
see page 796

Overview of standard connections on pH meters

When selecting a pH single-rod measuring cell, pay attention to the connections. Standardised connections for the pH sensor and the coaxial connector acc. to **DIN 19262** and the bayonet connector (BNC). For example, **cinch** and **banana** (4 mm) connections are suitable for the temperature sensor. In the case of the temperature sensor, also pay attention to the sensor type. Either a temperature sensor of the type **NTC 30 kΩ** or **Pt1000** can be connected to most pH meters.

Connection	Connector (pH single-rod measuring cell)	Socket (pH meter)
Coaxial connector acc. to DIN 19262		
BNC		
Cinch		
Banana, 4 mm		

Desktop pH-meters



Benchtop pH/ion meters SevenCompact™ S220

By Mettler-Toledo.

- Large colour display (4.3") with Routine or Expert mode (e.g. for disabling Delete data or Edit data function)
- Menu navigation in 10 languages (DE, GB, FR, ES, IT, PT, CN, JP, KR, RU)
- Automatic 1-/2-/3-/4-/5-point calibration with predefined buffer groups or 1 user-defined group
- Automatic and manual temperature compensation
- Automatic, manual or timed endpoint detection
- Internal measured value memory: saving by pressing key or timed (intermittent) saving (interval is variable from 1 s to 40 min)
- USB ports for exporting data via USB stick (datasets are exported as a text (.txt) file) or for connecting a USB keyboard
- It is possible to measure ion concentrations using additional ion-selective electrodes (ISE)

Technical specifications:

Measuring range / resolution	pH mV °C	-2.0 to 20.0; -2.00 to 20.00; -2.000 to 20.000 -2000.0 to +2000.0; -2000 to +2000 -5.0 to +130.0
Accuracy	pH mV °C	±0.002 ±0.2 ±0.1
Connections	pH °C	BNC Cinch (NTC 30 kΩ/Pt 1000)
Data memory		1000 sets
Communication ports		RS 232, USB-A, USB-B

pH meter SevenCompact™ S220-basic

Delivery incl. electrode holder and protective sleeve. Please order single-rod pH measuring cell separately.

Art. No.	Pack Qty.	€
TA09.1	1	832,00

pH meter SevenCompact™ S220-U Kit-Version

Delivery incl. electrode holder, protective sleeve, Versatile Pro plastic pH electrode and two 20 ml buffer bags for pH 4.01/7.00/9.21/10.00.

Art. No.	Pack Qty.	€
TA10.1	1	982,00

Accessories:

pH-electrode InLab® Versatile Pro, incl. fixed cable 1.2 m	TA11.1	1	202,00
pH-electrode InLab® Routine Pro with MultiPin™, connecting cable please order separately	N504.1	1	212,00
Connecting cable, length 1.2 m, MultiPin™ + BNC + cinch plug	N505.1	1	80,30
Temperature sensor NTC 30 kΩ, Cinch	Y734.1	1	77,40



Laboratory-pH-meters Lab 850

By SI Analytics.

- Simultaneous display of pH or mV-value and temperature
- Automatic 1-/2-/3-point calibration
- Active calibration data can be retrieved separately
- Calibration interval control (1 to 999 days)
- With display of calibration rating and condition of electrode
- Automatic or manual temperature compensation
- Real-time clock with date
- Stability control: Function for controlling stability of measured value.
- NTC30- or Pt 1000-temperature sensor are suitable for connection
- Battery and outlet operated.
- Automatic switch-off can be activated when battery operated
- Bidirectional RS 232-interface
- USB-interface (Delivery includes: USB-cable A-plug on B-plug)
- **With interior data storage;** each data set includes date/time, memory storage, Id-number, measured value and temperature.

Technical specifications:

Measuring range/resolution	pH mV mV °C	-2.000 to +19.999 -999.9 to +999.9 -1999 to +1999 -5.0 to +120.0
Accuracy	pH mV °C	±0.005 ±0.3 / ±1 mV temp. ±0.1 K
Connections	pH °C	DIN 19262 banana, 2 x 4 mm (NTC 30 kΩ/Pt 1000)
Storage via key depression		800 recordings
Time-controlled storage in 9 intervals (5 s to 60 min)		800 recordings
Dimensions (L x W x D)		240 x 190 x 80 mm

Delivery incl. power unit, 4 batteries Mignon 1.5 V, stand (with 1.5 kg heavy base and arm with 3 adjustable points), calibrating solutions, unit cover and pH-electrode BlueLine 14pH with integrated temperature probe.

Art. No.	Pack Qty.	€
EP79.1	1	869,70

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Accessories for Lab 850

Temperature sensor Pt 1000 made of stainless steel with 1 m fixed cable.

Art. No.	Pack Qty.	€
X765.1	1	250,50

Spare pH-electrode BlueLine 14 pH.

With integrated temperature sensor.

Art. No.	Pack Qty.	€
N521.1	1	226,85

- InLab®-series pH single-rod measuring cells see page 796

Conductivity tester



Pure water tester PWT

By Hanna. Conductivity tester. Ideal for controlling distilled water in the laboratory.

- Automatic temperature compensation to +40 °C
- Measuring range 0.0-99.9 $\mu\text{S/cm}$ / Resolution 0.1 $\mu\text{S/cm}$
- Accuracy: $\pm 2\%$ of range
- Dimensions : L 150 x W 30 x D 24 mm, weight: 85 g

Delivery incl. batteries (4 x cell-battery 1.5 V).

Please order conductivity test solution 84 $\mu\text{S/cm}$ separately.

Art. No.	Pack Qty.	€
0074.1	1	66,00

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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DIST conductivity testers

By Hanna.

- With LCD-display and automatic temperature compensation
- Manual one-point calibration via trimmer (1413 $\mu\text{S/cm}$ measuring range to 1999 $\mu\text{S/cm}$; 12880 $\mu\text{S/cm}$ measuring range to 19,99 mS/cm)
- Ambience conditions: 0 to +50 °C
- Accuracy: $\pm 2\%$ of measuring range
- Dimensions : L 175 x W 41 x D 23 mm, weight: 78 g

Delivery incl. protective cap and batteries (4 x cell-batteries 1.5 V).

Measurement range	Resolution	Art. No.	Pack Qty.	€
to 1999 $\mu\text{S/cm}$	1 $\mu\text{S/cm}$	X210.1	1	57,20
to 19.99 mS/cm	0.01 mS/cm	X211.1	1	57,20

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1	4,25
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Waterproof conductivity, TDS- and °C tester

By Hanna. Two models for different measuring ranges. Complete with 4 cell batteries 1.5 V.

- Simultaneous display of conductivity or TDS and temperature value
- **Automatic calibrating**
(1413 $\mu\text{S/cm}$ at DIST 5;
12880 $\mu\text{S/cm}$ at DIST 6)
- Automatic temperature compensation
- Arbitrary temperature coefficient enables application in alkaline and acid media
- Exchangeable conductivity probe
- Low battery display, stability indicator
- Dimensions: L 163 x W 40 x D 26 mm. Weight 85 g.

Technical specifications:

Model		DIST 5	DIST 6
Measuring range/ resolution	EC TDS °C	0 to 3999 $\mu\text{S/cm}$ 0 to 2000 ppm (mg/l) 0.0 to 60.0	0.00 to 20.00 mS/cm 0.00 to 10.00 ppt (g/l) 0.0 to 60.0
Accuracy	EC/TDS °C	$\pm 2\%$ of rating ± 0.5	

Type	Art. No.	Pack Qty.	€
DIST 5	X633.1	1	108,00
DIST 6	X634.1	1	108,00

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1	4,25
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SD 70 conductivity tester

By Aqualytic.

- Rugged, water resistant housing (IP67)
- Automatic 1/2 point calibration
(calibration standards: 1413 $\mu\text{S/cm}$, 12.88 mS/cm) and manual 1/2 point calibration (calibration standards: freely selectable)
- Automatic temperature compensation
- Automatic change-over from $\mu\text{S/cm}$ to mS/cm
- Auto Off after 8 min
- Memory with capacity for 25 datasets incl. time and date

Technical specifications:

Measuring range / resolution	1 to 1999 $\mu\text{S/cm}$ and 2.00 to 20.00 mS/cm 0.1 to 60.0 °C
Accuracy	$\pm 3\%$ of measurement range end value ± 1 °C
Dimensions (L x W x D)	177 x 43 x 29 mm
Weight	126 g

Delivery incl. conductivity measuring cell, carry strap, plastic box and 2 CR 2032 button cell batteries (3 V).

Art. No.	Pack Qty.	€
YP30.1	1	127,95

Accessories:

Replacement electrode for conductivity tester SD 70	YP31.1	1 pce.	70,95
Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35

Conductivity meters



Portable conductivity measuring devices HI 99300 / HI 99301

By Hanna. Dustproof and waterproof conductivity measuring devices (protection class IP 67) with microprocessor.

- Simultaneous display of conductivity or TDS and temperature value
- Automatic temperature compensation from 0 to 60.0 °C
- Automatic 1-point calibration with calibration standard (1413 µS with HI 99300; 12880 µS with HI 99301)
- Temperature coefficient adjustable from 0 to 2.4 %

Technical specifications:

Model	HI 99300	HI 99301
Measuring range / resolution	EC TDS °C 0 to 3999 µS/cm 0 to 2000 ppm (mg/l) 0.0 to 60.0 °C	0.00 to 20.00 mS/cm 0.00 to 10.00 ppt (g/l) 0.0 to 60.0 °C
Accuracy	EC TDS °C ±2 % of the measuring range end value ±2 % of the measuring range end value ± 0.5 °C	
Dimensions (L x W x D)	143 x 80 x 38 mm	
Weight	210 g	

Delivery incl. case, conductivity sensor HI 76306 with 1 m-cable and 3 batteries Micro 1.5 V

Type	Art. No.	Pack Qty.	€
HI 99300	KL93.1	1	203,00
HI 99301	KL94.1	1	203,00

Accessories:

Spare conductivity sensor HI 76306	KL95.1	1	106,00
Micro/AAA 1.5 V battery	1021.2	4	6,35

- Conductivity test solutions see page 808
- Test kits for water analysis see page 786



Conductivity meter HI 8733 N

By Hanna. Standard unit with conductivity probe (1 m cord), calibrating screw driver and E-Block 9 V battery.

- 4-ring electrode gauge head
- One-point calibration via trimmer (calibration standard can be freely selected)
- Automatic temperature compensation
- Temperature coefficient can be freely selected between 0 and 2.5 %

Technical specifications:

Measuring range / Resolution	0.0 to 199.9 µS/cm 0 to 1999 µS/cm 0.00 to 19.99 mS/cm 0.0 to 199.9 mS/cm
Accuracy	±1 % of measuring range
Ambient conditions	0 to 50 °C
Dimensions (L x W x D)	185 x 82 x 45 mm
Weight	355 g

Art. No.	Pack Qty.	€
X218.1	1	439,00

Accessories:

E-Block 9 V battery	1025.1	1 pce.	4,85
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Watertight conductivity meter HI 9033

By Hanna.

- Water- and dust-tight casing
- Robust with 4-ring-electrode
- Automatic temperature compensation via integral sensor
- Manual one point calibration via trimmer (calibration standard can be freely selected)
- Dimensions: L 164 x W 76 x D 45 mm, weight 425 g

Technical specifications:

Measuring range/resolution	0.0 to 199.9 mS 0.00 to 19.99 mS 0 to 1999 µS 0.0 to 199.9 µS
Accuracy	±1 % over total range
Temp. compensation	from +10 to +40 °C
Reference temperature	+25 °C

Delivery incl. sensor, case and block-battery 9 V.

Art. No.	Pack Qty.	€
C814.1	1	572,00

Accessories:

E-Block 9 V battery	1025.1	1 pce.	4,85
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Pocket conductivity testers FiveGo™

By Mettler-Toledo.

Properties:

- Simultaneous display of conductivity or TDS and temperature
- 1-point calibration with calibration standards (84 / 1413 / 12880 µS/cm)
- Automatic or manual measurement stop
- Temperature compensation
- Selectable reference temperature (20 or 25 °C)
- Memory for 30 readings
- Calibration data display

Technical specifications:

Measuring range / resolution	Conductivity	0.10 to 19.99 µS/cm 20.0 to 199.9 µS/cm 200 to 1999 µS/cm 2.00 to 19.99 mS/cm 20.0 to 199.9 mS/cm 0.0 to 100.0 °C
	Temperature	0.0 to 100.0 °C
	Salinity	0.00 to 19.99 psu
	TDS	0.1 mg/l to 199.9 g/l
Accuracy	Conductivity	±0.5 % of mean value
	Temperature	±0.3 °C
Dimensions (L x W x H)		169 x 82 x 36 mm
Weight		180 g

Conductometer FiveGo™ Starter-Kit FG3-Kit

Delivery incl. conductivity electrode model LE703, electrode clip, wrist strap, conductivity test solutions 1413 µS/cm and 12.88 mS/cm (2 x 30 ml bags of each) and 4 batteries Micro 1.5 V.

Art. No.	Pack Qty.	€
HY63.1	1	456,00

Conductometer FiveGo™ Professional Kit FG3-Field kit

Delivery incl. conductivity electrode model LE703, electrode clip, wrist strap, conductivity test solutions 1413 µS/cm and 12.88 mS/cm (2 x 30 ml bags each), bag with 4 sample vials and 4 batteries Micro 1.5 V.

Art. No.	Pack Qty.	€
HY64.1	1	491,00

Accessories for FiveGo™

Spare-4-pole conductivity sensor model LE703

With fixed cable, length 1.2 m. Plastic shaft. Shaft length/Ø 120/12 mm. Measuring range: 0.01 to 200 mS/cm.

Art. No.	Pack Qty.	€
HY62.1	1	132,00

Accessories:

Art. No.	Pack Qty.	€
Micro/AAA 1.5 V battery	1021.2	4 pcs. 6,35



Seven2Go™-series pocket conductivity meter

By Mettler-Toledo. Rugged conductivity meter designed to withstand the harshest environments. Waterproof and dustproof to IP 67. Impact protection housing.

- Automatic and manual temperature compensation
- Automatic, manual and timer-controlled endpoint determination
- User-defined intermittent measurement possible (max. operating time 1 h)
- Selectable reference temperature (20/25 or °C)
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data

Other features of the Seven2Go™ pro S7 professional conductivity meter:

- Menu structure with full-text display in 12 languages
- Graphical LCD display
- Memory capacity for 2000 datasets incl. date and time (GLP-compliant)
- Data readout via Micro USB port

Technical specifications:

Model		Seven2Go™ S3	Seven2Go™ pro S7
Measuring range/ resolution	EC TDS Salinity °C	0.01 µS/cm to 500 mS/cm 0.01 mg/l to 300 g/l 0.00 to 42.0 psu -5.0 to +105.0	0.01 µS/cm to 1000 mS/cm 0.01 mg/l to 600 g/l 0.00 to 42.0 psu -5.0 to +105.0
Accuracy	EC TDS Salinity °C	±0.5 % ±0.5 % ±0.5 % ±0.2 °C	±0.5 % ±0.5 % ±0.5 % ±0.1 °C
Connections		LTW 7-pin (IP 67)	LTW 7-pin (IP 67)
Calibration points		1	1
Buffer series: predefined user-defined		3 (84, 1413, 12880 µS/cm) 2	3 (84, 1413, 12880 µS/cm) 2
Temperature compensation		linear	linear, non-linear
Data memory		200 conductivity values	2000 datasets
Communication port		-	Micro USB
Dimensions H x W x D (mm)		222 x 70 x 35	222 x 70 x 35
Weight (g)		270	290

Delivery incl. conductivity sensor InLab® 738-ISM®-IP 67, electrode clip, conductivity test solutions 1413 µS/cm and 12880 µS/cm (2 x 30 ml sachets each) and 4 Mignon 1.5 V batteries.

Seven2Go™ pro S7 Standard Kit including software and data cable.

Type	Art. No.	Pack Qty.	€
Seven2Go™ conductivity S3 Standard Kit	CAL4.1*	1	720,00
Seven2Go™ pro conductivity S7 Standard Kit	CAL5.1*	1	1042,00

Accessories:

Conductivity sensor InLab® 738-ISM®-IP 67, incl. 1.8 m fixed cable (LTW 7-pin), stem length/Ø: 120/12 mm, measuring range: 0.01 to 1000 mS/cm	CY95.1*	1	373,00
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* Delivery times may apply to these products. Please ask our sales staff.

Mignon/AA 1.5 V battery	1022.2	4	5,95
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Conductivity meters



Pocket conductometer Cond 3110/3310-Set

By WTW. Robust, waterproof conductivity meters with parallel temperature display.

- 1-point calibration (calibration standard can be freely selected)
- Non-linear function for high-purity and natural water (non-cond.)
- Optional reference temperature (20 or 25 °C)

Cond 3310

- Integrated data logger
- USB-interface
- Turn-off temperature compensation
- Backlit graphic display
- Additional equipment: CD with driver software for USB and USB cable (Length 1 m)

Technical specifications:

Model		Cond 3110	Cond 3310
Measuring range/ resolution	Conductivity	0.1 µS to 1000 mS/cm	
	Temperature	-5.0 to +105.0 °C	
	Salinity	0.0 to 70.0	
	TDS	-	0 to 1999 mg/l, 0 to 199.9 g/l
Accuracy	Conductivity	±0.5 % of reading	
	Temperature	±0.1 °C	
Temperature compensation		Non-cond.	turn-off, non-cond., 0.000 to 10.00 %/C
Calibrating storage		Current calibration	5 calibrations retrievable
Display		7 segment LCD	LCD graphics, backlit
Data storage		-	Manual 200 and time-controlled 5000 records
Interface		-	Mini-USB
Dimensions (H x W x D)		180 x 80 x 55 mm	
Power supply		4 Mignon/AA 1.5 V batteries	

Delivery incl. 4-pol conductivity electrode TetraCon®325 (measuring range 0.001 to 1000 mS/cm), professional case with integrated measuring station and separate compartments for accessories, stand, beaker, conductivity test solutions 1413 µS/cm and batteries.

Model	Art. No.	Pack Qty.	€
Cond 3110-Set	KT27.1 *	1	942,80
Cond 3310-Set	KT28.1 *	1	1054,60

* Please check with our Sales Department for delivery period of this products.

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Conductivity test solutions

For conductivity meters.

500-ml-bottles without manufacturer's certificate

Type	Art. No.	Pack Qty.	€
84 µS/cm	C524.1	1	13,75
1413 µS/cm	E469.1	1	13,75
5000 µS/cm	E470.1	1	20,35
12880 µS/cm	E471.1	1	13,75

500-ml-bottle, opaque with manufacturer's certificate

Type	Art. No.	Pack Qty.	€
84 µS/cm	PX16.1	1	24,20
1413 µS/cm	PX17.1	1	24,20

20-ml-bag without manufacturer's certificate

Type	Art. No.	Pack Qty.	€
1413 µS/cm	N324.1	25	28,00
5000 µS/cm	N326.1	25	28,00
12880 µS/cm	N323.1	25	28,00

20-ml-bag with manufacturer's certificate

Type	Art. No.	Pack Qty.	€
1413 µS/cm	EN94.1	25	31,90
5000 µS/cm	EN95.1	25	31,90
12880 µS/cm	EN96.1	25	31,90

► Further calibration solutions for conductimetry see page 810



Benchtop conductivity meters FiveEasy™/FiveEasy™ plus

By Mettler-Toledo.

- Simultaneous display of conductivity or TDS and temperature values
- Single-point calibration with calibration standards (84 / 1413 / 12880 $\mu\text{S/cm}$)
- Automatic or manual measurement stop
- Temperature compensation
- Selectable reference temperature (20 or 25 °C)
- Calibration data display

Additional features of FiveEasy™ plus (FEP30-Kit):

- Data memory for storage of 99 measurements
- RS 232 port

Technical specifications:

Measuring range / resolution	Conductivity	0.10 to 19.99 $\mu\text{S/cm}$ 20.0 to 199.9 $\mu\text{S/cm}$ 200 to 1999 $\mu\text{S/cm}$ 2.00 to 19.99 mS/cm 20.0 to 199.9 mS/cm 0.0 to 100.0 °C
	Temperature	0.00 to 19.99 psu
	Salinity	0.1 mg/l to 199.9 g/l
	TDS	
Accuracy	Conductivity	$\pm 0.5\%$ of measured value
	Temperature	± 0.3 °C
Dimensions (L x W x H)		200 x 175 x 52 mm
Weight		600 g

Conductivity meter FiveEasy™-FE30-Basic

Delivery incl. mainsadapter. Does not include conductivity electrode and electrode arm. Please order separately.

Art. No.	Pack Qty.	€
TE51.1	1	516,00

Conductivity meter FiveEasy™ Starter Kit FE30-Kit

Delivery incl. conductivity electrode type LE703, electrode arm, conductivity test solutions 1413 $\mu\text{S/cm}$ and 12.88 mS/cm (2 x 30 ml sachets each) and mains adapter.

Art. No.	Pack Qty.	€
HY61.1	1	647,00

Conductivity meter FiveEasy™ plus Starter Kit FEP30-Kit

Delivery incl. conductivity electrode type LE703, electrode arm, conductivity test solutions 1413 $\mu\text{S/cm}$ and 12.88 mS/cm (2 x 30 ml sachets each) and mains adapter.

Art. No.	Pack Qty.	€
TE52.1	1	937,00

Accessories for FiveEasy™/FiveEasy™ plus

2-pole conductivity sensor model InLab® 720 - 0.1 $\mu\text{S/cm}$

With fixed cable (length 1.0 m), integrated temperature sensor and glass shaft. Shaft length/ \varnothing 120/12 mm.

Temperature range 0 to +100 °C. Measuring range: 0.1 to 500 $\mu\text{S/cm}$.

Art. No.	Pack Qty.	€
PP35.1	1	278,00

2-pole micro conductivity sensor model InLab® 751 - 4 mm

With fixed cable (length 1.0 m), integrated temperature sensor and glass shaft. Shaft length/ \varnothing 120/4 mm.

Temperature range 0 to +100 °C. Measuring range: 0.001 bis 200 mS/cm .

Art. No.	Pack Qty.	€
PP36.1	1	444,00

Spare 4-pole conductivity sensor model LE703

With fixed cable (length 1.0 m), integrated temperature sensor and plastic shaft. Shaft length/ \varnothing 120/12 mm.

Temperature range 0 to +80 °C. Measuring range: 0.01 to 200 mS/cm .

Art. No.	Pack Qty.	€
HY62.1	1	132,00

Electrode arm for benchtop conductivity meter

Art. No.	Pack Qty.	€
HY60.1	1	67,50



Conductivity meters



Benchtop conductivity meter SevenCompact™ S230

By Mettler-Toledo.

- Large colour display (4.3") with Routine or Expert mode (e.g. for disabling Delete data or Edit data function)
- Menu navigation in 10 languages (DE, GB, FR, ES, IT, PT, CN, JP, KR, RU)
- 1-point calibration with 5 predefined groups and 1 user-defined group incl. temperature chart
- Automatic and manual temperature compensation
- Selection of compensation method: Linear, Nonlinear, Ultra-pure water, Off
- Manual cell constant input
- Internal measured value memory: saving by pressing key or timed (intermittent) saving (interval is variable from 1 s to 40 min)
- USB ports for exporting data via USB stick (datasets are exported as a text (.txt) file) or for connecting a USB keyboard

Technical specifications:

Measuring range / resolution	Conductivity:	0.001 to 1.999 µS/cm 2.00 to +19.99 µS/cm 20.0 to 199.9 µS/cm 200 to 1999 µS/cm 20.0 to 199.9 mS/cm 200 to 1000 mS/cm
	Temperature:	-5.0 to 105.0 °C
	Salinity:	0.00 to 80.00 psu
	TDS:	0.00 mg/l to 1000 g/l
Accuracy	Conductivity:	±0.5 %
	Temperature:	±0.5 %
	Salinity:	±0.5 %
	TDS:	±0.5 %
Data memory		1000 sets
Communication ports		RS 232, USB-A, USB-B

Conductivity meter SevenCompact™ S230 Basic Kit

Delivery incl. Electrode holder, protective sleeve, conductivity sensor InLab 731®-ISM (0.01 to 1000 mS/cm) and two 20 ml calibration bags for 1413 µS/cm and 12.88 mS/cm.

Art. No.	Pack Qty.	€
TA12.1	1	1381,00

Conductivity meter SevenCompact™ S230 USP/EP-Kit

Delivery incl. electrode holder, protective sleeve, conductivity sensor InLab 741®-ISM (0.001 to 500 µS/cm).

Art. No.	Pack Qty.	€
TA13.1	1	1518,00

Accessories for SevenCompact™ S230

By Mettler-Toledo.

4-pole conductivity sensor InLab 731®-ISM (0-01 mS/cm)

With integrated temperature sensor. Stem material: epoxy.
Stem length: 120 mm, stem Ø 12 mm. Temperature range: 0 to 100 °C.
Measuring range: 0.01 to 1000 mS/cm.

Art. No.	Pack Qty.	€
TA14.1	1	372,00

2-pole conductivity sensor InLab 741®-ISM (0.001 µS/cm)

With integrated temperature sensor. Stem material: steel.
Stem length: 120 mm, stem Ø 12 mm. Temperature range: 0 to 100 °C.
Measuring range: 0.001 to 500 µS/cm.

Art. No.	Pack Qty.	€
TA15.1	1	539,00



Conductivity standards

Our conductivity standard solutions are made from high-quality reagents and therefore ensure maximum precision during calibration. They are ready for use and come supplied with a batch-specific certificate of analysis.

- 10 conductivity standards
- Variation in conductivity ±1 % (25 °C)
- Traceable to SRM from NIST

Typ	Art. No.	Pack Qty. (l)	€
84 µS/cm	2432.1	0.5	23,55
	2432.2	1	31,95
147 µS/cm	2433.1	0.5	23,55
	2433.2	1	31,95
1413 µS/cm	2434.1	0.5	23,55
	2434.2	1	31,95
12 880 µS/cm	2435.1	0.5	23,55
	2435.2	1	31,95
5 µS/cm	2462.1	0.5	131,70
100 µS/cm	2463.1	0.5	56,90
500 µS/cm	2464.1	0.5	56,90
1 000 µS/cm	2465.1	0.5	56,90
10 000 µS/cm	2466.1	0.5	56,90
500 000 µS/cm	2467.1	0.5	56,90



HI 9146-04 oxygen meter

By Hanna. Ideal for analyzing released oxygen in liquids.

- Large display for reading the measured values (% or mg/l) and temperature
- Automatic calibration in the air up to 100 %
- Automatic temperature compensation from 0 to 50 °C plus air pressure/salinity compensation
- Waterproof
- The hold-function enables the measured value to be "frozen" in the display
- Automatic switch-off after 4 h

Technical specifications:

Range of testing	O ₂ -concentration O ₂ -saturation Temperature	0.00 to 45.00 mg/l 0.0 to 300.0 % 0.0 to 50.0 °C
Resolution	O ₂ -concentration O ₂ -saturation Temperature	0.01 mg/l 0.1 % 0.1 °C
Accuracy	O ₂ -concentration O ₂ -saturation Temperature	±1.5 % ±1.5 % ±0.5 °C
Dimensions (W x D x H)	80 x 60 x 196 mm	

Delivery incl. Oxygen probe with 4 m cable, 30 ml oxygen-electrolyte solution, 2 spare membranes, transport case and 3 Micro 1.5 V batteries.

Type	Art. No.	Pack Qty.	€
Oxygen meter HI 9146-04	EL97.1	1	594,00

Accessories:

Oxygen electrolyte solution, 30 ml	H446.1	1	17,10
Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35

- Winkler oxygen bottles see page 29
- Oxygen test kit see page 785



Pocket oxygen meter Oxi 3310-Set

By WTW. Robust, waterproof pocket meter, battery operated

- Integrated data logger
- USB-interface
- Automatic air pressure compensation sensor
- Backlit graphic display
- Calibrating storage - 5 calibrations are retrievable

Set-equipment

- Meter incl. 4 Mignon/AA 1.5 V batteries
- Galvanic oxygen sensor CelloX®325 with 1.5 m cable (Measuring range O₂-concentration: 0 to 50 mg/l)
- Professional case with integrated measuring station and separate compartments for accessories
- Cleaning agent and electrolyte solution
- 3 replaceable membrane heads
- Stand and beaker
- Driver software for USB
- USB-cable (Length 1 m)

Technical specifications:

Measuring range / Resolution	O ₂ -concentration	0.01 to 19.99 mg/l 0.0 to 90.9 mg/l
	O ₂ -saturation	0.1 to 199.9 % 0 to 600 %
	Partial pressure	0.1 to 199.9 hPa 0 to 1250 hPa
	Temperature	-5.0 to +50.0 °C
Accuracy	O ₂ -concentration	±0.5 % of reading
	O ₂ -saturation	±0.5 % of reading
	Partial pressure	±0.5 % of reading
	Temperature	±0.1 °C
Data storage		Manual 200 and time-controlled 5000 records
Interface		Mini-USB
Dimensions (H x W x D)		180 x 80 x 55 mm

Art. No.	Pack Qty.	€
KT29.1*	1	1390,00

* Please check with our Sales Department for delivery period of this products.

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Multi-range meters



Combi testers pH, conductivity, °C - model Combo

By Hanna. Two models for different measuring ranges. Complete with 4 cell batteries 1.5 V.

- Simultaneous display of pH or EC measured values and temperature.
- Simple calibrating with pre-programmed pH and conductivity solutions (1413 µS/cm at Combo I, 12880 µS/cm at Combo II)
- Automatic temperature compensation of pH and EC/TDS-value
- Adjustable temperature coefficient enables application in alkaline and acid media
- Conductivity probe made of graphite
- Low battery display, stability indicator
- Dimensions: L 163 x W 40 x D 26 mm. Weight 85 g

Technical specifications:

Model		Combo I	Combo II
Measuring range / Resolution	pH	0.00 to 14.00	0.00 to 14.00
	EC	0 to 3999 µS/cm	0.00 to 19.99 mS/cm
	TDS	0 to 2000 ppm (mg/l)	0.00 to 10.00 ppt (g/l)
	°C	0.0 to 60.0	0.0 to 60.0
Accuracy	pH	±0.05	
	EC/TDS	±2 % of rating	
	°C	±0.5	

Type	Art. No.	Pack Qty.	€
Combo I	X631.1	1	154,00
Combo II	X632.1	1	154,00

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1	4,25
Spare electrode for pHep®-4 and pHep®-5	X284.1	1	60,50

- pH-buffer solutions see page 792
- For information on pH measurement see page 791



Multi-parameter handheld meter AL15

By Aqualytic. For the measurement of pH/redox, conductivity/TDS and oxygen.

- Automatic/manual temperature compensation
- Min/Max and Hold functions
- Automatic/manual storage of up to 16,000 datasets (please order software and cable for exporting data separately)
- RS 232 port and USB port
- Auto Off after 10 min
- Dimensions (incl. protective plating): L 220 x W 120 x D 40 mm.

Technical specifications:

pH/redox	
Measurement range/resolution	0.01 to 14.00 pH -1999 to +1999 mV
Accuracy	±0.02 pH
Temperature compensation	Automatic: 0 to 65 °C, manual: 0 to 100 °C
Calibration	pH: 1-/2-/3-point calibration (pH 7, 4 and 10) Redox: 1-point calibration (calibration standards freely selectable)
Conductivity	
Measurement range/resolution	0.1 to 200.0 µS 0.201 to 2.000 mS 2.01 to 20.00 mS 20.1 to 200.0 mS
Accuracy	±0.5 % of the measurement range end value
Temperature compensation	Automatic: 0 to 60 °C
Calibration	1-/2-/3-point calibration (calibration standards freely selectable)
TDS	
Measurement range/resolution	0.1 to 132.0 ppm / 0.1 ppm 132 to 1320 ppm / 1 ppm 1320 to 13 200 ppm / 10 ppm 13 200 to 132 000 ppm / 100 ppm
Accuracy	±2 % of the measurement range end value
Oxygen	
Measurement range/resolution	0.1 to 20.0 mg/l (dissolved O ₂) 0.1 to 100 % (O ₂ in air)
Accuracy	±0.4 mg/l ±0.7 %
Temperature compensation	Automatic: 0 to 50 °C
Salt correction	0 to 39 ‰
Air pressure compensation	0 to 8900 m

Delivery incl. pH plastic electrode with gel electrolyte and BNC connection, temperature sensor, conductivity measuring cell, pH buffers 4 and 7, plastic case and 4 mignon 1.5 V batteries. Does not include oxygen sensor and redox electrode; please order separately.

Art. No.	Pack Qty.	€
YT94.1	1	676,20

Accessories:

Spare pH plastic electrodes	YP69.1	1 pce.	75,05
Replacement conductivity measuring cell	YT96.1	1 pce.	65,25
Oxygen sensor	YT97.1	1 pce.	165,55
Electrolyte for oxygen sensor	YT98.1	1 pce.	18,20
Redox electrode with BNC connection	C900.1	1 pce.	289,20
RS 232 cable for data transfer	YT99.1	1 pce.	21,30
USB cable for data transfer	YX00.1	1 pce.	65,60
Windows software for data transfer	YX01.1	1 pce.	73,65
Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95



Redox-, pH-, temperature and conductivity meter PM 2000 set

Automatic sensor recognition. Robust, coated alu-housing. Automatic calibration. Protective system IP 65.

pH-measurement

- Measuring range/resolution: pH 0.00 to 14.00
- Accuracy: ± 0.01 pH
- Automatic temperature compensation: 0 to 100 °C

Conductivity measurement

- Measuring range: 0 μ S/cm to 500 mS/cm in 5 measuring ranges
- Measuring cell with integrated temperature sensor
- Error of measurement: to 200 mS = 2 %, to 500 mS = 4 %
- Setting possibility for temperature coefficient (0-3.9 %) and reference temperature (20/25 °C)
- Dimensions of measuring cell: W 32 x D 18 x L 165 mm

Temperature measurement

- Measuring range: -50.0 to +150.0 °C; resolution 0.1 °C
- Accuracy of device: ± 0.2 °C
- Probe Pt 1000 Class B

mV-measurement (Redox potential)

- Measuring range: -1000 mV to +1000 mV; resolution 1 mV
- Zero point can be set individually for Redox-electrodes

Technical specifications:

Display	8 digit x 14 segment LCD • 7 mm
Housing	Aluminium (black coating)
Dimensions (L x W x H)	138 x 85 x 35 mm
Ambient temperature	0 to +50 °C

Delivery incl. pH/Redox-measuring pre-amplifier with temperature probe, pH-electrode pH62/A7, conductivity measuring cell, 3 batteries Mignon 1.5 V. **Without** Redox electrode, please order separately if required.

Art. No.	Pack Qty.	€
HT24.1	1	536,45

Accessories:

Redox electrode Pt 110	N389.1	1 pce.	118,25
pH-electrode pH62/AS7	N385.1	1 pce.	72,05
pH/Redox measuring pre-amplifier with temp.-probe	N384.1	1 pce.	155,90
Conductivity measuring cell	X286.1	1 pce.	138,70



Combination meters HI 991300 / HI 991301

By Hanna. Waterproof pH-, conductivity/TDS- and temperature-meter with microprocessor.

Properties

- **Multiparameter probes** enable measuring to be carried out without changing the probe
- Probe with integrated temperature sensor **for automatic temperature compensation** and temperature measurement
- Temperature coefficient and TDS-factor can be set individually
- With large multifunction display for simultaneous temperature display
- Graphic symbols illustrate calibration and measurement
- **Automatic calibration** with preprogrammed standard buffers for pH (7.01; 4.01 10.01) and EC (1413 μ S with HI 991300; 12880 μ S at HI 991301)

Technical specifications:

Model		HI 991300	HI 991301
Measuring range/ resolution	pH EC TDS °C	0.00 to 14.00 0 to 3999 μ S/cm 0 to 1999 ppm (mg/l) 0.0 to 60.0	0.00 to 14.00 0.00 to 19.99 mS/cm 0.00 to 10.00 ppt (g/l) 0.0 to 60.0
Accuracy	pH EC TDS °C		± 0.01 ± 2 % of measuring ranges ± 2 % of measuring ranges ± 0.5
Dimensions (L x W x D)		150 x 80 x 28 mm	

Delivery incl. multiparameter probe, 3 batteries Micro 1.5 V.

Type	Art. No.	Pack Qty.	€
HI 991300	X222.1	1	495,00
HI 991301	X223.1	1	495,00

Accessories for HI 991300 and HI 991301

Type	Art. No.	Pack Qty.	€
Spare probe HI 1288	X224.1	1	144,00
Micro/AAA 1.5 V battery	1021.2	4	6,35

Multi-range meters



pH-/Conductivity meters SevenGo® Duo

By Mettler-Toledo. Portable two-channel meter for determining pH, mV, conductivity, TDS (Total Dissolved Solids) and salinity.

General information

- Robust, waterproof casing
- Data storage for 99 GLP-data records

pH-measurement

- Automatic 1-/2-/3-point pH calibration with 4 predefined and one user-defined buffer set
- Reproducible results through automatic limit point recognition, automatic buffer identification and temperature compensation

Conductivity measurement

- 1-point calibration with calibration standards (84 / 1413 / 12880 $\mu\text{S}/\text{cm}$)
- Linear temperature compensation
- Selectable reference temperature (20 or 25 °C)

Technical specifications:

Measuring range/resolution	pH EC mV °C Salinity TDS	0.00 to 14.00 0.01 $\mu\text{S}/\text{cm}$ to 500 mS/cm -1999 to + 1999 -5.0 to 105 0.00 to 80.00 ppt 0.1 mg/l to 300 g/l
Accuracy	pH EC mV °C	± 0.01 $\pm 0.5\%$ ± 1 ± 0.5
Storage via keystroke		99 data records
Dimensions (W x D x H)		220 x 90 x 45 mm

pH-/Conductivity meter SevenGo® Duo model SG23-ELK:

Delivery incl. pH-electrode InLab® Expert Pro-ISM, conductivity sensor InLab® 738-ISM (both IP 67, 2 m cable), 4 batteries Mignon 1.5 V and wrist strap.

Art. No.	Pack Qty.	€
LN41.1	1	1164,00

pH-/Conductivity meter SevenGo® Duo model SG23-FK5:

Delivery incl. pH-electrode InLab® Expert Pro-ISM, conductivity sensor InLab® 738-ISM (both IP 67, 5 m cable), elastic protective cover, bag with buffer solutions pH (2 bags each; 4.01, 7.00), bag with calibrating standards conductive (2 bags each 1413 and 12880 $\mu\text{S}/\text{cm}$), sample bottles, 4 batteries Mignon 1.5 V, wrist strap and case.

Art. No.	Pack Qty.	€
LN42.1	1	1334,00

Accessories for SevenGo® Duo

By Mettler-Toledo.

Spare-IP67-pH-electrode InLab® Expert Pro-ISM:

Delivery incl. integrated temperature probe and fixed cable (Length 1.8 m). Plastic shaft. Shaft length/ \varnothing 120/12 mm. Gel-filled. BNC/Cinch contact plug.

Art. No.	Pack Qty.	€
LN43.1	1	323,00

Spare IP67-4-pole conductivity sensor InLab® 738-ISM:

Delivery incl. integrated temperature probe and fixed cable (Length 1.8 m). Plastic shaft. Shaft length/ \varnothing 120/12 mm. Measuring range 0.01 to 1000 mS/cm.

Art. No.	Pack Qty.	€
LN44.1	1	421,00

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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- InLab®-series pH single-rod measuring cells see page 796
- pH-buffer solutions see page 792
- To find calibration solutions for conductimetry, see page 808

Multi-range meters



SevenExcellence™ combined measuring devices

By Mettler-Toledo. Professional modular system for the measurement of pH, redox, conductivity, TDS and salinity. Up to three modules can be connected to a basic unit in variable configurations. This means that up to three parameters can be measured in one or more samples.

- High-resolution 7-inch colour display with touchscreen control
- Intuitive menu structure with full-text display (in 10 languages)
- 4-level user management hierarchy with different access rights
- Automatic calibration
- Flexible buffer selection and make-up; pH buffers from various groups can be combined with one another
- Automatic and manual temperature compensation
- Direct measurement or individual analysis methods (for standard conditions)
- Individual, intermittent or series measurement
- Automatic calculation of statistical data (mean values, standard deviation)
- Intelligent Sensor Management (ISM®) for automatic recognition of ISM® sensors and reading in calibration data
- GLP support (PIN protection, GLP-compliant printouts containing all relevant data and monitoring of measurement limits)
- Radio clock for precise display of time and date
- Data storage (20,000 data points, 250 analyses)
- Data export with USB stick or LabX®direct PC software
- Communication ports: USB, Ethernet and RS 232

Technical specifications:

pH/redox	
Measurement range/resolution	-2.000 to +20.000 pH -2000.0 to +2000.0 mV -30.0 to +130.0 °C
Accuracy	±0.002 pH ±0.1 mV ±0.1 °C
Calibration	1-/ 2-/ 3-/ 4-/ 5-point calibration (8 predefined buffer series and 20 user-defined buffer series)
Conductivity	
Measurement range/resolution	0.001 µS/cm to 2000 mS/cm -30.0 to 130.0 °C
Accuracy	±0.5 % of measurement range end value ±0.1 °C
Calibration	1-point calibration (13 predefined standards and 1 user-defined standard)
TDS	
Measurement range/resolution	0.00 mg/l to 1000 g/l
Accuracy	±0.5 % of measurement range end value
Salinity	
Measurement range/resolution	0.00 to 80.00 psu
Accuracy	±0.5 % of measurement range end value

SevenExcellence™ pH Kit Version S400

For the measurement of pH and redox potential.
Basic unit comprising a pH module, electrode holder, pH single-rod measuring cell InLab® Routine Pro-ISM, buffer solutions (pH 4.01 / 7.00 / 9.21 / 10.00, 2 pouches of each), LabX®direct PC software, AC adapter.

SevenExcellence™ EC Kit Version S700

For the measurement of conductivity, TDS and salinity.
Basic unit comprising a conductivity module, electrode holder, conductivity sensor InLab® 731-ISM, conductivity standards (1413 / 12880 µS/cm, 2 pouches of each), LabX®direct PC software, AC adapter.

SevenExcellence™ pH/EC Kit Version S470

For the measurement of pH, redox, conductivity, TDS and salinity.
Basic unit comprising a pH module, a conductivity module, electrode holder, pH single-rod measuring cell InLab®Expert Pro-ISM, conductivity sensor InLab® 731-ISM, buffer solutions (pH 4.01 / 7.00 / 9.21 / 10.00, 2 pouches of each), conductivity standards (1413 / 12880 µS/cm, 2 pouches of each), LabX®direct PC software, AC adapter.

Type	Art. No.	Pack Qty.	€
pH Kit Version S400	YX44.1	1	2003,00
EC Kit Version S700	YX45.1	1	2168,00
pH/EC Kit Version S470	YX46.1	1	2536,00

Accessories for SevenExcellence™ multimeters

Type	Art. No.	Pack Qty.	€
pH module (without sensor)	YX47.1	1	623,00
Conductivity module (without sensor)	YX48.1	1	740,00
Plastic pH electrode InLab® ExpertPro-ISM, including 1.2 m fixed cable (BNC/Cinch)	YX49.1	1	249,00
Glass pH electrode InLab® RoutinePro-ISM, with multi-pin head (without ISM cable)	YX50.1	1	271,00
ISM cable for YX50.1, 2 m long (BNC/Cinch-MultiPin)	YX51.1	1	102,00
Conductivity sensor InLab® 731-ISM, incl. 1.2 m fixed cable (Mini-DIN); measurement range: 0.01 to 1000 mS/cm	YX52.1	1	372,00
Conductivity sensor InLab® 720, incl. 1.0 m fixed cable (Mini-DIN); measurement range: 0.1 to 500 µS/cm	PP35.1	1	278,00

Airflow meters



Portable anemometer

For measuring current wind speed with highest and mean values, temperature and windchill factor. Wind speed measurement in m/s, km/h, mph or kn. Display of wind force according to Beaufort on a bar graph-wind scale (0 to 12 bft). LCD-back lighting.

Technical specifications:

Measuring range / resolution	0.2 to 30.0 m/s -30.0 to +60.0 °C
Accuracy	±5 % ±1 °C
Dimensions (L x W x H)	98 x 39 x 17 mm

Delivery incl. neoprene bag, shoulder strap and cell button battery CR 2032.

Art. No.	Pack Qty.	€
EY92.1	1	53,70

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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Current sticks testo 405-V1

By Testo. Mini-anemometer with air current and volume flow measurement. Also features pivotable display. Pull-out telescope, max. 300 mm.

Technical specifications:

Range	0 to 10 m/s -20 to +50 °C 0 to 99 990 m³/h
Accuracy	±(0.1 m/s +5 % of mv) (0 to +2 m/s) ±(0.3 m/s +5 % of mv) (restmeasuring range)
Resolution	0.01 m/s / 0.1 °C
Ambient conditions	0 to +50 °C
Sensor probe	Max. Length 300 mm, Ø 37/36 mm

Delivery incl. batteries (3 x Micro 1.5 V) and attachment clip.

Type	Art. No.	Pack Qty.	€
Without Certificate of Calibration	P304.1	1	121,50
With ISO Certificate of Calibration, (5 and 10 m/s)	P305.1	1	219,30

Accessories:

Micro/AAA 1.5 V battery	1021.2	4	6,35
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Airflow meter testo 425

By Testo. Anemometer with permanently connected thermal flow probe (cord length approx. 1.2 m) incl. telescopic pipe (length of telescope max. 820 mm). Volume flow calculation via input of channel area.

- Measures of temperature, flow and volume flow
- Selective and temporal average determination
- Min/Max-values
- Hold-button for retaining measured value
- Display light
- Auto-off function

Technical specifications:

	Thermal	NTC
Measuring ranges	0 to +20 m/s	-20 to +70 °C
Accuracy	±0.03 m/s or 5 % of mv	±0.5 °C (0 to +60 °C) ±0.7 °C (restmeasuring range)
Resolution	0.01 m/s	0.1 °C
Working temperature	-20 to +50 °C	
Dimensions (W x D x H)	64 x 40 x 182 mm	

Delivery incl. airflow meter testo 425 with permanently connected flow probe incl. telescopic pipe, E-Block-battery 9 V and calibration protocol.

Art. No.	Pack Qty.	€
EH95.1	1	436,45

Accessories for air flow meter testo 425

Protective cover TopSafe, protects against blows and dirt

Art. No.	Pack Qty.	€
EH74.1	1	31,20

Emergency bag for meter and probe

Art. No.	Pack Qty.	€
EH96.1	1	31,20

Spare battery E-Block 9 V

Art. No.	Pack Qty.	€
1025.1	1	4,85

Luxmeters



① Mini Luxmeter

For monitoring the lighting conditions in the workplace, warehouses etc.

- Measurement range: up to 40 000 Lux
- Automatic zero calibration
- AUTO-OFF function
- Max Hold display
- Backlit display

Technical specifications:

Measurement range	lx	200.0	2000	20 000	40 000
Resolution	lx	0.1	1	x 10	x 100
Accuracy		±5 %			
Photosensor		Silicon photodiode with filter			
Dimensions W x D x H (mm)		54 x 34 x 157			

Delivery incl. 9 V E-block battery .

Art. No.	Pack Qty.	€
PK79.1	1	53,65

Accessories:

E-Block 9 V battery	1025.1	1 pce.	4,85
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② Pocket Luxmeter LM37

Ideal for measuring intensity of light. Measuring range 0.01 to 40 000 Lux.

- Choose between lx- and fc-units (fc = foot candelas; 1 fc = 10.764 lx)
- Automatic or manual range-changing switch
- With automatic null balancing
- Low battery display and AUTO-OFF function (can be deactivated)
- Hold function

Technical specifications:

Range	lx	39.99	399.9	3999	39990
	fc	3.999	39.99	399.9	3999
Resolution	lx	0.01	0.1	1	10
	fc	0.001	0.01	0.1	1
Accuracy		±3 %			
Photo sensor		Silicium-photo-diode			
Dimensions W x D x H (mm)		54 x 33 x 196			

Delivery incl. E-block battery 9 V.

Art. No.	Pack Qty.	€
KP25.1	1	92,25

Accessories:

E-Block 9 V battery	1025.1	1 pce.	4,85
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① Luxmeter

Ideal for measuring intensity of light. Range 0.1 to 200 000 Lux.

- With large 3½ digit LCD display and data hold function.
- Compact, sturdy and easy-to operate. High accuracy and rapid readings.
- With automatic zero point alignment.

Technical specifications:

Measuring range	200, 2000, 20 000, 200 000 Lux
Accuracy	±3 % f. mv. ±4 % f. mv. ±10 digits >1000 Lux
Accuracy rerun	±2 %
Photosensor	Silicium-photo-diode
Working temperature	0 to +40 °C / 80 % rF
Power supply/Battery life	9 V / 200 h
Cable photosensor	1.5 m
Dimensions	photosensor: 100 x 60 x 27 mm optosensor: 135 x 72 x 33 mm

Art. No.	Pack Qty.	€
E513.1	1	107,50

② Luxmeter

For measuring lighting intensity within a range of 0.01 up to 400 000 Lux

- With bar graph display
- Can choose between lx- and fc-units
- With exceeded range display
- Cosine-adjusted angle
- Min/Max-values and hold function
- Auto-power-off function

Technical specifications:

Measuring range	40.00 lx 40.00 fc	400.0 lx 400.0 fc	4000 lx 4000 fc	40.00 klx 40.00 kfc	400.0 klx
	Please note: 1 fc = 10.764 lx; 1 klx = 1000 lx; 1 kfc = 1000 fc				
Resolution	0.01 lx 0.01 fc	0.1 lx 0.1 fc	1 lx 1 fc	0.01 klx 0.01 kfc	0.1 klx
Accuracy	±3 %				
Sensor	Silicium-photo-diode				
Max. operating temp.	-0 to 40 °C at 80 % rh				
Dimensions (W x D x H)	sensor: 60 x 29 x 92 mm unit: 72 x 35 x 150 mm				
Length of photo sensor cable	150 cm				

Delivery incl. case and 6 Micro 1.5 V batteries.

Art. No.	Pack Qty.	€
EN32.1	1	138,70

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Further measuring instruments



UVA-meter

For mobile measurement of light quality e.g. ambient measurement for plant cultures, etc.

- With 3 measuring ranges
- Low battery display
- Hold function and maximum data logger
- UV-sensor spectrum 320 to 400 nm
- Exceeded range display

Technical specifications:

Measuring range	199.9 $\mu\text{W}/\text{cm}^2$	1.999 mW/cm^2	19.99 mW/cm^2
Resolution	0.1 $\mu\text{W}/\text{cm}^2$	0.001 mW/cm^2	0.01 mW/cm^2
Accuracy	$\pm 4\%$		
Max. operating temperature	0-50 °C at 75 % rh		
Dimensions (W x D x H)	48 x 24 x 155 mm		

Delivery incl. belt holster and 3 Micro 1.5 V batteries.

Art. No.	Pack Qty.	€
EN33.1	1	106,45

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Mini sound level meter

For monitoring permissible noise pollution levels in the workplace, e.g. assessment of office equipment (copiers, printers etc.), and for measuring industrial and environmental noise.

- Max-Min display
- AUTO-OFF function
- Backlit display

Technical specifications:

Measurement range	40.0 to 130.0 dB
Resolution	0.1 dB
Accuracy	± 3 dB
Dimensions (W x D x H)	54 x 34 x 157 mm

Delivery incl. 9 V E-block battery and wind protection cap.

Art. No.	Pack Qty.	€
PK80.1	1	43,55

Accessories:

E-Block 9 V battery	1025.1	1 pce.	4,85
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► Ear protection products from p. 566



Safety spectacles 506U

By Univet. Acc. to EN 166, EN 170. Clear UV-protective lens made of PC with anti-scratch/anti-fog coating.

- Angle and length adjustable temples
- Soft ear pieces avoid pressure points
- Optimal wearing comfort and adaptation through soft, adjustable nose pad
- Weight 25 g

Frame colour	Art. No.	Pack Qty.	€
white/pink	CNE8.1	1	12,20
black/green	CNE9.1	1	11,15



ULTRAFIT ear plugs

By 3M. Acc. to EN 352-2. Pre-moulded ear plugs made of thermoplastic elastomer. Thanks to their flat design, they are a perfect fit for any ear canal. To wash the ear plugs use warm soapy water. **Reusable.** Suitable for sensitive working areas in the foodstuffs and chemicals industries. SNR value: 32 dB.

Type	3M No.	Art. No.	Pack Qty. (Pair)	€
① with safety cord	UF01000	TE80.1	50	112,90
② with storage box	UF01020	TE81.1	50	116,10

Further measuring instruments



Sound-level meter SL328

For monitoring the permitted noise exposure at the workplace and for measuring industrial and environmental noise, e.g. measurement of machine and appliance noise.

- Automatic range switch-over
- With lower and upper range display
- Max hold function for logging the maximum sound level or noise level maximum
- Electronic calibration via integrated oscillator (94 dB, 1 kHz)

Technical specifications:

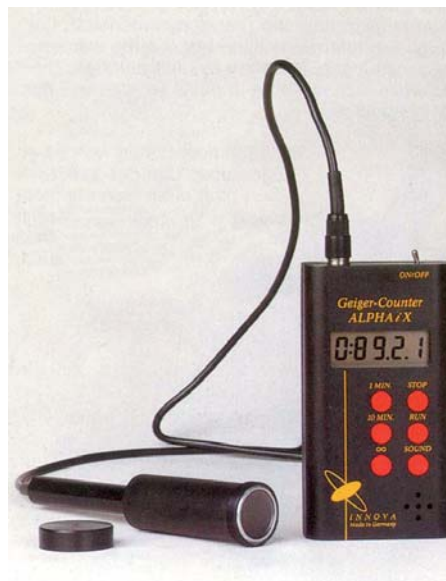
Range	32.0 to 130.0 dB
Resolution	0.1 dB
Accuracy	±1.5 dB
Dimensions (L x W x D)	206 x 42 x 25 mm

Delivery incl. wind protection screen and 2 batteries, Micro 1.5 V.

Art. No.	Pack Qty.	€
EY76.1	1	108,60

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Geiger-counter Alphaix 3000

Alphaix for attachable Geiger counters. With 5-digit display, time mode for setting measuring intervals and with audible alarm (can be switched off). Battery operated with 9 V-Block battery. Plastic housing L 120 x W 65 x D 30 mm.

Delivery incl. case for standard unit and counter tubes. Without counter (please order separately).

Art. No.	Pack Qty.	€
8482.1	1	387,00

Counter tubes for Geiger-counter Alphaix 3000

End window counter type G

- For measuring alpha-radiation from 1.9 MeV, beta-radiation from 0.09 MeV and gamma-radiation from 0.01 MeV
- Dose range 0.0001-1 R/H. Zero rate 30 IPM
- End window diameter 19.83 mm
- Detection limit 4 Bq for caesium 137 (distance 30 mm, length 10 minutes)
- Detection of carbon C¹⁴ possible

Art. No.	Pack Qty.	€
8484.1	1	408,50

Immersion counter type FSZ

- With two counter probes for measuring liquids and bulk material. Also ideal for foodstuffs with high liquid content.
- Measurement of gamma-radiation from 0.02 MeV and beta-radiation from 0.25 MeV
- Dose range from 0.001-10 R/H. Zero rate 17 IPM
- Detection limit for dry measurements in bulk material in caesium 137 : 0.75 Bq for 25 grammes
- Detection limit for wet measurements in 100 ml caesium 137 solution: for 10 minutes = 63 Bq, for 20 minutes = 46 Bq.

Art. No.	Pack Qty.	€
8486.1	1	387,00

► Please see our scintillation range in the Life Science Chapter!

Further measuring instruments



Laser distance meter

For indoor measurements. Units of measurement: m, in or ft. Backlit display. Adjustable measuring plane (bottom and top edges). Auto power-off after 180 s. Data memory for last 20 readings.

Measurement programs: Individual measurement, continuous measurement (max. 100 measurements) e.g. for checking plans, addition/subtraction of individual measured values, volume measurement and indirect measurement using Pythagoras function.

Technical specifications:

Measurement range	0.050 - 50 m
Resolution	0.001 m (1 mm)
Accuracy	±1.5 mm (5 mm to 10 m)
Dimensions (L x W x D)	115 x 48 x 28 mm

Delivery incl. belt bag and 2 Micro 1.5 V batteries.

Art. No.	Pack Qty.	€
TY93.1	1	129,00

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Tachometer testo 465

By Testo. Visual, non-contact speed measurement using reflex marks. Min/max function. Auto-off function.

Technical specifications:

Range	to 99.999 min ⁻¹
Distance to object measured	max. 350 mm (14 inch)
Auto-off function.	30 s (average/max./last readings are stored)
Dimensions (L x W x D)	144 x 58 x 20 mm

Delivery incl. meter with reflex marks and batteries (2 x Mignon 1.5 V) in a practical case.

Type	Art. No.	Pack Qty.	€
Tachometer set	P306.1	1	203,20

Accessories:

Reflex marks, self-adhesive	P307.1	5	22,60
Mignon/AA 1.5 V battery	1022.2	4	5,95





Leakage monitors

Ideal for monitoring all equipment operated by water. Prevents flooding by **automatic water cut-off** via magnetic valve. Highly sensitive moisture sensor sets off audible alarm and closes magnetic valve upon detection of 0.5 mm water. The leakage monitor can be easily and quickly assembled.

Technical specifications:

Magnetic valve	3/4"-connection and 12 V safety low voltage
Minimum pressure difference	0.5 bar
Moisture sensor	with 2 m cable
Connector shell	with shockproof plug connector and socket

Leakage monitor I

Comes ready to use. With control unit, moisture sensor, magnetic valve and alarm buzzer.

Art. No.	Pack Qty.	€
H481.1	1	127,95

Leakage monitor II

Comes ready to use. With control unit, moisture sensor, magnetic valve and alarm buzzer. Plus machine switch-off function in emergencies (to 16 A, 220 V, 50 Hz).

Art. No.	Pack Qty.	€
H482.1	1	149,45

Accessories for leakage monitors I and II

Extension cord for moisture sensor.

Length (m)	Art. No.	Pack Qty.	€
2	H499.1	1	12,40
5	H500.1	1	14,85
10	H501.1	1	19,90



AQUASTOP® II laboratory cooling water monitor

For monitoring cooling water flow and temperature in the laboratory. For installation in apparatus that runs without permanent supervision. Power supply and water supply are cut off in case of irregularities or when the preset temperature limit is exceeded.

Application:

- If the flow rate drops below the preset minimum level, the solenoid valve shuts off the coolant supply and connected electrical device (e.g. heating mantle) is de-energised.
- If the maximum temperature is exceeded, the solenoid valve stays open, the apparatus continues to be cooled and the electrical device is de-energised.

The temperature at the coolant outlet is recorded by the internal NTC sensor integrated in the flow sensor. As an option, an external Pt 100 temperature sensor which automatically deactivates the internal sensor can be installed in a freely selectable position on the test set-up (if required, please order separately).

Features:

- 2-line LED display for simultaneous display of flow rate and temperature
- LED for switching status and alarm indication
- Freely selectable alarm limits
- Acoustic pre-alarm alerts user before final deactivation
- With Schuko socket on the back

Technical specifications:

Flow measurement range	2 to 99 l/h
Temperature measurement range	0 to +80 °C
Internal NTC sensor	0 to +250 °C
External Pt 100 temperature sensor	±1 l/h or ±1 °C
Setting accuracy	16 A mT (load)
Fuse	0.5 A mT (solenoid valve)
Solenoid valve connections	0.2 A mT (control)
to tap	3/4 inch female thread
to apparatus	3/4 inch male thread or Ø 10 mm tubing connector
Rated power/rated current	35.5 kW / 15 A
Dimensions (W x H x D)	205 x 175 x 78 mm
Weight	1.3 kg
Power supply	230 V, 50 Hz

Delivery incl. solenoid valve, flow sensor with internal NTC sensor and tubing connectors for hoses with 10 mm internal Ø.

Art. No.	Pack Qty.	€
CKY2.1	1	1284,65

Accessories for AQUASTOP® II

External Pt 100 temperature sensor, made of stainless steel 1.4571, dimensions of sensor L 200 x Ø 4 mm, connecting cable L 2 m, with Lemo connector.

Art. No.	Pack Qty.	€
CKY3.1	1	134,40

Regulators / Counters



Flow indicator with ball

Made of **SAN**, transparent, with ball and two hose fittings.
For easy visual monitoring of flow rates. Minimum flow rate: 140 ml/min for liquids, 8 l/min for gases. Temperature stable up to +50 °C.
Connectors for hose inside Ø 6.5-10 mm.
Dimensions: W 102 x D 57 x H 14 mm. Weight 16 g.

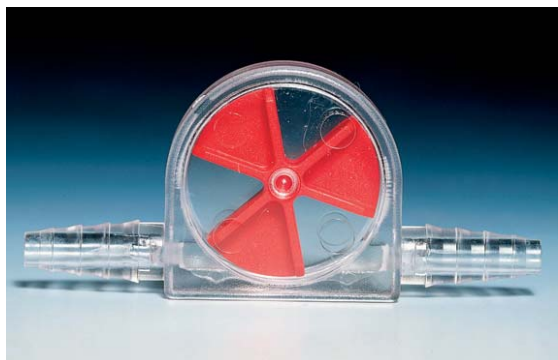
Art. No.	Pack Qty.	€
TT47.1	1	13,45



Manual counter

For mechanical counting from 1 to 9999. Casing made of chromium-plated metal. The counter adds 1 number after each press of the button.
Can be reset to 0 using the knob.
With retainer ring. Casing Ø 46 mm. Weight approx. 66 g.

Art. No.	Pack Qty.	€
EE53.1	1	11,15



Flow meters with propeller

With 2 hose connectors, length 25 mm, Ø 6-11 mm.
Minimum flow 150 ml/min. Pressure load max. 2 bar.
Dimensions: W 90 x H 40 x D 15 mm. Weight 12 g.

Made of styrene-acrylonitrile (SAN)

For water and similar liquids.
Temperature stable up to +30 °C.

Colour	Art. No.	Pack Qty.	€
blue	1736.1	1	11,40
red	E486.1	1	11,40
black	E487.1	1	11,40

Made of polymethylene pentene (PMP)

Can be sterilized. Resistant to most chemicals.
Temperature stable up to +60 °C.

Colour	Art. No.	Pack Qty.	€
blue	E488.1	1	14,20
red	1737.1	1	14,20
black	E489.1	1	14,20



Manual counter

Ideal for counting quantities from 1 to 9999. Zeroing via dial.
Black plastic housing with wrist strap. Dimensions: W 40 x H 74 x D 27 mm.
With stand made of metal.

Art. No.	Pack Qty.	€
1931.1	1	32,20

Balances

Weighing range (g)	Readability (g)	Art. No.	Page
30	0,0001	CNH8.1	838
42/210	0,00001/0,0001	CTH0.1	834
42/120	0,00001/0,0001	HL85.1	841
42/120	0,0001	HL86.1	841
60/120/220	0,00001	CNK6.1	839
60/120	0,00001	CNK4.1	839
40/60	0,00001	CNK0.1	838
60	0,0001	AHC9.1	838
60	0,0001	ACT1.1	835
60	0,0001	AHC2.1	836
60	0,001	LY72.1	829
62/252	0,0001/0,001	CTE2.1	833
65	0,0001	KH74.1	834
80	0,0001	TA63.1	833
100	0,001	HK92.1	829
100	0,001	KX09.1	825
102	0,0001	CTE3.1	833
110	0,0001	KH72.1	834
40/60/120	0,00001/0,0001	CNK2.1	838
120	0,0001	NN83.1	839
120	0,0001	TA64.1	833
120	0,0001	APA8.1	840
120	0,0001	CTH1.1	834
120	0,0001	NN59.1	838
120	0,0001	ACT0.1	835
120	0,0001	NN46.1	836
120	0,001	Y594.1	830
122	0,001	CTH4.1	832
120	0,0001	CCE5.1	837
150	0,001	ACT5.1	835
150	0,1	P961.1	825
150	0,1	HL50.1	824
152	0,0001	CTE4.1	833
200	0,001	LY69.1	825
220	0,001	CTH6.1	832
200	0,01	H723.1	829
200	0,01	Y595.1	830
200	0,01	CT06.1	825
200	0,01	HK93.1	829
200	0,1	X678.1	824
200	0,1	T317.1	825
210	0,0001	KH70.1	834
210	0,0001	CTH2.1	834
210	0,001	NN89.1	839
210	0,001	NN65.1	838
210	0,001	NN48.1	836
210	0,001	KH78.1	834
210	0,01	PH67.1	828
220	0,0001	NN81.1	839
220	0,0001	TA65.1	833
220	0,0001	PX41.1	840
220	0,0001	ACP9.1	835
220	0,0001	NN57.1	838
220	0,0001	NN45.1	836
220	0,001	AX07.1	831
220	0,0001	CCE6.1	837
220	0,001	CCE7.1	837
250	0,001	KX11.1	829
250	0,001	YC31.1	828
252	0,0001	CTE5.1	833
320	0,001	CTH8.1	832
300	0,01	CHH7.1	830
301	0,001	HT19.1	831
310	0,0001	CTH3.1	834
310	0,001	NN63.1	838
310	0,001	NN47.1	836
310	0,001	NN87.1	839
320	0,0001	PX42.1	840
320	0,0001	TA66.1	833
320	0,001	ACT4.1	835
320	0,1	P923.1	825
350	0,001	LY67.1	829
360	0,001	YY06.1	832
400	0,1	P936.1	829
400	0,1	Y597.1	830
410	0,001	KH76.1	834
410	0,01	AHE3.1	838
410	0,01	AHC4.1	836
420	0,001	ACT3.1	835
420	0,001	PX43.1	840

Weighing range (g)	Readability (g)	Art. No.	Page
420	0,001	AX08.1	831
420	0,001	CCE8.1	837
421	0,001	HT20.1	831
500	0,1	ET20.1	825
510	0,001	NN85.1	839
510	0,001	AHC3.1	836
510	0,001	NN61.1	838
510	0,01	KH84.1	834
510	0,1	PH68.1	828
520	0,001	CCE9.1	837
600	0,001	YY07.1	832
600	0,01	YY08.1	832
600	0,01	ET19.1	825
600	0,01	CHH8.1	830
600	0,01	LY73.1	829
610	0,001	AHE1.1	838
610	0,001	AHH3.1	839
610	0,01	NN75.1	838
610	0,01	AHH5.1	839
610	0,01	NN51.1	836
620	0,001	ACT2.1	835
620	0,001	AX09.1	831
750	0,001	YY05.1	832
820	0,01	AX10.1	831
820	0,01	ACX0.1	835
1000	0,01	KX10.1	825
1000	0,01	HK97.1	829
1000	0,1	HK99.1	829
1000	0,1	H724.1	829
1000	1	P924.1	825
1100	0,001	PX44.1	840
1100	0,01	NN97.1	839
1100	0,01	NN50.1	836
1100	0,01	NN73.1	838
1100	0,1	PH69.1	828
1220	0,01	CTK0.1	832
1200	0,1	ET21.1	825
1500	0,05	YY32.1	827
1500	0,5	YY37.1	827
1520	0,01	CCH1.1	837
1600	0,1	PH70.1	828
1610	0,01	L961.1	831
2000	0,01	LY70.1	825
2200	0,01	CTK2.1	832
2000	0,1	Y599.1	830
2000	0,1	H725.1	829
2000	0,1	HL00.1	829
2000	0,5/1	A891.1	824
2000	1	T318.1	825
2100	0,01	NN71.1	838
2100	0,01	NN95.1	839
2100	0,01	KH82.1	834
2100	0,01	NN49.1	836
2100	0,1	AHC6.1	836
2100	0,1	AHE7.1	838
2100	0,1	PH71.1	828
2200	0,01	ACT9.1	835
2200	0,01	AX11.1	831
2200	0,1	ACX3.1	835
2200	1	X415.1	825
2200	0,01	CCH2.1	837
2410	0,01	L962.1	831
2500	0,01	KX12.1	829
2500	0,01	YC32.1	828
3000	0,01	CHH9.1	830
3200	0,01	CTK4.1	832
3000	0,1	PA34.1	826
3000	0,1	YY33.1	827
3000	0,1	TA62.1	825
3000	1	PA30.1	826
3000	1	YY38.1	827
3000/6000	1/2	PX18.1	829
3000	1/2	PA43.1	826
3010	0,01	HT21.1	831
3100	0,01	NN69.1	838
3100	0,01	NN93.1	839
3100	0,01	AHC5.1	836
3200	0,01	ACT8.1	835
3200	0,2	PH72.1	828
3500	0,01	YY09.1	832
3500	0,01	LY68.1	829

Weighing range (g)	Readability (g)	Art. No.	Page
4000	0,1	Y530.1	829
4000	0,1	Y600.1	830
4000	1	P937.1	829
4100	0,01	KH80.1	834
4100	0,1	KH86.1	834
4100	0,2	PH73.1	828
4200	0,01	ACT7.1	835
4200	0,01	AX12.1	837
4200	0,01	PX45.1	840
4200	0,01	CCH3.1	837
4210	0,01	KX14.1	831
5000	1	T319.1	825
5000	5	HK43.1	824
5100	0,01	NN67.1	838
5100	0,01	NN91.1	839
5100	0,1	NN77.1	838
5100	0,1	NN52.1	836
5100	0,5	PH74.1	828
5100	1	NN79.1	838
5100	1	NN53.1	836
5200	0,1	ACX2.1	835
5200	1	ET22.1	825
5200	5	X416.1	825
5200	0,01	CCK4.1	837
6000	0,03	YC92.1	827
6000	0,1	YY10.1	832
6000	0,1	HL02.1	829
6000	0,1	CHK0.1	830
6000	0,1	LY71.1	825
6000	0,2	YY34.1	827
6000	0,5	PA35.1	826
6000	0,5	PA38.1	826
6000	1	Y601.1	830
6000	1	P938.1	829
6000	1	HL05.1	829
6000	2	PA31.1	826
6000	2	YY39.1	827
6000	2/5	PA44.1	826
6100	0,01	AHE5.1	838
6100	0,01	AHH7.1	839
6100	0,1	AHE9.1	838
6100	0,1	AHC7.1	836
6100	1	AHH1.1	838
6100	1	AHC8.1	836
6200	0,01	ACT6.1	835
6200	0,01	CT72.1	831
6400	0,5	PH75.1	828
8000	0,05	YC93.1	827
8200	0,1	ACX1.1	835
10000	0,1	YC33.1	828
10000	0,5	PH76.1	828
10000	10	HK44.1	824
10200	0,01	PX46.1	840
12000	0,1	CT73.1	831
10200	0,1	PX47.1	840
12000	1	PA39.1	826
12100	0,1	L963.1	831
15000	0,5	YY35.1	827
15000	1	PA36.1	826
15000	5	PA32.1	826
15000	5	YY40.1	827
15000	5/10	PA45.1	826
16000	0,05	YC94.1	827
16000	0,1	YC95.1	827
16000	1,0	PH77.1	828
16100	0,1	L964.1	831
24000	2	PA40.1	826
24100	0,1	L966.1	831
30000	1	YY36.1	827
30000	1	PA37.1	826
30000	10	PA33.1	826
30000	10	YY41.1	827
30000	10/20	PA46.1	826
36000	0,1	YC96.1	827
36000	0,2	YC97.1	827
60000	20/50	PA47.1	826
60000	5	PA41.1	826
65000	0,2	YC98.1	827
65000	0,5	YC99.1	827
120000	10	PA42.1	826

Balances



Electronic hanging balances HDB-series

By Kern. With Data-Hold function for "freezing" the weight reading for 5 s. Hook made of stainless steel, folding. AUTO-OFF function engages after 5 min without any load change. Dimensions: W 70 x D 25 x H 105 mm (with hook 195 mm). Weight approx. 150 g.

Delivery incl. 2 batteries Micro 1.5 V.

Model	Weighing range (kg)	Readability (g)	Art. No.	Pack Qty.	€
HDB 5K5N	5	5	HK43.1	1	60,00
HDB 10K10N	10	10	HK44.1	1	60,00

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Pocket balance model TCB

By Kern.

• **Weighing range 200 g. Readability 0.1 g**

- Automatic switch-off after 3 min to prolong battery life
- TARA-function
- Weighing pan rotatable for overload protection
- Dimensions of scales: H 14 mm x Ø 80 mm
- Weight approx. 50 g.

Delivery incl. transport box and two cell-batteries 1.5 V.

Art. No.	Pack Qty.	€
X678.1	1	52,00

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Pocket balance model TEE 150-1

• **Weighing range 150 g. Readability 0.1 g**

- Blue, backlite LCD display
- AUTO-OFF function after 2 min without load change, function can be disabled.
- Dimensions of weighing pan: W 60 x D 64 mm
- Overall dimensions of balances: W 67 x D 100 x H 22 mm
- Weight approx. 100 g

Delivery incl. plastic cover and 2 Micro 1.5 V batteries.

Art. No.	Pack Qty.	€
HL50.1	1	38,00

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Solar letter balance

Made of plastic. **Max. capacity 2000 g.** Minimum load 2 g. Accuracy 0.5 %. With button for ON/OFF/TARE/HOLD. Automatic zeroing and switch-off. Uses solar energy. Surplus energy is stored and can be used during bad lighting conditions. Dimensions: 196 x 130 x 65 mm.

Weighing pan: Ø 128 mm. Graduation: 0.5 g (0-100 g), 1 g (100-2000 g).

Art. No.	Pack Qty.	€
A891.1	1	75,20

Balances



Electronic pocket balances CM-series

By Kern. **With hinged lid.** Balances in the case are protected against all types of compressive stress. Fitted as standard with tare function, recipe program, automatic switch-off for longer battery life and integrated pocket calculator. Dimensions: balance W 85 x D 130 x H 25 mm, weighing pan 80 x 70 mm. Weight 150 g.

Delivery incl. 2 batteries 1.5 V micro and soft case.

Model	Weighing range (g)	Readability (g)	Art. No.	Pack Qty.	€
CM 150-1N	150	0,1	P961.1	1	52,00
CM 320-1N	320	0,1	P923.1	1	55,00
CM 1 K1N	1000	1	P924.1	1	52,00

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Compact balances CS-series

By Ohaus. Large, high-contrast display (11 mm). Short response time. With low battery display. Automatic switch-off after five minutes when battery operated. Display indicates over/underload. Can be battery or outlet operated. Stainless steel platform. Dimensions: balance 193 x 135 x 39 mm, weighing platform 146 x 133 mm. Weight 470 g.

Delivery incl. outlet pack and 3 batteries Mignon 1.5 V.

Model	Weighing range (g)	Readability (g)	Linearity (±g)	Art. No.	Pack Qty.	€
CS 200	200	0,1	0,1	T317.1	1	65,00
CS 2000	2000	1	1,0	T318.1	1	65,00
CS 5000	5000	1	1,0	T319.1	1	75,00

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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EMB-series compact balances

By Kern.

- Large LCD-display with 15 mm high numbers
- Automatic switch-off after 3 min to prolong battery life, can be disabled
- External adjustment
- TARE-function
- Dimensions of weighing pan:
 - Ø 82 mm for EMB 100-3
 - Ø 105 mm for EMB 200-2, EMB 600-2 and EMB 1000-2
 - Ø 150 mm for all other models
- Dimensions of scales: W 170 x D 240 x H 39 mm
- Battery and outlet
- **Without power unit (please order separately if required)**

Delivery incl. batteries: EMB 2200-0: incl. 2 Mignon 1.5 V batteries.

All other models: incl. 9 V Block battery.

Model	Weighing range (g)	Readability (g)	Linearity (±g)	Art. No.	Pack Qty.	€
EMB 100-3	100	0,001	0,003	KX09.1	1	195,00
EMB 200-3	200	0,001	0,003	LY69.1	1	210,00
EMB 200-2	200	0,01	0,02	CT06.1	1	125,00
EMB 600-2	600	0,01	0,03	ET19.1	1	160,00
EMB 1000-2	1000	0,01	0,03	KX10.1	1	195,00
EMB 2000-2	2000	0,01	0,03	LY70.1	1	205,00
EMB 500-1	500	0,1	0,2	ET20.1	1	57,00
EMB 1200-1	1200	0,1	0,3	ET21.1	1	80,00
EMB 3000-1	3000	0,1	0,3	TA62.1	1	125,00
EMB 2200-0	2200	1	2	X415.1	1	60,00
EMB 5.2 K 1	5200	1	3	ET22.1	1	60,00
EMB 5.2 K 5	5200	5	10	X416.1	1	55,00
EMB 6000-1	6000	0,1	0,3	LY71.1	1	160,00

Accessories:

Mains pack for EMB-series	X417.1	1	40,00
Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
E-Block 9 V battery	1025.1	1 piece	4,85

Balances



Table balances FCE and FCB-series

By Kern.

Features

- LCD display with 25 mm high digits
- External adjustment
- Power-supply or battery operation
- Dimensions of weighing platform: W 252 x D 228 mm
- Dimensions of balance overall: W 270 x D 345 x H 106 mm
- Automatic switch-off after 3 min without a change of load to prolong battery life

Battery not included, please order separately. 1 E-Block 9 V battery is required.

Delivery incl. power unit and work protection cover.

FCE-series with weighing platform made of plastic (ABS)

Model	Weighing range (kg)	Readability (g)	Linearity (±g)	Art. No.	Pack Qty.	€
FCE 3K1N	3	1	2	PA30.1	1	110,00
FCE 6K2N	6	2	4	PA31.1	1	110,00
FCE 15K5N	15	5	10	PA32.1	1	110,00
FCE 30K10N	30	10	20	PA33.1	1	110,00

FCB-series with weighing platform made of stainless steel

Model	Weighing range (kg)	Readability (g)	Linearity (±g)	Art. No.	Pack Qty.	€
FCB 3K0.1	3	0,1	0,3	PA34.1	1	220,00
FCB 6K0.5	6	0,5	1,5	PA35.1	1	195,00
FCB 12K1	12	1	3	PA36.1	1	185,00
FCB 30K1	30	1	3	PA37.1	1	220,00

Accessories:

E-Block 9 V battery	1025.1	1 piece	4,85
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Platform balances DE-A- and DE-D-series

By Kern.

Features

- Backlit LCD display with 25 mm high digits
- Function programs for number of items, recipe, percentage weighing and animal weighing
- RS 232 port
- External adjustment
- Power-supply or battery operation
- Dimensions of weighing platform made of stainless steel W 315 x D 305 mm
- Dimensions of display unit: W 225 x D 110 x H 45 mm

Battery not included, please order separately. 1 E-Block 9 V battery is required.

Delivery incl. power supply unit.

Standard balances DE-A-series

Model	Weighing range (kg)	Readability (g)	Linearity (±g)	Art. No.	Pack Qty.	€
DE 6K0.5A	6	0,5	1,5	PA38.1	1	215,00
DE 12K1A	12	1	3	PA39.1	1	215,00
DE 24K2A	24	2	6	PA40.1	1	215,00
DE 60K5A	60	5	15	PA41.1	1	215,00
DE 120K10A	120	10	30	PA42.1	1	215,00

Dual-range balances DE-D-series (automatic switch-over)

Model	Weighing range (kg)	Readability (g)	Linearity (±g)	Art. No.	Pack Qty.	€
DE 6K1D	3 / 6	1/2	2 / 4	PA43.1	1	185,00
DE 15K2D	6 / 15	2/5	4 / 10	PA44.1	1	185,00
DE 35K5D	15 / 35	5/10	10 / 20	PA45.1	1	185,00
DE 60K10D	30 / 60	10/20	20 / 40	PA46.1	1	185,00
DE 150K20D	60 / 150	20/50	40 / 100	PA47.1	1	195,00

Accessories:

Support for platform balances DE-A, DE-D series	PA48.1	1	95,00
E-Block 9 V battery	1025.1	1	4,85



Ranger® 3000-series battery-operated industrial balances

By Ohaus.

Applications:

- piece counting, percent weighing, dynamic weighing (animal weighing), check weighing and accumulating
- Display memory function - display of last stable value, can be initiated manually or automatically
- Adjustable weighing units: kg or g

Equipment:

- External adjustment
- Dimensions of stainless steel weighing platform: W 300 x D 225 mm
- Backlit LCD display
- **Battery operation possible, up to 210 h runtime, approx. 12 h charging time**
- Integrated hook for below-balance weighing
- Adjustable levelling feet and spirit level on the front
- Stability indicator
- Battery charge level indicator
- Automatic deactivation during battery operation (can be switched off)
- RS 232 port

Delivery incl. universal power supply (100-240 V, 50/60 Hz).

External adjustment, non calibratable

Model	Weighing range (kg)	Readability (g)	Linearity (±g)	Art. No.	Pack Qty.	€
R31P1502	1,5	0,05	0,1	YY32.1	1	349,00
R31P3	3	0,1	0,2	YY33.1	1	349,00
R31P6	6	0,2	0,5	YY34.1	1	349,00
R31P15	15	0,5	1	YY35.1	1	349,00
R31P30	30	1	2	YY36.1	1	349,00

External adjustment, ex works calibrated

Model	Weighing range (kg)	Readability (g)	Linearity (±g)	Art. No.	Pack Qty.	€
R31P1502-M	1,5	0,5	0,1	YY37.1	1	409,00
R31P3-M	3	1	0,2	YY38.1	1	409,00
R31P6-M	6	2	0,5	YY39.1	1	409,00
R31P15-M	15	5	1	YY40.1	1	409,00
R31P30-M	30	10	2	YY41.1	1	409,00



Table balances FKB series

By Kern.

Equipment:

- External adjustment
- Functions: part counting, formulation, percentage weighing and animal weighing
- Backlight display
- Suitable for battery and mains operation
- Auto-Off function, switches balance off after 3 min of non-use to conserve batteries, can be deactivated
- RS 232 data port
- Dimensions of stainless steel weighing plate: 240 x 240 mm

Technical specifications:

Model	Weighing range (kg)	Readability (g)	Reproducibility/linearity (±g)
FKB 6K0.02	6	0.03	0.02 / 0.1
FKB 8K0.05	8	0.05	0.05 / 0.15
FKB 16K0.05	16	0.05	0.05 / 0.25
FKB 16K0.1	16	0.1	0.1 / 0.3
FKB 36K0.1	36	0.1	0.1 / 0.5
FKB 36K0.2	36	0.2	0.2 / 0.6
FKB 65K0.2	65	0.2	0.2 / 1
FKB 65K0.5	65	0.5	0.5 / 1.5

Delivery incl. mains adaptor. Please order batteries separately. 6 batteries of the type Baby/C are required.

Model	Weighing range (kg)	Art. No.	Pack Qty.	€
FKB 6K0.02	6	YC92.1	1	510,00
FKB 8K0.05	8	YC93.1	1	460,00
FKB 16K0.05	16	YC94.1	1	560,00
FKB 16K0.1	16	YC95.1	1	460,00
FKB 36K0.1	36	YC96.1	1	520,00
FKB 36K0.2	36	YC97.1	1	480,00
FKB 65K0.2	65	YC98.1	1	520,00
FKB 65K0.5	65	YC99.1	1	480,00

Accessories:

Baby/C 1.5 V battery	1023.2	2 pieces	4,85
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Balances



Navigator precision balances

By Ohaus.

Application:

- Various weighing units are adjustable
- Functions: parts counting, percent weighing, check weighing, accumulating and display-hold function

Equipment:

- Stainless steel weighing platform
- External adjustment
- Backlit LCD display
- **Multifunctional infrared sensors for non-contact operation - e.g. contactless control of the zero/tare function to avoid specimen residues on the keypad**
- Spirit level on the front (lights up when switched on)
- Adjustable levelling feet with non-slip rubber pads
- Stability display and overload protection
- Upgradable with RS 232, USB or Ethernet port (please order separately)
- Battery or mains operation possible

Technical specifications:

Model	Weighing range (g)	Readability (g)	Reproducibility/linearity (±g)	Weighing pan (mm)
NV212	210	0.01	0.01 / 0.02	∅ 120
NV511	510	0.1	0.1 / 0.2	190 x 138
NV1101	1100	0.1	0.1 / 0.2	190 x 138
NVT1601	1600	0.1	0.1 / 0.2	230 x 174
NV2101	2100	0.1	0.1 / 0.2	190 x 138
NVT3201	3200	0.2	0.2 / 0.4	230 x 174
NV4101	4100	0.2	0.2 / 0.4	190 x 138
NV5101	5100	0.5	0.5 / 1.0	190 x 138
NVT6401	6400	0.5	0.5 / 1.0	230 x 174
NVT10001	10000	0.5	0.5 / 1.0	230 x 174
NVT16000	16000	1.0	1.0 / 2.0	230 x 174

Delivery incl. AC adapter.

Batteries not included (please order separately. NV models require 4 1.5 V mignon batteries and NVT models 4 Baby/C 1.5 V batteries).

Model	Weighing range (g)	Art. No.	Pack Qty.	€
NV212	210	PH67.1	1	230,00
NV511	510	PH68.1	1	189,00
NV1101	1100	PH69.1	1	209,00
NVT1601	1600	PH70.1	1	199,00
NV2101	2100	PH71.1	1	220,00
NVT3201	3200	PH72.1	1	199,00
NV4101	4100	PH73.1	1	215,00
NV5101	5100	PH74.1	1	205,00
NVT6401	6400	PH75.1	1	199,00
NVT10001	10000	PH76.1	1	199,00
NVT16000	16000	PH77.1	1	199,00

Accessories for Navigator precision balance

s By Ohaus.

Type	Art. No.	Pack Qty.	€
RS 232 port, installation kit with cable	Y609.1	1	30,00
USB port, installation kit with cable	Y610.1	1	30,00
Ethernet port, installation kit with cable	PH78.1	1	61,00

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
Baby/C 1.5 V battery	1023.2	2 pcs.	4,85



PCD-series precision balances

By Kern.

Features

- With separate platform for working in glove bags or fume cupboards
- External adjustment
- Functions: part counting, formulation, percentage weighing and animal weighing
- Backlight display
- Various weighing units can be set, e.g. g, ct, free value etc.
- With spirit level and levelling screws
- Draft shield for model PCD 250-3: Dimensions of weighing space: W 146 x D 146 x H 70 mm
- Mains or battery operation
- Auto-Off function, switches balance off after 3 min of non-use to conserve batteries, can be deactivated

Technical specifications:

Model	Weighing range (g)	Readability (g)	Reproducibility/linearity (±g)	Weighing pan (mm)
PCD 250-3 (W)	250	0.001	0.002 / 0.005	∅ 105
PCD 2500-2	2500	0.01	0.02 / 0.05	160 x 160
PCD 10K0.1	10 000	0.1	0.1 / 0.3	160 x 160

(W) = incl. draft shield.

Delivery incl. mains adaptor. Please order batteries separately.

One 9 V E-Block battery is required.

Model	Weighing range (g)	Art. No.	Pack Qty.	€
PCD 250-3 (W)	250	YC31.1	1	305,00
PCD 2500-2	2500	YC32.1	1	295,00
PCD 10K0.1	10000	YC33.1	1	220,00

Accessories:

Stand for raising the display unit, stand height 250 mm	YC34.1	1	50,00
E-Block 9 V battery	1025.1	1	4,85



Calibrated table balance GAB

By Kern. **Application examples:** dispensing balance for pharmacies; manual mixing of tea, coffee etc.

- Functions: piece counting and percentage weighing
- Weighing with tolerance range: entry of upper/lower limits. A visual signal supports dosing and sorting
- RS 232 port
- Stainless steel weighing plate: 294 x 225 mm
- Overall dimensions: W 320 x D 330 x H 125 mm

Delivery incl. mains adapter.

Weighing range (kg)	Readability (g)	Min. load (g)	Linearity (\pm g)	Art. No.	Pack Qty.	€
3/6	1/2	20	1/2	PX18.1	1	295,00



Electronic laboratory balances 440-series

By Kern. Stainless steel weighing platform. Automatic adjustment with external weights. Programs: piece counting, recipes, percent-weighing and animal weighing with data interface RS 232. Work protection cover supplied as standard. With Art. No. LY72.1 a wind guard ring is also supplied. Can be battery or outlet operated. AUTO-OFF after 3 mins for longer battery life.

Delivery incl. power unit. Please order battery separately. 1 battery E-block 9 V is required.

Weighing range (g)	Readability (g)	Linearity (\pm g)	Weighing pan (mm)	Art. No.	Pack Qty.	€
60	0,001	0,003	Ø 81	LY72.1	1	350,00
200	0,01	0,02	Ø 105	H723.1	1	290,00
400	0,01	0,03	Ø 105	AK49.1	1	330,00
600	0,01	0,03	Ø 105	LY73.1	1	365,00
400	0,1	0,2	130 x 130	P936.1	1	185,00
1000	0,1	0,2	130 x 130	H724.1	1	245,00
2000	0,1	0,2	130 x 130	H725.1	1	270,00
4000	0,1	0,3	170 x 150	Y530.1	1	330,00
4000	1	2	170 x 150	P937.1	1	160,00
6000	1	2	170 x 150	P938.1	1	180,00

Accessories:

E-Block 9 V battery	1025.1	1 piece	4,85
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PCB-series precision balances

By Kern.

Features:

- Backlit LCD display
- Stainless steel platform (Models with Ø 81 mm have ABS plastic platform)
- External adjustment
- Programs: Piece counting, recipes, percentage and animal weighing
- RS 232-interface
- All models uphold 0.001 g readability and have a wind protection ring
- Battery and outlet operation possible
- AUTO-OFF function after 3 mins to save batteries, feature can be disabled

Technical specifications:

Model	Weighing range (g)	Readability (g)	Reproducibility/linearity (\pm g)	Weighing pan (mm)
PCB 100-3	100	0.001	0.001 / 0.003	Ø 81
PCB 250-3	250	0.001	0.001 / 0.005	Ø 81
PCB 350-3	350	0.001	0.001 / 0.005	Ø 81
PCB 200-2	200	0.01	0.01 / 0.02	Ø 105
PCB 1000-2	1000	0.01	0.01 / 0.03	130 x 130
PCB 2500-2	2500	0.01	0.01 / 0.05	130 x 130
PCB 3500-2	3500	0.01	0.01 / 0.05	130 x 130
PCB 1000-1	1000	0.1	0.1 / 0.2	130 x 130
PCB 2000-1	2000	0.1	0.1 / 0.2	130 x 130
PCB 6000-1	6000	0.1	0.1 / 0.3	150 x 170
PCB 6000-0	6000	1	1 / 2	150 x 170

Delivery incl. power unit and work protection cover for keypad and housing. Please order batteries separately. One E-Block 9 V battery is required.

Model	Weighing range (g)	Art. No.	Pack Qty.	€
PCB 100-3	100	HK92.1	1	265,00
PCB 250-3	250	KX11.1	1	290,00
PCB 350-3	350	LY67.1	1	300,00
PCB 200-2	200	HK93.1	1	230,00
PCB 1000-2	1000	HK97.1	1	255,00
PCB 2500-2	2500	KX12.1	1	290,00
PCB 3500-2	3500	LY68.1	1	300,00
PCB 1000-1	1000	HK99.1	1	185,00
PCB 2000-1	2000	HL00.1	1	215,00
PCB 6000-1	6000	HL02.1	1	245,00
PCB 6000-0	6000	HL05.1	1	130,00

Accessories:

E-Block 9 V battery	1025.1	1 piece	4,85
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Balances



Portable balances, Scout® PRO-series

By Ohaus.

Application:

- Piece counting with automatic optimization, % weighing, totalling
- Flush-mounted weighing device with integrated weighing hooks
- Display-hold-function
- Stability display
- Battery life display

Design:

- Weighing platform made of stainless steel
- Adjustable automatic switch-off
- External adjustment (incl. test weight with models up to 600 g weighing range)
- Manual menu retention
- **Can be upgraded with RS 232- or USB-interface (please order separately)**
- Can be battery or outlet operated
- With power card pack. Comes without batteries (please order separately, 4 x 1.5 V mignon batteries required).

Technical specifications:

Model	Weighing range (g)	Readability (g)	Reproducibility / Linearity (±g)	Weighing pan (mm)
SPU123 (W)	120	0.001	0.003 / 0.003	Ø 90
SPU202	200	0.01	0.01 / 0.01	Ø 120
SPU402	400	0.01	0.01 / 0.01	Ø 120
SPU401	400	0.1	0.1 / 0.1	152 x 175
SPU601	600	0.1	0.1 / 0.1	152 x 175
SPU2001	2000	0.1	0.1 / 0.1	152 x 175
SPU4001	4000	0.1	0.1 / 0.1	152 x 175
SPU6000	6000	1	1 / 1	152 x 175

(W) = incl. wind protector

Model	Weighing range (g)	Art. No.	Pack Qty.	€
SPU123 (W)	120	Y594.1	1	379,00
SPU202	200	Y595.1	1	279,00
SPU402	400	Y596.1	1	345,00
SPU401	400	Y597.1	1	155,00
SPU601	600	Y598.1	1	179,00
SPU2001	2000	Y599.1	1	279,00
SPU4001	4000	Y600.1	1	349,00
SPU6000	6000	Y601.1	1	215,00

Accessories for portable balances Scout® PRO-series

By Ohaus.

Type	Art. No.	Pack Qty.	€
RS 232 port, installation kit with cable	Y609.1	1	30,00
USB port, installation kit with cable	Y610.1	1	30,00



EWJ series precision balances

By Kern.

Application: piece counting and percent weighing.

Features:

- Timer-controlled automatic internal adjustment
- Capacity indication - LED strip indicates available weighing range
- Draft shield with removable cover and pipetting port for models with 0.001 and 0.01 g resolution (weighing chamber W 145 x D 160 x 80 mm)
- Spirit level
- RS 232 data port

Technical specifications:

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pans (mm)
EWJ 300-3 (W)	300	0.001	0.001 / 0.003	Ø 80
EWJ 600-2M (W)	600	0.01	0.01 / 0.03	Ø 135
EWJ 3000-2 (W)	3000	0.01	0.01 / 0.03	Ø 135
EWJ 6000-1M	6000	0.1	0.1 / 0.3	155 x 145

(W) = incl. draft shield

Delivery incl. work safety hood and AC adapter (230 V, 50 Hz).

Model	Weighing range (g)	Pack Qty.	Not calibratable		Factory-calibrated	
			Art. No.	€	Art. No.	€
EWJ 300-3 (W)	300	1	CHH7.1	465,00	CHK1.1	476,00
EWJ 600-2M (W)	600	1	CHH8.1	410,00		
EWJ 3000-2 (W)	3000	1	CHH9.1	445,00		
EWJ 6000-1M	6000	1	CHK0.1	400,00	CHK2.1	477,00



Electronic laboratory balances 572-series

By Kern. **Robust metal housing.** Programs: piece counting, recipes, percentage weighing. With data interface RS 232. Self-explanatory operation via an informative yes/no-dialogue in the display. With flush-mounted weighing device.
Dimensions: W 180 x D 310 x H 90 mm. Article Nos HT19.1 and HT20.1 comes with wind protection ring (Ø 160 mm, H 60 mm).

Technical specifications:

Model	Weighing range (g)	Readability (g)	Reproducibility / linearity (±g)	Weighing pan (mm)
572-31	301	0.001	0.001 / 0.003	Ø 105
572-32	421	0.001	0.001 / 0.003	Ø 105
572-33	1610	0.01	0.01 / 0.03	Ø 150
572-35	2410	0.01	0.01 / 0.03	Ø 150
572-37	3010	0.01	0.01 / 0.03	Ø 150
572-39	4210	0.01	0.01 / 0.03	150
572-45	12100	0.1	0.1 / 0.3	200 x 160
572-49	16100	0.1	0.1 / 0.3	200 x 160
572-57	24100	0.1	0.1 / 0.3	200 x 160

Delivery incl. work protection cover for keypad and housing, plus power outlet plug.

Model	Weighing range (g)	Art. No.	Pack Qty.	€
572-31	301	HT19.1	1	520,00
572-32	421	HT20.1	1	540,00
572-33	1610	L961.1	1	480,00
572-35	2410	L962.1	1	490,00
572-37	3010	HT21.1	1	490,00
572-39	4210	KX14.1	1	520,00
572-45	12100	L963.1	1	500,00
572-49	16100	L964.1	1	480,00
572-57	24100	L966.1	1	490,00



Precision balances EW- and EG-series

By Kern.

Application:

- Piece counting, percentage weighing, weighing with tolerance range (upper and lower limiting values are programmable; possible setting in g, pieces or %)
- Capacity display
- Various weighing units such as g, ct, oz etc. can be set
- LCD-display with 16 mm high digits

Design:

- Weighing platform made of stainless steel
- **EW-Models with external adjustment, EG-Models with internal switch-on adjustment via knob on the side**
- Adjusting water level
- Bidirectional RS 232 data interface
- Wind protection comes in series with all 0.001-g-models, with removable lid and opening for pipetting (weighing platform W 158 x D 130 x H 78 mm)
- Dimensions of balance: with weighing platform Ø 118 and 170 x 142 mm: W 180 x D 235 x H 75 mm, with weighing platform 180 x 160 mm: W 190 x D 265 x H 90 mm

Technical specifications:

Model	Capacity (g)	Readability (g)	Reproducibility / linearity (±g)	Platform (mm)
EW/EG 220-3 NM (W)	220	0.001	0.001 / 0.002	Ø 118
EW/EG 420-3 NM (W)	420	0.001	0.001 / 0.003	Ø 118
EW/EG 620-3 NM (W)	620	0.001	0.001 / 0.004	Ø 118
EW 820-2 NM	820	0.01	0.01 / 0.01	170 x 142
EW/EG 2200-2 NM	2200	0.01	0.01 / 0.01	180 x 160
EW/EG 4200-2 NM	4200	0.01	0.01 / 0.02	180 x 160
EW 6200-2 NM	6200	0.01	0.01 / 0.03	180 x 160
EW 12000-1 NM	12000	0.1	0.1 / 0.2	180 x 160

(W)= incl. wind protector

Delivery incl. work protection hood and outlet adapter.

EW-Series, with external adjustment

Model	Weighing range (g)	Art. No.	Pack Qty.	€
EW 220-3 NM (W)	220	AX07.1	1	620,00
EW 420-3 NM (W)	420	AX08.1	1	690,00
EW 620-3 NM (W)	620	AX09.1	1	770,00
EW 820-2 NM	820	AX10.1	1	540,00
EW 2200-2 NM	2200	AX11.1	1	660,00
EW 4200-2 NM	4200	AX12.1	1	740,00
EW 6200-2 NM	6200	CT72.1	1	810,00
EW 12000-1 NM	12000	CT73.1	1	635,00

EG-Series, with internal adjustment

Model	Weighing range (g)	Art. No.	Pack Qty.	€
EG 220-3 NM (W)	220	AX13.1	1	760,00
EG 420-3 NM (W)	420	AX14.1	1	830,00
EG 620-3 NM (W)	620	AX15.1	1	930,00
EG 2200-2 NM	2200	AX16.1	1	820,00
EG 4200-2 NM	4200	AX17.1	1	880,00

Balances



NEU
NOUVEAU
NEW

Precision balances FX series

By A & D.

Application:

- Percent, counting and animal weighing
- Selectable weight units: g, ct etc.

Features:

- FX-i models have external calibration
- FZ-i models have internal calibration
- **All models with additional WP: dust and water proofing i.a.w. IP 65**
- Draft shield for models with 0.001 g readability (internal height 85 mm)
- With RS 232 data port
- Overload protection
- Five-year warranty

Technical specifications:

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan Ø (mm)
FX-120i (W) FX-120i-WP (W) / FZ-120i-WP (W)	122	0.001	0.001 / 0.002	130
FX-200i (W) FX-200i-WP (W) / FZ-200i-WP (W)	220	0.001	0.001 / 0.002	130
FX-300i (W) FX-300i-WP (W) / FZ-300i-WP (W)	320	0.001	0.001 / 0.002	130
FX-1200i FX-1200i-WP / FZ-1200i-WP	1220	0.01	0.01 / 0.02	150
FX-2000i FX-2000i-WP / FZ-2000i-WP	2200	0.01	0.01 / 0.02	150
FX-3000i FX-3000i-WP / FZ-3000i-WP	3200	0.01	0.01 / 0.02	150

(W) = incl. draft shield

Delivery incl. AC adapter.

Model	Weighing range (g)	Pack Qty.	External calibration Art. No.	€	Internal calibration Art. No.	€
FX-120i (W)	122	1	CTH4.1*	597,70		
FX-120i-WP (W) / FZ-120i-WP (W)	122	1	CTH5.1*	1013,75	CTK6.1*	1112,65
FX-200i (W)	220	1	CTH6.1*	633,20		
FX-200i-WP (W) / FZ-200i-WP (W)	220	1	CTH7.1*	1107,25	CTK7.1*	1219,05
FX-300i (W)	320	1	CTH8.1*	667,60		
FX-300i-WP (W) / FZ-300i-WP (W)	320	1	CTH9.1*	1191,10	CTK8.1*	1325,50
FX-1200i	1220	1	CTK0.1*	597,70		
FX-1200i-WP / FZ-1200i-WP	1220	1	CTK1.1*	1013,75	CTK9.1*	1112,65
FX-2000i	2200	1	CTK2.1*	633,20		
FX-2000i-WP / FZ-2000i-WP	2200	1	CTK3.1*	1107,25	CTL0.1*	1219,05
FX-3000i	3200	1	CTK4.1*	667,60		
FX-3000i-WP / FZ-3000i-WP	3200	1	CTK5.1*	1191,10	CTL1.1*	1325,50

* Delivery times may apply to these products. Please ask our sales staff.



PLJ-series precision balances

By Kern.

Applications:

counting, percent weighing and tolerance range weighing (entry of an upper/lower limit).

Specification for all models:

- Automatic internal calibration after temperature change $\geq 3^\circ\text{C}$ or time-controlled every 3 h
- Draft shield consisting of 4 side sections for models with 0.001 g resolution (weighing chamber dimensions: W 140 x D 140 x H 65 mm)
- RS 232 data port

Model PLJ-GM

- Battery operation possible, up to 35 h runtime, approx. 12 h charging time
- With animal weighing
- Weighing principle: strain gauge

Model PLJ- C/CM

- With recipe function
- Weighing principle: load compensation

Technical specifications:

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan (mm)
PLJ 700-3C (W)	750	0.001	0.002 / 0.003	128 x 128
PLJ 300-3CM (W)	360	0.001	0.001 / 0.004	128 x 128
PLJ 600-3CM (W)	600	0.001	0.002 / 0.004	128 x 128
PLJ 600-2GM	600	0.01	0.02 / 0.02	128 x 128
PLJ 3000-2CM	3500	0.01	0.01 / 0.04	195 x 195
PLJ 6000-1GM	6000	0.1	0.2 / 0.2	195 x 195

(W) = incl. draft shield

Delivery incl. safety cover and AC adapter 230 V, 50 Hz.

Model	Weighing range (g)	Pack Qty.	Internal calibration, non-calibrating Art. No.	€	Internal calibration, calibrated ex works Art. No.	€
PLJ 700-3C (W)	750	1	YY05.1*	700,00		
PLJ 300-3CM (W)	360	1	YY06.1*	710,00	YY11.1*	776,00
PLJ 600-3CM (W)	600	1	YY07.1*	750,00	YY12.1*	816,00
PLJ 600-2GM	600	1	YY08.1*	540,00	YY13.1*	606,00
PLJ 3000-2CM	3500	1	YY09.1*	710,00	YY14.1*	716,00
PLJ 6000-1GM	6000	1	YY10.1*	540,00	YY15.1*	617,00

* These products may be subject to delivery times. Please consult our sales department.



ABS-N and ABJ-NM-series analytical balances

By Kern.

Application:

- Parts counting, percentage weighing and batching
- High stability mode and other filter settings are selectable

Equipment:

- ABS-N models have external calibration
- ABJ-NM models have internal automatic calibration, either after a change of temperature >2 °C or time controlled every 4 hours
- Spirit level
- Overall dimensions of balance incl. draft shield:
W 210 x D 340 x H 325 mm
- Weighing space dimensions: W 174 x D 162 x H 227 mm

Technical specifications:

Models	Weighing range (g)	Readability (g)	Reproducibility/linearity (±g)	Platform (mm)
ABS 80-4N (W)	80	0.0001	0.0002 / 0.0003	Ø 91
ABS 120-4N / ABJ 120-4NM (W)	120	0.0001	0.0002 / 0.0003	Ø 91
ABS 220-4N / ABJ 220-4NM (W)	220	0.0001	0.0002 / 0.0003	Ø 91
ABS 320-4N / ABJ 320-4NM (W)	320	0.0001	0.0002 / 0.0003	Ø 91

(W) = incl. wind guard

ABS-N-series, with external calibration

Model	Weighing range (g)	Art. No.	Pack Qty.	€
ABS 80-4N (W)	80	TA63.1	1	970,00
ABS 120-4N (W)	120	TA64.1	1	1030,00
ABS 220-4N (W)	220	TA65.1	1	1070,00
ABS 320-4N (W)	320	TA66.1	1	1240,00

ABJ-NM series, with internal calibration, non-calibratable

Model	Weighing range (g)	Art. No.	Pack Qty.	€
ABJ 120-4NM (W)	120	TA67.1	1	1080,00
ABJ 220-4NM (W)	220	TA68.1	1	1170,00
ABJ 320-4NM (W)	320	TA69.1	1	1340,00

ABJ-NM series with internal adjustment, calibrated ex works

Model	Weighing range (g)	Art. No.	Pack Qty.	€
ABJ 120-4NM (W)	120	TA70.1	1	1190,00
ABJ 220-4NM (W)	220	TA71.1	1	1280,00
ABJ 320-4NM (W)	320	TA72.1	1	1450,00

Accessories:

RS 232 port, installation kit with interface cable	TA73.1	1	75,00
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Analytical balances, HR series

By A & D.

Application:

- Percent, counting, animal weighing
- Selectable weight units: g, mg, ct etc.

Features:

- HR-A model with external calibration function
- HR-AZ models with internal calibration function
- Backlit LCD display
- Removable full-sized draft shield (internal height 198 mm)
- The sliding doors of the draft shield tilt back to minimise space requirements
- With RS 232 data port
- Spirit level on the front
- Solid metal housing
- Overload protection
- 5 year warranty

Technical specifications:

Models	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan Ø (mm)
HR-251A / HR-251 AZ (W)	62 / 252	0.0001 / 0.001	0.0001 / 0.0003 / 0.001 / 0.001	90
HR-100A / HR-100AZ (W)	102	0.0001	0.0001 / 0.0002	90
HR-150A / HR-150AZ (W)	152	0.0001	0.0001 / 0.0002	90
HR-250A / HR-250AZ (W)	252	0.0001	0.0002 / 0.0003	90

(W) = incl. draft shield

Delivery incl. AC adapter.

Model	Weighing range (g)	Pack Qty.	External calibration		Internal calibration	
			Art. No.	€	Art. No.	€
HR-251A / HR-251AZ(W)	62/252	1	CTE2.1 *	1038,45	CTE6.1 *	1250,25
HR-100A / HR-100AZ (W)	102	1	CTE3.1 *	1038,45	CTE7.1 *	1250,25
HR-150A / HR-150AZ (W)	152	1	CTE4.1 *	1105,10	CTE8.1 *	1311,50
HR-250A / HR-250AZ (W)	252	1	CTE5.1 *	1328,70	CTE9.1 *	1535,10

* Delivery times may apply to these products. Please ask our sales staff.

Balances



Pioneer®-series analytical and precision balances

By Ohaus.

Application:

- Programs: Piece counting, percentage weighing
- Different weighing units can be set, e.g. g, ct, free value etc.
- Integrated underfloor weighing hook

Features:

- Stainless steel weighing platform
- RS 232-data interface
- 3-door glass windbreak with removable doors on all 1.0 mg and 0.1 mg models (Height inside 195 mm)
- Front spirit level
- With digital filter for variable adjustment depending on location
- **All balances with internal adjustment are available calibrated ex works at an extra charge. Please contact our Sales Department.**

Technical specifications:

Models	Weighing range (g)	Readability (g)	Reproducibility/Linearity (±g)	Weighing pan (mm)
PA64 (W)	65	0.0001	0.0001 / 0.0002	Ø 90
PA114 (W)	110	0.0001	0.0001 / 0.0002	Ø 90
PA214 (W)	210	0.0001	0.0001 / 0.0003	Ø 90
PA213 (W)	210	0.001	0.001 / 0.002	Ø 120
PA413 (W)	410	0.001	0.001 / 0.002	Ø 120
PA512	510	0.01	0.01 / 0.03	Ø 180
PA2102	2100	0.01	0.01 / 0.02	Ø 180
PA4102	4100	0.01	0.01 / 0.03	Ø 180
PA4101	4100	0.1	0.1 / 0.1	Ø 180

(W) = incl. draft shield

Model	Weighing range (g)	Pack Qty.	External adjustment, not calibratable		Internal adjustment, not calibratable	
			Art. No.	€	Art. No.	€
PA64 (W)	65	1	KH74.1*	935,00	KH75.1*	1120,00
PA114 (W)	110	1	KH72.1*	995,00	KH73.1*	1180,00
PA214 (W)	210	1	KH70.1*	1090,00	KH71.1*	1275,00
PA213 (W)	210	1	KH78.1*	690,00	KH79.1*	875,00
PA413 (W)	410	1	KH76.1*	750,00	KH77.1*	935,00
PA512	510	1	KH84.1*	630,00	KH85.1*	815,00
PA2102	2100	1	KH82.1*	730,00	KH83.1*	915,00
PA4102	4100	1	KH80.1*	795,00	KH81.1*	980,00
PA4101	4100	1	KH86.1*	660,00	KH87.1*	845,00

* Please check with our Sales Department for delivery period of this product.

- Batteries see p. 741
- Weighing trays see p. 172
- Weighing brushes see p. 175



Semi-micro balances and analytical balances, GR series

By A & D.

Application:

- Percent, counting
- Selectable weight units: g, mg, ct

Features:

- With internal automatic calibration function which adapts to changes of temperature
- Automatic adaptation to ambient conditions
- **Door opening system** allows the user to open the left or right hand side of the weighing chamber from the front of the balance. For easy access with only one hand free.
- Full-sized draft shield (internal height 215 mm)
- Data storage function for storing 200 units of weighing data for output to PC. Windows-compatible software (for direct readout of data, e.g. in Excel), available for download free of charge.
- Interval storage mode (measuring cycle: 2 s, 5 s., 10 s, 30 s., 1 min, 2 min, 5 min or 10 min)
- With RS 232 data port
- Spirit level on the front
- Five-year warranty

Technical specifications:

Models	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan Ø (mm)
GR-202 (W)	42 210	0.00001/ 0.0001	0.00002 / 0.00003 0.0001 / 0.0001	85
GR-120 (W)	120	0.0001	0.0001 / 0.0002	85
GR-200 (W)	210	0.0001	0.0001 / 0.0002	85
GR-300 (W)	310	0.0001	0.0002 / 0.0003	85

(W) = incl. draft shield

Delivery incl. AC adapter.

Model	Weighing range (g)	Pack Qty.	Internal calibration	
			Art. No.	€
GR-202 (W)	42/210	1	CTH0.1*	3533,55
GR-120 (W)	120	1	CTH1.1*	2316,65
GR-200 (W)	210	1	CTH2.1*	2428,45
GR-300 (W)	310	1	CTH3.1*	3164,80

* Delivery times may apply to these products. Please ask our sales staff.

Balances



Entris®-series analytical and precision balances

By Sartorius.

Applications:

- Weighing in percent, counting, animal weighing, conversion, density measurement
- Selectable weight units: g, kg, mg, ct etc.

Features:

- Models with 0.0001 g readability (inner height 240 mm) are supplied with a full draft shield
- Models with 0.001 g readability (inner height 60 mm) readability are supplied with a round glass ring protector
- With RS 232 data interface, antitheft device and spirit level
- Monolithic weighing technology

Technical specifications:

Models	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan (mm)
Entris 64(i)-1S (W)	60	0.0001	0.0001 / 0.0002	Ø 90
Entris 124(i)-1S (W)	120	0.0001	0.0001 / 0.0002	Ø 90
Entris 224(i)-1S (W)	220	0.0001	0.0001 / 0.0002	Ø 90
Entris 153(i)-1S (W)	150	0.001	0.001 / 0.002	Ø 115
Entris 323(i)-1S (W)	320	0.001	0.001 / 0.002	Ø 115
Entris 423(i)-1S (W)	420	0.001	0.001 / 0.002	Ø 115
Entris 623(i)-1S (W)	620	0.001	0.001 / 0.002	Ø 115
Entris 822(i)-1S	820	0.01	0.01 / 0.03	Ø 150
Entris 2202(i)-1S	2200	0.01	0.01 / 0.03	180 x 180
Entris 3202(i)-1S	3200	0.01	0.01 / 0.03	180 x 180
Entris 4202(i)-1S	4200	0.01	0.01 / 0.03	180 x 180
Entris 6202(i)-1S	6200	0.01	0.01 / 0.03	180 x 180
Entris 2201(i)-1S	2200	0.1	0.1 / 0.3	180 x 180
Entris 5201(i)-1S	5200	0.1	0.1 / 0.3	180 x 180
Entris 8201(i)-1S	8200	0.1	0.1 / 0.3	180 x 180

(W) = incl. draft shield

Delivery incl. universal AC adaptor (100-240 V).

Model	Weighing range (g)	Pack Qty.	External adjustment		Internal adjustment	
			Art. No.	€	Art. No.	€
Entris 64(i)-1S (W)	60	1	ACT1.1 *	1389,00	ACX6.1 *	1643,00
Entris 124(i)-1S (W)	120	1	ACT0.1 *	1505,00	ACX5.1 *	1763,00
Entris 224(i)-1S (W)	220	1	ACP9.1 *	1621,00	ACX4.1 *	1881,00
Entris 153(i)-1S (W)	150	1	ACT5.1 *	868,00	ACY0.1 *	1108,00
Entris 323(i)-1S (W)	320	1	ACT4.1 *	985,00	ACX9.1 *	1227,00
Entris 423(i)-1S (W)	420	1	ACT3.1 *	1100,00	ACX8.1 *	1346,00
Entris 623(i)-1S (W)	620	1	ACT2.1 *	1274,00	ACX7.1 *	1524,00
Entris 822(i)-1S	820	1	ACX0.1 *	868,00	ACY5.1 *	1108,00
Entris 2202(i)-1S	2200	1	ACT9.1 *	985,00	ACY4.1 *	1227,00
Entris 3202(i)-1S	3200	1	ACT8.1 *	1100,00	ACY3.1 *	1346,00
Entris 4202(i)-1S	4200	1	ACT7.1 *	1216,00	ACY2.1 *	1466,00
Entris 6202(i)-1S	6200	1	ACT6.1 *	1389,00	ACY1.1 *	1643,00
Entris 2201(i)-1S	2200	1	ACX3.1 *	811,00	ACY8.1 *	1048,00
Entris 5201(i)-1S	5200	1	ACX2.1 *	903,00	ACY7.1 *	1143,00
Entris 8201(i)-1S	8200	1	ACX1.1 *	1019,00	ACY6.1 *	1263,00

Accessories:

Logger type YDP20-OCE (with real-time clock, for printing date, time and statistics)	N934.1 *	1	825,00
Paper rolls, 5 x 40 m	N935.1	1	25,90
Ink ribbon for logger type YDP20-OCE	N936.1	1	29,50

* These products may be subject to delivery times. Please consult our sales department.



Rotilabo®-disposable weighing trays

Made of PS, antistatic. For solid and liquid substances. Resistant to diluted acids, alkalis, alcohols. Biologically inert. Temperature stable up to +80 °C.

Natural coloured, transparent

Volume (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	41	41	8	1878.2	500	25,30
100	89	89	25	1884.1	500	33,90
330	140	140	22	0875.2	500	67,75

Opaque blue, ideal for white substances

Volume (ml)	Length (mm)	Width (mm)	Height (mm)	Art. No.	Pack Qty.	€
20	41	41	8	2149.2	500	26,35
100	89	89	25	2150.1	500	38,60
330	140	140	22	2159.2	500	72,05

Balances



Practum®-series analytical and precision balances

By Sartorius.

Applications:

- Percent weighing, checking, maximum value, counting, animal weighing
- Selectable weight units: g, kg, mg, ct etc.
- Made in Germany

Equipment:

- With external calibration function
- Touchscreen operation
- 10 different menu language options can be selected
- Full-sized draft shield for models with 0.0001 g / 0.001 g resolution (internal height 209 mm)
- Mini-USB port for automatic detection of Sartorius standard printer YDP40 (please order separately) or direct data transfer e.g. to Microsoft® Excel without additional software. Programmable interval for data output
- Menu lock for protection against accidental manipulation
- Levelling feet and glass level indicator on the front
- Anti-theft device for chain or cable

Technical specifications:

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan Ø (mm)
64-1S (W)	60	0,0001	0,0001/0,0002	90
124-1S (W)	120	0,0001	0,0001/0,0003	90
224-1S (W)	220	0,0001	0,0001/0,0003	90
213-1S (W)	210	0,001	0,001/0,003	120
313-1S (W)	310	0,001	0,001/0,003	120
513-1S (W)	510	0,001	0,001/0,002	120
412-1S*	410	0,01	0,01/0,03	180
612-1S*	610	0,01	0,01/0,03	180
1102-1S*	1100	0,01	0,01/0,03	180
2102-1S*	2100	0,01	0,01/0,03	180
3102-1S*	3100	0,01	0,01/0,03	180
2101-1S*	2100	0,1	0,1/0,3	180
5101-1S*	5100	0,1	0,1/0,3	180
6101-1S*	6100	0,1	0,1/0,3	180
5100-1S*	5100	1	1/1	180
6100-1S*	6100	1	1/1	180

(W) = incl. draft shield and dust cover; * incl. protective cover for operation

Delivery incl. universal mains-adaptor (100-240 V) and matching external calibration weight.

Model	Weighing range (g)	Art. No.	Pack Qty.	€
64-1S (W)	60	AHC2.1 *	1	1620,00
124-1S (W)	120	NN46.1 *	1	1710,00
224-1S (W)	220	NN45.1 *	1	1800,00
213-1S (W)	210	NN48.1 *	1	1125,00
313-1S (W)	310	NN47.1 *	1	1260,00
513-1S (W)	510	AHC3.1 *	1	1530,00
412-1S	410	AHC4.1 *	1	855,00
612-1S	610	NN51.1 *	1	990,00
1102-1S	1100	NN50.1 *	1	1080,00
2102-1S	2100	NN49.1 *	1	1260,00
3102-1S	3100	AHC5.1 *	1	1440,00
2101-1S	2100	AHC6.1 *	1	900,00
5101-1S	5100	NN52.1 *	1	1080,00
6101-1S	6100	AHC7.1 *	1	1170,00
5100-1S	5100	NN53.1 *	1	810,00
6100-1S	6100	AHC8.1 *	1	900,00

Accessories:

Standard laboratory printer YPD 40 incl. printer paper and connecting cable	NN54.1 *	1	419,00
Printer paper rolls for printer YDP 40	NN56.1 *	5	22,20
Mini-USB/USB A data cable	NN55.1 *	1	33,00

* These products may be subject to delivery times. Please consult our sales department.





Analytical and precision balances, Adventurer® series

By Ohaus.

Applications:

- Percentage weighing, parts counting, animal weighing, check weighing, density measurement, batching, display-hold function and totalising
- Selectable weight units

Equipment:

- All balances are available with external calibration or with AutoCal™ - automatic time and temperature controlled internal calibration -
- Colour touchscreen with graphical LCD display and additional mechanical buttons for tare, calibration etc.
- Removable stainless steel weigh pan
- Language selection (nine languages)
- Analytical full-sized draft shield for models with 0.0001 g / 0.001 g resolution (internal height 230 mm)
- Minimum sample weight function - a warning is displayed if the current sample weight is below the defined minimum sample weight
- **Two USB ports - one USB host port on the front for saving weighing data directly to an USB stick (not supplied) and an additional USB port on the back for connecting to a PC**
- RS 232 port
- Integrated hook for below-balance weighing
- **All balances with internal calibration can, as an optional extra, be factory-calibrated. Please ask our sales staff.**

Technical specifications:

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan (mm)
AX124 (W)	120	0.0001	0.0001 / 0.0002	Ø 90
AX224 (W)	220	0.0001	0.0001 / 0.0002	Ø 90
AX324 (W)	320	0.0001	0.0001 / 0.0002	Ø 90
AX223 (W)	220	0.001	0.001 / 0.002	Ø 130
AX423 (W)	420	0.001	0.001 / 0.002	Ø 130
AX523 (W)	520	0.001	0.001 / 0.002	Ø 130
AX1502	1520	0.01	0.01 / 0.02	175 x 195
AX2202	2200	0.01	0.01 / 0.02	175 x 195
AX4202	4200	0.01	0.01 / 0.02	175 x 195
AX5202	5200	0.01	0.01 / 0.02	175 x 195

(W) = incl. draft shield

Delivery incl. universal AC adaptor (100-240 V and) safety cover.

Model	Weighing range (g)	Pack Qty.	External adjustment, not calibratable		Internal adjustment, not calibratable	
			Art. No.	€	Art. No.	€
AX124 (W)	120	1	CCE5.1 *	1730,00	CCH4.1 *	2010,00
AX224 (W)	220	1	CCE6.1 *	1820,00	CCH5.1 *	2100,00
AX324 (W)	320	1			CCH6.1 *	2210,00
AX223 (W)	220	1	CCE7.1 *	1125,00	CCH7.1 *	1405,00
AX423 (W)	420	1	CCE8.1 *	1315,00	CCH8.1 *	1595,00
AX523 (W)	520	1	CCE9.1 *	1530,00	CCH9.1 *	1810,00
AX1502	1520	1	CCH1.1 *	1105,00	CCK1.1 *	1385,00
AX2202	2200	1	CCH2.1 *	1125,00	CCK2.1 *	1405,00
AX4202	4200	1	CCH3.1 *	1315,00	CCK3.1 *	1595,00
AX5202	5200	1			CCK4.1 *	1810,00

* Delivery times may apply to these products. Please ask our sales staff.

Balances



Programme extension!

Quintix® series analytical and precision balances

By Sartorius.

Applications:

- Mixing, components, statistics, conversion, percent weighing, checking, maximum value, counting, animal weighing
- Made in Germany

Features:

- With isoCAL - fully automatic, temperature and time controlled internal calibration
- Touchscreen with easy menu navigation
- 10 different menu language options can be selected
- Full-sized draft shield for models with 0.0001 g / 0.001 g resolution (209 mm internal height)
- Mini USB port for automatic detection of Sartorius standard printer YDP40 (please order separately) or direct data transfer e.g. to Microsoft® Excel without additional software. Programmable data output interval
- Password protection - menu lock for protection against accidental manipulation
- Levelling feet and glass level indicator on the front
- Anti-theft device for chain or cable

Technical specifications:

Semi-micro balances

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan Ø (mm)
35-1S / -1CEU (W)	30	0.00001	0.00003/0.0001	80
65-1S / -1CEU (W)	40/60	0.00001/0.00001	0.00002/0.0001 0.00004/0.0001	90
125D-1S / -1CEU (W)	40/60/120	0.00001/0.00001/0.0001	0.00002/0.0001 0.00004/0.0001 0.00007/0.0002	80

Analytical and precision balances

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan Ø (mm)
64-1S / -1CEU (W)	60	0.0001	0.0001/0.0002	90
124-1S / -1CEU (W)	120	0.0001	0.0001/0.0002	90
224-1S / -1CEU (W)	220	0.0001	0.0001/0.0002	90
213-1S / -1CEU (W)	210	0.001	0.001/0.002	120
313-1S / -1CEU (W)	310	0.001	0.001/0.002	120
513-1S / -1CEU (W)	510	0.001	0.001/0.002	120
613-1S / -1CEU (W)	610	0.001	0.001/0.002	120
412-1S / -1CEU*	410	0.01	0.01/0.03	180
612-1S / -1CEU*	610	0.01	0.01/0.03	180
1102-1S / -1CEU*	1100	0.01	0.01/0.03	180
2102-1S / -1CEU*	2100	0.01	0.01/0.03	180
3102-1S / -1CEU*	3100	0.01	0.01/0.02	180
5102-1S / -1CEU*	5100	0.01	0.01/0.02	180
6102-1S / -1CEU*	6100	0.01	0.01/0.02	180
2101-1S / -1CEU*	2100	0.1	0.1/0.3	180
5101-1S / -1CEU*	5100	0.1	0.1/0.3	180
6101-1S / -1CEU*	6100	0.1	0.1/0.3	180
5100-1S / -1CEU*	5100	1	1/1	180
6100-1S / -1CEU*	6100	1	1/1	180

(W) = incl. draft shield and dust cover; * incl. protective cover for operation

Delivery incl. universal AC adaptor (100-240 V).

Semi-micro balances

Model	Weighing range (g)	Pack Qty.	Internal adjustment, not calibratable Art. No.	€	Internal adjustment, calibrated ex works Art. No.	€
35-1S / -1CEU (W)	30	1	CNH8.1*	4284,00	CNH9.1*	4400,00
65-1S / -1CEU (W)	40/60	1	CNK0.1*	4728,00	CNK1.1*	4900,00
125D-1S / -1CEU (W)	40/60/120	1	CNK2.1*	5148,00	CNK3.1*	5676,00

Analytical and precision balances

Model	Weighing range (g)	Pack Qty.	Internal adjustment, not calibratable Art. No.	€	Internal adjustment, calibrated ex works Art. No.	€
64-1S / -1CEU (W)	60	1	AHC9.1*	2791,00	AHE0.1*	3059,00
124-1S / -1CEU (W)	120	1	NN59.1*	2998,00	NN60.1*	3266,00
224-1S / -1CEU (W)	220	1	NN57.1*	3332,00	NN58.1*	3601,00
213-1S / -1CEU (W)	210	1	NN65.1*	2173,00	NN66.1*	2385,00
313-1S / -1CEU (W)	310	1	NN63.1*	2341,00	NN64.1*	2553,00
513-1S / -1CEU (W)	510	1	NN61.1*	2786,00	NN62.1*	2998,00
613-1S / -1CEU (W)	610	1	AHE1.1*	2921,00	AHE2.1*	3133,00
412-1S / -1CEU	410	1	AHE3.1*	1570,00		
612-1S / -1CEU	610	1	NN75.1*	1728,00	NN76.1*	1941,00
1102-1S / -1CEU	1100	1	NN73.1*	1951,00	NN74.1*	2163,00
2102-1S / -1CEU	2100	1	NN71.1*	2173,00	NN72.1*	2385,00
3102-1S / -1CEU	3100	1	NN69.1*	2286,00	NN70.1*	2498,00
5102-1S / -1CEU	5100	1	NN67.1*	2954,00	NN68.1*	3166,00
6102-1S / -1CEU	6100	1	AHE5.1*	3170,00	AHE6.1*	4043,00
2101-1S / -1CEU	2100	1	AHE7.1*	1786,00		
5101-1S / -1CEU	5100	1	NN77.1*	2002,00	NN78.1*	2213,00
6101-1S / -1CEU	6100	1	AHE9.1*	2110,00	AHH0.1*	1998,00
5100-1S / -1CEU	5100	1	NN79.1*	1623,00	NN80.1*	1835,00
6100-1S / -1CEU	6100	1	AHH1.1*	1786,00	AHH2.1*	1998,00

* Delivery times may apply to these products. Please ask our sales staff.



Secura® series analytical and precision balances

By Sartorius.

Applications:

- Mixing, components, statistics, conversion, percent weighing, checking, maximum value, counting, animal weighing
- Made in Germany

Features:

- With isoCAL - internal calibration is performed automatically in a time or temperature controlled manner and after levelling
- Touchscreen optimised for users in the pharmaceuticals laboratory
- **Optoelectronic levelling sensor with interactive user guidance** (if the sensor detects deviations, the risk is indicated immediately and a specific help text is displayed)
- 10 different menu language options can be selected
- Full-sized draft shield for models with 0.0001 g / 0.001 g resolution (209 mm internal height)
- Three configurable safety levels
- Mini USB port for automatic detection of Sartorius standard printer YDP40 (please order separately) or direct data transfer e.g. to Microsoft® Excel without additional software. Programmable interval for data output
- Storage of completed calibration cycles incl. detected deviation

APC functions (Advanced Pharma Compliance) are possible:

- Monitoring of minimum sample weight according to USP
- Blocking of data transfer to printer or computer in case of uncertain weighing results, e.g. unlevelled balance etc.

Please note:

Activation of the APC functions by a separate service.
If this service is desired, additional costs apply. Please ask our sales staff.

Technical specifications:

Semi-micro balances

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan Ø (mm)
125-1S / -1CEU (W)	60/120	0.00001/ 0.00001	0.00002/0.0001 0.00004/0.0001	80
225D-1S / -1CEU (W)	60/120/220	0.00001/ 0.00001/ 0.0001	0.00002/0.0001 0.00004/0.0001 0.00007/0.0002	80

Precision balances

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan Ø (mm)
124-1S / -1CEU (W)	120	0.0001	0.0001/0.0002	90
224-1S / -1CEU (W)	220	0.0001	0.0001/0.0002	90
213-1S / -1CEU (W)	210	0.001	0.001/0.002	120
313-1S / -1CEU (W)	310	0.001	0.001/0.002	120
513-1S / -1CEU (W)	510	0.001	0.001/0.002	120
613-1S / -1CEU (W)	610	0.001	0.001/0.002	120
612-1S / -1CEU*	610	0.01	0.01/0.02	180
1102-1S / -1CEU*	1100	0.01	0.01/0.02	180
2102-1S / -1CEU*	2100	0.01	0.01/0.02	180
3102-1S / -1CEU*	3100	0.01	0.01/0.02	180
5102-1S / -1CEU*	5100	0.01	0.01/0.02	180
6102-1S / -1CEU*	6100	0.01	0.01/0.02	180

(W) = incl. draft shield and dust cover; * incl. protective cover for operation

Delivery incl. universal AC adaptor (100-240 V).

Semi-micro balances

Model	Weighing range (g)	Pack Qty.	Internal adjustment, not calibratable Art. No.	€	Internal adjustment, calibrated ex works Art. No.	€
125-1S / -1CEU (W)	60/120	1	CNK4.1*	5778,00	CNK5.1*	6319,00
225D-1S / -1CEU (W)	60/120/220	1	CNK6.1*	6093,00	CNK7.1*	6640,00

Analytical and precision balances

Model	Weighing range (g)	Pack Qty.	Internal adjustment, not calibratable Art. No.	€	Internal adjustment, calibrated ex works Art. No.	€
124-1S / -1CEU (W)	120	1	NN83.1*	3705,00	NN84.1*	3968,00
224-1S / -1CEU (W)	220	1	NN81.1*	4109,00	NN82.1*	4370,00
213-1S / -1CEU (W)	210	1	NN89.1*	2677,00	NN90.1*	2941,00
313-1S / -1CEU (W)	310	1	NN87.1*	2841,00	NN88.1*	3049,00
513-1S / -1CEU (W)	510	1	NN85.1*	3442,00	NN86.1*	3649,00
613-1S / -1CEU (W)	610	1	AHH3.1*	3572,00	AHH4.1*	3853,00
612-1S / -1CEU	610	1	AHH5.1*	2206,00	AHH6.1*	2414,00
1102-1S / -1CEU	1100	1	NN97.1*	2404,00	NN98.1*	2612,00
2102-1S / -1CEU	2100	1	NN95.1*	2622,00	NN96.1*	2830,00
3102-1S / -1CEU	3100	1	NN93.1*	2786,00	NN94.1*	2994,00
5102-1S / -1CEU	5100	1	NN91.1*	3606,00	NN92.1*	3814,00
6102-1S / -1CEU	6100	1	AHH7.1*	3835,00	AHH8.1*	4043,00

* Delivery times may apply to these products. Please ask our sales staff.

Balances



Explorer series precision and analytical balances

By Ohaus.

Applications:

- Numerous balance applications (piece counting, percentage weighing, animal weighing, check weighing, batching etc.) and additional library for saving personal settings
- Various weighing units (e.g. g, mg, ct, etc.) can be set.
- High-resolution colour VGA touchscreen (145 mm diagonal) with QWERTY and block keypads
- Touchscreen display can be detached from the weighing platform (length of cable 1.5 m)

Equipment:

- Metal housing, ABS upper housing shell and stainless steel weighing pan
- All models have fully automatic time and temperature controlled internally calibrated (AutoCal)
- Full-sized draft shield for models with 0.0001 g and 0.001 readability (inside height 230 mm)
- Multifunctional sensors for non-contact operation - e.g. contactless control of the zero/tare function to avoid specimen residues on the keypad. Two sensors on the platform and two on the display are independently adjustable.
- With USB and RS 232 communication ports
- Integrated weighing hook on underside of balance and illuminated spirit level on the front

Technical specifications:

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Weighing pan (mm)
EX124/AD (W)	120	0.0001	0.0001 / 0.0002	Ø 90
EX224/AD (W)	220	0.0001	0.0001 / 0.0002	Ø 90
EX324/AD (W)	320	0.0001	0.0001 / 0.0002	Ø 90
EX423 (W)	420	0.001	0.001 / 0.002	Ø 130
EX1103 (W)	1100	0.001	0.001 / 0.002	Ø 130
EX4202	4200	0,01	0,01 / 0,02	190 x 200
EX10202	10200	0,01	0,01 / 0,02	190 x 200
EX10201	10200	0,1	0,1 / 0,1	190 x 200

(W) = incl. draft shield

Delivery incl. mains adapter and protective display cover.

Standard models

Model	Weighing range (g)	Pack Qty.	Internal adjustment, not calibratable		Internal adjustment, calibrated ex works	
			Art. No.	€	Art. No.	€
EX224 (W)	220	1	PX41.1 *	3310,00	PX48.1 *	3530,00
EX324 (W)	320	1	PX42.1 *	3780,00	PX49.1 *	4000,00
EX423 (W)	420	1	PX43.1 *	2760,00	PX50.1 *	2960,00
EX1103 (W)	1100	1	PX44.1 *	4030,00	PX51.1 *	4230,00
EX4202	4200	1	PX45.1 *	2730,00	PX52.1 *	2910,00
EX10202	10200	1	PX46.1 *	3760,00	PX53.1 *	3940,00
EX10201	10200	1	PX47.1 *	2490,00	PX54.1 *	2670,00

Models with Auto door function

Including automatic, side-opening doors. Can be controlled by means of a non-contact sensor. Draft shield cover folding or sliding.

Model	Weighing range (g)	Pack Qty.	Internal adjustment, not calibratable		Internal adjustment, calibrated ex works	
			Art. No.	€	Art. No.	€
EX124/AD (W)	120	1	APA8.1 *	3650,00	APC2.1 *	4230,00
EX224/AD (W)	220	1	APA9.1 *	4010,00	APC3.1 *	4700,00
EX324/AD (W)	320	1	APC0.1 *	4480,00		

* Delivery times may apply to these products. Please ask our sales staff.





Semi-microbalances ABT-series

By Kern.

Application:

- Programs: Piece counting, percentage weighing and recipes
- Different filter settings possible
- LCD-display with capacity display
- Different weighing units can be set, e.g. mg, g, ct

Features

- Monolithic weighing technology
- With internal automatic adjustment: that is dependent on time, temperature or individual per keystrokes
- RS 232-interface
- Stainless steel weighing platform
- Overall dimensions of balances incl. windbreak:
W 217 x D 356 x H 338 mm
- All glass windbreak (Height inside 223 mm)

Technical specifications:

Model	Weighing range (g)	Readability (g)	Reproducibility/Linearity (±g)	Platform (mm)
ABT 120-5DM (W)	42 / 120	0.00001 0.0001	0.00002 / 0.00003 0.0001 / 0.0002	Ø 80

(W) = incl. windbreak

Delivery incl. work protection cover for display.

Model	Weighing range (g)	Pack Qty.	Calibratable		Calibrated ex works	
			Art. No.	€	Art. No.	€
ABT 120-5DM (W)	42/120	1	HL85.1 *	2170,00	HL86.1 *	2280,00

* Please check with our Sales Department for delivery period of this product. .



Discovery series semi-micro balances and analytical balances

By Ohaus.

Applications:

- Parts counting with auto optimisation, percent weighing, dynamic weighing (animal weighing), pipette calibration, statistics, HighPoint function (highest sample weight is saved), check weighing and totalisation
- 2-line, backlit LCD display for text information

Equipment:

- Stainless steel weighing platform
- With Advanced AutoCal™ fully automatic, temperature and time controlled internal calibration, including 2 weights for high measurement accuracy
- Load cell built into the rear panel for good insulation and high accuracy
- Full-sized draft shield for all models (internal height 240 mm)
- Integral hook for below-balance weighing
- RS 232 data port
- Selectable filter levels for adaptation to environment
- Stability indicator and overload/underload protection

Technical specifications:

Model	Weighing range (g)	Resolution (g)	Reproducibility/linearity (±g)	Platform (mm)
DV215CD (W)	81 / 210	0.00001 / 0.0001	0.00002 / 0.00003 0.0001 / 0.0002	90
DV114C (W)	110	0.0001	0.0001 / 0.0002	90
DV214C (W)	210	0.0001	0.0001 / 0.0002	90
DV314C (W)	310	0.0001	0.0002 / 0.0005	90

(W) = incl. draft shield

Delivery incl. universal power supply (220-240 V, 50/60 Hz) and protective display cover.

Model	Weighing range (g)	Pack Qty.	Internal adjustment, not calibratable		Internal adjustment, calibrated ex works	
			Art. No.	€	Art. No.	€
DV215CD (W)	80/210	1	NH00.1 *	3980,00	NH04.1 *	4150,00
DV114C (W)	110	1	NH03.1 *	2850,00	NH07.1 *	3020,00
DV214C (W)	210	1	NH02.1 *	3110,00	NH06.1 *	3280,00
DV314C (W)	310	1	NH01.1 *	3605,00	NH05.1 *	3775,00

* These products may be subject to delivery times. Please consult our sales department.

Hygrometer



Hygrometer DBS 60-3

By Kern.

Equipment:

- Displays: % humidity, % dry matter, ATRO % or weight loss in g
- Heat source: halogen quartz glass heater
- Switch-off criteria:
 - AUTO** = drying stops if the set weight loss remains constant for 30 s
 - TIME** = drying stops on expiration of the set time
 - Manual** = stop button
- Drying modes: standard drying, phase drying, soft drying and activatable preheating phase
- Internal memory for automatic execution of 10 drying processes
- RS 232 data port
- Specimen viewing window

Technical specifications:

Weighing range	60 g
Temperature range	50 to 200 °C (1 °C increments)
Readability	0.01 % / 0.001 g
Reproducibility	0.15 % (2 g specimen) 0.02 % (10 g specimen)
Time range	1 min to 4 h
Weighing pan	Ø 95 mm
Dimensions (W x D x H)	202 x 336 x 157 mm
Weight	4.2 kg
Power supply	220 to 240 V, 50/60 Hz

Art. No.	Pack Qty.	€
TE06.1	1	1270,00

Accessories:

Disposable aluminum specimen pans, 90 mm	YY18.1	80	60,00
Glass fibre filter, 90 mm	X838.1	200	42,00
Calibration weight 50 g, F1	N006.1	1	39,60
Temperature calibration set	TE07.1	1	480,00



MB Basic series hygrometers

By Ohaus.

Features on both models

- Illuminated Display
- RS 232 interface
- 2 selectable switch-off criteria: automatic or time-controlled
- Display: % moisture or weight value as well as temperature and time

Model MB 23

- Heater: Infrared heating system

Delivery incl. protective cover. If you want a holder for sample bowls, please order separately.

Model MB 25

- Heater: halogen heating system

Delivery incl. protective cover and holder for sample bowls.

Technical specifications:

Model	MB 23	MB 25
Weighing range	110 g	
Temperature range	50 to 160 °C (5 °C increments)	
Heating technology	Infrared (no glass)	Halogen
Readability	0.1 % / 0.01 g	0.05 % / 0.005 g
Reproducibility	0.3 % (3 g sample) 0.2 % (10 g sample)	0.2 % (3 g sample) 0.05 % (10 g sample)
Time settings	1 to 99 min (30 s increments to 60 min)	
Weighing pan	Ø 90 mm	
Scope of samples	Typically 3 to 20 g, min. 0.5 g	
Dimensions (W x D x H)	165 x 283 x 132 mm	
Weight	2.3 kg	
Power connection	100 to 240 V, 50/60 Hz	

Model	Art. No.	Pack Qty.	€
MB 23	KT40.1 *	1	999,00
MB 25	KT41.1 *	1	1399,00

Accessories for MB Basic series hygrometers

Type	Art. No.	Pack Qty.	€
Disposable aluminium sample pans, Ø 90 x H 7 mm	X837.1	80	28,00
Holder for sample bowls for Model MB 23	KT42.1	1	38,00
Glass fibre filter, 90 mm	X838.1	200	42,00
Calibration weight 50 g, F1	N006.1	1	39,60
Temperature calibration set	X840.1 *	1	283,00

* Longer delivery times possible. Please check with our Sales Department.



Hygrometers MA35M

By Sartorius. For the determination of moisture content in organic and inorganic substances, e.g. in greases, oils, foodstuffs, building materials, wood or paper. For use in chemistry, pharmaceuticals, medicine, environmental analytics or in sewage treatment plants.

Equipment:

- Heat source: infrared lamp
- RS 232 data port
- Display: % moisture content, % dry matter (residue), ATRO % or in weight values
- 2 selectable switch-off criteria: time controlled and automatic switch-off options (moisture determination ends if no significant weight loss is detected)
- A 30 g calibration weight is required for calibration of the moisture analyzer (please order separately)
- **With window for observation of the sample material**

Technical specifications:

Weighing range	35 g
Temperature range	40 to 160 °C (1 °C increments)
Readability	0.01 % / 0.001 g
Reproducibility	0.20 % (1 g specimen) 0.05 % (5 g specimen)
Time range	0.1 to 99 mins
Weighing pan	90 mm
Dimensions (W x D x H)	224 x 366 x 191 mm
Weight	5.8 kg
Power supply	230 V, 50/60 Hz

Delivery incl. sample pan holder.

Art. No.	Pack Qty.	€
NT00.1	1	2183,00

Accessories:

Calibration weight 20 g, F1	N005.1	1	36,30
Calibration weight 10 g, F1	N004.1	1	34,00
Disposable aluminium sample pans, Ø 90 x H 7 mm	X837.1	80	28,00
Glass fibre filter, 90 mm	X838.1	200	42,00



Hygrometers MB-series

By Ohaus.

Common features of both models

- Halogen heating technology
- Bidirectional RS 232-data interface
- Levelling feet and adjusting water level
- Control menu available in 5 languages
- Illuminated display

① Model MB 35

- 3-key operation
- Display: % humidity, temperature, time, weight

Model MB 45

- Display: result, temperature/time, setting, initial weight, stability or % humidity/drying curve
- Data bank for 50 drying processes
- 4 different temperature programs
- 3 selectable automatic switch-off criteria
- With holder for sample bowls

Technical specifications:

Model	MB 35	MB 45
Capacity	35 g	45 g
Ideal for temperatures	50 to 160 °C (5 °C steps)	50 to 200 °C (1 °C steps)
Readability	0.01 % / 0.001 g	
Reproducibility (Std. dev.)	0.10 % (3 g sample) 0.03 % (10 g sample)	0.05 % (3 g sample) 0.015 % (10 g sample)
Time setting	1 to 120 min	
Weighing pan	90 mm	
Dimensions (W x H x D)	190 x 150 x 350 mm	

Model	Art. No.	Pack Qty.	€
MB 35	X835.1 *	1	2130,00
MB 45	X836.1 *	1	3055,00

Accessories for hygrometers MB-series

By Ohaus.

Type	Art. No.	Pack Qty.	€
Disposable aluminium sample pans, Ø 90 x H 7 mm	X837.1	80	28,00
Glass fibre filter, 90 mm	X838.1	200	42,00
Adjusting weight, 20 g	X839.1 *	1	50,00
Temperature calibration set	X840.1 *	1	283,00

* Longer delivery times possible. Please check with our Sales Department.

Test weights



Balance table

For analytical laboratories. Absorbs oscillations and vibrations which would otherwise falsify weighing results. Workbench with aluminium profile frame and height-adjustable feet. Polished marble slab (36 kg) as integrated worktop, mounted on absorbent rubber elements.

Balance plate dimensions: W 267 x D 405 x H 120 mm.

Outer dimensions fully assembled: W 770 x D 650 x H 815 mm.

Overall weight approx. 55 kg.

Art. No.	Pack Qty.	€
AEP0.1*	1	900,00

* Longer delivery times possible. Please check with our Sales Department.



Ioniser for balances

By Kern. Suitable for neutralising static charge. Non-conductive samples, e.g. plastic, porcelain, glass etc. is often statically charged. The resultant electromagnetic field between the sample and balance can falsify the weighing result.

- For weighings in the milligramme range or finer
- Blower can be switched on and off
- Suitable as benchtop unit or hand-held unit

Technical specifications:

"Sample - ion source" distance	approx. 5 to 50 cm
Discharge time	8 s/5 cm, 12 s/10 cm, 100 s/50 cm (with the blower switched on)
Max. air volume	0.06 cm ³ /min
Dimensions (W x D x H)	95 x 30 x 57 mm
Weight	Ioniser 110 g, rack 430 g
Power supply	110 to 230 V, 50 Hz

Art. No.	Pack Qty.	€
CET5.1*	1	1350,00

* Delivery times may apply to these products. Please ask our sales staff.

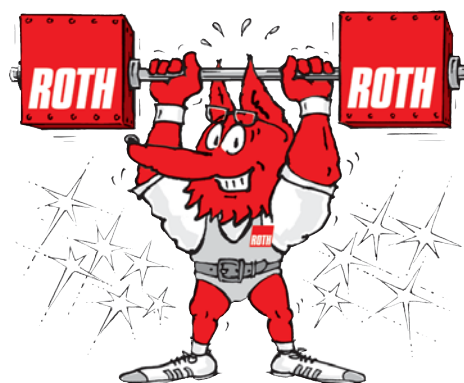


Test weights OIML-Class M1

Finely turned brass.

Delivery incl. case. With or without DAkkS calibration certificate.

Weight (g)	Tolerance (±mg)	Pack Qty.	Without certificate		With certificate	
			Art. No.	€	Art. No.	€
50	3	1	EX28.1	9,95	EX35.1	26,00
100	5	1	EX29.1	11,90	EX36.1	29,20
200	10	1	EX30.1	16,95	EX37.1	34,00
500	25	1	EX31.1	34,50	EX38.1	50,50
1000	50	1	EX32.1	51,00	EX39.1	68,00
2000	100	1	EX33.1	88,00	EX40.1	97,00
5000	250	1	EX34.1	175,00	EX41.1	191,00



Test weights



Set of weights OIML-Class M1

Made of finely cut copper.

Delivery incl. wooden box. With or without DAkkS calibration certificate.

Weights from-to (g)	Number of weights	Pack qty. (set)	Without certificate		With certificate	
			Art. No.	€	Art. No.	€
1-100	9	1	Y121.1	94,00	Y122.1 *	143,00
1-500	12	1	Y123.1	158,00	Y124.1 *	226,00
1-2000	15	1	Y125.1	430,00	Y126.1 *	519,00

* Please check with our Sales Department for delivery period of this products.

Set of weights OIML-Class M2

Made of finely cut copper.

Delivery incl. wooden box. With or without DAkkS calibration certificate.

Weights from-to (g)	Number of weights	Pack qty. (set)	Without certificate		With certificate	
			Art. No.	€	Art. No.	€
1-50	8	1	Y127.1	78,00	Y128.1 *	120,00
1-100	9	1	Y129.1	89,00	Y130.1 *	138,00
1-500	12	1	Y131.1	145,00	Y132.1 *	213,00
1-1000	13	1	Y133.1	245,00	Y134.1 *	319,00
1-2000	15	1	Y135.1	405,00	Y136.1 *	494,00

* Please check with our Sales Department for delivery period of this products.

DAkkS calibration certificates for weights = Certificate of Calibration
verify the accuracy of a weight or set of weights and ensure that all international metrological norms are observed.

They certify the conventional measured value of weight with any deviation from the nominal value, the measuring uncertainty and restoration.



Test weights OIML-Class F1

For checking masses acc. to ISO 9000. Brass nickel-plated. For adjusting (= calibrating) and checking laboratory balances.

Delivery incl. case, with or without DAkkS calibration certificate.

Weight (g)	Tolerance (±mg)	Pack Qty.	Without certificate		With certificate	
			Art. No.	€	Art. No.	€
1	0.10	1	N001.1	27,50	N151.1	47,00
2	0.12	1	N002.1	28,60	N152.1	48,50
5	0.15	1	N003.1	31,00	N153.1	50,50
10	0.2	1	N004.1	34,00	N154.1	53,95
20	0.25	1	N005.1	36,30	N155.1	56,00
50	0.3	1	N006.1	39,60	N156.1	59,00
100	0.5	1	N007.1	44,00	N157.1	65,90
200	1.0	1	N008.1	59,40	N158.1	80,00
500	2.5	1	N009.1	82,50	N159.1	99,00
1000	5	1	N010.1	119,00	N160.1	136,00
2000	10	1	N011.1	161,00	N161.1	200,00



Sets of weights OIML-Class F1

Made of polished and nickel-plated brass.

Delivery incl. wooden case. With or without DAkkS calibration certificate.

Weights from-to (g)	Number of weights	Pack qty. (set)	Without certificate		With certificate	
			Art. No.	€	Art. No.	€
1-50	8	1	YP77.1	310,00	YP82.1	377,00
1-100	9	1	YP78.1	350,00	YP83.1	427,00
1-200	11	1	YP79.1	435,00	YP84.1	533,00
1-500	12	1	YP80.1	560,00	YP85.1	669,00
1-1000	13	1	YP81.1	660,00	YP86.1	779,00

Multiple socket outlets



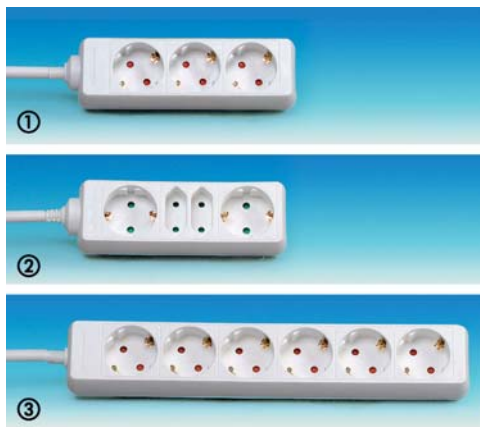
Test weights OIML-Class E2

Made of corrosion-proof, antimagnetic stainless steel. High-polished. Ideal for adjusting analytical balances.

Delivery incl. individual wooden boxes (velvet lined), with or without DAkkS calibration certificate.

Weight (g)	Tolerance (±mg)	Pack Qty.	Without certificate		With certificate	
			Art. No.	€	Art. No.	€
20	0.08	1	Y113.1 *	93,00	Y114.1 *	119,00
50	0.10	1	Y115.1 *	104,00	Y116.1 *	130,00
100	0.15	1	Y117.1 *	110,00	Y118.1 *	143,00
200	0.30	1	Y119.1 *	132,00	Y120.1 *	165,00

* Please check with our Sales Department for delivery period of this products.



Type Eco multiple socket outlets

Cable length 1.4 m. Power supply 250 V~, max. 3600 W, 16A.

① **3 way socket outlet** with inverted cups.
Dimensions: W 100 x H 60 x L 200 mm.

② **2+2-way socket outlet** with 2 European standard sockets and 2 PE sockets.
Dimensions: W 70 x H 50 x L 200 mm

③ **6-way socket outlet** with inverted cups.
Dimensions: W 75 x H 60 x L 345 mm.

Type	Art. No.	Pack Qty.	€
① 3-way	XK32.1	1	8,25
② 2 + 2-way	XK33.1	1	8,55
③ 6-way	XK34.1	1	11,50



Sets of weights OIML-Class E2

All milligram weights are in wafer form. 1 to 5 mg made of aluminium, 10 to 500 mg made of nickel silver.

Delivery incl. plastic case, with or without DAkkS calibration certificate.

Weights from-to (mg)	Number of weights	Pack qty. (set)	Without certificate		With certificate	
			Art. No.	€	Art. No.	€
1-500	12	1	YP75.1	320,00	YP76.1	510,00



Socket strips

Made of highly breakproof special plastic. Inclined plug contacts enable 4/6 right-angle plugs to be used simultaneously. Integrated on/off switch indicates whether operational. With practical device for winding up and storing cable after use. Can also be attached to wall. Wall attachment device incl. With 2 m cable (4-way strip) and 3 m cable (6-way strip). Colour anthracite/bordeaux.

Type	Length (mm)	Art. No.	Pack Qty.	€
4-way socket strip	ca. 320	E757.1	1	15,00
6-way socket strip	ca. 410	E758.1	1	20,40

Multiple socket outlets



Socket strips 6-way

With surge and high-voltage protection.

Protects working appliances from destruction by surges, indirect lightning or spikes in the network up to 4500 A, e.g. by passing the current through inductive load resistors. Inclined plug contacts for up to 6 central and right-angle plugs. Suitable for appliances to max 16 A or 3680 W maximum load. 2-pole on/off switch with pilot light. 1.5 m cable H05 VV-F 3G1,0. Shockproof plug 16 A, 230 V.

Delivery incl. brackets for wall attachment.

Colour	Art. No.	Pack Qty.	€
black	P685.1	1	24,60
light grey	P686.1	1	24,60



IP44-Socket block for 5 plugs

For heavy-duty applications and outdoor use. Splash-proof (IP 44). Shockproof and breakproof plastic enclosure. Connection with **RCCB-socket (residual current circuit breaker)** 30 mA protects against dangerous electrical accidents. Illuminated 2-pin on/off switch with protective lid. 5 splashproof sockets with gasket ring and self-closing flap lid for protection against dirt, in compliance with VDE. Sockets in 45°-array. Cord length 1.4 m. Dimensions: L 480 x W 80 x H 62 mm.

Art. No.	Pack Qty.	€
KP32.1	1	48,95



Safety socket strip 5-fold

With surge protector function. Built-in surge protection filter protects appliances against surges in the network and indirect lightning, **short circuit proof up to 6000 A**. Sockets in 65 mm and 90° array for e.g. AC adaptors, timers etc. Illuminated 2-pole on/off switch, 16 A/250 V /max. 3600 W. Screw-on option. Length of cord 1.4 m. Dimensions: W 71 X H 58 x L 482 mm.

Art. No.	Pack Qty.	€
A931.1	1	80,65



Safety socket strip with FI/LS

Made of plastic. FI/LS function for employee safety, overload protection and short-circuit protection. 16 A/220 V~/max. 3600 W. Screw on. With FI/LS-switch (B 16 A/30 mA) for increased contact protection. Dimensions: W 80 x H 48 x L 475 mm. Weight approx. 700 g. Cable with plug: length approx. 1.45 m.

Art. No.	Pack Qty.	€
0719.1	1	123,65



Current distributor with 4 x socket output

With shockproof plug. Made of a highly breakproof special plastic. With 3 m power cable (rolled up in housing). Very flat (height 60 mm), Ø 180 mm. Colour black/white.

Art. No.	Pack Qty.	€
E759.1	1	13,25

Multiple socket outlets



Safety cable reel

With automatic overheating and accident protection system. Current is out of at +55 °C and red control lamp flashes. Wattage 220 V/4 A. Designed for max. 3500 W when cable is rolled out. With 4 grounded socket outlets and 10 m cable with shockproof plug.

Dimensions: H 230 x D 105 mm, Ø 190 mm.

Art. No.	Pack Qty.	€
4687.1	1	24,70



Extension leads

PVC-sheathed flexible cord. With shockproof plug.

Length (m)	Art. No.	Pack Qty.	€
3	Y203.1	1	12,05
5	Y204.1	1	17,35



Compact plug adapter

For safe connection of double-insulated devices abroad, e.g. Japan, Australia, Southern Europe, America, Asia, etc. Load: max. 16 A/250 V. With handy travelling bag.

Art. No.	Pack Qty.	€
8458.1	1	17,75



Equipment protection - surge voltage filter

Effectively protects electric equipment from surge voltage. Manufactured acc. to DIN VDE 0675, part 6 (category D). Appliances to max. 1000 W. Red control lamp indicates malfunctions.

Technical specifications:

Voltage rating	230 V/50 Hz
Response dc voltage	600 V
Response surge voltage	min. 900 V / max. 2000 V
Fuse	F 4 A

Art. No.	Pack Qty.	€
0669.1	1	27,35

Time switches



Energy costs meter

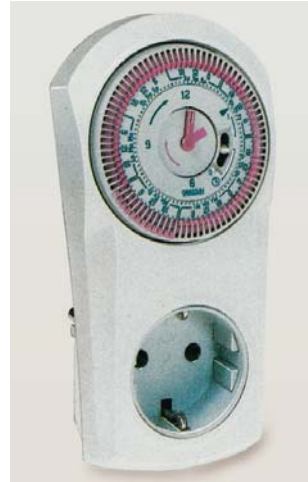
For measuring energy consumption of appliances and resulting electricity and operational costs. Various display options e. g. display of current amperage in W or A, of entire cumulated energy in kWh (max. 9999 kWh), voltage metering range in V (190 to 276), overall measurement and calculated total costs of energy consumed from the set price per kWh. 2 individually adjustable electricity tariffs (day time and night time). Max. 3600 W, 16 A. Tolerance range V/A/W: $\pm 1\%$. Dimensions: H 120 x W 60 x D 45 mm.

Delivery incl. 3 x 1.5 V button cell batteries.

Art. No.	Pack Qty.	€
LX34.1	1	21,45

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Plug time switch

Mechanical. Has a weekly cycle (7 x 24 h). Shortest switching interval is 2 hours. Simple programming (every 2 h) with manual switch. Integrated dial, and is accurately synchronized with the power outlet. With 84 switching modes. With switching status indicator. Max. load 3500 W.

Art. No.	Pack Qty.	€
C536.1	1	32,15



Time switch

Mechanical and has daily cycle with 96 switching modes. Simple to programme. Shortest switching interval 15 min. accurately synchronized with the power outlet. Working temperature -10 to +55 °C. Max. load 3500 W. Dimensions: H 145 x W 74 x D 39 mm.

Art. No.	Pack Qty.	€
A405.1	1	22,50



Time switch

Splash-proof. Daily cycle. Shortest switching interval 15 mins. Working temperature -40 to +55 °C. 220 V, 50 Hz. Protective system IP 54.

Art. No.	Pack Qty.	€
K555.1	1	32,15

Timers



Plug time switch with storage capacity for 20 switching modes

Shortest indexing time 1 min, every minute programmable. Battery reserve: 3 years. 20 slots (10 in, 10 out). 7-day indexing program with block structure: Daily blocks (Mon-Sun., Mon-Sat, Mon-Fri, Sat-Sun, individual days). Manual changeover between summer/winter time, 12/24 hr mode. An engageable random generator delays the indexing commands by up to 30 minutes. Permissible ambient temperature: -10 to +50 °C. Switching power 16 A. Electrical supply 230 V / 50/60 Hz.

Art. No.	Pack Qty.	€
CH61.1	1	53,65

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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Time switch with thermo sensor

Enables time or temperature controlled switching. Operational in time mode, temperature mode or both modes simultaneously. **Time mode** provides 3 possible on/off periods every 24-hours. **Thermostat mode** automatically switches the connected device on when a preset temperature has not been attained.

Technical specifications:

Ideal for temperatures	0 to +40 °C
Accuracy	±1 °C
Sensor cable	1 m
Max. load	up to 3500 W
Dimensions (H x W x D)	130 x 55 x 55 mm
Weight	250 g

Delivery incl. battery Micro 1.5 V.

Art. No.	Pack Qty.	€
C012.1	1	48,30

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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One-hour signal timers

In plastic housing. With spring drive. When the set time has elapsed, a discreet but easily audible bell signal sounds.

Dimensions: W 70 x D 40 x H 70 mm. Weight approx. 108 g.

Colour	Art. No.	Pack Qty.	€
white	KN85.1	1	7,35
white/red	KN86.1	1	7,35
white/black	KN87.1	1	7,35
white/yellow	KN88.1	1	7,35



Two-hour signal timer

Spring movement. Made of plastic. Can be reset at any time. A clearly audible bell ring signals the end of the preset time. Can be attached to wall. Dimensions: W 69 x D 69 x H 40 mm.

Art. No.	Pack Qty.	€
N022.1	1	8,55



Rotilabo®-count-down/count-up timer

4-digit LCD display for minute and second. Programmable for 99 min, 59 s. Timer memory function. Alarm when "0" reached. With magnet for affixing. Rubberised coating. Dimensions: Ø 55 x D 15 mm. Weight 80 g.

Delivery incl. 1.5 V button cell battery.

Colour	Art. No.	Pack Qty.	€
red	LY66.1	1	10,70
white	LY65.1	1	10,70

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Timers



Count-down/count-up timer

Direct numerical input via numerical keypad. Maximum runtime 99 h, 99 min and 99 s. With On/Off switch to conserve batteries and folding stand. Audio signal at "zero".
Dimensions: W 66 x D 20 x H 108 mm. Weight 67 g.
Delivery incl. 2 Micro 1.5 V batteries.

Art. No.	Pack Qty.	€
TY87.1	1	10,95

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Electronic signal timer

With large display. Count down/count up function. Direct numerical entry via 10 key keyboard. Maximum running time 10 h. Alarm signal at "zero".
Dimensions W 60 x H 70 x D 25 mm. With attachment magnet, stand, clip and suspension hook. Weight 95 g.
Delivery incl. battery Micro 1.5 V.

Art. No.	Pack Qty.	€
X253.1	1	13,45

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Rotilabo®-count-down-timer

4-digit LCD display for minutes and seconds. Programmable for 99 min, 59 s. Alarm signal at '0'. Timer memory function. Clip for hanging or standing on desktop, magnet. Dimensions: 88 x 46 x 12 mm, weight 30 g.
Delivery incl. cell battery 1.5 V.

Art. No.	Pack Qty.	€
X396.1	1	10,70

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Rotilabo®-count-down-timer

4-digit LCD display for minutes and seconds. Programmable for 99 min, 59 s. Alarm signal at '0'. Timer memory function. With clip for hanging and standing, magnet. Dimensions: W 66 x D 56 x H 18 mm, weight 45 g.
Delivery incl. battery Micro 1.5 V.

Art. No.	Pack Qty.	€
X398.1	1	11,75

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Rotilabo®-timer

Count-down/count-up feature. Maximum runtime 99 min, 59 s. Start/stop button with visual timer status indicator (green = time counting down; red = preset time expired). After the countdown stops, an acoustic signal sounds for 1 min and is indicated visually. Two different volumes or mute mode can selected. **Timer memory function for 3 times.** Includes stand, magnet for fixing to metal surfaces and hanging attachment.
Dimensions: L 90 x W 60 x D 20 mm.
Delivery incl. 2 1.5 V micro batteries.

Art. No.	Pack Qty.	€
TA16.1	1	15,70

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Timers



Rotilabo®-signal-timer

With clock, 24 h quartz clock, features a count up/count down function, and has a second subdivision. Ideal for standing upright, attaching to magnetic surfaces or clipping to breast pocket. Intense interval bleeping tone. Dimensions: W 60 x H 60 mm.

Delivery incl. cell battery 1.5 V.

Art. No.	Pack Qty.	€
0773.1	1	14,85

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Rotilabo®-short-term timer

Count down/count up function. **With clock.** For max. timed periods of 23 h 59 min and 59 s. With audible signal once count down procedure has been completed and immediate switch-over to count up procedure. Ideal for standing upright, attaching with magnet or clipping to breast pocket.

Delivery incl. battery Micro 1.5 V.

Art. No.	Pack Qty.	€
K512.1	1	20,35

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Multi-purpose clock with timer

Features:

- Display lighting
- Clock with date and alarm mode
- Temperature (measuring range/resolution: -20.0 to +50.0 °C)
- Count-down timer (max. runtime: 9 h 59 min 59 s) with signal
- Stop watch (max. runtime: 9 h 59 min 59 s) with interval timer

Dimensions: W 30 x L 55 x D 13 mm. Weight 30 g.

With snap-hook or ring fastener for attaching to labcoat.

Delivery incl. round cell battery.

Art. No.	Pack Qty.	€
HH45.1	1	18,20

Accessories:

Button cell battery CR 1616 (3 V)	KE59.1	1 pce.	5,35
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Short period timer "Shake Awake"

- **With alarm tone, light signal or vibrating alarm.**
- **All signal settings can be activated separately or together.**
- Count-down/Count-up
- Four-digit LCD-display for h/min- or min/s-display
- Operation time: 19 h, 59 min or 99 min, 59 s
- With magnet or clip for affixing or standing up
- Dimensions: W 48 x D 31 x H 75 mm, weight 110 g

Delivery incl. 2 Micro 1.5 V batteries.

Art. No.	Pack Qty.	€
EE51.1	1	21,00

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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2-channel timer

With two independent channels for separate time measurement.

Count-down/Count-up. Maximum runtime 99 min, 59 s. Start/stop button with visual timer status indicator (green = time counting down; red = preset time expired). After the countdown stops, an acoustic signal sounds for 1 min and is indicated visually. Two different volumes or mute mode can be selected. Includes stand, magnet for fixing to metal surfaces and hanging attachment. Dimensions: L 88 x W 75 x D 20 mm.

Delivery without batteries. Requires 2 1.5 V micro batteries.

Art. No.	Pack Qty.	€
TA55.1	1	16,35

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Rotilabo®-signal-timer with clock

With 2 independent channels for separate timing. Count-down/Count-up. Time is displayed by pressing a function key. Counts up to 99 h 59 min and 59 secs. Large LCD display. Alarm signal 1 min. With clamp stand and magnet for attachment to metal surfaces. Switches automatically to forward counting once timer has reached zero. Dimensions: H 65 x W 75 x D 15 mm, weight approx. 65 g. **Delivery incl.** battery Micro 1.5 V.

Art. No.	Pack Qty.	€
A802.1	1	18,25

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Rotilabo®-timer 3-line

Large 3-line LCD display. **Three separate timers in one unit.** Countdown/countup for all three displays and memory function. Counts up to 99 h, 59 min and 59 sec. Alarm signal at "zero". Clock with 12/24 h adjustable format. With clip for hanging and standing and with magnet. Dimensions: W 83 x H 70 x D 22 mm. Weight 80 g. **Delivery incl.** 1.5 V cell battery.

Art. No.	Pack Qty.	€
P874.1	1	26,80

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Triple Timer XL

With large display (80 x 60 mm) and clock. Three separate timers in one device. All three displays have a count-down function. Max. run time 19 h, 59 min and 59 s. After the count-down is complete a beep sounds for 1 min and the timer begins to count up. Count-up function for display with 1/100 second display. Memory function. With mounting magnet, wall mount and folding stand. Dimensions: W 103 x D 121 x H 20 mm. **Delivery incl.** 2 micro 1.5 V batteries.

Art. No.	Pack Qty.	€
PT76.1	1	18,85

Accessories:

Micro/AAA 1.5 V battery	1021.2	4 pcs.	6,35
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Laboratory timer

With 24-hour clock and calendar. Count down/count up function. **Extra large LCD display (L 140 x W 40 mm).** Can be programmed for 23 h, 59 min, 59 s. Alarm signal at „0“. Timer memory function. Dimensions: L 160 x W 90 x D 68 mm. **Delivery incl.** battery Baby 1.5 V.

Art. No.	Pack Qty.	€
Y224.1	1	89,25

Accessories:

Baby/C 1.5 V battery	1023.2	2 pcs.	4,85
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Stopwatches



Rotilabo®-stopwatch

Splashproof. 24 hour running time. 1/100 sec display over 30 minutes. Split-time display. Also features clock, calendar and alarm function. Snooze function. Dimensions: L 69 x W 59 x D 19 mm.

Delivery incl. 1.5 V button cell battery.

Art. No.	Pack Qty.	€
L423.1	1	10,25

Accessories:

Cell battery V 13 GA (1.5 V)	1938.1	1 pce.	4,25
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Stopwatch with calibration certificate

Water-protected ABS-housing. Max. runtime 9 h 59 min 59 s. 1/100 seconds display. Records of interval time. Dimensions: L 82 x W 61 x D 28 mm.

Delivery incl. Mignon 1.5 V battery and calibration certificate.

Art. No.	Pack Qty.	€
LK76.1	1	96,70

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Hand stopwatch

Splash-proof. Max. runtime 23 h 59 min. 1/100 sec display over 30 minutes. **With count-down timer function.** Readable time intervals. Additionally with time, date, hourly signal and alarm. Dimensions: W 62 x D 25 x H 75 mm. Weight 95 g.

Delivery incl. button cell battery CR 2032, 3 V.

Art. No.	Pack Qty.	€
EK01.1	1	23,60

Accessories:

Button cell battery CR 2032 (3 V)	P858.1	1 pce.	5,35
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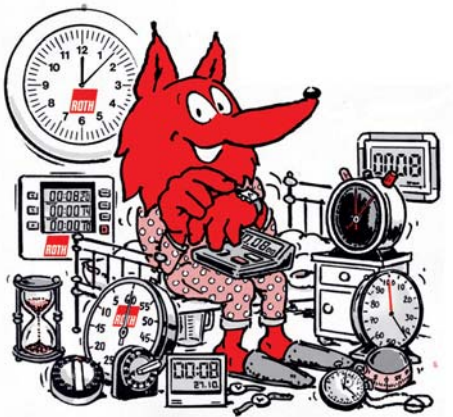


Table stopwatches



Winding stopwatches

Winding by hand. Brass housing, chrome-plated.

Technical specifications:

Model	① Basic	② Classic
Max. measuring range	15 min	30 min
Resolution	1/10 s	1/5 s
Start/Stop	Winder	Winder
Resetting	Winder	Zero setting
Interval button	No	Yes
Dimensions	Ø 50 mm	
Weight	100 g	

Type	Art. No.	Pack Qty.	€
Basic	HA62.1	1	61,30
Classic	HA63.1	1	67,20



Addition stopwatches

Pocket-watch format. With winder. Plastic body, shock-resistant, dust and waterproof. Unbreakable wind up spring. Resolution 1/10 s. Weight approx. 60 g.

Art. No.	Pack Qty.	€
2050.1	1	92,35



Table timers

Large, easy-to-read LCD display. Max. runtime 9 h 5 min 59 s or 999 min. 2 timers with either separate or simultaneous start/stop operating. Count up/count down function. With adjustable volume (max. 90 dB). Time resolution 1/10 sec or 1/100 min. Dimensions: H 170 x W 130 x D 97 mm. **Delivery incl.** battery Mignon 1.5 V.

Art. No.	Pack Qty.	€
N317.1	1	117,20

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Analogue stopclock

Quartz-controlled. Ergonomically designed with optimal stability. Functions: start/stop/reset plug addition (indefinite).

Technical specifications:

Measuring range	0-60 s / 0-60 min
Inner scale	with 1/100 display
Dial face	Ø 110 mm
Dimensions	175 x 130 x 95 mm
Weight	approx. 375 g
Working temperature from	-10 to +70 °C

Delivery incl. 1.5 V Mignon battery.

Art. No.	Pack Qty.	€
H735.1	1	127,95

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Wall clocks



Mechanical table-top stopwatch Model E-4

Metal casing. 1 s to 60 min display. Can be wound up with key on back. 24 h run-time. Dimensions: **H 128 x W 115 mm**. Weight 450 g.

Art. No.	Pack Qty.	€
KH62.1	1	170,95



Wall clock

Comes with additional display for inside temperature and relative humidity. Ø 265 mm, plastic casing and plastic front.

Delivery incl. Mignon 1.5 V battery.

Art. No.	Pack Qty.	€
KT37.1	1	13,80

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Mechanical table-top stopwatch Model E-8

1 s to 60 min display. Can be wound up using a key on the back. 24 h run-time. Dimensions: **H 220 x W 210 mm**, Ø 207 mm. Metal casing. Weight 850 g.

Art. No.	Pack Qty.	€
KX02.1	1	209,65



Quartz wall clocks

With plastic casing. Ø 245 mm, 40 mm thick.

Delivery without battery. One battery 1.5 V is required.

Colour	Art. No.	Pack Qty.	€
white	C333.1	1	15,00
black	C334.1	1	15,00

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Wall clocks



Wall clocks

Enclosure made of brushed aluminium.
Glass cover. Ø 300 mm, depth 41 mm.
Delivery incl. battery Mignon 1.5 V.

Image	Colour clock face	Art. No.	Pack Qty.	€
①	white	KN89.1	1	20,35
②	black	KN90.1	1	20,35
③	red	KN91.1	1	20,35

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Radio-controlled wall clocks

Automatic time adjustment and change-over from summer/winter time.
Case Ø 300 mm, depth 45 mm. With glass cover. Station clockface.
Available with black plastic case or with chromium-plated frame.
Delivery without battery. One battery Mignon 1.5 V is required.

Colour	Art. No.	Pack Qty.	€
black	L486.1	1	34,35
chrome	Y227.1	1	34,35

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Radio wall clocks

Automatic time setting and switch-over to summer/winter time.
Fig. 3 also with digital date display.
Delivery incl. battery Mignon 1.5 V.

Image	Ø (mm)	Art. No.	Pack Qty.	€
①	246	KN66.1	1	23,65
②	270	KN67.1	1	31,75
③	300	KN68.1	1	42,90

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Radio wall clock with room climate display

With analogue LCD clock and revolving second hand.
Display of date and week day (7 languages), interior temperature (measurement range -10 to +50 °C) and relative humidity (5 to 99 %), calendar week or digital time. Functions can be selected with sensor button.
Dimensions: W 220 x D 31 x H 265 mm. Weight 580 g.

Delivery incl. 4 1.5V Mignon/AA batteries.

Art. No.	Pack Qty.	€
XX18.1	1	80,65

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Pocket calculators



Radio-controlled alarm clock XXL

Automatic time setting and switch-over to summer/winter time. With large display. Display of interior temperature (-10 to +60 °C), weekday and date. Wake-up alarm with Snooze function. Wall or table mount. Dimensions: W 235 x H 195 x D 28 mm. Weight: 400 g.

Delivery without batteries. Two 1.5 V mignon batteries are required.

Art. No.	Pack Qty.	€
PY80.1	1	24,00

Accessories:

Mignon/AA 1.5 V battery	1022.2	4 pcs.	5,95
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Solar-powered radio-controlled alarm clock

Automatic time setting and switch-over to summer/winter time. Solar panel with rechargeable battery. Recommended light incidence: at least 4 h per day. Display of interior temperature (0 to 50 °C), weekday and date. Wake-up alarm with snooze function. Glow-in-the-dark display (1 h of light illuminates the display for approx. 2 h).

Dimensions: W 156 x H 80 x D 50 mm. Weight 244 g.

Art. No.	Pack Qty.	€
PY65.1	1	32,05



Chemistry-/LifeScience-pocket calculator Chemcode®

Design:

- Keypad with classification of elements and numerical keypad
- Keys for nucleotides for DNS (A, T, G, C) and RNS (A, U, G, C)
- Two-line display with scroll-function
- Scientific calculating functions
- Dimensions: L 136 x W 110 x D 14 mm

Stoichiometric functions

Display: Molar mass, ideal gas volume, weighing-in mass in g, amount of substance in mol.

Calculation: Total formula, share of single elements or element groups in % or g, amount of substance in g. Conversion of substance concentration (mol/l; Molarity) into substance mass concentration (g/l) and inverse, mass-% in molarity. When diluting, it determines the volume to be used in liters and calculates the substance amount in mmol during titration.

Molecularbiological function for PCR®

Display: Protein codes, %-share of guanin and cytosin, molar mass of nucleotide sequence and protein sequence, substance amount in nmol, optical density, substance amount of DNS-portion in ng, melting temperature of oligonucleotide.

Lexical functions

- Conversion in °C, F and Kelvin
- Retrieval of different constants (Avogadro, Faraday etc.)
- Function to retrieve chemical, physical and biological properties of the elements and additional information such as melting point, boiling point, electron gativity, detection year, etc.

Delivery incl. 4 spare batteries, cell CR 2025.

Art. No.	Pack Qty.	€
CE95.1	1	120,40

Accessories:

CR 2025 button cell battery (3 V)	CH14.1	1 pce.	5,35
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Solar standard calculator Sharp EL-243S

8-digit LCD display. Solar and battery operated. With root and percentage calculation. Memory. Hinged protective cover (folds by 180°). Dimensions (open): 11 x 104 x 64 mm, weight approx. 51 g.

Delivery incl. backup-battery.

Art. No.	Pack Qty.	€
LN02.1	1	8,55

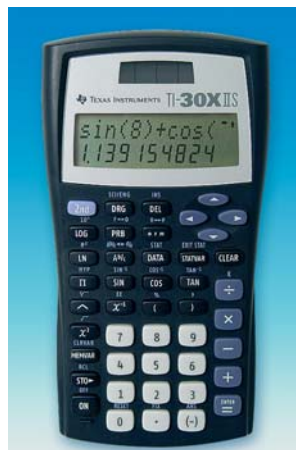
Pocket calculators



Solar pocket calculator LCD1000P

By Olympia. **Water and dustproof housing** according to IP 54. With shock-absorbing rubber edges. 12-digit LCD display. Solar and battery operated. Root/percentage calculation. Memory. Dimensions: L 158 x W 106 x H 38 mm. Weight approx. 146 g. **Delivery incl.** backup battery.

Art. No.	Pack Qty.	€
LN01.1	1	24,35



Solar scientific calculator TI-30 X II S

2-line display for statistics and scientific functions. **11-digit, scrollable entry line** and 10-digit results line. **Combined solar and battery operation.** With many functions, such as automatic simplification of fractions, trigonometry functions, 5 storage variables, random number generator, etc. Dimensions: W 82 x D 155 x H 19 mm. **Delivery incl.** protective case.

Art. No.	Pack Qty.	€
KT82.1	1	30,65



Desktop calculator Canon TX-1210E

12-digit LCD display with angled display and rugged keyboard. Solar and battery operation. With square root function, rounding selector, tax calculation function and percentage calculation. Dimensions: L 175 x W 126 x H 30 mm. Weight 172 g.

Art. No.	Pack Qty.	€
CHA7.1	1	29,00

NEU
NOUVEAU
NEW



Scientific calculator Sharp EL-W506X-VL

Combined solar and battery operation. 4-line display with 96 x 32 dot matrix. Direct algebraic input logic. 4 freely assignable keys for frequently used functions. 4 cursor keys for quick input/processing. Memory retention. With 556 functions, such as mathematical, trigonometric, statistical and scientific functions. 9 memory variables. Database with natural constants and metric conversions. Dimensions: L 168 x W 80 x H 14 mm. Weight 100 g. **Delivery incl.** protective cover.

Art. No.	Pack Qty.	€
CHA8.1	1	34,55

NEU
NOUVEAU
NEW

Laboratory Equipment

Autoclaves and accessories	862
Barrel heaters	947
Block thermostats	921
Burners / igniters	884
Cell disruptors / homogenizers	1002
Centrifuges and accessories	1039
Coffee makers and kettles	901
Compact ultrasonic processors	999
Contact thermometers	978
Cooling incubators	937
Dispersing / homogenizing systems	997
Drying and heating cabinets	940
Histology and pathology equipment	952
Flocculators	996
Freezers	874
Gas burners	887
Heating and magnetic stirrers	969
Heating devices and laboratory cookers	953
Heating mantles and heating leads	949
Hot air blowers	900
Hot air sterilizers	940
Hotplates and cookers	953
Ice makers	882
Immersion heaters	898
Incubation shakers	1025
Magnetic stirrers	960
Magnetic bars	979
Melting point measuring units	951
Microwave ovens	898
Mills, mixers	1004
Muffle furnaces	944
Oil baths	921
Overheadmixer	1032
Pressure digestion vessels	873
Recirculating coolers	910
Refrigerating thermostats	911
Refrigerators / freezers	874
Rocker	1029
Rotary evaporators	929
Rotators / mixers	1032
Shakers, mixers	1007
Steam sterilizers	871
Stirrers and accessories	986
Tripod and quadrupod stands / heating tiles	896
Thermoshakers	925
Thermostats	903
Thermostat cabinets	880
Vacuum drying cabinets	946
Water baths	916



Autoclaves

High-pressure laboratory autoclaves from Roth

Have a wide application range in research laboratories or for routine examinations. All autoclaves follow the current safety standards and are extremely robust. They should only be operated by qualified staff after taking all of the necessary safety precautions. Features include extremely reliable safety system (bursting disc) which automatically reduces the pressure and prevents the autoclave from being damaged in the case of excess pressure.

Examples of applications:

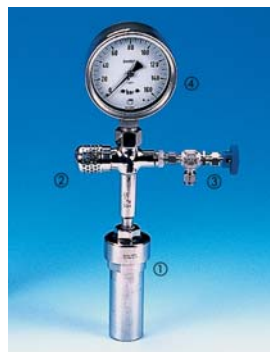
- Gas reactions under pressure
- Hydrogenation
- Anorganic chemical synthesis
- Organic-chemical synthesis
- Crystal growing
- Material testing
- Disintegration of organic cells



OVERVIEW

High-pressure laboratory autoclaves from ROTH

	Model 0	Model I	Model II			Model IV
Max. working volume (ml)	50	100	200	300	250	500
Max. working pressure (bar)	100	100	100	100	200	100
Heating mantle	none	10 S	20 S	30 S	30 S	50 S
Sampling possible	no	no	yes			yes
Stirrer connection possible	no	no	yes			yes
Temp. measurement in autoclave possible	no	no	yes			yes



High-pressure laboratory autoclave Model 0

50 ml/100 bar

Model 0 is the smallest autoclave in our range. Initially it was developed for preliminary tests at room temperature. **It is the steel test tube for all pilot studies and pretrials where high pressure is required. It is ideal for situations where glass carious tubes may present a danger.** Model 0 has a threaded head with a threaded opening for fitting to equipment. Openings can be plugged with threaded stoppers. Sealed with PTFE gaskets (max. 180 °C) or fine silver gaskets (max. 300 °C). **Longer delivery periods possible depending on the size of the autoclave ordered!**

Technical specifications: Model 0

Inner volume	75 ml
Working volume	50 ml
Height	approx. 135 mm
Weight	approx. 835 g
Material	made of V4A high grade steel 1.4571
Working temperature	-60 to +300 °C
Working pressure	max. 100 bar
Test pressure	300 bar at +20 °C
Outer-Ø of beaker/head	40/54 mm
Inner-Ø of beaker	30 mm
Base shape	flat outside and inside
Connection thread in head	G 1/4"

Basic equipment consists of:

Type	Art. No.	Pack Qty.	€
Model 0, 50 ml cylinder and head ①	2970.1	1	811,65
Adapter I ②	2207.1	1	1278,20
Fine control valve ③	H745.1	1	246,20
Pressure gauge 160 bar ④	2031.1	1	181,70
Bursting disc 8.100/bar E	2199.1	1	121,50
PTFE - sealing set I (with silver gasket) for bursting disc	2067.1	1	57,95
Set of spanners I	2071.1	1	39,35

Accessories for gas autoclaving

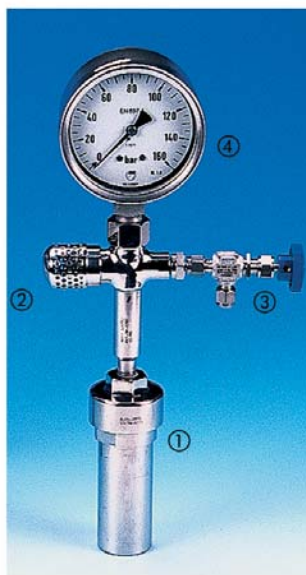
Type	Art. No.	Pack Qty.	€
PTFE-high-pressure hose 1,5 m	H996.1	1	289,20
Reduction adapter for direct connection with gas bottle (please specify gas type)	2066.1	1	160,75

Accessories

Type	Art. No.	Pack Qty.	€
Glass liner 50 ml	H976.1	1	12,50
Base plate 41, ideal as holder for screwing on autoclave Model 0 and I	2072.1	1	407,45
Rotilabo®-tablet magnetic follower 22	3003.1	1	8,95
Threaded stopper A	2052.1	1	46,80

Spare sealing gaskets

Type	Art. No.	Pack Qty.	€
PTFE gasket 12, for head and valve	2160.1	1	4,55
PTFE gasket 20, for pressure gauge	2161.1	1	5,05
PTFE gasket 42, for cylinder/head	2163.1	1	5,70
Fine silver gasket set I	2065.1	1	192,45



High-pressure laboratory autoclave Model I 100 ml/100 bar

Model I is the standard model in the Roth manufacturing range. Used mostly for in preliminary testing. Model I consists of an autoclave cylinder and a threaded autoclave head. The head has a thread on top for attachment of adapter (to fit bursting disc, pressure gauge and valve). Openings can be plugged with threaded stoppers. Sealed with PTFE gaskets (max. 180 °C) or fine silver gaskets (max. 300 °C). **Longer delivery periods possible depending on the size of the autoclave ordered!**

Technical specifications: Model I

Inner volume	135 ml
Working volume	100 ml
Height	approx. 220 mm
Weight	1210 g
Material	made of V4A high grade steel 1.4571
Working temperature	-60 to +300 °C
Working pressure	max. 100 bar
Test pressure	300 bar at +20 °C
Outer-Ø of beaker/head	40/54 mm
Inner-Ø of beaker	30 mm
Base shape	flat outside and inside
Connection thread in head	G ¼"
Adapter I (T-adapter), with bursting plate protection	
Material	V4A-high grade steel 1.4571 (Adapter to fit bursting disc, valve and pressure gauge)
Adapter openings	G ½" for pressure gauge G ¼" for valve

Basic equipment consists of:

Type	Art. No.	Pack Qty.	€
Model I, 100 ml cylinder and head ①	2001.1	1	923,45
Adapter I ②	2207.1	1	1278,20
Fine control valve ③	H745.1	1	246,20
Pressure gauge 160 bar ④	2031.1	1	181,70
Bursting disc 8.100/bar E	2199.1	1	121,50
PTFE - sealing set I (with silver gasket) for bursting disc	2067.1	1	57,95
Rotilabo®-tablet magnetic follower 22	3003.1	1	8,95
Set of spanners I	2071.1	1	39,35
Heating mantle 10 S, with magnetic stirrer ⑤	2088.1	1	2353,20

Accessories for gas autoclaving

Type	Art. No.	Pack Qty.	€
PTFE-high-pressure hose 1,5 m	H996.1	1	289,20
Reduction adapter for direct connection with gas bottle (please specify gas type)	2066.1	1	160,75

Accessories for assembly/options

Type	Art. No.	Pack Qty.	€
Base plate 41, ideal as holder for screwing on autoclave Model 0 and I	2072.1	1	407,45
Threaded stopper A	2052.1	1	46,80
Connector fitting for hose	H746.1	1	24,85
Glass liner for 100 ml cylinder	2196.1	1	13,60

Spare sealing gaskets

Type	Art. No.	Pack Qty.	€
PTFE gasket 12, for head and valve	2160.1	1	4,55
PTFE gasket 20, for pressure gauge	2161.1	1	5,05
PTFE gasket 42, for cylinder	2163.1	1	5,70
Fine silver gasket set I	2065.1	1	192,45
Silver gasket 12, for head and valve	2170.1	1	45,70
Silver gasket 15, for bursting disc	2173.1	1	41,90
Silver gasket 18, for pressure gauge	2172.1	1	42,95
Silver gasket 40, for cylinder	2174.1	1	42,95

► PTFE-spray, see page 1098

Attention

Due to the shape of the screw thread, cold setting of cylinder and head is possible when screwing these on. This usually leads to them sticking when opening and the thread breaking as a result.

The conducted reaction necessitates coating the thread with a release agent such as PTFE spray (Art. No. K007.1).

Warning: Do not use PTFE screw thread tape!

Autoclaves



High-pressure laboratory autoclave Model II

200/300 ml/100 bar, 250 ml/200 bar

Model II is ideal for all reactions where spontaneous gas development and a quick increase in pressure are expected. The units are operated with a large bursting disc, that is built into the autoclave head. Therefore it offers maximum safety in the laboratory. The enlarged autoclave head is screwed directly onto the autoclave cylinder. It contains the bursting disc holder at the top and three threaded openings at the side. For connections with: valves, reduction adapters for pressure gauges and temperature sensors or bursting disk safety device II, (when using magnetic stirrer head MRK 10). Threaded openings can be closed with screw stoppers. Sealed with gaskets made of PTFE (max 180 °C) or fine silver (max 300 °C).

Longer delivery periods possible depending on extent of order!

Technical specifications: Model II

Autoclave head II	
Material	Made of V4A high grade steel 1.4571
Outer-Ø of beaker	69 mm, top head opening for bursting disc 28.100/28.200 or magnetic stirrer MRK 10
Three additional openings on the side of head	G 1/4" for valve, reduction adapter for pressure gauge and temperature sensor or bursting disc safety device II for use with magnetic stirrer head MRK 10
Weight	approx. 1250 g

Autoclave cylinder	200 ml	300 ml	250 ml
Inner volume (ml)	265	350	320
Working volume (ml)	200	300	250
Height (mm)	220	300	300
Weight (g)	1375	1900	2250
Max. working pressure (bar)	100	100	200
Test pressure at +20 °C (bar)	300	300	400
Outer-Ø (mm)	50	50	50
Inner-Ø (mm)	40	40	37
Base shape	flat outside and inside		
Material	made of V4A high grade steel 1.4571		
Working temperature	-60 to +300 °C		

Basic equipment consists of:

Parts necessary for base equipment:

Description	Art. No.	200 ml	300 ml	250 ml
200 ml autoclave cylinder ①	2098.1	x		
300 ml autoclave cylinder	2108.1		x	
250 ml autoclave cylinder	2094.1			x
Autoclave head II ②	2126.1	x	x	x
Bursting disc 28.100/bar E	2203.1	x	x	
Bursting disc 28.200/bar E	2204.1			x
Fine control valve ③	H745.1	x	x	x
Pressure gauge 160 bar ④	2031.1	x	x	
Pressure gauge 250 bar	2036.1			x
Reducer for pressure gauge ⑤	2033.1	x	x	x
Threaded stopper A	2052.1	x	x	x
PTFE-dealing set with silver gasket	2082.1	x	x	x
Fine silver gasket set II	2102.1			
Tablet magnetic follower 30	4490.1	x	x	x
Spanner-Set II	2078.1	x	x	x
Heating mantle 20 S for 200 ml	0042.1	x		
Heating mantle 30 S for 250/300 ml	2092.1		x	x

Type	Art. No.	Pack Qty.	€
200 ml autoclave cylinder / 100 bar ①	2098.1	1	848,20
300 ml autoclave cylinder / 100 bar	2108.1	1	944,95
250 ml autoclave cylinder / 200 bar	2094.1	1	870,75
Autoclave head II ②	2126.1	1	528,90
Bursting disc 28.100/bar E	2203.1	1	121,50
Bursting disc 28.200/bar E	2204.1	1	121,50
Fine control valve ③	H745.1	1	246,20
Pressure gauge 160 bar ④	2031.1	1	181,70
Pressure gauge 250 bar	2036.1	1	181,70
Reduction adapter for pressure gauge ⑤	2033.1	1	124,70
Threaded stopper A	2052.1	1	46,80
PTFE-dealing set with silver gasket	2082.1	1	60,00
Fine silver gasket set II	2102.1	1	250,50
Tablet magnetic rod 30	4490.1	1	10,00
Spanner set II	2078.1	1	126,85
Heating mantle 20 S for 200 ml, with magnetic stirrer	0042.1	1	2353,20
Heating mantle 30 S for 250/300 ml, with magnetic stirrer	2092.1	1	2353,20

Special accessories for use with gas

Type	Art. No.	Pack Qty.	€
PTFE-high-pressure hose 1,5 m	H996.1	1	289,20
Reduction adapter for direct connection with gas bottle (please specify gas type)	2066.1	1	160,75

Special accessories for measuring temperatures in autoclave

Type	Art. No.	Pack Qty.	€
Temperature controller WRT 2000x	Y249.1	1	858,95
Connection cable controller/heating hood	Y250.1	1	123,65
Temperature sensor for 200 ml cylinder	2115.1	1	332,20
Temperature sensor for 250/300 ml cylinder	A880.1	1	332,20
Equilibrating tubing for regulator/probe, length 1.5 m	Y263.1	1	134,40

Special accessories for filling or removing liquid or gas samples

Type	Art. No.	Pack Qty.	€
Adapter with immersion pipe 2 for 200 ml autoclave cylinder	2043.1	1	779,40
Adapter with immersion pipe 3 for 250/300 ml	2044.1	1	779,40
Fine control valve ③	H745.1	1	246,20
PTFE gasket 12, for head and valve	2160.1	1	4,55
PTFE gasket 42, for cylinder/head	2163.1	1	5,70

Special accessories for stirring

Type	Art. No.	Pack Qty.	€
Magnet stirrer MRK 10	2359.1	1	o. r.
Adapter for magnet stirrer	2358.1	1	321,45
Bursting disc valve II	3167.1	1	886,90
Bursting disc 8.100/bar E	2199.1	1	121,50
Silver gasket 15, for bursting disc 8.100/bar E	2173.1	1	41,90
Gasing stirrer 2 for 200 ml cylinder	3184.1	1	o. r.
Gasing stirrer 3 for 250/300 ml cylinder	3189.1	1	o. r.

Special accessories for assembly/options

Type	Art. No.	Pack Qty.	€
Base plate 55, ideal as holder for screwing on autoclave Model II	2074.1	1	439,70
Connector fitting for hose	H746.1	1	24,85
Glass liner for 200 ml cylinder	2197.1	1	16,15
Glass liner for 300 ml cylinder	2198.1	1	18,10
Glass liner for 250 ml cylinder	2192.1	1	18,10

Spare sealing gaskets

Type	Art. No.	Pack Qty.	€
PTFE gasket 12, for head, valve and reduction adapter	2160.1	1	4,55
PTFE gasket 20, for pressure gauge	2161.1	1	5,05
PTFE gasket 51, for cylinder	2164.1	1	10,75
Fine silver gasket set II	2102.1	1	250,50
Silver gasket 12, for head, valve and reduction adapter	2170.1	1	45,70
Silver gasket 18, for pressure gauge	2172.1	1	42,95
Silver gasket 40, for bursting disc	2174.1	1	42,95
Silver gasket 50, for cylinder	2175.1	1	51,60

- For an exact description of autoclave accessories, see page 867

OVERVIEW High-pressure laboratory autoclaves from ROTH

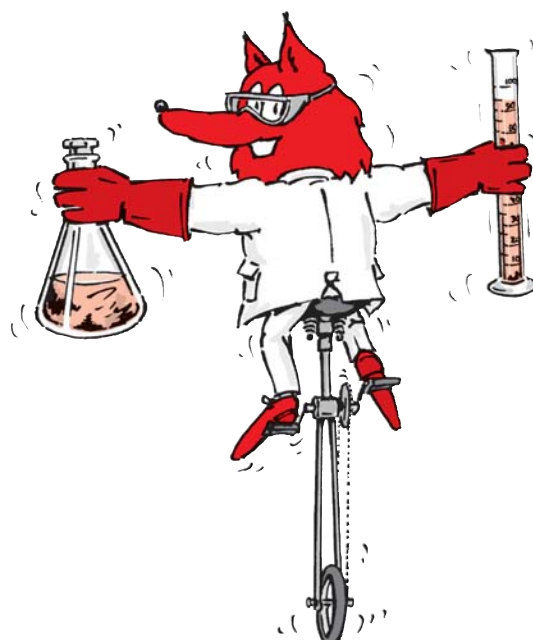
	Model 0	Model I	Model II			Model IV
Max. working volume (ml)	50	100	200	300	250	500
Max. working pressure (bar)	100	100	100	100	200	100
Heating mantle	none	10 S	20 S	30 S	30 S	50 S
Sampling possible	no	no	yes			yes
Stirrer connection possible	no	no	yes			yes
Temp. measurement in autoclave possible	no	no	yes			yes

Attention

Due to the shape of the screw thread, cold setting of cylinder and head is possible when screwing these on. This usually leads to them sticking when opening and the thread breaking as a result.

The conducted reaction necessitates coating the thread with a release agent such as PTFE spray (Art. No. K007.1).

Warning: Do not use PTFE screw thread tape!



Autoclaves



High-pressure laboratory autoclave Model IV 500 ml/100 bar

Model IV is the largest autoclave in our manufacturing range. It represents an improved version of the original version from which the other models are derived. Model IV consists of a high grade steel cylinder with flange. The solid stainless steel lid is screwed onto the flange with eight screws. The autoclave head is fitted for a large bursting disc. This provides maximum safety in situations where spontaneous gas production and a quick increase in pressure might occur. The large autoclave is screwed directly onto the cylinder. It contains the bursting disc holder at the top and three threaded openings at the side. For connection with: valves, reduction adapters for pressure gauges and temperature sensors or bursting disk safety devices II, (when using magnetic stirrer head). Threaded openings can be closed with screw stoppers. Sealed with gaskets made of PTFE (max. 180 °C) or with fine silver gaskets (max. 300 °C).

Longer delivery periods possible depending on the size of the order!

Technical specifications: Model IV

Model IV, consists of cylinder, head and 8 hexagon head bolts and -nuts	
Inner volume	700 ml
Working volume	500 ml
Height	425 mm
Material	made of V4A high grade steel 1.4571
Working temperature	-60 to +300 °C
Working pressure	max. 100 bar
Test pressure	300 bar at +20 °C
Outer-Ø on beaker	60 mm
Inner-Ø of beaker	50 mm
Outer-Ø of lid	125 mm
Base shape	flat outside and inside
Autoclave head II	
Material	made of V4A high grade steel 1.4571
Outer-Ø	64 mm; top head opening for bursting disc 28.100 or magnet stirrer MRK 10
Three additional openings on the side of head	G ¼" for valve, reduction adapter for pressure gauge and temperature sensor or bursting disk safety device II for use with magnetic stirrer head MRK 10

Basic equipment

Type	Art. No.	Pack Qty.	€
500 ml cylinder and head	K172.1	1	1826,45
Bursting disc 28.100/bar E	2203.1	1	121,50
Fine control valve	H745.1	1	246,20
Pressure gauge 160 bar	2031.1	1	181,70
Attachment for reduction adapter	2034.1	1	209,65
Reduction adapter for pressure gauge	2033.1	1	124,70
Threaded stopper A	2052.1	1	46,80
PTFE-sealing set with fine silver gasket	K454.1	1	50,45
Spanner set IV	K455.1	1	93,90
Tablet magnet follower 40, Ø 40 mm, H 14 mm	4517.1	1	18,95
Heating mantle 50 S, with magnetic stirrer	2158.1	1	2353,20

Special accessories for gas autoclaving

Type	Art. No.	Pack Qty.	€
PTFE-high-pressure hose 1,5 m	H996.1	1	289,20
Reduction adapter for direct connection with gas bottle (please specify gas type)	2066.1	1	160,75

Special accessories for temperature measurement

Type	Art. No.	Pack Qty.	€
Temperature controller WRT 2000x	Y249.1	1	858,95
Connection cable controller/heating hood	Y250.1	1	123,65
Temperature sensor 330 mm with silver gasket	K456.1	1	332,20
Equilibrating tubing for regulator/probe, length 1.5 m	Y263.1	1	134,40

Special accessories for adding or removing gaseous or liquid samples

Type	Art. No.	Pack Qty.	€
Adapter with immersion pipe 4	K457.1	1	779,40
Fine control valve	H745.1	1	246,20
PTFE gasket 12, for head and valve	2160.1	1	4,55
Silver gasket 40, for bursting disc	2174.1	1	42,95
Spanner 55	2187.1	1	52,60

Special accessories for stirring

Type	Art. No.	Pack Qty.	€
Magnet stirrer MRK 10	2359.1	1	o. r.
Adapter for magnet stirrer	2358.1	1	321,45
Bursting disc valve II	3167.1	1	886,90
Bursting disc 8.100/bar E	2199.1	1	121,50
Silver gasket 15, for bursting disc	2173.1	1	41,90
Gasing stirrer 4	K458.1	1	o. r.

Assembly/options

Type	Art. No.	Pack Qty.	€
Connector fitting for hose	H746.1	1	24,85
Glass liner for 500 ml cylinder	2099.1	1	20,70
Tablet magnet follower 40, Ø 40 mm, H 14 mm	4517.1	1	18,95

Spare sealing gaskets

Type	Art. No.	Pack Qty.	€
PTFE-sealing set with fine silver gasket	K454.1	1	50,45
Fine silver gasket set IV	K459.1	1	213,95

Attention

Due to the shape of the screw thread, cold setting of cylinder and head is possible when screwing these on. This usually leads to them sticking when opening and the thread breaking as a result.

The conducted reaction necessitates coating the thread with a release agent such as PTFE spray (Art. No. K007.1).

Warning: Do not use PTFE screw thread tape!

Autoclaving accessories



Gaskets made of PTFE

Dimension = outer Ø in mm.

Gasket 12 - for connection to head and valve

Art. No.	Pack Qty.	€
2160.1	1	4,55

Gasket 20 - for reducing adapter/pressure gauge

Art. No.	Pack Qty.	€
2161.1	1	5,05

Gasket 42 - for autoclave cylinder/head (Model 0 and 1)

Art. No.	Pack Qty.	€
2163.1	1	5,70

Gasket 51 - for autoclave cylinder/head (Model II)

Art. No.	Pack Qty.	€
2164.1	1	10,75

Gasket 60 - for autoclave cylinder/head (Model IV)

Art. No.	Pack Qty.	€
2165.1	1	11,65



Gaskets made of fine silver

Dimension = outer Ø in mm.

Gasket 12 - for connection to head and valve

Art. No.	Pack Qty.	€
2170.1	1	45,70

Gasket 15 - for bursting disc 8.100 E

Art. No.	Pack Qty.	€
2173.1	1	41,90

Gasket 18 - for reducing adapter/pressure gauge

Art. No.	Pack Qty.	€
2172.1	1	42,95

Gasket 40 - for autoclave cylinder/head (Models 0 and I), for bursting disc holder at the top of autoclave head II/IV, and for adapter with immersion pipes 2, 3 and 4

Art. No.	Pack Qty.	€
2174.1	1	42,95

Gasket 50 - for autoclave cylinder/head (Model II)

Art. No.	Pack Qty.	€
2175.1	1	51,60

Gasket 60 - for autoclave cylinder/head (Model IV)

Art. No.	Pack Qty.	€
2176.1	1	55,90



Spanner set

Type	Sizes (no.)	Art. No.	Pack Qty.	€
Set I	14 - 17 - 19 - 22 - 27 - 41	2071.1	1	39,35
Set II	14 - 17 - 19 - 22 - 27 - 50 - 2 x 55	2078.1	1	126,85
Set IV	14 - 17 - 19 - 22 - 27 - 50 - 55	K455.1	1	93,90



Glass liners

It has been proven to be extremely worthwhile to use glass liners in autoclaves when working with very viscous or smearing substances. These special vessels are designed to cope with the pressure and the temperature strain in autoclaves.

For cylinder (ml)	Height (mm)	Outer Ø (mm)	Art. No.	Pack Qty.	€
50	104	28	H976.1	1	12,50
100	185	27	2196.1	1	13,60
200	205	38	2197.1	1	16,15
250	285	36	2192.1	1	18,10
300	285	38	2198.1	1	18,10
500	320	48	2099.1	1	20,70

Advice for working with silver gaskets

When working with silver gaskets, it is essential to tighten the screw threads very tightly to achieve the necessary seat. We therefore recommend annealing the silver gaskets at +850 °C before use - the gaskets remain softer and more pliable, even when cool, and seal more efficiently.

Autoclaving accessories



Fine control- and check valve

Made of stainless steel. For high pressure laboratory autoclaves. With 6 mm swagelock tube connection. Multi-positioning range. Max. pressure range: to max. 210 bar, temperature range: to max. +205 °C. **Delivery incl.** screw thread adapter made of high-grade steel (6 mm pipe for 1/4").

Fine control valve

Art. No.	Pack Qty.	€
H745.1	1	246,20

Optional:

Tube connector fitting

Made of stainless steel. For fine control- and check valve (output side). Suitable for tubing inner-diameter 1/4".

Art. No.	Pack Qty.	€
H746.1	1	24,85

Screw thread adapter

Made of stainless steel. (6-mm-pipe for 1/4")

Art. No.	Pack Qty.	€
P437.1	1	32,20



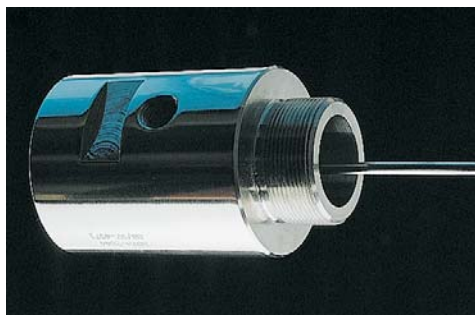
Pressure gauges

Parts that are in contact with the medium (threaded adapter, spring-pipe) are made of high grade steel 1.4301/1.4404. White face with black numbers. Spring-pipe meter technique. With security glass.

Technical specifications:

Temperature media	max. +100 °C		
Ambient temperature	-25 to +60 °C		
Threaded adapter	G 1/2", radial underneath		
Outer diameter pressure gauge	100 mm		

Measurement range	Art. No.	Pack Qty.	€
0-160 bar	2031.1	1	181,70
0-250 bar	2036.1	1	181,70



Sampling connections

With welded-in connection pipe.

For insertion or removal of gaseous or liquid samples.

- Material: V4A high grade steel 1.4571
- Working temperature: max. +300 °C
- Working pressure: max. 200 bar

Adapter with immersion rod 2 for laboratory autoclave Model II (200 ml)

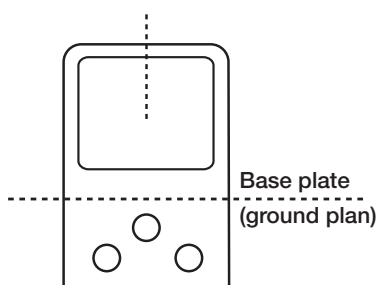
Art. No.	Pack Qty.	€
2043.1	1	779,40

Adapter with immersion rod 3 for laboratory autoclave Model II (250/300 ml)

Art. No.	Pack Qty.	€
2044.1	1	779,40

Adapter with immersion rod 4 for laboratory autoclave Model IV (500 ml)

Art. No.	Pack Qty.	€
K457.1	1	779,40



Assembly

Type	Art. No.	Pack Qty.	€
Base plate 41, ideal as holder for screwing on autoclave Model 0 and I	2072.1	1	407,45
Base plate 55, ideal as holder for screwing on autoclave Model II	2074.1	1	439,70

Autoclaving accessories



Temperature measurements

The temperature probe consists of a thermoelement with an iron-copper nickel thermopair. The thermoelement is welded in a protective tube made of high grade steel 1.4541. It collects the temperature values in the inside of the autoclave and transmits them to WRT 2000x regulator. Unit displays temperature and regulation of heating unit can be carried out.

To seal, only fine silver gaskets should be used to prevent repeated replacement, which would shorten life expectancy of autoclave.

Temperature probes Fe-Cu-Ni, with fine silver gasket, Ø 1.5 mm

Length (mm)	Art. No.	Pack Qty.	€
220	2115.1	1	332,20
280	A880.1	1	332,20
330	K456.1	1	332,20

Accessories:

Equilibrating tubing for regulator/probe, length 1.5 m	Y263.1	1	134,40
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Bursting discs

To be used **for sealing** the bursting disc of the **fine silver gaskets!** Working temperature max. +300 °C. Made of high-grade steel.

Type	Outer Ø (mm)	Inner Ø (mm)	Reaction pressure (bar)	Art. No.	Pack Qty.	€
8.100 E	14	8	100	2199.1	1	121,50
28.100 E	40	28	100	2203.1	1	121,50
28.060 E	40	28	60	8135.1	1	121,50
28.200 E	40	28	200	2204.1	1	121,50



Gas discharge

PTFE-tubing sheathed in stainless steel for connection to pressure reducer or for direct connection of high pressure tube to gas cylinder in combination with gas cylinder adapter (Art. No. 2066.1, please order separately).

Technical specifications:

Inner-Ø	4.8 mm
Outer-Ø	8 mm
Min. bursting pressure	825 bar
Operating pressure	205 bar
Operating pressure valid for working temperature	+20 to +50 °C
Temperature range	-55 to +235 °C
Min. bending radius	51 mm
Length	1.5 m
Thickness of PTFE-tube	1 mm

PTFE-tubing with NPT-inner thread 1/4", on 6 mm connecting sleeve for gas cylinder adapter (Art. No. 2066.1, please order separately).

Art. No.	Pack Qty.	€
H996.1	1	289,20

PTFE-tubing with NPT-outer thread 1/4", on 6 mm connecting sleeve

Art. No.	Pack Qty.	€
N246.1	1	246,20

Gas cylinder adapter

For **direct connection** of high pressure tube to gas cylinder (max. operating pressure 200 bar). **Please specify gas type.**

Art. No.	Pack Qty.	€
2066.1	1	160,75



Threaded stoppers

To close a connection opening G1/4" or G1/2". (e.g. adapter 2207.1)

Type	for opening	Art. No.	Pack Qty.	€
A	1/4 "	2052.1	1	46,80
C	1/2 "	2038.1	1	191,35

Autoclaving accessories



Stirrer with permanent magnetic clutch

Type MRK 10. Absolutely gas tight. Vacuum-tight.

Technical specifications:

Height	172 mm
Ø	44 mm
Maximum pressure	200 bar
Maximum temperature	300 °C
Torque	20 N · cm
Viscosity	to 1500 mPa · s
Material	V4A high grade steel 1.4435
Working temperature	max. 300 °C
Working pressure	max. 200 bar
Rpm	max. 5000 rpm

Delivery without adapter and gasing stirrers. Please order separately.

Magnet stirrer type MRK 10

Art. No.	Pack Qty.	€
2359.1	1	o.r.

Adapter M 42 - M 30

Adapter for connecting autoclave head II to magnetic stirrer

Art. No.	Pack Qty.	€
2358.1	1	321,45

Gasing stirrers

To use with stirrer MRK 10. Made of high-grade steel 1.4435 and PTFE.

Ø 25 mm. Working temperature: max. +150 °C.

Type	For autoclave cylinder (ml)	Overall length (mm)	Art. No.	Pack Qty.	€
2	200	220	3184.1	1	o.r.
3	250/300	299	3189.1	1	o.r.
4	500	380	K458.1	1	o.r.



Stirrer with magnetic fins

Tablet magnetic followers, PTFE coated.

Symmetrical fins on upper and lower side ensure proper mixing. The magnetic stirrer can be used with or without glass liner in autoclave cylinder.

für Autoklavenbecher (ml)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	22	15	3003.1	1	8,95
200/250/300	30	12	4490.1	1	10,00
500	40	14	4517.1	1	18,95



Heating mantles with magnetic stirrer

The basic principle of the heating mantle has been used in Roth autoclave heating units. For optimal heat distribution and utilization, the units are purposely made for use with autoclaves.

The base contains the whole electronic system including the magnetic stirrer motor. The motor is attached tightly the heating cylinder. Stirring speed in the closed autoclave is guaranteed adjustable without disturbing the autoclave. Heating and stirring can be regulated separately. Power for the heating unit is supplied by a single extension cord. Even when using a separate unit e.g. temperature regulator, stirring and heating remain independent of each other.

Technical specifications:

Heating mantle	
Voltage	220 V ±10 %
Frequency	50/60 Hz
Output, for types 10 S / 20 S / 30 S / 50 S	200 W / 300 W / 400 W / 600 W
Extension length	1.3 m
Mains plug	Shockproof plug
Regulator	
Temperature range	+20 to +300 °C, variably adjustable
On/off display	LED red, type/pulse pack control (always switches at zero, therefore does not produce radio interfaces)
Accuracy of regulator	1 %
Temperature sensor	thermoelement Fe-Cu-Ni
Regulation	internal via heating unit external via temperature regulator
Stirrer	
Rpm range	approx. 0 to 1100 rpm, variably adjustable
Sensor type	thermoelement Fe-Cu-Ni

Type	Art. No.	Pack Qty.	€
10 S	2088.1	1	2353,20
20 S	0042.1	1	2353,20
30 S	2092.1	1	2353,20
50 S	2158.1	1	2353,20



Temperature controller WRT 2000x

For applications in the laboratory, technical sciences, research and production.

- Easily accessible operator's controls
- Key pad
- Functions: two/three point control; continuous PID-control; step-by-step control
- Two displays for actual and set value
- Additional functions: Timer function for 24 h (process time); ramp function in K/min; actuator function from 0 to 99 % (regulation ratio)

Input (selection)

- Input 1 (controller input): Thermocouple sensor see below, or configurable (Pt 100, thermoelement)
- 2 configurable logic inputs for change-over of set point, start/stop function

Output (selection)

- Control output (connection with shockproof plug)
- Analogue output (Resolution 10 bit): configurable output size and function

Technical specifications:

Measuring range	Pt 100 Type K Type J Type L Type S	-100 to +600 °C 0 to +1200 °C 0 to +850 °C 0 to +850 °C 0 to +1700 °C
Measuring cycle		500 ms
Control accuracy		<0.15 % of measured value
Resolution		0.1 °C
Rupturing capacity		2300 W
Enclosure system of protection		IP 30
Dimensions (W x H x D)		205 x 78 x 188 mm
Weight		1300 g
Safe ambient temperature		0 to +50 °C
Climatic stress		max. 75 % rh
Working voltage		230 V, 50/60 Hz
Length of lead		1300 mm

Temperature controller WRT 2000x:

Delivery without temperature sensor and connection cable (please order separately).

Art. No.	Pack Qty.	€
Y249.1	1	858,95

Connection cable controller/heating hood: length 1500 mm.

Art. No.	Pack Qty.	€
Y250.1	1	123,65

Temperature sensor Fe-CuNi

With fine silver sealing.

Delivery without compensating circuit (please order separately).

Type	Length (mm)	Art. No.	Pack Qty.	€
For 200 ml beaker (Autoclave Model II)	220	2115.1	1	332,20
For 250/300 ml beaker (Autoclave Model II)	280	A880.1	1	332,20
For 500 ml beaker (Autoclave Model IV)	330	K456.1	1	332,20

Accessories:

Equilibrating tubing for regulator/probe, length 1.5 m	Y263.1	1	134,40
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Benchtop steam sterilisers, CertoClav EL-series

By CertoClav. With aluminium chamber. For steam heating of substances and use in research and development.

Applications: preparation of nutrient media, as well as sterilisation of waste, utensils, bottles and instruments.

Equipment:

- Lid with bayonet lock (eliminates laborious loosening and tightening of screws)
- Quadruple pressure safety: safety lock to prevent opening under pressure, antilock safety valve, pressure relief valve and pressure relief vent
- Pressure regulation by control valve
- Electrical thermostat
- Alternate versions with different temperature / pressure levels (125/140 °C or 115/121 °C) are available

Technical specifications:

Model	EL 12L	EL 18L
Capacity (l)	12	18
Test pressure (bar)	4.1	
Ventilation method	Flow method	
Inner dimensions (mm)	H 230, Ø 240	H 360, Ø 240
Outer dimensions (mm)	H 535, Ø 250	H 665, Ø 250
Diagonal	350	465
Wire basket: included / max. number	1/1 pce.	1/2 pce.
Thermometer measurement range (°C)	0 to 160 / 2-increment scale	
Pressure gauge measurement range (bar)	0 to 4 / 0.1-increment scale	
Steam outlet cock (mm)	Ø 10	
Power consumption (W)	1900	
Weight (kg)	7	9
Power supply	230 V, 50/60 Hz	

Delivery incl. precision pressure gauge with maximum trailing pointer, precision thermometer, wire basket and aluminium instrument plate (Ø 225 mm, H 40 mm) with three feet as a base plate over the water.

Model	Capacity (l)	Temperature/pressure level	Art. No.	Pack Qty.	€
EL 12L	12	125/140 °C at 1.4/2.7 bar	TL61.1	1	2082,30
EL 12L	12	115/121 °C at 0.7/1.2 bar	TL62.1	1	2082,30
EL 18L	18	125/140 °C at 1.4/2.7 bar	TL63.1	1	2462,85
EL 18L	18	115/121 °C at 0.7/1.2 bar	TL64.1	1	2462,85

Accessories for benchtop steam sterilisers CertoClav EL-series

By CertoClav.

Additional wire basket for CertoClav EL 18L

For easy filling with sterilizable material. Inside Ø 225 mm, H 170 mm. Mesh width: 1/4 inch. 2nd wire basket for model EL 18L or spare wire basket for model EL 12L.

Art. No.	Pack Qty.	€
TL65.1	1	139,75

Seal service kit for EL-series

With cover and valve seal, including seal for steam release cock, pressure gauge and steam release valve.

Art. No.	Pack Qty.	€
TL66.1	1	42,90

Steam sterilisers



Benchtop autoclaves

CertoClav Classic and MultiControl 2

By CertoClav. With stainless steel chamber. For culture media processing, as well as sterilisation of equipment and waste. No water connection required. Complementary to the large autoclaves. Space-saving positioning on the laboratory bench.

- Quadruple pressure safety: safety lock to prevent opening under pressure, antilock safety valve, pressure relief valve and pressure relief vent
- CertoLock for locking the lid with a single movement of the hand

CertoClav Classic:

Controlled by precision valves and thermostat. With timer. Models available with sterilisation temperature of 125/140 °C or 115/121 °C.

CertoClav MultiControl 2:

With freely programmable control system (room temperature to 140 °C). Standard sterilisation programs preinstalled. USB port for connectivity to PC inc. basic software (to display process data).

Technical specifications:

Model	Classic	MultiControl 2
User interface	Manual	LCD display
USB port	-	yes
Timer	analog (0 to 60 min or continuous operation)	digital (1 min to 14 d)
Process logging	-	PC software
Capacity (l)	18	
Test pressure (bar)	4.1	
Ventilation method	Flow method	
Inner dimensions (mm)	H 300, Ø 260	
Outer dimensions (mm)	H 550, Ø 270	
Diagonal (mm)	424	
Max. wire basket capacity	1 wire basket (please order separately)	
Thermometer measurement range (°C)	0 to 160 / 2-increment scale	Room temp. to 140 (via LCD display)
Pressure gauge measurement range (bar)	0 to 4 / 0.1-increment scale	
Steam outlet cock (mm)	Ø 10	
Power consumption (W)	1300	
Weight (kg)	13	
Power supply	230 V, 50/60 Hz	

Delivery incl.

Classic model: steam outlet cock, precision thermometer and pressure gauge.

MultiControl 2 model: electronic control unit, precision pressure gauge, steam outlet cock and PC software.

Model	Temperature/pressure level	Art. No.	Pack Qty.	€
Classic	125/140 °C at 1.4/2.7 bar	CYH3.1 *	1	1816,75
Classic	115/121 °C at 0.7/1.2 bar	CYH4.1 *	1	1816,75
MultiControl 2	RT to 140 °C to max. 2.7 bar	CYH5.1 *	1	2322,00

* Delivery times may apply to these products. Please ask our sales staff.

Accessories for

CertoClav Classic and MultiControl 2

By CertoClav.

Wire basket

For loading items to be autoclaved. Inside Ø 250 mm, H 230 mm. Mesh size: ¼ inch.

Art. No.	Pack Qty.	€
CYH6.1 *	1	139,75

Seal service set

With cover and safety valve seal as well as seal for steam outlet cock, pressure gauge, steam outlet valve and control valve.

Art. No.	Pack Qty.	€
CYH7.1 *	1	53,75

* Delivery times may apply to these products. Please ask our sales staff.

► Sterile indicator strips, see p. 245

Pressure digestion vessels



For disintegrations in the Microwave

The energy of microwaves is ideal for disintegrating small sample volumes. Microwaves only interact with the sample material not with the containers. Samples can be heated to boiling point and higher within seconds.

Rotilabo®-digestion vessels are made of isostatically pressed pure TFM. TFM is a modified PTFE made by Hoechst and contains thermoplastic fluorocarbon resins. Therefore an even, pore-free surface can be ensured. Residues from previous samples can not contaminate the measurements.

① Rotilabo®-hydrolysis and digestion vessels

Made of isostatic pressed pure TFM. For samples up to 0.5 g. Vessels are form-stable under pressure (up to 25 bar) and temperature stable (max. 160 °C). Sealing membrane prevents loss of evaporating sample, rupture membrane provides additional safety against pressures that exceed the limit. Collecting vessels and a hose are optionally available for protection of the microwave. They can be used to divert and collect gases and fluids in case the sealing and rupture membrane burst. Please order hose and collecting vessel separately.

Delivery incl. 10 sealing membranes made of PFA and 10 rupture membranes made of PTFE.

Volume (ml)	Inner Ø (mm)	Inner height (mm)	Max. pressure (bar)	Max. temp. (°C)	Art. No.	Pack Qty.	€
5	15	32	25	+160	E138.1	1	327,90
10	16	52	25	+160	E139.1	1	547,20
20	22	60	20	+150	E140.1	1	428,95
50	33	62	20	+150	E141.1	1	607,40
100	35	110	15	+140	E142.1	1	532,15

② Rotilabo®-digestion vessels with inserts

With inserts (Inliner) made of TFM. The same can be said for these containers as for the previous hydrolysis and digestion vessels. The easily changed liners are used for precise weighing of samples, because the whole vessel is usually too heavy for most precision balances. It is also possible to analyse several samples with the same vessel. Collecting vessels and a hose are optionally available to protect the microwave. They can be used to divert and collect gases and fluids in case the sealing and rupture membrane burst. Please order hose and collecting vessel separately.

Delivery incl. 10 sealing membranes made of PFA and 10 rupture membranes made of PTFE.

Volume (ml)	Art. No.	Pack Qty.	€
10	E143.1	1	671,90
20	E144.1	1	676,20
50	E145.1	1	639,65

Accessories for Rotilabo®-digestion vessels

Separate Rotilabo®-inserts (Inliner)

For vials (ml)	Weight (g)	Art. No.	Pack Qty.	€
10	approx. 48	E146.1	1	70,95
20	approx. 55	E147.1	1	77,20
50	approx. 112	E148.1	1	104,30

Sealing and rupture membranes for Rotilabo®-digestion vessels

For vials (ml)	Art. No.	Pack Qty.	€
5	E149.1	10	27,85
10/20	E150.1	10	35,50
50/100	E151.1	10	44,00



Collecting vessels

Made of PFA. Suitable for Rotilabo® digestion vessels. Collecting vessels can be used to collect gases and fluids for protection of the microwave (if the sealing and rupture membrane bursts). Transparent and pore-free. With two connections in the screw cap suitable for hose outside Ø 6.35 mm (1/4"). **Delivery without FEP hose** (please order separately).

Volume (ml)	Overall height (mm)	Outer Ø (mm)	Inner Ø (mm)	Art. No.	Pack Qty.	€
120	74	66	60	LT39.1	1	160,20
240	116	66	60	LT40.1	1	192,45

FEP-tubes for collecting and digestion vessels

Temperature range -270 to +205 °C. Flexible, pore-free, gasproof. Transparent. Autoclavable.

Inner Ø (mm)	Outer Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty. (m)	€
4,35 (1 1/4")	6,35 (1/4")	1,0	Y506.1	5	45,70



Refrigerators/Freezers



Household Cooling and refrigerating boxes

By Severin.

① Household cooling box

- Energy efficiency class (year): A+ (107 kWh)
- Climate class N-ST
- Refrigeration temperature can be regulated from +3 to +7 °C
- Temperature setting range:
1 (= lowest refrigerating capacity) to 7 (= highest refrigerating capacity)
- Height adjustable feet
- Manual defrosting

② Household refrigerating box

- Energy efficiency class (year): A+ (146 kWh)
- Climate class N-ST
- Refrigeration temperature can be regulated from -18 to -24 °C
- Temperature range:
1 (= lowest refrigerating capacity) to 5 (= highest refrigerating capacity)
- Height adjustable feet
- Manual defrosting

Technical specifications:

Type	Household cooling box	Household refrigerating box
Refrigerating capacity (l)	49	36
Deep-freeze compartment (l)	5* (for temperatures from approx. 0 to -5° C); non-regulable	-
Trays	1 grid tray	1 grid tray
Outer dimensions (mm)		
Width	440	440
Depth	480	480
Height	515	515
Inner dimensions (mm)		
Width top / bottom	355 / 355	305 / 305
Depth top / bottom	320 / 170	360 / 205
Height top / bottom	235 / 175	190 / 180
Weight (kg)	18	20

*Dimensions: W 180 x D 270 x H 100 mm

Type	Art. No.	Pack Qty.	€
Household Cooling box	KP21.1	1	192,45
Household Ice box	KP22.1	1	220,40



Household table-height refrigerators

By Liebherr.

General specifications for both models

- Climate class SN-ST
- Cooling temperature is adjustable from 0 to +9 °C (mechanical control)
- Selectable temperature ranges:
1 (= lowest cooling capacity) to 7 (= highest cooling capacity)
- Interior light
- Integrable and suitable for rack mounting through front-side ventilation (air exhaust through slits in the worktop) and removable worktop
- Height-adjustable front feet
- 1 variable refrigeration circuit

Model T 1700-20

- Energy efficiency class (year/24 h): A+ (119/0.326 kWh)
- Automatic defrost system

Model T 1504-20

- Energy efficiency class (year/24 h): A+ (183/0.499 kWh)
- With additional freezer compartment (average temperature approx. -18 °C)
- Automatic defrost refrigerator compartment, manual defrost freezer compartment

Technical specifications:

Type	① T 1700-20	② T 1504-20
Cooling capacity (l)	151	117
Freezer compartment (l)	-	17
Number of glass shelves	4 (3 adjustable)	2 (1 adjustable)
Outer dimensions (mm):		
Width	554	554
Depth	623	623
Height	850	850
Weight (kg)	37	35,3
Power supply	220-240 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
T 1700-20	CHH5.1 *	1	493,45
T 1504-20	CHH6.1 *	1	493,45

* Delivery times may apply to these products. Please consult our sales department.



FK-series refrigerators

By Liebherr.

General specifications of all models

- Cooling temperature is adjustable from +2 to +10 °C.
- With static cooling
- Automatic defrost system
- Mechanical control unit
- Lockable door

Model FKU 1800-20

With additional digital temperature display on outside of door.

Technical specifications:

Type	FKU 1800-20	FK 2640-20	FK 3640-20	FK 4140-20	FK 5440-20
Cooling capacity (l)	160	226	312	352	526
Number of grids (adjustable)	3	3	4	5	4
Power output (W)	100	140	150	150	150
Outer dimensions (mm):					
Width	600	600	600	600	750
Depth	600	610	610	610	730
Height	850	1250	1640	1800	1640
Inner dimensions (mm):					
Width	513	470	470	470	600
Depth	441	440	440	440	560
Height	702	1062	1452	1612	1452
Weight (kg)	37	48	59	69	74
Power supply	220-240 V, 50 Hz				

Delivery incl. height-adjustable grids.

Type	Art. No.	Pack Qty.	€
FKU 1800-20	NP82.1 *	1	596,65
FK 2640-20	NP83.1 *	1	686,95
FK 3640-20	NP84.1 *	1	772,95
FK 4140-20	NP85.1 *	1	837,45
FK 5440-20	NP86.1 *	1	1009,45

* These products may be subject to delivery times. Please consult our sales department.



FKUv-series refrigerators

By Liebherr.

General specifications of both models

- Cooling temperature is adjustable from +1 to +15 °C
- With dynamic cooling system (switchable fan, for even temperature distribution)
- Digital temperature display (resolution 1 °C)
- Temperature constancy ±4 K
- Outer design: sheet steel, white, powder coated
- Door opening alarm - if the door is opened for longer than 60 s (can be deactivated)
- Automatic thaw system

FKUv 1610-22

With insulating door made of powder-coated sheet steel.

FKUv 1613-22

With glass door. Additional LED-ceiling light can be switched separately.

Technical specifications:

Type	FKUv 1610-22	FKUv1613-22
Cooling capacity (l)	130	
Number of grills	3 (adjustable)	
Outer dimensions (W x D x H) mm	600 x 611 x 830	
Inner dimensions (W x D x H) mm	440 x 435 x 670	
Weight (kg)	37	43
Power supply	220-240 V, 50 Hz	

Type	Type	Art. No.	Pack Qty.	€
FKUv 1610-22	With insulating door	YP21.1 *	1	751,45
FKUv 1613-22	With glass door	YP22.1 *	1	880,45

* These products may be subject to delivery times. Please consult our sales department.

Refrigerators/Freezers



ES-series laboratory refrigerators and deep freezers

By Thermo.

General specifications of all models

• Cooling temperature adjustable from:

Refrigerators: 4 to 6 °C; 5 °C is preset
Freezers: -19 to -21 °C, -20 °C is preset

• Digital temperature display (resolution 1 °C)

- Alarm function for high and low temperature limits (alarm limits have fixed settings; 1 and 11 °C or -15 and -30 °C)
- Standard entries (Ø 16 mm), e.g. for external temperature sensors
- With lockable door

Technical specifications:

Type	151R-AEV-TS	288R-AEV-TS	151F-AEV-TS	232F-AEV-TS
Cooling capacity (l)	151	288	151	232
Alarm	Yes			
Variable cooling temperatures (°C)	4 to 6		-19 to -21	
Max. temperature range (°C)	1 to 10		-18 to -25	
Number of loose shelves	3	5	-	2
Number of baskets	1		3	
Outer dimensions (mm):				
Width	595	595	595	595
Depth	595	634	595	634
Height	845	1570	845	1570
Inner dimensions (mm):				
Width	500	480	500	437
Depth	450	445	450	430
Height	705	1382	705	1300
Thawing	Automatic		Manual	
Weight (kg)	65	90	65	90
Power supply	230 V, 50 Hz			

Type	Art. No.	Pack Qty.	€
151R-AEV-TS	NN39.1 *	1	751,00
288R-AEV-TS	NN40.1 *	1	1067,00
151F-AEV-TS	NN41.1 *	1	853,00
232F-AEV-TS	NN42.1 *	1	1170,00

* These products may be subject to delivery times. Please consult our sales department.



Household freezers G 1213-20 and GP 2033-20

By Liebherr.

- LC display with graphical display of set temperature
- Variable cooling temperatures of -15, -18, -21, -25 and -32 °C
- Drawers with transparent front
- Manual defrost
- Height-adjustable front feet
- 1 variable refrigeration circuit

Model G 1213-20

- Energy efficiency class (year/24 h): A+ (199/0.543 kWh)
- Climate class SN-T

Model GP 2033-20

- Energy efficiency class (year/24 h): A++ (175/0.479 kWh)
- Climate class SN-T

Technical specifications:

Model	G 1213-20	GP 2033-20
Cooling capacity (l)	98	156
Drawers in freezer compartment	3	5
Outer dimensions W x D x H (mm)	553 x 624 x 851	600 x 632 x 1250
Dimensions of upper drawers W x D x H (mm)	375 x 355 x 180	413 x 400 x 160
Dimensions of lower drawer W x D x H (mm)	375 x 184 x 170	413 x 245 x 175
Weight (kg)	41	56
Power supply	220-240 V, 50 Hz	

Delivery incl. drawers.

Type	Art. No.	Pack Qty.	€
G 1213-20	CHH4.1 *	1	493,45
GP 2030-20	CTY4.1 *	1	740,70

* Delivery times may apply to these products. Please consult our sales department.



Freezers GGU 1550-21 and GGv 5860-41

By Liebherr.

General specifications of all models

- Housing made of stainless steel
- Power fail indicator
- Door opening alarm
- With lockable door

GGU 1550-21

- **With static cooling**
- Digital temperature display (resolution 1 °C)
- Temperature constancy ± 5 °C
- Manual thawing
- 4 shelves/evaporator plates

GGv 5860-41

- **With convection cooling**
- NoFrost technology - products are frozen with cooled recirculated air and moisture is discharged into the open
- Digital temperature display (resolution 1 °C)
- Temperature constancy ± 2 °C
- Automatic defrost system
- Height of adjustable feet: 150 to 180 mm

Technical specifications:

Type	GGU 1550-21	GGv 5860-41
Cooling capacity (l)	133	490
Cooling temperature (°C)	-9 to -26	-14 to -28
Number of shelves	4 wire baskets, removable	5 height-adjustable grid shelves with stop and pull-out stop, 1 bottom grid
Compartment height (mm)	3 x 150 / 1 x 170	-
Outer dimensions (mm):		
Width	600	750
Depth	615	750
Height	830	2064
Inner dimensions (mm):		
Width	474	610
Depth	443	500
Height	676	1395
Thawing method	Manual	Automatic
Weight (kg)	41	121
Power supply	220-240 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
GGU 1550-21	NH36.1 *	1	848,20
GGv 5860-41	NH37.1 *	1	2568,20

* These products may be subject to delivery times. Please consult our sales department.



Laboratory freezer Froster-Labo 330

By Kirsch.

- Freezing temperature can be adjusted from -5 to -30 °C
- Digital temperature display (Resolution 1 °C)
- Recirculates air cooling for consistent temperature control (switches off when door is opened)
- The freezing cycle is reversed automatically and after a limited time for rapid defrosting
- Drip water evaporation occurs in refrigerating machine room
- Min/Max-temperature storage
- Optic and acoustic limit value alarm
- Outer casing made of galvanized sheet steel, powder coated
- Adjustable feet compensate for uneven surfaces
- With lockable door

Technical specifications:

Refrigerating capacity (l)	300
Alarm	yes
Grids	4
Power (W)	500
Outer dimensions (mm)	
Width	740
Depth	770
Height	1490
Inner dimensions (mm)	
Width	595
Depth	530
Height	950
Weight (kg)	125
Current	220-240 V, 50/60 Hz

Art. No.	Pack Qty.	€
KL29.1 *	1	4524,70

* Please check with our Sales Department for delivery period of this product.

Fridge-freezer



Household fridge-freezer CUsl 2811

By Liebherr.

- Energy efficiency class (year/24 h): A++ (191/0.523 kWh)
- Climate class SN-ST
- 1 variable refrigeration circuit :
Cooling temperature is adjustable from 0 to +9 °C (mechanical control)
Freezer compartment: average temperature -18 °C (non-adjustable)
- Selectable temperature ranges:
1 (= lowest cooling capacity) to 7 (highest cooling capacity)
- Refrigerator compartment with LED interior light, freezer compartment without light
- Height-adjustable front feet

Technical specifications:

Type	Fridge unit	Freezer unit
Cooling capacity (l)	210	53
Number of shelves	4 glass shelves (3 adjustable)	2 drawers with transparent front
Outer dimensions W x D x H (mm)	550 x 629 x 1612 mm	
Thawing method	Automatic	Manual
Weight (kg)	55	
Power supply	220-240 V, 50 Hz	

Delivery incl. glass shelves and 2 drawers.

Art. No.	Pack Qty.	€
CTY5.1 *	1	751,45

* Delivery times may apply to these products. Please consult our sales department.



Laboratory fridge-freezer 263C-AEV-TS

By Thermo.

- **Cooling temperature adjustable from:**
Refrigerator: 4 to 6 °C; 5 °C is preset
Freezer: -20 °C (non-adjustable)
- **Digital temperature display (resolution 1 °C)**
- Alarm function for high and low temperature limits (alarm limits have fixed settings; 1 and 11 °C or -15 and -30 °C)
- Standard entries (Ø 16 mm), e.g. for external temperature sensors
- With lockable door

Technical specifications:

Type	Fridge unit	Freezer unit
Cooling capacity (l)	159	109
Alarm	Yes	
Variable cooling temperature (°C)	4 to 6	-20 (non-adjustable)
Max. temperature range (°C)	1 to 10	-18 to -25
Number of loose shelves	3	1
Number of baskets	2 basket halves	2
Outer dimensions (mm):		
Width	540	
Depth	600	
Height	1680	
Inner dimensions (mm):		
Width	457	408
Depth	450	415
Height	725	670
Thawing	Automatic	Manual
Weight (kg)	95	
Power supply	230 V, 50 Hz	

Art. No.	Pack Qty.	€
NN38.1 *	1	1491,00

* These products may be subject to delivery times. Please consult our sales department.

Freezer chests



LCv 4010 laboratory fridge-freezer combination

By Liebherr.

- Adjustable cooling temperature (2 separately adjustable refrigeration circuits)
 - Fridge unit: +3 to +16 °C
 - Freezer unit: -9 to -30 °C
- Fridge unit with recirculated-air ventilation system, freezer unit with static cooling system
- Digital temperature display
 - Resolution, fridge unit: 0.1 °C
 - Resolution, freezer unit: 0.1 °C (to -19.9 °C) or 1 °C (from -20 °C onwards)
- Temperature constancy
 - Fridge unit: ±2.0 K
 - Freezer unit: ±3.5 K
- With lockable door
- Memory for Min/Max temperatures
- Memory function for storing the last three temperature alarms and power failures with date/time/duration of alarm
- Audible and visual limit alarms
- Audible and visual door opening alarms
- Feedthrough for external temperature sensor (Ø 10 mm)

Technical specifications:

	Fridge unit	Freezer unit
Cooling capacity (l)	240	105
Freezing temperature (°C)	+3 to +16	-9 to -30
Number of surfaces	4 grates, plastic coated	3 drawers
Outer dimensions (mm):		
Width	600	
Depth	615	
Height	2000	
Inner dimensions (mm):		
Width	440	431
Depth	435	435
Height	1105	597
Thawing method	Automatic	Manual
Weight (kg)	91	
Power supply	220-240 V, 50/60 Hz	

Art. No.	Pack Qty.	€
TP33.1 *	1	2396,20

* Longer delivery times possible. Please check with our Sales Department.

LCexv 4010 fridge-freezer combination explosion protected

By Liebherr.

Same as model LCv 4010, but with explosion protected interior in compliance with the safety requirements of EU Directive 94/9/EC (ATEX 95) for the storage of explosive and highly flammable substances in enclosed containers.

Delivery incl. 4 glass shelves for the cooling unit (instead of plastic-coated racks).

Art. No.	Pack Qty.	€
AET2.1 *	1	2449,95

* Longer delivery times possible. Please check with our Sales Department.



Laboratory freezer chests

By Liebherr.

- Temperature adjustment range from -10 to -45 °C
- Digital temperature display
- Resolution: 0.1 °C (to -19.9 °C) or 1 °C (from -20 °C onwards)
- Temperature constancy ±2.5 K
- With static cooling
- Inner shell material: aluminium, white coated
- Door/lid material: steel
- Integrated interior light in chest lid
- Memory for Min/Max temperatures
- Memory function for storing last three temperature alarms and power failures with date/time/duration of alarm
- Audible and visual limit alarms
- Audible and visual lid opening alarms
- Feedthrough for external temperature sensor (Ø 10 mm)

Technical specifications:

Type	LGT 2325	LGT 3725	LGT 4725
Cooling capacity (l)	200	342	431
Outer dimensions (mm):			
Width	1132	1373	1648
Depth	760	808	808
Height	919	919	919
Inner dimensions (mm):			
Width	889	1170	1445
Depth	410	500	500
Height	630	650	650
Capacity for cryo racks (please order cryo racks separately)	8 pce.	18 pce.	24 pce.
Thawing method	Manual		
Lock	Yes		
Weight (kg)	66	84	96
Power supply	220-240 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
LGT 2325	TP35.1 *	1	1740,45
LGT 3725	TP36.1 *	1	1847,95
LGT 4725	TP37.1 *	1	2019,95

* Longer delivery times possible. Please check with our Sales Department.

Accessories:

By Liebherr.

Cryo racks for deep freezer chests

For 11 boxes with max. height 50-53 mm.

Rack dimensions: L 140 x W 140 x H 604 mm.

Art. No.	Pack Qty.	€
LH47.1	1	89,15

Refrigerators/Freezers, explosion-proof



TCS-series thermostat cabinets

By Aqualytic. For continuous temperature control in different applications, e.g. microbiological research, BSB requirements etc.

- Temperature range +2 to +40 °C, infinitely adjustable in 0.1 °C increments
- Illuminated LED temperature display for actual/nominal values
- Temperature constancy ± 1.0 °C
- With internal sockets for devices which require a power supply, e.g. magnetic stirrer
- Built-in cooling and heating units
- Lockable door
- With height-adjustable grids

Technical specifications:

Type	TC 135 S / TC 140 G	TC 175 S	TC 255 S / TC 256 G	TC 445 S
Cooling capacity (l)	135/140	175	255/255	445
Inserts:				
Grids	3	3	4	4
Bottom grid	1	1	1	1
Outer dimensions (mm):				
Width	600 (600*)	600	600	750
Depth	600 (600*)	610	610	730
Height	850 (819*)	1250	1640	1640
Inner dimensions (mm):				
Width	513	470	470	600
Depth	441	440	440	560
Height	702	1062	1452	1452
Sockets in usable space (pc.)	4	5	7	9
Weight (kg)	39 / 50	51	61 / 77	78.5
Power supply	220-240 V, 50 Hz			

*Outer dimensions excluding worktop.

With standard door

Type	Art. No.	Pack Qty.	€
TC 135 S	AKX5.1 *	1	1654,45
TC 175 S	AKX6.1 *	1	2095,20
TC 255 S	AKX7.1 *	1	2267,20
TC 445 S	AKX8.1 *	1	2784,25

With glass door, double insulating glass with ABS frame

Type	Art. No.	Pack Qty.	€
TC 140 G	AKX9.1 *	1	1881,25
TC 256 G	AKY0.1 *	1	2417,70

* Delivery times may apply to this product. Please ask our sales staff. Prices include shipping within Germany.



Explosion-proof laboratory fridges

Explosion-proof in accordance with the guidelines on "Working Safely in Laboratories BG-I 850-0". Enclosed spaces in which hazardous, explosive atmospheres can develop, e.g. rooms where flammable liquids are stored, must be explosion-protected.

- Cooling temperature is infinitely variable from +1 to +15 °C
- Selectable temperature ranges:
1 (= lowest cooling capacity) to 5 (= highest cooling capacity)
- Mechanical control unit
- Digital temperature display (resolution 1 °C)
- Sheet steel housing with impact resistant powder coating
- With lockable door and height-adjustable glass base
- Dynamic cooling system (with forced air ventilation)
- Models EX 220, EX 300 and EX 490 have a fan stop function which switches off the fan when the door is opened
- Automatic condensation drainage into inner catch tank

Technical specifications:

Type	EX 160	EX 220	EX 300	EX 490
Cooling capacity (l)	160	220	300	490
Number of glass shelves	3	4	5	5
Outer dimensions (mm):				
Width	600	600	600	750
Depth	600	610	610	730
Height	860	1250	1640	1640
Inner dimensions (mm):				
Width	513	470	470	600
Depth	441	440	440	560
Height	702	1062	1452	1452
Weight (kg)	40	53	64	84
Power supply	220-240 V, 50 Hz			

Delivery incl. height-adjustable glass shelves.

Type	Art. No.	Pack Qty.	€
EX 160	AKY7.1 *	1	987,95
EX 220	AKY8.1 *	1	1052,45
EX 300	AKY9.1 *	1	1256,70
EX 490	ALA0.1 *	1	1413,65

* Please check with our Sales Department for delivery period of these products. Prices include shipping within Germany.



Refrigerators Mediline, explosion-proof models LKUexv 1610 and LKexv 3910

By Liebherr.

With explosion-proof interior acc. to. EU Guideline 94/9/EG (ATEX 95).

General specifications for both models

- Refrigeration temperature adjustable from +3 to +8 °C
- With hot-air ventilation
- Digital temperature display (Resolution 0.1 °C)
- Temperature constancy ± 2.0 K
- Memory for min/max temperatures
- Memory function for last three temperature alarms and power cuts with date/time/duration of alarm
- With lockable door
- Optic and acoustic limit value alarm
- Optic and acoustic open door alarm
- Automatic defrosting

Technical specifications:

Model	LKUexv 1610	LKexv 3910
Cooling volume (l)	130	344
Alarm	Yes	Yes
Number of glass shelves	3	5
Outer dimensions (mm):		
Width	600	600
Depth	615	615
Height	820	1840
Inner dimensions (mm):		
Width	455	455
Depth	435	435
Height	669	1650
Weight (kg)	42	70

Type	Art. No.	Pack Qty.	€
LKUexv 1610	LL34.1 *	1	1417,95
LKexv 3910	LL33.1 *	1	1933,95

* Please check with our Sales Department for delivery period of these products.
Prices include transport costs within Germany.



Refrigerators Mediline, explosion-proof models LGUex 1500 and LGex 3410

By Liebherr.

With explosion-proof interior acc. to. EU Guideline 94/9/EG (ATEX 95).

General specifications for both models

- Static cooling
- Digital temperature display
Resolution 0.1 °C (to -19.9 °C) resp. 1 °C (from -20 °C)
- Temperature constancy ± 2 K
- Memory for min/max temperatures
- Memory function saves the last three temperature alarms and power cuts with date/time/duration of alarm
- With lockable door
- Optic and acoustic limit value alarm
- Optic and acoustic open door alarm
- Manual defrosting

LGUex 1500

Cooling temperature adjustable from -9 to -26 °C

LGex 3410

Cooling temperature adjustable from -9 to -30 °C

Technical specifications:

Model	LGUex 1500	LGex 3410
Cooling capacity (l)	129	284
Alarm	yes	yes
Drawers	3	8
Basket	1	-
Compartment height (mm)	149	185
Outer dimensions (mm):		
Width	600	600
Depth	615	615
Height	820	1840
Inner dimensions (mm):		
Width	454	420
Depth	450	400
Height	663	1587
Weight (kg)	46	89

Type	Art. No.	Pack Qty.	€
LGUex 1500	LL36.1 *	1	1471,70
LGex 3410	LL35.1 *	1	2019,95

* Please check with our Sales Department for delivery period of these products.

**Nur Innenraum frei von
Zündquellen**

Flake ice maker



Laboratory freezers, Froster-Labex series, explosion-proof

By Kirsch. Interior explosion-proof, in compliance EU guideline 94/9/EG (ATEX 95) and in comp. with laboratory guidelines BGR 120, nr. 3.8.

Model Froster-Labex-70

- Cooling temperature from -15 to -22 °C
- Temperature selection range: 1 (= lowest cooling capacity) to 5 (= highest cooling capacity)
- With analogue actual value thermometer on inside of door
- Outer cabinet made of galvanized sheet steel, powder-coated
- Manual defrosting

Model Froster-Labex-96

- Cooling temperature adjustable from -5 to -25 °C
- Digital temperature display (Resolution 1 °C)
- Min/Max temperature storage
- Optical and acoustic limiting value alarm
- Outer cabinet made of galvanized sheet steel, powder-coated
- With condense water tray for manual emptying of inner condensate

Technical specifications:

Model	Froster-Labex-70	Froster-Labex-96
Cooling capacity (l)	70	95
Alarm	No	Yes
Output (W)	100	160
Grids	2	2
Gully grating	1	-
Drawers	1	-
Outer dimensions (mm)		
Width	480	540
Depth	510	540
Height	740	850
Inner dimensions (mm)		
Width	350	440 ²⁾
Depth	410 ¹⁾	420 ³⁾
Height	550	470
Weight	34 kg	42 kg
Mains supply	220-240 V, 50/60 Hz	

1) Usable depth, top 90 mm, bottom 200 mm less

2) Usable width 20 mm less

3) Usable depth 50 mm less

Type	Art. No.	Pack Qty.	€
Froster-Labex-70	KL27.1 *	1	2136,05
Froster-Labex-96	KL28.1 *	1	3030,45

* Please check with our Sales Department for delivery period of this product.



Cone ice makers SCOTSMAN® B-series

For making solid and crystal clear cone ice.

Applications: laboratories and industry.

- Stainless steel version, air cooled
- Built-in reservoir
- Insulated removal flap for reduced condensation
- Ice cone size: approx. H 30.5 x Ø 34 mm (20 g)
- Suitable for use with drinking water and demineralised water

Technical specifications:

Type	B 2008	B 2615
Max. output in 24 h (kg)	20	26
Reservoir capacity (kg)	8	15
Dimensions (W x D x H) mm	390 x 515 x 640	467 x 570 x 690
Operating limits: Room temperature Water temperature Water pressure	min. 10 °C / max. 43 °C min. 5 °C / max. 38 °C min. 0.8 bar / max. 5 bar	
Weight (kg)	31	34
Power supply	230 V, 50 Hz	

Delivery incl. 1 ice scoop, connecting hose 3/4" (length 1.5 m), 1 discharge hose (Ø 20 mm, length 1.5 m).

Type	Art. No.	Pack Qty.	€
B 2008	NH38.1 *	1	1069,65
B 2615	NH39.1 *	1	1306,15

* These products may be subject to delivery times. Please consult our sales department.



Ice crusher

Chrome housing. Volume of ice container approx. 900 ml. With hand crank. Grinder made of stainless steel. Dimensions: L 160 x W 135 x H 270 mm.

Delivery incl. ice scoop made of PP.

Art. No.	Pack Qty.	€
LT26.1	1	51,40



RF-series flake ice maker with ice storage tank Manitowoc Ice

Range of applications: Laboratories, research institutes and industry.
Ideal for production of flake and/or broken ice at a temperature of -0.5°C .
The ice is crystalline-shaped and suitable for pouring.

- With free water drainage
- With integrated storage tank
- Outside cabinet made of stainless steel
- Air-conditioned
- Separate on/off switch
- Suitable for working with drinking water and demineralised water
- Height adjustable feet (110 to 150 mm)

Technical specifications:

Model	RF 0244	RF 0266P	RF 0388	RF 0399
Max. production volume in 24 h (kg)	82		151	
Tank content (kg)	18	27	40	54
Power consumption (W)	700		1000	
Dimensions (mm)				
Width	500	550	738	783
Depth	660	660	690	690
Height	842	952	1003	1172
Permissible working temperature	10 to 43 °C			
Weight (kg)	71/75	76/80	102/106	109/113
Power supply	230 V, 50 Hz			

Delivery incl. 1 ice scoop and connection tubes
(one each 1.5 m supply and drainage hose with $\frac{1}{2}$ "-thread).

Type	Art. No.	Pack Qty.	€
RF 0244	LP30.1 *	1	3112,15
RF 0266	LP31.1 *	1	3168,05
RF 0388	LP32.1 *	1	3536,75
RF 0399	LP33.1 *	1	3612,00

* Please check with our Sales Department for delivery period of this products.



Flake ice machines with ice storage tank SCOTSMAN® AF-series

Applications: laboratories, research institutes and industry.

- Stainless steel model, air-cooled
- Environmental-friendly safety refrigerant

The ice flakes have a temperature of -0.5°C ; the irregular, large surface has an extremely good cooling effect. Each flake is saturated, firm and doesn't stick together.

Model EF 103 AS

With additional waste water pump (waste water can be pumped up to a height of 1.7 m or up to a distance of 15 m).

All models can be converted to work with demineralized water (conductivity $<30\ \mu\text{S}$) at an extra charge.
Please check with our Sales Department.

Technical specifications:

Type	AF 80 AS	AF 103 AS
Max. production volume in 24 h (kg)	70	105
Storage capacity (kg)	25	30
Power input (W)	330	470
Dimensions W x D x H (mm)	535 x 626 x 933	592 x 622 x 1126
Operating limits: Room temperature ($^{\circ}\text{C}$) Water temperature ($^{\circ}\text{C}$) Water pressure (bar)	min. 10 / max. 40 min. 5 / max. 35 min. 1 / max. 5	
Weight (kg)	51	63
Current	230 V, 50 Hz	

Delivery incl. 1 scoop, 1 connection hose $\frac{3}{4}$ " (length 1.5 m),
1 drainage hose (\varnothing 20 mm, length 1.5 m).

Type	Art. No.	Pack Qty.	€
AF 80 AS	CK94.1 *	1	3359,40
EF 103 AS	CK95.1 *	1	3886,15

* Longer delivery times possible. Please check with our Sales Department.

Gas burners



Laboratory Bunsen gas burners

Suitable for propane gas or natural gas. Cast iron base. Connection for hose with 9.5 mm internal Ø.

Technical specifications:

Gas type	Gas consumption	Heating capacity
Propane gas	22,5 l/h 0,0454 kg/h	2198 kJ/h
Natural gas	80 l/h 0,0560 kg/h	2344 kJ/h

① Basic version with air control

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	145	250	C631.1	1	22,60
Natural gas	145	250	C632.1	1	22,60

② With needle valve

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	150	320	CHP0.1	1	29,50
Natural gas	150	320	CHP1.1	1	29,50

③ With needle valve and pilot flame

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	150	300	CHP2.1	1	37,85
Natural gas	150	300	CHP3.1	1	37,85

④ With lever stopcock and inner pilot flame - acc. to Landmann

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	155	335	C633.1	1	45,70
Natural gas	155	335	C634.1	1	45,70



Laboratory Bunsen gas burners

Acc. to DIN, DVGW approved. Suitable for propane gas or natural gas. Connection for hose with 9.5 mm internal Ø. Cast iron base.

Technical specifications:

Gas type	Gas consumption	Heating capacity
Propane gas	22.5 l/h 0.0454 kg/h	2198 kJ/h
Natural gas	80 l/h 0.0560 kg/h	2344 kJ/h

① Basic version with air control

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	145	260	Y561.1	1	28,20
Natural gas	145	260	Y562.1	1	28,20

② With needle valve

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	150	320	Y563.1	1	37,20
Natural gas	150	320	Y564.1	1	37,20

③ With needle valve and pilot flame

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	150	300	CHT2.1	1	42,80
Natural gas	150	300	CHT3.1	1	42,80

④ With stopcock and pilot flame

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	155	315	CHT4.1	1	42,80
Natural gas	155	315	CHT5.1	1	42,80





Teclu gas burners

Suitable for propane gas or natural gas. Cast iron base. Connection for hose with 9.5 mm internal Ø.

Technical specifications for ① ② and ③:

Gas type	Gas consumption	Heating capacity
Propane gas	39 l/h 0.0787 kg/h	3810 kJ/h
Natural gas	116 l/h 0.0813 kg/h	3398 kJ/h

Technical specifications ④:

Gas type	Gas consumption	Heating capacity
Propane gas	80 l/h 0.1615 kg/h	7816 kJ/h
Natural gas	258 l/h 0.1813 kg/h	7278 kJ/h

① With needle valve

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	150	325	CHP4.1	1	39,45
Natural gas	150	325	CHP5.1	1	39,45

② With needle valve and pilot flame

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	150	330	CHP6.1	1	43,90
Natural gas	150	330	CHP7.1	1	43,90

③ With stopcock and pilot flame

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	165	360	CHP8.1	1	49,40
Natural gas	165	360	CHP9.1	1	49,40

④ With needle valve for high heating capacity

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	160	665	CHT0.1	1	55,40
Natural gas	160	665	CHT1.1	1	55,40



Teclu gas burners

Acc. to DIN, DVGW approved. Suitable for propane gas or natural gas. Connection for hose with 9.5 mm internal Ø. Cast iron base.

Technical specifications for ① and ②:

Gas type	Gas consumption	Heating capacity
Propane gas	39 l/h 0.0787 kg/h	3810 kJ/h
Natural gas	116 l/h 0.0813 kg/h	3398 kJ/h

Technical specifications for ③:

Gas type	Gas consumption	Heating capacity
Propane gas	80 l/h 0.1615 kg/h	7816 kJ/h
Natural gas	258 l/h 0.1813 kg/h	7278 kJ/h

① With needle valve

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	150	325	CHT6.1	1	42,80
Natural gas	150	325	CHT7.1	1	42,80

② With stopcock and pilot flame

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	165	360	Y565.1	1	59,15
Natural gas	165	360	Y566.1	1	59,15

③ With needle valve for high heating capacity

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	160	665	CHT8.1	1	59,15
Natural gas	160	665	CHT9.1	1	59,15

Gas burners



Laboratory gas burner with sucker on base

Acc. to DIN, with DVGW-approval.

Connection for hose with inner-Ø 9.5 mm. For propane gas or natural gas.

With sucker on base:

- For secure positioning on all smooth surfaces
- Unintentional shifting of burner is more or less impossible
- No metal touches the surface

① With needle valve - Gas burners acc. to Bunsen

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	160	310	CK28.1	1	39,75
Natural gas	160	310	CK29.1	1	39,75

② With stopcock and low heat flame - Gas burners acc. to Bunsen

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	170	310	CK30.1	1	47,85
Natural gas	170	310	CK31.1	1	47,85

③ With needle valve - Gas burners acc. to Teclu

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	165	335	CK32.1	1	49,45
Natural gas	165	335	CK33.1	1	49,45



Laboratory gas burners with double lever stopcock

Acc. to DIN, with DVGW-approval.

Connection for hose with inner-Ø 10 mm. For propane gas or natural gas.

With double lever stopcock and low heat flame inside.

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	150	280	CX71.1	1	53,25
Natural gas	150	295	CX72.1	1	53,25



Gas burners

Ideal for propane or natural gas. With **DVGW seal**. Non-tilting base and low centre of gravity guarantee high stability. Burner can be removed from base. Inclination angle can be set to 60°/90°/120° with locking device. With separate chimney for low flame and regulating valve to switch over from main to low flame. A regulating mechanism for air supply enables precise setting of flame temperature. Height depending on angle 100 mm/107 mm, weight 530 g. Suitable for continuous use.

For gas type	Art. No.	Pack Qty.	€
Propane gas	H612.1	1	134,40
Natural gas	H613.1	1	134,40



Safety lab burners according to Teclu

With thermo sensor safety valve (if the flame extinguishes or the gas supply is interrupted, the safety valve closes automatically). Solid round base.

With air regulation and needle valve.

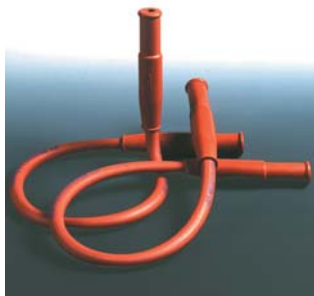
Standard model

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	220	715	E468.1	1	141,90
Natural gas	220	715	1653.1	1	134,40

Short model

For gas type	Overall height (mm)	Weight (g)	Art. No.	Pack Qty.	€
Propane gas	180	460	NA04.1	1	146,20
Natural gas	180	460	NA05.1	1	146,20

Gas burners



Rotilabo®-safety gas tubes

For supplying Bunsen burners that operate using gas in accordance with DIN 30665. With non-buckling, elastic coupling sleeve, suitable for all three gas groups acc. to DVGW-Worksheet G 260, controlled and tested as per DIN-DVGW-Reg.-No. DG - 4607 AU 2366.

Not suitable for connection to gas cylinders. Inner-Ø 9 mm.

Length (cm)	Art. No.	Pack Qty.	€
50	1716.1	1	34,35
60	A268.1	1	35,75
75	1717.1	1	40,00
100	1718.1	1	46,25
125	A269.1	1	50,00
150	1719.1	1	54,75
200	A270.1	1	67,60
300	A271.1	1	100,95



Rotilabo®-gas tubing

For laboratory gas burners that operate using gas in acc. with DIN 30665. Ideal for all 3 gas types, which are describe in the German Municipal Services (DVGW). Pamphlet G260.

Acc. to DIN 30664 Part 1, without casing and armoring.

Suitable for pressures up to 100 mbar.

Tested as per DIN-DVGW- Reg.- No. NG - 4607 AU 2362. Not suitable for connection to gas cylinders! Ø-inner 10 mm, Ø-outer 14 mm.

Length (m)	Art. No.	Pack Qty.	€
5	E485.1	1	46,80



Horizontal burner

For soldering, melting, burning-off etc. With piezo ignition. Flame temperatures up to 1300 °C. Sturdy metal construction with slip-resistant piston for one-handed operation. Safety switch. Dimensions: Ø 30 x H 150 mm. Fillable with lighter gas. **Delivery without filling; please order gas refill separately.**

Type	Art. No.	Pack Qty.	€
Horizontal burner	YE28.1	1	34,40
Refillable gas (250 ml liquid butane)	1652.1	1	3,50



Micro-horizontal burner GB 2001

Ideal for welding, soldering, branding and melting glass, made of chrome and camera plastic. Ignites piezo-electrically, reaching temperatures up to 1300 °C with a fine and focused flame. Cannister for liquid butane in handle, sufficient for approx. 2 hours of normal use. Height 145 mm, weight when empty 200 g. With removable base. For safety reasons, fuel is not included.

Art. No.	Pack Qty.	€
0386.1	1	90,20

Universal refillable gas

With 250 ml liquid butane and 5 different injectors.

Danger H220-H280

Art. No.	Pack Qty.	€
1652.1	1	3,50

Gas burners



Bunsen burner LABOGAZ 206

Works with C 206 D Super cartridge. With Clip & Go assembly system for simple cartridge change. With plastic bell-shaped top. Flame temperature approx. 1100 °C. Dimensions without cartridge: height 130 mm, Ø 90 mm. **Delivery without** base and cartridge (please order separately).

Art. No.	Pack Qty.	€
0802.1	1	68,75

Accessories:

Pierce-through cartridge C 206 GLS, butane/propane-mix 80/20 %, Ø 90, height 90 mm, content 190 g	0191.2	8	35,05
Base for bunsen burners Labogaz 206	X711.1	1	7,50



Gas cooker Twister® Plus PZ

Easy Clic®-connection for simple assembly of valve cartridges. With 3 container holders. **Piezo ignition.** Fueled by gas cartridges CV 470. Continuous operation of cartridge: approx. 2 h with CV 470. Dimensions (without cartridge): L 105 x W 70 mm, pot holder-Ø 140 mm. Weight (without cartridge) 285 g. **Delivery without** gas cartridge, please order separately.

Art. No.	Pack Qty.	€
EL22.1	1	53,70

Valve cartridges for gas cooker Twister® Plus PZ

Danger H220-H280

Type	Contents	Art. No.	Pack Qty.	€
Cartridges CV 470	450 g	Y652.1	2	25,30
Cartridges CV 470	450 g	Y652.2	12	137,60



Bunsen burner LABOGAZ 470

For use with CV 470 cartridge. Dimensions without cartridge: Ø 22 mm, height 59 mm. **Delivery without** cartridge (please order separately).

Art. No.	Pack Qty.	€
Y650.1	1	74,10

Valve cartridges CV 470

For bunsen burner LABOGAZ 470. Butane/propane-mix (80/20 %). Valve cartridges can be removed from the unit, even when they are not completely empty. The valve ensures that the gas cannot escape.

Danger H220-H280

Type	Contents	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
CV 470	450 g	109	135	Y652.1	2	25,30
CV 470	450 g	109	135	Y652.2	12	137,60



Fine soldering unit Spotflam

Cordless multi-purpose unit with attachable microburner and fine soldering copper tip. Flame can be regulated via air supply slide. Burns for approx. 4 hours. Can be used for: heating test tubes, sterilizing instruments, hard and soft soldering. **Delivery incl.** cartridge CV 360.

Art. No.	Pack Qty.	€
T926.1	1	34,95

Accessories:

Danger H220-H280

Compressed gas can CV 360 with valve, butane gas, contents 52 g	T927.1	6	60,00
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Soldering blow torch SOUDOGAZ X 2000 and X 2000 PZ

Flame temperature approx. +1800 °C. Weight with cartridge approx. 800 g.
Flame adjustment. Gas consumption 120 g/h.

Delivery without cartridge (please order separately).

① SOUDOGAZ X 2000

Type	Art. No.	Pack Qty.	€
X 2000	0777.1	1	45,90

② SOUDOGAZ X 2000 PZ with automatic piezoelectric ignition

Type	Art. No.	Pack Qty.	€
X 2000 PZ	N183.1	1	49,35

Accessories:

Pierce-through cartridge C 206 GLS, butane/ propane-mix 80/20 %, Ø 90, height 90 mm, content 190 g	0191.2	8	35,05
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Mobile hand-held laboratory gas burner powerjet 2

By WLD-TEC. For all flame protection sterilizers in microbiological or biotechnical applications.

- **Flame temperature approx. 1350 °C**
- Automatic ignition through Piezo effect
- Infinitely variable adjustment of flame size
- Operation with gas cartridge CG 1750, optimal for laboratories without a central gas supply
- Dimensions: W 150 x H 180 mm

Delivery incl. gas cartridge adapter for cartridge CG 1750.
(Please order cartridge CG 1750 separately).

Art. No.	Pack Qty.	€
EL35.1	1	210,70

Gas cartridge CG 1750 for powerjet

By WLD-TEC. With screw valve. Special mix 70/30 butane/propane.

Danger H220-H280

Type	Contents	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
CG 1750	175 g	60	140	EL36.2	8	59,15



Mobile hand-held laboratory gas burner powerjet 2

By WLD-TEC. For connection to the central gas supply (propane-, butane- and natural gas) and for operation with gas cartridge CV 360.

- Flame temperature: approx. 1350 °C with liquid gas and 1300 °C with natural gas
- Automatic ignition through Piezo effect
- The gas only flows when the button is pressed down
- The burner is ignited with the press of a button; the flame extinguishes when button is released
- With locking device to set the flame for mobile continuous burning-off
- Infinitely variable adjustment of flame size
- Dimensions: W 150 x H 210 mm

Delivery incl. gas cartridge adapter for CV 360 cartridge, nozzle for propane-/butane gas and natural gas, hose nozzle with coupling nut, nozzle-socket wrench, screw wrench and stainless steel holder.
Please order CV 360 gas cartridge separately.

Art. No.	Pack Qty.	€
EP56.1	1	347,25

Valve gas cartridge CV 360 for powerjet 2

Danger H220-H280

Type	Contents	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
CV 360	52 g	38	140	T927.1	6	60,00



Gas cartridges

Valve cartridge

Danger H220-H280

Image	Type	Contents	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
①	CV 360	52 g	38	140	T927.1	6	60,00
③	CV 470	450 g	109	135	Y652.1	2	25,30
③	CV 470	450 g	109	135	Y652.2	12	137,60

Pierce-through cartridge

Danger H220-H280

Image	Type	Contents	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
②	C 206 GLS	190 g	90	90	0191.2	8	35,05

Screw valve cartridge

Danger H220-H280

Image	Type	Contents	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
④	CG 1750	175 g	60	140	EL36.2	8	59,15

Gas safety burner



Spirits burner

① Made of stainless steel

With wick regulating facility and sealing cover. Capacity approx. 85 ml. Dimensions: Ø 100 mm, H 65 mm. Weight 105 g. **Delivery incl.** wick.

Art. No.	Pack Qty.	€
AL28.1	1	23,15

Replacement wick

For stainless steel alcohol burner (Art. No. AL28.1). L 10 x W 1.2 cm.

Art. No.	Pack Qty.	€
ANL6.1	25	13,10

② Made of soda-lime glass

With ground sealing cover. Capacity approx. 100 ml. Dimensions: Ø 76 mm, H 102 mm. Weight 190 g. **Delivery incl.** wick.

Art. No.	Pack Qty.	€
AL29.1	1	13,60

Replacement wick

For soda-lime glass spirits burner (Art. No. AL29.1). L 10 cm, Ø 6 mm.

Art. No.	Pack Qty.	€
ANL7.1	50	31,80



Methyated spirit

Denatured ethyl alcohol. Suitable for use as a detergent, a fuel additive and an antifreeze agent.

Danger H225-H319

Art. No.	Pack Qty.	€
AL30.1	1 l bottle	n. a.
AL30.2	10 l canister	n. a.
AL30.3	20 l canister	n. a.



Flame 100 gas safety burner

Ideal for sterilization of microbiological instruments and graduated heating of dental tools.

- Housing and burner tube made of stainless steel
- With button function: flame is lit by pressing and extinguished by releasing the function button
- With ignition and flame control, clogging monitor, and overheating protection
- Continuous cartridge operation: 65 min with CV 360, 230 min with C 206, 550 min with CV 470, 210 min with CG 1750
- Suitable for stationary natural gas and propane/butane gas. If cartridges are required, please order gas adapter and cartridge separately
- Operation possible by a foot pedal or an external infrared motion sensor

Technical specifications:

Button	Start / stop with timer, 60 min
Foot pedal	Standard (flame while foot pedal pressed, foot pedal optional)
IR sensor	Standard (flame while hand in detection range of sensor; IR sensor optional)
Dimensions (W x H x D)	89 x 34 x 88 mm
Height with burner tube	94 mm
Weight	385 g

Delivery incl. variable power supply (100 to 240 V, 50/60 Hz), hose nozzle and injectors for natural gas, propane / butane gas. Without foot pedal or IR motion sensor (please order separately, if required).

Art. No.	Pack Qty.	€
NA00.1	1	234,35

Accessories for gas safety burner Flame 100

Standard foot pedal made of stainless steel. Cable length 3 m.

Art. No.	Pack Qty.	€
AN88.1	1	42,70

External IR motion sensor

Art. No.	Pack Qty.	€
NA01.1	1	91,40

Gas safety adapter for Flame 100

Gas safety adapter for cartridge CV 360

For cartridge	Art. No.	Pack Qty.	€
CV 360	NA02.1	1	86,00

Gas safety adapter for cartridges C 206, CV 470 and CG 1750

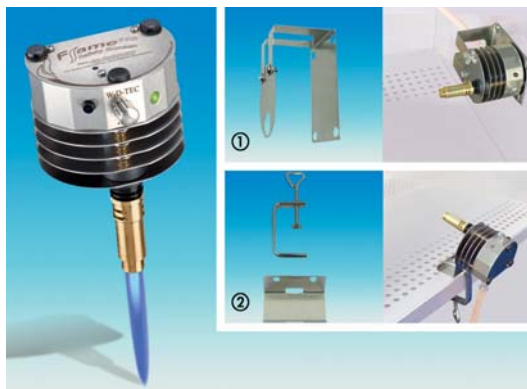
With integrated pressure reducer, stopcock and DVGW hose 0.5 m long.

For cartridge	Art. No.	Pack Qty.	€
C 206 GLS	AN84.1	1	113,95
CV 470	AN85.1	1	116,10
CG 1750	EX07.1	1	69,35

Gas cartridges for Flame 100

Danger H220-H280

Type	Contents	Art. No.	Pack Qty.	€
C 206 GLS	190 g	0191.2	8	35,05
CV 470	450 g	Y652.1	2	25,30
CV 470	450 g	Y652.2	12	137,60
CV 360	52 g	T927.1	6	60,00
CG 1750	175 g	EL36.2	8	59,15



Flame 110 overhead gas burner

Heats dental tools, sterilises microbiological instruments or flame deburred/ flame polished plastic and rubber mouldings in an industrial environment.

- **Variable flame from any direction – even upside down (depending on positioning)**
- With button function: flame is started and stopped by pressing the function button
- With gas safety shutoff and overtemperature protection
- Please order gas adapter and cartridge separately
- Can be operated using optional footswitch or external IR motion sensor. If required, please order separately.

Technical specifications:

Button	Start / stop with timer, 60 min
Foot pedal	Standard (flame while foot pedal is pressed; please order foot pedal separately)
IR sensor	Standard (flame while hand in detection range of sensor; please order IR sensor separately)
Dimensions (H x Ø)	135 x 88 mm
Weight	580 g

Delivery incl. fixing plate for overhead attachment and 100 to 240 V power supply, 50/60 Hz. Without gas adapter and cartridge (please order separately).

Art. No.	Pack Qty.	€
YP70.1	1	441,85

Accessories for Flame 110 overhead gas burner

Standard foot pedal made of stainless steel. Cable length 3 m.

Art. No.	Pack Qty.	€
AN88.1	1	42,70

External IR motion sensor Cable length 0.4 m.

Art. No.	Pack Qty.	€
NA01.1	1	91,40

① **Lateral bracket.** Made of stainless steel.

Art. No.	Pack Qty.	€
YP71.1	1	37,55

② **Horizontal bracket.** Made of stainless steel.

Art. No.	Pack Qty.	€
YP72.1	1	30,65

Gas safety adapter for Flame 110

For C 206 and CV 470 cartridges with pressure reducer, shutoff valve and DVGW tubing (length 0.5 m).

For cartridge	Art. No.	Pack Qty.	€
C206 D Super	YP73.1	1	137,60
CV 470	YP74.1	1	138,70

Gas cartridges for Flame 110

Type	Contents	Art. No.	Pack Qty.	€
C 206 GLS	190 g	0191.2	8	35,05
CV 470	450 g	Y652.1	2	25,30
CV 470	450 g	Y652.2	12	137,60



Gasprofi 1 SCS micro gas safety burner

Space-saving laboratory gas burners for microbiology, cell biology and biotechnology.

Features:

- 4 standard programs for IR-sensor and foot pedal
- Featuring an additional button function; flame is lit by pressing, and extinguished by releasing the function button
- Housing and control element are made of stainless steel
- Can be fueled either with natural gas or propane-/butane gas
- Inclination adjustment can be set on right/left
- Cartridge continuous operation:
45 min with CV 360, 170 min with C 206, 345 min with CV 470
- Removable burner head

Technical specifications:

Foot pedal	Standard (flame when pedal is pressed down) Start/Stop with control timer, 60 min
IR-sensor	Start/Stop with control timer, 60 min Auto-Off with learning function: 1 s to 60 min
Coverage area of IR-sensors	5-50 mm, adjustable
Dimensions (W x H x D)	85 x 49 x 86 mm
Weight	930 g

Delivery incl. stainless steel foot pedal, IR-sensor, nozzles for natural gas and propane-/butane gas, hose nozzle with union nut and power supply plug. Should you require cartridge operation, please order the gas adapter and cartridge separately.

Art. No.	Pack Qty.	€
AN82.1	1	440,75

Accessories

for Gasprofi 1 SCS micro gas safety burners

Gas-safety adapter for cartridge CV 360

With integral pressure regulator.

For cartridge	Art. No.	Pack Qty.	€
CV 360	HC48.1	1	83,75

Gas-safety adapter for cartridge C 206, CV 470 and CG 1750

With integral pressure regulator, stop valve and DVGW-hose, length 0.5 m.

For cartridge	Art. No.	Pack Qty.	€
C 206 GLS	AN84.1	1	113,95
CV 470	AN85.1	1	116,10
CG 1750	EX07.1	1	69,35

Gas cartridges for Gasprofi 1 SCS micro

Type	Contents	Art. No.	Pack Qty.	€
CV 360	52 g	T927.1	6	60,00
CV 470	450 g	Y652.1	2	25,30
CV 470	450 g	Y652.2	12	137,60
CG 1750	175 g	EL36.2	8	59,15
C 206 GLS	190 g	0191.2	8	35,05

Gas safety burner



Fuego SCS basic gas safety burners

Ideal for heating, burning off, annealing and for application in microbiological safety workbenches.

- 2 standard programs for pedal control
- Featuring an additional button function; flame is lit by pressing, and extinguished by releasing the function button
- Housing/control element made of stainless steel and glass, UV- and solvent resistant
- Burner head can be removed and taken apart
- Tilt adjustment right/left
- Cartridge continuous operation: 40 min with CV 360, 170 min with C 206, 370 min with CV 470, 150 min with CG 1750
- Safety devices include: gas safety cutoff, ignition, flame and temperature monitoring, contamination and assembly monitoring, automatic switch-off and residual heat indicator
- Ideal for natural gas or propane-/butane gas. Should you require cartridge operation, please order the gas adapter and cartridges separately

Technical specifications:

Operating mode:	
Pedal	Standard (Flame when pedal is pressed down) Start/Stop with monitoring timer (up to 60 min)
Dimensions (W x H x D)	103 x 49 x 130 mm
Weight	700 g

Delivery incl. pedal, switching power supply (100 to 240 V, 50/60 Hz), hose nozzle with union nut, loop holder and nozzles for natural gas, propane-/butane gas.

Art. No.	Pack Qty.	€
HA64.1	1	411,75

Accessories for Fuego SCS serie

Gas-safety adapter for cartridge CV 360

With integrated pressure regulator.

For cartridge	Art. No.	Pack Qty.	€
CV 360	HC48.1	1	83,75

Gas-safety adapter for cartridge C 206, CV 470 and CG 1750

With integrated pressure regulator, stop cock and DVGW-hose, length 0.5 m.

For cartridge	Art. No.	Pack Qty.	€
C 206 GLS	AN84.1	1	113,95
CV 470	AN85.1	1	116,10
CG 1750	EX07.1	1	69,35

Gas cartridges for gas safety burners Fuego SCS serie

Danger H220-H280

Type	Contents	Art. No.	Pack Qty.	€
C 206 GLS	190 g	0191.2	8	35,05
CV 470	450 g	Y652.1	2	25,30
CV 470	450 g	Y652.2	12	137,60
CV 360	52 g	T927.1	6	60,00
CG 1750	175 g	EL36.2	8	59,15



Safety laboratory gas burner Fuego SCS / SCS pro

General specifications of both models:

Ideal for heating, burning-off and annealing as well as for use in microbiological safety workbenches.

- Animated graphic display with buzzer: installation and operating instructions with symbols, user ID, gas consumption display and cooling time reminder
- Casing/control elements made of stainless steel and glass, UV and solvent proof
- 6 programs for DoubleClick IR sensor, key, pedal and temperature control for precise heating of media with burning time display
- Safety devices: see Fuego SCS basic
Zero-pressure shutoff: for releasing residual gas pressure after use. Angle adjustment and removable burner head
- Ideal for natural, propane or butane gas. If cartridges are required, please order gas adapter and cartridge separately

Fuego SCS pro

- Same as Fuego SCS, but **with independent supply**
- Additional tilt sensor with gas safety shutoff

Delivery incl. 2 1.2 V Mignon batteries.

Operating time: up to 9 h continuous duty. Charging time: approx. 3 h.

Technical specifications:

Foot pedal	Standard (flame when pedal is pressed) Start/stop with watchdog timer (1 s to 2 h)
IR sensor, DoubleClick (connectible)	Start/stop with watchdog timer (1 s to 2 h) Auto-Off with timer (1 s to 2 h)
Detection range of IR sensor	5-100 mm, adjustable
Dimensions (W x D x H)	103 x 130 x 49 mm

Delivery incl. IR sensor, inoculation loop holder, power adaptor, hose connector with union nut and nozzles for natural gas, propane/butane gas. Without foot switch (if required, please order separately).

Type	Art. No.	Pack Qty.	€
Fuego SCS	EX06.1	1	492,35
Fuego SCS pro	LE17.1	1	562,25

Pedal button for Fuego SCS

Standard foot pedal made of stainless steel. Cable length 3 m.

Art. No.	Pack Qty.	€
AN88.1	1	42,70

Wireless pedal button set enables operation of pedal without bothersome cable. Range 2 to 5 m. Frequency 2.4 GHz. Radio-controlled pedal button made of stainless steel.

Delivery incl. RF-stick, Radio-controlled pedal and 2 batteries Mignon 1.5 V.

Art. No.	Pack Qty.	€
KA26.1	1	116,10



Fully automatic inoculating loop carousels **autoloop^{PRO}**

Enables **safety laboratory burners, like the Fuego SCS-series**, to be moved to sterilizing stations. The microprocessor-controlled carousel identifies when loops are removed and returned, and it automatically rotates and controls sterilizing. For max. 4 inoculating loops.

Features:

- Fully graphic DOT-Matrix display shows extraction position of cool loops and remaining cooling time, residual heat display and flame sterilisation time
- Adjustable sterilizing time: 1 to 15 s, adjustable cooling time: 1 to 45 s
- Made completely of stainless steel and anodised aluminium. Display is protected by special glass
- Sterilisation monitor controls the safe and reliable sterilisation of the inoculating loops. Symbol indicates if inoculating loops have been sterilized properly. 3-step setting of sensor intensity (low to high annealing intensity possible, for thin or thick inoculating wire)
- Excess temperature protection and residual heat display
- Dimensions: W 135 x H 305 x D 180 mm
- Power supply via burner pedal bush

Delivery incl. 4 loop holders, 4 inoculating loops and base. Safety lab gas burner, Fuego SCS-series, is required to operate the carousel (please order separately if not available).

Art. No.	Pack Qty.	€
LH88.1	1	1042,75

Accessories for **autoloop^{PRO}**

Splash protection

For safe handling of pathogenic material, slotted.

Art. No.	Pack Qty.	€
HY19.1	1	49,45



Gas safety burner, phoenix II

For use in microbiological safety work benches.

- LED colour display with choice of languages
- Plain text menu navigation and display of burning time left
- UV-resistant, can be flamed (stainless steel housing, special glass display)
- Can be tilted left or right
- 4 operating modes:

Button function: flame activation and deactivation by pressing function button. Flame extinguishes after a preset period

IR sensor: contact-free activation of flame via IR sensor.

Flame extinguishes after a preset period

Foot-operated push-button: flame burns as long as the foot press-button remains pressed

Foot switch: flame burns when the foot switch is pressed and extinguishes when pressed again or after a preset time

- Flame, ignition and contamination monitoring
- Ideal for natural, propane or butane gas. Can be operated with gas cartridges CV 360, C 206 and CV 470 (please order the required gas adapter separately) or from the central gas supply

Technical specifications:

Foot-operated push-button	Conventional
Foot switch	Start/stop or with automatic shut-off (1 s to 120 min)
IR sensor operation	Start/stop with automatic shut-off (1 s to 120 min)
Detection range IR sensor	Three ranges can be selected: directly on the sensor, 30 mm or 80 mm
Dimensions (W x D x H)	125 x 160 x 85 mm

Delivery incl. IR sensor, stainless steel foot-operated push-button/foot switch and power unit (100 to 240 V, 50/60 Hz), hose fitting, natural gas and propane/butane nozzles.

Art. No.	Pack Qty.	€
TA01.1	1	525,70

Accessories for phoenix II gas safety burner

Gas adapter for cartridge CV 360

For cartridge	Art. No.	Pack Qty.	€
CV 360	TA02.1	1	91,40

Gas adapter for cartridges C 206 and CV 470

With built-in pressure reducer and 0.5 m safety gas hose.

For cartridge	Art. No.	Pack Qty.	€
C 206 D Super	TA03.1	1	107,30
CV 470	TA04.1	1	107,30

Accessories:

Glass splash guard	TA05.1	1	45,10
Stainless steel draft shield	TA06.1	1	33,15

Gas cartridges for phoenix II

Type	Contents	Art. No.	Pack Qty.	€
CV 360	52 g	T927.1	6	60,00
CV 470	450 g	Y652.1	2	25,30
C 206 GLS	190 g	0191.2	8	35,05

Inoculation loop sterilisers



Infrared sterilising station SteriMax-series

By WLD-TEC. For sterilizing inoculating loops, needles and instruments. Ideal for laboratories and safety workbenches where gas and open fires cannot be used. Simply hold the inoculating loop in the quartz glass sterilizing tube to sterilize. The loop is sterile after approx. 5 to 7 seconds.

- Made of stainless steel
- Residual heat display warns against high temperatures
- Angle can be adjusted 7 times
- Integrated splash protection
- Trays for 3 instruments

Technical specifications:

Model	SteriMax 15	SteriMax 21
Quartz glass tube-Ø (mm)	15	21
Quartz glass tube length (mm)	118	161
Sterilizing temperature (°C)	900 to 950	
Average warm-up time (min)	7 to 9	
Output (W)	160	225
Dimensions W x H x D (mm)	175 x 129 x 139	175 x 129 x 169
Weight (g)	960	1060
Power supply	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
SteriMax 15	KL88.1	1	456,90
SteriMax 21	LH89.1	1	505,25



Rotilabo®-inoculating loop holder

Made of stainless steel. Loops are fixed with union nut. For inoculating loops with wire-Ø 0.6-1.0 mm. Set sorted by colour: blue, yellow, red, black. Length: 245 mm. Autoclavable at 121 °C.

Type	Art. No.	Pack Qty.	€
Inoculating loop holder set	KL97.1	4	50,45

Accessories: Rotilabo®-inoculating loops

Made of **special stainless steel**. Wire-Ø 0.6 mm.

Delivery without inoculating loop holder, please order separately.

Type	Art. No.	Pack Qty.	€
Loop Ø inside 1 mm	KL98.1	10	25,30
Loop Ø inside 3 mm	KL99.1	10	25,30
Loop Ø inside 5 mm	KN00.1	10	25,30

Made of **platinum/iridium**. Wire-Ø 0.6 mm.

Delivery without inoculating loop holder, please order separately.

Type	Art. No.	Pack Qty.	€
Loop Ø inside 1 mm	KN01.1	1	96,75
Loop Ø inside 3 mm	KN02.1	1	96,75
Loop Ø inside 5 mm	KN03.1	1	96,75



Infrared inoculation loop steriliser SteriMax smart

By WLD-TEC. Specially focussed infrared light creates an IR hotspot and sterilises inoculation loops at a temperature from 750 to 1000 °C within 5-10 s.

- Auto start by non-contact IR sensor technology
- Adjustable sterilisation and cool-down timer for two users by touch operation
- Ready for use straight from the box without heat-up phase
- Dynamic Thermocontrol sterilisation timer for the utilisation of residual heat to speed up subsequent sterilisation cycles
- Housing made of special toughened glass and stainless steel
- With removable quartz glass annealing tube

Technical specifications:

Quartz glass annealing tube	
Temperature	750 to 1000 °C
Outer/inner Ø, length	19/16 mm, 112 mm
General information:	
Timers	Sterilisation timer: 5-10 s Inoculation loop cool-down timer: 0-25 s
Safety devices	Residual heat indicator, overtemperature protection and autom. unit switch-off
Power requirement	approx. 600 W
Heat source	IR halogen spotlamp
Dimensions (W x H x D)	110 x 170 x 200 mm
Weight	1.8 kg
Power supply	220-240 V, 50/60 Hz

Delivery incl. quartz glass annealing tube, inoculation loop holder with Ø 3 mm inoculation loop and support for 3 inoculation loop holders.

Art. No.	Pack Qty.	€
ACN7.1	1	743,90

Accessories:

Replacement quartz glass annealing tube	ACN8.1	1	31,10
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Electro burners



Electrical Bunsen burner BA6101

Suitable for laboratories in which no gas and naked flames are allowed to be used. Ideal for heating test tubes, crucibles, small bottles and beakers. Max. temperatures from 800 to 1000 °C. The ceramic heating element is located in the upper part of the stainless steel cylinder. 80 % of max. temperature is reached in approx. 4 min and maximum temperature is reached in approx. 12 min.

Equipment: heat output regulator MC5 with special sleeve for attaching a stand rod (max. Ø 12.5 mm) and indicator lamps for "Power On" and "Output regulator operation".

Technical specifications:

Max. temperature	800 to 1000 °C
Inner dimensions of heating element (Ø x H)	60 x 45 mm
Outer dimensions of chimney (Ø x H)	120 x 180 mm
Dimensions of heat output regulator (W x D x H)	95 x 130 x 105 mm
Output	480 W
Power supply	220 V, 50/60 Hz

Delivery incl. variable heat output regulator MC5.

Art. No.	Pack Qty.	€
YL73.1	1	645,00



Infrared burner IRB 1

By Edmund Bühler. Compact. Is extremely effective because it uses modern IR-radiation burner technology. Excellent for speedy, no-contact heating operations in laboratories, schools and at work. On/off switch with control lamp. Housing remains cool. Long-life infrared radiator element. Additional power control switch available. Max. temperature of **heating surface 750 °C**. Power supply: 250 W, 230 V. Dimensions: L 100 x W 100 x H 100 mm, weight 850 g.

Art. No.	Pack Qty.	€
L487.1	1	306,40

Accessories:

Power control switch	L488.1	1	274,15
Support rod for IRB 1 & 2	L489.1	1	19,90



Infrared burner IRB 2

By Edmund Bühler. Infrared heater for high temperatures up to **900 °C**. **With integrated output control**, for variable adjustment between 0 and 100 %. Speedy and even heating **with no open flame**. Electronic parts are protected against overflowing liquids. Features also include additional side protection of burner. With ceramic heating element and excess temperature protection. Comes in safe-to-touch enclosure. **Embedded grips** enable safe transport. A cross recess allows flat vessels to be laid directly on heating element. Electrical supply: 800 W/230 V. Dimensions: W 150 x D 150 x H 170 mm, weight 2250 g.

Art. No.	Pack Qty.	€
P910.1	1	532,15

Accessories:

Support rod for IRB 1 & 2	L489.1	1	19,90
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Lighters



Gas lighter

Piezo-electric. Made of plastic and stainless metal.
Length 260 mm, weight 50 g.

Art. No.	Pack Qty.	€
1949.1	1	10,70

Universal refill gas

With 250 ml liquid butane and 5 different injectors.

Danger H220-H280

Art. No.	Pack Qty.	€
1652.1	1	3,50



Tripod stands

Zinc coated from annealed cast iron. Unscrewable legs.

Ring-Ø inside (mm)	Height (mm)	Art. No.	Pack Qty.	€
100	180	KC15.1	1	13,80
120	210	KC16.1	1	15,30
140	210	KC17.1	1	17,55
150	240	KC18.1	1	18,85



Lighter with flame

Handy igniter with loop for hanging. Size of flame can be regulated.
Refillable. With safety device. Length of gas igniter 256 mm, length of stainless steel igniter 110 mm. Weight approx. 67 g.

Art. No.	Pack Qty.	€
P960.1	1	13,80

Universal refill gas

With 250 ml liquid butane and 5 different injectors.

Danger H220-H280

Art. No.	Pack Qty.	€
1652.1	1	3,50



Tripod stands

Can be taken apart. Made of Remanit 4301 high-grade steel.
Height 210 mm.

Ring-Ø inside (mm)	Art. No.	Pack Qty.	€
100	9167.1	1	22,40
120	9170.1	1	24,65
140	9171.1	1	26,85
160	9172.1	1	29,00
180	9175.1	1	32,05

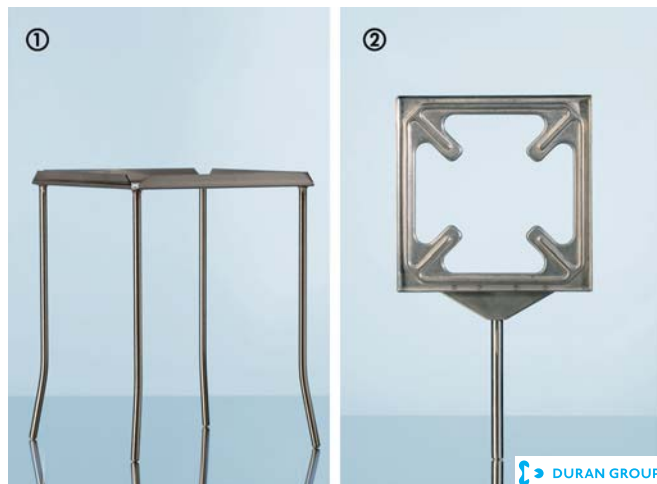
Extension legs

Fit all tripods. With adjustment screws.
Can be extended to a total length of 370 mm.

Art. No.	Pack Qty.	€
9179.1	3	30,00

► Thermometers can be found from page 745

Tripod / Quadrapod stands / Heating tiles



① Lab quadrapod stands

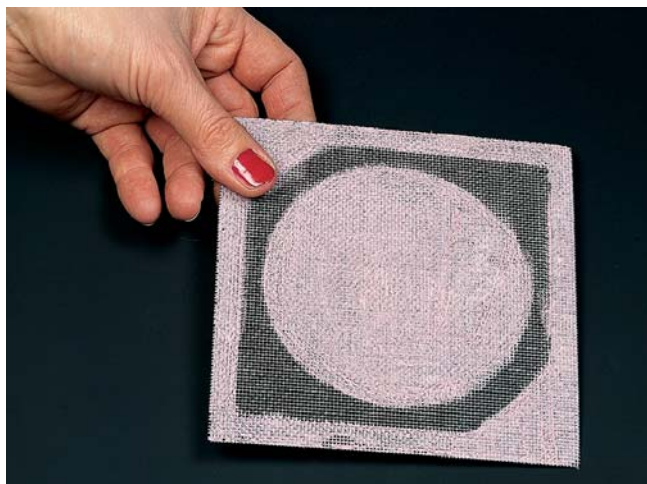
For glass ceramic protective tiles. Made of heat-resistant chrome-nickel steel, with four feet and sturdy design for excellent stability. Please order the matching glass ceramic protective tiles separately.

Size (mm)	Height (mm)	Art. No.	Pack Qty.	€
135 x 135	210	HH18.1	1	23,10
155 x 155	210	HH19.1	1	25,90
175 x 175	220	HH20.1	1	30,40

② Tile holders

For glass ceramic protective tiles. Made of chrome nickel steel. Please order matching glass ceramic protective tiles separately.

Size (mm)	Art. No.	Pack Qty.	€
135 x 135	HH21.1	1	21,10
155 x 155	HH22.1	1	24,80
175 x 175	HH23.1	1	29,00



Wire supports

Asbestos-free. Made of zinc plated wire mesh, with nonhazardous special covering (ceramic fibers). Excellent heat conduction. Long life.

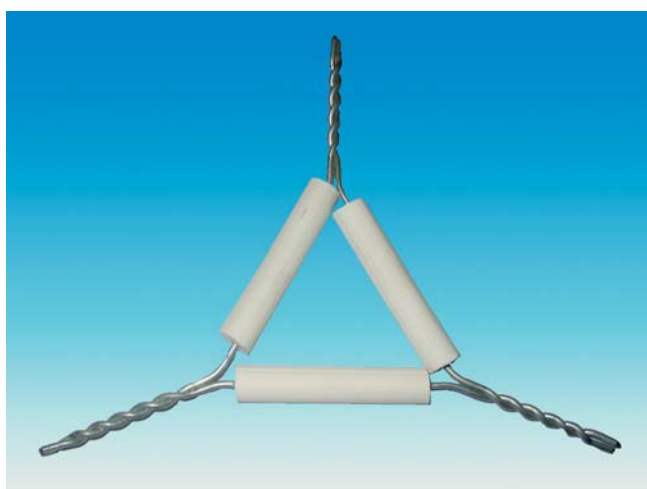
Size (mm)	Art. No.	Pack Qty.	€
120 x 120	1861.1	1	4,25
160 x 160	1862.1	1	5,00



Glass ceramic protective tiles

Temperature resistant from -200 to +700 °C. 4 mm thick.

Size (mm)	Art. No.	Pack Qty.	€
135 x 135	A385.1	1	15,50
155 x 155	0619.1	1	16,60
175 x 175	A386.1	1	19,35



Rutilabo®-triangles for melting crucibles

Made of galvanised steel with smooth clay pipes.

Clay pipe length (mm)	Max. ring Ø of tripod (mm)	Art. No.	Pack Qty.	€
40	120	KN11.1	5	11,80
50	130	KN12.1	5	12,50
60	140	KN13.1	5	13,15
80	160	KN15.1	5	13,80
100	180	KN16.1	5	16,70

Immersion heaters / Microwave ovens



Simple-immersion coil heater

With melting point protection. Power 1000 W. Immersion depth 160 mm. Cable length 750 mm.

Art. No.	Pack Qty.	€
1002.1	1	15,60



Safety lab immersion coil heaters

For 220 V ~. With automatic switch-off. Lab immersion coil heaters do not become defective when handled improperly (e.g. overheating due to lack of water, water has boiled away or operation without any water). The control unit can be reset. The unit switches off at +130 °C.

Both models are suitable for water only.

Technical specifications:

Model	Small model	Large model
Power	1000 W	2000 W
Immersion depth	min. 70 mm max. 200 mm	min. 120 mm max. 280 mm
Dimensions	L 300 mm x Ø 46 mm	L 380 mm x Ø 53 mm
Connecting cord	750 mm, with right-angle plug	900 mm, with right-angle plug
Weight, without cord	150 g	280 g
Surface load at conduit		approx. 10 W/cm ²
Heating element material		Nickel-plated brass
Probe material		Nickel-plated copper
Handle		Ultramide B 3 S.

Type	Output (W)	Art. No.	Pack Qty.	€
Small model	1000	0116.1	1	46,05
Large model	2000	0117.1	1	50,45



Microwave oven

By Severin.

- High refractory housing
- Inside volume approx. 17 l
- Microwave power approx. 700 W
- 6 adjustable power stages
- 30-min-timer with signal tone
- Removable revolving plate (Ø approx. 245 mm)
- Inner dimensions: W 293 x D 278 x H 175 mm
- Outer dimensions: W 455 x D 315 x H 262 mm
- Power supply 230 V, 50 Hz

Art. No.	Pack Qty.	€
CT41.1	1	102,15



Microwave oven with grill

By Severin.

- Housing made of stainless steel, brushed
- Interior volume approx. 23 l, painted
- Microwave power approx. 900 W, 9 power stages possible incl. thawing and grilling stages
- Separate grilling stage approx. 1000 W, with additional rack
- Microwave and grill can be combined
- Removable revolving plate (Ø 270 mm)
- 30-min-timer with signal tone
- Inner dimensions: L 335 x D 320 x H 190 mm
- Outer dimensions: L 483 x D 400 x H 281 mm
- Power supply 230 V, 50 Hz

Art. No.	Pack Qty.	€
AT41.1	1	165,55

Microwave ovens



Microwave oven

By Bosch.

- Interior volume approx. 17 l
- Microwave output 800 W
- 5 adjustable output stages (800/600/360/180/90 W)
- Digital display for time of day or count-down
- 30-min. timer with acoustic signal
- Removable glass rotary plate (Ø approx. 245 mm)
- Memory function saves 1 parameter combination of time and microwave output
- Dimensions, inside: W 290 x D 300 x H 184 mm
- Dimensions, outside: W 462 x D 320 x H 280 mm
- Electrical supply 220-230 V, 50 Hz

Art. No.	Pack Qty.	€
KN83.1	1	252,65



Large-capacity microwave with grill and hot air functions

By Sharp.

- Stainless steel housing
- Interior volume approx. 40 l, stainless steel
- **Optimal inside volume for heating 1 liter laboratory threaded bottles etc.**
- Microwave power approx. 900 W, 5-times adjustable
- Quartz crystal grill approx. 1300 W
- Hot air function approx. 1450 W (10 steps: 40 to 250 °C)
- Microwave grill and hot air can be switched on together or separately
- Ceramic revolving plate (Ø 362 mm)
- Timer max. 90 min
- Inner dimensions: W 375 x D 395 x H 272 mm
- Outer dimensions: W 550 x D 535 x H 368 mm
- Weight approx. 23 kg
- Power supply 230 V, 50 Hz

Art. No.	Pack Qty.	€
HX94.1	1	568,70



Microwave oven with grill- and hot air functions

By Severin.

- Housing with heat resistant coating
- Interior volume approx. 30 l
- Microwave power approx. 900 W, adjustable in 5 power stages
- With separate grill approx. 1100 W and hot air function approx. 2500 W
- Microwave, grill and hot air can be switched on separately or combined
- Removable revolving plate (Ø 315 mm)
- Digital multifunction display
- Quick-button enables unit to start immediately at full power
- 99-min-timer with signal tone
- Inner dimensions: L 335 x D 340 x H 200 mm
- Outer dimensions: L 520 x D 510 x H 335 mm
- Power supply 230 V, 50 Hz

Art. No.	Pack Qty.	€
AT40.1	1	267,70



Hot air dryer

By Braun. With press-on concentration nozzle. Two heat/fan stages. **Power 1200 watt.** Removable filter for easy cleaning. Hanging loop. 2 m power cable. Power supply 230 V, 50 Hz.

Art. No.	Pack Qty.	€
P096.1	1	31,15

Hot air tools



Hot air dryer

By Braun. For warm and cold air. With three heating and two cooling stages.
Power 2200 W. Removable filter for easy cleaning.
Delivery incl. loop for hanging and attachable nozzle.
 2 m power cable. Power supply 230 V, 50/60 Hz.

Art. No.	Pack Qty.	€
Y399.1	1	73,05



Hot air blower HL 1920 E

By Steinel. With temperature and air flow control. 9-step temperature adjustment using adjustment wheel. Blower control via 3-step operating switch.

Technical data:

Power	2000 W		
Operating stage	Stage 1	Stage 2	Stage 3
Air flow rate	150 l/min	150 to 300 l/min	300 to 500 l/min
Temperature	50 °C	50 to 600 °C	50 to 600 °C
Temperature adjustment	in 9 steps		
Dimensions (W x D x H)	253 x 84.5 x 200 mm		
Weight	850 g		
Power supply	220-230 V, 50/60 Hz		

Art. No.	Pack Qty.	€
AKN4.1	1	77,35

Accessories for hot air blower HL 1920 E

By Steinel.

Wide stream nozzle

For attaching to blower, ensures an even distribution of air. Width 50 mm.

Art. No.	Pack Qty.	€
1946.1	1	12,15

Reducing nozzle

For attaching to blower, for directed heat. Ø 14 mm.

Art. No.	Pack Qty.	€
1947.1	1	12,15



HG 2320 E LCD hot air blower

Electronically controlled with continuously variable air flow rate and temperature control. Visual display of temperature and speed (resolution in 10-°C increments) via LCD. Residual heat display.
 4 stored programs for temperature and air flow. With softgrip handle.

Technical specifications:

Output	2300 W
Temperature	Setting 1: 80 °C Setting 2: 80 to 650 °C
Air flow	Setting 1: 150 l/min Setting 2: 150 to 500 l/min
Dimensions (L x W x H)	253 x 86.5 x 200 mm
Weight	960 g
Voltage	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
ALN9.1	1	149,45

Accessories for HG 2320 E hot air blower

Wide jet nozzle,

simply push-on, for extensive air distribution. Width 50 mm.

Art. No.	Pack Qty.	€
1946.1	1	12,15

Reducing nozzle,

simply push-on, for concentrated heat. Ø 14 mm.

Art. No.	Pack Qty.	€
1947.1	1	12,15

Coffee machines



NEU
NOUVEAU
NEW

Hot air gun HG 2220 E

By Steinel. Temperature adjustment from 80 to 630 °C in 9 steps by adjusting wheel. Air flow control in 2 stages from 150 to 500 l/min.

Technical specifications:

Power (W)	2200	
Operating stage	Stage 1	Stage 2
Air flow rate (l/min)	150 to 300	300 to 500
Temperature (°C)	80 to 630	80 to 630
Temperature adjustment	in 9 steps	
Dimensions L x W x H (mm)	337 x 75 x 89	
Weight (g)	610	
Power supply	220-230 V, 50/60 Hz	

Art. No.	Pack Qty.	€
CEP4.1	1	149,45

Accessories for HG 2220 E hot air gun

Wide spray nozzle

Attachable, wide air distribution. Width 50 mm.

Art. No.	Pack Qty.	€
1946.1	1	12,15

Reduction nozzle

Attachable, for directional heat flow. Ø 14 mm.

Art. No.	Pack Qty.	€
1947.1	1	12,15



Fan heater AEG HS 203 T

By AEG. With automatic frost protection: the heater switches on automatically when room temperature is below 5 up to 8 °C. Variable temperature setting up to 45 °C.

- Connection capacity: 2000 W
- Two heat stages (1000/2000 W)
- Cold stage
- Dimensions approx. W 245 x H 260 x D 135 mm
- Power supply 230 V, 50/60 Hz.

Art. No.	Pack Qty.	€
X434.1	1	42,80



Coffee machine with timer

By Severin. Power 800 watts. For up to 8 cups. 1 l-thermos flask with screw cap. Level indicator on glass jug for fresh water. With cable storage bay. On/off switch with control lamp. Swivel filter 1 x 4 with drip stopper.

Colour	Art. No.	Pack Qty.	€
white	AT37.1	1	54,85
black	KN84.1	1	53,70



SENSEO® Coffee-Pads machine

By Philips. Suitable for coffee pads. 1 or 2 cups possible. Heating 1450 W. Height-adjustable coffee spout for cup height up to 110 mm. Removeable water container, **volume 0.9 l (8 cups)**. Automatic switch-off. Control light indicates inadequate water level, heating and brewing standby. Chalk indicator. Cord length 1 m. Dimensions: L 378 x W 232 x H 388 mm. Mains supply 220-240 V, 50-60 Hz.

Delivery incl. 2 pad holders (for 1-2 cups).

Art. No.	Pack Qty.	€
KP12.1	1	155,90

Kettles



Kettles

By Severin. Powerful, removeable kettle. Heating capacity approx. 2000 W. **Max. capacity 1.7 l.** Cordless with separate base. **Automatic steam stop.** On/off switch with indicator light. Transparent water level display on both sides. Spout with sieve. Overheating (heating element switches off automatically when there is no water in kettle or when the heating element becomes calcified) and excess temperature safety system. Electrical supply 220 V, 50 Hz.

Colour	Art. No.	Pack Qty.	€
white	Y527.1	1	30,35
black	KT58.1	1	28,95



Kettle

By Severin. Casing made of high grade stainless steel, capacity approx. 1.5 l. Power capacity approx. 1800 W. Cordless with separate base. **Automatic steam stop.** On/off switch. Continuously adjustable thermostat with indicator lamp. The water heater cuts out after the set temperature or the boiling point is reached. **360°-central-cordless-system (can be attached from any direction).** Overheating (heating element switches off automatically when there is no water in kettle or when the heating element becomes calcified) and excess temperature safety system. Covered heating element. Cord storage. Colour stainless steel, brushed/black. Power supply 220 V, 50 Hz.

Art. No.	Pack Qty.	€
Y533.1	1	44,65



Kettle

By Bosch. Stainless steel body. 1.7 l capacity. Heating capacity: approx. 1800 watts. Safety lid lock. 360° centre connector for easy lifting and placing. Indicator light. Concealed heating element. Boil-dry protection. Automatic steam stop. The kettle switches itself off automatically after the kettle is removed from the base. On/Off switch. Cord retractor. Weight 1.25 kg. Mains connection 220-240 V, 50-60 Hz.

Art. No.	Pack Qty.	€
PK59.1	1	53,70



Thermos flasks Columbus 2000

By Leifheit. With practical snap. High-quality, double-walled vacuum flask. With aroma press button for single-handed pouring. Contents 1 litre.

Colour	Art. No.	Pack Qty.	€
① black	X232.1	1	23,55
② blue	X233.1	1	23,55
③ white	X231.1	1	23,55



Rotilabo®-thermal jug

With insulating body made of stainless steel. Pump mechanism for easy pouring. Carry handle. Capacity: 3 l. Dimensions: H 360 x Ø 150 mm. Weight: approx. 1.6 kg.

Art. No.	Pack Qty.	€
YE85.1	1	59,15



Immersion thermostats SC 100, SC 150 and AC 200

By Thermo.

Standard thermostats SC 100 and SC 150

- Simultaneous display of set and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Pumps have a 2 step turbulence reduction system
- USB interface (except SC 100)
- Head can be turned in 90°-increments in bath
- Immersion depth 90 to 145 mm
- Over-temperature warning
- **With screw clamp for bath tub max. 26 mm**

Advanced Thermostat AC 200

like SC 100 and SC 150, but also comes with:

- Pumps have a 3 step turbulence reduction system
- Programmable application temperature alarm with user-selected signal tone (on/off), safe temperature condition or switch-off function
- Interval programming, with the option of being able to alter the interval during operation
- Timer with real-time clock for critical applications
- **With bath bridge (adjustable from 300 to 800 mm) for attaching to bath tubs**

Technical specifications:

Model	SC 100	① SC 150	② AC 200
Working temperature (°C)	+25 to +100	+25 to +150	+25 to +200
Temperature constancy (K)	±0.02		±0.01
Heating capacity (W)	2000		
Max. pump pressure (mbar)	300		475
Max. flow (l/min)	17		20
Max. pump pressure (mbar)	-		330
Dimensions W x H x D (mm)	165 x 333 x 195		165 x 368 x 195
Safety class	I (NFL)		III (NFL)

I (NFL) = non-flammable liquids

III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
SC 100	LP51.1 *	1	946,00
SC 150	LP52.1 *	1	1286,00
AC 200	LP53.1 *	1	1905,00

Accessories for immersion thermostats SC 100, SC 150 and AC 200

By Thermo.

Tap water cooling spiral for SC 100, SC 150

Art. No.	Pack Qty.	€
PE43.1 *	1	140,00

Tap water cooling spiral for AC 200

Art. No.	Pack Qty.	€
LP55.1 *	1	140,00

* Longer delivery times possible. Please check with our Sales Department.



Circulating thermostats with integral bath

By Thermo.

- Has a pump circulating set and is ideal for tempering external and closed applications
- Simultaneous display of set and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Bath tubs made of polyphenylene oxide (PPO)
- Thermostat heads can be turned invariably in 90° steps in bath (except SC 100-S5P)
- Pumps with 2 step turbulence reduction system
- Tube olives for tubes with inner-Ø 8 and 12 mm
- Integrated handles
- If bath lid or cooling spiral are required, please order separately

Technical specifications:

Model	① SC 100-S5P	SC 100-S14P	SC 100-S21P
Working temperature (°C)	Working temperature of 13 °C over room temperature to +100 °C		
Temperature constancy (K)	±0.02		
Heating capacity (W)	2000		
Max. pump pressure (mbar)	300		
Max. flow (l/min)	17		
Bath volume (l)	3 to 5	8 to 14	13 to 21
Bath opening (mm)	130 x 135	300 x 190	300 x 375
Depth (mm)	160	160	160
Safety class	I (NFL)		

I (NFL) = non-flammable liquids

Type	Art. No.	Pack Qty.	€
SC 100-S5P	LP57.1 *	1	1168,00
SC 100-S14P	LP58.1 *	1	1243,00
SC 100-S21P	LP59.1 *	1	1288,00

Accessories

for SC 100-S5P, SC 100-S14P and SC 100-S21P

By Thermo.

Tap water cooling spiral for SC 100-S5P, incl. bath lid

Art. No.	Pack Qty.	€
PE44.1 *	1	274,00

Tap water cooling spiral for SC 100-S14P and SC 100-S21P, without bath lid

Art. No.	Pack Qty.	€
LP55.1 *	1	140,00

Accessories:

Bath lid for SC 100-S5P	LP61.1 *	1	50,00
Bath lid for SC 100-S14P	LP62.1 *	1	50,00
Bath lid for SC 100-S21P	LP63.1 *	1	63,00

* Longer delivery times possible. Please check with our Sales Department.

Thermostats



Immersion thermostats Alpha, Silver and Gold

By Lauda.

① Alpha

- Three-key operation
- LED display with 0.1 °C display resolution
- Display of set and actual temperature
- Heating and malfunction indicator lamps
- With timer function (max. runtime 99 h, 59 min)
- With screw clamp for sample tubs up to 25 mm thick

② Silver

- LCD display with 0.01 °C display resolution
- Operated with cursor keys and softkeys
- Simultaneous display of set and actual temperature
- Pump with six adjustable output levels
- With screw clamp for sample tubs up to 25 mm thick
- USB port

③ Gold

- Colour TFT display with 0.01 °C display resolution
- Operated with cursor keys and softkeys
- Simultaneous display of set and actual temperature
- Graphical display of temperature characteristics
- Interval programming
- Timer
- Programmer with five programs and 150 segments
- Pump with six adjustable output levels
- With screw clamp for sample tubs up to 25 mm thick
- USB port

Technical specifications:

Model	① Alpha	② Silver	③ Gold
Working temperature (°C)	+25 to +100	+20 to +200	
Temperature constancy (K)	±0.05	±0,01	
Heating capacity (kW)	1.5	2.0	2.6
Max. pump pressure	0.2	0.55	
Max. flow (l/min)	15	22	
Min. bath depth (mm)	150		
Safety class	I (NFL)	III (FL)	

III (FL) = flammable liquids;

I (NFL) = non-flammable liquids

Type	Art. No.	Pack Qty.	€
Alpha	KP35.1 *	1	775,00
Silver	LX94.1 *	1	1310,00
Gold	LX95.1 *	1	1690,00

Accessories for immersion thermostats Alpha, Silver and Gold

By Lauda.

Attachable cooling spiral for immersion thermostats Alpha

Art. No.	Pack Qty.	€
KP44.1 *	1	56,00

Attachable cooling spiral for immersion thermostats Silver and Gold

Art. No.	Pack Qty.	€
LX96.1 *	1	122,00

* Longer delivery times possible. Please check with our Sales Department.



Sample tubs

By Lauda.

Suitable for immersion thermostat models Alpha, Silver and Gold.

Stainless steel bath tubs

Up to 200 °C. With drain outlet.

Capacity (l)	Inner length (mm)	Inner width (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
3,5	240	135	150	LX97.1 *	1	280,00
11	329	300	150	LX98.1 *	1	399,00
16	329	300	200	LX99.1 *	1	472,00
19	505	300	150	LY00.1 *	1	508,00
25	505	300	200	LY01.1 *	1	569,00
40	750	300	200	LY02.1 *	1	1260,00

Polycarbonate tubs

Up to 100 °C. Transparent.

Capacity (l)	Inner length (mm)	Inner width (mm)	Inner height (mm)	Art. No.	Pack Qty.	€
6	420	130	160	LY03.1 *	1	243,00
12	315	300	160	LY04.1 *	1	363,00
15	130	416	310	LY05.1 *	1	363,00
20	490	300	160	LY06.1 *	1	484,00

* Longer delivery times possible. Please check with our Sales Department.

► Rotitherm®-heating and cooling mediums
see page 1105



Immersion thermostats, CORIO™ C series

By Julabo. For internal standard applications. Flexible use, e.g. for changing bath tanks.

Technical specifications:

Model	CORIO™ C	CORIO™ CD
Working temperature (°C)	+20 to +100	+20 to +150
Temperature constancy (K)	±0.03	
Display resolution (°C)	0.1	
Setting resolution (°C)	0.1	
Heating output (W)	2000	
Max. pump pressure (mbar)	100	350
Max. flow (l/min)	6	15
Dimensions W x D x H (mm)	132 x 160 x 362	
Safety class	I (NFL)	III (FL)

I (NFL) = non-flammable liquids

III (FL) = flammable liquids

Delivery incl. bath clamp for wall thickness up to 30 mm.

Type	Art. No.	Pack Qty.	€
CORIO™ C	CXX7.1 *	1	627,00
CORIO™ CD	CXX8.1 *	1	729,00

* Delivery times may apply to these products. Please ask our sales staff.

Water cooling coil

By Julabo.

For CORIO™ C series thermostats. Suitable for work at near ambient temperature. Attachable cooling coil for counter-cooling with cooling water.

Art. No.	Pack Qty.	€
CXX9.1	1	90,00

Stainless steel bath tanks

By Julabo.

For CORIO™ C series immersion thermostats.

Suitable for temperatures of up to 150 °C.

Capacity (l)	Outer dimensions L x W x D (mm)	Inner dimensions L x W x D (mm)	Art. No.	Pack Qty.	€ each
5	350 x 190 x 180	300 x 150 x 150	CXY0.1	1	212,00
13	380 x 330 x 180	330 x 300 x 150	CXY1.1	1	373,00
17	380 x 330 x 230	330 x 300 x 200	CXY2.1	1	444,00
19	560 x 330 x 180	500 x 300 x 150	CXY3.1	1	434,00
27	560 x 330 x 230	500 x 300 x 200	CXY4.1	1	565,00



Immersion thermostat, model MA

By Julabo.

Model MA

- MULTI-DISPLAY (LED) for actual value and up to 3 desired values, excess and insufficient temperature warning functions, excess temperature protection and for pumping capacity stage
- PID-Temperature control with disturbance offset
- **Pumping capacity electronically adjustable in steps**
- Membrane keypad for setting desired values, warning and safety values and various other menu functions
- Early-warning system warns of sinking liquid levels before safety cut-off engages
- Adjustable excess temperature protection system has LED indicator
- With RS 232-interface
- Excess temperature and sub-level protection for flammable tempering liquids (FL)

Technical specifications:

Working temperature	+20 to +200 °C
Temperature constancy	±0.01 K
Heater capacity	2 kW
Max. flow	11 to 16 l/min
Max. pump pressure	0.45 bar
Dimensions (W x D x H)	130 x 150 x 330 mm

Delivery incl. clamps for max 26 mm thick bath tubs.

Art. No.	Pack Qty.	€
Y891.1 *	1	1299,00

Attachable cooling spiral

By Julabo.

For immersion thermostat ED and MA.

Suitable for working near the ambient temperature.

Art. No.	Pack Qty.	€
L328.1	1	93,00

Stainless steel baths

By Julabo.

For immersion thermostat Model ED and MA.

Can be used at max. 150 °C.

Capacity (l)	Outer dimensions L x W x D (mm)	Inner dimensions L x W x D (mm)	Art. No.	€/ each
13	380 x 330 x 180	330 x 300 x 150	L325.1 *	395,00
17	380 x 330 x 230	330 x 300 x 200	L326.1 *	441,00
19	560 x 330 x 180	500 x 300 x 150	L327.1 *	450,00

* Please check with our Sales Department for delivery period of these products.

Bath thermostats



Bath thermostats CORIO™ C-BT series

Applications: sample temperature control, sample preparation for serology and clinical chemistry, analysis and materials testing.

Technical specifications:

Model	① C-BT5	② C-BT19	③ C-BT27
Working temperature (°C)	+20 to +100		
Temperature constancy (K)	±0.03		
Display resolution (°C)	0.1		
Setting resolution (°C)	0.1		
Heating output (W)	2000		
Max. pump pressure (mbar)	100		
Max. flow (l/min)	6		
Bath opening (mm)	150 x 150150	300 x 350150	300 x 350200
Bath depth (mm)			
Bath volume (l)	3 to 5	14 to 19	20 to 27
Dimensions W x D x H (mm)	230 x 380 x 380	380 x 580 x 380	380 x 580 x 430
Safety class	I (NFL)		

I (NFL) = non-flammable liquids

Delivery incl. transparent bath tank made of Makrolon.

Type	Art. No.	Pack Qty.	€
CORIO™ C-BT5	CXY5.1 *	1	789,00
CORIO™ C-BT19	CXY6.1 *	1	890,00
CORIO™ C-BT27	CXY7.1 *	1	930,00

* Delivery times may apply to these products. Please ask our sales staff.

Water cooling coil

By Julabo.

For CORIO™ C series thermostats. Suitable for work at near ambient temperature. Attachable cooling coil for counter-cooling with cooling water.

Art. No.	Pack Qty.	€
CXX9.1	1	90,00



Immersion thermostats with baths Alpha A-series

By Lauda. For tempering liquids to max +85 °C in open vessels.

- 3-key operation
- LED-Display, display resolution 0.1 °C
- Actual or set value
- With timer function (max. runtime 99 h, 59 min)
- Control indicator lamp for heating and breakdown
- Pump capacity can be reduced to 5 l/min
- Thermostats can be attached via clamp and are therefore suitable for all standard baths (bath depth min. 150 mm)
- Can be upgraded with pump circulating set and ideal for tempering external, closed applications (please order separately)

Technical specifications:

Model	Alpha A 6	① Alpha A 12	Alpha A 24
Working temperature (°C)	+25 to +100		
Temperature constancy (K)	±0.05		
Heating capacity (W)	1500		
Max. pump pressure (mbar)	200		
Max. flow (l/min)	15		
Bath volume (l)	2.5 to 5.5	8 to 12	18 to 25
Bath opening (mm)	145 x 161	235 x 161	295 x 374
Bath depth (mm)	150	200	200
Safety class	I (NFL)		

I (NFL) = non-flammable liquids

Delivery incl. bath made of stainless steel.

Type	Art. No.	Pack Qty.	€
Alpha A 6	KP36.1 *	1	1150,00
Alpha A 12	KP37.1 *	1	1220,00
Alpha A 24	KP38.1 *	1	1420,00

Accessories:

② Pump circulating set	KP39.1	1	56,00
③ Water pipe cooler coil for Alpha-series	KP44.1 *	1	56,00

* Please check with our Sales Department for delivery period of these products.

► Rotitherm®-heating and cooling mediums see page 1105



Circulating thermostats E5 series

With possible temperature control in stainless steel bath. Temperature control of small, external, closed vessels possible via pressure pump.

E5-series

- For max. working temperatures +100 °C
- Programmable timer function (up to 99.99 min)
- LCD display, display resolution 0.1 °C
- Actual or set value reading, (set value reading via keystroke, actual value reading is permanently visible)
- Adjustable key locking mechanism
- Limit value signal optical and/or acoustic
- Adjustable set value limit and automatic alarm
- Excess temperature and sub-level protection for non flammable temperature control liquids (NFL)

E5s-series

Like model E5, however for max working temperatures +150 °C.

Technical specifications:

Model	E5-B4	E5-B6	E5-B12	E5-B16
Working temperature (°C)	+25 to +100			
Constancy of temperature (K)	±0.1			
Heating capacity (W)	1000			
Max. pump pressure (mbar)	120			
Max. flow (l/min)	5			
Bath volume (l)	4	6	12	16
Bath opening W x D (mm)	115 x 115	230 x 75	230 x 270	
Bath depth (mm)	150			200

Model	E5s-B4	E5s-B6	E5s-B12	E5s-B16	E5s-B22
Working temperature (°C)	+25 to +150				
Constancy of temperature (K)	±0.1				
Heating capacity (W)	1800				
Max. pump pressure (mbar)	120				
Max. flow (l/min)	5				
Bath volume (l)	4	6	12	16	22
Bath opening W x D (mm)	115 x 115	230 x 75	230 x 270		
Bath depth (mm)	150			200	250

Delivery incl. bath tub lid, pump outlet and cooling coil.

Type	Bath volume	Max. temp. (°C)	Art. No.	Pack Qty.	€
E5-B4	4	+100	KA69.1 *	1	1099,75
E5-B6	6	+100	KA70.1 *	1	1175,00
E5-B12	12	+100	KA71.1 *	1	1221,20
E5-B16	16	+100	KA72.1 *	1	1255,60
E5s-B4	4	+150	KA73.1 *	1	1145,95
E5s-B6	6	+150	KA74.1 *	1	1221,20
E5s-B12	12	+150	KA75.1 *	1	1255,60
E5s-B16	16	+150	KA76.1 *	1	1291,10
E5s-B22	22	+150	KA77.1 *	1	1325,50

* Please check with our Sales Department for delivery period of this product.



Bath/circulation thermostats, CORIO™ CD-B series

By Julabo. For internal standard applications. Flexible use, e.g. for changing bath tanks.

- External pump connections each with 2 connectors for hoses with 8 and 12 mm inner Ø
- Simple changeover between internal and external circulation
- USB port
- Integrated drain screw (except in model CD-B5)

Technical specifications:

Model	CD-B5	① CD-B13	② CD-B27
Alpha	+20 to +150		
Temperature constancy (K)	±0.03		
Display resolution (°C)	0.1		
Setting resolution (°C)	0.1		
Heating output (W)	2000		
Max. flow (l/min)	15		
Max. pump pressure (mbar)	350		
Bath opening (mm)	150 x 150 x 150	300 x 180 x 150	300 x 350 x 200
Bath depth (mm)			
Bath volume (l)	3 to 5	9 to 13	17 to 27
Dimensions W x D x H (mm)	230 x 380 x 410	380 x 400 x 420	380 x 580 x 470
Safety class	III (FL)		

III (FL) = flammable liquids

Delivery incl. stainless steel bath tank.

Type	Art. No.	Pack Qty.	€
CORIO™ CD-B5	CXY8.1 *	1	1126,00
CORIO™ CD-B13	CXY9.1 *	1	1307,00
CORIO™ CD-B27	CYA0.1 *	1	1499,00

* Delivery times may apply to these products. Please ask our sales staff.

Water cooling coil

By Julabo. For CORIO™ CD series thermostats. Suitable for work at near ambient temperature. Integrable cooling coil for counter-cooling with cooling water.

Art. No.	Pack Qty.	€
CYA1.1	1	90,00

Accessories:

Bath lid for CORIO™ CD-B5	CYA2.1	1	91,00
Bath lid for CORIO™ CD-B13	CYA3.1	1	126,00
Bath lid for CORIO™ CD-B27	CYA4.1	1	136,00

Circulating bath thermostats



Heat thermostats E 4 S and E 20 S

By Lauda. With bath tubs rated for up to 200 °C. Inner basin made of stainless steel. Outer shell made of powder-coated sheet steel. Supplied complete with cooling spiral.

Circulating thermostat E 4 S

- For temperature control of external, closed circuits and simultaneous temperature control in a thermostat bath
- LCD display with 0.01 °C display resolution
- Operated with cursor keys and softkeys
- Simultaneous display of set and actual temperature
- USB port
- Pump connections with 13 mm plastic connector as standard
- **Delivery incl.** bath lid

Heat thermostat E 20 S

- For internal temperature control of liquids in a bath
- LCD display with 0.01 °C display resolution
- Operated with cursor keys and softkeys
- Simultaneous display of set and actual temperature
- USB port
- **Delivery without** bath lid (please order separately)

Technical specifications:

Model	E 4 S	E 20 S
Working temperature	+20 to +200 °C	
Temperature constancy	±0.01 K	
Heating output	2.0 kW	
Max. pump pressure	0.55 bar	
Max. flow	22 l/min	
Bath capacity	3.5 l	19 l
Bath opening	135 x 105 mm	300 x 365 mm
Bath depth	150 mm	
Safety class	III (FL)	

III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
Circulating thermostat E 4 S	LX89.1 *	1	1820,00
Heat thermostat E 20 S	LX90.1 *	1	2070,00

Accessories:

Bath lid, made of stainless steel, two-piece for E 20 S	LX91.1 *	1	182,00
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* Longer delivery times possible. Please check with our Sales Department.



Circulating thermostats with stainless steel bath

By Thermo. For temperature control of external, closed circuits, e.g. densimeters, viscometers, photometers, refractometers, etc. Simultaneous temperature control in thermostat bath possible.

- Simultaneous display of set and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Stainless steel bath for oil
- Thermostat heads can be turned invariably in 90° steps in the bath
- Pumps with 2 step turbulence reduction system
- Drainage outlet (on the front)
- Bath with handles
- Olives for tubes with 8 and 12 mm inner-Ø
- A water cooling coil is optionally available (please order separately).

Technical specifications:

Model	SC 150-S13	SC 150-S21
Working temperature (°C)	Working temperature of +13 °C over room temperature to +150 °C	
Temperature constancy (K)	±0.02	
Heating capacity (W)	2000	
Max. pump pressure (mbar)	300	
Max. flow (l/min)	17	
Bath volume (l)	8 to 13	9 to 21
Bath opening (mm)	239 x 110	296 x 310
Depth (mm)	200	150
Safety class	III (FL)	

III (FL) = flammable liquids

Delivery incl. circulating set for external circulation and bath lid.

Type	Art. No.	Pack Qty.	€
SC 150-S13	LP64.1 *	1	1995,00
SC 150-S21	LP65.1 *	1	2148,00

Accessories:

Water cooling spiral for cooling tasks. Can be connected to tap	LP55.1 *	1	140,00
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* Longer delivery times possible. Please check with our Sales Department.



Bath and circulating thermostats models MA-12 and MA-26

By Julabo. For external temperature control of measuring instruments, gauge heads and other closed objects. Simultaneous temperature control in thermostat bath possible.

- MULTI-DISPLAY (LED) indicates actual value, up to 3 set values, excess and low temperature warning signals, excess temperature protection and pump performance stages
- Setting/display resolution 0.01 °C (to 99.99 °C), 0.1 °C (from 100 °C)
- PID-Temperature control with disturbance offset
- **Pumping capacity electronically adjustable in steps**
- Keypad for setting desired values, warning and safety values and various other menu functions
- Early-warning system warns of sinking liquid levels before safety cut-off engages
- Adjustable excess temperature protection system has LED indicator
- With RS 232-interface
- Excess temperature and sub-level protection for flammable tempering liquids (FL)

Technical specifications:

Model	MA-12	MA-26
Working temperature (°C)	+20 to +200	
Temperature constancy (K)	±0.01	
Heater capacity	2 kW	
Max. flow (l/min)	11 to 16	
Max. pump pressure (bar)	0.45	
Bath opening W x D (mm)	220 x 150	220 x 300
Bath depth (mm)	200	200
Bath volume (l)	12	26
Dimensions W x D x H (mm)	300 x 430 x 450	360 x 610 x 450

Delivery incl. stainless steel bath tub, lid for tub, cooling spiral and pump outlets.

Type	Art. No.	Pack Qty.	€
Model MA-12	Y893.1 *	1	2309,00
Model MA-26	Y894.1 *	1	2594,00

* Please check with our Sales Department for delivery period of these products.



Circulating bath thermostats PC-series

By Thermo. For temperature control in bath or external open and closed circuits.

- 8-language full text display and numerical input via keys in large colour display
- Powerful pressure and suction pump allows open and closed external applications
- Pump with 5-stage turbulence reduction system
- 5-interval programming with 10 segments; options for ramp processing during operation
- Programmable application temperature alarm with signal that can be selected by the user (On/Off) or switch-off function
- Timer with real-time clock for critical applications
- USB interface
- With stainless steel bath
- Thermostat heads can be turned invariably in 90° steps on the bath
- Drain orifice (on the front) and handles
- Connectors for tubes with 8 and 12 mm inner Ø

Technical specifications:

Model	PC300-S7	PC200-S30
Working temperature (°C)	+20 to +300	+20 to +200
Temperature constancy (K)	±0.01	
Heating output (W)	3000	2000
Max. flow (l/min)	24	
Max. pump pressure (mbar)	560	
Max. pump suction (mbar)	380	
Bath capacity (l)	4-7	14-24
Bath opening (mm)	239 x 110	297 x 312
Depth (mm)	200	200
Safety class	III (FL)	

III (FL) = flammable liquids

Delivery incl. circulation set for external circulation and bath lid.

Type	Art. No.	Pack Qty.	€
PC300-S7	PE45.1 *	1	3397,00
PC200-S30	PE46.1 *	1	3342,00

Accessories for circulating bath thermostats PC300-S7 and PC200-S30

By Thermo.

Attachable cooling spiral for PC300-S7

Art. No.	Pack Qty.	€
PE47.1 *	1	274,00

Attachable cooling spiral for PC200-S30

Art. No.	Pack Qty.	€
LP55.1 *	1	140,00

* Longer delivery times possible. Please check with our Sales Department.

Recirculating coolers



Accel-series circulating coolers

By Thermo. For external, closed applications with water as a tempering medium, for example for cooling electrophoresis equipment. The integrated stainless steel bath design minimises the volume and evaporation of tempering medium, however it does not allow access to the bath for direct tempering of samples.

Features:

- Digital temperature display
- LCD-Display with multi-lingual text menu control (German, English, French)
- 5 user-defined set temperatures
- Energy savings feature
- Liquid level indicator
- 2.8 liters internal volume of bath
- Pump speed control - allows the user to set the pump speed at either 50 or 100 % for tighter control
- Pump for hoses with 12 mm inner-Ø
- With discharge nozzle on the front for convenient changing of water
- USB-port
- Low-level alarm

Technical specifications:

Model	Accel 250	Accel 500
Working temperature range (°C)	-10 to +80	
Temperature constancy (K)	±0.1	
Heating power (W)	2000	
Cooling capacity at 20 °C (W)	250	500
Pump pressure (mbar)	300	
Pump rate of delivery (l/min)	15	
Dimensions L x W x H (mm)	620 x 232 x 487	
Weight (kg)	30	

Type	Art. No.	Pack Qty.	€
Accel 250	PE51.1 *	1	2349,00
Accel 500	APT5.1 *	1	2862,00

* Please check with our Sales Department for delivery period of these products.



F-series compact recirculating coolers

By Julabo. **Applications:** rotary evaporator, Soxhlet extractors, distillation equipment, gas chromatographs etc. For external, closed-circuit applications.

Equipment:

- LED temperature display, display resolution 0.1 °C
- PID temperature control
- Draincock for easy drainage
- Level indicator

Technical specifications:

Model	① F250	② F500
Alpha	-10 to +40	0 to +40
Temperature constancy (K)	±0.5	
Heating output (W)	0	
Cooling capacity (W)	20 °C 10 °C 5 °C 0 °C -5 °C	500 400 300 250 -
Max. pump pressure (mbar)	350	500
Max. pump flow (l/min)	15	24
Capacity (l)	1.7 to 2.6	5 to 7.5
Dimensions W x D x H (mm)	240 x 400 x 520	375 x 440 x 590
Weight (kg)	27	34
Power supply	230 V, 50 Hz	

Delivery incl. 2 hose connectors suitable for hoses with 8 and 10 mm inner Ø (Model F250) or hoses with 8 and 12 mm inner Ø (Model F500).

Type	Art. No.	Pack Qty.	€
F250	AXX4.1 *	1	1925,00
F500	AXX5.1 *	1	2750,00

* Delivery times may apply to these products. Please ask our sales staff.

► Rotitherm®-heating and cooling mediums
see page 1105



Microcool recirculating coolers

By Lauda.

Applications: Cooling of rotary evaporators, distillation systems and analytical apparatus, as well as supply of cold traps.

Features

- LED temperature display, display resolution 0.1 °C
- Time-controlled starting and shutdown of the circulation chiller (Auto-Start or Auto-Shut-Down-Timer)
- Illuminated sight glass for checking the thermostating liquid level
- Filler neck on top of apparatus at front
- Removable front grid for cleaning the condenser
- RS 232 interface

Additional features of MC 600 and MC 1200

- Bypass adjusting wheel for regulating the pump pressure
- Pressure gauge for displaying the pump pressure
- Four rollers with holding brakes

Technical data:

Model	① MC 250	② MC 600	③ MC 1200
Operating temperature range	-10 to +40 °C		
Temperature constancy	±0.5 °C		
Heating capacity	0 W		
Cooling capacity (W)			
+20 °C	250	600	1200
+10 °C	200	500	1050
0 °C	150	360	750
-10 °C	90	150	400
Pump pressure (mbar)	350	1300	
Pump delivery rate (l/min)	16	35	
Capacity (l)	2 to 4	4 to 8	7 to 14
Timer	1 min up to 99 h, 59 min		
Dimensions W x D x H (mm)	200 x 350 x 465	350 x 480 x 595	450 x 550 x 650
Weight (kg)	26	51	64
Power supply	230 V, 50 Hz		

Delivery incl. 10 mm pump connector (model MC 250). Two 10 mm hose connectors with a G 3/4" union nut are required for models MC 600 and MC 1200. Please order separately.

Type	Art. No.	Pack Qty.	€
① MC 250	AEP2.1 *	1	2060,00
② MC 600	AEP3.1 *	1	2840,00
③ MC 1200	AEP4.1 *	1	3580,00

Accessories:

10 mm hose connector with G 3/4" union nut	AEP5.1 *	1	13,50
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* Delivery times may apply to these products. Please ask our sales staff.



Refrigerated circulation

By Thermo. For temperature control in bath or for open and closed external circuits.

- Simultaneous display of set and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Stainless steel bath
- Thermostat heads can be turned invariably in 90° steps on the bath
- Drain cock (on the front)
- With integrated handles
- Olives for tubes with 8 and 12 mm inner Ø

Technical specifications:

Model	SC 100-A10	SC 150-A28
Working temperature (°C)	-10 to +100	-28 to +150
Temperature constancy (K)	±0.02	
Heating output (W)	2000	
Cooling capacity at 20 °C (W)	240	320
Max. flow (l/min)	17	
Max. pump pressure (mbar)	300	
Bath capacity (l)	4 to 6	6 to 10
Bath opening (mm)	137 x 124	173 x 129
Depth (mm)	150	204
Safety class (FL)	I	III

I (NFL) = non-flammable liquids

III (FL) = flammable liquids

Delivery incl. bath lid and circulation set for external circulation.

Type	Art. No.	Pack Qty.	€
SC 100-A10	PC14.1 *	1	2682,00
SC 150-A28	PC15.1 *	1	3584,00

* Longer delivery times possible. Please check with our Sales Department.

Refrigerating thermostats



Refrigerating circulating thermostats, CORIO™ CD-F-series

By Julabo. For temperature control of samples in baths or for enclosed external instruments such as refractometers, polarimeters, photometers, viscosimeters, electrophoresis cells, chromatography columns and rotary evaporators.

- External pump connections each with 2 connectors for hoses with 8 and 12 mm inner Ø
- With drain outlet
- Handles (front and back) for easy transportation
- USB port

Technical specifications:

Model	① CORIO™ CD-200F	② CORIO™ CD-600F
Alpha	-20 to +150	-30 to +150
Temperature constancy (K)	±0.03	
Display resolution (°C)	0.1	
Setting resolution (°C)	0.1	
Heating output (W)	2000	
Cooling capacity (kW)	at 20 °C 0.22 0 °C 0.17 -20 °C 0.06	0.6 0.53 0.22
Max. pump pressure (mbar)	350	
Max. flow (l/min)	15	
Bath opening (mm)	130 x 150	220 x 150
Bath depth (mm)	150	150
Bath volume (l)	3 to 4	5 to 7.5
Dimensions W x D x H (mm)	230 x 390 x 650	330 x 470 x 690
Safety class	III (FL)	

III (FL) = flammable liquids

Delivery incl. bath lid.

Type	Art. No.	Pack Qty.	€
CORIO™ CD-200F	CYA5.1 *	1	2763,00
CORIO™ CD-600F	CYA6.1 *	1	4023,00

* Delivery times may apply to these products. Please ask our sales staff.



Table refrigerating thermostats Alpha RA-series

By Lauda. For controlling temperature of external, closed electric loads. Simultaneous internal temperature control possible.

- 3-key operation
- LCD display, display resolution 0.1 °C
- Actual or set value
- With timer function (max. runtime 99 h, 59 min)
- Control lamp for heating, cooling and breakdown.
- Front panel can be removed to clean the condenser
- With drain outlet on the back to empty tempering liquid
- Bath tubs made of stainless steel

Technical specifications:

Model	Alpha RA 8	Alpha RA 12	Alpha RA 24
Working temperature (°C)	-25 to +100		
Temperature constancy (K)	±0.05		
Heating capacity (W)	1500		
Cooling capacity at 20 °C (W)	225	325	425
Max. pump pressure (mbar)	200		
Max. flow (l/min)	15		
Bath volume (l)	5 to 7.5	9.5 to 14.5	14 to 22
Bath opening (mm)	165 x 190	300 x 190	350 x 290
Bath depth (mm)	160		
Safety class	I (NFL)		

I (NFL) = non-flammable liquids

Delivery incl. lid for bath and circulating pump kit.

Type	Art. No.	Pack Qty.	€
Alpha RA 8	KP41.1 *	1	2880,00
Alpha RA 12	KP42.1 *	1	3410,00
Alpha RA 24	KP43.1 *	1	4260,00

* Longer delivery times possible. Please check with our Sales Department.

Refrigerating thermostats



Table refrigerating thermostat models RE 415 S and RE 415 G

By Lauda. For controlling temperature of external loads. Simultaneous internal temperature control possible. Compact outer dimensions.
Delivery incl. thermostat with drain outlet, recessed handles and bath lid.

① RE 415 S

- LCD display with 0.01 °C display resolution
- Operation by means of cursor keys and softkeys
- Simultaneous display of set and actual temperature
- USB port
- Hose connectors for hoses with 10 mm inside Ø

② RE 415 G

- Colour TFT display with 0.01 °C display resolution
- Operation by means of cursor keys and softkeys
- Simultaneous display of set and actual temperature
- Graphical display of temperature characteristics
- Interval function
- Timer
- USB port
- Hose connectors for hoses with 10 mm inside Ø

Technical specifications:

Model	① RE 415 S	② RE 415 G
Working temperature	-15 to +200 °C	
Temperature constancy	±0.02 K	
Display resolution	0.01 °C	
Setting resolution	0.01 °C	
Heating output	2.0 kW	2.6 kW
Cooling capacity at 20 °C	180 W	
Max. pump pressure	0.55 bar	
Max. flow	22 l/min	
Bath capacity	4 l	
Bath opening / bath depth	130 x 105 / 160 mm	
Safety class	III (FL)	

III (FL) = flammable liquids

Type	Art. No.	Pack Qty.	€
RE 415 S	LX92.1 *	1	3390,00
RE 415 G	LX93.1 *	1	3810,00

* Longer delivery times possible. Please check with our Sales Department.



Refrigerating circulating thermostats model F12-MA

By Julabo. For temperature control of external closed instruments such as photometers, refractometers, viscometers, etc. Simultaneous temperature control of smaller objects is possible directly in the thermostat bath. Equipped with drain valve for emptying tempering liquid and with removable ventilation grid.

Model F12-MA

- MULTI-DISPLAY (LED) indicates actual value, up to 3 set values, excess and low temperature warning signals, excess temperature, and stage pump performance protection
- PID-Temperature control with disturbance offset
- **Pumping capacity electronically adjustable in steps**
- Membrane keypad for setting desired values, warning and safety values and various other menu functions
- Early-warning system warns of sinking liquid levels before safety cut-out engages
- Adjustable excess temperature protection visible via LED
- With RS 232-interface
- Excess temperature and sub-level protection for flammable tempering liquids (FL)

Technical specifications:

Working temperature (°C)	-20 to +200
Temperature constancy (K)	±0.01
Heater capacity (kW)	2
Cooling capacity at 20 °C (W)	160
Max. flow (l)	11 to 16
Max. pump pressure (bar)	0.45
Bath opening W x D (mm)	150 x 160
Bath depth (mm)	150
Bath volume (l)	4,5
Dimensions W x D x H (mm)	200 x 360 x 560

Art. No.	Pack Qty.	€
Y896.1 *	1	3420,00

* Please check with our Sales Department for delivery period of these products.

Refrigerating thermostats



Refrigerative circulating thermostats

By Thermo. For temperature control in bath or for open and closed external circuits.

- Simultaneous display of set and actual temperature
- Display resolution 0.1 or 0.01 °C can be selected
- Stainless steel bath
- Thermostat heads can be turned invariably in 90° steps on the bath
- Drain cock (on the front)
- With integrated handles
- Connectors for tubes with 8 and 12 mm inner-Ø
- A bath lid is included with the AC 150-A25 B model. If a bath lid is required for the AC 150-A5B and AC 150-A10B models, please order separately.

Technical specifications:

Model	AC 150-A5B	AC 150-A10B	① AC 150-A25B
Working temperature (°C)	-5 to +100	-10 to +100	-25 to +150
Temperature constancy (K)	±0.01		
Heating capacity (W)	2000		
Cooling capacity at 20 °C (W)	200	250	500
Max. pump pressure (mbar)	475		
Max. flow (l/min)	20		
Max. pump pressure (mbar)	330		
Bath volume (l)	6 to 15	18 to 30	13 to 20
Bath opening (mm)	295 x 190	295 x 375	220 x 243
Bath depth (mm)	200	200	230
Safety class	III (FL)		

III (FL) = flammable liquids

Delivery incl. circulating set for external circulation.

Type	Art. No.	Pack Qty.	€
AC 150-A5B	LP67.1 *	1	3887,00
AC 150-A10B	LP68.1 *	1	3995,00
AC 150-A5B	LP69.1 *	1	4123,00

Accessories:

Bath lid for AC 150-A5B	LP70.1 *	1	76,60
Bath lid for AC 150-A10B	LP71.1 *	1	113,00

* Longer delivery times possible. Please check with our Sales Department.



VersaCool 7 refrigerated circulation thermostat

By Thermo. For heating and cooling. For external closed-circuit temperature control tasks or direct use in circulating baths.

- Languages: German, English, French and four others
- Intuitively operated colour touchscreen (screen size 14.4 cm)
- Electronically adjustable pump output levels (40 to 100 %)
- Graphical display of temperature profile
- Programmable with 30 program steps for up to 10 different programs (max. process time per program step 999 h, max. 10 repetitions per step)
- Integrated data logger incl. 4 GB SSD card
- USB port for reading out the data logger and storing ramp profiles. Ramp profiles can be used for various baths by using the download and upload functions of the USB flash drive
- Overtemperature protection
- RS 232, RS 485 and Micro USB port
- Bluetooth communication port - for remote control and monitoring via iOS or Android smartphone
- Timer function
- Pt 100 external sensor connection for measurement and control in external system. Please order temperature sensor Pt 100 separately

Technical specifications:

Operating temperature range	-20 to +150 °C
Temperature constancy	±0.02 K
Heating capacity	at 230 V 2000 W at 115 V 1200 W
Cooling capacity	20 °C 425 W 0 °C 200 W -10 °C 100 W -20 °C 50 W
Max. pump pressure	1200 mbar
Max. pump flow	14.6 l
Bath capacity	7 l
Bath opening	173 x 297 mm
Bath depth	150 mm
Dimensions (W x D x H)	258 x 585 x 474 mm
Safety class	III (FL)
Weight	36 kg
Power supply	200-240 V, 50/60 Hz to 100-120V, 50/60 Hz

III (FL) = flammable liquids

Delivery incl. bath lid (can be attached to open right or left or placed loosely on top), 2 hose connectors for hoses with 8 and 12 mm inner Ø and 4 GB SSD card.

Art. No.	Pack Qty.	€
CAY7.1 *	1	5358,00

Accessories:

Stainless steel sensor probe Pt 100, L 150 x Ø 3 mm, 3 m connecting cable	CAY8.1 *	1	415,00
Software for controlling VersaCool 7 and reading out the data logger	CAY9.1 *	1	83,20

* Delivery times may apply to these products. Please ask our sales staff.



Refrigerating circulating thermostats F32-ME and FP50-ME

By Julabo. For heating and cooling. For external closed-circuit temperature control tasks or direct use in thermostat baths.

Equipment:

- VFD display for indicating set values and actual values, display resolution 0.01 °C
- PID temperature control
- Electronically adjustable pump output levels
- Early warning system for low liquid level.
- Adjustable high temperature cut-out
- Integrated programmer for 1 program with 10 program steps
- Pt 100 external sensor connection for measurement and control in external system. If external control is required, please order Pt 100 sensor separately

Technical specifications:

Model	① F32-ME	② FP50-ME
Working temperature (°C)	-35 to +200	-50 to +200
Temperature constancy (K)	±0.01	
Heating output (W)	2000	
Cooling capacity (W)	20 °C 450 0 °C 390 -20 °C 150 -30 °C 60 -40 °C -	900 800 500 320 160
Max. pump pressure (mbar)	230 to 450	
Max. pump flow (l/min)	11-16	
Bath volume (l)	8	
Bath opening (mm)	180 x 120	
Bath depth (mm)	150	
Dimensions W x D x H (mm)	310 x 420 x 640	420 x 490 x 700
Safety class	III (FL)	
Weight (kg)	37	55
Power supply	230 V, 50 Hz	

III (FL) = flammable liquids

Delivery incl. 2 hose connectors for hoses with 8 and 10 mm inner Ø.

Type	Art. No.	Pack Qty.	€
F32-ME	AXY6.1 *	1	4881,00
FP50-ME	AXY7.1 *	1	6521,00

Accessories:

Stainless steel sensor probe Pt 100, L 300 x Ø 6 mm, 1.5 m connecting cable	AXY8.1 *	1	249,00
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* Delivery times may apply to these products. Please ask our sales staff.



NEU
NOUVEAU
NEW

Low-temperature circulation thermostat AC200-G50

By Thermo. For temperature control of samples in baths or for open external instruments such as jacketed reaction vessels. Typical applications: material tests, analytical equipment, calibration and crystallisation.

- Languages: German, English, French and two others
- Timer with real-time clock
- Ramp programming for 1 ramp with 30 steps
- Alarm for temperature too high/too low, level alarm
- 3 stage pump
- External pump connections each with 2 connectors for hoses with 8 and 12 mm inner Ø

Technical specifications:

Working temperature	-50 to +200 °C
Temperature constancy	±0.01 K
Display resolution	0.01 °C
Setting resolution	0.01 °C
Heating capacity	2000 W
Cooling capacity at	20 °C 1000 W -20 °C 600 W -40 °C 180 W
Max. pump pressure	475 mbar
Max. flow	20 l/min
Max. pump suction	330 mbar
Bath opening	208 x 104 mm
Bath depth	200 mm
Bath capacity	6 to 12 l
Dimensions (W x D x H)	419 x 554 x 851 mm
Weight	62 kg
Safety class	III (FL)

III (FL) = flammable liquids

Delivery incl. bath lid.

Art. No.	Pack Qty.	€
CYX2.1 *	1	5783,00

* Delivery times may apply to these products. Please ask our sales staff.

Water baths



Water baths Aqualine

By Lauda.

For working temperature range 30 to 95 °C.

- Inside tub made of stainless steel
- Homogeneous temperature distribution and easy cleaning as heating elements are under bath tub (no fixtures inside tub)
- With digital temperature display
- Integrated overheating protection

Technical specifications:

Model	AL 2	AL 5	AL 12	AL 18	AL 25
Useable space					
Volume (l)	1.7	5	11.7	18.2	25.2
Bath opening (mm)	300 x 151		329 x 300	505 x 300	505 x 300
Bath depth (mm)	65	150	150	150	200
Units					
Width (mm)	343	343	372	548	548
Depth (mm)	186	186	335	335	335
Height with lid (mm)	290	290	325	325	375
Temperature constancy (±K)	0.2				
Heating output (kW)	0.5		1.0	1.2	
Power supply	230 V, 50/60 Hz				

Delivery incl. roof-shaped lid for bath made of plastic. Prevents condensed water from dripping into the samples when opening the lid.

Type	Art. No.	Pack Qty.	€
AL 2	HA67.1	1	608,00
AL 5	HA68.1	1	626,00
AL 12	HA69.1	1	696,00
AL 18	HA70.1	1	812,00
AL 25	HA71.1	1	882,00



Floating pellets

Made of PP. Protect against evaporation and fast temperature loss. Decrease hazardous vapours. Resistant against most acids, bases, solvents and mineral oils. Temperature stable, depending on size of pellet, up to +100 °C.

Ø (mm)	Type	Art. No.	Pack Qty.	€
20	for 0,10 m ²	A753.1	250	26,85
38	for 0,13 m ²	A754.1	100	38,60
45	for 0,20 m ²	A755.1	100	42,80



Water baths WBT-series

For working range from 25 to 100 °C.

- Inside tub made of stainless steel
- Microprocessor-controlled temperature control units
- Digital temperature display
- Adjustable upper and lower desired value limit
- Visual and/or acoustic limit value alarm (acoustic)
- With dry run protection
- The memory function saves 3 parameter combinations of set temperature and time
- Tub is emptied via outlet with screw drain plug on base. A drain cock is also available as an option (please order separately)
- Water bath WBT 1 is supplied with a round flad lid, all other models are equipped with a slanting lid
- Heater exposed on floor. **Delivery incl.** removable shelf.

Technical specifications:

Model	WBT 1	WBT 6	WBT 12	WBT 22
Useable space				
Volume (l)	approx. 1-2	approx. 2-6	approx. 4-12	approx. 6-22
Bath opening (mm)	Ø 130	215 x 230	390 x 230	455 x 230
Bath depth (mm)	120	120	120	170
Unit				
Width (mm)	230	320	490	570
Depth (mm)	240	340	340	340
Height with lid (mm)	220	260	260	310
Temp. constancy (±K)	0,25	0,60	0,60	0,60
Heating output (W)	700	1000	1600	2000
Weight (kg)	5	7.5	10.5	12.5
Power supply	230 V, 50-60 Hz			

Type	Art. No.	Pack Qty.	€
WBT1	EA02.1 *	1	617,05
WBT6	EA03.1 *	1	726,70
WBT12	EA04.1 *	1	836,35
WBT22	EA05.1 *	1	924,50

Accessories for water baths WBT-series

Round test tube racks for water bath WBT 1

Made of stainless steel. Holding capacity of bath: 1 per pack

Type	Art. No.	Pack Qty.	€
for 36 test tubes Ø 10.5 mm	EA07.1 *	1	73,10
for 36 test tubes Ø 11.5 mm	EA08.1 *	1	73,10
for 24 test tubes Ø 14.5 mm	EA09.1 *	1	73,10
for 16 test tubes Ø 18.5 mm	EA10.1 *	1	73,10
for 6 test tubes Ø 32 mm	EA11.1 *	1	73,10

Test tube racks for water baths WBT 6 to WBT 22

Made of stainless steel. Holding capacity of water baths:

WBT 6 = 3 racks, WBT 12 = 5 racks, WBT 22 = 6 racks.

Type	Art. No.	Pack Qty.	€
for 56 test tubes Ø 10.5 mm	EA12.1 *	1	48,40
for 56 test tubes Ø 11.5 mm	EA13.1 *	1	48,40
for 33 test tubes Ø 14.5 mm	EA14.1 *	1	48,40
for 18 test tubes Ø 18.5 mm	EA15.1 *	1	48,40
for 6 test tubes Ø 32 mm	EA16.1 *	1	48,40

Drain cock for water baths WBT 1 to WBT 22

Type	Art. No.	Pack Qty.	€
Drain cock, complete	EA17.1 *	1	79,55

* Longer delivery times possible. Please check with our Sales Department.

Water baths



Water baths WNB-series

By Memmert.

Features

- Temperature setting ranges from 10 to 95 °C, with additional boiling level optional
- Control range begins at least 5 °C **above** ambient temperature
- Available with shaking device (see next page)
- With programmable hold-time and switch-on delay
- Electronic microprocessor-PID-regulator
- Mechanical temperature limiter TB
- Integrated digital clock (from 1 min to 99 h and 59 min)
- Stainless steel work area
- Bath can be emptied via outlet valve
- Heater is located under deep-drawn, easy-to-clean ribs.
- **We recommend ordering the matching floor grid if no test tube racks are to be used**

Technical specifications:

Models	WNB 7	WNB 10	WNB 14	WNB 22	WNB 29	WNB 45
Useable space						
Volume approx. (l)	7	10	14	22	29	45
Length (mm)	240	350	350	350	590	590
Width (mm)	210	210	290	290	350	350
Height (mm)	140	140	140	220	140	220
Device						
Length (mm)	468	578	578	578	818	818
Width (mm)	356	356	436	436	516	516
Height, with flat lid (mm)	238	238	238	296	238	296
Height, with slanting lid (mm)	337	337	347	405	343	401
Number of ring openings (flat lid)	1	3	6	6	8	8
Ø openings (flat lid) (mm)	187	107	87	87	107	107
Accuracy, temporal / spatial	±0.1 / ±0.25 °C					

① Water baths with slanting lid

Type	Art. No.	Pack Qty.	€
WNB 7	L362.1 *	1	615,00
WNB 10	L363.1 *	1	692,00
WNB 14	L364.1 *	1	758,00
WNB 22	L365.1 *	1	840,00
WNB 29	L366.1 *	1	1037,00
WNB 45	L367.1 *	1	1246,00

② Water baths with flat lid and set of rings

Type	Art. No.	Pack Qty.	€
WNB 7	L368.1 *	1	628,00
WNB 10	L369.1 *	1	712,00
WNB 14	L370.1 *	1	780,00
WNB 22	L402.1 *	1	862,00
WNB 29	L403.1 *	1	1089,00
WNB 45	L404.1 *	1	1298,00

* Please check with our Sales Department for delivery period of this product.

Test tube trays for

WNB 10 / WNB 14 / WNB 22 / WNB 29 / WNB45

By Memmert.

Test tube trays, 2-row

No. of holes	Ø (mm)	Width (mm)	Art. No.	Pack Qty.	€
40	10	40	L406.1 *	1	45,00
40	12	40	L407.1 *	1	45,00
24	14,5	42	L408.1 *	1	45,00
24	18	50	L409.1 *	1	45,00
20	21	55	L410.1 *	1	51,50
12	32	80	L411.1 *	1	55,00

Test tube trays, 3-row

No. of holes	Ø (mm)	Width (mm)	Art. No.	Pack Qty.	€
60	10	50	L412.1 *	1	55,00
60	12	55	L413.1 *	1	55,00
36	14,5	60	L414.1 *	1	55,00
36	18	70	L415.1 *	1	55,00
30	21	80	L416.1 *	1	55,00

Test tube trays, 4-row

No. of holes	Ø (mm)	Width (mm)	Art. No.	Pack Qty.	€
80	10	64	L417.1 *	1	64,00
80	12	75	L418.1 *	1	64,00
48	14,5	85	L419.1 *	1	64,00
48	18	95	L420.1 *	1	67,00
40	21	110	L421.1 *	1	67,00

Test tube trays for WNB 7

No. of holes	Ø (mm)	Width (mm)	Art. No.	Pack Qty.	€
56	18	-	L422.1 *	1	79,00

Floor grids for water baths, WNB-series

By Memmert.

Both sides can be used. Height 30 mm or 60 mm.

Type	Art. No.	Pack Qty.	€
For WNB 7	N895.1 *	1	45,00
For WNB 10	N896.1 *	1	47,00
For WNB 14/22	N897.1 *	1	53,00
For WNB 29/45	N898.1 *	1	110,00

* These products may be subject to delivery times. Please consult our sales department.



Boiling cut-out

By Severin. Enamelled housing Grid insert, plastic lid. Heat-insulating handles. Control lamp. With overheating protection. Incl. draincock.

Technical specifications:

Capacity	approx. 9 l
Ideal for temperatures / Control accuracy	30-100 °C / ±5 °C
Heater capacity	1000 W
Inside-Ø / Height (Total/Pot)	260 mm/ 290/190 mm
Current	230 V, 50 H

Art. No.	Pack Qty.	€
AT42.1	1	117,20

Water baths



HB 10 heating bath

By IKA.
Suitable as water bath or oil heating bath for precise liquid temperature control.

- LCD display for displaying nominal/actual temperature values
- Integrated carry handles
- Adjustable safety circuit, for safe shutdown in the event of a fault (50 to 190 °C)
- Protection against dry running
- Product in contact with stainless steel 1.4404
- Heating element is positioned under the bath tank for easy cleaning (there are no fittings in the bath tank).

Technical data:

Heating function	
Temperature range	Room temperature to 180 °C
Heating capacity	1300 W
Setting accuracy	±1 K
Controller variance 3 l water / 90 °C 3 l silicone oil / 50 mPas / 150 °C	±1 K ±2 K
General data	
Max. bath volume	3 l
Outer height	185 mm
Inner height	134 mm
Dimensions (W x H x D)	295 x 190 x 265 mm
Weight	3 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
AET1.1	1	1419,00

► For water bath preservatives, see page 1078



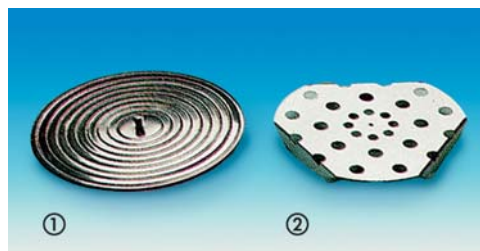
Heating bath HBR 4 control with magnetic drive

By IKA. **Effective volume 4 l.** Interior is free of heating coils (no fixtures in bath tub). Made of stainless steel. Optionally low-viscosity oil (50 mPas) or water as heat transfer medium. Digital display for desired, actual and safety temperatures as well as for speed. **Integrated magnetic drive rotates heating medium**, which enables better heat distribution in bath. Heating element under the bath tank (no fittings in bath tank). With RS 232-interface.

Technical specifications:

Heating function	
Temperature range	Room temp. max 200 °C
Heating capacity	1000 W
Setting accuracy	±1 K
Deviation (3 l H ₂ O, 90 °C)	±1 K
Temperature display	digital
Stirrer drive	
rpm-range	100 to 800 rpm
General specifications	
Volume	4 l
Inner dimensions	Height 160 mm, Ø 200 mm
Outer dimensions	Height 250 mm, Ø 250 mm
Weight	5.7 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
LN86.1	1	3014,00



① Set of rings for water bath HBR 4 control

To cover bath. Consists of 10 rings with a Ø of 25 to 185 mm. Prevents dust, heat loss or water contamination of oil baths and oil mist formation when working with oil.

Art. No.	Pack Qty.	€
9700.1	1	429,00

② Intermediate bottom for water bath HBR 4 control

Made of stainless steel. For better heat distribution or without disrupting the movement of the rotating stirring bar.

Art. No.	Pack Qty.	€
9689.1	1	196,00

Shaking water baths



Water bath with circulation pump WPE 45

By Memmert.

Equipment:

- Digital display for temperature or countdown timer (1 min to 999 h)
- Pump can be switched on and off
- Pump switch-off at end of program
- Textured stainless steel housing
- Bath drainage by drain valve
- For use, we recommend a bottom grid (please order separately)

Overheat protection (3-level)

- If overheating occurs due to a fault, the heater is switched off when the setpoint is exceeded by approx. 10 °C.
- Independently working, adjustable electronic overtemperature controller TWV (protection class 3.1) or temperature limiter TWB (protection class 2)
- Mechanical temperature limiter TB (protection class 1) for heater switch-off when max. bath temperature is exceeded by approx. 30 °C

Technical specifications:

Working temperature range	15 °C above room temperature up to +95 °C and additional boiling mode (only available when pump is switched off)
Temperature adjustment range	10 to 95 °C
Temperature constancy (in time/space)	±0.1/±0.3 °C
Display resolution	0.1 to 95 °C
Heating output	2800 W
Capacity	45 l
Inner dimensions (L x W x H)	590 x 350 x 220 mm
Outer dimensions (L x W x H)	818 x 516 x 401 mm
Weight	35 kg
Power supply	230 V, 50-60 Hz

Delivery incl. stainless steel gable cover.

Art. No.	Pack Qty.	€
YY20.1	1	1715,00

Accessories: bottom grid for water bath with circulation pump WPE 45

Usable on both sides. Height 30 or 60 mm.

Art. No.	Pack Qty.	€
N898.1 *	1	110,00

* These products may be subject to delivery times. Please consult our sales department.



Shaking water bath SBS40

By Stuart.

- Optionally available with tray for back and forth shaking movements (type SBS40/1) or tray for circular movements (type SBS40/2)
- The shaking movement is produced by inserting the tray
- Loading configurations per tray: e.g. Erlenmeyer flasks - 8 x 250 ml or 6 x 500 ml or 4 x 1000 ml
- Each tray includes 15 springs for attaching bottles, beakers and bulbs in different sizes
- Digital temperature display (resolution 0.1 °C)
- With overheating protection and drain cock

Technical specifications:

Capacity	24 l
Working temperature range	Infinitely adjustable from 19 to 95 °C, control range starts at 10 °C above ambient temperature
Temperature stability	±0.25 °C
Shaking frequency	20 to 130 rpm, infinitely adjustable
Shaking amplitude (stroke)	20 mm
Inner dimensions (W x D x H)	300 x 500 x 200 mm
Outer dimensions (W x D x H)	335 x 580 x 320 mm
Weight	17 kg
Power supply	230 V, 50 Hz

Delivery without stainless steel cover, shaking tray and test tube racks (please order separately).

Art. No.	Pack Qty.	€
AK06.1 *	1	2679,00

Accessories:

Shaking tray SBS40/1 for back and forth movement	AK07.1 *	1	445,00
Shaking tray SBS40/2 for circular movement	AK08.1 *	1	485,00
Stainless steel gable cover with insulated handle	AK09.1 *	1	329,00
Replacement springs	AK10.1 *	10	99,50

* Longer delivery times possible. Please check with our Sales Department

Accessories for shaking water bath SBS40

By Stuart. **Test tube racks**

Made of stainless steel. Max. capacity of a shaking tray: 2 pce.

Type	Art. No.	Pack Qty.	€
For 143 reaction vials 1.5/2.0 ml	XY08.1	1	215,00
For 120 culture tubes Ø 13 mm	XY09.1	1	215,00
For 72 culture tubes Ø 16 mm	XY10.1	1	215,00
For 30 culture tubes Ø 26 mm	XY11.1	1	215,00
For 56 centrifuge tubes 15 ml	XY12.1	1	215,00
For 25 centrifuge tubes 50 ml	XY13.1	1	215,00

Shaking water baths



WNB series water baths with shaking device

By Memmert.

- Adjustment range from 10 to 95 °C, with additional heat setting
- Range of adjustment begins at 5 °C **above** ambient temperature
- Integrated digital clock (1 min to 99 h and 59 min)

With 15 mm horizontal back-and-forth shaking strokes.

Continuously variable frequency adjustment (35 to 160 strokes per min).

Delivery incl. mounting frame for perforated mounting plate and test tube rack. Bath drainage by drain valve.

Note: to operate the water bath, you require either a perforated mounting plate with fixing clamps or test tube racks (please order separately). The perforated mounting plate includes a holding basket which is also sufficient for general operation.

Without lid. If a stainless steel lid is required, please include with first order.

Technical specifications:

Model	WNB 14	WNB 22	WNB 29	WNB 45
Useable volume				
Capacity approx. (l)	14	22	29	45
Length (mm)	350	350	590	590
Width (mm)	290	290	350	350
Height (mm)	140	220	140	220
Unit				
Length (mm)	578	578	818	818
Width (mm)	436	436	516	516
Height (mm), with lid	347	405	343	401
Max. holding capacity of holding clamps				
100 ml flask	12	12	18	18
200 ml flask	6	6	14	14
300 ml flask	6	6	14	14
500 ml flask	5	5	8	8
Time/space resolution	±0.1 / ±0.25 °C			
Power supply	230 V, 50/60 Hz			

Type	Art. No.	Pack Qty.	€
WNB 14	N899.1 *	1	1312,00
WNB 22	N900.1 *	1	1394,00
WNB 29	YL74.1 *	1	1956,00
WNB 45	YL75.1 *	1	2165,00

* These products may be subject to delivery times. Please consult our sales department.

Accessories for WNB series water baths with shaking device

By Memmert.

Steam-trapping slanting lid

Type	Art. No.	Pack Qty.	€
For WNB 14 and WNB 22	N901.1 *	1	110,00
For WNB 29 and WNB 45	YL76.1 *	1	200,00

Perforated fixative plate for clamps with basket

Type	Art. No.	Pack Qty.	€
For WNB 14 and WNB 22	N902.1 *	1	99,50
For WNB 29 and WNB 45	YL77.1 *	1	179,00

Clamps for flasks

Type	Art. No.	Pack Qty.	€
Clamps for 100 ml flasks	N903.1 *	1	27,50
Clamps for 200 ml flasks	N904.1 *	1	28,50
Clamps for 300 ml flasks	N905.1 *	1	32,00
Clamps for 500 ml flasks	N906.1 *	1	34,00

Insert racks for test tubes for WNB 14 and 22

Type	Art. No.	Pack Qty.	€
Insert racks for 110 test tubes Ø 14.5 mm	N907.1 *	1	119,00
Insert racks for 90 test tubes Ø 18.0 mm	N908.1 *	1	119,00
Insert racks for 25 test tubes Ø 32.0 mm	N909.1 *	1	119,00

Insert racks for test tubes for WNB 29 and 45

Type	Art. No.	Pack Qty.	€
Insert racks for 216 test tubes Ø 14.5 mm	YL78.1 *	1	225,00
Insert racks for 180 test tubes Ø 18 mm	YL79.1 *	1	225,00
Insert racks for 54 test tubes Ø 32 mm	YL80.1 *	1	225,00

* Please check with our Sales Department for delivery period of these items.





Oil baths, ONE-series

By Memmert.

Features

- Temperature setting ranges from +20 to +200 °C
- Control range begins at least 5 °C above ambient temperature
- Digital setpoint setting (0.1 °C-increments) and actual value display
- Integrated digital clock (1 min to 999 h)
- Stainless steel work area
- With programmable hold-time and switch-on delay
- We recommend ordering the corresponding grid if no test tube rack is to be used
- Bath can be emptied via outlet valve

Technical specifications:

Models	ONE 7	ONE 10	ONE 14	ONE 22	ONE 29	ONE 45
Useable space						
Volume approx. (l)	7	10	14	22	29	45
Length (mm)	240	350	350	350	590	590
Width (mm)	210	210	290	290	350	350
Height (mm)	140	140	140	220	140	220
Housing						
Length (mm)	468	578	578	578	818	818
Width (mm)	356	356	436	436	516	516
Height (mm)	337	337	347	405	343	401
Accuracy temporal / spatial (°C)	±0.3 / ±1.0					

Delivery incl. slanting lid.

Type	Art. No.	Pack Qty.	€
ONE 7	EX21.1 *	1	941,00
ONE 10	EX22.1 *	1	998,00
ONE 14	EX23.1 *	1	1053,00
ONE 22	EX24.1 *	1	1132,00
ONE 29	EX25.1 *	1	1318,00
ONE 45	EX26.1 *	1	1507,00

Grids for oil baths, ONE-series

By Memmert. Both sides can be used. Height 30 mm or 60 mm.

Type	Art. No.	Pack Qty.	€
For ONE 7	N895.1 *	1	45,00
For ONE 10	N896.1 *	1	47,00
For ONE 14/22	N897.1 *	1	53,00
For ONE 29/45	N898.1 *	1	110,00

Test tube racks for ONE 10 to ONE 45

By Memmert. Test tube racks, 2-row

No. of holes	Ø (mm)	Width	Art. No.	Pack Qty.	€
40	12	40	L407.1 *	1	45,00
24	18	50	L409.1 *	1	45,00

* These products may be subject to delivery times. Please consult our sales department.



Single-block thermostat Accublock™ Mini

For precision temperature control of 12 x 1.5 ml reaction vials.

- Temperature adjustment via digital display
- Digital display of actual temperature
- Acoustic timer adjustable from 1 min to 19 h, 59 min (has no effect on heater performance; no shutdown upon expiration of the timer)
- Integrated aluminium block; ports have been adapted to fit 1.5 ml reaction vials

Technical specifications:

Operating temperature range	5 °C above ambient temperature up to 100 °C
Temperature adjustment range	20 to 101 °C
Resolution	0.1 °C
Temperature accuracy	±0.2 °C
Heating-up time	approximately 20 min to 100 °C
Dimensions (W x D x H)	110 x 140 x 55 mm
Weight	1.4 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. AccuRack™ for fast loading and unloading of reaction vials.

Art. No.	Pack Qty.	€
PE74.1	1	349,40

Block thermostats



Digital single/dual block thermostats

For precise heating of reaction vials, test tubes, type Falcon® centrifuge tubes and 96 well PCR trays.

- Stainless steel housing
- With LED temperature display
- Suitable for one or two interchangeable blocks depending on model

Technical specifications:

Working temperature range	5 °C above ambient temperature up to 150 °C
Temperature adjustment range	0 to 150 °C
Resolution / accuracy	±0.3 °C / 0.1 °C
Heating-up time	approximately 35 min to 100 °C
Dimensions (W x D x H)	200 x 265 x 83 mm
Power supply	230 V, 50/60 Hz

Delivery incl. lift rod for changing blocks.

Does not include interchangeable blocks (please order separately).

Type	Capacity	Art. No.	Pack Qty.	€
Single block thermostat	1 interchangeable block	PY25.1	1	371,95
Dual block thermostat	2 interchangeable blocks	YC47.1	1	463,35



Interchangeable blocks for single/dual block thermostats

Made of aluminium.

Interchangeable blocks for reaction vials

Dimensions: W 90 x D 76 x H 51 mm

Type	Usable for	Art. No.	Pack Qty.	€
48 reaction vials 0.2 ml	Single/dual	PY26.1	1	140,85
24 0.5 ml reaction vials	Single/dual	PY27.1	1	140,85
24 1.5 ml reaction vials	Single/dual	PY28.1	1	140,85
24 reaction vials 2.0 ml	Single/dual	PY29.1	1	140,85

Interchangeable blocks for test tubes/sample vials

Dimensions: W 90 x D 76 x H 51 mm

Type	Usable for	Art. No.	Pack Qty.	€
20 tubes Ø 12 mm	Single/dual	PY30.1	1	140,85
12 tubes Ø 16 mm	Single/dual	PY31.1	1	140,85
6 tubes Ø 20 mm	Single/dual	YC48.1	1	101,05
6 tubes Ø 25 mm	Single/dual	YC49.1	1	101,05

Interchangeable blocks for type Falcon® centrifuge tubes

Dimensions: W 90 x D 76 x H 83 mm

Type	Usable for	Art. No.	Pack Qty.	€
12 centrifuge tubes 15 ml	Single/dual	PY32.1	1	140,85
5 centrifuge tubes 50 ml	Single/dual	PY33.1	1	140,85

Interchangeable block for custom fabrication

Dimensions: W 90 x D 76 x H 51 mm

Type	Usable for	Art. No.	Pack Qty.	€
Without drill holes	Single/dual	YC50.1	1	97,30

Interchangeable blocks

for 96 well PCR trays and microtitration plates

Please note: only 1 PCR block can be used in a dual-block thermostat (due to block size).

Type	Usable for	Art. No.	Pack Qty.	€
PCR plate, 96 well (with/without frame)	Single	PY34.1	1	292,40
PCR plate, 96 well (with/without frame)	Dual	YC51.1	1	253,70
Microtitration plate, 96 well	Dual	YC52.1	1	197,80

Block thermostats



Touchscreen block thermostats

By Thermo. For precision temperature control of reaction vials, test tubes and centrifuge vials of the type Falcon®.

- 4.3" touchscreen display with time and temperature display
- PID thermostat
- Integrated timer function
- 10 user-definable programs for up to 5 successive steps with different temperature and operating time
- Connectivity for external Pt 1000 temperature sensor (please order separately); in this case, temperature is controlled and displayed using the external sensor instead of the built-in temperature sensor

Technical specifications:

Operating temperature range	5 °C above ambient temperature up to 130 °C
Temperature adjustment range	0 to 135 °C
Resolution / accuracy	±1 °C / 0.1 °C
Timer	0 to 99 h 59 min in 1 min increments or continuous operation
Heating-up time	1/2 block thermostat: 30 to 130 °C approximately 20 min 4-block thermostat: 30 to 130 °C approximately 25 min
Dimensions (W x D x H)	1-block thermostat: 200 x 373 x 100 mm 2-block thermostat: 200 x 403 x 100 mm 4-block thermostat: 200 x 535 x 100 mm
Weight	1-block thermostat: 3.4 kg 2-block thermostat: 3.7 kg 4-block thermostat: 5.1 kg
Power supply	200-240 V, 50/60 Hz

Delivery incl. lift rod for changing blocks.

Does not include interchangeable blocks (please order separately).

Type	Capacity	Art. No.	Pack Qty.	€
1-block thermostat	1 exchangeable thermoblock	CTN8.1	1	497,00
2-block thermostat	2 exchangeable thermoblocks	CTN9.1	1	564,00
4-block thermostat	4 exchangeable thermoblocks	CTP0.1	1	688,00



Exchangeable thermoblocks for touchscreen block thermostats

① Exchangeable thermoblock for reaction vials

Dimensions W 124 x D 76 x H 39 mm.

Type	Art. No.	Pack Qty.	€
28 reaction vials 1.5 ml	CTP1.1	1	60,70
28 2 reaction vials 2.0 ml	CTP2.1	1	60,70

② Combined exchangeable thermoblocks for reaction vials

Dimensions W 124 x D 76 x H 39 mm.

Type	Art. No.	Pack Qty.	€
30/20 reaction vials 0.5/0.2 ml	CTP3.1	1	118,00
18/10 reaction vials 1.5/2.0 ml	CTP4.1	1	85,80

③ Exchangeable thermoblocks for centrifuge vials of type Falcon®

Dimensions W 124 x D 76 x H 113 mm.

Type	Art. No.	Pack Qty.	€
15 centrifuge tubes 15 ml	CTP5.1	1	285,00
4 centrifuge tubes 50 ml	CTP6.1	1	285,00

④ Exchangeable thermoblocks for test tubes

Dimensions W 124 x D 76 x H 39 mm.

Type	Art. No.	Pack Qty.	€
15 tubes Ø 16 mm	CTP7.1	1	81,60
12 tubes Ø 18 mm	CTP8.1	1	81,60
8 tubes Ø 20 mm	CTP9.1	1	66,00

External temperature sensor

Type	Art. No.	Pack Qty.	€
External Pt 1000 temperature sensor	CTT0.1	1	26,20

Block thermostats



Rotilabo®-block thermostat model H 250

Block thermostat for use in biological, physical and chemical laboratories.

Features

- Two removeable aluminium blocks
- Digital temperature display (set/actual value)
- **With connection for external temperature sensor (please order separately)**
- Control LED for heating, set/actual value control and time
- **Integrated short-time alarm (1 to 480 min), time setting in minute increments.**
- Switching function of timer:
 1. Timer without influencing heater function
 2. Timer switches the heater off after the time has lapsed
- Stainless steel casing with solid Al hotplate
- **For faster heating times and higher temperature precision: the block inserts can be fixed to the hotplate with a screw**

Technical specifications:

Working temperature range	+25 to +250 °C
Temperature constancy	±0.1 K
Heating times	to 100 °C approx. 15 min to 200 °C approx. 30 min
Timer signal	acoustic
Unit dimensions (W x D x H)	240 x 280 x 110 mm
Dimensions of heating blocks (W x D x H)	78 x 115 x 49 mm
Heating capacity	500 W
Voltage	230 V, 50/60 Hz

Delivery incl. block thermostat H 250, screws, 6 kt-wrench and removal rod. Comes without heating blocks (please order separately).

Art. No.	Pack Qty.	€
Y264.1	1	731,00

Accessories for Rotilabo®-block thermostat model H 250

Heating blocks for different reaction tubes

Type	Art. No.	Pack Qty.	€
24 tubes/test tubes Ø 10 mm	Y265.1	1	120,40
24 tubes/test tubes Ø 12 mm	Y266.1	1	120,40
12 tubes/test tubes Ø 16 mm	Y267.1	1	117,20
12 tubes/test tubes Ø 19 mm	Y268.1	1	117,20

Heating blocks for centrifuge tubes

Type	Art. No.	Pack Qty.	€
40 centrifuge tubes 0.5 ml	Y269.1	1	124,70
24 centrifuge tubes 1.5 ml	Y270.1	1	120,40
24 centrifuge tubes 2.0 ml	Y271.1	1	120,40

External temperature sensor

Type	Art. No.	Pack Qty.	€
External temperature sensor Pt 100	Y272.1	1	127,95



Cooling and heating block thermostat TK 23

By Hettich Benelux. For dry, clean and speedy **cooling and heating**. For centrifuge tubes, sample vials and microtiter plates.

Features:

- **Cooling function up to 16 °C below room temperature, heating up to +90 °C**
- Active counter-cooling with Peltier elements
- LCD-display with background lighting for all set and actual values
- **Allows direct input of temperature curves**
- Programming and transmitting data is also possible via the integrated USB-interface 2.0

Programmable control:

Programmable with 30 program steps for up to 9 different programs. Program-parameters: Set temperature, process time (max. 99 h / endless), rise time (The time in which the set temperature should be reached) etc.

Technical specifications:

Working temperature range	16 °C below room temperature up to +90 °C
Temperature setting range	-10 to +90 °C
Accuracy / Resolution	±0.1 °C / 0.1 °C
Medium heating speed	approx. 4 °C/min from +41 °C
Medium cooling speed	approx. 5 °C/min below +20 °C approx. 2 °C/min to +20 °C
Dimensions (W x D x H)	220 x 345 x 195 mm

Delivery without changing block (please order the changing block separately).

Type	Capacity	Art. No.	Pack Qty.	€
Cooling and heating block thermostat TK 23	2 changing blocks	HA03.1	1	1718,95

Changing blocks for block-thermostat TK 13

By Hettich Benelux. For additional suitable blocks, please see changing blocks for cooling and heating ThermoMixers.

Changing blocks for centrifuge tubes

Type	Art. No.	Pack Qty.	€
24 reaction vials 1.5 ml tapered	AY23.1 *	1	231,15
24 reaction vials 2.0 ml cylindrical	AY24.1 *	1	231,15

Changing blocks for sample tubes

Type	Art. No.	Pack Qty.	€
14 centrifuge tubes, each 15 ml, type Falcon®	AY27.1 *	1	321,45

* Longer delivery times possible. Please check with our Sales Department.

Thermoshaker



NEU
NOUVEAU
NEW

Cooling and heating Thermoshaker Basic and Pro

Applications: enzyme reactions, transformations, denaturation of DNA and RNA, isolation of DNA fragments from agarose gels, proteins, protein purification and cultivation of bacteria or yeasts.

Features:

- Two-line plain text display with backlit LCD display
- Simultaneous display of actual and nominal values
- Timer operation: 1 min to 99 h, 59 min; adjustable in 1 min increments or continuous operation
- Shortmix function

Heating Thermoshaker Basic

- For rapid heating and mixing
- Memory function saves 5 combinations of rpm and time parameters

Cooling and heating Thermoshaker pro

- For cooling, heating and mixing
- 5 individually adjustable program segments with an option for combining segments to create a ramp or to activate each segment individually

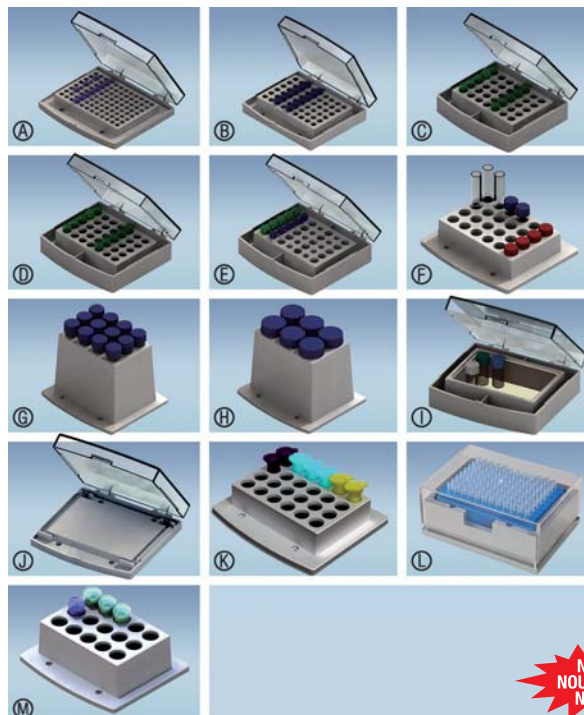
Technical specifications:

Operating temperature range	Basic: 5 °C above room temperature up to +100 °C Pro: 20 °C below room temperature up to +100 °C
Temperature adjustment range	4 to +100 °C
Resolution / accuracy	<±0.5 / 0.1 °C
Average heating rate:	from 20 to 100 °C in approx. 13 min
Medium cooling rate *	Basic: - Pro: from 100 to 20 °C in approx. 14 min from 20 to 4 °C in approx. 13 min
Timer	1 min to 99 h, 59 min / continuous operation
Shaking frequency	200 to 1500 rpm, adjustable in increments of 10
Shaking stroke	2 mm
Dimensions (W x D x H)	220 x 280 x 170 mm
Weight	9 kg
Voltage	230 V, 50 Hz

*at 22 °C room temperature

Delivery without exchangeable thermoblocks (please order separately; refer to Exchangeable thermoblocks for cooling and heating Thermoshaker Basic and Pro).

Type	Temperature range	Capacity	Art. No.	Pack Qty.	€
Basic	Heating	1 exchangeable thermoblock	CPL7.1	1	1386,75
Pro	Heating and cooling	1 exchangeable thermoblock	CPL8.1	1	2031,75



NEU
NOUVEAU
NEW

Exchangeable thermoblocks for cooling and heating Thermoshaker

Suitable for Basic and Pro models

Exchangeable thermoblocks incl. lid for reaction vials

Image	Type	Art. No.	Pack Qty.	€
A	96 PCR vials 0.2 ml	CPL9.1	1	295,65
B	54 reaction vials 0.5 ml	CPN0.1	1	295,65
C	35 reaction vials 1.5 ml	CPN1.1	1	295,65
D	35 reaction vials 2.0 ml	CPN2.1	1	295,65
E	15 reaction vials 0.5 and 20 x 1.5 ml	CPN3.1	1	295,65
M	15 reaction vials 5 ml (max. 1200 rpm)	CPN4.1	1	295,65

Exchangeable thermoblocks for sample tubes and vials

Image	Type	Art. No.	Pack Qty.	€
F	24 sample tubes Ø 12 mm (max. 1200 rpm)	CPN5.1	1	295,65
K	24 test tubes Ø 14 mm (max. 1200 rpm)	CPN6.1	1	295,65

Exchangeable thermoblocks for centrifuge tubes

Image	Type	Art. No.	Pack Qty.	€
G	12 centrifuge vials 15 ml type Falcon® (max. 750 rpm)	CPN7.1	1	295,65
H	6 centrifuge vials 50 ml type Falcon® (max. 750 rpm)	CPN8.1	1	295,65

Water bath block incl. lid

Image	Type	Art. No.	Pack Qty.	€
I	Water bath block (L 103 x W 67 x D 29 mm)	CPN9.1	1	295,65

Exchangeable thermoblock incl. lid for microtiter plates

Image	Type	Art. No.	Pack Qty.	€
J	Microtiter plates 96	CPP0.1	1	295,65

Exchangeable thermoblock incl. lid for deepwell plate

Image	Type	Art. No.	Pack Qty.	€
L	96 well deepwell plate (max. 900 rpm, max. up to 80 °C only)	CPP1.1	1	295,65

Thermoshaker



Heating Thermoshaker

By Thermo. For heating and mixing in 0.5/1.5 ml reaction vials, 50 ml test tubes or 96-well plates. With circular shaking action.

Applications: cultivating bacteria and yeast, enzyme reactions, denaturation of DNA, RNA and proteins, etc.

- VFD display
- PID controller for constant shaking action and precise temperature control
- Programmable with 10 program steps for max 7 different programs (program parameters: nominal temperature, process time per program step and shaking frequency)
- 2 timer modes (1 min to 99 h, 59 min):
 - Process time does not begin to elapse until nominal temperature is reached
 - Timer starts immediately after setting the required process time

Technical specifications:

Operating temperature range	5 °C above ambient temperature up to +100 °C
Temperature adjustment range	0 to +100 °C
Resolution / accuracy	±0.5 °C / 0.1 °C
Average heating rate:	approx. 5 °C/min from +41 °C
Max. recommended shaking frequency	Block for 96 well plates: 150 to 1500 rpm Block for 0.5 ml vials: 150 to 1200 rpm Block for 1.5 ml vials: 150 to 1200 rpm Block for 50 ml tubes: 150 to 800 rpm
Timer	1 min to 99 h, 59 min / continuous operation
Shaking stroke	2 mm
Dimensions (W x D x H)	249 x 325 x 120 mm
Weight	8.3 kg
Voltage	230 V, 50/60 Hz

Delivery without interchangeable block (please order separately).

Shaking movement	Capacity	Art. No.	Pack Qty.	€
round	1 insertion block	ATX7.1 *	1	1121,00

* These products may be subject to delivery times. Please consult our sales department.

Interchangeable blocks for heating Thermoshaker

By Thermo.

Interchangeable blocks for reaction vials

Dimensions: W 98 x D 76.5 x H 30/41 mm

Type	Art. No.	Pack Qty.	€
48 reaction vials 0.5 ml tapered	ATX8.1 *	1	140,00
24 reaction vials 1,5 / 2,0 ml tapered	ATX9.1 *	1	242,00

Interchangeable block for 96-well plates

Dimensions: W 111 x D 76.5 x H 15 mm

Type	Art. No.	Pack Qty.	€
PCR plate 96-well	ATY0.1 *	1	280,00

Interchangeable block for test tubes 50 ml (Ø 30 mm)

Dimensions: W 98 x D 76.5 x H 51 mm

Type	Art. No.	Pack Qty.	€
6 test tubes 50 ml (Ø 30 mm)	ATY1.1 *	1	242,00

* These products may be subject to delivery times. Please consult our sales department.



Heating Thermoshaker, models MHR 13 / MHR 23 / MHL 23

By Hettich Benelux. For dry, clean and speedy **heating and mixing**. For centrifuge tubes, vials and microtiter plates.

Round shaking movement (Model MHR 13 / 23): Particularly ideal for dissolving critical DNA-pellets in the tips of conical centrifuge tubes.

Linear shaking movement (Model MHL 23): Jerky movement for better mixing of low sample volumes in the µl-range.

Features for all models:

- With timer, short-mix-function (e.g. for vortexing) and interval shaking with snipping effect
- Background-light LCD-display for all set and actual values
- **With direct input of temperature curves with different shaking frequencies**
- Programming and transmitting of data is also possible with the integrated USB-interface 2.0
- Control unit can be removed for connection to an extension lead

Programmable control:

Programmable with 30 program steps for max 9 different programs. Program-parameters: Set temperature, process time (max. 99 h / infinite), rise time (time in which the set temperature should be reached), shaking frequency, interval shaking, breaks etc.

Double heating Thermoshaker MHR 23 / MHL 23

Suitable for 2 insertion blocks. Same position when stopped.

Technical specifications:

Working temperature range	3 °C above room temperature to +130 °C
Temperature setting range	0 to +140 °C
Accuracy / resolution	±0.1 °C / 0.1 °C
Medium heating speed	approx 4 °C/min from +41 °C approx 5 °C/min to +40 °C
Shaking frequency	MHR 13 / MHR 23: 200 to 1500 min ⁻¹ MHL 23: 200 to 1300min ⁻¹
Shaking stroke	3 mm
Dimensions (W x D x H)	220 x 345 x 160 mm
Voltage	230 V, 50 Hz

Delivery incl. control panel. Comes without changing blocks (please order separately, see changing blocks for cooling and heating thermoshakers).

Type	Shaking movement	Capacity	Art. No.	Pack Qty.	€
MHR 13	round	1 changing block	HA05.1 *	1	1881,25
MHR 23	round	2 changing blocks	EY98.1 *	1	2148,95
MHL 23	linear	2 changing blocks	EY99.1 *	1	2148,95

* Please check with our Sales Department for delivery period of these products.

► Interchangeable blocks, see page 922



Cooling and heating Thermoshaker MKR 13 and MKR 23

By Hettich Benelux. For dry, clean and speedy **cooling, heating and mixing**. Suitable for centrifuge tubes, vials and microtiter plates.

Round shaking movement: Especially suited for dissolving critical DNA-pellets in the conical tips of conical centrifuge tubes.

Features:

- **Cooling function up to 16/10 °C below room temperature, heating up to +100/75 °C**
- Active counter-cooling with Peltier elements
- The coolers with speed-regulated ventilators conduct the heat and the cold outside
- With timer, short-mix-function (e.g. for vortexing) and interval shaking with snipping effect
- LCD-display with background lighting for all set and actual values
- **Direct input of temperature curves with different shaking frequencies.**
- Programming and transmitting data is also possible via the integrated USB-interface 2.0

Programmable control:

Programmable with 30 program steps for up to 9 different programs. Program-parameters: Set temperature, process time (max. 99 h / endless), rise time (the time in which the set temperature should be reached), shaking frequency, interval shaking, interval etc.

Technical specifications:

Working temperature range	MKR 13: 16 °C below room temperature to +100 °C MKR 23: 13 °C below room temperature to +75 °C
Temperature setting range	MKR 13: -10 to +105 °C MKR 23: 0 to +75 °C
Accuracy / Resolution	MKR 13: ±0.1 °C / 0.1 °C MKR 23: ±0.3 °C / 0.1 °C
Medium heating speed	approx 5 °C/min from +41 °C approx 6 °C/min to +40 °C
Medium cooling speed	approx 3 °C/min below +20 °C approx 7 °C/min to +20 °C
Shaking frequency	MKR 13: 200 to 1500 rpm MKR 23: 200 to 1200 rpm
Shaking lift	3 mm
Dimensions (W x D x H)	220 x 345 x 195 mm
Voltage	230 V, 50 Hz

Delivery incl. control panel and it's extension cord (length 2 m). Comes without insertion block (please order separately, see insertion blocks for cooling and heating thermoshakers).

Type	Shaking movement	Capacity	Art. No.	Pack Qty.	€
MKR 13	round	1 Changing block	HA02.1 *	1	2148,95
MKR 23	round	2 Changing blocks	KA68.1 *	1	2578,95

* Please check with our Sales Department for delivery period of this product.



Interchangeable blocks for cooling and heating Thermoshaker

By Hettich Benelux.

Suitable for models MHR 13, MHR 23, MHL 23, MKR 13, MKR 23 and TK 23. Made of aluminium.

Interchangeable blocks for centrifuge tubes

Type	Art. No.	Pack Qty.	€
96 reaction vials 0.2 ml tapered	AY21.1 *	1	231,15
8 reaction vials 0.5 ml tapered	AY22.1 *	1	231,15
24 reaction vials 1.5 ml tapered	AY23.1 *	1	231,15
24 reaction vials 2.0 ml cylindrical	AY24.1 *	1	231,15
24 reaction vials 0.5 and 1.5 ml (combined block)	ANN7.1 *	1	322,50

Interchangeable blocks for sample vials

Type	Art. No.	Pack Qty.	€
24 sample vials Ø 10.3 x D 46 mm, round bottom	AY25.1 *	1	321,45
24 sample vials Ø 16.5 x D 46 mm, round bottom	AY26.1 *	1	321,45
24 sample vials Ø 12.0 x D 20 mm, flat bottom	TA95.1 *	1	231,15
24 sample vials Ø 15.0 x D 30 mm, flat bottom	TA96.1 *	1	231,15
24 sample vials Ø 17.0 x D 30 mm, flat bottom	TA97.1 *	1	231,15
24 sample vials Ø 19.0 x D 25 mm, flat bottom	TA98.1 *	1	231,15
12 sample vials Ø 23.0 x D 56 mm, flat bottom	TA99.1 *	1	231,15
8 sample vials Ø 28.0 x D 40 mm, flat bottom	TC00.1 *	1	321,45

Interchangeable blocks with lid (for block insulation) for centrifuge tubes

Type	Art. No.	Pack Qty.	€
14 centrifuge tubes, each 15 ml, type Falcon®	AY27.1 *	1	321,45
6 centrifuge tubes, each 50 ml, type Falcon®	AY28.1 *	1	321,45

Interchangeable blocks for cuvettes

Type	Art. No.	Pack Qty.	€
36 rectangular cells, 12.5 mm outer width	TC01.1 *	1	321,45

Interchangeable blocks for deepwell plate

Type	Art. No.	Pack Qty.	€
96-well deepwell plate	TC02.1 *	1	321,45

Interchangeable blocks for custom design

Type	Art. No.	Pack Qty.	€
Without hole, H 25 mm	TC03.1 *	1	231,15
Without hole, H 37 mm	TC04.1 *	1	231,15
Without hole, H 50 mm	TC05.1 *	1	231,15

Interchangeable blocks for microtiter plates

Type	Art. No.	Pack Qty.	€
Microtiter plate 96, U-/V-profile	AY29.1 *	1	321,45
Microtiter plate 96, flat profile	AY30.1 *	1	321,45

Interchangeable blocks for PCR®-plates

Type	Art. No.	Pack Qty.	€
PCR-plate 96, V-profile	AY31.1 *	1	321,45
PCR-plate 384	AY32.1 *	1	321,45

Interchangeable blocks for DURAN®-bottles

Type	Art. No.	Pack Qty.	€
2 DURAN® bottles 50 ml, Ø 47 mm, D 60 mm	ANN8.1 *	1	376,25
1 DURAN® bottle 250 ml, Ø 71.5 mm, D 74 mm	ANN9.1 *	1	428,95

Interchangeable blocks for cryo-vials

Type	Art. No.	Pack Qty.	€
24 cryo-vials, Ø 13 mm, D 30 mm, flat bottom	ANP0.1 *	1	322,50
24 cryo-vials, Ø 13 mm, D 40 mm, round bottom	ANP1.1 *	1	322,50

* Please check with our Sales Department for delivery period of these products.

Rotary evaporators



N°ICE electronic ice bath

By Techne. Space-saving sample chiller with general-purpose heat treatment bath for various vial types and sizes. Ceramic beads are used instead of ice as a chilling medium. This allows unlimited cooling times and avoids the problem of floating samples in thawing ice as well as contamination by coolants. As a time saving option, the bucket of beads can be pre-incubated in the fridge and simply inserted into the unit as and when required.

- Peltier cooling technology
- Max. capacity approx. 60 1.5 ml vials
- Ceramic beads are autoclavable and suitable for multiple use

Technical specifications:

Temperature range / resolution	0.0 to 40.0 °C
Temperature accuracy	±1 °C
Average cooling time from 20 to 4 °C	approx. 60 min
Average cooling time from 20 to 0 °C	approx. 3-4 h
Dimensions (L x W x H)	190 x 240 x 225 mm
Dimensions of heat treatment bath (L x W x H)	155 x 108 x 70 mm
Weight	4.5 kg
Power supply	100-230 V, 50/60 Hz

Delivery incl. aluminium heat treatment bath and 1.7 kg of ceramic beads (Ø 1.5-2.5 mm).

Art. No.	Pack Qty.	€
AKN5.1	1	1150,00

Accessories:

Replacement heat treatment bath	AKN6.1	1	98,00
Replacement ceramic beads, Ø 1.5-2.5 mm, 1.7 kg	AKN7.1	1	89,90



RV 8-series rotary evaporators

By IKA.

General information:

- Manual lift with integrated safety lift-out-function (single-handed operation, suitable for left and right handed users)
- Digital displays for rotation speed and heating bath temperature
- Adjustable immersion angle and height
- Piston fixture with integral push-off mechanism for easier changing of evaporating flasks
- Available in two versions: with standard glassware or coated glassware (condenser and receiving flask are coated for shatter protection).

Heating bath HB 10

- Universal water / oil heating bath with integral carrying handles
- Locking function prevents accidental changing of heating bath settings
- Run-dry monitoring
- Adjustable safety temperature
- Also available as "stand-alone" device usable for other applications

Technical specifications:

Speed range	5 to 300 rpm
Temp. range of heating bath	From room temperature to 180 °C
Heating output	1300 W
Setting accuracy	1 °C
Control deviation	±1 K
Heating bath capacity	3 l
Dimensions of heating bath (W x D x H)	320 x 310 x 210 mm
Adjustable head angle	0 to 45 °
Hose connectors	Connection for water hoses ID 5 mm Connection for vacuum hoses ID 10 mm
Dimensions without glassware (W x D x H)	510 x 345 x 490 mm
Dimensions with glassware (W x D x H)	630 x 345 x 760 mm
Weight	17.2 kg

Delivery incl. heating bath and vertical glassware. With PTFE inlet tube and 1000 ml evaporating flask (NS 29/32) and 1000 ml receiving flask (KS 35/20).

Model	Type	Art. No.	Pack Qty.	€
RV 8 V	Standard vertical glassware	NH24.1 *	1	2261,00
RV 8 V-C	Coated vertical glassware	NH25.1 *	1	2388,00

Accessories for RV 8-series

By IKA.

Protective hood HB 10.2

Recommended if it is not possible to work in an extractor hood. Protects against splashes and evaporator piston breakage.

Art. No.	Pack Qty.	€
PE57.1 *	1	449,00

Protective shield HB 10.1

Protects against splashes.

Art. No.	Pack Qty.	€
PE58.1 *	1	150,00

* These products may be subject to delivery times. Please consult our sales department.



Rotary evaporator RV 10-series

By IKA.

General features of all models:

- **Motorised lift (stroke displacement 140 mm) with adjustable height limit**
- Digital speed display
- Rotates intermittently clockwise and anticlockwise for drying processes (interval cycle for direction reversal is adjustable from 1 to 60 s)
- Timer function for time lapse controls (1 to 199 min)
- Water-oil heating bath with integrated carry handles
- Heating bath with adjustable safety circuit
- Push-off mechanism to loosen tightly fitting flasks
- Includes Woulff bottle

RV 10 digital

- Temperature adjustment/display via scale
- Control deviation ± 5 K
- Heating bath with digital temperature display
- Control deviation ± 1 K

① RV 10 control

Model with integrated vacuum controller for automatic distillation, both for volume-based processes and full drying depending on application.

- Integrated solvent library contains distillation-specific parameters for standard distillation, expandable by user.
- Programmable volume-controlled distillation processes
- Colour graphic display shows distillation curves
- Ramp programming (speed/time and vacuum/time)
- Automatic ventilation and switch-off of heating bath after test
- **A solenoid valve is required for use with a vacuum pump/vacuum supply. Please order separately.**

Technical specifications:

Model	RV 10 digital	RV 10 control
Speed range	20 to 280 rpm	
Temp. range of heating bath	From room temperature to 180 °C	
Heating output	1300 W	
Setting accuracy	1 K	
Control deviation	± 5 K (RV 10 basic) ± 1 K (RV 10 digital/control)	
Heating bath capacity	3 l	
Dimensions of heating bath (W x H x D)	295 x 190 x 265 mm	
Adjustable head angle	0 to 45 °	
Integral vacuum controller	no	yes
Hose connectors	Connection for water hoses ID 5 mm Connection for vacuum hoses ID 10 mm	
Dimensions without glassware (W x D x H)	530 x 410 x 570 mm	
Dimensions with glassware (W x D x H)	680 x 410 x 990 mm	
Weight	28 kg	

Delivery incl. heating bath and vertical glassware. A PTFE inlet tube, 1000 ml evaporator flask (NS 29/32) and 1000 ml receiving flask (KS 35/20) are included.

Available in two versions: with standard glassware or coated glassware (condenser and receiving flask are coated for shatter protection).

RV 10 digital

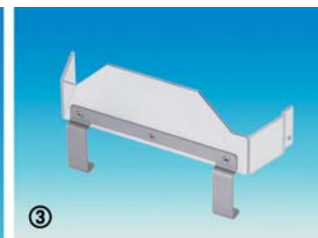
Model	Type	Art. No.	Pack Qty.	€
RV 10 digital V	Standard glassware	PE52.1 *	1	3347,00
RV 10 digital V-C	Coated glassware	PE53.1 *	1	3626,00

RV 10 control

Additional delivery incl. magnetic valve laboratoryvacuum RV 10.4002. (The integrated check valve prevents external interference with the working pressure of the recipient. Tube clip for tubes ID 10 mm.)

Model	Type	Art. No.	Pack Qty.	€
RV 10 control V	Standard glassware	PE54.1 *	1	4687,00
RV 10 control V-C	Coated glassware	PE55.1 *	1	4980,00

* These products may be subject to delivery times. Please consult our sales department.



Accessories for RV 10-series

By IKA.

② Protective cover

Recommended if it is not possible to work in a fume hood. Protects from splashes of hot liquid and in case of evaporator flask breaking.

Art. No.	Pack Qty.	€
PE57.1 *	1	449,00

③ Protective shield

Ideal accessory for protection against splashes of hot liquid.

Art. No.	Pack Qty.	€
PE58.1 *	1	150,00

* These products may be subject to delivery times. Please consult our sales department.

► Vacuum pump systems, see p. 350

Rotary evaporators



Rotary evaporators Hei-VAP-series

By Heidolph. For standard distillation, crystallization, upgrading solutions and separating solvents.

General features for all models:

- Control panel: Removeable, with cable connection (length 1.3 m) for remote control operation
- Fast and easy reduction of steam feedthrough
- Heating bath switches off automatically when set bath temperature has been exceeded by 5 °C or when water level is too low
- Double-wall heating bath protects against burns and insulates against heat loss
- Safe changing of bath liquid via nozzle
- All models are available either as a space-saving version with vertical cooler (Model G3) or in the standard version with diagonal cooler (G1)

① Hei-VAP Value digital

- Digital display showing nominal and actual heating bath temperatures
- Model with manual lift
- Rotary speed and temperature of hotbath can be set via knobs

Hei-VAP Advantage HL

- Model with manual lift
- Digital 3.5" LCD display with speed indicator, heating bath temperature and steam temperature (Please note: A boiling temperature sensor is required to indicate the steam temperature. Please order separately.)
- With timer function to end operation automatically

② Hei-VAP Advantage ML

- Like Hei-VAP Advantage HL, but with motor-driven lift
- The sample with motor-driven lift evaporators is protected against thermal damage, because the flask is automatically lifted out of bath in the event of a power cut.

Technical specifications:

Model	Hei-VAP Value HL	Hei-VAP Advantage HL	Hei-VAP Advantage ML
Manual / Motor-driven lift	Manual lift		Motor-driven lift
Lifting speed	manually		approx. 30 mm/s
Speed range	20 to 280 rpm		
Speed indicator	Digital	3.5" LCD display	
Temperature range of heating bath	20 to 210 °C		
Heating power	1300 W		
Control accuracy of heating bath	±1 K		
Volume of heating bath	4.5 l		
Ø Heating bath	255 mm		
Timer	no	yes	yes
Remote control functions - Start Rotation - Start Heating bath - Lift	yes yes no	yes yes no	yes yes yes
Dimensions W x D x H (mm)	395 x 490 x 430		395 x 420 x 430
Evaporation rate 20/40 °C - Acetone - Ethanol - Water	2.4 / 4.7 l/h 1.6 / 3.2 l/h 0.5 / 1.0 l/h		
Voltage	230 V, 50/60 Hz		

Delivery incl. devices with heating bath and glass kit. Glass kit consists of glass sleeve shaft, cooler, discharge tube, evaporator flask 1000 ml (standard ground joint 29/32) and collecting flask 1000 ml (standard ground joint 35/20).

Hei-VAP Value digital with standard glass kit

Glass kit	Type	Art. No.	Pack Qty.	€
Diagonal cooler G1	Manual lift	LH08.1 *	1	2675,00
Vertical cooler G3	Manual lift	LH09.1 *	1	2878,00

Hei-VAP Value digital with coated glass kit

Glass kit	Type	Art. No.	Pack Qty.	€
Diagonal cooler G1	Manual lift	LH10.1 *	1	2755,00
Vertical cooler G3	Manual lift	LH11.1 *	1	2984,00

Hei-VAP Advantage with standard glass kit

Glass kit	Type	Art. No.	Pack Qty.	€
Diagonal cooler G1	Manual lift (Model HL)	LH12.1 *	1	2895,00
Diagonal cooler G1	Motor-driven lift (Model ML)	LH13.1 *	1	3115,00
Vertical cooler G3	Manual lift (Model HL)	LH14.1 *	1	3193,00
Vertical cooler G3	Motor-driven lift (Model ML)	LH15.1 *	1	3382,00

Hei-VAP Advantage with coated glass kit

Glass kit	Type	Art. No.	Pack Qty.	€
Diagonal cooler G1	Manual lift (Model HL)	LH16.1 *	1	2971,00
Diagonal cooler G1	Motor-driven lift (Model ML)	LH17.1 *	1	3160,00
Vertical cooler G3	Manual lift (Model HL)	LH18.1 *	1	3291,00
Vertical cooler G3	Motor-driven lift (Model ML)	LH19.1 *	1	3474,00

* These products may be subject to delivery times. Please consult our sales department.

Accessories

for rotary evaporators Hei-VAP-series

Boiling temperature sensor for digital display of steam temperature. Only for Hei-VAP Advantage HL/ML

Art. No.	Pack Qty.	€
X818.1 *	1	192,00

* Longer delivery times possible. Please check with our Sales Department.

Protective shield for attaching to rim of bath

Art. No.	Pack Qty.	€
LH20.1	1	93,00

Protective cover

Art. No.	Pack Qty.	€
LH21.1	1	251,00

Incubators



Inca mini microtiter plate incubator

For a single standard microtiter plate.

- Minimum space requirement
- Temperature or runtime display (3-digit LCD display)
- Timer with audio signal (does not affect heater function; no deactivation on expiration of timer).
- ABS plastic housing

Technical specifications:

Temperature range	+5 °C above ambient temperature up to 45 °C
Resolution of temperature display	0.5 °C
Temperature adjustment range	10 to 45 °C
Temperature variation	±0.5 °C
Timer	1 to 999 min in 1-min increments
Dimensions (W x D x H)	120 x 180 x 100 mm
Permissible ambient temperatures	10 to 40 °C at 80 % rel. humidity
Heating output	15 W
Weight	920 g
Power supply	100-230 V, 50/60 Hz

Art. No.	Pack Qty.	€
YX78.1	1	493,45



DipSlide Incubator EM4

Small, lightweight incubator especially designed for DipSlides. With removable, transparent cover for quick loading and unloading of DipSlides. Very easy to use, even for untrained personal. A rack and a control thermometer is included. Without rack also suitable for incubation of petri- and contact dishes.

Technical specifications:

Capacity	23 DipSlides
Temperature range	ambient to 44 °C
Volume	4 l
Inner dimensions (W x H x D)	180 x 125 x 180 mm
Outer dimensions (W x H x D)	230 x 180 x 230 mm
Weight	1.5 kg
Mains connection	220 V, 25 W

Art. No.	Pack Qty.	€
KK43.1	1	719,20



Cultura® M mini incubator

For the incubation of 18 dip slides (e.g. Roti®-DipSlides) or 12 petri dishes for verification of bacteria, fungi and yeasts, as well as other small-sized vials.

- Operating temperature range from +5 °C above room temperature to 45 °C; temperature adjustment range from 25 to 45 °C
- Thermometer in tube with special petroleum filling. Measurement range 7 to 60 °C. Graduations 1 °C. Accuracy ±1 °C. Dimensions: H 95 x Ø 25 mm.
- Transparent full-vision door for visual inspection
- Minimal footprint, i.e. space-saving

Technical specifications:

Volume	4 l
Temperature variance	±1 °C
Internal dimensions (W x D x H)	220 x 150 x 120 mm
External dimensions (W x D x H)	310 x 168 x 155 mm
Weight	1.1 kg
Power supply	230 V, 50 Hz

Delivery incl. test thermometer in tube and shelf.

Art. No.	Pack Qty.	€
AHH9.1	1	224,70

Accessories for Cultura® M mini incubator

Multirack

Suitable for mini incubator Cultura® M. Made of ABS.

For 18 vials (Ø 25 to 30 mm). Dimensions: W 213 x D 142 x H 50 mm.

Art. No.	Pack Qty.	€
AHK0.1	1	74,75

Incubators



Mini incubator

Space-saving unit for incubating culture bottles, petri dishes, microtitration plates and other small-volume vessels.

- **Operating temperature range from + 5 °C above ambient temperature to 60 °C; temperature adjustment range from 20 to 60 °C**
- Cable conduit (Ø 55 mm) at the rear
- Loading options, e.g. 48 petri dishes or 28 microtitration plates in 96 well format
- Thermometer holder (Ø 7 mm) on the top allows the inner temperature to be monitored

Technical specifications:

Capacity	9.2 l
Temperature deviation at 37 °C	±0.7 °C
Inner dimensions (W x D x H)	230 x 200 x 200 mm
Outer dimensions (W x D x H)	285 x 280 x 335 mm
Shelves: standard / max. number	1 / 3
Shelf dimensions (L x W)	220 x 180 mm
Weight	8.3 kg
Power supply	230 V, 50/60 Hz

Delivery incl. 1 shelf. Please order thermometer separately.

Art. No.	Pack Qty.	€
YC53.1	1	494,50

Accessories:

Additional shelf, L 225 x W 215 mm	YC54.1	1	44,65
Glass thermometer, -20 to +100 °C, 1 °C graduations	E742.1	1	11,10



Small incubator Heratherm IMC18

By Thermo.

- Minimal footprint for space restricted lab areas
- Microprocessor control
- Round edges make it easy to clean
- With Peltier cooling
- Interior lighting facilitates sample monitoring
- Fan for air circulation; runs permanently and is not adjustable

Technical specifications:

Capacity	18 l
Temperature range	17 to 40 °C
Resolution of temperature display	1 °C
Temperature deviation at 37 °C	temporal: ±0.2 °C, spatial: ±1.2 °C
Inner dimensions (W x H x D)	180 x 310 x 290 mm
Outer dimensions (W x H x D)	260 x 415 x 470 mm
Trays: standard / max. number	2 / 3
Max. load-carrying capacity of removable insert	2 kg
Weight	7.2 kg
Mains connection	100-240 V, 50/60 Hz

Delivery incl. 2 removable inserts.

Art. No.	Pack Qty.	€
PL74.1	1	656,00

Accessories:

Spare removable insert for IMC18	PL75.1	1	31,90
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IN and INplus incubators

By Memmert.

General features:

- **Operating temperature range from 5 °C above room temperature to 80 °C**
Set temperatures from 20 to 80 °C
Adjustment accuracy 0.1 K
- Interior made of stainless steel (1.4301)
- Fully insulated stainless steel door (two-wing from size 450 upwards)
- **With additional inner glass door**
- Fresh air supply by electronically adjustable exhaust flap
- Structured stainless steel housing

Other features:

- **Natural air circulation (convection)**
- German, English, French and Spain language options
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous duty
- "SetpointWAIT" function - process time does not start until the nominal temperature is achieved

Technical specifications:

Model sizes	30	55	75	110	160	260	450 ¹⁾	750 ¹⁾
Capacity (l)	32	53	74	108	161	256	449	749
Inner dimensions (mm):								
Width	400	400	400	560	560	640	1040	1040
Height	320	400	560	480	720	800	720	1200
Depth	250	330	330	400	400	500	600	600
Outer dimensions (mm):								
Width	585	585	585	745	745	824	1224	1224
Height	707	787	947	867	1107	1186	1247	1726
Depth (without door handle) ²⁾	434	514	514	584	584	684	784	784
Stainless steel grids								
Delivery incl.	1	1	2	2	2	2	2	2
Max. capacity	3	4	6	5	8	9	8	14
Other								
Power consumption (W)	800	1000	1250	1400	1600	1700	1800	2000
Power supply	230 V, 50/60 Hz							
Weight (kg)	44	55	65	74	96	110	170	215
Temperature variation								
Time (°C)	Model IN ± 0.2 / model INplus ± 0.05							
Spatial (°C)	Model IN ± 0.7 / model INplus ± 0.7							

1) With castors, movable and lockable

2) Door handle: 56 mm

Delivery incl. stainless steel grids

(models 30 and 55: 1 grid, models 75 to 750: 2 grids)

IN models

- Graphical single TFT display with touchscreen for operation and display of temperature, program runtime and air flap position
- Integrated data logger with 10-year memory
- With Ethernet communication port for log data readout
- Overtemperature protection

Type	Model size	Art. No.	Pack Qty.	€
IN	30	TY30.1 *	1	962,00
IN	55	TY31.1 *	1	1182,00
IN	75	TY32.1 *	1	1407,00
IN	110	TY33.1 *	1	1659,00
IN	160	TY34.1 *	1	2216,00
IN	260	TY35.1 *	1	3009,00
IN	450	TY36.1 *	1	4012,00
IN	750	TY37.1 *	1	5424,00

INplus models

- Two graphical TFT displays with touchscreen for operation and display of temperature, program runtime, air damper position and graphical display of program flow
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10000 values correspond to approx. 1 week) directly on the instrument**
- Application-specific correction of heat output distribution between the upper and lower heating groups within an adjustment range from -50 to +50 %
- With Ethernet communication port for log data readout as well as for transmitting and launching programs and online logging
- With sterilization program: 4-hour program at 160 °C for sterilization of the interior incl. all fittings and all sensors
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and 7-day programs)**
- Definition of individual Min/Max values for high/low temperature protection

Type	Model size	Art. No.	Pack Qty.	€
INplus	30	TY38.1 *	1	1617,00
INplus	55	TY39.1 *	1	1816,00
INplus	75	TY40.1 *	1	2058,00
INplus	110	TY41.1 *	1	2314,00
INplus	160	TY42.1 *	1	2893,00
INplus	260	TY43.1 *	1	3566,00
INplus	450	TY44.1 *	1	4631,00
INplus	750	TY45.1 *	1	6069,00

* Longer delivery times possible. Please check with our Sales Department.



Incubators



Heratherm incubators

By Thermo.

General Protocol and Advanced Protocol models

General features:

- **Outside temperature range:**
General Protocol model:
from +5 °C above room temperature to 75 °C
Advanced Protocol model:
from +5 °C above room temperature to 105 °C
- Interior made of stainless steel
 General Protocol model: stainless steel 1.4016
 Advanced Protocol model: stainless steel 1.4301
- Housing interior with round edges make it easy to clean
- With additional interior glass door
- RS 232 port
- Natural convection minimizes dessication of samples; air circulation achieves more accurate temperatures
- Outlet connection 230 V, 50 Hz
- **Delivery incl. 2 removable inserts**

Technical specifications:

Type	IGS60	IGS100	IGS180	IMH60	IMH100	IMH180
Capacity (l)	75	117	194	66	104	178
Inner dimensions (mm)						
Width	354	464	464	354	464	464
Height	508	608	708	508	608	708
Depth	414	414	589	368	368	543
Outer dimensions¹⁾ (mm)						
Width	530	640	640	530	640	640
Height	720	820	920	720	820	920
Depth	565	565	738	565	565	738
Removable inserts						
Delivery incl.	2					
Max. capacity	13	16	19	13	16	19
Other						
Rated power (W)	300	520	710	850	1100	1300
Weight (kg)	40	51	65	45	56	70
Temperature deviation at 37 °C						
temporal (°C)	±0.2			±0.1		
spatial (°C)	±0.6			±0.6/±0.2 ²⁾	±0.6/±0.3 ²⁾	±0.6/±0.4 ²⁾

- 1) Depth of handle and display (65 mm) not included in the measurement;
 adjustable feet (35 mm) not included in height - clearance required to back wall: 80 mm
- 2) Values refer to: fan switched off/fan at full speed

General Protocol incubators

- Integrated timer (1 min up to 99 h, 59 min)
- Microprocessor control
- Actual temperature display
- Setting accuracy ±0.1 K
- Automatic over temperature alarm

Models with natural convection

Type	Capacity (l)	Temperature range up to °C	Art. No.	Pack Qty.	€
IGS60	75	75	PL96.1 *	1	1200,00
IGS100	117	75	PL97.1 *	1	1693,00
IGS180	194	75	PL98.1 *	1	2348,00

* Longer delivery times possible. Please check with our Sales Department.

Incubators Advanced Protocol

- Digital timer for daily/weekly on/off cycles
- Setting accuracy ±0.1 K
- Cable conduit (Ø 50 mm) at the rear
- Automatic over temperature alarm
- With varnished housing
- With air-circulation fan: dual convection with settable fan speed from 0 (corresponds to natural convection) to 100 %

Models with air-circulation fan

Type	Capacity (l)	Temperature range up to °C	Art. No.	Pack Qty.	€
IMH60	66	105	PL99.1 *	1	1846,00
IMH100	104	105	PP00.1 *	1	2458,00
IMH180	178	105	PP01.1 *	1	3514,00

* Longer delivery times possible. Please check with our Sales Department.

Accessories for incubators Heratherm

By Thermo.

Removable insert kit: 1 removable insert with 2 attachment clamps.

Type	Art. No.	Pack Qty.	€
IGS60	PP02.1	1	97,30
IGS100	PP03.1	1	120,00
IGS180	PP04.1	1	131,00
IMH60	PP05.1	1	97,30
IMH100	PP06.1	1	120,00
IMH180	PP07.1	1	131,00



Microbiological incubator, models BD and BF

By Binder.

General features:

- Operating temperature range from 7 °C and room temperature to 100 °C
Setting temperatures from 30 to 100 °C
Setting accuracy: ± 0.1 °C
- Models with volumes of 400 l or higher come with a double-panel door
- With integrated timer with range from 0 to 99 h
- With additional inner glass door
- 100 °C disinfection routine for reduced cross-contamination
- Adjustable air renewal and rear exhaust \varnothing 50 mm
- RS 422 port
- Class 3.1 temperature safety device (DIN 12880) with visual alarm
- Mains connection 230 V, 50/60 Hz

Models BD/BF 56, BD/BF 115 and BD/BF 260 also have:
USB port for recording data (time, actual temperature value, set temperature value, etc.)

Technical specifications:

Models		BD 23	BD 56/ BF 56	BD 115/ BF 115	BD 260/ BF 260	BD 400/ BF 400	BD 720/ BF 720
Capacity (l)	BD BF	20 20	57 59	112 114	253 257	400 400	720 720
Inner dimensions (mm):							
Width	BD BF	222 -	360 400	510 550	610 650	1000 1000	1000 1000
Height	BD BF	330 -	420 440	530 550	760 780	800 800	1200 1200
Depth	BD BF	277 -	380 340	420 380	545 510	500 500	600 600
Outer dimensions (mm):							
Width		435	560	710	815	1235	1235
Height		495	625	735	965	1025	1530
Depth ¹⁾	BD BF	620 -	640 640	680 680	815 815	860 875	950 980
Grids, chrome plated							
Delivery incl.		2	2	2	2	2	2
Max. capacity		3	4	5	7	10	15
Other							
Rated power (W)	BD BF	200 -	300 400	350 400	850 900	850 850	1250 1250
Power supply		230 V, 50/60 Hz					
Weight (kg)	BD BF	26 -	38 38	54 54	85 85	135 145	191 180
Temperature variance							
temporal (°C)	BD BF	± 0.2 -	± 0.2 ± 0.1	± 0.1 ± 0.1	± 0.2 ± 0.1	± 0.1 ± 0.2	± 0.1 ± 0.1
spatial (°C)	BD BF	± 0.5 -	± 0.5 ± 0.3	± 0.4 ± 0.3	± 0.4 ± 0.3	± 0.5 ± 0.4	± 0.5 ± 0.4

1) Incl. door handle and exhaust

Delivery incl. 2 grids, chrome plated.

BD models

With natural air circulation (convection)

Type	Model size	Art. No.	Pack Qty.	€
BD	23	CKE6.1 *	1	1512,55
BD	56	CKE7.1 *	1	1495,35
BD	115	CKE8.1 *	1	2011,35
BD	260	CKE9.1 *	1	3243,30
BD	400	CKH0.1 *	1	4641,85
BD	720	CKH1.1 *	1	6246,85

* Delivery times may apply to these products. Please ask our sales staff.

BF models

With forced air circulation (fan)

- Fan speed cannot be regulated or switched off
- Timer function selection:
 - Heater is switched off when the set time expires
 - The set timer does not start until the actual value reaches the selected set value. Heater is switched off when the set time expires.
 - Heater is switched on after set time expires and stays in continuous operation.

Type	Model size	Art. No.	Pack Qty.	€
BF	56	CKH2.1 *	1	2030,70
BF	115	CKH3.1 *	1	2650,95
BF	260	CKH4.1 *	1	3928,05
BF	400	CKH5.1 *	1	4909,55
BF	720	CKH6.1 *	1	6430,65

* Delivery times may apply to these products. Please ask our sales staff.

Accessories for incubators of models BD and BF

By Binder.

Grids, chrome plated

for type	Art. No.	Pack Qty.	€
BD 23	CKE0.1	1	41,95
BD 56	CKE1.1	1	66,65
BF 56	ECY1.1	1	66,65
BD 115	CKE2.1	1	104,30
BF 115	ECY2.1	1	104,30
BD 260	CKE3.1	1	193,50
BF 260	ECY3.1	1	193,50
BD 400, BF 400	CKE4.1	1	213,95
BD 720, BF 720	CKE5.1	1	233,30

Incubators



Heratherm high-capacity incubators

By Thermo.

General features:

- Free-standing units with fixed rollers
- With internal glass door
- Stainless steel interior
- RS 232 port
- Mains connection 230 V, 50 Hz

Technical specifications:

Type	IGS400	IGS750	IMH400-S	IMH750-S
Capacity (l)	405	747	381	702
Inner dimensions (mm)				
Width	544	1004	544	1004
Height	1307	1307	1335	1335
Depth	569	569	524	524
Outer dimensions ¹⁾ (mm)				
Width	778	1261	778	1261
Height	1545	1545	1545	1545
Depth	770	770	770	770
Removable shelves				
Delivery incl.	2			
Max. capacity	39			
Other				
Rated power (W)	1200	1500	1400	1600
Weight (kg)	145	201	144	205
Temperature deviation at 37 °C				
temporal (°C)	±0.4		±0.2	
spatial (°C)	±0.5	±1.3	±0.2	±0.3

¹⁾ not including depth of handle and display (65 mm) and height of rollers (108 mm); required clearance to rear panel 120 mm.

Delivery incl. 2 stainless steel perforated shelves.

General Protocol:

- **Operating temperature range from +5 °C above room temperature to 75 °C**
- With natural convection
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display; setting accuracy ±0.1 K

Type	Capacity (l)	Temperature range up to °C	Art. No.	Pack Qty.	€
IGS400	405	75	XH26.1 *	1	4036,00
IGS750	747	75	XH27.1 *	1	5524,00

* Longer delivery times possible. Please check with our Sales Department

Advanced Protocol:

- **Operating temperature range from +5 °C above room temperature to 105 °C**
- Setting accuracy ±0.1 K
- Mechanical convection - 2-stage fan: can run fast or slow, but cannot be switched off
- Cable feedthrough (Ø 19 mm), e.g. for fitting sensors
- An audible alarm sounds if the door is accidentally left open
- Switch on/off after a pre-set time
- Weekly setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)

Type	Capacity (l)	Temperature range up to °C	Art. No.	Pack Qty.	€
IMH400-S	381	105	XH28.1 *	1	5046,00
IMH750-S	702	105	XH29.1 *	1	6374,00

* Longer delivery times possible. Please check with our Sales Department

Accessories for Heratherm high-capacity incubators

By Thermo.

Perforated shelf kit: 1 shelf with 2 supports.

for type	Art. No.	Pack Qty.	€
IGS400, IMH400-S	XH30.1 *	1	202,00
IGS750, IMH750-S	XH31.1 *	1	270,00

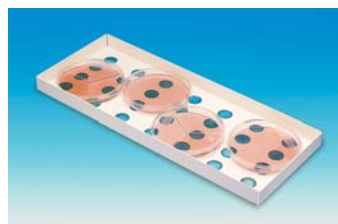
* Longer delivery times possible. Please check with our Sales Department



Incubator inserts

Made of PP, stackable. For easy organisation of petri dishes and convenient transfer to other incubation or storage systems. With 16 ventilation holes and 2 labelling spaces. Outer dimensions: L 251 x W 237 x H 35 mm. Loading options: e.g. 5 Petri dishes Ø 100 mm or 15 Petri dishes Ø 60 mm or 21 culture bottles 25 cm².

Art. No.	Pack Qty.	€
YC19.1	3	55,15



Incubator insert

Made of epoxy coated stainless steel. For easy organisation of Petri dishes and convenient transfer to other incubation or storage systems. With 28 mounting holes (Ø 19 mm). Outer dimensions: L 349 x W 137 x H 22 mm. Autoclavable. Loading options: e.g. 3 Petri dishes Ø 100 mm or 4 Petri dishes Ø 90 mm or 10 Petri dishes Ø 60 mm.

Art. No.	Pack Qty.	€
YC20.1	1	97,85



Peltier cooling incubators IPP series

By Memmert.

General features:

- **Operating temperature range from 0 to 70 °C**
Set temperatures from 0 to 70 °C
Adjustment accuracy 0.1 K
- Interior made of stainless steel (1.4301)
- Fully insulated stainless steel door (two-wing from size 450 upwards)
- **With additional inner glass door**
- Structured stainless steel housing

Other features:

- Language settings: German, English, French and Spanish
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous duty
- "SetpointWAIT" function - process time does not start until the nominal temperature is achieved

Technical specifications:

Model sizes	30	55	110	260
Capacity (l)	32	53	108	256
Inner dimensions (mm):				
Width	400		560	640
Height	320	400	480	800
Depth ¹⁾	250	330	400	500
Outer dimensions (mm):				
Width	585		745	824
Height	707	787	867	1186
Depth (without door handle) ²⁾	524	604	674	774
Stainless steel grids				
Delivery incl.	1	1	2	2
Max. capacity	3	4	5	9
Other				
Number of Peltier elements	1	1	2	3
Power consumption (W)	125	175	350	525
Power supply	230 V, 50/60 Hz			
Weight (kg)	51	62	80	115
Temperature variation				
Time (°C)	0.1			
Spatial (°C)	0.4			

1) Less 10 mm for Peltier fan

2) Door handle: 56 mm

Delivery incl. stainless steel grids
(models 30 and 55: 1 grid, models 110 and to 260: 2 grids)

IPP models

- Graphical single TFT display with touchscreen for operation and display of temperature and program runtime
- Integrated data logger with 10-year memory
- With Ethernet communication port for log data readout
- Overtemperature protection

Type	Model size	Art. No.	Pack Qty.	€
IPP	30	TY46.1 *	1	2374,00
IPP	55	TY47.1 *	1	2585,00
IPP	110	TY48.1 *	1	3864,00
IPP	260	TY49.1 *	1	5460,00

Models IPP-Soc

Same as model IPP, but version with inner socket

(current capacity 220 V/2.2 A) can be switched off via the master switch and is not separately switchable.

Type	Model size	Art. No.	Pack Qty.	€
IPP-Soc	30	TY50.1 *	1	2694,00
IPP-Soc	55	TY51.1 *	1	2905,00
IPP-Soc	110	TY52.1 *	1	4184,00
IPP-Soc	260	TY53.1 *	1	5780,00

IPPplus models

- Two graphical TFT displays with touchscreen for operation and display of temperature, program runtime, air damper position and graphical display of program flow
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10000 values correspond to approx. 1 week) directly on the instrument**
- Application-specific correction of the heat output distribution between the upper and lower heating groups within an adjustment range from -50 to +50 %
- With Ethernet communication port for log data readout as well as for transmitting and launching programs and online logging
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and 7-day programs)**
- Definition of individual Min/Max values for high/low temperature protection

Type	Model size	Art. No.	Pack Qty.	€
IPPplus	30	TY54.1 *	1	2690,00
IPPplus	55	TY55.1 *	1	2901,00
IPPplus	110	TY56.1 *	1	4179,00
IPPplus	260	TY57.1 *	1	5897,00

* Longer delivery times possible. Please check with our Sales Department

Cooling incubators



Cooling incubators KT series

By Binder.

General features:

- **Operating temperature range: from 4 to 100 °C**
Setting accuracy: ± 0.1 °C
- 5.7 inch LCD monitor and turn/push button for input
- Variable time and weekday programming
 - Storage capacity for up to 60 programs (in KT 53 version) or 100 programs (in KT 115 version)
 - Measurement data can be saved to internal memory
 - Readout of programs and data via USB port
 - Adjustable fan speed (min. speed 30 %)
- With additional inner door of safety glass
- Ethernet interface
- Class 3.1 temperature safety device (DIN 12880) with visual and audible alarms

Technical specifications:

Models	KT 53	KT 115
Volume (l)	52	102
Inner dimensions (mm):		
Width	400	600
Height	400	480
Depth	325	355
Outer dimensions (mm):		
Width	660	860
Height	635	715
Depth ¹⁾	695	815
Stainless steel grids		
Delivery incl.	2	2
Max. capacity	5	6
Other		
Rated power (W)	1100	700
Power supply	200-240 V, 50/60 Hz	
Weight (kg)	65	88
Temperature variance		
temporal (°C)	± 0.1	
spatial (°C)	± 0.2	± 0.3

1) incl. door handle

Delivery incl. 2 stainless steel grids.

Type	Art. No.	Pack Qty.	€
KT 53	CKK0.1 *	1	4103,30
KT 115	CKK1.1 *	1	5135,30

* Delivery times may apply to these products. Please ask our sales staff.



Cooling incubators KB series

By Binder.

General features:

- **Operating temperature range:**
KB 23: from 0 to 100 °C
KB 53 and KB 115: from -5 to 100 °C
Setting accuracy: ± 0.1 °C
- Controller with 2 programs each with 10 individual steps
 - Integrated 7 day programmable timer with real time function
 - Adjustable ramp function via program editor
 - Adjustable fan speed (min. speed 30 %)
- With additional inner glass door
- Class 3.1 temperature safety device (DIN 12880) with visual and audible alarms
- Mains connection 230 V, 50 Hz

Technical specifications:

Models	KB 23	KB 53	KB 115
Volume (l)	20	53	115
Inner dimensions (mm):			
Width	222	400	600
Height	330	400	480
Depth	277	330	400
Outer dimensions (mm):			
Width	435	635	835
Height	620	835	1025
Depth ¹⁾	595	660	700
Stainless steel grids			
Delivery incl.	2	2	2
Max. capacity	3	4	5
Other			
Power consumption (W)	340	460	460
Power supply	230 V, 50 Hz		
Weight (kg)	44	72	105
Temperature variance			
Temporal (°K)	± 0.2	± 0.1	
Spatial (°K)	± 0.3		± 0.2

1) incl. door handle

Delivery incl. 2 stainless steel grids.

Type	Art. No.	Pack Qty.	€
KB 23	CKH7.1 *	1	4481,70
KB 53	CKH8.1 *	1	4866,55
KB 115	CKH9.1 *	1	5816,85

* Delivery times may apply to these products. Please ask our sales staff.

Cooling incubators



Cooling incubator Heraeus® BK 800

By Thermo. For breeding cultures at low temperatures. The interior is manufactured from shock-resistant plastic. Integral timer (1 to 9999 min) operates the sockets inside the cabinet and enables cyclical and reproducible tests with additional devices such as magnetic stirrers.

Other features:

- **Temperature range** +3 to +40 °C
- Temperature constancy: temporal ± 1 °C, spatial ± 1 °C
- Soft-touch user pad with digital temperature display and status display for

Technical specifications:

Inner volume	220 l
Trays: standard / max. number	3 / 14
Cooling time from +25 to +5 °C	56 min
Outer dimensions (W x D x H)	560 x 570 x 1480 mm
Inner dimensions (W x D x H)	467 x 435 x 1260 mm
Nominal output	200 W
Socket inside cabinet	2 sockets
Timer (on/off)	1 to 9999 min
Weight	52 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
Y721.1 *	1	4636,00

Accessories:

Spare tray	Y722.1 *	1	70,20
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* Longer delivery times possible. Please check with our Sales Department.



Cooling incubator Heraeus® BK 6160

By Thermo. With thermo-casing system and safety glass door. Ideal for use at room temperatures for biological samples, food analysis, pharmaceuticals and cosmetics or for optical and electronic instruments. The thermo-casing system keeps the incubator walls at an even temperature. The evaporator is not in direct contact with the working area, which prevents dehumidification. The samples are protected against drying out. The working area atmosphere is separated hermetically from the thermo-casing. Relative air humidity of up to 90 % can be attained even during cooling.

Other features:

- **Temperature range:** 0 to +50 °C
- Temperature constancy: temporal ± 0.1 °C, spatial ± 0.8 °C
- Temperature control: microprocessor-controlled 3-point regulator
- Automatic defrosting: quasi-continuous, therefore only minimal ice formation and very low heat discharge into working area occurs BK 6160 can continue operating when defrosting
- Stainless steel working area with rounded, corners, sealed gastight

Technical specifications:

Inner volume	166 l
Trays: standard / max. number	2 / 7
Inner dimensions (W x D x H)	744 x 725 x 920 mm
Outer dimensions (W x D x H)	607 x 585 x 470 mm
Weight	100 kg
Power supply	230 V, 50/60 Hz

Also available: locking tube feedthrough (if required, please order with your initial order).

Type	Art. No.	Pack Qty.	€
BK 6160	Y723.1	1	7865,00

Accessories:

Spare stainless steel tray	Y724.1 *	1	248,00
Locking tube feedthrough Ø 19 mm	Y725.1 *	1	327,00

* Longer delivery times possible. Please check with our Sales Department.

Drying and warming cabinets



Universal heating and drying cabinets

By Memmert.

UN, UNplus, UF and UFplus models

General features:

- **Operating temperature range from 5 °C (UN/UNplus) or 10 °C (UF/UFplus) above room temperature to 300 °C**
Set temperatures from 20 to 300 °C
Adjustment accuracy to 99.9 °C: 0.1 K from 100 °C: 0.5 K
- Interior made of stainless steel (1.4301)
- Fully insulated stainless steel door (two-wing from size 450 upwards)
- Fresh air supply by electronically adjustable exhaust flap
- Structured stainless steel housing
- Incl. factory calibration certificate valid for +160 °C
- **Power supply of models 30 to 260: 230 V, 50/60 Hz**
Power supply of models 450 and 750:
400 V and 3 x 220 V, 50/60 Hz

Other features:

- German, English, French and Spain language options
- Digital timer (adjustable from 1 min to 99 d, 23 h) or continuous duty
- "SetpointWAIT" function - process time does not start until the nominal temperature is achieved

Technical specifications:

Model sizes	30	55	75	110	160	260	450 ¹⁾	750 ¹⁾
Capacity (l)	32	53	74	108	161	256	449	749
Inner dimensions (mm):								
Width	400	400	400	560	560	640	1040	1040
Height	320	400	560	480	720	800	720	1200
Depth ²⁾	250	330	330	400	400	500	600	600
Outer dimensions (mm):								
Width	585	585	585	745	745	824	1224	1224
Height	707	787	947	867	1107	1186	1247	1726
Depth (without door handle) ³⁾	434	514	514	584	584	684	784	784
Stainless steel grids								
Delivery incl.	1	1	2	2	2	2	2	2
Max. capacity	3	4	6	5	8	9	8	14
Other								
Power consumption (W)	1600	2000	2500	2800	3200	3400	5800	7000
Power supply	230 V, 50/60 Hz						400 V and 3 x 220 V, 50/60 Hz	
Weight (kg)	44	55	65	74	96	110	170	215
Temperature variation								
Time (°C)	Models UN/UF <±0.5 / models UNplus/UFplus <±0.25							
Spatial (°C)	Models UN/UF <±2.7 / models UNplus/UFplus <±2.2							

1) With castors, movable and lockable

2) Less 39 mm for forced air circulation (convection) equipment

3) Door handle: 56 mm

Delivery incl. stainless steel grids

(models 30 and 55: 1 grid, models 75 to 750: 2 grids)

Models UN and UF

- Graphical single TFT display with touchscreen for operation and display of temperature, program runtime and air flap position
- Integrated data logger with 10-year memory
- With Ethernet communication port for log data readout
- Overtemperature protection
- **Additional feature of UF model:** low-noise air turbine for air circulation mode (air turbine can be adjusted and switched off)

Type UN, with natural air circulation (convection)

Type	Model size	Art. No.	Pack Qty.	€
UN	30	TX98.1 *	1	936,00
UN	55	TX99.1 *	1	1079,00
UN	75	TY00.1 *	1	1323,00
UN	110	TY01.1 *	1	1534,00
UN	160	TY02.1 *	1	2050,00
UN	260	TY03.1 *	1	2740,00
UN	450	TY04.1 *	1	3636,00
UN	750	TY05.1 *	1	4933,00

Type UF, with forced air circulation (ventilator)

Type	Model size	Art. No.	Pack Qty.	€
UF	30	TY06.1 *	1	1113,00
UF	55	TY07.1 *	1	1334,00
UF	75	TY08.1 *	1	1586,00
UF	110	TY09.1 *	1	1853,00
UF	160	TY10.1 *	1	2447,00
UF	260	TY11.1 *	1	3172,00
UF	450	TY12.1 *	1	4159,00
UF	750	TY13.1 *	1	5611,00

Models UNplus and UFplus

- Two graphical TFT displays with touchscreen for operation and display of temperature, program runtime, air damper position and graphical display of program flow
- Integrated data logger with 10-year memory
- **Display of recorded log data (max. 10000 values correspond to approx. 1 week) directly on the instrument**
- Application-specific correction of heat output distribution between the upper and lower heating groups within an adjustment range from -50 to +50 %
- With Ethernet communication port for log data readout as well as for transmitting and launching programs and online logging
- Definition of individual Min/Max values for high/low temperature protection
- **USB port for installing programs and reading out the data logger incl. software (to create ramp programs and 7-day programs)**
- **Additional feature of UF/UFplus models:** low-noise air turbine for air circulation mode (air turbine can be adjusted and switched off)

Type UNplus, with natural air circulation (convection)

Type	Model size	Art. No.	Pack Qty.	€
UNplus	30	TY14.1 *	1	1570,00
UNplus	55	TY15.1 *	1	1705,00
UNplus	75	TY16.1 *	1	1906,00
UNplus	110	TY17.1 *	1	2185,00
UNplus	160	TY18.1 *	1	2730,00
UNplus	260	TY19.1 *	1	3298,00
UNplus	450	TY20.1 *	1	4254,00
UNplus	750	TY21.1 *	1	5580,00

* Longer delivery times possible. Please check with our Sales Department

Type UFplus, with forced air circulation (ventilator)

Type	Model size	Art. No.	Pack Qty.	€
UFplus	30	TY22.1 *	1	1656,00
UFplus	55	TY23.1 *	1	1956,00
UFplus	75	TY24.1 *	1	2168,00
UFplus	110	TY25.1 *	1	2500,00
UFplus	160	TY26.1 *	1	3125,00
UFplus	260	TY27.1 *	1	3750,00
UFplus	450	TY28.1 *	1	4779,00
UFplus	750	TY29.1 *	1	6258,00

* Longer delivery times possible. Please check with our Sales Department



Heratherm drying cabinets

By Thermo.
General Protocol and Advanced Protocol models

General features:

- **Temperature range:**
General Protocol model: 50 to 250 °C
Advanced Protocol model: 50 to 330 °C
- Interior made of stainless steel
General Protocol model: stainless steel 1.4016
Advanced Protocol model: stainless steel 1.4301
- Smooth housing interior and round edges make it easy to clean
- Automatic over temperature alarm
- Microprocessor control
- Setting accuracy ± 1 K
- RS 232 port
- **Natural convection** for gentle drying and heating with low air turbulence (e. g. powder or film) or **air circulating** for fast drying and heating
- Outlet connection 230 V, 50 Hz

Technical specifications:

Type	OGS60/ OGH60	OGS100/ OGH100	OGS180/ OGH180	OMS60/ OMH60	OMS100/ OMH100	OMS180/ OMH180
Capacity (l)	65/61	105/99	176/168	66/62	104/97	179/170
Inner dimensions (mm)						
Width	328	438	438	354	464	464
Height	480	580	680	508	608	708
Depth	415/389	414/389	589/564	368/343	368/343	543/518
Outer dimensions¹⁾ (mm)						
Width	530	640	640	530	640	640
Height	720	820	920	720	820	920
Depth	565	565	738	565	565	738
Removable inserts						
Delivery incl.	2					
Max. capacity	13	16	19	13	16	19
Other						
Rated power (W)	1800	3100	3100	1400	3060	3060
Weight (kg)	42/44	53/55	66/69	42/44	53/55	66/69
Temperature deviation at 150 °C						
temporal (°C)	± 0.4 / ± 0.3	± 0.4 / ± 0.3	± 0.4 / ± 0.3	± 0.3 / ± 0.2	± 0.3 / ± 0.2	± 0.3 / ± 0.2
spatial (°C)	± 4.4 / ± 2.5	± 4.0 / ± 3.0	± 4.0 / ± 2.5	± 2.8 / ± 1.8	± 2.5 / ± 1.3	± 2.8 / ± 1.8

¹⁾ Depth of handle and display (65 mm) not included; adjustable feet (35 mm) not included in height.

Drying cabinets Heratherm General Protocol:

- Integrated timer (1 min up to 99 h, 59 min)
- Actual temperature display
- Models with air-circulation fan: air turbine cannot be set or switched off

General Protocol with natural convection

Type	Capacity (l)	Temperature range up to °C	Art. No.	Pack Qty.	€
OGS60	65	250	PL56.1 *	1	1038,00
OGS100	105	250	PL57.1 *	1	1529,00
OGS180	176	250	PL58.1 *	1	2076,00

General Protocol with air-circulating fan

Type	Capacity (l)	Temperature range up to °C	Art. No.	Pack Qty.	€
OMS60	66	250	PL59.1 *	1	1366,00
OMS100	104	250	PL60.1 *	1	1911,00
OMS180	179	250	PL61.1 *	1	2612,00

* Longer delivery times possible. Please check with our Sales Department.

Drying cabinets Heratherm Advanced Protocol

- Switch on/off after a pre-set time
- Weekly setting or real-time control
- Programmable control for temperature increase interval times (memory for 10 programs each with 10 individual steps)
- Bushing (\varnothing 19 mm) at the back enables sensor to be inserted, e.g. for independent data monitoring
- Housing varnished on outside
- Models with air-circulation fan: controllable fan speed for application-specific air flow rates (cannot be switched off completely)

Advanced Protocol with natural convection

Type	Capacity (l)	Temperature range up to °C	Art. No.	Pack Qty.	€
OGH60	61	330	PL62.1 *	1	1584,00
OGH100	99	330	PL63.1 *	1	2066,00
OGH180	168	330	PL64.1 *	1	2612,00

Advanced Protocol with air-circulating fan

Type	Capacity (l)	Temperature range up to °C	Art. No.	Pack Qty.	€
OMH60	62	330	PL65.1 *	1	1964,00
OMH100	97	330	PL66.1 *	1	2605,00
OMH180	170	330	PL67.1 *	1	3375,00

* Longer delivery times possible. Please check with our Sales Department.

Accessories for Heratherm drying cabinets

By Thermo.

Removable shelf kit: 1 shelf with 2 supports

for type	Art. No.	Pack Qty.	€
OGS60, OGH60	PL68.1	1	64,70
OGS100, OGH100	PL69.1	1	86,50
OGS180, OGH180	PL70.1	1	109,00
OMS60, OMH60	PL71.1	1	65,00
OMS100, OMH100	PL72.1	1	86,70
OMS180, OMH180	PL73.1	1	109,00

Drying and warming cabinets



Universal heating and drying ovens, models ED, FD and FED

By Binder.

- Operating temperature range from 15 °C and room temperature to 300 °C
Setting temperatures from 30 to 300 °C; Setting accuracy: ± 1 °C
- Adjustable air renewal and rear exhaust \varnothing 50 mm
- Models with volumes of 400 l or higher come with a double-panel door
- With integrated timer with range from 0 to 99 h
- Power supply of models 23 to 260: 230 V, 50/60 Hz
Power supply of models 400 and 720: 400 V, 50/60 Hz. 3 N ~

Models ED/FD/FED 56, ED/FD/FED 115
and ED/FD/FED 260 also have: USB port for recording data

Technical specifications:

Models		ED 23/ FD 23	ED 56/ FD 56/ FED 56	ED 115/ FD 115/ FED 115	ED 260/ FD 260/ FED 260	ED 400/ FED 400	ED 720/ FED 720
Capacity (l)	ED FD FED	20 20 -	57 60 60	114 116 116	255 259 259	400 400 400	720 720 720
Inner dimensions (mm):							
Width	ED FD/FED	222 222	360 400	510 550	610 650	1000 1000	1000 1000
Height	ED FD/FED	330 330	420 440	530 550	760 780	800 800	1200 1200
Depth	ED FD FED	300 300 -	380 345 345	425 385 385	550 515 515	520 - 500	620 - 600
Outer dimensions (mm):							
Width		435	560	710	810	1235	1235
Height		495	625	735	965	1025	1530
Depth ¹⁾	ED FD FED	620 605 -	640 640 640	680 680 680	815 815 815	860 - 875	950 - 980
Grids, chrome plated							
Delivery incl.		2	2	2	2	2	2
Max. capacity		3	4	5	7	10	15
Other							
Rated power (W)	ED FD/FED	800 800	1050 1100	1250 1300	2250 2300	3400 3400	5000 5000
Power supply		230 V, 50/60 Hz				400 V, 3 N ~	
Weight (kg)	ED FD FED	22 33 -	40 40 40	50 50 50	85 85 85	125 - 145	174 - 195
Temperature variance							
temporal (°C)	ED FD/FED	± 0.3 ± 0.3	± 0.4 ± 0.3	± 0.4 ± 0.3	± 0.7 ± 0.3	± 0.3 ± 0.3	± 0.3 ± 0.3
spatial (°C)	ED FD FED	± 2.5 ± 2.2 -	± 2.5 ± 1.7 ± 1.4	± 2.0 ± 1.7 ± 1.2	± 2.0 ± 1.5 ± 1.5	± 3 - ± 2.5	± 2.8 - ± 2

1) Incl. door handle and exhaust

Delivery incl. 2 grids, chrome plated.

ED models

With natural air circulation (convection)

Type	Art. No.	Pack Qty.	€
ED 23	CKA5.1 *	1	1290,00
ED 56	CKA6.1 *	1	1227,65
ED 115	CKA7.1 *	1	1809,25
ED 260	CKA8.1 *	1	3384,10
ED 400	CKA9.1 *	1	4380,65
ED 720	CKC0.1 *	1	5979,15

Model FD

With forced air circulation (fan)

Fan speed cannot be regulated or switched off

Type	Art. No.	Pack Qty.	€
FD 23	CKC1.1 *	1	1684,55
FD 56	CKC2.1 *	1	1621,10
FD 115	CKC3.1 *	1	2230,65
FD 260	CKC4.1 *	1	3656,10

Model FED

With forced air circulation (fan)

- Adjustable fan speed (min. speed 30 %)
- 1 programmable temperature ramp
- RS 422 port
- Timer function selection:
 - Heater is switched off when set time expires
 - The set timer does not start until the actual value reaches the selected set value. Heater is switched off when the set time expires.
 - Heater is switched on after set time expires and stays in continuous operation.

Type	Art. No.	Pack Qty.	€
FED 53	CKC5.1 *	1	2157,55
FED 115	CKC6.1 *	1	2873,50
FED 240	CKC7.1 *	1	4192,50
FED 400	CKC8.1 *	1	5376,10
FED 720	CKC9.1 *	1	7172,40

* Delivery times may apply to these products. Please ask our sales staff.

Accessories for heating ovens and drying cabinets of models ED, FD and FED

By Binder.

Grids, chrome plated

for type	Art. No.	Pack Qty.	€
ED 23, FD 23	CKE0.1	1	41,95
ED 56	CKE1.1	1	66,65
FD 56, FED 56	ECY1.1	1	66,65
ED 115	CKE2.1	1	104,30
FD 115, FED 115	ECY2.1	1	104,30
ED 260	CKE3.1	1	193,50
FD 260, FED 260	ECY3.1	1	193,50
ED 400, FED 400	CKE4.1	1	213,95
ED 720, FED 720	CKE5.1	1	233,30



Heratherm high capacity drying cabinets

By Thermo.

General features:

- Free-standing units with fixed rollers
- Stainless steel interior
- RS 232 port
- Mains connection 230 V, 50 Hz

Technical specifications:

Type	OGS400	OGS750	OMH400	OMH750
Capacity (l)	419	774	396	731
Inner dimensions (mm)				
Width	544	1004	544	1004
Height	1307	1307	1335	1335
Depth	590	590	545	545
Outer dimensions ¹⁾ (mm)				
Width	778	1261	778	1261
Height	1545	1545	1545	1545
Depth	770	770	770	770
Removable shelves				
Delivery incl.	2			
Max. capacity	39			
Other				
Rated power (W)	2400	3000	2400	3000
Weight (kg)	136	182	135	185
Temperature deviation at 150 °C				
temporal (°C)	±0.5		±0.3	±0.4
spatial (°C)	±3.0	±3.7	±2.1	±3.1

1) not including depth of handle and display (65 mm) and height of rollers (108 mm); required clearance to rear panel 120 mm.

Delivery incl. 2 removable shelves.

General Protocol:

- Operating temperature range from 10 °C above room temperature to 250 °C
- With natural convection
- Integrated timer (1 min to 99 h, 59 min)
- Actual temperature display; setting accuracy ±1 K

Type	Capacity (l)	Art. No.	Pack Qty.	€
OGS400	419	XH32.1 *	1	3612,00
OGS750	774	XH33.1 *	1	4993,00

* Longer delivery times possible. Please check with our Sales Department

Advanced Protocol:

- Operating temperature range from 10 °C above room temperature to 250 °C
- Setting accuracy ±1 K
- Mechanical convection - 2-stage fan: can run fast or slow, but cannot be switched off
- Cable feedthrough (Ø 19 mm), e.g. for fitting sensors
- An audible alarm sounds if the door is accidentally left open
- Switch on/off after a pre-set time
- Weekly setting or real-time control
- Programmable control for temperature ramps and dwell times (memory for 10 programs each with 10 individual steps)

Type	Capacity (l)	Art. No.	Pack Qty.	€
OMH400	396	XH34.1 *	1	4675,00
OMH750	731	XH35.1 *	1	6162,00

* Longer delivery times possible. Please check with our Sales Department

Accessories

for Heratherm high-capacity drying cabinets

By Thermo.

Wire mesh shelf kit: shelf with 2 supports.

for type	Art. No.	Pack Qty.	€
OGS400, OMH400	XH36.1 *	1	175,00
OGS750, OMH750	XH37.1 *	1	212,00

* Longer delivery times possible. Please check with our Sales Department



Muffle furnaces



LHT high-temperature laboratory ovens

By Carbolite.

- For maximum temperatures of 400, 500 or 600 °C depending on unit type
- Only 10 minutes recovery time at 400 or 500 °C after the door has been open for 1 min
- Polished stainless steel inner chamber
- Rugged powder coated outer housing
- High-performance recirculating air fan in the inner chamber (non-regulable)
- Adjustable digital overtemperature protection
- PID thermostat with digital display (nominal/actual temperature display)

Technical specifications:

Type	LHT 4/30	LHT 5/30	LHT 6/30
Capacity (l)	30		
Max. temperature (°C)	400	500	600
Dimensions			
Inner dimensions W x H x D (mm)	300 x 300 x 305		
Outer dimensions W x D x H (mm)	830 x 570 x 570		
Removable shelves			
Delivery incl. / max. capacity (pce.)	2 / 2		
Temperature variation			
Temporal (°C)	±0.5		
Spatial (°C)	±5		
Other			
Heating rates up to max. temp. (min)	50	50	70
Power consumption (W)	1000	2000	2000
Weight (kg)	73		
Power supply	230 V, 50 Hz		

Delivery incl. 2 grid shelves.

Type	Art. No.	Pack Qty.	€
LHT 4/30	NP16.1 *	1	6210,30
LHT 5/30	NP17.1 *	1	6814,45
LHT 6/30	NP18.1 *	1	7418,60

* These products may be subject to delivery times. Please consult our sales department.



Economy laboratory furnaces ELF series

By Carbolite. For temperatures up to 1100 °C.

- General-diffuse heating coils on both side walls
- Furnace chamber comprising vacuum formed fibre insulation
- With abrasion-resistant base plate
- Double-walled housing for low ambient temperatures
- Short heating-up times of approx. 35 min
- Exhaust vent (Ø 30 mm)
- Forward hinged door
- PID thermostat with digital display (nominal/actual temperature display)
- Input of a temperature control profile with 2 segments (heating rate and hold time) using the timer function
- Built-in timer function (runtime: 99 h and 59 min)
- The timer can be operated in 5 different modes, e.g. the timer waits until the set temperature is reached, then begins to count down and on expiration shuts off the heater.
- Please pay attention to supply voltages

Technical specifications:

Type	ELF 11/6b	ELF 11/14b	ELF 11/23
Capacity (l)	6	14	23
Inner dimensions (mm)			
Width	180	220	255
Height	165	210	235
Depth	200	300	400
Outer dimensions (mm)			
Width	410	450	505
Height	580	630	715
Depth	420	520	660
Other			
Power consumption (W)	2000	3000	6100
Weight (kg)	20	31	52
Power supply	230 V, 1-phase, 50 Hz with safety plug 16 A fuse		230 V, 2-phase, 50 Hz with 16A CEE plug 16 A fuse per phase

Type	Capacity (l)	Art. No.	Pack Qty.	€
ELF 11/6b	6	HY65.1 *	1	2348,90
ELF 11/14b	14	XK56.1 *	1	2705,80
ELF 11/23	23	XK57.1 *	1	4155,95

* Longer delivery times possible. Please check with our Sales Department

Muffle furnaces



AAF Series Economy muffle/ashing furnaces

By Carbolite. For temperatures up to 1100 °C.

- Ceramic muffles heated from 4 sides for good temperature homogeneity (AAF 11/3 and AAF 11/7), AAF 11/18 model is heated from 2 sides with covered heating elements
- Parallel swing-up doors
- Hot door insulation is always facing away from the user
- Vacuum-formed fibre insulation
- Heating-up time: approx. 100 min
- Preheated air intake for optimal temperature distribution
- Air exchange rate: approx. 5 to 6 air changes per minute
- Exhaust outlet with vent (Ø 50 mm)
- With door contact switch
- PID thermostat with digital display (nominal/actual temperature display)
- Input of a temperature control profile with 2 segments (heating rate and hold time) using the timer function
- Built-in timer function (runtime: 99 h and 59 min)
- The timer can be operated in 5 different modes, e.g. the timer waits until the set temperature is reached, then begins to count down and on expiration shuts off the heater.
- **Please pay attention to supply voltages**

Technical specifications:

Type	AAF 11/3	AAF 11/7	AAF 11/18
Capacity (l)	3	6.9	18.4
Inner dimensions (mm)			
Width	150	170	196
Height	90	90	235
Depth	250	455	400
Outer dimensions (mm)			
Width	375	430	505
Height	585	650	705
Depth	485	740	675
Other			
Power consumption (kW)	2.1	3.9	7.25
Weight (kg)	22	63	70
Power supply	230 V, 1-phase, 50 Hz with safety plug 16 A fuse	230 V, 2-phase, 50 Hz with 16A CEE plug 16 A fuse per phase	230 V, 3-phase, 50 Hz with 16A CEE plug 16 A fuse per phase

Delivery incl. Inconel bottom trays with handle (AAF11/3 and AAF11/7) or Inconel rack with handle for loading with samples on two levels (AAF11/18).

Type	Capacity (l)	Art. No.	Pack Qty.	€
AAF 11/3	3	HY89.1 *	1	3177,70
AAF 11/7	6,9	XK54.1 *	1	4010,85
AAF 11/18	18,4	XK55.1 *	1	5776,00

* Longer delivery times possible. Please check with our Sales Department



Muffle furnace Heraeus® M 104 Comfort

By Thermo. Suitable for calcining, incinerating, baking, preheating and drying analytic samples. Load material through the revolving door, which can also be used for holding the material. The hot inner side is always away from the user.

Additional features

- Temperature select limiter
- Low temperatures of external furnace walls (<60 °C)
- High-quality, asbestos-free insulation material
- **Electronic control with digital display (variance temperature display)**
- **24-hour timer**
- Annealing chamber manufactured from robust, abrasion-proof ceramics

Technical specifications:

Nominal temperature	1000 °C
Working space volume	3.5 l
Working space dim. (W x H x D)	170 x 130 x 160 mm
Outer dimensions (W x H x D)	456 x 646 x 570 mm
Weight	51 kg
Power input	2500 W
Current	230 V, 56/60 Hz

Art. No.	Pack Qty.	€
X640.1 *	1	4639,00

* Please check with our Sales Department for delivery period of these products.

- For drying and circulating cabinets that can reach max. 300 °C, see page 940

Vacuum drying cabinets



Vacuum drying cabinet Heraeus® VT-series

By Thermo. Fields of application: pharmaceuticals, biochemistry, cosmetics industry and electronics. Ideal for gentle, rapid drying and for thermal treatment of temperature-sensitive or easily decomposable substances and electronic components. Vacuum drying eliminates any danger of contamination of sensitive samples through floating particles and the risk of oxidation is lower.

General features of all models:

- **Working temperature of 15 °C above room temperature to +200 °C**
 - Max. physical temperature tolerance ± 4 °C (at 200 °C)
 - Analogue pressure display
 - **Attainable end vacuum: 0.01 mbar**
 - Inner trays are made of corrosion-proof, electropolished stainless steel (1.4571)
 - Double-plated safety glass in door window
 - Microprocessor-controlled temperature regulator
 - Digital temperature display
 - Jacket heating
 - Temperature control limiter (protection class 2 in acc. with DIN 12880)
 - In-house vacuum or a vacuum pump is required for operation.
- Please order vacuum connection set separately.

VT 6025 comfort

Inert gas connection (AD \varnothing 4 mm) with precision valve and pressure relief valve for precise discharge of non-flammable, non-toxic gases (VDI 20465).

Technical specifications:

Effective space volume	25 l
Outer dimensions (W x D x H)	480 x 450 x 600 mm
Inner dimensions (W x D x H)	300 x 307 x 275 mm
Trays: standard / max. number	2 / 4
Nominal output	1.3 kW
Tube shaft for vacuum connection	\varnothing 20 mm
Weight	58 kg
Power supply	230 V, 50/60 Hz

Type	Type	Art. No.	Pack Qty.	€
VT 6025	without inert gas connection	Y718.1	1	4762,00
VT 6025 comfort	with inert gas connection	ATN9.1	1	5422,00

* Please check with our Sales Department for delivery period of these items.

Accessories for Heraeus® VT-series

By Thermo.

Spare tray

Art. No.	Pack Qty.	€
Y719.1	1	146,00

Vacuum connection set

For connection to vacuum pump, tube ID 10 mm

Art. No.	Pack Qty.	€
Y720.1 *	1	203,00

* Please check with our Sales Department for delivery period of these items.



Hot air sterilizers

For dry-sterilizing of instruments. Units are fitted with glass balls approx. 310 g, and can reach a temperature of 240 °C. Sterilization time: 10-30 seconds. Glass balls are included.

Small unit

Capacity 70 W. Warm-up period 15 min. Inner \varnothing 50 mm. Outer dimensions: L140 x W 120 x H 140 mm.

Type	Art. No.	Pack Qty.	€
Without timer	E996.1	1	327,90
With timer (30 s)	E997.1	1	385,95

Large model:

Capacity 100 W. Warm-up period 30 min. Inner \varnothing 70 mm. Outer dimensions: L 195 x W 145 x H 154 mm.

Type	Art. No.	Pack Qty.	€
Without timer	E998.1	1	341,85
With timer (30 s)	E999.1	1	435,40

Spare glass balls

Type	Art. No.	Pack Qty.	€
1 Pack qty. contains approx. 310 g	H660.1	1	30,05

► Vacuum pump for moist gases see page 342

Heating leads



Electric barrel heaters WODL-series

By Winkler. Ideal for heating and reducing the viscosity of solids and liquids in barrels and canisters allowing them to be filled into smaller containers or pumped more easily.

Features:

- Direct heating at place of installation
- Outside casing made of siliconised glass cloth
- Simple attachment via tension belt with adjustable snap lock
- Temperature range: room temp. max 70 °C
- Infinitely adjustable temperature setting (Scale in 10 °C-steps)
- Example of usage: approx. 48 h heating period for 200 l water (from +15 to +60 °C with one barrel heater 450 W)
- 3 m connecting cable
- Voltage 230, 50/60 Hz

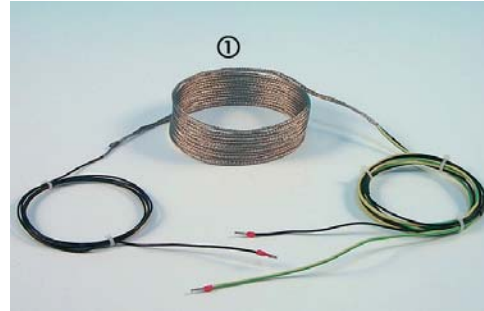
Technical specifications:

Model	Container	Output (W)	Dimensions W x L (mm)	Heated length (mm)
WODL-30	Canister 30 l	75	200 x 1020	900
WODL-60	Canister 60 l	150	300 x 1250	1200
WODL-120	Canister 120 l	250	400 x 1650	1500
WODL-220	Barrels 200-220 l	375	500 x 1950	1800

Type	Art. No.	Pack Qty.	€
WODL-30	LK10.1 *	1	600,95
WODL-60	LK11.1 *	1	600,95
WODL-120	LK12.1 *	1	675,10
WODL-220	LK13.1 *	1	708,45

* Please check with our Sales Department for delivery period of these products.

- Temperature control unit for heating leads see page 948



Laboratory heating cords HSS-series

With braided resistance wires. Ideal for temperatures to max. 450 °C. High flexibility enables cord to be used for extremely close coiling radius (<15 mm). **Not moisture proof.**

- Connector cable: 1.5 m
- Min. bending radius: 6 mm
- Ø: 3.5 to 4.5 mm
- No shockproof plug, please order separately

For control system, see accessories for heating leads.

Model	Length (m)	Output (W)	Art. No.	Pack Qty.	€
I	0,6	75	C996.1	1	67,20
II	1	100	C997.1	1	74,20
III	2	250	C998.1	1	96,75
IV	3	350	C999.1	1	113,95
V	4	500	E001.1	1	129,00
VI	5	600	E002.1	1	148,35

① Laboratory heating cables HST-series

Ideal for temperatures to max. 250 °C. **Moisture-proof.**

With braided resistance wires. High tensile strength. Pliant and flexible.

- Connector cable: 1.5 m
- Min. bending radius: 10 mm
- Ø: 2.5 to 3.5 mm
- No shockproof plug, please order separately

For control system, see accessories for heating leads.

Model	Length (m)	Output (W)	Art. No.	Pack Qty.	€
I	1,1	30	C993.1	1	72,05
II	2	50	C994.1	1	81,20
III	4	100	C995.1	1	101,05

Installation set

For assembling a shockproof plug to heating cords or cables.

Set consists of shockproof plug and a silicone tube.

Silicone tube: Length 1.5 m, Ø 8 mm.

Art. No.	Pack Qty.	€
E059.1	1	24,65

Glass fabric tape

With silicone adhesive. To attach heating leads. Adhesive to +200 °C.

Dimensions width 15 mm, length 50 m.

Art. No.	Pack Qty.	€
E060.1	1	82,45

Glass fiber tape

Ideal for bending and wrapping heating leads and temperature sensors.

Suitable to max. +450 °C.

Dimensions: 0.16 mm thick, width 25 mm, length 50 m.

Art. No.	Pack Qty.	€
E061.1	1	32,00

Heating leads



Laboratory heating tapes HBSI/HBS-series

Technical specifications:

Type	① HBSI	② HBS
Nominal temperature	200 °C	450 °C
Mains connection:	1.5 m	0.5 m
Min. bending radius	20 mm	10 mm
Dimensions (thickness x width)	5 x 24 mm	5 x 30 mm

For control system, see accessories for heating leads.

① HBSI-Heating tape

Ideal for **temperatures to max. 200 °C. Moisture-proof**. With braided resistance wires. Flexible, hard-wearing and grounded. Protective grounding on each individual lead. Covered in a silicone sheath for extra protection against environment influence or mechanical damage. PTFE insulation also protects heating conductor from chemical influence.

Delivery incl. shockproof plug.

Model	Length (m)	Output (W)	Art. No.	Pack Qty.	€
I	1	100	E003.1	1	149,45
II	2	200	E004.1	1	180,60
III	3	300	E005.1	1	222,55
IV	4	400	E006.1	1	275,20
V	5	500	E007.1	1	332,20

② HBS-Heating tape

Ideal for **temperatures to max. 450 °C**. Due to high working temperature, it is **not moisture-proof**. With braided resistance wires.

Pliant, highly flexible and earthed.

Delivery incl. shockproof plug.

Model	Length (m)	Output (W)	Art. No.	Pack Qty.	€
I	0,5	100	C988.1	1	106,45
II	1	250	C989.1	1	116,10
III	2	500	C990.1	1	141,90
IV	3	750	C991.1	1	191,35
V	5	1250	C992.1	1	275,20

- Socket strips, see page 846
- Thermometers from page 745



Programme extension!

Temperature control unit HT 30

Accessories for heating leads and heating tapes

Multi-purpose use. With 220 V socket. Capacity 2200 W. With electronic power output to 10 A. The unit enables controlled and gentle heating of heating lines/heating mantles. Electronic power disc allows connected nominal capacity to be reduced from 100 % to 0 % or to be adjusted to individual needs. Adjustment of digital desired value for exact setting of required temperature (**control and operation process possible only via separate Pt 100 sensor**). The actual temperature can read off an LED trend display or an optional actual temperature display (please order separately).

Technical specifications:

Switching capacity at 220 V	2300 W
Accuracy	1 %
Gain control	0.5 % to 5 %
Protection class	I
System of protection	IP 30
Mains cable	1.5 m (detachable), with shock proof plug on the backside
Dimensions of enclosure	75 x 115 x 145 mm

Delivery without temperature sensor, please order separately.

Art. No.	Pack Qty.	€
E047.1	1	532,15

Temperature sensor Pt 100 for thermostat HT 30

Sheath made of stainless steel 1.4571.

For regulating heating cords and heating tape

With cable (L 1 m) and connector.

Temp. range	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
250 °C	30	3	E048.1	1	107,00
500 °C	50	4	E049.1	1	127,95

For regulating heating mantles

With cable (L 1.5 m), handle and connector.

Temp. range	Length (mm)	Ø (mm)	Art. No.	Pack Qty.	€
450 °C	160	3	AEP8.1	1	153,75
450 °C	250	3	AEP9.1	1	170,95
450 °C	500	3	AET0.1	1	175,25

① Actual temperature display for thermostat HT 30

For digital display of the actual temperature of the optional temperature sensor. Display resolution 1 °C.

Dimensions: L 60 x W 80 x D 20 mm. Length of power cord 1 m.

Art. No.	Pack Qty.	€
CHC8.1	1	161,25



Pilz®-standard heating mantles WHG series

By Winkler. For working temperatures up to 450 °C.

- Heating element made of highly flexible glass fiber yarn for even heat distribution and gentle treatment of round flasks
- With heating zone switch
- **Up to 1000 ml with the built-in heating zone switch in the feed cable, from 2000 ml heating zone switch in housing**
- Heating mantles 500 to 20000 ml: Bottom opening Ø 60 mm
- Attachment to support rings or tripod stands with clasps
- Length of power cable: 1.5 m
- **With protective switch**
- Power supply voltage: 230 V, 50/60 Hz

① Model WHG2 - For working temperatures up to 450 °C

For flask vol. (ml)	Heating zones	Output (W)	Flask-Ø (mm)	Art. No.	Pack Qty.	€
25	1	40	41	KH06.1	1	338,65
50	1	70	51	KH07.1	1	345,10
100	2	110	64	KH08.1	1	348,30
250	2	200	85	KH09.1	1	355,85
500	2	300	105	KH10.1	1	371,95
1000	2	450	131	KH11.1	1	434,30
2000	2	700	166	KH12.1	1	646,10
3000	2	800	185	KH13.1	1	718,10
4000	2	1000	207	KH14.1	1	755,75
5000	2	1200	223	KH15.1	1	887,95
6000	2	1400	236	KH16.1	1	906,25
10000	2	2000	279	KH17.1	1	1186,80
20000	2	2800	345	KH18.1	1	1643,70

② Model WHG4R - For working temperatures up to 450 °C, however with increased heating output and 4 heating zones

For flask vol. (ml)	Heating zones	Output (W)	Flask-Ø (mm)	Art. No.	Pack Qty.	€
4000	4	1000	207	KH25.1	1	1109,40
6000	4	1400	236	KH26.1	1	1220,15
10000	4	2000	279	KH27.1	1	1523,30
20000	4	2800	345	KH28.1	1	1952,20



Tripod stand for standard heating mantles

① Made of stainless steel. For supporting standard heating mantles, Models WHG2, WHG2R and WHG4R.

Heating mantle (ml)	Ring-Ø (mm)	Art. No.	Pack Qty.	€
100	110	KH29.1	1	135,45
250	140	KH30.1	1	135,45
500	160	KH31.1	1	135,45
1000	188	KH32.1	1	135,45
2000	222	KH33.1	1	135,45
3000	238	KH34.1	1	164,50
4000	261	KH35.1	1	166,65
5000	277	KH36.1	1	181,70
6000	291	KH37.1	1	203,20
10000	334	KH38.1	1	278,45
20000	410	KH39.1	1	327,90

Support rings for standard heating mantles

② Made of stainless steel. For supporting standard heating mantles Models WHG2, WHG2R and WHG4R in tripods.

Heating mantle (ml)	Ring-Ø (mm)	Art. No.	Pack Qty.	€
25	90	KH40.1	1	53,75
50	90	KH41.1	1	54,30
100	110	KH42.1	1	55,90
250	140	KH43.1	1	57,00
500	160	KH44.1	1	58,05
1000	188	KH45.1	1	60,20
2000	222	KH46.1	1	63,45
3000	238	KH47.1	1	84,95
4000	261	KH48.1	1	89,25

Shockproof plug with multi-pole coupling

③ For heating mantles in the WHG and WHLG series

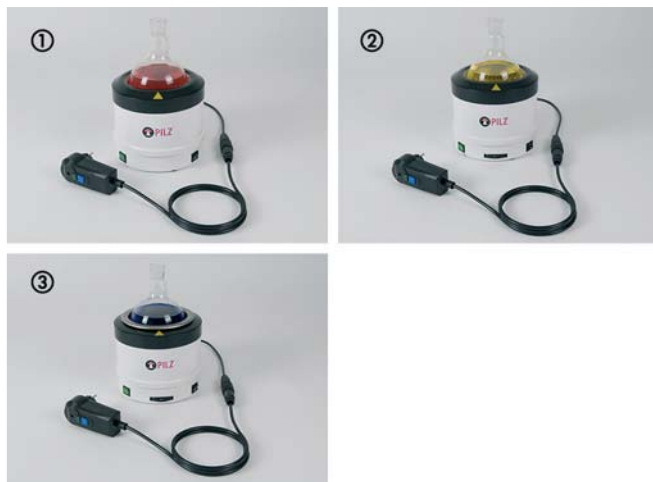
Doesn't have residual current circuit breaker function. Use when the operator network incorporates a residual current circuit breaker system. Cable length 1.0 m. Voltage 230 V.

Art. No.	Pack Qty.	€
PP37.1	1	18,85

Please note:

Older heating mantles may only be operated with a residual current circuit breaker (FI).

Heating mantles



Pilz®-heating mantles WHLG series

By Winkler. For working temperatures up to 450 °C.

- Heating element made of highly flexible glass fibre yarn for even heat distribution and gentle treatment of round flasks
- Plastic coated metal housing
- **Model WHLSG2/ER - With spill-proof heating basin made of metal for catching any spilt liquids should the glass vessel break**
- With integrated fitting for connection of stand clamps. (Please order stand clamps separately)
- Length of power cable: 1.5 m
- **With protective plug**
- Power supply voltage: 230 V, 50/60 Hz

① Model WHLG2 - With built-in heating zone switch

For flask vol. (ml)	Heating zones	Output (W)	Dimensions Ø x H (mm)	Art. No.	Pack Qty.	€
50	1	50	160 x 180	KE87.1	1	294,55
100	1	100	160 x 180	KE88.1	1	299,95
250	2	150	160 x 180	KE89.1	1	306,40
500	2	200	210 x 190	KE90.1	1	331,10
1000	2	300	210 x 190	KE91.1	1	371,95
2000	2	500	280 x 220	KE92.1	1	421,40
3000	2	600	280 x 220	KE93.1	1	450,45

② Model WHLG2/ER - With power controller for infinitely variable adjustment from 0 to 100 %

For flask vol. (ml)	Heating zones	Output (W)	Dimensions Ø x H (mm)	Art. No.	Pack Qty.	€
50	1	50	160 x 180	KE94.1	1	360,15
100	1	100	160 x 180	KE95.1	1	363,35
250	2	150	160 x 180	KE96.1	1	376,25
500	2	200	210 x 190	KE97.1	1	406,35
1000	2	300	210 x 190	KE98.1	1	445,05
2000	2	500	280 x 220	KE99.1	1	518,15
3000	2	600	280 x 220	KH00.1	1	545,05

③ Model WHLSG2/ER - With spill-proof heating basin made of metal and power controller for infinitely variable adjustment from 0 to 100 %

For flask vol. (ml)	Heating zones	Output (W)	Dimensions Ø x H (mm)	Art. No.	Pack Qty.	€
250	2	120	160 x 180	KH01.1	1	521,40
500	2	200	210 x 190	KH02.1	1	542,90
1000	2	300	210 x 190	KH03.1	1	557,95
2000	2	500	280 x 220	KH04.1	1	606,30

Accessories for Pilz®-heating mantles

By Winkler.

Stand clamps

For attaching heating mantles, Models WHLG2, WHLG2/ER and WHLSG2/ER in tripods. For max. Ø 13 mm support rods.

Art. No.	Pack Qty.	€
KH05.1	1	30,65



Pilz®-heating mantles, model WHU2ER

By Winkler. For operating temperature up to 450 °C.

- Heating element made of highly flexible glass fibre yarn for even heat distribution and gentle treatment of round flasks
- **With power controller for continuously variable adjustment from 0 to 100 %**
- Plastic coated metal housing
- With integrated fitting for connecting a stand clamp Please order stand clamp separately
- **With protective plug with FI function** (length of cable 1 m)
- Power supply voltage: 230 V, 50/60 Hz

For flask vol. (ml)	Heating zones	Output (W)	Dimensions Ø x H (mm)	Art. No.	Pack Qty.	€
4000	2	700	288 x 166	NP32.1 *	1	750,35
5000	2	860	318 x 166	NP33.1 *	1	858,95
6000	2	1000	318 x 166	NP34.1 *	1	897,65
10 000	2	1400	368 x 194	NP35.1 *	1	1009,45
20 000	2	2400	438 x 234	NP36.1 *	1	1353,45

* These products may be subject to delivery times. Please consult our sales department.

Accessories for

Pilz®-heating mantles, model WHU2ER

By Winkler.

Stand clamp STK 1

Made of cast aluminium. For attaching the heating mantles to stands.

For stand rods up to Ø 13 mm.

Art. No.	Pack Qty.	€
NP37.1 *	1	27,95

* These products may be subject to delivery times. Please consult our sales department.



CFS battery capillary filling device

To quickly and safely fill melting-point determination capillaries. Suitable for capillaries with a diameter of 1 to 1.5 mm and a length of 60 to 100 mm.

- Lengthy stoking and tapping are no longer required, the capillaries are cleanly and repeatedly filled to the bottom
- No direct contact with dangerous substances
- Clear housing protects against glass breakage

Usage:

The capillaries are carefully inserted into the filling funnel until their open side matches the lowest point of the funnel. Insert the funnel containing the capillaries into the unit. By turning the funnel guide, the height is adjusted until the capillaries touch the bottom and the funnel overlaps the guide by a few millimetres (see figure). The funnel is filled with a spatula tip's worth of the sample, and the unit switches on. The capillaries are filled using powerful vibrations. The unit switches off automatically after 10 seconds. The filling process can be repeated as often as required.

Note: The samples must be dry and finely powdered.
Unit dimensions: Diameter 80 x height 140 mm.

Delivery incl. AC adapter.

Art. No.	Pack Qty.	€
YT60.1	1	299,95

► Capillary tubes see page 143



Melting point measuring units MPM-series

For measuring the melting point of powdery substances in glass capillaries.

Standard features of all models:

- Digital temperature control
- Membrane keyboard enables easy cleaning
- Plain text display for error message
- Sample monitoring via illuminated lens
- Automatic rapid cooling via integrated ventilator
- With quick user's guide on unit (German/English)

Multi-function unit semi-/fully automatic MPM-HV 2

For testing of 1 sample.

With thermoprotocol printer. 2 selectable measuring methods (visual or automatic) for independent testing of problem substances without transparent melting point or with discolouration. Fully automatic measurement: set desired temperature (approx. 3 °C below expected melting point). A filled capillary is inserted once the preset temperature has been reached. The unit then continues to heat to the melting point and automatically starts printing the transparency progression of the substance.

Semi-automatic MPM-H 2

For simultaneous testing of max. 3 samples.

Semi-automatic melting point measuring unit **without a thermoprotocol printer**. A filled capillary is inserted once the preset temperature has been reached, visual inspection of capillary via magnifier. After pressing the "start" key again, the unit will continue to heat at 1 °C/min. As soon as sample has melted, the value can be read on the display.

Semi-automatic MPM-H 2/D

Like semi-automatic MPM-H 2, however **with thermoprotocol printer**. Printout doesn't contain transparency progression.

Technical specifications:

Measuring range	25.0 to 360.0 °C
Resolution	0.1 °C
Accuracy	±0.5 °C (+25 to +200 °C) ±0.5 % of mean value °C (rest measuring range)
Heating rate during rapid heating	to 200 °C - approx. 4 min to 350 °C - approx. 8 min
Heating rate during measurement	1 °C/min
Magnifier	10-times
Light	2 x LED
Dimensions (W x D x H)	230 x 220 x 315 mm
Weight	4.5 kg
Mains supply	115-230 V, 50 Hz

Delivery incl. the melting point measuring unit ordered, and 100 melting point capillaries.

Type	Protocol printer	Art. No.	Pack Qty.	€
MPM-HV 2	Yes	KA63.1	1	1697,45
MPM-H 2	No	KA64.1	1	1209,40
MPM-H 2/D	Yes	KA65.1	1	1439,45

Accessories:

Rotilabo®-melting point capillaries, open on one side	0820.1	100	7,55
Spare thermal paper rolls for MPM-HV 2 and MPM-H 2/D printers	KX22.1	5	11,80

Equipment for histology and pathology



Microscope slide drying bench MH6616

By Electrothermal. For faster preparation of microscope slides. For up to 50 microscope slides (76 x 26 mm). Suitable for temperatures ranging from 10 °C **above** room temperature to 100 °C.

Microscope slides can be placed in various positions:

- On the drying bars
- Leaning against the drying bars
- Placed flat without the drying bars

Technical specifications:

Heating output	150 W
Max. hot plate temperature	100 °C
Dimensions (W x D x H)	390 x 180 x 95 mm
Heating output	150 W
Weight	1.8 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
YL72.1	1	640,00



Tissue flotation bath MH8517

By Electrothermal. For flotation and drying of sectioned tissue samples. Suitable for use in pathological, histological, chemical and bacteriological laboratories.

- Matt black PTFE coating on aluminium vessel allows observation and manipulation of specimens
- With wide edge for placement and drying of sections
- A temperature of 45 °C is reached in approx. 40 min
- With over-temperature cut-out
- A bath lid is available to protect water against contamination. Please order separately

Technical specifications:

Capacity	2.25 l
Temperature range	from 10 °C above room temperature to 70 °C (temperature adjustment range from 30 to 80 °C)
Accuracy	±0.5 °C
Inner dimensions (Ø x H)	220 x 80 mm
Outer dimensions (Ø x H)	330 x 140 mm
Output	240 W
Weight	2.7 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
YL70.1	1	799,00

Accessories:

Bath lid for tissue flotation bath MH8517	YL71.1	1	115,00
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Paraffin wax dispenser MH8523B

By Electrothermal. Suitable for paraffin waxes with melting points from 45 to 65 °C. Wax is dispensed through the heated, non-drip tap; suitable for direct pouring into moulds or frames. Infinitely variable temperature control and separate drain tap temperature control with interchangeable filter. Aluminium housing with matt black aluminium lid, with matt black PTFE lining.

Technical specifications:

Filling capacity	4.5 l
Temperature range	5 °C above room temperature up to 75 °C
Accuracy	±1.5 °C
Inner dimensions (H x Ø)	150 x 200 mm
Outer dimensions (H x Ø)	280 x 300 mm
Heating output	185 W
Weight	4.5 kg
Power supply	230 V, 50/60 Hz

* Plus 100 mm for drain tap

Art. No.	Pack Qty.	€
YL68.1 *	1	2595,00

Accessories:

Filter changing kit for the tap	YL69.1 *	1	87,00
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* These products may be subject to delivery times. Please consult our sales department.

Heating equipment



Electric sand baths model ST 72 and ST 82

With variable temperature adjustment. Temperature range 50 to 300 °C. Very sturdy model for continuous operation. Hotplates made of aluminium alloy with screwed on and sealed high-grade steel frame, working height 50 mm. Even heat distribution. Housing made of high-grade steel. 1.7 m power cable.

Technical specifications:

Model	ST 72	ST 82
Output (W)	2200	2850
Dimensions W x D x H (mm)	360 x 360 x 220	360 x 510 x 220
Weight (g)	1400	2100

Type	Art. No.	Pack Qty.	€
ST 72	L165.1 *	1	1170,70
ST 82	L166.1 *	1	1385,70

* Please check with our Sales Department for delivery period of these products.



High-speed incinerator model SVR/E

Max. 950 °C with infinitely variable temperature control. For single and series incineration - even of liquid substances. The upper level has 8 openings each with 34 mm Ø and will hold a porcelain crucible of max. 50 mm Ø for drying or preheating. Upper part and housing made of high-grade steel. Integrated 120-minute signal clock with switch for continuous operation. Comes ready-to-use with 1.5 m cable and shockproof plug.

Technical specifications:

Output	2500 W
Dimensions	450 x 310 x 180 mm
Weight	7000 g
Voltage	220 V

Art. No.	Pack Qty.	€
L163.1 *	1	1488,90

Accessories:

Spare heating element	L164.1	1	321,45
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* Please check with our Sales Department for delivery period of these products.



Hotplates

With variably adjustable temperature setting. Control lamp. Lower part with high heat-resistance coating.

Two models available:

- Upper part enamelled white
- Upper part brushed stainless steel

Technical specifications:

Type	Hotplates, single	Twin hotplate
Output	1500 W	1500 W / 1000 W
Ø Heating ring	180 mm	180 / 150 mm
Dimensions (W x D x H)	250 x 290 x 85 mm	500 x 290 x 85 mm
Upper part enamelled white		
Dimensions (W x D x H)	262 x 285 x 80 mm	460 x 290 x 77 mm
Upper part brushed stainless steel		

Type	Type	Art. No.	Pack Qty.	€
Hotplates, single	Upper part enamelled white	P853.1	1	42,95
Hotplates, single	Upper part brushed stainless steel	EC13.1	1	49,25
Twin hotplate	Upper part enamelled white	K705.1	1	49,35
Twin hotplate	Upper part brushed stainless steel	EC14.1	1	69,90

► Multi-sockets, see page 846

Hotplates



CT 1810 ceramic glass heating plate

- With plastic housing
- Schott Ceran® cooking surface
- Stepless temperature regulation (power control from 7 to 100 %; scale with 12 stages)
- Overheating protection, residual heat indicators and pilot light

Technical specifications:

Heating output	1800 W
Max. hot plate temperature	450 °C
Heated zone	Ø 180 mm
Dimensions (W x D x H)	400 x 300 x 80 mm
Weight	2.4 kg
Electrical supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
NA85.1	1	152,65



Twin hotplate CT 3400/E

- With brushed stainless steel housing and Ceran®-glass-ceramic cooktop
- Freely-adjustable energy control using retractable rotary knob
- Dual-circuit heating technology:
 - 1st heating zone: Ø 145 mm
 - 2nd heating zone: selectable Ø (140 or 210 mm)
- Warning lamps, residual heat indicator and overheating protection

Technical specifications:

Heating capacity	Ø 145 mm = 1200 W Ø 140/210 mm = 2200 W
Max. hot plate temperature	460 °C
Dimensions (W x D x H)	550 x 310 x 65 mm
Weight	3,7 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
CHK9.1	1	299,95

► Pots adapted for induction see page 112



Glass ceramic hotplate CT 2203/TC

- Housing made of brushed stainless steel
- Dual circuit heating technology
- Large heating zone can be switched on (Ø 210 mm)
- Schott Ceran® cooking surface
- With 9-stage heating power
- Heating element with extremely short warm-up time
- Control lamp, residual heat display
- Automatic operating time limitation (1 to 10 h depending on cooking temperature stage)

Technical specifications:

Heating power	1000 W (Ø 140 mm) 2200 W (Ø 210 mm)
Max hotplate temperature	460 °C
Heated zone	Ø 140 or Ø 210 mm
Dimensions (W x D x H)	305 x 410 x 75 mm
Weight	3.2 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
EY75.1	1	221,45



Induction hotplate CT 2215/IN

A magnetic coil generates the heat directly in the bottom of the pot.

Can only be used with induction-suitable pots.

- Housing made of stainless steel
- Schott Ceran®-hotplate
- Temperature selection in 21 stages from 60 to 260 °C
- Power selection in 9 stages (70/130/180/270/350/500/820/1280/2200 W)
- Electronic regulation using touch controls
- Timer: 1 to 99 min
- Pot detector
- Automatic power-off and audio signal
- Residual heat and operation indicator

Technical specifications:

Heating output	2200 W
Temperature selection is stages from	60 to 260 °C, adjustable in 10 °C increments
Heated zone	Ø 80 to 200 mm
Dimensions (L x W x H)	380 x 333 x 65 mm
Electrical supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
NA86.1	1	203,20



REC digital hotplate

- Glass ceramic installation surface
- Digital display of hotplate nominal temperature (adjustable in 5 °C increments)
- Hot Top Indicator (hot surface warning)
- Elevated control panel for protection against leaking fluids

Technical specifications:

Heating output	800 W
Max. hot plate temperature	25 to 550 °C
Control accuracy	±10 K
Mounting surface	180 x 180 mm
Dimensions (W x D x H)	203 x 344 x 94 mm
Weight	3.3 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
ACP8.1	1	281,65



DURAN GROUP

Material
DURAN®



Wide-neck Erlenmeyer flasks

Made of DURAN®, graduated. With labelling field.
Acc. to DIN ISO 24450. With Retrace-Code. Autoclavable.

* Not acc. to DIN. ** Not graduated

Volume (ml)	Outer neck Ø (mm)	Flask outer Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
25 *	31	43	70	C144.1	10	48,50
50	34	51	85	C145.1	10	48,70
100	34	64	105	C146.1	10	47,60
200	50	79	131	C147.1	10	51,80
250	50	85	140	C148.1	10	52,10
300	50	87	156	C149.1	10	62,90
500	50	105	175	C150.1	10	71,80
1000	50	131	220	C151.2	1	12,00
2000 *	72	153	276	C152.2	1	21,50
3000 **	106	190	285	AAA3.1	1	71,30
5000 **	108	220	322	AAA4.1	1	92,25
10000 **	147	285	420	AAA5.1	1	178,00



Hotplates US150 and UC150

By Stuart.

Features

- Microprocessor-controlled heating element
- Platforms are optionally available in glass ceramic (generally good resistance to chemical attack, high temperature, 120 x 120 mm heated zone) or aluminium (very rugged, 150 x 150 mm heated zone)
- Temperature control with LED display, colour LEDs aid reading current actual temperature
- Safety warning lamp comes on at temperatures over 50 °C

Technical specifications:

Model	US150	UC150
Heating output (W)	700	500
Hotplate material	Aluminium/silicon coated	Glass ceramic
Heated zone (mm)	150 x 150	120 x 120
Max. hotplate temperature (°C)	325	450
Hotplate surface (mm)	150 x 150	150 x 150
Dimensions W x D x H (mm)	172 x 248 x 120	172 x 248 x 120
Weight (kg)	2,2	
Mains connection	230 V, 50 Hz	

Type	Art. No.	Pack Qty.	€
US150	PY70.1	1	349,00
UC150	PY71.1	1	349,00

Hotplates



Infrared laboratory cooker SLK 12

- By SI Analytics.
- With glass-ceramic hob
 - Heating area with 2 zones for small and large vessels
 - Stainless steel housing with steel base
 - Non-heated edge zones allow vessels to be partially heated or completely taken off the hob
 - Indicator lamp for indication of operating state and residual heat

Technical specifications:

Heating output	700/1700 W
Max. hot plate temperature	approx. 550 °C
Heated zones	Ø 110 / Ø 180 mm
Hotplate surface (W x D)	300 x 300 mm
Dimensions (W x D x H)	330 x 300 x 73 mm
Weight	4.5 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
TP34.1	1	467,65



NEU
NOUVEAU
NEW

CultureTemp™ 37 °C cell culture hotplate

Housing made of PP, hotplate made of aluminium. Improves the viability of cells after removal from the incubator. With digital display and non-adjustable hotplate temperature of 37 °C. Acoustic timer adjustable from 1 to 15 min (has no effect on heater performance; no shutdown upon expiration of the timer). With LED for monitoring the heating function.

Technical specifications:

Hotplate temperature	37 °C (non-adjustable)
Temperature stability	±1 °C
Timer	1 to 15 min in 1-min increments
Set-up dimensions (B x T)	203 x 178 mm
Dimensions (W x D x H)	249 x 254 x 57 mm
Weight	1.1 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
CHC7.1	1	489,15



121°C

Stainless steel pots

Made of high-grade 18/10 steel. With sandwich base and handles. Suitable for induction. Suitable lids please order seperately. Autoclavable.

Capacity (l)	Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
2,5	160	130	EE93.1	1	23,65
3,5	200	110	EE94.1	1	30,10
4	200	150	EE95.1	1	33,35

Lids

For stainless steel pans. Made of high-grade 18/10 steel. Welded handles.

Ø (mm)	Art. No.	Pack Qty.	€
160	EE98.1	1	8,55
200	EE99.1	1	11,00



Digital hotplates C-MAG HP-series

By IKA.

General information for all models

- Base made of glass ceramics
- Temperature setting via digital display (LED)
- Digital display of hotplate desired temperature
- Error code malfunction indicator
- Fixed safety circuit of 550 °C
- Hot Top Indicator (Warning in case of hot surface)

Models C-MAG HP 7 and C-MAG HP 10:

Additionally with DIN-socket 12878 for connecting an electronic contact thermometer e.g. ETS-D5 for high-precision temperature control.

Technical specifications:

Model	C-MAG HP 4	C-MAG HP 7	C-MAG HP 10
Heating capacity (W)	250	1000	1500
Max. hotplate temperature (°C)	50 to 500		
Control accuracy (K)	±10		
Platform surface W x D (mm)	100 x 100	180 x 180	260 x 260
Dimensions W x D x H (mm)	150 x 260 x 105	220 x 330 x 105	300 x 415 x 105
Weight (kg)	3	5	6
Power supply	230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
C-MAG HP 4	LN75.1	1	428,00
C-MAG HP 7	LN76.1	1	500,00
C-MAG HP 10	LN77.1	1	639,00



Digital hotplate SD 160

By Stuart. Hotplate with high temperature stability.

- Microprocessor-controlled
- Safety warning indicator light for temperatures over +50 °C
- Digital display with simultaneous desired/actual temperature readings
- Aluminium hotplate enables even heat distribution

Technical specifications:

Heater capacity	700 W
Max. hotplate temp.	8 °C above ambient temperature up to 325 °C
Adjustable temperature	20 to 325 °C
Display resolution	1 °C
Temperature fluctuation in working plate area	±0.2 °C at 37 °C ±1.0 °C at 150 °C
Temperature stability	±0.25 °C
Surface hotplate (W x D)	160 x 160 mm
Dimensions (W x D x H)	190 x 300 x 110 mm
Weight	2.5 kg
Current	230 V, 50 Hz

Art. No.	Pack Qty.	€
AH85.1	1	809,00



Hotplates



Hotplates CB 300 and SB 300

By Stuart. Safety warning indicator light for temperatures over 50 °C.

Technical specifications:

Model	CB 300	SB 300
Heating capacity (W)	1200	600
Hotplate material	ceramic	aluminium
Heated zone (mm)	200 x 200	300 x 300
Max. hotplate temp. (°C)	50 to 450	50 to 300
Surface hotplate W x D (mm)	300 x 300	
Dimensions W x D x H (mm)	300 x 365 x 105	
Weight (kg)	6	
Current	230 V, 50 Hz	

Model	Art. No.	Pack Qty.	€
CB 300	Y409.1 *	1	749,00
SB 300	Y410.1 *	1	775,00

* Please check with our Sales Department for delivery period of these products.



Infrared hotplate CR 300

By Stuart.

- Chemically resistant ceramic surface
- With safety warning lamp for temperatures over 50 °C
- Efficient infrared heating at 900 W
- Heats 1 Liter of water 30 % faster than conventional ceramic hotplates at 1200 W
- For a liquid volumes up to 10 l

Technical specifications:

Heater capacity	900 W
Max. hotplate temp.	50 to 450 °C
Heated area	Ø 140 mm
Surface hotplate (W x D)	300 x 300 mm
Dimensions (W x D x H)	300 x 365 x 105 mm
Weight	4 kg
Current	230 V, 50 Hz

Art. No.	Pack Qty.	€
EE52.1 *	1	965,00

* Longer delivery times possible. Please check with our Sales Department.



Hotplates CB 500 and SB 500

By Stuart. With a large working surface for heating several samples, e.g. 30 beakers à 100 ml. Safety warning lamp for temperatures over +50 °C.

Technical specifications:

Model	CB 500	SB 500
Heating capacity (W)	2250	1500
Hotplate material	ceramic	aluminium
Heated zone (mm)	450 x 250	500 x 300
Max. hotplate temp. (°C)	50 to 375	50 to 300
Surface hotplate W x D (mm)	500 x 300	
Dimensions W x D x H (mm)	520 x 360 x 130	
Weight (kg)	12	
Current	230 V, 50 Hz	

Model	Art. No.	Pack Qty.	€
CB 500	Y407.1 *	1	979,00
SB 500	Y408.1 *	1	1019,00

* Please check with our Sales Department for delivery period of these products.



Digital hotplates SD 300 and SD 500

By Stuart. With large surface area for simultaneous heating of several samples.

- Microprocessor-controlled
- Surface area Model SD 300: 300 x 300 mm
- Surface area Model SD 500: 300 x 500 mm
- Digital display with a resolution of 1 °C
- Aluminium hotplate enables even heat distribution

Technical specifications:

Model	SD 300	SD 500
Heater capacity	600 W	1500 W
Max. hotplate temp.	50 to 300 °C	
Temperature fluctuation in working plate area	±2 °C	
Temperature stability	±1.5 °C	
Dimensions (W x D x H)	320 x 365 x 105 mm	520 x 360 x 130 mm
Weight	6.0 kg	12.0 kg
Current	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
SD 300	AH86.1 *	1	999,00
SD 500	AH87.1 *	1	1119,00

* Please check with our Sales Department for delivery period of these products.



Laboratory cooker/stirrer model SLR

By SI Analytics. For stirring and heating liquids.

- With glass-ceramic hotplate
- Residual heat display and excess temperature protection
- Temperature shock resistance over 700 °C
- With large, clear LCD display
- **Bar graph indicates average speed of stirrer and average heating capacity**
- Heating capacity can be set in 24 different stages
- By attaching Pt 1000 temperature sensor the temperature control can be regulated between 25 °C and 200 °C (accuracy ± 2 to ± 5 K) depending on amount of liquid, heat capacity and ambient temperature
- Please order temperature sensor, support rod and holder separately

Technical specifications:

Heating function	
Heating capacity	900 W
Heated area	Ø 155 mm
Max. hotplate temp.	approx. 550 °C
Setting accuracy with temp. sensor	1 °C
Digital set/actual temperature with connected temperature sensor	
Stirring function	
Max. speed	100 to 1100 min ⁻¹
Setting accuracy	approx. 10 min ⁻¹
Set/actual speed display	yes
Max. stirring volume	20 l
General specifications	
Hotplate surface	235 x 235 mm
Dimensions (L x W x H)	370 x 240 x 85 mm
Max. load	25 kg
Current	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
T989.1	1	837,45

Accessories for laboratory cooker SLR

By SI Analytics.

Temperature sensor

With stainless steel shaft (V4A). Sensor Pt 1000. Measuring range -30 to +200 °C. Length 170 mm, Ø 4 mm. 1 m fixed cable with 2 x 4 mm pin plug.

Art. No.	Pack Qty.	€
T990.1	1	192,45

Support rod

With fastening nut (M8) made of stainless steel. Length 450 mm, Ø 10 mm.

Art. No.	Pack Qty.	€
T991.1	1	52,50

Holder

For temperature sensor Pt 1000.

Clamp with extension rod made of stainless steel.

Art. No.	Pack Qty.	€
T992.1	1	188,15



Acid-resistant hotplate CP 300

By Stuart. Ideal for aggressive liquids, concentrated acids or alkaline solutions, for trace analysis etc.

Design:

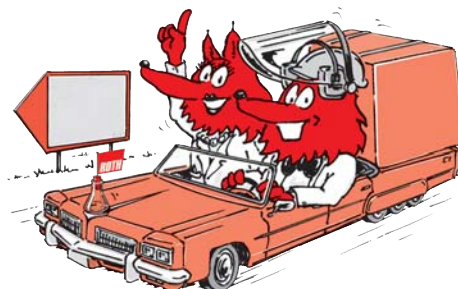
- Hotplate enclosure made of PTFE with ceramic hotplate surface
- Safety warning indicator light for temperatures over +50 °C
- Remote controllable via separate control unit with PTFE-coated connection lead (control unit can be positioned outside working area)

Technical specifications:

Heating power	900 W
Hotplate material	Ceramic
Housing material	PTFE
Max. hotplate temp.	400 °C
Heated area	200 x 200 mm
Surface hotplate (W x D)	300 x 300 mm
Dimensions (W x D x H)	320 x 360 x 60 mm
Control line: Length	2 m
Weight	11 kg
Current	230 V, 50 Hz

Art. No.	Pack Qty.	€
KN92.1*	1	3149,00

* Please check with our Sales Department for delivery period of this product.



Magnetic stirrers

Overview of hotplate- and magnetic stirrer

Max. stirring volume (l)	Speed range (min ⁻¹)	Hot-plate	No. of stirring places	Material of stirrers surface	Art. No.	Page
0,250	300-1800	No	1	PP	KE48.1	961
0,8	0-1500	No	1	Polyester film	0863.1	963
0,8	15-1500	No	1	Polyester film	KX33.1	962
0,8	130-990	No	15	High grade steel	X544.1	968
0,8	150-800	No	1	ABS	TT97.1	960
1	0-1500	No	1	Glass	KX28.1	962
1	10-1200	No	4	ABS	CK78.1 *	966
1	100-1000	No	1	High grade steel	0045.1	962
1	100-1000	No	1	ABS	N497.1	961
1	100-1000	No	1	ABS	N498.1	961
1	100-1000	No	1	ABS	N501.1	961
1	100-1000	No	1	ABS	N500.1	961
1	100-1000	No	1	ABS	N499.1	961
1	130-1400	No	1	High grade steel	LY27.1	967
1,5	0-1300	No	1	ABS	CC53.1	964
1,5	0-1500	No	1	Glass	KX23.1	962
1,5	130-1400	No	1	High grade steel	EH16.1 *	967
2	0-1000	Yes	5	High grade steel	XT36.1	970
2	0-1200	No	5	High grade steel	XT33.1	969
2	200-1500	No	4	ABS/PC	HH68.1	965
2,5	100-1000	No	1	High grade steel	0046.1	962
3	0-1100	No	1	ABS	AAN1.1	961
3	80-2000	No	6	High grade steel	X176.1	968
3	80-2000	No	15	High grade steel	X177.1	968
3	100-1500	No	1	ABS	XP52.1	961
3	100-1500	Yes	1	Ceramic coated steel	TT79.1	971
3	100-1500	Yes	1	High grade steel	TT78.1	971
3	130-1000	No	1	High grade steel	X543.1	963
4	0-1000	Yes	10	High grade steel	XT37.1	970
4	0-1200	No	10	High grade steel	XT34.1	969
4	10-1800	No	1	ABS	AH70.1	966
5	0-1100	No	1	High grade steel	L904.1	964
5	0-2200	No	1	PVDF	EP84.1	962
5	80-2000	No	1	High grade steel	LY28.1	963
5	100-1500	Yes	1	Ceramics	LN35.1	973
5	100-1500	Yes	1	Glass ceramics	XT59.1	975
5	100-1500	No	1	Ceramics	LN38.1	964
6	0-1000	Yes	15	High grade steel	XT38.1	970
6	0-1200	No	15	High grade steel	XT35.1	969
10	100-1500	Yes	1	Glass ceramics	XT60.1	975
10	100-1500	Yes	1	Ceramics	LY79.1	974
10	100-1500	Yes	1	Ceramics	LN36.1	973
15	50-1200	Yes	1	Aluminium	AAN2.1	971
15	50-1500	Yes	1	Glass ceramics	CKK2.1	972
15	50-2000	Yes	1	High grade steel	XT23.1	974
15	50-2000	Yes	1	Enamel coating	XT24.1	974
15	100-1500	Yes	1	Aluminium	KN94.1 *	977
15	100-1500	Yes	1	Ceramics	KN93.1 *	977
15	100-1500	Yes	1	Ceramics	LN37.1	973
15	100-1500	Yes	1	Glass ceramics	XT61.1	975
15	100-1500	No	1	Ceramics	LN40.1	964
15	100-1500	Yes	3	Aluminium, Silicone alloy	KN82.1	970
15	100-2000	Yes	1	Aluminium	PY72.1	973
15	100-2000	Yes	1	Ceramics	PY73.1	973
15	100-2000	Yes	1	Aluminium	CHA5.1	973
15	100-2000	Yes	1	Glass ceramics	CHA6.1	973
15	50-1500	Yes	4	Aluminium	CKK3.1	969
20	0-1500	No	1	High grade steel	XP53.1	961
20	30-1400	Yes	1	Silumin with ceramic layer	HA13.1	978

Max. stirring volume (l)	Speed range (min ⁻¹)	Hot-plate	No. of stirring places	Material of stirrers surface	Art. No.	Page
20	50-1700	Yes	1	High grade steel	XT54.1	977
20	50-1700	Yes	1	Enamel coating	XT55.1	977
20	100-1000	No	1	POM	EH13.1 *	966
20	100-1000	No	1	High grade steel	EH14.1 *	966
20	100-1400	Yes	1	Silumin with ceramic layer	HA08.1	975
20	100-1400	Yes	1	Silumin with ceramic layer	HA10.1	976
38	200-1300	No	1	ABS/PC	HH67.1	965
38	200-1300	No	1	ABS/PC	HH66.1	965
40	100-2000	No	1	High grade steel	Y822.1	965

* Please check with our Sales Department for delivery period of this product.



Air- or water-driven magnetic stirrer

PP mounting surface, ABS plate material.
No electric motor. Driven by air or water pressure (1.0 to 2.5 bar).
With mounts for attachment to stand rods.

Technical specifications:

Max. stirring capacity (H ₂ O)	800 ml
Speed range	150 to 800 rpm
Mounting surface	Ø 128 mm
Dimensions (Ø x H)	129 x 61 mm
Weight	260 g

Delivery incl. drain hose (ID/AD 9/13 mm, L 45 mm) and connecting hose (L 100 mm) with hose connectors (ID 13 mm).

Art. No.	Pack Qty.	€
TT97.1	1	89,15

Accessories:

Rotilabo® hose clamp for Ø 17-22 mm	0784.1	10	23,55
Stand plate with rods, Ø 12 mm	TT25.1	1	62,60

Magnetic stirrers



Rotilabo®-mini magnetic stirrer M 3

- For stirring volumes up to 3 l
- Continuously adjustable speed range
- ABS housing

Technical specifications:

Stirring volume (H ₂ O)	3 l
Max. speed	1100 rpm
Motor power (output):	0.6 W
Mounting surface	130 x 150 mm
Permissible operating temperature	5 to 40 °C at 80 % rel. humidity
Dimensions (W x D x H)	130 x 150 x 50 mm
Weight	400 g
Power supply	100 to 240 V, 50/60 Hz

Art. No.	Pack Qty.	€
AAN1.1	1	80,65



Mini magnetic stirrer Topolino

By IKA. For maximum stirring volume 250 ml.

- Infinitely variable speed range
- PP base

Technical specifications:

Stirring volume (H ₂ O)	250 ml
Speed range	300 to 1800 rpm
Motor power: Input / output	1.1 / 0.8 W
Max. magnetic rod (L x Ø)	40 x 6 mm
Platform size	Ø 80 mm
Max. operating temperature	5 to 40 °C at 80 % rh
Dimensions (W x D x H)	95 x 110 x 40 mm
Weight	300 g

Delivery incl. power unit.

Art. No.	Pack Qty.	€
KE48.1	1	96,00



Mini-magnetic stirrers HI 180

ABS housing.

Technical specifications:

Stirring capacity	max. 1000 ml
Rpm	100 to 1000 rpm
Dimensions	Ø 137 mm, height 51 mm; weight 640 g
Ambient temperature	0 to +50 °C / 95 % rh
Power supply	220/240 V, 50/60 Hz

Colour	Art. No.	Pack Qty.	€
dark blue	N497.1	1	121,00
green	N498.1	1	121,00
light blue	N499.1	1	121,00
grey	N500.1	1	121,00
red	N501.1	1	121,00



RSM series magnetic stirrers

RSM-10 B

- Speed adjustment via digital display (LED display)
- ABS housing and platform

RSM-01 S

- With stainless steel platform
- Solid metal housing
- Levelling feet for uneven surfaces

Technical specifications:

Type	① RSM-10 B	② RSM-01 S
Max. stirring capacity H ₂ O (l)	3	20
Speed (rpm)	100-1500	0-1500
Motor power: input / output (W)	5 / 3	30 / 18
Speed display	LED	-
Speed display accuracy (rpm)	10	-
Installation surface (mm)	Ø 135	
Dimensions W x D x H (mm)	155 x 215 x 75	160 x 280 x 85
Weight (kg)	0.8	2.8
Power supply	200-240 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
RSM-10 B	XP52.1	1	161,25
RSM-01 S	XP53.1	1	295,65

Magnetic stirrers



Magnetic stirrers HI 200 and HI 300

With variable adjustment of speed. 100 to 1000 rpm.
Housing made of stainless steel. Power supply 220 V, 50/60 Hz.

Type 200 M, for max. 1 l

Dimensions: W 120 x H 48 x D 140 mm, weight 600 g.

Art. No.	Pack Qty.	€
0045.1	1	203,00

Type 300 N, for max. 2.5 l

Dimensions: W 180 x H 70 x D 190 mm, weight 1300 g.

Art. No.	Pack Qty.	€
0046.1	1	247,00



Magnetic stirrers, lab disc

By IKA. Adjustable reversing operation with direction change every 30 s.

- High IP protection (IP 65)
- Flat housing

Technical specifications:

Max. Stirring volume (H ₂ O)	800 ml
Speed range	150 to 1500 rpm
Motor power: Input / Output:	5 / 3 W
Platform size	Ø 100 mm
Dimensions (W x D x H)	116 x 175 x 12 mm
Current	100 to 240 V, 50/60 Hz

Art. No.	Pack Qty.	€
KX33.1	1	247,00



Small magnetic stirrer Hei-Mix S

By Heidolph. Electronic speed control.
With PVDF platform and polyamide housing.

Technical specifications:

Stirring volume (H ₂ O)	5 l
Speed max.	2200 rpm
Connection capacity	7 W
Platform	Ø 104 mm
Dimensions (W x D x H)	126 x 140 x 80 mm
Max. operating temperature	0-40 °C at 80 % rh
Weight	1.2 kg

Art. No.	Pack Qty.	€
EP84.1	1	220,00



Small magnetic stirrer, color squid / big squid

By IKA. With digital speed display (LED).
Glass platform, plastic base made of TPC-ET.

Technical specifications:

Model	① color squid	② big squid
Max. stirring volume (H ₂ O)	1000 ml	1500 ml
Max. speed	0 to 2500 rpm	
Speed display	digital	
Motor power: Intake / Output	3 / 2 W	
Platform	Ø 115 mm	Ø 160 mm
Dimensions W x D x H (mm)	145 x 160 x 45 mm	183 x 203 x 45
Power supply	100 to 240 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
① Color squid white	KX28.1	1	226,00
② Big squid white	KX23.1	1	249,00

Magnetic stirrers



Mono Direct and Maxi Direct Digital magnetic stirrers

By Thermo.

General specifications of both models

- Nonwearing Cimarec stirrer drive
- Stainless steel housing
- Automatic start-up for safe acceleration of the stirring rod

Mono Direct

- Up to 3 litres stirring capacity
- LED status display

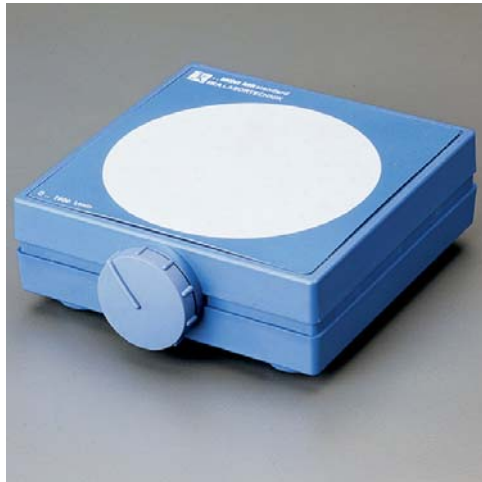
Maxi Direct Digital

- Up to 5 litres stirring capacity
- With digital stirring speed display
- Constant stirring at low speeds of 80 rpm
- A memory function stores the most recent settings

Technical specifications:

Model	Mono Direct	Maxi Direct Digital
Max. stirring capacity H ₂ O (l)	3	5
Speed (rpm)	130 to 1000	80 to 2000
Dimensions W x D x H (mm)	180 x 215 x 35	
Output settings (W)	1/5	5/10/15/20
Protection class	IP 32	IP 62
Perm. operating temperatures	-10 to +40 °C at 95 % rH	
Weight (g)	1400	2500

Type	Art. No.	Pack Qty.	€
Mono Direct	X543.1	1	200,00
Maxi Direct Digital	LY28.1	1	481,00



Small magnetic stirrer MINI-MR standard

By IKA. Ideal for simple stirring operations **to 800 ml**. Features white working surface (with centering points) for use during titration.

Technical specifications:

rpm range:	0 to 1500 rpm
Motor power: reception / delivery	4 / 0.5 W
Platform	115 x 115 mm, Polyester foil
Outer dimensions (W x H x D)	115 x 40 x 130 mm
Weight	230 g
Current	100-240 V, 50/60 Hz

Art. No.	Pack Qty.	€
0863.1	1	324,00



Magnetic stirrers



Portable magnetic stirrer SM27

By Stuart. Housing made of ABS-plastic. **Outlet or battery-operated**, can also be used in climatic cabinet, incubators and in field research. Battery-service life approx. 600 h.

Technical specifications:

Max. stirring volume (H ₂ O)	1.5 l
rpm range	to 1300 rpm
Ambient temperature	-0 to 40 °C at 80 % rh
Dimensions (W x D x H)	150 x 160 x 70 mm
Weight	1.3 kg

Delivery incl. 4 Mono 1.5 V batteries. Please order power unit separately.

Art. No.	Pack Qty.	€
CC53.1	1	399,00

Accessories:

Power unit for magnetic stirrer SM27	CC54.1	1 piece	69,50
12-V-Adapter (for cigarette lighter)	CC55.1	1 piece	69,50
Battery Mono/D 1.5 V	1024.2	2 pieces	6,35



Magnetic stirrers C-MAG MS-series

By IKA.

- Glass ceramic platform
- Offset operation surface protects against spilt liquids

Technical specifications:

Model	C-MAG MS 4	C-MAG MS 10
Max. stirring volume H ₂ O (l)	5	15
rpm-range	100 to 1500 rpm	
Motor power: Input / Output	15 / 1.5 W	
Platform surface W x D (mm)	100 x 100	260 x 260
Dimensions W x D x H (mm)	150 x 260 x 105	300 x 415 x 105
Permissible working temperature	5 to 40 °C at 80 % rh	
Weight (kg)	3	6
Power supply	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
C-MAG MS 4	LN38.1	1	448,00
C-MAG MS 10	LN40.1	1	669,00



Small magnetic stirrer KMO 2 basic

By IKA. For max. 5 l volume. High-grade steel housing on sides protects unit from liquids penetrating into unit and enables easy cleaning. With receptacle for retort stand rod.

Technical specifications:

Motor power: input / output	14/4 W
Stirring capacity (water)	5 l
Rpm range	0 to 1100 rpm
Dimensions (W x H x D)	140 x 75 x 200 mm
Weight	1,4 kg

Type	Art. No.	Pack Qty.	€
KMO 2 basic	L904.1	1	702,00

Accessories:

Stand rod	A315.1	1	52,00
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Rotilabo®-stirring magnets bars - set I

Set consists of the 10 magnets most commonly used.

PTFE-coated magnets, cylindric.

Come in a plain, polystyrene storage box (pocket format).

Dimensions: L 120 x W 93 x D 12 mm.

Contents:

Length (mm)	Ø (mm)	number
15	4.5	1
20	7	2
25	6	2
30	6	1
40	8	2
50	8	2

Art. No.	Qty. (set)	€
C267.1	1	27,00

Magnetic stirrers



Magnetic stirrers MegaMag Genie®, Digital MegaMag Genie® and QuadMag Genie®

By Scientific Industries. From gentle to intensive mixing of low-viscous liquids. Housing made of ABS/PC.

① MegaMag Genie®

Strong magnetic stirrer for up to 38 liters.

② **Digital MegaMag Genie®** like **MegaMag Genie®**, but additionally with speed and time setting (Timer function) via digital display. Speed can be increased in 10 min⁻¹ increments.

③ QuadMag Genie®

With 4 synchronized stirring points for series analyses. For stirring tasks up to 2 l per stirring point.

Technical specifications:

Model	MegaMagGenie®	Digital MegaMag Genie®	QuadMag Genie®
Number of stirring points	1	1	4
Stirring volume (H ₂ O) per stirring point (l)	38	38	2
Speed range (rpm)	200 to 1300	200 to 1300	200 to 1500
Speed display	Scale	Digital	Scale
Timer	-	1 to 99 min or permanent operation	-
Platform size L x W (mm)	305 x 305	305 x 305	305 x 305
Dimensions L x W x H (mm)	305 x 310 x 130	305 x 310 x 130	305 x 310 x 130
Permissible ambient conditions	0 to 38 °C at 95 % rh	0 to 38 °C at 95 % rh	0 to 38 °C at 95 % rh
Weight	3000 g	3000 g	3000 g

Type	Art. No.	Pack Qty.	€
① MegaMag Genie®	HH66.1	1	794,45
② Digital MegaMag Genie®	HH67.1	1	976,10
③ QuadMag Genie®	HH68.1	1	1069,65



Magnetic stirrer POWER DIRECT

By Thermo.

Powerful magnetic stirrer for max 40 liter stirring volume.

Compact and flat design. Broad magnetic field enables stirring over a 40 mm range. Ideal for thick glass bases, round flasks or double-shelled containers.

- Stainless steel housing
- Quick-stop within 2 s
- 4-stage stirring power (5/10/15/20 watt)
- Digital display for exact speed setting
- Memory function for last settings

Technical specifications:

Stirring volume (H ₂ O)	100 ml to 40 l
Rpm range	100 to 2000 rpm
Dimensions (W x D x H)	240 x 294 x 30 mm
Tolerable working temperature	-10 to +40 °C at 95 % rF
Weight	3 kg

Delivery incl. long-range power unit (100-240 V/24 VDC).

Art. No.	Pack Qty.	€
Y822.1	1	840,00

Magnetic followers, KOMET 50

By Thermo. Extra strong magnetic followers, more than three times the torque of conventional followers. PTFE-coated. Round.

Dimensions: Ø 21 mm x L 50 mm.

Ideal for magnetic stirrer POWER DIRECT.

Art. No.	Pack Qty.	€
Y825.1	1	36,50

► For magnetic stirring rods, see page 979

Magnetic stirrers



Programmable magnetic stirrer MagStir Genie® and multipoint stirrer MultiMagStir Genie®

By Scientific Industries.

General features of both models:

For gentle mixing (e.g. of cell suspensions) in interval operation. Reversing mode can be adjusted for a more effective mixing of the medium.

- Microprocessor-controlled
- Stirring power can be pre-selected (Low, Medium, High) depending on the different stirring requirements, e.g. stirring power "High" for viscous liquids
- Interval and reversing mode possible

Four programs are available:

• Manual-Mode

For stirring without/with a direction of rotation change-over (reversal operation) and timer-function (1 s to 99 h).

• Automatic-Mode

For activating operator-defined stirring profiles.

• Profile-Mode

For programming and saving 4 operator-defined stirring profiles. Each stirring profile can save 9 different intervals e.g. speed, stirring direction (clockwise or anti-clockwise), intervals acceleration (from 5 to 300 rpm per s) and time (including stirring intervals).

• Setup-Mode

For programming the manual mode. The following are programmable: ramp acceleration from 5 to 300 rpm per s (i.e. the time required until the set speed has been reached), the stirring power as well as the length and interval function of the automatic rotational direction change-over (adjustable from 1 s to 59 min).

Multipoint magnetic stirrers MultiMagStir Genie®

With 4 synchronous-running stirring points for routine testing. Suitable for 4 Erlenmeyer flasks or 1000 ml beakers.

Technical specifications:

Model	MagStir Genie®	MultiMagStir Genie®
Number of stirring places	1	4
Max. stirring volume (H ₂ O) per stirring place	4000 ml	1000 ml
Distance between stirring points	-	165 mm
Speed max.	10 to 1800 rpm	10 to 1200 rpm
Speed accuracy		±0.1 %
Max. operating temperature		0 to 38 °C at 95 % rh
Area per stirring point	Ø 100 mm	Ø 75 mm
Dimensions (W x D x H)	160 x 200 x 55 mm	325 x 375 x 48 mm
Max. load	5000 g	10000 g
Weight	1000 g	3200 g

Type	Art. No.	Pack Qty.	€
MagStir Genie®	AH70.1	1	650,40
MultiMagStir Genie®	CK78.1 *	1	1288,95

* Please check with our Sales Department for delivery period of this product.



Magnetic stirrers MOBIL 10 and MOBIL 25, remote-controllable

By Thermo.

General features of both models:

Ideal for stirring in warming cabinets, climatic test cabinets and cold chambers. Also for integration in systems.

- Remote-controllable via separate control unit, Telemodule 10 M
- Motor quick-stop without after-running for high operational safety, protects glass vessels from breaking
- Infinitely adjustable speed

Magnetic stirrer MOBIL 10

Easy-to clean and robust casing made of POM

Magnetic stirrer MOBIL 25

Watertight and pressure-resistant enclosed stainless steel casing for direct stirring in hot water baths or in steam sterilizers

Technical specifications for magnetic stirrers:

Type	MOBIL 10	MOBIL 25
Max. stirring volume (H ₂ O)		0.1 to 20 l
rpm range		100 to 1000 rpm
Stirring capacity		10 W
Housing material	POM	high-grade steel 1.4305
Dimensions (Ø x H)		128 x 34 mm
Control line length/Ø		2 m/0.4 mm
Max. operating temperature	+5 to +56 °C at 95 % rh	-10 to +143 °C in saturated steam
Permissible operating overpressure/vacuum	-	+3.0/-1.0 bar
System of protection	IP 66	IP 68
Weight	0.7 kg	1.7 kg

Technical specifications for Telemodule 10 M:

Constancy of speed	±1 %
Nominal stirring power	10 W
Dimensions (W x D x H)	63 x 96 x 50 mm
Safe ambient temperature	+10 to +40 °C at 80 % rh
System of protection	IP 20
Weight	0.5 kg
Current	230 V, 50/60 Hz

Delivery without control unit Telemodule 10 M, please order separately (is required to operate device).

Type	Art. No.	Pack Qty.	€
MOBIL 10, without Telemodule 10 M	EH13.1 *	1	437,00
MOBIL 25, without Telemodule 10 M	EH14.1 *	1	895,00

Accessories:

Control unit Telemodule 10 M	EH15.1 *	1	250,00
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* Longer delivery times possible. Please check with our Sales Department.

Magnetic stirrers



Micro Magnetic stirrer Cimarec

By Thermo. With induction drive. Compact design for low stirring volumes. Ideal for operation in demanding environments and water baths.

Micro magnetic stirrer

- High temperature resistance up to 95 °C in water and 120 °C in air
- Hermetically-sealed stainless steel housing, waterproof and dustproof to IP 68
- Can be remotely controlled with separate Telemodul 20 C control unit

Telemodul 20 C control unit

- Graphic display
- Vertical mixing (Shake mode)
- 3 function-definable program keys for quick starting of routines
- Three-stage adjustable start-up times for safe acceleration of the magnetic rod
- Intermittent operation with freely selectable stirring times and intervals as well as rotation direction reversal (5 s to 1 h)
- Four-stage adjustable nominal stirring power (25/50/75/100 %)

Technical specifications of magnetic stirrer:

Max. stirring capacity (H ₂ O)	1 l
Speed range	130 to 1400 rpm
Stirring power	2/4/6/8 W
Dimensions (W x D x H)	48 x 48 x 16 mm
Control cable length / Ø	2 m / 4 mm
Perm. operating temperature in air	-10 to +120 °C at 95 % rH
Perm. operating temperature in water	0 to +95 °C at 100 % rH
Protection class	IP 68
Weight	0.2 kg

Technical specifications of Telemodul 20 C:

Speed constancy	±1 %
Output voltage	20 VDC
Dimensions (W x D x H)	155 x 165 x 95 mm
Perm. ambient temperature	0 to +40 °C at 80 % rH
Electrical supply	100-240 V, 50/60 Hz

Delivery incl. Micro Magnetic stirrer and Telemodul 20 C control unit.

Art. No.	Pack Qty.	€
LY27.1	1	734,00

* Please check with our Sales Department for delivery period of this product.



Magnetic stirrer Compact 20, remote controllable

By Thermo. For stirring applications directly in water baths (up to +50 °C), hot and cold chambers, in damp brooding chambers and for built in systems.

Magnetic stirrer Compact 20

- Stainless steel housing
- Non-wearing Cimarec-inductive drive
- Remote controllable via separate control unit Telemodul 20 C
- Hermetically sealed; waterproof in compliance with IP 68

Technical specifications:

Max. stirring volume (H ₂ O)	1.5 l
Rpm range	130 to 1400 rpm
Dimensions (W x D x H)	120 x 120 x 35 mm
Control line: Length / Ø	2 m/4 mm
Max. operating temperature	-10 to +56 °C at 100 % rh
Permissible operating temperature in water	0 to +50 °C
Weight	1 kg

Control unit Telemodul 20 C

- Microprocessor steering
- Graphic display
- Vertical mixing (shake-mode)
- 3 allocatable program keys for speedy starting of routines, the last setting at any one time will be automatically stored
- Three-stage adjustable start-up time for safe acceleration of magnetic rod
- Interval operation with freely selectable stirring and break times plus reversal of rotation direction (5 s to 1 h)
- Four-stage adjustable nominal stirring power (25/50/75/100 %), higher power for viscous fluid volumes, reduced power for heat-free long-term operation

Technical specifications:

Constancy of speed	±1 %
Nominal stirring power	20 W
Output voltage	20 VDC
Dimensions (W x D x H)	155 x 165 x 95 mm
Safe ambient temperature	0 to +40 °C at 80 % rh
Input voltage	100-240 V, 50/60 Hz
Weight	0.6 kg

Delivery incl. Magnetic stirrer Compact 20 and control unit Telemodul 20.

Art. No.	Pack Qty.	€
EH16.1*	1	741,00

* Please check with our Sales Department for delivery period of these products.

Magnetic stirrers



Multi-position magnetic stirrer POLY 15

By Thermo. Durable Cimarec-stirring mechanism. Powder-coated stainless steel housing. Digital display enables exact speed setting. Memory function stores final settings used. For max. 15 x 250 ml beakers or 6 x 1000 ml Erlenmeyer flasks.

Technical specifications:

Stirring points	15
Volume per stirring place	1 to 800 ml
Stirring capacity	10 W
Rpm	130 to 990 rpm
Dimensions (W x D x H)	240 x 420 x 35 mm
Ambient working temperature	-10 to +40 °C at 95 % rh
Weight	6000 g

Art. No.	Pack Qty.	€
X544.1	1	802,00



Multipoint magnetic stirrers 6 and 15

By Thermo.

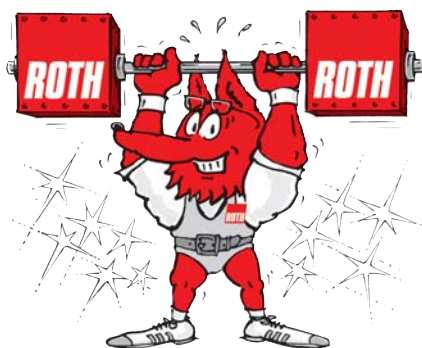
Features

- With Cimarec stirring mechanism
- Stainless steel shell. Hermetically sealed.
Shell is therefore water/dustproof, easy to clean and to service
- **Not suitable for underwater operation**
- 4-stage (5/10/15/20 watt) adjustable stirring power; higher power output for larger and viscose stirring volume, reduced power for heat-free, long-time operation
- **4-digit LED display**
- Memory function stores final settings used

Technical specifications:

Model	Multipoint 6	Multipoint 15
Number of stirring points, e.g. for	6	15
	6 Erlenmeyer flasks 1000 ml	15 glass beakers 250 ml
Distance between points	130 mm	65 mm
Volume per stirring place	1 ml to approx. 3000 ml	
Rpm range:	80 to 2000 rpm	
Dimensions (W x D x H)	240 x 420 x 35 mm	
Protective system acc. to DIN 40050	IP 64	
Ambient temperature	-10 to +56 °C at 100 % rh	
Current	230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
Multipoint 6	X176.1	1	1263,00
Multipoint 15	X177.1	1	1583,00



Heating and magnetic stirrers



RO series multi-position magnetic stirrer

By IKA. A silent-running coil drive ensures identical speeds in all stirring positions. This allows mass screenings to be performed under reproducible conditions.

- Digital speed display
- Stainless steel surface
- Stirring positions are arranged in line to make maximum use of surface area (1 x 5, 2 x 5 or 3 x 5)
- Adjustable reversing mode with change of direction (adjustable to 30/60/90/120 s)
- Eco mode for fatigue-free extended operation with reduced output (max. speed is limited to 600 rpm)

Technical specifications:

Model	RO 5	RO 10	RO 15
Magnetic stirrer drive			
Number of stirring positions	5	10	15
Max. stirring capacity per stirring position (l)	0.4		
Max. stirring capacity with other vessels (l)	2	4	6
Distance between stirring positions (mm)	90		
Speed display	LED		
Speed range (rpm)	0 to 1200		
Setting accuracy (rpm)	10		
Installation surface (mm)	120 x 470	190 x 470	280 x 470
Other			
Dimensions W x D x H (mm)	120 x 570 x 60	190 x 570 x 60	280 x 570 x 60
Weight (kg)	3	5	7
Power supply	100-240 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
RO 5	XT33.1	1	1131,00
RO 10	XT34.1	1	1252,00
RO 15	XT35.1	1	1762,00



Multi-position magnetic stirrer with heater type AM4

- Four independently controlled stirring/heating positions
- With aluminium hotplates
- Powerful motor keeps stirring speeds constant even when viscosity changes

Technical specifications:

Magnetic stirrer drive	
Number of stirring points	4
Max. stirring capacity (H ₂ O) per stirring position	15 l
Speed display	Scales
Speed per stirring position	50 to 1500 rpm
Heating function	
Max. temperature per stirrer/hotplate	50 to 370 °C
Heating capacity	4 x 600 W
Installation area per stirrer/hotplate	Ø 155 mm
Centre-to-centre distance between individual stirring positions	186 mm
Other	
Dimensions (W x D x H)	715 x 246 x 115 mm
Weight	8.6 kg
Power supply	230 V, 50 Hz

Art. No.	Pack Qty.	€
CKK3.1	1	1208,30

Heating and magnetic stirrers



Multipoint magnetic stirrer with hotplate SB 162-3

By Stuart.

Equipment:

- Hotplates with aluminium/silicone alloy for uniform temperature distribution
- The stirring/heating points have independent control system
- With separate safety warning lamp for each stirrer/hotplate; lights up when hotplate temperature exceeds 50 °C

Technical specifications:

Magnetic stirrer drive	
Number of stirring points	3
Max. stirring volumes (H ₂ O) per stirring point	15 l
Speed display	Scales
Rpm range	100 to 1500 rpm
Heating function	
Max. temperature per stirrer/hotplate	325 °C
Heating output	3 x 700 W
Installation area per stirrer/hotplate	160 x 160 mm
Other	
Dimensions (W x D x H)	600 x 270 x 110 mm
Weight	11 kg
Current	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
KN82.1	1	1285,00



Rotilabo®-stirring magnets - removers

Different types and lengths available. With powerful magnet. Ideal for retrieving lost magnetic rods or "fishing" them out of liquid.

Material	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
PTFE	10	150	E448.1	1	12,50
PTFE	10	250	E449.1	1	13,90
PTFE	10	350	E450.1	1	16,05
PTFE	10	450	E451.1	1	17,55
PP	10	350	E452.1	1	11,00
PP	10	450	E453.1	1	12,10



RT series multi-position magnetic stirrer with heater

By IKA. For simultaneous mixing at 5, 10 or 15 stirring positions with identical intensity and homogeneous temperature distribution.

- Digital speed and temperature display
- **With integrated heating/cooling plate**
- Stainless steel surface
- Stirring positions are arranged in-line for optimal use of surface area (1 x 5, 2 x 5 or 3 x 5)
- Adjustable reversing mode with change of direction (adjustable to 30/60/90/120 s)
- Eco mode for fatigue-free extended operation with reduced output

Technical specifications:

Model	RT 5	RT 10	RT 15
Magnetic stirrer drive			
Number of stirring positions	5	10	15
Max. stirring capacity per stirring position (l)	0.4		
Max. stirring capacity with other vessels (l)	2	4	6
Distance between stirring positions (mm)	90		
Speed display	LED		
Speed range (rpm)	0 to 1000		
Setting accuracy (rpm)	10		
Heating function			
Temperature display	LED		
Temperature range (°C)	From room temperature to 120 °C		
Max. medium temperature (depending on vessel) (°C)	70		
Setting accuracy (K)	±1		
Installation surface (mm)	110 x 495	180 x 495	270 x 495
Other			
Dimensions W x D x H (mm)	120 x 610 x 60	190 x 610 x 60	280 x 610 x 60
Weight (kg)	4	7.5	10.5
Power supply	220-240 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
RT 5	XT36.1	1	2046,00
RT 10	XT37.1	1	2738,00
RT 15	XT38.1	1	3425,00



Rotilabo®-heating magnetic stirrer MH 15

- Aluminium hotplate with protective coating
- With elevated control panel to protect against leaking liquids
- Constant speed, even after changes in medium viscosity

Technical specifications:

Magnetic stirrer drive	
Max. stirring capacity (H ₂ O)	15 l
Max. speed	50 to 1500 rpm
Motor rating input / output	30 / 23 W
Heating function	
Heating output	600 W
Temperature range	50 to 370 °C
Mounting surface	Ø 155 mm
Other	
Dimensions (W x D x H)	165 x 280 x 115 mm
Weight	2.6 kg
Power supply	230 V, 50 Hz

Art. No.	Pack Qty.	€
AAN2.1	1	224,70



Magnetic stirrers with heating RSM-10HS and RSM-10HP

- Temperature and speed adjustment via digital display (LED display)
- Digital display of nominal and actual temperature
- **Direct connection for medium temperature probe Pt 1000**
- Fixed safety circuit of 320 °C
- Platform made of stainless steel or ceramic coated steel (optional)

Technical specifications:

Type	RSM-10HS	RSM-10HP
Magnetic stirrer drive		
Max. stirring capacity (H ₂ O)	3 l	
Speed range	100 to 1500 rpm	
Speed display	LED	
Speed display accuracy	10 rpm	
Motor rating input / output	5 / 3 W	
Heating function		
Hotplate material	Stainless steel	Ceramic coated steel
Temperature range	From room temperature to 280 °C	
Temperature display	LED	
Heating output	500 W	
Temperature control accuracy	±10 K	
Control accuracy with sensor probe immersed in medium (please order sensor separately)	±2 K	
Set-up area	Ø 135 mm	
Other		
Dimensions (W x D x H)	155 x 215 x 100 mm	
Weight	1.4 kg	
Power supply	200-240 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
RSM-10HS	TT78.1	1	263,40
RSM-10HP	TT79.1	1	274,15

Accessories for RSM-10HS and RSM-10HP

Temperature probe Pt 1000

Made of V4A. Length of probe 190 mm, Ø 3 mm. Handle 50 mm.

Art. No.	Pack Qty.	€
TT80.1	1	80,65

Stand kit

For attaching a single sensor probe.

Delivery incl. stand rod M8 (L 340 mm, Ø 10 mm), holding rod for Pt 1000 sensor (L 160 mm, Ø 10 mm) and cross sleeve.

Art. No.	Pack Qty.	€
YK80.1	1	64,50



Heating and magnetic stirrers



Heating and magnetic stirrer RH basic 2

By IKA.

- Stainless steel hotplate
- Preset safety circuit limits hotplate temperature to 400 °C

Technical specifications:

Magnetic stirrer	
Stirring volume (H ₂ O)	10 l
Motor power: Input / Output	15 W / 2 W
Rpm range	100 to 2000 rpm
Heater	
Heating power	400 W
Temperature range	Room temperature to max. 320 °C
Control accuracy without probe	±15 K
Platform surface	Ø 125 mm
Others	
Dimensions (W x D x H)	168 x 220 x 105 mm
Weight	2400 g

Art. No.	Pack Qty.	€
Y888.1	1	331,00



Laboratory pots

Made of aluminium. For use as water or oil bath, can be used in conjunction with hotplates or magnetic stirrers. Max. usage temperature 280 °C.

Delivery incl. cover.

Capacity (l)	Height (mm)	Ø (mm)	Wall thickness (mm)	Art. No.	Pack Qty.	€
1,5	100	160	1,2	AEN7.1	1	30,65
3,0	120	200	1,5	AEN8.1	1	34,95
5,2	140	240	1,3	AEN9.1	1	40,35



AREC.T heater and magnetic stirrer with timer

- Digital display of heating plate setpoint temperature
- Hotplate made of white ceramic
- With elevated control panel to protect against leaking liquids
- Safety warning lamp comes on at temperatures over 50 °C
- Powerful motor keeps stirring speeds constant even when viscosity changes
- **Timer - switches the stirring and heating function off on expiration of the preset countdown**

Technical specifications:

Magnetic stirrer drive	
Max. stirring capacity (H ₂ O)	15 l
Speed display	Scale
Max. speed	50 to 1500 rpm
Motor power input	30 W
Heating function	
Heating capacity	800 W
Temperature range	Room temperature to 550 °C
Temperature display	LED
Setting accuracy	±5 K
Control accuracy	±10 K
Mounting surface	180 x 180 mm
Countdown function	
Timer function	1 to 999 min in 1-min increments
Other	
Dimensions (W x D x H)	203 x 344 x 94 mm
Weight	3.5 kg
Power supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
CKK2.1	1	418,20

Heating and magnetic stirrers



US152 and UC152 series heating and magnetic stirrer

By Stuart.

Features:

- Microprocessor-controlled heating system
- Platforms are optionally available in glass ceramics (good resistance to chemicals, withstands high temperature, 120 x 120 mm heated zone) or aluminium (very rugged, 150 x 150 mm heated zone)
- A safety warning lamp indicates temperatures above 50 °C

US152 and UC152 with scale

Temperature control with LED display, colour LEDs aid reading current actual temperature.

US152D and UC152D with LED display

With digital display of actual temperature.
Operating temperature range from 5 °C and room temperature to 325/450 °C (model US152D/UC152D).
Minimum setting temperature 25 °C.
Setting accuracy/resolution: ± 5 °C. Control accuracy ± 10 °C.

Technical specifications:

Model	② US152	③ US152D	① UC152	④ UC152D
Magnetic stirrer drive				
Max. stirring capacity H ₂ O (l)	15			
Speed range (rpm)	100 to 2000			
Heating function				
Hotplate material	Aluminium/silicon-coated		Glass ceramic	
Max. hotplate temperature (°C)	325		450	
Temperature display	Scale	LED	Scale	LED
Heating output (W)	700		500	
Heated zone (mm)	150 x 150		120 x 120	
Hotplate surface (mm)	150 x 150			
Other				
Dimensions W x D x H (mm)	172 x 248 x 120			
Weight (kg)	2.9			
Power supply	230 V, 50 Hz			

Type	Art. No.	Pack Qty.	€
US152	PY72.1	1	377,00
US152D	CHA5.1	1	444,00
UC152	PY73.1	1	405,00
UC152D	CHA6.1	1	457,00



Magnetic stirrers with heating C-MAG HS-series

By IKA.

General information for all models

- Hotplate made of glass ceramics
- Temperature setting via digital display (LED)
- Digital display of hotplate desired temperature
- Error code malfunction indicator
- Fixed safety circuit of 550 °C
- Hot Top Indicator (Warning in case of hot surface)

Models C-MAG HS 7 and C-MAG HS 10:

Additionally has a DIN-socket 12878 for connecting to an electronic contact thermometer e.g. ETS-D5 for high-precision temperature control.

Technical specifications:

Model	C-MAG HS 4	C-MAG HS 7	C-MAG HS 10
Magnetic stirrer drive			
Max. stirring volume H ₂ O (l)	5	10	15
Speed indicator	Scale		
rpm-range	100 to 1500 rpm		
Motor power: Input / Output	15 / 1.5 W		
Heating function			
Heating output (W)	250	1000	1500
Temperature range (°C)	50 to 500		
Control accuracy (K)	±10		
Platform surface W x D (mm)	100 x 100	180 x 180	260 x 260
Other			
Dimensions W x D x H (mm)	150 x 260 x 105	220 x 330 x 105	300 x 415 x 105
Weight (kg)	3	5	6
Power supply	230 V, 50/60 Hz		

Type	Art. No.	Pack Qty.	€
C-MAG HS 4	LN35.1	1	463,00
C-MAG HS 7	LN36.1	1	491,00
C-MAG HS 10	LN37.1	1	697,00

Heating and magnetic stirrers



RH series heating and magnetic stirrer

By IKA.

- With adjustable safety circuit for hot plate temperatures from 50 to 370 °C
- With DIN 12878 socket for connecting an electronic contact thermometer, e.g. ETS-D5 (please order separately, see contact thermometer), to control the medium temperature.

Additional features of RH digital

- Digital display of temperature and speed
- Error code display
- Easy operation by membrane keyboard

Technical specifications:

Type	RH basic		RH digital
Magnetic stirrer drive			
Stirring volume of H ₂ O (l)	15		
Motor power: input / output (W)	15/2		
Speed display	Scale	LED	
Speed range (rpm)	50 to 2000		
Heating function			
Heating power (W)	600		
Temperature display	Scale	LED	
Temperature range (°C)	50 to 320		
Setting accuracy (K)	-	±5	
Control accuracy (K) with temperature probe in medium (please order contact thermometer ETS-D5 separately)	±0.5		
Installation surface (mm)	Ø 135		
Other			
Dimensions W x D x H (mm)	160 x 246 x 90		
Weight (kg)	2		
Power supply	220-240 V, 50/60 Hz		

Stainless steel hotplate

Type	Art. No.	Pack Qty.	€
RH basic	XT23.1	1	455,00
RH digital	XT24.1	1	543,00

Hotplate with enamel coating

Type	Art. No.	Pack Qty.	€
RH basic	XT25.1	1	475,00
RH digital	XT26.1	1	566,00

Accessories:

Type H 102 protective hood for RH basic	XT27.1	1	14,00
Type H 103 protective hood for RH digital	XT28.1	1	14,00



Magnetic stirrer with heater C-MAG HS 7 complete set

By IKA.

Magnetic stirrer with heater C-MAG HS 7

- Ceramic glass heating plate
- Temperature setting via digital display (LED)
- Digital display of set heating plate temperature
- Error code display in the event of mistake
- Fixed safety circuit of 550 °C
- Hot Top Indicator (hot surface warning)
- Bushing for connecting a contact thermometer ETS-D5

Technical specifications:

Magnetic stirrer drive	
Max. stirring capacity (H ₂ O)	10 l
Speed display	Scale
Speed range	100 to 1500 rpm
Motor rating input / output	15 / 1.5 W
Heating function	
Heating output	1000 W
Temperature range	50 to 500 °C
Control accuracy	±10 K
Set-up dimensions (W x D)	180 x 180 mm
Other	
Dimensions (W x D x H)	220 x 330 x 105 mm
Weight	5 kg
Electrical supply	230 V, 50/60 Hz

Contact thermometer ETS-D5:

Control of medium temperature with display of actual temperature. Bushed connection according to DIN 12878 for connecting a contact thermometer. Temperature regulation to prevent overheating.

Technical specifications:

Measuring/control range	-50 to 450 °C
Resolution	0.1 °C
Measuring accuracy	±0.2 K
Setting accuracy	±0.1 K
Control deviation	±0.5 K
Dimensions (W x D x H)	82 x 22 x 83 mm

Complete set, delivery incl.

- Heating and magnetic stirrer C-MAG HS 7
- Contact thermometer ETS-D5 incl. stainless steel temperature sensor Pt 1000
- Support rod, holding rod and boss head clamp

Art. No.	Pack Qty.	€
LY79.1	1	599,00

Heating and magnetic stirrers



C-MAG HS-Digital series heater and magnetic stirrer

By IKA.

- Ceramic glass heating plate
- Large LCD display for simultaneous display of actual and nominal hot plate temperature (actual temperature display by connected temperature sensor with 0.1 °C resolution)
- Direct connectivity for Pt 1000.60 medium temperature sensor
- **Integrated contact thermometer with full functionality**
- Error code display in the event of fault
- Hot surface warning
- Safety circuit with default setting of 550 °C for hot plate temperature

Technical specifications:

Model	HS 4 digital	HS 7 digital	HS 10 digital
Magnetic stirrer drive			
Max. stirring capacity H ₂ O (l)	5	10	15
Motor power: power input / output (W)	15 / 1.5		
Speed display	Scale		
Speed range (rpm)	100 to 1500		
Heating function			
Heating output (W)	250	1000	1500
Temperature display	LCD		
Temperature range (°C)	50 to 500		
Setting accuracy (K)	±1		
Control accuracy with temperature probe immersed in medium (K)	±0.5		
Installation surface (mm)	100 x 100	180 x 180	260 x 260
Other			
Dimensions W x D x H (mm)	150 x 260 x 105	215 x 330 x 105	300 x 415 x 105
Weight (kg)	3	5	6
Power supply	230 V, 50/60 Hz		

Delivery incl. Pt 1000.60 stainless steel temperature sensor.

Type	Art. No.	Pack Qty.	€
HS 4 digital	XT59.1	1	552,00
HS 7 digital	XT60.1	1	614,00
HS 10 digital	XT61.1	1	775,00

Accessories for C-Mag HS-Digital series

By IKA.

Accessories for attaching temperature sensor PT 100

Type	Art. No.	Pack Qty.	€
Stand rod	A315.1	1	52,00
Cross sleeve	A316.1	1	23,00
Support bar	HA16.1	1	23,00

Temperature sensor

Type	Art. No.	Pack Qty.	€
Replacement stainless steel temperature sensor Pt 1000.60	XT31.1	1	102,00
Glass temperature sensor Pt 1000.70	XT32.1	1	112,00



Magnetic stirrers with heating MR Hei-Standard

By Heidolph.

Features:

- Heating power 800 W
- Max stirring volume 20 l
- Hotplate made of silumin with ceramic layer
- Independent safety circuit switches off the heating 25 °C over the preset hotplate temperature with a separate circuit

Technical specifications:

Magnetic stirrer drive	
Max stirring volume (H ₂ O)	20 l
Speed range	100 to 1400 rpm
Control accuracy of speed	±2 %
Heater function	
Heating power	800 W
Temperature range	Room temperature to 300 °C
Setting accuracy	±5 K
Control accuracy temperature	±5 K
Platform size	Ø 145 mm
Other	
Dimensions (W x D x H)	173 x 277 x 94 mm
Weight	2.6 kg

Art. No.	Pack Qty.	€
HA08.1	1	572,00

Accessories:

Silicone cover	HA09.1	1	16,00
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Heating and magnetic stirrers



MR Hei-Tec magnetic stirrer with heating

By Heidolph.

- Digital display of hotplate set temperature and set speed
- Heating power 800 W
- Max. stirring volume 20 l
- Hotplate made of silumin with ceramic layer
- Independent safety circuit switches off the heating 25 °C over the preset hotplate temperature with a separate circuit.
- **Direct connection of medium temperature sensor PT 1000 possible.** (Please order required temperature sensor and accessories for mounting the sensor probe separately).
- Integrated contact thermometer with full functionality

Technical specifications:

Magnetic stirrer drive	
Max stirring volume (H ₂ O)	20 l
Rpm range	100 to 1400 rpm
Control accuracy of speed	±2 %
Heater function	
Heating power	800 W
Temperature range	Room temperature to 300 °C
Setting accuracy	±1 K
Control accuracy temperature	±5 K
Control accuracy with optional sensor in medium	±1 K
Platform size	Ø 145 mm
Other	
Dimensions (W x D x H)	173 x 277 x 94 mm
Weight	2.6 kg

Art. No.	Pack Qty.	€
HA10.1	1	664,00

Accessories:

Silicone cover for control panel and unit	HA12.1	1	16,00
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Accessories for MR Hei-Tec magnetic stirrer

By Heidolph.

Temperature probe PT 1000 made of V4A

Art. No.	Pack Qty.	€
T041.1	1	120,00

Temperature probe PT 1000 with glass sheath

Art. No.	Pack Qty.	€
T042.1	1	148,00

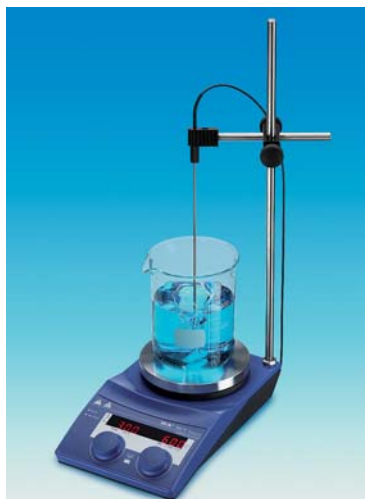
Stand kit

For attaching a single sensor probe.

Delivery incl. M10 stand rod (L 425 mm, Ø 13 mm) and holder with cable duct (L 85 mm).

Art. No.	Pack Qty.	€
ALN8.1	1	111,00

► Contact thermometer see page 978



Heating and magnetic stirrer RCT basic safety control

By IKA.

- Temperature and speed control via digital display
- Digital display of preset safe temperature limit
- Hot top indicator (warns when surface is hot)
- Adjustable safety circuit to regulate hotplate temperature (50 to 360 °C)
- Hotplate made of aluminium
- **Direct connection of medium temperature sensor PT 1000 possible.** (Please order the accessories for attaching the sensor separately).
- Integrated contact thermometer with full functionality
- DIN socket 12878 for connecting an electronic contact thermometer e.g. ETS-D5 for precise temperature control (please order separately, see contact thermometer)

Technical specifications:

Magnetic stirrer drive	
Max stirring volume (H ₂ O)	20 l
Motor power: input / output	16 / 9 W
Speed display	digital
Rpm range	50 to 1500 rpm
Heater function	
Heating power	600 W
Temperature display	digital
Temperature range	Room temperature to 310 °C
Setting accuracy	±1 K
Control accuracy with temperature sensor in medium (contact thermometer ETS-D5 please order separately)	PT 1000: ±1 K ETS-D5: ±0.5 K
Platform size	Ø 135 mm
Other	
Dimensions (W x D x H)	160 x 270 x 85 mm
Weight	2.5 kg

Delivery incl. protective hood and PT 1000 temperature sensor.

Art. No.	Pack Qty.	€
EY83.1	1	697,00

Accessories for RCT basic safety control

By IKA.

Accessories for attaching temperature sensor PT 1000

Type	Art. No.	Pack Qty.	€
Stand rod	A315.1	1	52,00
Cross sleeve	A316.1	1	23,00
Support bar	HA16.1	1	23,00

Spare protective hood H 100 for RCT basic

Type	Art. No.	Pack Qty.	€
Spare protective hood	HY25.1	1	14,00

Heating and magnetic stirrers



Heating and magnetic stirrers with large hotplate model CB 302 and SB 302

By Stuart.

Features

- Hotplate comes either in chemically-resistant ceramic or robust aluminium
- Safety warning lamp for temperatures over 50 °C

Technical specifications:

Model	CB 302	SB 302
Magnetic stirrer drive		
Max stirring volume (H ₂ O)		15 l
Speed display		Scale
rpm range		100 to 1500 rpm
Heating function		
Heating power	1200 W	600 W
Temperature range	Max. room temperature 450 °C	Max. room temperature 300 °C
Hotplate material	Ceramic	Aluminium
Heated area	200 x 200 mm	300 x 300 mm
Hotplate surface		300 x 300 mm
Other		
Dimensions (W x D x H)		300 x 365 x 105 mm
Weight		7 kg
Power supply		230 V, 50 Hz

Type	Art. No.	Pack Qty.	€
CB 302	KN93.1 *	1	949,00
SB 302	KN94.1 *	1	999,00

* Please check with our Sales Department for delivery period of this product.



RET control safety magnetic stirrer with heater

By IKA.

Type

- Digital display of time and speed
- Straightforward TFT display for easy navigation through menus
- Temperature display resolution 0.01 °C
- Connectivity for Pt 100.70 temperature probe
- **Integrated contact thermometer with full functionality**
- Timer and countdown function
- Magnet break-off detection, intermittent mode
- USB and RS 232 ports for activation and documentation of the magnetic stirrer

pH function

- With integrated pH electrode connection (BNC socket)
- Measurement range 0 to 14 pH; resolution 0.01 pH; accuracy ±0.1 pH
- Does not include pH single-rod measuring cell (please order separately; you will find a large selection of pH electrodes with BNC connectors in the section "Measuring instruments")

Integrated weighing function

- Max. weighing range 5000 g, readability 1 g
- Linearity ±1 g

Technical specifications:

Magnetic stirrer drive	
Max. stirring capacity (H ₂ O)	20 l
Motor rating input / output	16/9 W
Speed display	TFT
Speed range	50 to 1700 rpm
Heating function	
Heating output	600 W
Temperature display	TFT
Temperature range	Room temp. up to 340 °C
Setting accuracy	±0.1 K
Control accuracy with temperature probe immersed in medium	±0.2 K
Mounting surface	Ø 135 mm
Other	
Dimensions (W x D x H)	160 x 270 x 85 mm
Power supply	220-240 V, 50/60 Hz

Delivery incl. Pt 100.70 stainless steel temperature probe and type H 104 protective hood.

Type	Art. No.	Pack Qty.	€
RET control with stainless steel hot plate	XT54.1	1	1215,00
RET control with enamelled hot plate	XT55.1	1	1242,00

Accessories for RET control

Accessories for attaching temperature sensor PT 100.70

Type	Art. No.	Pack Qty.	€
Stand rod	A315.1	1	52,00
Cross sleeve	A316.1	1	23,00
Support bar	HA16.1	1	23,00

Stainless steel temperature sensor Pt 100.70

Type	Art. No.	Pack Qty.	€
Replacement Pt 100.70 stainless steel temperature sensor	H949.1	1	105,35
Glass Pt 100.51 temperature sensor	XT56.1	1	223,00

Replacement protective hood for RET control

Type	Art. No.	Pack Qty.	€
Protective hood H 104	XT30.1	1	14,00

Contact thermometers



Magnetic stirrer with heating MR Hei-End

By Heidolph.

- Heater capacity 800 W
- **Digital display of speed and temperature (set- and actual value)**
- Max stirring volume 20 l
- Hotplate made of silumin with ceramic layer
- Independent safety circuit switches the heating off as soon as a pre-set temperature difference, above the set-temperature has been reached
- With display indicating residual heat when the device has been switched off until the temperature falls below 50 °C
- Comes with RS 232 interface and analog outlet
- A PT 1000 temperature sensor can be connected directly (please order separately)

Technical specifications:

Magnetic stirrer drive	
Max. stirring volume (H ₂ O)	20 l
Speed display	digital
Rpm range	30 to 1400 rpm
Control accuracy of speed	±1 %
Heating function	
Heater capacity	800 W
Temperature display	digital
Ideal for temperatures	max. room temperature 300 °C
Setting accuracy	±1 K
Control accuracy temperature	±5 K
Control accuracy with sensor in medium (with optional PT 1000)	±0.2 K
Platform	Ø 145 mm
Others	
Dimensions (W x D x H)	173 x 277 x 94 mm
Weight	2.6 kg

Art. No.	Pack Qty.	€
HA13.1	1	1203,00

Accessories:

Silicone cover for control panel and unit	HA12.1	1	16,00
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Accessories for magnetic stirrers MR Hei-End

By Heidolph.

Temperature sensor PT 1000 made of V4A

Art. No.	Pack Qty.	€
T041.1	1	120,00

Temperature sensor PT 1000 with glass sheath

Art. No.	Pack Qty.	€
T042.1	1	148,00

Stand kit

For attaching a single sensor probe.

Delivery incl. M10 stand rod (L 425 mm, Ø 13 mm) and holder with cable duct (L 85 mm).

Art. No.	Pack Qty.	€
ALN8.1	1	111,00



Contact thermometer ETS-D5

By IKA.

- For all magnetic stirrers with contact thermometer terminals according to DIN 12878
- Temperature control overheating
- Different control modes (= operating modes) can be selected

Technical specifications:

Temperature	
Temperature range	-50 to 450 °C
Resolution	0.1 °C
Accuracy	±0.2 K
Setting accuracy	0.1 K
Standard tolerance	±0.5 K
General specifications	
Dimensions without sensor (W x D x H)	82 x 22 x 83 mm
Current	230 V, 50 Hz

Delivery incl. stainless steel sensor Pt 1000 type H 67.60 (L 260 mm, Ø 3 mm) and connector cable. Please order the accessories for attaching the contact thermometer separately.

Art. No.	Pack Qty.	€
EY84.1	1	311,00

Accessories for contact thermometers ETS-D5

By IKA.

Type	Art. No.	Pack Qty.	€
Extension lead, L 1 m	K859.1	1	149,00
Measuring probe with glass sheath, L 260 x Ø 6 mm	K856.1	1	245,10
Spare measuring probe Pt 1000 type H 67.60, L 260 x Ø 3 mm	K855.1	1	164,50
Stand rod	A315.1	1	52,00
Cross sleeve	A316.1	1	23,00
Support bar	HA16.1	1	23,00



Rotilabo® Economy magnetic bars

PTFE coated. Similar to cylindrical magnetic bar, but with rounded edges to intensify the stirring effect even at low speeds. Autoclavable.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
3	12	XA17.1	10	9,25
8	25	XA18.1	10	12,80
8	40	XA19.1	10	14,85
8	50	XA20.1	10	19,90



Rotilabo®-micro-magnetic bars

PTFE coated. For very small vessels. Autoclavable.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
1.5	8	PK70.1	10	12,15
1.5	15	PK74.1	10	20,60
2	2	PK65.1	10	13,45
2	5	0955.2	10	15,50
2	7	0973.2	10	12,85
3	3	PK66.1	10	15,35
3	6	PK68.1	10	10,45
3	8	PK71.1	10	13,45
3	10	PK72.1	10	12,95
3	13	PK73.1	10	13,90
3	20	PK75.1	10	23,15
3	30	PK76.1	10	25,75



Rotilabo®-cylindric magnetic stirring bars

PTFE-coated. Autoclavable.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
2	5	0955.1	1	2,05
2	5	0955.2	10	15,50
3	6	AKP1.1	1	2,10
3	6	AKP1.2	10	14,55
2	7	0973.1	1	1,80
2	7	0973.2	10	12,85
3	8	0989.1	1	1,95
3	8	0989.2	10	14,30
6	10	0994.1	1	1,90
6	10	0994.2	10	12,10
4,5	12	0999.1	1	1,70
4,5	12	0999.2	10	10,90
6	13	AKP2.1	1	2,30
6	13	AKP2.2	10	17,05
8	13	AKP3.1	1	2,70
8	13	AKP3.2	10	21,70
10	13	AKP4.1	1	2,85
10	13	AKP4.2	10	21,75
4,5	15	1204.1	1	1,75
4,5	15	1204.2	10	10,90
6	15	AKP5.1	1	2,05
6	15	AKP5.2	10	16,45
6	20	AKP6.1	1	2,20
6	20	AKP6.2	10	17,10
7	20	AKP7.1	1	2,45
7	20	AKP7.2	10	19,15
8	20	1237.1	1	2,15
8	20	1237.2	10	15,20
5	25	AKP8.1	1	2,55
5	25	AKP8.2	10	20,05
6	25	2152.1	1	2,10
6	25	2152.2	10	16,00
8	25	AKP9.1	1	2,65
8	25	AKP9.2	10	23,30
6	30	2153.1	1	2,20
6	30	2153.2	10	18,40
7	30	AKT0.1	1	2,65
7	30	AKT0.2	10	22,15
8	30	AKT1.1	1	2,85
8	30	AKT1.2	10	23,20
6	35	1292.1	1	2,40
6	35	1292.2	10	19,80
7	40	AKT2.1	1	3,00
7	40	AKT2.2	10	24,10
8	40	1306.1	1	2,50
8	40	1306.2	10	20,55
8	45	1309.1	1	3,00
8	45	1309.2	10	24,65
8	50	1482.1	1	3,45
8	50	1482.2	10	28,30
12	55	1484.1	1	8,35
10	60	1486.1	1	4,45
10	60	1486.2	10	33,15
10	70	AKT3.1	1	5,60
10	70	AKT3.2	10	48,85
10	80	1487.1	1	6,10
10	80	1487.2	10	47,65
12	120	1488.1	1	26,55

Magnetic followers



Rotilabo®-magnetic stirring rods with centre ring
PTFE-coated. Cylindric. Autoclavable.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
3	8	1489.1	1	2,10
3	8	1489.2	10	19,20
4,5	12	1490.1	1	2,30
4,5	12	1490.2	10	20,30
4,5	15	1491.1	1	2,10
4,5	15	1491.2	10	19,25
6	20	1500.1	1	2,20
6	20	1500.2	10	20,05
6	25	1553.1	1	2,35
6	25	1553.2	10	21,40
6	30	1555.1	1	2,40
6	30	1555.2	10	22,25
6	35	1556.1	1	2,45
8	40	1600.1	1	3,25
8	45	1610.1	1	3,45
8	50	1613.1	1	3,90
10	60	1614.1	1	4,45
10	70	1659.1	1	5,35



Rotilabo®-triangular magnetic stirring rods
PTFE-coated. Autoclavable.

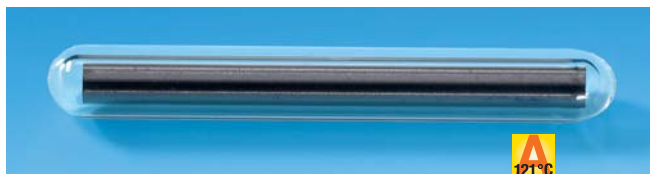
Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
6	12	1661.1	1	2,35
8	20	1662.1	1	3,80
8	25	5069.1	1	2,45
14	25	4551.1	1	3,45
9	35	4557.1	1	3,20
14	40	1825.1	1	3,55
12	50	1842.1	1	3,90
14	55	1843.1	1	4,65
18	80	1844.1	1	6,60

► Heating and magnetic stirrers from page 969



Rotilabo®-ellipsoidal magnetic stirring rods
PTFE-coated. Autoclavable.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	10	NK66.1	1	3,75
6	15	NK67.1	1	3,45
10	25	NK68.1	1	4,95
10	30	NK69.1	1	6,10
10	20	1848.1	1	2,60
12	25	1849.1	1	3,15
13	35	NK70.1	1	7,70
13	40	NK71.1	1	8,80
16	30	1853.1	1	4,00
16	35	1895.1	1	4,55
20	40	1896.1	1	5,75
20	50	1897.1	1	8,00
20	64	1909.1	1	10,35
20	70	1928.1	1	12,20



Rotilabo®-glass-encased magnetic bars

Magnetic core coated with borosilicate glass, cylindrical. Smooth surface offering universal chemical resistance. Temperature stable up to 350 °C. Autoclavable.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
5	6	PK60.1	10	28,50
5	12	PK61.1	10	31,50
6	25	PK62.1	10	41,90
8	45	PK63.1	10	49,05
8	60	PK64.1	10	50,50



Rotilabo®-dumbbell magnetic stirring rods

Very good stirring properties due to side stabilizing disc. Autoclavable.

Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
8	35	1943.1	1	11,50
8	55	1957.1	1	12,45

Magnetic followers



KOMET stirring magnets

Extra strong stirring magnets. More than three times the torque of conventional stirrers. For viscous media, high speed up to 2000 rpm and more distance between stirring rod and magnetic stirrer. PTFE-coated. Autoclavable.

Type	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
Komet 15	9	15	Y823.1	1	18,50
Komet 30	12	29	Y824.1	1	29,50
Komet 50	21	50	Y825.1	1	36,50
Komet 90	24	90	Y826.1	1	129,00



Rotilabo® magnetic bars, cross-shaped

PTFE coated. All-purpose magnetic bar with stable rotation position. Autoclavable.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
10	5	XA21.1	10	22,05
20	8	XA22.1	10	29,60
25	9	XA23.1	10	33,55
30	10	XA24.1	10	39,80
38	11	XA25.1	5	26,55
50	15	XA26.1	5	49,80
60	20	XA27.1	5	72,05



Rotilabo®-tube stirring magnets

PTFE coated. Autoclavable.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
9	6	LT59.1	1	2,60
10	6	LT60.1	1	2,80
20	10	LT61.1	1	3,15
30	12	LT62.1	1	4,00



Rotilabo®-special stirring magnets

PTFE coated. Autoclavable.

Ball shaped

Ø (mm)	Art. No.	Pack Qty.	€
12	LT63.1	1	3,30

Bulb stirring magnet, height 6 mm.

Ø (mm)	Art. No.	Pack Qty.	€
9	LT64.1	1	2,50



Rotilabo®-tablet form style stirring magnet

PTFE-coated. Autoclavable.

Ø (mm)	Height (mm)	Art. No.	Pack Qty.	€
22	15	3003.1	1	8,95
30	12	4490.1	1	10,00
40	14	4517.1	1	18,95

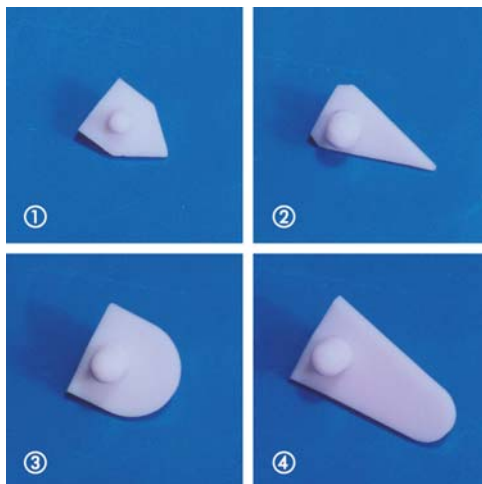
Magnetic followers



Rotilabo®-stirring magnets

In different colours, PTFE-coated. Autoclavable.

Colour	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
red	2	5	A937.1	1	3,95
red	2	7	A938.1	1	4,15
red	3	10	A939.1	1	4,25
red	3	13	A940.1	1	4,65
yellow	2	5	A941.1	1	3,95
yellow	2	7	A942.1	1	4,15
yellow	3	10	A943.1	1	4,25
yellow	3	13	A944.1	1	4,65
blue	2	5	A945.1	1	3,95
blue	2	7	A946.1	1	4,15
blue	3	10	A947.1	1	4,25
blue	3	13	A948.1	1	4,65



Rotilabo®-magnetic vane stir bar

PTFE coated. For effective stirring, e.g. in test tubes, centrifuge tubes, reaction vials etc.

Heat stable from -200 to +250 °C. Autoclavable.

Image	Type	Height (mm)	Ø (mm)	For test tube Ø (mm)	Art. No.	Pack Qty.	€
①	rectangular	9	5,5	6-7	YH15.1	10	32,70
①	rectangular	11	8	9-10	YH16.1	10	34,00
②	triangular, long	16	10	11-12	YH17.1	10	41,90
③	round	10	13	14-15	YH18.1	10	35,30
④	round, long	20	13	14-15	YH19.1	10	44,65



Rotilabo®-stirring magnets with centre ring

PTFE-coated, in different colours. Autoclavable.

Colour	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
red	8	13	A950.1	1	4,45
red	8	15	A951.1	1	4,85
red	8	22	A952.1	1	5,35
red	8	25	A953.1	1	5,70
red	8	38	A954.1	1	6,45
red	8	51	A955.1	1	6,80
red	13	75	A956.1	1	13,35
yellow	8	13	A958.1	1	4,45
yellow	8	15	A959.1	1	4,85
yellow	8	22	A960.1	1	5,35
yellow	8	25	A961.1	1	5,70
yellow	8	38	A962.1	1	6,45
yellow	8	51	A963.1	1	6,80
yellow	13	75	A964.1	1	13,35
blue	8	13	A966.1	1	4,45
blue	8	15	A967.1	1	4,85
blue	8	22	A968.1	1	5,35
blue	8	25	A969.1	1	5,70
blue	8	38	A189.1	1	6,40
blue	8	51	A190.1	1	6,40
blue	13	75	A191.1	1	12,70



Rotilabo®-stirring magnets bars - set I

Set consists of the 10 magnets most commonly used.

PTFE-coated magnets, cylindric.

Come in a plain, polystyrene storage box (pocket format).

Dimensions: L 120 x W 93 x D 12 mm.

Contents:

Length (mm)	Ø (mm)	number
15	4,5	1
20	7	2
25	6	2
30	6	1
40	8	2
50	8	2

Art. No.	Qty. (set)	€
C267.1	1	27,00



Rotilabo®-stirring magnets bars - set II

PTFE-coated, cylindric magnets. **18 rods assorted** in practical storage box, dimensions: L 187 x W 97 x D 32 mm. Assortment of most widely used stirring magnets.

Contents:

Length (mm)	Ø (mm)	number
10	6	2
15	6	2
20	7	2
25	8	2
30	8	2
40	8	2
50	8	2
60	10	2
80	10	2

Art. No.	Qty. (set)	€
X171.1	1	48,30



Rotilabo®-turbo-magnetic bar set III

PTFE-encased magnetic bar, cylindrical. Samarium-cobalt magnet has a strong magnetic field compared to conventional solenoid. Identified by a black marking (chemically inert). **14 pce. in standard sizes, sorted**, in a handy storage box. Dimensions: L 187 x W 97 x D 32 mm. Autoclavable.

Contents:

Length (mm)	Ø (mm)	Quantity
8	3	2
12	4,5	2
20	6	2
25	6	2
30	6	2
40	8	2
50	8	1
60	10	1

Art. No.	Qty. (set)	€
PK77.1	1	80,75



Beakerliner magnetic bars

With guide cage. PTFE-encased magnetic core mounted axially in a PTFE guide cage. No shear action on the bottom of the beaker, smooth running in glass beakers, even on an uneven bottom. Autoclavable.

Suitable for low type beakers (ml)	Cage outer Ø (mm)	Cage height (mm)	Stirring bar Ø x L (mm)	Art. No.	Pack Qty.	€
250, 400	67	21	8 x 50	TA88.1	1	102,35
600, 800, 1000	74	29	9 x 60	TA89.1	1	112,90
2000	103	32	10 x 80	TA90.1	1	175,25



Rotilabo®-stirring magnets - removers

Different types and lengths available. With powerful magnet. Ideal for retrieving lost magnetic rods or "fishing" them out of liquid.

Material	Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
PTFE	10	150	E448.1	1	12,50
PTFE	10	250	E449.1	1	13,90
PTFE	10	350	E450.1	1	16,05
PTFE	10	450	E451.1	1	17,55
PP	10	350	E452.1	1	11,00
PP	10	450	E453.1	1	12,10



Stir bar catcher

Made of PS. With powerful permanent magnet. For retention of magnetic bars and easy transfer of solutions. Suitable for magnetic bars with max. length 80 mm. Dimensions: L 87 x W 28 x H 42 mm.

Art. No.	Pack Qty.	€
YC30.1	1	20,55

Magnetic followers



Stirring spatula

Made of PP, white. For stirring different specimens.
Length 244 mm, rod Ø 6 mm.

Art. No.	Pack Qty.	€
TT16.1	10	10,00



Rotilabo®-stirring rods

For stirring different types of samples.
Different models and dimensions available. Autoclavable.

Made of flexible PTFE. With spatulate ends. Rod-Ø 8 mm.

Length (mm)	Art. No.	Pack Qty.	€
150	EX96.1	1	4,85
200	EX97.1	1	5,50
250	EX98.1	1	6,15
300	EX99.1	1	7,10

Made of PTFE with stainless steel core. Can be bent if required.
Remains bent. Round ends. Rod-Ø 6 mm.

Length (mm)	Art. No.	Pack Qty.	€
150	EY00.1	1	6,70
200	EY01.1	1	7,35
250	EY02.1	1	7,65
300	EY03.1	1	9,90
350	EY04.1	1	11,30
400	EY05.1	1	12,40



Stirring magnet fish-clip® holders

Ideal for stirring sensitive liquids such as cell suspensions or tissue cultures. Magnet is placed into vessel with the flexible rotor clamp and can be fixed over the vessel base at the required height. When the magnetic stirrer is switched on the rod magnet will turn with controlled movements, protecting the substance and vessel. The support rod does not turn and the stopper remains gastight.

- Rotor and support rod made of PVDF
- Support rod: length 250 mm, Ø 10 mm
- Stable to 160 °C, autoclavable

Delivery incl. magnetic follower.

Type	Art. No.	Pack Qty.	€
For magnetic followers Ø 6 mm	Y899.1	1	40,85
For magnetic followers Ø 8 mm	Y900.1	1	40,85

Accessories for magnetic follower holders fish-clip®

Type	Art. No.	Pack Qty.	€
Clamp stopper made of silicone for NS 19/26	Y901.1	1	4,45
Clamped joint GL 25	Y903.1	1	10,15
Clamped joint GL 32 with NS-adaptor 29/32	Y906.1	1	33,55



Laboratory stirrers



Roti®-Speed-stirrer

For universal use, e.g. for stirring even the smallest samples in reaction vials etc.

- Ergonomic pen handle
- High-quality steel spring chuck and quality ball bearings for perfectly smooth operation
- Locking button enables easy changing of tools
- **Speed infinitely adjustable from 5000 to 20 000 rpm**
- Powerful motor for constant torque
- Length 220 mm, weight 230 g
- Complete with mains adapter in portable case
- **Please order stirring apparatus separately!**

Art. No.	Pack Qty.	€
N372.1	1	99,45

Stainless steel tools for Roti®-Speed-stirrer

High-performance stirring tools

Design protected. Ideal for mixing and suspending samples. Excellent for effective mixing. Good flow form. Ø stirring shaft 3 mm.

Image	Length (mm)	Stirrer Ø (mm)	Art. No.	Pack Qty.	€
①	90	7	N373.1	1	32,25
②	98	11	N539.1	1	37,45

High-performance tool, type micro pestle

Cone-shaped micro pestle for applications in 1.5 ml centrifuge tubes. Stirring shaft-Ø 3 mm. Cone reduces from 8 to 2.5 mm, cone length 15 mm.

Image	Length (mm)	Stirrer Ø (mm)	Art. No.	Pack Qty.	€
③	98	8	EX63.1	1	34,95

Accessories:

Rotilabo®-micro-centrifuge tubes, 1.5 ml, made of PP, graduated, colourless	4182.1	1000	17,10
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Additional tools for Roti®-Speed-stirrer

Combined set, 13-piece. Suitable for Roti® speed stirrer. For cutting, separating, milling, polishing and drilling.

Set content:

1 ball-shaped fine cutter 2.3 mm, 1 cylindrical fine cutter 2.3 mm, 1 ball-shaped white corundum abrasive pencil 5.0 mm and 1 cone-shaped white corundum abrasive pencil 5.0 mm, 1 micro drill 1.0 and 2.3 mm, 5 cutting discs Ø 22 mm, 1 saw blade Ø 22 and 1 tool holder Ø 2.35 mm.

Image	Art. No.	Pack Qty.	€
④	YY99.1	1	13,90



Rod mixers

① Model M 1000

For grinding, stirring and mixing samples. Suitable both for large and small amounts. Two-stage switch: **7000 rpm and 10 000 rpm**. Power supply 230 V, 50 Hz. **Capacity 120 W**. Dimensions: overall length 320 mm, Ø protective mantle 58 mm. Weight 850 g. Comes with multi-function knife and wall attachment.

Art. No.	Pack Qty.	€
8290.1	1	99,45

② Model G 200:

Suitable for volumes from 1 to 20 litres. Two-stage switch: **10 000 rpm and 17 000 rpm**. Power supply 230 V, 50 Hz. **Capacity 200 W**.

Art. No.	Pack Qty.	€
C527.1	1	193,50



Laboratory stirrers



ES and DLS laboratory stirrers

① ES model

- For simple stirring tasks
- Clamping range of chuck 1 to 10 mm
- Push-through stirring element

② DLS model

- Electronic control for constant speed even after change in viscosity of medium
- Digital display of nominal and actual speed
- Integrated timer function (adjustable up to 999 min, 59 s)
- Clamping range of chuck 1 to 10 mm
- Push-through stirring element

Technical specifications:

Model	① ES	② DLS
Stirring volume of H ₂ O (l)	15	25
Max. viscosity (mPa · s)	1000	25 000
Motor power: input / output (W)	45/30	180/120
Max. torque on stirrer shaft (N · cm)	15	40
Speed range (rpm)	50 to 1300	50 to 2000
Speed display	Scale	LCD
Extension arm Ø/length (mm)	13/150	
Dimensions W x D x H (mm)	80 x 200 x 160	80 x 196 x 215
Weight (kg)	1.3	2.5
Power supply	80 to 260 V, 50/60 Hz	

Delivery without stirring apparatus, stand and boss head (please order separately - refer to stirrer accessories).

Type	Art. No.	Pack Qty.	€
① ES	ACP3.1	1	428,95
② DLS	ACP4.1	1	747,15



Mechanical laboratory stirrer RZR 1

By Heidolph.

- For simple stirring tasks
- 2-step gear
- Max. chucking capacity 8 mm
- Push-through stirring element

Technical specifications:

Stirring volume (H ₂ O)	20 l
Max. viscosity	40 000 mPa · s
Motor rating input / output	77/18 W
Max. torque at the stirrer shaft	100 N · cm
Speed range I	35 to 250 rpm
Speed range II	280 to 2200 rpm
Speed display	Scale
Extension arm Ø/length	13/300 mm
Dimensions W x H x D	71 x 250 x 172 mm
Weight	2.7 kg
Power supply	230 V, 50 Hz

Stirring apparatus, stand and boss head not included (please order separately - refer to stirrer accessories).

Art. No.	Pack Qty.	€
CLT4.1	1	525,00



RSO series laboratory stirrers

① Analogue stirrers RSO-20A/40A

For stirring volumes of up to 20/40 l. With digital LED speed display. Extremely quiet running. Speed continuously variable up to 2200 rpm. Stirrer tools can be inserted. Clamping range of chuck 0.5 to 10 mm.

② Digital/electronic stirrer model RSO-20D

For stirring capacities up to 20 l as well as constant speed at changing medium viscosity. With LCD speed display. Display of nominal and actual speed or trend torque display. RS 232 port Soft starting. Stirrer tools can be inserted. Clamping range of chuck 0.5 to 10 mm.

Technical specifications:

Model	RSO-20A	RSO-20D	RSO-40A
Stirring volume of H ₂ O (l)	20	40	
Max. viscosity (mPa · s)	10 000		50 000
Motor power: input / output (W)	70 / 50		130 / 100
Max. torque (N · cm)	30		60
Speed range (rpm)	50 to 2200		
Speed deviation on load reversal (rpm)	-	±3	-
Torque display	no	yes	no
RS 232 port	no	yes	no
Extension arm Ø / length (mm)	16 / 200		
Dimensions W x D x H (mm)	83 x 186 x 220		
Weight (kg)	2.5		3.5
Voltage	100-240 V, 50-60 Hz		

Delivery without stirrer tools, stand and bosshead (please order separately).

Type	Art. No.	Pack Qty.	€
RSO-20A analogue with LED display	TA74.1	1	639,65
RSO-20D digital with LCD display	TA75.1	1	854,65
RSO-40A analogue with LED display	TA76.1	1	962,15

③ Stand set for RSO series laboratory stirrers

With locknut to additionally secure the stand rod and prevent accidental removal. Chucking capacity of cross sleeve for stand and extension arm: 4 to 24 mm. Max. weight load: 5 kg.

Dimensions: W 200 x D 310 x H 800 mm.

Delivery incl. stand plate, stand rod, cross sleeve and immersion limiter to prevent accidental piercing of the vessel base.

Art. No.	Pack Qty.	€
TA77.1	1	209,65



EUROSTAR 20-series electronic laboratory stirrers

By IKA. A microprocessor controlled system ensures that a constant speed is maintained. Electronic safety circuit for shutting off device in case of fault or overload. Discrepancies between nominal and actual speeds are corrected automatically and continuously. For constant speed even with changes in medium viscosity.

- Digital speed display
- Continuously variable speed
- Push-through stirrer shafts
- Chuck tensioning range 0.5 to 10 mm (EUROSTAR 20 digital only)
- EUROSTAR 20 high speed digital: drive shaft with tapered seat for supplied precision stirrer shaft R 6000 (L 280 mm, max. immersion depth 220 mm). Special precision stirrer is separately available.

Technical specifications:

Model	① EUROSTAR 20 digital	② EUROSTAR 20 high speed digital
Stirring volume of H ₂ O (l)	15	20
Max. viscosity (mPa · s)	10000	
Motor power: power input / output (W)	56/44	171/133
Max. torque at the stirrer shaft (N · cm)	20	
Speed range (rpm)	30 to 2000	150 to 6000
Speed display	LED	
Extension arm Ø / length (mm)	16/220	
Dimensions W x D x H (mm)	86 x 208 x 248	86 x 208 x 325
Weight (kg)	4.4	5.3
Power supply	230 V, 50/60 Hz	

Delivery without stirring tool, stand and sleeve (please order separately - see stirrer accessories).

Type	Art. No.	Pack Qty.	€
EUROSTAR 20 digital	XT16.1	1	828,00
EUROSTAR 20 high speed digital	XT17.1	1	1543,00

Accessories for EUROSTAR 20 high speed digital:

By IKA.

Special precision stirrers

Only suitable for use with precision stirrer shaft R 6000 of the EUROSTAR 20 high speed digital. Max. speed 6000 rpm.

Type	Art. No.	Pack Qty.	€
Propeller stirrer, stirrer Ø 55 mm, L 220 mm	AHK5.1	1	200,00
Propeller stirrer, stirrer Ø 45 mm, L 220 mm	AHK6.1	1	161,00
Dissolver stirrer, stirrer Ø 42 mm, L 220 mm	AHK7.1	1	220,00

Accessories for EUROSTAR 20-series:

By IKA.

Quick-action chuck

Stirring tools can be replaced without a chuck key. Not suitable for EUROSTAR 20 high speed digital.

Type	Art. No.	Pack Qty.	€
Quick-action chuck for EUROSTAR 20 digital	XT18.1	1	75,00

Laboratory stirrers



Stirrer RW 20 digital

By IKA. For stirring volumes of up to 20 l. Robust, slim-line stirrer with digital display. Two speed ranges for standard use from 60 to 2000 rpm. Clamping range of chuck 0.5 to 10 mm. Stirrer tools can be inserted.

Technical specifications:

Stirring volume (H ₂ O)	20 l
Max. viscosity	10 000 mPa · s
Motor power: input / output	70 / 35 W
Max torque at chuck clamping (at 100 rpm)	150 N · cm
rpm range I	60 to 500 rpm
rpm range II	240 to 2000 rpm
Speed display	Digital
Extension rod-Ø / Length	13 mm / 160 mm
Dimensions (W x D x H)	88 x 212 x 294 mm
Weight	3100 g
Current	230 V, 50 Hz

Delivery without stirrer tools, stand, or bosshead (please order separately - see stirrer accessories).

Art. No.	Pack Qty.	€
EY86.1	1	992,00

► Accessories for laboratory stirrers from page 990



Hei-TORQUE Value series Electronic laboratory stirrers

By Heidolph. For constant speed, even after changes in medium viscosity. Glass display with touch elements. Safety-oriented start/stop function (slide for start/stop). Protection class IP 54.

- Digital display of nominal/actual speed
- Continuously adjustable speed
- Push-through stirrer shafts
- Display of torque trend to detect changes in viscosity (using symbols)
- Clamping range of chuck 2.5 to 12.5 mm

Technical specifications:

Model	Hei-TORQUE Value 100	Hei-TORQUE Value 200	Hei-TORQUE Value 400
Stirring volume (H ₂ O) (l)	50		100
Max. viscosity (mPa · s)	60 000	100 000	250 000
Motor power input / output (W)	90/50	120/80	150/90
Max. torque on stirrer shaft (N · cm)	100	200	400
Speed range (rpm)	10 to 2000		100 to 400
Speed range II (rpm)	-	-	200 to 2000
Speed display	Digital monochrome 2.4"		
Extension arm Ø / length (mm)	13/160		
Dimensions W x D x H (mm)	86 x 241 x 257		93 x 241 x 257
Weight (kg)	4.1	5.0	5.2
Power supply	230 V, 50/60 Hz		

Delivery without stirring apparatus, boss head and stand (please order separately - see Stirrer accessories).

Type	Art. No.	Pack Qty.	€
Hei-TORQUE Value 100	CLT1.1	1	893,00
Hei-TORQUE Value 200	CLT2.1	1	1208,00
Hei-TORQUE Value 400	CLT3.1	1	1628,00



Electronic laboratory stirrers Hei-TORQUE Precision series

By Heidolph. For constant speed, even after changes in medium viscosity. Glass display with touch elements. Safety-oriented start/stop function (slide for start/stop). Protection class IP 54.

- Digital display for
 - Countdown function (adjustable from 1 min to 24 h)
 - Storage of 7 favourites (combination of countdown and rpm)
 - Ramp function with up to 7 steps
 - Graphical display of process progress
 - Time
- Continuously adjustable speed
- Plain text torque display with value (resolution 0,1 N · cm)
- Push-through stirrer shafts
- USB port
- Clamping range of chuck 2.5 to 12.5 mm

Technical specifications:

Model	Hei-TORQUE Precision 100	Hei-TORQUE Precision 200	Hei-TORQUE Precision 400
Stirring volume (H ₂ O) (l)	50		100
Max. viscosity (mPa · s)	60 000	100 000	250 000
Motor power input / output (W)	90/50	120/80	150/90
Max. torque on stirrer shaft (N · cm)	100	200	400
Speed range (rpm)	10 to 2000		100 to 400
Speed range II (rpm)	-	-	200 to 2000
Speed display	3.2" digital colour		
Extension arm Ø / length (mm)	13/160		
Dimensions W x D x H mm	86 x 273 x 241		93 x 273 x 241
Weight (kg)	4,1	5,0	5,2
Voltage	230 V, 50 Hz		

Delivery without stirring apparatus, boss head and stand not included (please order separately - refer to stirrer accessories).

Type	Art. No.	Pack Qty.	€
Hei-TORQUE Precision 100	CPK0.1 *	1	998,00
Hei-TORQUE Precision 200	CPK1.1 *	1	1523,00
Hei-TORQUE Precision 400	CPK2.1 *	1	2048,00

* Delivery times may apply to these products. Please ask our sales staff.



EUROSTAR-40/60/100/200 digital electronic laboratory stirrer

By IKA. A microprocessor controlled system ensures that a constant speed is maintained. Electronic safety circuit for shutting off device in case of fault or overload. Discrepancies between nominal and actual speeds are corrected automatically and continuously. For constant speed even with changes in medium viscosity.

- Digital speed display
- Continuously variable speed
- Push-through stirrer shafts
- Chuck tensioning range 0.5 to 10 mm

Technical specifications:

Model	EUROSTAR 40 digital	EUROSTAR 60 digital	EUROSTAR 100 digital	EUROSTAR 200 digital
Stirring volume of H ₂ O (l)	25	40	100	100
Max. viscosity (mPa · s)	30000	50000	70000	100000
Motor power: power input / output (W)	112/87	168/132	174/142	121/99
Max. torque at the stirrer shaft (N · cm)	40	60	100	200
Speed range (rpm)	30 to 2000		30 to 1400	6 to 400
Speed range II (rpm)	-			30 to 2000
Speed display	LED			
Extension arm Ø / length (mm)	16/220			
Dimensions W x D x H (mm)	86 x 208 x 248			91 x 209 x 274
Weight (kg)	4.4			4.6
Power supply	230 V, 50/60 Hz			

Delivery without stirring tool, stand and sleeve (please order separately - see Stirrer accessories).

Type	Art. No.	Pack Qty.	€
EUROSTAR 40 digital	XT19.1	1	1059,00
EUROSTAR 60 digital	XT20.1	1	1175,00
EUROSTAR 100 digital	XT21.1	1	1730,00
EUROSTAR 200 digital	XT22.1	1	2169,00

Accessories for EUROSTAR-40/60/100/200 digital

By IKA.

Quick-action chuck

Stirring tools can be replaced without a chuck key.

Type	Art. No.	Pack Qty.	€
Quick-action chuck for EUROSTAR-series	XT18.1	1	75,00

Stirrer accessories



EUROSTAR 60/100 control electronic laboratory stirrers

By IKA. With removable remote control and digital TFT display. A microprocessor controlled system ensures that a constant speed is maintained. **Integrated torque trend indicator** measures the change in viscosity of the sample. Electronic safety circuit for shutting off device in case of fault or overload. Discrepancies between nominal and actual speeds are corrected automatically and continuously. For constant speed even with changes in medium viscosity.

- Programmable functions, e.g. start/stop function (adjustable up to 9 h, 59 min, 59 s)
- **Integrated temperature measurement function** (a temperature sensor is required to display temperatures, please order separately)
- Intermittent mode (adjustable up to 59 min, 59 s)
- Timer (adjustable up to 99 h, 59 min, 59 s)
- Continuously variable speeds
- Push-through stirrer shafts
- With RS 232 port and USB port
- Chuck tensioning range 0.5 to 10 mm

Technical specifications:

Model	EUROSTAR 60 control	EUROSTAR 100 control
Stirring volume of H ₂ O (l)	40	100
Max. viscosity (mPa · s)	50000	70000
Motor power: power input / output (W)	168/131	174/142
Max. torque at the stirrer shaft (N · cm)	60	100
Speed range (rpm)	30 to 2000	30 to 1300
Speed display	TFT	
Change of rotation direction (clockwise or anticlockwise)	No	Yes
Extension arm Ø / length (mm)	16/220	
Dimensions W x D x H (mm)	86 x 230 x 267	
Power supply	230 V, 50/60 Hz	

Delivery without stirring tool, stand and sleeve (please order separately - see stirrer accessories).

Type	Art. No.	Pack Qty.	€
EUROSTAR 60 control	XT44.1	1	1628,00
EUROSTAR 100 control	XT45.1	1	2076,00

Accessories:

By IKA.

Stainless steel temperature sensor type H 67.60

L 260 x Ø 3 mm.

Art. No.	Pack Qty.	€
K855.1	1	164,50

Extension lead, L 1 m

For sensor H 67.60 and H 66.51.

Art. No.	Pack Qty.	€
K859.1	1	149,00



Plate stands

With anti-slip foil on plate. The support rod is also fixed under the plate with a nut to prevent accidental removal of rod. Support rod-Ø: 16 mm. Max. load: 5 kg.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R1825	200	316	560	CC13.1	1	214,00
R1826	200	316	800	CC14.1	1	236,00
R1827	200	316	1000	CC15.1	1	256,00

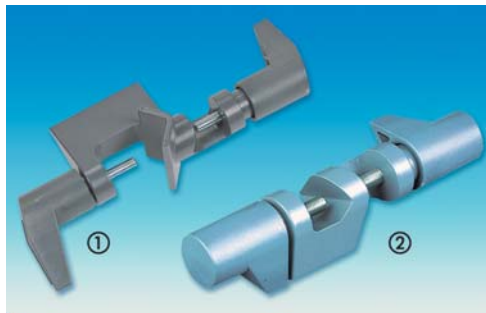


H-stands

Suitable for large, heavy units and attachments, e.g. stirrer. With H-foot for non-tilting stand. With compensator screw for uneven workplaces. Support rod-Ø: 34 mm. Max. load: 10 kg. Model R 2723 also comes with pressure spring telescopic support stand for smooth moving of heavy units or attachments. Height of lift: 390 mm.

Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
R2722	460	420	1010	CC16.1	1	550,00
R2723	460	420	620-1010	CC17.1	1	1081,00

Stirrer accessories



Cross sleeves

Made with aluminium casting.

Type	for stand type	Clamping range stand (mm)	Clamping range bracket (mm)	Art. No.	Pack Qty.	€
① R 270	R 2722, R 2723	25-36	5-21	CC18.1	1	94,60
② R 182	R 1825, R 1826, R 1827	6-16	6-16	CY92.1	1	65,00

Agitator types

Anchor agitator: Reduced deposits on the vessel wall. Tangential stream with high shear rate. Suitable for semi-fluid mediums (medium to high viscosity).

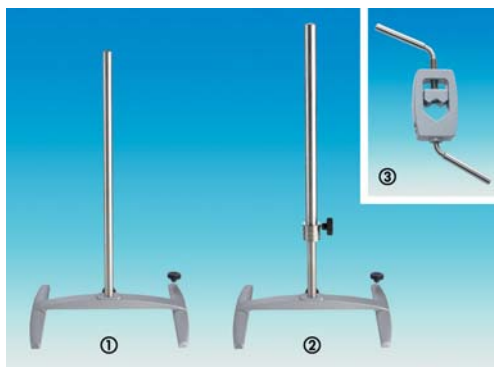
Dissolver agitator: Radial stream. High turbulence and shear forces. For use at medium to high speeds.

Surface agitator: Less turbulence. Gentle handling of the product. For use at low to medium speeds.

Half-moon agitator: The semi-round shape of the agitator blade is ideally suited to agitating in round-bottomed flasks, the tip function makes it easy to insert the agitator shaft into vessels which have been ground or have a narrow neck. Suitable for agitating liquids with low to medium viscosity. For use at medium speeds.

Propeller agitator: Standard agitator. Axial direction. For mixing mediums with low to medium viscosity. Ideal for homogenising and suspending.

Centrifugal agitator: Double-leaf; thanks to the moveable agitator leaf, the agitator shaft can be easily inserted into the vessels with a narrow neck. The leaves open when the speed increases. For use at medium to high speeds.



S2 series H-stands

S2 and S2 XXL models

Made of V2A. The support rod is additionally secured with a nut which prevents it from being unscrewed accidentally. Support rod Ø 25 mm. With levelling screw. Max. weight load: 4 kg.

Tele S2 model

same as S2 and S2 XXL but with retractable support rod variable in length from 725 to 1025 mm. Support rod Ø 32 mm.

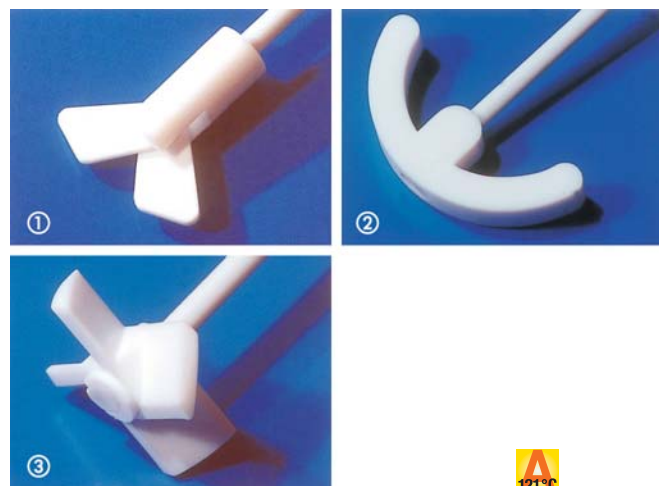
Type	Width (mm)	Depth (mm)	Height (mm)	Art. No.	Pack Qty.	€
① S2	345	420	700	TL67.1	1	233,00
S2 XXL	345	420	1000	TL68.1	1	275,00
② Tele S2	345	420	725-1025	TL69.1	1	551,00

Accessories for S2 series H-stands

③ **Clamp**

Made of V2A and cast aluminium. For rod Ø 13 to 32 mm.

Art. No.	Pack Qty.	€
TL70.1	1	102,00

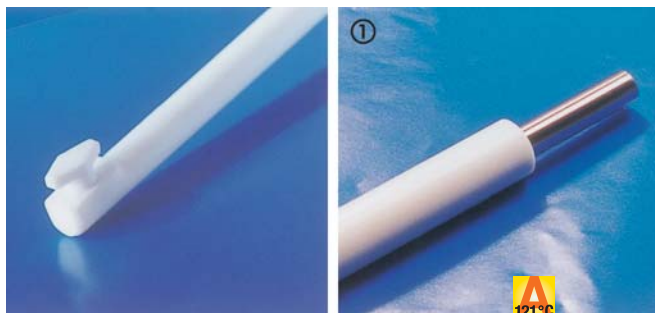


Rotilabo®-Eco stirrer shafts

Made of **PTFE-coated** stainless steel. Chemically inert and non-breakable. Temperature stable from -200 to +250 °C. Shaft- Ø 6 mm. Autoclavable.

Image	Type	Shaft length (mm)	Stirrer Ø (mm)	Art. No.	Pack Qty.	€
①	Centrifugal	300	40	YT25.1	1	61,30
①	Centrifugal	400	40	YT26.1	1	62,50
①	Centrifugal	500	50	YT27.1	1	63,75
②	Armature	300	80	YT28.1	1	49,35
②	Armature	400	80	YT29.1	1	50,50
②	Armature	500	80	YT30.1	1	51,10
③	Propeller	300	40	YT31.1	1	59,70
③	Propeller	400	40	YT32.1	1	61,85
③	Propeller	500	50	YT33.1	1	64,50

Stirrer accessories



Rotilabo®-stirrer shafts

Made of **PTFE-coated** stainless steel. For replaceable stirrer blades; please order separately. Temperature stable from -200 to +250 °C. Autoclavable.

Shaft length (mm)	Shaft Ø (mm)	Art. No.	Pack Qty.	€
300	6	YT08.1	1	34,65
400	6	YT09.1	1	35,40
500	6	YT10.1	1	36,45
300	8	YT11.1	1	44,90
400	8	YT12.1	1	45,30
500	8	YT13.1	1	46,05
550	9,5	YT14.1	1	47,20
650	9,5	YT15.1	1	47,45

① With tapered chucking Ø 6.35 mm (length 50 mm) for easier stirrer shaft insertion.

Shaft length (mm)	Shaft Ø (mm)	Art. No.	Pack Qty.	€
650	9,5	YT16.1	1	50,50
750	9,5	YT17.1	1	52,05
650	10	YT18.1	1	56,95
750	10	YT19.1	1	58,50



Rotilabo®-stirrer blades with smooth ends

Made of PTFE. Suitable for Rotilabo® stainless steel stirrer shafts (Art. No. YT08.1ff). Hole Ø 6.5 mm, blade thickness 3.2 mm. Temperature stable from -200 to +250 °C. Autoclavable.

Suitable for round-bottom flasks	Dimensions L x W (mm)	Art. No.	Pack Qty.	€
250 ml	65 x 25	YT20.1	5	21,10
500 ml	75 x 25	YT21.1	5	22,05
2000 ml	105 x 25	YT22.1	5	24,75
4000 ml	125 x 25	YT23.1	5	27,20
6000 ml	150 x 25	YT24.1	5	29,90



Stirring blades made of high-grade steel

Encased in PTFE. Stirrer is completely made of PTFE. High-grade steel core provides for the required hold in the spring chuck of stirrer. Stirring unit and blade are firmly attached together: will not be separated in the rotating media once stirrer has been switched off. As the stirred materials only have contact with PTFE, the stirring blades are almost totally chemical-resistant and are stable during high temperature operations. **Stirring blades are similar to (KPG) glass blades and can be replaced by them.** With tapered collet, for easier clamping of stirrer shafts.

Crescent

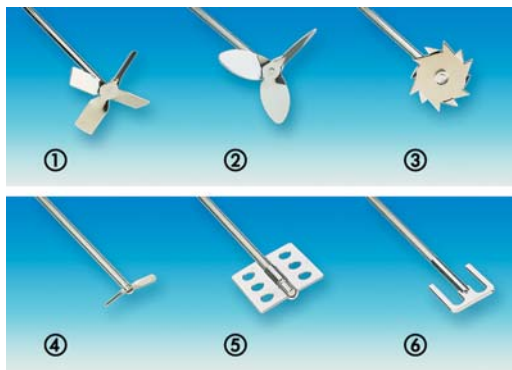
Length (mm)	Ø Chuck (mm)	Shaft Ø (mm)	Dimensions blade (mm)	Art. No.	Pack Qty.	€
450	6,5	8	90 x 24 x 3	K072.1	1	145,15
450	8	10	90 x 24 x 3	K074.1	1	153,75
600	6,5	8	90 x 24 x 3	K073.1	1	155,90
600	8	10	90 x 24 x 3	K075.1	1	178,45
800	14	16	125 x 35 x 3,5	K076.1	1	258,00

Propeller

Length (mm)	Ø Chuck (mm)	Shaft Ø (mm)	Dimensions blade (mm)	Art. No.	Pack Qty.	€
450	4,7	6	Ø 50	K077.1	1	138,70
450	6,5	8	Ø 75	K078.1	1	181,70
450	8,0	10	Ø 75	K079.1	1	194,60

Anchor

Length (mm)	Ø Chuck (mm)	Shaft Ø (mm)	Dimensions blade (mm)	Art. No.	Pack Qty.	€
360	6,5	8	60 x 40	K080.1	1	183,85
600	6,5	8	100 x 60	K081.1	1	208,55



Stirring blades

By IKA. For laboratory stirrers. Made of high-grade steel, except the anchor stirrer (Art. No. Y443.1 and Y444.1) and propeller stirrer (Art. No. A328.1) which are made of fine cast metal. Individual choice depends on use, viscosity and amount of medium.

① Propeller stirrer, 4-winged

Stirrer Ø (mm)	Ø Shaft (mm)	Shaft length (mm)	Max. speed (min ⁻¹)	Art. No.	Pack Qty.	€
50	8	350	2000	0867.1	1	117,00
100	8	540	800	Y436.1	1	142,00
150	13	800	600	Y437.1	1	502,00

② Propeller stirrers, 3-winged

Stirrer Ø (mm)	Ø Shaft (mm)	Shaft length (mm)	Max. speed (min ⁻¹)	Art. No.	Pack Qty.	€
45	8	350	2000	A328.1	1	232,00
140	10	550	800	Y438.1	1	230,00
140	10	800	400	Y439.1	1	281,00

③ Dissolver stirrer

Stirrer Ø (mm)	Ø Shaft (mm)	Shaft length (mm)	Max. speed (min ⁻¹)	Art. No.	Pack Qty.	€
80	8	350	2000	A322.1	1	206,00

④ Centrifugal stirrer

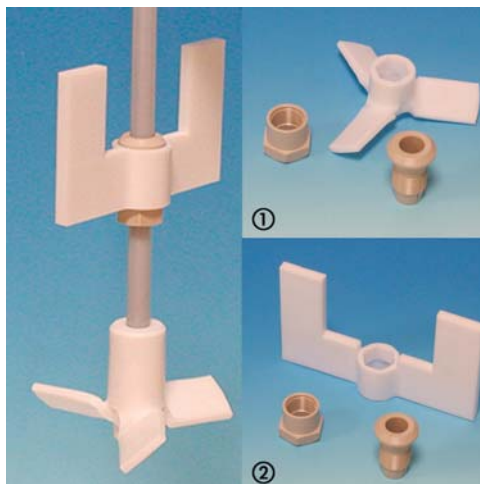
Stirrer Ø (mm)	Ø Shaft (mm)	Shaft length (mm)	Max. speed (min ⁻¹)	Art. No.	Pack Qty.	€
60/15	8	350	2000	A324.1	1	125,00
100/24	8	550	800	Y440.1	1	165,00

⑤ Paddle stirrer

Stirrer Ø (mm)	Ø Shaft (mm)	Shaft length (mm)	Max. speed (min ⁻¹)	Art. No.	Pack Qty.	€
70	8	550	800	Y441.1	1	134,00
150	10	550	800	Y442.1	1	279,00

⑥ Anchor stirrer

Stirrer Ø (mm)	Ø Shaft (mm)	Shaft length (mm)	Max. speed (min ⁻¹)	Art. No.	Pack Qty.	€
45	8	350	1000	Y443.1	1	292,00
90	8	350	1000	Y444.1	1	326,00



Spare blades for stirrer shafts

Made of a PTFE/PEEK compound. For fixing on to stirrer shafts made of PTFE with metal core, glass or metal. The spare blades can be positioned freely and fixed securely in height and turning position with the aid of a clamping attachment. Temperature stable from -200 to +250 °C, without strain.

Delivery incl. flat wrench

① Propeller-spare blades, 3-winged

for shaft Ø (mm)	Dimensions blade (mm)	Art. No.	Pack Qty.	€
8	Ø 75	CK98.1	1	83,45
10	Ø 75	CK99.1	1	73,10

② Anchor-spare blades

for shaft Ø (mm)	Dimensions blade (mm)	Art. No.	Pack Qty.	€
8	60 x 40	CT00.1	1	78,95
8	100 x 60	CT01.1	1	105,35
10	80 x 50	CT02.1	1	82,45
10	100 x 60	CT03.1	1	99,45



Material
DURAN®

KPG-Stirrers with side stirring blade

Made of DURAN®. Stirring blade and securing screw made of PTFE. For NS 29/32. Length of the ground and polished KPG-running surface 160 mm. Drive pin Ø 8 x L 40 mm.

for round bottom flasks (ml)	Agitator shaft Ø x L (mm)	Dimensions blade (mm)	Art. No.	Pack Qty.	€
100	10 x 310	50 x 18 x 3	KL66.1	1	66,15
250/500	10 x 310	68 x 24 x 3	KL67.1	1	73,55
1000/2000/3000	10 x 390	75 x 24 x 3	KL68.1	1	75,15
4000/5000	10 x 480	125 x 24 x 3	KL69.1	1	101,95

Stirrer accessories



Material
DURAN®

KPG-Stirrers with movable blades

Made of DURAN®. Stirring blade made of PTFE.
With ground, polished shaft and coupling pin. For NS 29/32.
Shaft-Ø 10 mm. Drive pin Ø 8 x L 40 mm.

for round bottom flasks (ml)	Length (mm)	Stirring circle (mm)	Art. No.	Pack Qty.	€
100/250	310	50	KL71.1	1	68,30
500	310	90	KL72.1	1	68,30
1000	400	90	KL73.1	1	68,30
2000/3000	460	90	KL74.1	1	68,30
4000/5000	520	90	KL75.1	1	68,30



Material
DURAN®

Accessories for KPG-stirrers

Made of DURAN®.

① KPG-bearing sleeve (stirring stopper)

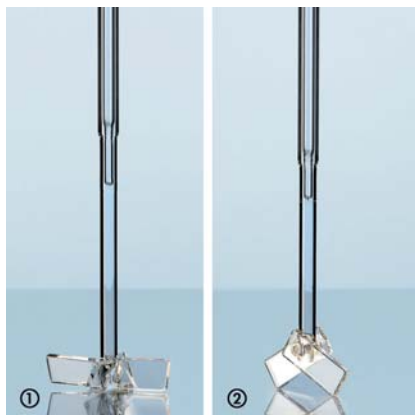
Core: standard ground glass joint 29/32.
Contact surface ground and polished.

Nominal Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
10	125	KX58.1	1	48,05

② KPG-agitator

Shaft contact surface ground and polished.

Nominal Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
10	240	KX59.1	1	25,40



DURAN GROUP

Material
DURAN®

KPG stirrer shafts

Made of DURAN®. Shaft contact surface (L 160 mm) ground and polished.

① Type WG 10 with propellor stirrer, 4-blade.

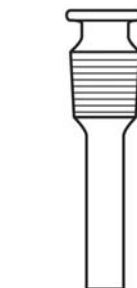
Suitable for flasks with min. 60 mm inner neck Ø. Stirrer Ø 58 mm.

Shaft Ø x L (mm)	Art. No.	Pack Qty.	€
10 x 320	NL72.1	1	61,60
10 x 370	NL73.1	1	61,60
10 x 410	NL74.1	1	63,15
10 x 440	NL75.1	1	66,50

② Type WS 10 with centrifugal stirrer with movable blades.

Suitable for flasks with min. 25 mm inner neck Ø. Circle Ø 57 mm.

Shaft Ø x L (mm)	Art. No.	Pack Qty.	€
10 x 320	NL76.1	1	62,70
10 x 370	NL77.1	1	62,70
10 x 410	NL78.1	1	66,60
10 x 440	NL79.1	1	66,60



DURAN GROUP

Material
DURAN®

KPG stirrer bearings

Made of DURAN®. Stirrer contact surface ground and polished, either above the ground glass cone (type HQ 10) or below the ground glass cone (type HT 10). With ground glass cone 29/32 and glycerine reservoir (only type HQ 10, Art. No. NL68.1).

Type	Stirrer contact surface Ø x L (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
① HQ 10	10 x 75	170	NL68.1	1	54,60
② HT 10	10 x 65	120	NL69.1	1	83,80

Stirrer accessories



Flexible glass agitator coupling

For stirring in glass apparatus with KPG-stirrers. Counterbalances any inexactness in assembly. An exact alignment of agitator motor and shaft is unnecessary. Operates as an elastic link between laboratory stirrer and agitator shaft. Ideal for motor shafts with 8 to 10 mm chucking capacity and stirring tools with Ø 8 to 10 mm shaft.

Art. No.	Pack Qty.	€
KL60.1	1	96,55



PTFE stirrer guides for standard ground-glass joints

Ground element made of **PTFE** with GL 25 screw cap made of **PPS**. Guide for stainless steel, glass and PTFE stirrer shafts. Embossed ring seals on the PTFE ground glass cone to fit ground glass sleeve. With special seal made of PTFE and FPM O-ring. Controlled pressure of the GL screw cap on the O-ring ensures proper sealing against the stirrer shaft. Temperature stable from -50 to 250 °C.

Cone (ground glass)	for shaft Ø (mm)	Overall length (mm)	Art. No.	Pack Qty.	€
19/26	8	65	CKN9.1	1	29,60
24/29	8	69	CKP0.1	1	34,95
24/29	10	70	CKP1.1	1	40,65
29/32	8	74	CKP2.1	1	32,20
29/32	10	72	CKP3.1	1	31,15
45/40	10	80	CKP4.1	1	53,70



DURAN GROUP
Material
DURAN®

KPG stirrer guides, type HB 10

Made of DURAN®. Stirrer guide (GL 32 threaded tube with ground glass cone) with matching stirrer socket. Contact surface ground and polished, Ø 10 x L 75 mm. GL screw cap with O-ring allows the stirrer shaft to be sealed.

Cone (ground glass)	Art. No.	Pack Qty.	€
24/29	NL70.1	1	53,00
29/32	NL71.1	1	54,30



All-purpose stirrer guides

For round flasks. Glass part made of borosilicate. Liner, sealing and pressure screw made of PTFE. Mostly chemical and temperature stable. Reliably leakproof, even during long-term use. Total length 140 mm. Patented under DE 35 12 647. Can be used without lubricant.

Cone (ground glass)	Shaft Ø (mm)	Art. No.	Pack Qty.	€
45	8	1791.1	1	198,90
45	10	1792.1	1	198,90
29	8	1793.1	1	198,90
29	10	1794.1	1	198,90

Set of seals for all-purpose stirrer plug

Made of PTFE/silicone, 4 pieces.

Shaft Ø (mm)	Art. No.	Qty. (set)	€
8	X532.1	1	29,00
10	X533.1	1	34,40



Clutch for laboratory stirrer assembly

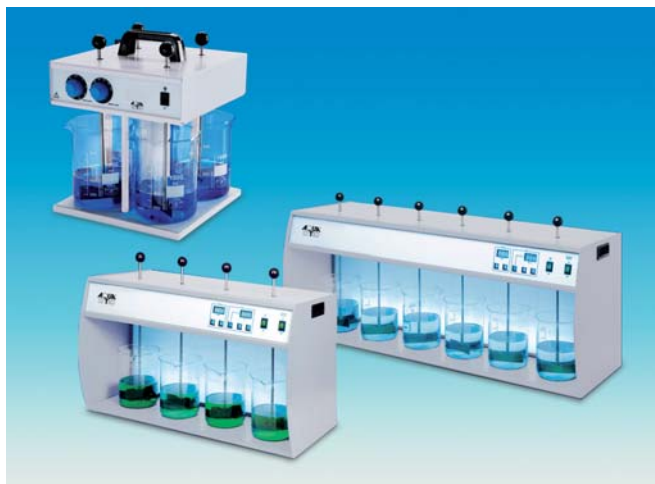
Corrosion-proof, made of PTFE. with rod end made of elastic polyamide. Prevents cuts, ensures proper working even at high rpm and during long-term use.

Stirring rod diameter : Ø 5-8 mm.
Shaft: Ø 7 mm, length 120 mm.

Art. No.	Pack Qty.	€
2939.1	1	85,50

- Absorbers for chemicals from page 666
- Lubricating grease and other lubricants, see page 1096

Flocculator devices



Flock testers AL series

By Aqualytic. For various applications, e.g. for testing the effectiveness of flocculants and precipitants.

AL30 analog

- Accommodates 4 low form beakers up to 1000 ml in size
- Portable, for mobile use
- Stirring points are arranged in a circle around a lamp
- Switchable centre column light (OFF/ON)
- Speed and time adjustment by rotary knob
- Height adjustment of the stirrer blades during operation
- **Delivery incl.** 12-V adaptor (for the cigarette lighter) and mains adaptor

AL40 and AL50

- Accommodates 4/6 low or high form beakers up to 1000 ml in size
- Illuminated back panel for glare-free sample observation
- Switchable backlight (OFF/ON)
- Continuously variable stirring speed
- Digital rpm and timer display
- Height adjustment of the stirrer blades during operation
- **Delivery incl.** mains adaptor

Technical specifications:

Type	AL30 analog	AL40	AL50
Number of stirring points	4	4	6
Speed range	20-40-50-100-120 rpm	10 to 300 in 1 rpm increments / continuous operation	
Timer	0 to 30 min / continuous operation	0 to 999 min / 0 to 99 h / continuous operation	
Dimensions L x W x H (mm)	250 x 320 x 250	645 x 347 x 260	935 x 347 x 260
Weight (kg)	4.9	13	17
Power supply	100-240 V, 50/60 Hz		

Delivery without beakers, please order separately.

Type	Stirring points	Art. No.	Pack Qty.	€
AL30 analog	4	YC36.1 *	1	1251,30
AL40	4	YC37.1 *	1	1751,20
AL50	6	YC38.1 *	1	2073,70

* These products may be subject to delivery times. Please consult our sales department.

Accessories:

1000 ml beaker, low form	C118.1	1	11,00
1000 ml beaker, high form	C130.1	1	11,55
1000 ml Griffin beaker, PMP, low form	2899.1	1	8,00



Flocculator SW6

By Stuart. For reproducible analysis of flocculation conditions during sewage water treatment.

- **For simultaneous treatment of 6 samples in beakers up to 1000 ml**
- Uniform adjustable stirring speed for similar conditions on all sampling areas
- Digital-display for speed and time
- **With timer-function**
Acoustic alarm indicates end of set time and all stirring units are switched off. The timer then counts the minutes from when the agitator blades stand still
- The stainless steel agitator blades can be adjusted in height during the run
- The device has an illuminated base and black rear wall for antiglare and high-contrast observation of samples
- **Memory-function stores 2 parameter-combinations of speed and time**

Technical specifications:

Number of stirring places	6
rpm range	25 to 250 rpm
Timer function	0 to 99 min /continuous run
Output	200 W
Dimensions (W x D x H)	750 x 210 x 460 mm
Weight	17 kg
Current	230 V, 50 Hz

Delivery without beakers, please order separately.

Devices for simultaneous addition of reagents and flocculators is also available.

Art. No.	Pack Qty.	€
CA98.1	1	2745,00

Accessories:

Charging mechanism	CA99.1	1	172,00
1000 ml beaker, high form	C130.1	1	11,55



Dispersing system T 10 basic ULTRA-TURRAX®

By IKA. Systems can be hand-held or used on a stand.

- For volumes from 0.5 to 100 ml
- Infinitely adjustable speed setting
- Easy changing of dispersing tools with quick-clamp coupling
- Plastic disposable dispersing tools for PCR-analytics are available (please ask our Sales Department)

Technical specifications:

Motor power: input / output	125 / 75 W
rpm range	8000 to 30000 rpm
Speed display	Scale
Max. on-time ON / OFF	max. 10 min / min. 5 min
Dimensions (W x D x H)	56 x 66 x 178 mm
Weight	0.5 kg

Delivery incl. storage case and arm clamp R 200. Please order dispersing tools, muffle and stand separately.

Art. No.	Pack Qty.	€
EH01.1	1	1144,00

Dispersing tool for T 10 basic

By IKA. Made of stainless steel. Enables you to change and dismantle tools for cleaning without using additional tools.

Type	S 10 N - 5 G	S 10 N - 8 G	S 10 N - 10 G
Working range (ml)	0.5 to 10	1 to 50	1 to 100
Ø Stator (mm)	5	8	10
Ø Rotor (mm)	3.8	6.1	7.6
Gap length between stator and rotor (mm)	0.1	0.25	0.2
Immersion depth Min/Max (mm)	20 / 75	20 / 95	20 / 100
Materials touching product	PTFE, AISI 316L		
Ideal for temperatures	to 180 °C		
Ultimate fineness, suspensions	5-25 µm		
Ultimate fineness, emulsions	1-10 µm		

Type	Art. No.	Pack Qty.	€
S 10 N - 5 G	EH02.1	1	1009,00
S 10 N - 8 G	EH03.1	1	1009,00
S 10 N - 10 G	EH04.1	1	1009,00

Accessories for T 10 basic

By IKA.

Type	Art. No.	Pack Qty.	€
Small stand R 104, W 242 x D 355 mm rod-Ø 10 mm, stand rod-height 370 mm	EH05.1	1	124,00
Cross sleeve	A316.1	1	23,00



T 18 digital ULTRA-TURRAX®-dispersing system complete set

By IKA.

Dispersing system T 18 digital ULTRA-TURRAX®

High-speed dispersing system. Additional speed range enables working at high peripheral velocity.

- With digitised speed display
- Compact, slim form

Technical specifications:

Motor capacity: input / output	500 W / 300 W
Speed adjustment	progressively adjustable
rpm range	3000 to 25 000 rpm
Speed display	LED
Dimensions (W x D x H)	87 x 106 x 271 mm
Weight	2500 g
Protective system in acc. with DIN 40050	IP 20
Current	220-240 V, 50/60 Hz

Dispersing tool S 18 N - 19 G

Technical specifications:

Operative range	10 to 1500 ml
Ø stator	19 mm
Ø rotor	12.7 mm
Materials touching product	PTFE, AISI 316L

Compleat set delivery incl.

- Ultra Turrax®
- Extension rod and dispersing tools S 18 N - 19 G
- Boss head and stand must be ordered separately

Art. No.	Pack Qty.	€
XX04.1	1	1215,00

Accessories for T 18 digital

By IKA.

Dispersing tool S 18 N - 10 G

Technical specifications:

Operative range	1 to 100 ml
Ø stator	10 mm
Ø rotor	7.5 mm
Materials touching product	PTFE, AISI 316L

Art. No.	Pack Qty.	€
T598.1	1	789,00

Dispersing/Homogenizing systems



NEU
NOUVEAU
NEW

POLYTRON® PT 1200 E handheld disperser

By Kinematica. Ideal for quick processing of small sample quantities. Soft start (active after power-on, e.g. at preselected speed). Application volumes from 0.05 to 250 ml.

Technical specifications:

Motor rating (input / output)	100/72 W
Speed adjustment	Continuously variable
Speed range	500 to 25 000 rpm
Speed display	Scale
Dimensions (W x D x H)	44 x 55 x 220 mm
Weight	440 g (drive) 310 g (power adaptor)
Power supply	230 V, 50/60 Hz

Delivery incl. benchtop power adaptor.

Please order disperser unit and special stand ST-P 13/320 separately.

Art. No.	Pack Qty.	€
CLX3.1 *	1	1099,75

Disperser units for PT 1200 E

Applications: homogenisation of animal and vegetable tissue samples in a variety of liquids and volumes, extraction of active ingredients/substances from vegetable samples, disruption of animal and vegetable cells as well as intensive mixing.

Technical specifications:

Model	PT-DA 03/2 EC-E050	PT-DA 05/2 EC-E085	PT-DA 07/2 EC-E107	PT-DA 12/ 2EC-E123
Working range (ml)	0.05 to 2	0.1 to 5	0.5 to 10	3 to 250
Stator Ø (mm)	3.5	5.5	7.8	12
Rotor Ø (mm)	2.2	3.0	5.0	9.0
Min/max immersion depth (mm)	20/50	25/85	25/107	25/123
Materials in contact with product	PTFE, AISI 316L			
Temperature range (°C)	up to 180			
Approx. suspension fineness (µ)	5			
Approx. emulsion fineness (µ)	1			

Type	Art. No.	Pack Qty.	€
PT-DA 03/2EC-E050	CLX4.1 *	1	966,45
PT-DA 05/2EC-E085	CLX5.1 *	1	1024,50
PT-DA 07/2EC-E107	CLX6.1 *	1	1075,00
PT-DA 12/2EC-E123	CLX7.1 *	1	1145,95

ST-P13/320 stainless steel plate stand

Delivery incl. anti-slip mat with height-adjustable mounting for drive and base station.

Dimensions: L 130 x W 150 x H 320 mm. Weight 1 kg.

Art. No.	Pack Qty.	€
CLX8.1 *	1	164,50

* Delivery times may apply to these products. Please ask our sales staff.



NEU
NOUVEAU
NEW

POLYTRON® PT 2500 E stand dispersion unit

By Kinematica. Powerful motor keeps constant even when viscosity changes. Digital actual speed display (3-digit). Application volumes from 0.05 to 2500 ml.

Technical specifications:

Motor rating (input / output)	500/300 W
Speed adjustment	Continuously variable
Speed range	500 to 30 000 rpm
Speed display	Digital
Dimensions (L x W x H)	157 x 76 x 236 mm
Weight	1.8 kg
Power supply	230 V, 50/60 Hz

Delivery incl. boom (Ø 12 mm).

Dispersion units, please order boss head and stand separately.

Art. No.	Pack Qty.	€
CLT8.1	1	1367,40

Dispersion units for POLYTRON® PT 2500 E

Applications: production of fine dispersions and emulsions, dispersing of plant, human or animal tissue, resins and pigments. The dispersion units for the PT 1200 E drive from the current catalogue can also be used.

Technical specifications:

Model	PT-DA 12/ 2EC-E157	PT-DA 20/ 2EC-E192	PT-DA 25/ 2EC-E192
Working range (ml)	0.2 to 250	100 to 2000	100 to 2500
Stator Ø (mm)	11.8	20	25
Rotor Ø (mm)	9	15	18
Approx. min/max immersion depth (mm)	30/157	30/192	30/107
Materials in contact with product	PTFE, AISI 316L		
Temperature range (°C)	up to 180		
Approx. suspension fineness (µ)	5		
Approx. emulsion fineness (µ)	1		

Type	Art. No.	Pack Qty.	€
PT-DA 12/2EC-E157	CLT9.1	1	1252,40
PT-DA 20/2EC-E192	CLX0.1	1	1151,35
PT-DA 25/2EC-E192	CLX1.1	1	1414,70

ST-P20/600 stainless steel plate stand

Dimensions: L 200 x W 310 x H 600 mm. Weight 2.5 kg.

Delivery incl. two stand rods and boss head.

Art. No.	Pack Qty.	€
CLX2.1 *	1	303,15

* Delivery times may apply to these products. Please ask our sales staff.



Dispersing System ULTRA-TURRAX® T 25 digital

By IKA.

High-performance dispersing system with a wide field of application.

Examples of application:

For producing emulsions and dispersions, for homogenizing sewage samples and for sample preparation.

- Workable volume (H₂O): 1 to 2000 ml
- Infinitely variable speed setting
- With digital speed display

Technical specifications:

Motor power: reception / delivery	700/500 W
rpm range	3000 to 25 000 rpm
Speed display	digital
Dimensions (W x D x H)	87 x 106 x 271 mm
Weight	2.5 kg
Mains connection	220-240 V, 50/60 Hz

Delivery incl. ULTRA-TURRAX® T 25 digital with extension rod (L 175 x Ø 13 mm). Please order dispersing tools, boss head, and stand separately.

Art. No.	Pack Qty.	€
AN58.1	1	1621,00

Dispersing tools for ULTRA-TURRAX® T 25 digital

By IKA.

Technical specifications:

Model	S 25 N - 8 G	S 25 N - 18 G	S 25 N - 25 G
Working range (ml)	1 to 50	10 to 1500	50 to 2000
Ø Stator (mm)	8	18	25
Ø Rotor (mm)	6.1	12.7	17
Gap between Stator and Rotor (mm)	0.25	0.3	0.5
Immersion depth Min/Max (mm)	27/85	40/165	40/165
Materials touching product	PTFE, AISI 316L		
Ideal for temperatures	up to 180 °C		
Final fineness, suspension (µm)	10-50	10-50	15-50
Final fineness, emulsion (µm)	1-10		

Type	Art. No.	Pack Qty.	€
S 25 N - 8 G	AN59.1	1	1094,00
S 25 N - 18 G	AN60.1	1	825,00
S 25 N - 25 G	AN61.1	1	1056,00



Compact Ultrasonic Processors UP50H and UP100H

By Hielscher.

- Small, compact ultrasonic processors
- Application range: ultrasonic processing or homogenizing of liquids and disintegration of cells
- With pulse switch for temperature sensitive samples
- Useable as hand or stand unit (please order stand separately)

Technical specifications:

Model	UP50H	UP100H
For vol. max. (ml)	200	500
Output (W)	50	100
Working frequency	30 kHz, is regulated automatically	
Power regulator	Amplitude 20 to 100 %, infinitely variable	
Pulse range	10 to 100 % per seconde, infinitely variable	
Dimensions L x W x H (mm)	180 x 130 x 50	
Protection	IP 40	
Weight (g)	800	
Power supply	230 V, 50/60 Hz	

Delivery incl. unit with case and stand holder for stand with Ø 16 mm, without sonotrode (please order separately).

Type	Art. No.	Pack Qty.	€
UP50H	Y509.1 *	1	2252,15
UP100H	Y510.1 *	1	2623,00

Sonotrodes for UP50H and UP100H

By Hielscher.

Made of titanium. Length 80 mm.

Type	Sample volume (ml)	Tip-Ø (mm)	max. immersion depth (mm)
MS1	0.1-5	1	5
MS2	2-50	2	30
MS3	5-200	3	30
MS7	20-500	7	30

Type	Art. No.	Pack Qty.	€
MS1	Y512.1 *	1	317,15
MS2	Y513.1 *	1	258,00
MS3	Y514.1 *	1	258,00
MS7	Y515.1 *	1	209,65

Accessories for UP50H / UP100H

Stand

Made of stainless steel. Base plate L 300 x W 150 mm. Height 600 mm. Ø 16 mm.

Art. No.	Pack Qty.	€
Y525.1 *	1	198,90

* Please check with our Sales Department for delivery period of these items.

Disintegrators / Homogenizers



Ultrasonic homogenizers SONOPULS-series

By Bandelin.

Application: Cell disruption, homogenizing, emulsifying, suspending, process acceleration, sonochemistry and degassing.

- LED-display for pulsation, time as well as actual value display of the amplitude
- Amplitude setting range: 10 to 100 %
- Ultrasonic operation modes: Continuous or pulsating (for temperature-sensitive samples); Pulse range 10 to 100 %, can be saved
- Continuous run or timer operation (adjustable 1 s to 99 min; can be saved)
- Operating frequency 20 kHz constant sound
- Outlet supply: 230 V, 50/60 Hz

Technical specifications:

Model	SONOPULS HD 2070-set	SONOPULS HD 2200-set
For volume to	50 ml	900 ml
Max. HF-power	70 W	200 W
Scope of delivery	<ul style="list-style-type: none"> • Generator • Ultrasonic transformer • Graduated horn SH 70 G • Micro tip MS 73, Ø 3 mm 	<ul style="list-style-type: none"> • Generator • Ultrasonic transformer • Booster horn SH 213 G • Titan plate TT 13, Ø 13 mm

Please order support frame separately.

Optionally available: Noise protection box for reducing noise level.

Type	Art. No.	Pack Qty.	€
HD 2070-Set	HC85.1 *	1	2814,35
HD 2200-Set	HC86.1 *	1	3435,70

* Please check with our Sales Department for delivery period of these items.

Sonotrodes for HD 2070 and HD 2200

By Bandelin.

Technical specifications:

Model	Tip-Ø (mm)	Length (mm)	Volume HD 2070 (ml)	Volume HD 2200 (ml)
Micro tips MS 72	2	191	1 to 25	2 to 30
Micro tips MS 73	3	175	2 to 50	50 to 90
Conical tips KE 76	6	135	8 to 100	10 to 350
Titan plate TT 13	13	5	10 to 200	20 to 900

Type	Art. No.	Pack Qty.	€
Micro tips MS 72	HC87.1 *	1	203,20
Micro tips MS 73	HC88.1 *	1	143,00
Conical tips KE 76	HC89.1 *	1	153,75
Titan plate TT 13	HC90.1 *	1	65,60

* Please check with our Sales Department for delivery period of these items.

Accessories for SONOPULS HD 2070 and HD 2200

By Bandelin.

Noise protection box LS 8: Made of stainless steel. Attenuation 20 dB-AU. For direct acoustic irradiation with long sonotrodes (MS 72/73, KE 76), please also order spacer tube AH 6. With support rod, pivoting clamp device, and quick-acting clamp.

Art. No.	Pack Qty.	€
HC91.1 *	1	1817,85

Spacer tube AH 6: For noise protection box LS 8.

For direct acoustic irradiation with long sonotrodes (MS 72/73, KE 76).

Art. No.	Pack Qty.	€
HC92.1 *	1	77,40

Support frame set HG 5: Made of stainless steel.

For mounting the ultrasonic transformer. With brackets.

Art. No.	Pack Qty.	€
HC93.1 *	1	565,45

* Please check with our Sales Department for delivery period of these items.





Digital ultrasonic disintegrator UP200Ht

By Hielscher.

Applications: sample preparation, homogenisation, dispersion, disagglomeration (e.g. nanoparticles), emulsification, lysis and cell disruption, extraction, degassing and sonochemistry.

- Use as handheld device or mounted on a stand
- Colour touch display and digital setting and monitoring functions
- Amplitude or power output control
- Countdown function: 0.1 s to 99 d
- Automatic data storage on integrated SD card reader in 100ms cycles; records amplitude, power output, time and temperature
- Temperature range monitoring: acoustic irradiation is interrupted if the medium temperature is above or below the setpoint
- Operation and monitoring via LAN cable, i.e. a browser can be used for display and remote control (no need to install software on PC)
- With LED sample illuminator
- Protection against dry running

Technical specifications:

Output	200 W
Operating frequency	26 kHz
Power output control	Amplitude 20 to 100 %, continuously variable in 1 % increments
Pulse range	10 to 100 % per second, in 0.1s increments, 100 % = continuous duty
Temperature display (with connected sensor)	-50 to 200 °C
Dimensions (W x H x D)	300 x 190 x 90 mm
Weight	1.4 kg
Power supply	100 to 240 V, 50/60 Hz

Delivery incl. carry case, boom arm (L 200 x Ø 12 mm), cross clamp, 3 m network cable, 1 GB SD/USB combo card and Pt100 temperature sensor. Please order sonotrodes and stand separately.

Art. No.	Pack Qty.	€
YH05.1 *	1	3268,00

* Please check with our Sales Department for delivery period of these items.

Accessories for ultrasonic disintegrator UP200Ht

By Hielscher.

Sonotrodes

Made of titanium.

Type	Sample volume (ml)	Length (mm)	Tip Ø (mm)
S26d2	2 to 50	120	2
S26d7	20 to 500	95	7
S26d14	50 to 1000	80	14

Type	Art. No.	Pack Qty.	€
S26d2	YH06.1 *	1	279,50
S26d7	YH07.1 *	1	279,50
S26d14	YH08.1 *	1	301,00

* Please check with our Sales Department for delivery period of these items.

Stand

Made of stainless steel. Base plate L 300 x W 150 mm. Height 600 mm. Ø 16 mm.

Art. No.	Pack Qty.	€
Y525.1 *	1	198,90

* Please check with our Sales Department for delivery period of these items.



Cell disruptors Disruptor Genie® analog and digital

By Scientific Industries. Suitable for a variety of homogenization processes of yeast cells, bacteria, plant and animal tissue and pellet resuspensions using glass beads (please order separately), or anything that requires extremely violent high-speed agitation.

Disruptor Genie® analog

- With fixed set speed
- Timer: 0 to 15 minutes or continuous operation

Disruptor Genie® digital

- With variable speed control
- Timer: 0 to 99 min or continuous operation
- After 10 minutes, the mixer switches to „sleep" mode

Technical specifications:

Type	Disruptor Genie® analog	Disruptor Genie® digital
Speed range	2850 rpm	Adjustable from 1000 to 2850 rpm
Speed display/timer	- / scale	digital / digital
Time range	0 to 15 mins	0 to 99 mins
Dimensions (L x W x H)	165 x 122 190 mm	
Weight	4.5 kg	
Electrical supply	230 V, 50/60 Hz	

Delivery incl. TurboMix® holder and mount for 12 microcentrifuge tubes 1.5/2.0 ml. Glass beads please order separately.

Type	Art. No.	Pack Qty.	€
Disruptor Genie® Analog	AH30.1	1	708,45
Disruptor Genie® Digital	PA66.1	1	833,15

Accessories:

Spare-holder for 12 microcentrifuge tubes 1.5/2.0 ml	AH31.1	1	96,65
Glass beads Ø 0.1 mm	N029.1	450 g	55,40
Glass beads Ø 0.5 mm	N030.1	450 g	55,40
Glass beads Ø 1.0 mm	N031.1	450 g	55,40
Glass beads Ø 2.7 mm	N032.1	450 g	55,40

Disintegrators / Homogenizers



BeadBeater®

For rapid, efficient and safe cell disintegration.

Method of operation:

A fast running impeller wheel accelerates the movement of small beads in a specially formed vessel to a very high speed. The system is completely hermetically sealed and allows no air to enter into the sample, preventing harmful aerosols from forming. The unit is easy-to-use and maintenance free. The beads precipitate within a few seconds and can be reused.

- Suitable for sample volume max. 100 g (wet weight) in 200 ml media
- Ideal for sensitive proteins and enzymes

Delivery incl. 350 ml vessel made of PC. Beads please order separately.

Art. No.	Pack Qty.	€
N025.1	1	1159,95

Spare vessel for BeadBeater®

Type	Art. No.	Pack Qty.	€
Spare vessel, 350 ml, PC	N026.1	1	90,85
High-grade steel vessel, 350 ml	N027.1	1	220,40
① Vessel, PC, stainless steel guide bushing, 15 ml	EN04.1	1	270,90
② Vessel, PC, stainless steel guide bushing, 50 ml	EN05.1	1	270,90

Accessories for BeadBeater®

Glass Beads

Ø (mm)	Art. No.	Pack Qty. (g)	€
0,1	N029.1	450	55,40
0,5	N030.1	450	55,40
1,0	N031.1	450	55,40
2,7	N032.1	450	55,40

Zirconia/Glass-Beads

Ø (mm)	Art. No.	Pack Qty. (g)	€
0,1	N033.1	450	83,85
0,5	N034.1	450	83,85
1,0	N035.1	450	83,85
2,3	N036.1	450	83,85

Zirconia-Beads

Ø (mm)	Art. No.	Pack Qty. (g)	€
0,7	N037.1	450	147,30
1,0	N038.1	450	147,30
2,0	N039.1	450	147,30

Stainless steel Beads

Ø (mm)	Art. No.	Pack Qty. (g)	€
1,4	P329.1	45	77,40



BagMixer® 400-series

By Interscience. The Bag Mixer® ensures safe and easy separation of bacteria from solid samples. A sterile plastic bag is added together with the closed sample and a diluent into the Bag Mixer®. For most samples 30 to 60 seconds mixing is sufficient. The filtrate can then be removed with a pipette and analysed immediately without any danger of changing or contamination. Housing and mixing chamber are made of rustproof stainless steel. The unit is extremely quiet and can be cleaned easily.

BagMixer® 400 P

- With stainless steel flap
- Preset speed (8 strokes/s)
- Adjustable mixing time: 30 to 210 s or permanent run

BagMixer® 400 W

- With glass flap made of armour plate glass
- Preset speed (8 strokes/s)
- Adjustable mixing time: 30 to 210 s or permanent run
- **Delivery incl.** drip pan

BagMixer® 400 CC

- With glass flap made of armour plate glass
- LCD display indicates mixing time and speed
- Variable speed setting: 4, 6, 8 or 10 strokes/s
- Adjustable mixing time: 1 s to 1 h with count-down display or permanent run
- With additional indicator display for mixing blade intensity
- Distance between mixing blades and door can be adjusted for better results
- **Delivery incl.** drip pan

Technical specifications:

Capacity	50 to 400 ml
Dimensions (L x W x H)	420 x 260 x 265 mm
Weight	16.5 kg
Current	220/110 V, 50/60 Hz

Note: stainless steel rack can only be used in combination with closure clips (please order separately).

Type	Art. No.	Pack Qty.	€
① BagMixer 400 P	KL16.1 *	1	1933,95
② BagMixer 400 W	T211.1 *	1	2417,70
③ BagMixer 400 CC	KL17.1 *	1	2965,95
④ Rack made of high-grade steel for 10 bags	T213.1 *	1	148,35
Closure clips	T212.1 *	10	32,20

* Please check with our Sales Department for delivery period of these items.

► Homogenizing bags, see page 239

Recommended useage of beads:

Material	Ø Beads (mm)
Bacteria	0.1
Yeast/fungi	0.5
Tissue	1.0

Disintegrators / Homogenizers



BagMixer® 400 S / SW lab blenders

By Interscience. Effective mixing of solid or liquid samples in laboratory blender bag. Optimal microorganism extraction. Sample material is quickly prepared for analysis without complex cleaning.

General specifications of both models

- Digital display of speed and time
- Adjustable mixing intensity
- Removable pedals
- 4 adjustable speeds: 4, 6, 8, 10 impacts/s
- Adjustable mixing time: 1 to 59 minutes or continuous operation
- LightCode System: colour LED light under the door indicates the mixing status (green: mixing operation finished; orange: active mixing operation)
- LED interior light
- Integrated drip pan
- Low noise (approx. 48 dB)

② SW model

- Window flap with double glazing
- LiquidSensor: mixing stops immediately and automatically if a leak is detected by the sensor

Technical specifications:

Capacity	50 to 400 ml
Dimensions (W x D x H)	290 x 450 x 37 mm
Weight	26 kg
Power supply	110-240 V, 50/50 Hz

Type	Art. No.	Pack Qty.	€
① BagMixer® 400 S	CEC0.1 *	1	3423,90
② BagMixer® 400 SW	CEC1.1 *	1	4168,85

* Delivery times may apply to these products. Please ask our sales staff.



Stomacher® 400 circulator

By Seward.

Ideal for extracting, mixing, homogenizing or dispersing.

Capacity 80 to 400 ml. The Stomacher® 400 circulator is indispensable in the laboratory when preparing and blending food samples and other substances for analysis. The sample and diluent are placed into the machine in a sealed plastic bag. The bag is held securely in the unit during treatment. There is no contact between the sample and machine. This eliminates any danger of contamination. With regard to hygiene, security and general efficiency the Stomacher® 400 circulator compares well with other units, which must be cleaned or even sterilized after use. Blending takes only 30 seconds for most substances.

Procedure:

Two reciprocating paddles beat against the bag repeatedly and press its contents against the door. This quiet and yet powerful movement distributes the sample quickly so that the extraction of soluble substances and the detection of even deep-seated micro-organisms is easier than when using standard blending processes. The sample can be removed from the bag with a pipette after blending. The Stomacher® 400 circulator can be reused again immediately.

Special Characteristics:

- Control panel: keyboard and LCD display
- Count Down display indicates processing
- User-defined speed and time setting
 - 3 programs can be stored for easier operation
 - Setting possibilities:
 - 1.) Paddle speed (rpm: 200/low, 230/normal, 260/high)
 - 2.) Time (from 1 s to 99 min and 59 s)
- Durable and robust aluminium casing

Dimensions: W 350 x D 335 x H 280 mm. Weight 23 kg.
Power supply 220 V, 50 Hz

Delivery incl. 1000 homogenizing bags standard.

Type	Art. No.	Pack Qty.	€
Stomacher® 400 circulator	H453.1 *	1	4997,70
Rack for 10 Stomacher® bags	H454.1 *	1	170,95

* Please check with our Sales Department for delivery period of these items.

Mills, Mixers



Homogeniser bag stand BagOpen®

For opening and holding bags.

For single 400 ml bags. Self-adhesive pads adhere to the outer walls of the bag and to the side walls of the stand and hold the bag open. Reduces risk of sample contamination. Dimensions: W 80 x D 150 x H 250 mm.

Delivery incl. 2 adhesive pads.

Art. No.	Pack Qty.	€
XX17.1	1	115,05



Homogenizing bags

Made of **PE, γ-sterile**. 70 µm thick. Suitable for use in homogenizers. Available with and without filter. The filter holds back solid particles and stops the pipettes from becoming blocked.

Volume (ml)	W x H (mm)	Filter type	Art. No.	Pack Qty.	€
80	105 x 150	without	AYY6.1	1500	100,00
400	180 x 300	without	EP15.1	500	46,25
400	190 x 300	over whole surface	EP16.1	500	220,40
400	190 x 300	side filters	EP17.1	500	220,40
3500	380 x 510	without	AYY7.1	100	33,65



Analysis mills A11 basic

By IKA. Batch mills with two milling processes:

- **Impact milling of hard, brittle grinding material with a stainless steel beater up to max. Mohs' hardness scale 6** (beater is included in delivery)
- **Blade milling of soft, fibrous grinding material with a cutting knife** (not included in delivery)

Damp and sticky process materials can be ground with addition of water. A standard grinding beaker made of ETFE, fiber-glass reinforced with stainless steel inlet (AISI 316L), effective volume 80 ml is included in the delivery. This enables you to embrittle the grinding material with liquid nitrogen directly in the grinding chamber.

Technical specifications:

Capacity: input / output	300 / 160 W
Max. operating time	Short-time service (KB 1/10): 1 min ON / 10 min OFF
On-load speed	19 500 rpm
No-load speed	28 000 rpm
Peripheral speed	53 m/s
System of protection	IP 43
Dimensions (W x D x H)	85 x 85 x 240 mm
Weight	1500 g
Mains supply	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
T534.1	1	1805,00

Accessories for analysis mill A11 basic

By IKA.

Cutting blade (made of stainless steel AISI 440B)

Art. No.	Pack Qty.	€
T539.1	1	133,00

Beater for grinding material to max. Moh's hardness scale 9 (made of stainless steel AISI 440B)

Art. No.	Pack Qty.	€
T536.1	1	169,00

Funnel

Prevents splashing when filling liquid nitrogen into standard 80 ml grinding beaker.

Art. No.	Pack Qty.	€
Y974.1	1	185,00

Grinding beaker (actual volume 250 ml)

made of PC with stainless steel inlet. Not suitable for N₂-cooling, only to be used with double beaters (Art. No. Y975.1).

Art. No.	Pack Qty.	€
T535.1	1	461,00

Doublebeater

made of titanium. Max. Moh's hardness 3.

Only to be used with 250 ml grinding beaker (Art. No. T535.1).

Art. No.	Pack Qty.	€
Y975.1	1	364,00

Spare grinding beaker (effective volume: 80 ml)

Art. No.	Pack Qty.	€
T537.1	1	337,00

Spare beater (max. Moh's hardness scale 6)

Art. No.	Pack Qty.	€
T538.1	1	84,95

Mills, Mixers



Universal blender

By Severin.

Features

- Capacity approx. 260 W
- Polystyrol beaker 650 ml
- Max. speed approx. 3900 rpm
- Pulse switch
- Stainless steel blade
- Rubber anti-slip device

Art. No.	Pack Qty.	€
Y384.1	1	34,35



Stand mixer

By Severin. For simple mixing and emulsifying tasks.

Features

- Removable 1.5 l glass mixing attachment with removable drip tray
- Capacity approx. 550 W
- Two speed settings with additional pulse mode option
- Lid with opening for refilling
- Removeable stainless steel blade
- Dimensions: L 210 x W 180 x H 402 mm
- Cord wind

Art. No.	Pack Qty.	€
X477.1	1	53,25



La Moulinette XXL blender

Blends foods such as meat, nuts, herbs and vegetable samples within just a few seconds.

- Motor power 1000 W
- Easy to operate - to blend samples, simply push down the lid about three times
- Total capacity 550 ml, capacity of blending container 300 g
- Cover for processing viscous foods
- Transparent container for monitoring food preparation
- Cable storage compartment
- Dimensions: W 194 x H 353 x D 194 mm
- Weight 2.8 kg
- Mains connection 230 V, 50 Hz

Art. No.	Pack Qty.	€
CCE4.1	1	117,20



Universal mixer RBB pro

For milling, mixing and emulsifying.

Features:

- 3 adjustable speeds (4000, 8000 and 14000 rpm)
- **Power consumption 550 W**
- Stainless steel motor housing, chrome plated
- Safety control system: motor only runs when lid is closed
- With soft start feature (prevents liquids from splashing up after switching on)
- With overload/overheating safety cut-out
- With pulse function, for stirring briefly
- Blending beaker is impact resistant and dishwasher safe, capacity 2 l
- Dimensions total: H 493, Ø 190 mm
- Dimensions of mixer attachments: H 265 x W 182 mm
- Power supply: 230 V, 50 Hz

Delivery incl. specified blending beaker and lid with hole for adding ingredients.

Type	Art. No.	Pack Qty.	€
Universal mixer with polycarbonate beaker	PT04.1	1	794,45
Universal mixer with stainless steel beaker	PT05.1	1	977,20

Mohs' hardness scale

Designation of degree of hardness of minerals, metals and other products at different hardness stages. Each stage is marked by a reference mineral.

1 Mohs	talc	6 Mohs	feldspar
2 Mohs	gypsum	7 Mohs	quartz
3 Mohs	calcite	8 Mohs	topaz
4 Mohs	fluorspar	9 Mohs	corundum
5 Mohs	apatite	10 Mohs	diamond

Mills, Mixers



Programme extension!

Universal mixer GK 900 W

For thorough reducing, mixing and emulsifying.

Features

- Infinitely adjustable from 1000 to 17 000 rpm
- **Power consumption 900 W**
- Die cast zinc motor housing, chrome-plated
- With soft start (prevents liquid from splashing up after switching on)
- Safety control: motor only runs lid is attached
- With overload and overheating protection
- Motor block dimensions: height 226 mm, Ø 190 mm
- Power supply: 230 V, 50/60 Hz

Choice of four different mixing beakers:

- 4 l polycarbonate attachment. Dimensions: W 300 x H 280 mm
- 2 l polycarbonate attachment. Dimensions: W 240 x H 280 mm
- 4 l stainless steel attachment. Dimensions: W 290 x H 300 mm
- 2 l stainless steel attachment. Dimensions: W 230 x H 280 mm

Type	Art. No.	Pack Qty.	€
Universal mixer with 4 l polycarbonate beaker	X534.1	1	1211,55
Universal mixer with 2 l polycarbonate beaker	CYX3.1	1	1020,20
Universal mixer with 4 l stainless steel beaker	CYX4.1	1	1340,55
Universal mixer with 2 l stainless steel beaker	X535.1	1	1211,55



**NEU
NOUVEAU
NEW**

Laboratory universal mixer with type RMBL sound protection hood

For reducing, mixing and emulsifying.

Features:

- 6 speed settings
- Version with protective hood for noise reduction and increased safety in the laboratory
- 12 storable cycles for automatic processing (max. cycle duration 30 min, time is determined by current mixing operation)
- Pulse function
- Stainless steel motor base
- Thermal circuit breaker

Technical specifications:

Power requirement	900 W for continuous operation
Speed settings	1300, 3500, 6000, 8700, 12 000 and 16 000 rpm
Dimensions	W 225 x D 265 x H 495 mm
Weight	app. 10 mm
Power supply	230 V, 50 Hz

Delivery incl. sound protection hood. Without mixing attachment (please order required mixing attachment separately).

Art. No.	Pack Qty.	€
CYX5.1	1	1450,20

Mixing attachments for universal mixer RMBL

Cutter head type "Laboratory":

Made of stainless steel. For ultra fine processing and low quantities.

Cutter head "High-Power":

Made of stainless steel. 4 blades shaped for optimal stirring, intensive and quick processing, as well as crushing ice cubes.

Type	Art. No.	Pack Qty.	€
125 ml glass attachment incl. laboratory cutter head	CYX6.1	1	253,70
250 ml glass attachment incl. laboratory cutter head	CYX7.1	1	267,70
500 ml glass attachment incl. laboratory cutter head	CYX8.1	1	391,30
1000 ml glass attachment incl. laboratory cutter head	CYX9.1	1	424,65
2000 ml polycarbonate attachment incl. High-Power cutter head	CYX0.1	1	173,10
2000 ml stainless steel attachment incl. High-Power cutter head	CYX1.1	1	342,95



Vortexer, small shakers



RS series test tube shakers

General information for both models

For mixing small sample quantities in test tubes, centrifuge tubes, reaction vials etc.

- Continuous / touch operation
- Robust housing design
- Slip-resistant silicon feet

RS-VF 10

With fixed speed of 2500 rpm

RS-VA 10

With variable speed control from 0 to 2500 rpm

Technical specifications:

Type	RS-VF 10	RS-VA 10
Shaking motion	circular, vibrating	
Shaking stroke	4 mm	
Speed range	2500 rpm	0-2500 rpm
Dimensions (W x H x D)	127 x 160 x 130 mm	
Weight	3.5 kg	
Mains connection	220-230 V, 50 Hz	

Delivery incl. standard attachment for test tubes and small containers.

Type	Art. No.	Pack Qty.	€
RS-VF 10	PX87.1	1	127,95
RS-VA 10	PX88.1	1	165,55

Accessories for RS series test tube shakers

One-hand attachment, large

For single-handed shaking of Erlenmeyer flasks, bottles etc.

With rubber mat (Ø 99 mm).

Art. No.	Pack Qty.	€
PX89.1	1	34,40



Test tube shaker with infrared sensor type ZX4

- IR sensor mode or continuous duty is selectable
- When the non-contact IR sensor is activated, the test tube shaker starts the typical vortex movement at the previously set speed as soon as a test tube is detected in the immediate vicinity
- Rugged housing with non-slip feet

Technical specifications:

Shaking motion	Circular, vibrating
Shaking stroke	4.5 mm
Speed range	0 to 3000 rpm
Dimensions (W x D x H)	150 x 165 x 130 mm
Weight	2.7 kg
Mains voltage	100 to 240 V, 50/60 Hz

Delivery incl. standard attachment for test tubes and small vessels.

Art. No.	Pack Qty.	€
ACN9.1	1	153,75

Accessories for test tube shaker type ZX4

① Attachment for 19 1.5/2.0 ml reaction vials

Art. No.	Pack Qty.	€
ACP0.1	1	37,60

② Attachment for 5 sample vials Ø 16 mm

Art. No.	Pack Qty.	€
ACP1.1	1	37,60

③ Attachment for 4 centrifuge vials 50 ml (29 mm)

Art. No.	Pack Qty.	€
ACP2.1	1	46,20

Vortexer, small shakers



Vortex mixer with multifunctional attachment

Suitable for continuous or intermittent operation, with touch function, activated by applying pressure to the shaker attachment.

- With multifunctional attachment for six different vial types and a microtiter plate:
2 x 50 ml centrifuge vials (horizontal loading)
2 x 15 ml centrifuge vials (horizontal loading)
4 x 1.5/2.0 ml reaction vials (vertical loading)
6 x 0.5 ml reaction vials (vertical loading)
24 x 0.2 ml reaction vials (vertical loading)
2 x 5 ml reaction vials (horizontal loading)
1 x microtiter plate
- A standard attachment for single-handed shaking of test tubes and vials is also integrated in the multifunctional platform
- Speed adjustment in 3 stages
- Attachment can be removed for cleaning

Technical specifications:

Shaking motion	Circular, vibrating
Shaking stroke	3,7 mm
Speed range	1000, 2000 or 3000 rpm
Dimensions (W x H x D)	171 x 197 x 190 mm
Weight	4 kg
Power supply	220 to 240 V, 50/60 Hz

Art. No.	Pack Qty.	€
CNH7.1	1	203,20

► Stands for centrifuge tubes see page 215



Test tube shaker lab dancer

By IKA. For mixing small sample amounts via touch function.

- For small tubes with a Ø of up to 30 mm such as test tubes, centrifuge tubes and vials
- With preset rpm of 2800 rpm

Technical specifications:

Shaking movement	rotary
Shaking lift	4.5 mm
Speed range	2800 rpm
Max. shaking volume	1 test tube 50 ml
Motor power: Input / output	1.2 / 0.8 W
Dimensions (W x H x D)	100 x 70 x 110 mm
Weight	550 g

Delivery incl. wall power supply 12 V.

Art. No.	Pack Qty.	€
AN62.1	1	234,00



Rotilabo®-vortex mixing adapters

For 1.5 ml microcentrifuge tubes. Ideal for all vortex or test tube shakers with rubber plate or mounting device for test tubes. Features solid shaft with affixed round plate for holding microcentrifuge tubes. A second movable plate prevents the tubes from falling out. Shaft length 165 mm with rounded grip (Ø 25 mm) on top end.

Type	Art. No.	Pack Qty.	€
For 8 micro-centrifuge tubes	L660.1	1	116,10
For 20 micro-centrifuge tubes	L661.1	1	131,15

Vortexer, small shakers



Test tube shakers REAX top and REAX control

By Heidolph. Compact, high-performance shakers. Relatively heavy, pressurized housing for high safety. The shaker has been constructed in such a way that it prevents splashing liquid from penetrating into the unit. Practical changeover switch from interval to continuous operation.

Technical specifications:

Model	REAX top	REAX control
Motion	circular, vibrating	
Shaking frequency	0 to 2500 rpm	
Orbit	5 mm	
Control accuracy	not controlled	±2 %
Power consumption	42 W	42 W
Weight	3300 g	
Dimensions (W x D x H)	134 x 172 x 105 mm	
System of protection	IP 22	
Ambient temperature	+5 to +40 °C at 85 % rh	

Delivery incl. small receptacle plate for vials up to 20 mm Ø.

Type	Art. No.	Pack Qty.	€
REAX top	L952.1	1	268,00
① REAX control	L953.1	1	379,00

Accessories for REAX top and REAX control

By Heidolph.

② Mounting plate, large

For flasks up to 50 ml.

Art. No.	Pack Qty.	€
L954.1	1	29,00

③ Supporting rod with vessel holder

For secure holding of test tubes and flasks in continuous operation. Supporting rod made of V2A, length 210 mm.

Art. No.	Pack Qty.	€
H826.1	1	72,00

④ Holding rack 10

For max. 10 centrifuge tubes (Ø 10 mm, L 60 mm).

Art. No.	Pack Qty.	€
L955.1	1	29,00



Shaker Vortex Genie® 1

By Scientific Industries.

- Robust construction with high stability
- For speedy and intensive mixing of samples
- Unit starts automatically at maximum speed by pressing down the holder, thus reducing the vortex time.

Technical specifications:

Shaking motion	rotary
Speed max.	2700 rpm
Safe ambience conditions	-0 to +38 °C at 95 % rh
Dimensions of unit (L x W x H)	165 x 122 x 190 mm
Weight	4.0 kg
Current	230/240 V, 50 Hz

Delivery incl. standard holder (Inner-Ø 25 mm) for one-handed shaking of test tubes, sample vials and centrifuge tubes.

Art. No.	Pack Qty.	€
AH32.1	1	289,20

Accessories for shaker Vortex Genie® 1

By Scientific Industries.

Shaker dish (Ø 75 mm)

For single-handed shaking of beakers, Erlenmeyer flasks, bottles etc.

Delivery without rubber plate (please order separately, necessary for operating with shaker dish).

Art. No.	Pack Qty.	€
P507.1	1	31,00

Rubber plate, with knobs

Art. No.	Pack Qty.	€
P508.1	1	31,00

Vortexer, small shakers



Vortex-Genie®-series

By Scientific Industries. Robust and reliable shakers for speedy mixing and shaking of samples

- Multiple accessories: e.g. adapter tops for test tubes, beakers, centrifuge tubes etc
- Adapter tops can be changed easily with the snap fit system

① Vortex-Genie® 2

Interval operation (with automatic start and by pressing the top) or permanent run possible.

② Vortex-Genie® 2T with integrated timer

Possible settings: 1 to 60 s (Interval operation), 1 to 60 min (Hands-free mode) or permanent run.

③ Digital Vortex-Genie® 2 with speed and time adjustment (Timer function) via digital display

Possible settings: 1 to 99 s (Interval operation), 1 to 99 min (Hands-free mode) or permanent run. Mixer switches over to "Sleep"-mode after 10 minutes without operation. Speed can be increased in 10 min⁻¹ increments.

④ Digital Vortex Genie® 2 Pulse

same as Digital Vortex Genie® 2, with additional functions (but without touch function):

- Programmable pulse function for various applications
- Depending on the selected pulse and interval times, the mixer can be used for high-speed and intensive mixing of specimens or for intermittent mixing
- The programmable pulse function is, for example, suited to heat-sensitive specimens which are required to be held in suspension without heating
- Pulse and interval times (On/Off) are adjustable from 0.1 s to 99 min

Technical specifications:

Model	① Vortex-Genie® 2	② Vortex-Genie® 2T	③ + ④ Digital Vortex-Genie® 2/Digital Vortex Genie® 2 Pulse
Shaking movement	circular		
Speed display/Timer	Scale/No	Scale/Scale	Digital/Digital
rpm range (rpm)	600 to 2700	600 to 2700	500 to 2850
Timer:	-		
Interval operation		1 to 60 s	1 to 99 s
Hands-free mode		1 to 60 min	1 to 99 min
Dimensions L x W x H (mm)	165 x 122 x 165		
Permissible ambient conditions	0 to 38 °C at 95 % rh		
Weight (kg)	4		
Mains supply	230 V, 50/60 Hz		

Delivery incl. standard top (Inner-Ø 2.5 cm) and shaking plate (Ø 7.5 cm).

Type	Art. No.	Pack Qty.	€
① Vortex-Genie® 2	P505.1	1	364,45
② Vortex-Genie® 2T	X561.1	1	409,60
③ Digital Vortex-Genie® 2	HH64.1	1	424,65
④ Digital Vortex-Genie® 2 Pulse	PK04.1	1	456,90



Accessories for Vortex-Genie®-series

By Scientific Industries.

① TurboMix® holder

For simultaneous shaking of twelve 1.5/2.0 ml microcentrifuge tubes. Suitable for cell disintegration with glass beads. Higher efficiency when mixing.

Type	Art. No.	Pack Qty.	€
TurboMix®	P517.1	1	278,45

② Spare standard holder

For single-handed shaking of test tubes.

Type	Art. No.	Pack Qty.	€
Spare standard holder	P506.1	1	31,30

③ Shaker dish and spare rubber plate

For single-handed shaking of beakers, Erlenmeyer flasks, bottles, etc.

Type	Art. No.	Pack Qty.	€
Shaker dish Ø 7.5 cm	P507.1	1	31,00
Spare rubber plate with knobs	P508.1	1	31,00



Accessories for Vortex-Genie®-series

By Scientific Industries.

④ Shaker dish and holder for microcentrifuge tubes

For shaking and mixing samples in microcentrifuge tubes.

Type	Art. No.	Pack Qty.	€
Shaker dish Ø 15 cm	P509.1	1	46,20
Holder for 60 microcentrifuge tubes	P510.1	1	27,75

⑤ Shaker dish and holder for micro well plates

Ideal for shaking cell cultures and other samples in microwell plates.

Type	Art. No.	Pack Qty.	€
Shaker dish Ø 15 cm	P509.1	1	46,20
Holder for microtitre plates	P511.1	1	27,90

⑥ Angular dish and rubber bands

For shaking and mixing samples in beakers, Erlenmeyer flasks, bottles. Vessels are safely secured with rubber bands.

Type	Art. No.	Pack Qty.	€
Angular dish	P512.1	1	118,25
Rubber bands	P513.1	2	9,25

⑦ Angular dish and holders for test tubes

For shaking several test tubes simultaneously.

Type	Art. No.	Pack Qty.	€
Angular dish	P512.1	1	118,25
Holder for 12 test tubes 9-16 mm	P514.1	1	16,70
Holder for 8 test tubes 14-29 mm	P515.1	1	16,70
Holder for 4 test tubes 29-37 mm	P516.1	1	16,70

Holder for centrifuge tubes

For shaking and mixing samples in centrifuge tubes.

Type	Art. No.	Pack Qty.	€
Holder for 12 centrifuge tubes 15 ml (Ø 17 x L 120 mm)	LY19.1	1	158,05
⑧ Holder for 6 centrifuge tubes 50 ml (Ø 30 x L 115 mm)	LY20.1	1	146,20
⑨ Holder for 6 centrifuge tubes 50 ml, 6 centrifuge tubes 15 ml and 12 microcentrifuge tubes 1,5/2,0 ml	XX95.1	1	189,20

Vortexer, small shakers



Test tube shaker Vortex Genius 3

By IKA. For short-time operation (touch function), activated by pressing the top of the shaker, or for continuous operation.

- Infinitely adjustable speed setting
- With a variety of accessories: e.g. attachment for test tubes, centrifuge tubes etc. (please order separately)
- Simple "Click-on" of attachment

Technical specifications:

Shaking motion	rotary
Shaking stroke	4 mm
Adjustable speed range	500 to 2500 rpm
Dimensions (W x D x H)	127 x 149 x 136 mm

Delivery incl. standard attachments for test tubes and small vessels.

Art. No.	Pack Qty.	€
EE34.1	1	334,00

Attachment for Vortex Genius 3

By IKA.

① Spare standard attachment VG 3.1

Art. No.	Pack Qty.	€
EE35.1	1	9,70

② **Single-hand attachment VG 3.2**, for single-handed shaking of Erlenmeyer flasks, bottles etc. With rubber insert (Ø 88 mm).

Art. No.	Pack Qty.	€
EE36.1	1	18,00

③ Universal attachment VG 3.3

Ideal for mounting different inserts for test tubes and microtiter plates, etc. Please order separately. See accessories for universal attachment VG 3.3.

Art. No.	Pack Qty.	€
EE37.1	1	21,50

Accessories for universal attachment VG 3.3

By IKA.

④ Test tube inserts

Type	Art. No.	Pack Qty.	€
for 54 centrifuge tubes 1.5/2.0 ml (Type VG 3.31)	EE38.1	1	53,00
for 18 test tubes Ø 10 mm (Type VG 3.32)	EE39.1	1	27,00
for 12 test tubes Ø 12 mm (Type VG 3.33)	EE40.1	1	25,00
for 8 test tubes Ø 16 mm (Type VG 3.34)	EE41.1	1	25,00
for 8 test tubes Ø 20 mm (Type VG 3.35)	EE42.1	1	25,00

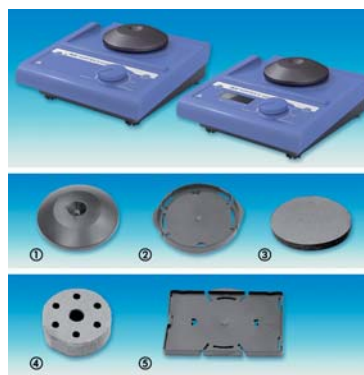
⑤ Erlenmeyer flask tightening strap VG 3.36

Tightening strap for 1 Erlenmeyer-/round flask from 100 to 250 ml.

Type	Art. No.	Pack Qty.	€
Erlenmeyer tightening strap VG 3.36	EE43.1	1	24,75

⑥ Microtiter plate insert VG 3.37, for 1 microtiter plate

Type	Art. No.	Pack Qty.	€
Microtiter plate insert VG 3.37	EE44.1	1	23,00



Vortex 4 basic / digital small shakers

By IKA. Suitable for shaking small vessels. Suitable for short-time use (touch function), activated by applying pressure to the shaker attachment, or for continuous operation. Rugged die cast zinc housing.

Two operating modes are selectable.

Mode A: safe mode with attachment detection and speed limiter.

Mode B: without attachment detection.

Vortex 4 digital with additional countdown function

Technical specifications:

Type	Vortex 4 basic	Vortex 4 digital
Shaking motion	rotary	
Shaking stroke	4.5 mm	
Max. speed	3000 rpm	
Speed display	Scale	
Timer	No	Yes
Time range	-	1 s to 999 min.
Dimensions (W x D x H)	176 x 190 x 63 mm	
Weight	3.0 kg	

Delivery incl. standard attachment MS 3.1.

Type	Art. No.	Pack Qty.	€
Vortex 4 basic	TK48.1	1	346,00
Vortex 4 digital	TK49.1	1	422,00

Attachments for Vortex 4 series

By IKA.

① Replacement standard attachment MS 3.1

Art. No.	Pack Qty.	€
EY89.1	1	13,80

⑤ Microtitration attachment MS 3.4

Art. No.	Pack Qty.	€
EY91.1	1	37,50

② Universal attachment MS 3.3

For attachment of various inserts for test tubes and sample tubes. See Accessories for universal attachment 3.3. Please order inserts separately.

Art. No.	Pack Qty.	€
TK50.1	1	15,05

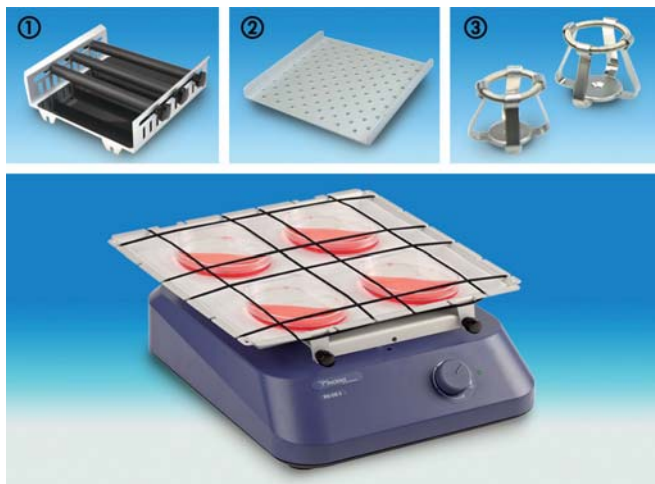
Accessories for universal attachment 3.3

By IKA.

One-hand attachment and test tube inserts

Type	Art. No.	Pack Qty.	€
③ One-hand attachment (type MS 1.21)	TK51.1	1	20,45
For 14 test tubes, each Ø 10 mm (type MS 1.31)	TK52.1	1	45,15
④ For 6 test tubes, each Ø 12 mm (type MS 1.32)	EY90.1	1	45,15
For 4 test tubes, each Ø 16 mm (type MS 1.33)	TK53.1	1	45,15

Shakers, Mixers



RS-series platform shakers

Suitable for agitating 5 Petri dishes, with optional attachment for Erlenmeyer flasks.

- Max. load capacity: 3 kg
- Continuous speed adjustment

Technical specifications:

Model	RS-OS 5	RS-LS 5
Type of motion	orbital	linear
Speed range (rpm)	0 to 200	
Shaking amplitude (stroke in mm)	20	
Shaking area W x D (mm)	240 x 240	
Dimensions W x D x H mm	245 x 125 x 310	
Weight (kg)	3.1	
Perm. ambient conditions	4 to +40 °C at 80 % RH	
Power supply	100 to 240 V, 50/60 Hz	

Delivery incl. dish platform.

Type	Art. No.	Pack Qty.	€
RS-OS 5	CAX8.1	1	532,15
RS-LS 5	CAX9.1	1	532,15

Accessories for RS series platform shakers

① Universal tray

Various loading options, e.g. 6 250 ml Erlenmeyer flasks.

Delivery incl. 3 adjustable clamping rolls.

Type	Art. No.	Pack Qty.	€
Universal tray	CAY0.1	1	145,15

② Spring clip tray

For shaking Erlenmeyer flasks.

With holes for individual fastening of spring clips.

Delivery without spring clips (please order separately).

Type	Art. No.	Pack Qty.	€
Spring clip tray	CAY1.1	1	145,15

③ Spring clips

Type	Art. No.	Pack Qty.	€
Spring clip for 25 ml flasks (max. 18)	CAY2.1	1	28,95
Spring clip for 50 ml flasks (max. 18)	CAY3.1	1	31,10
Spring clip for 100 ml flasks (max. 9)	CAY4.1	1	31,10
Spring clip for 250 ml flasks (max. 6)	CAY5.1	1	40,75
Spring clips for 500 ml flasks (max. 4)	CAY6.1	1	42,90



Digital orbital shaker Sea Star

- Circular movement
- Plates, petri dishes, glass plungers and culture bottles can be secured flexibly using rubber straps
- Digital display of speed and running time
- Electronic speed control with softstart function
- Loading options: e.g. 9 x 250 ml Erlenmeyer flasks or 4 x 500 ml Erlenmeyer flasks or 4 x 1000 ml Erlenmeyer flasks or 16 x 250 ml beakers or 4 x 1000 ml beakers

Technical specifications:

Speed control range	20 to 300 rpm
Shaking amplitude (stroke)	19 mm
Timer	1 min to 49 h or continuous operation
Shaking surface area	279 x 279 mm
Dimensions (W x D x H)	314 x 305 x 183 mm
Loading capacity	4.5 kg
Ambient conditions	+4 to +40 °C at 80 % rel. humidity
Power supply	100-240 V, 50/60 Hz

Delivery incl. platform with rubber mat and 8 rubber straps.

Art. No.	Pack Qty.	€
PY67.1	1	618,15

Accessories:

Replacement rubber mat	PY68.1	1	53,25
Replacement rubber straps	PY69.1	8	53,25



Shakers Titramax 100 and Vibramax 100

By Heidolph. For universal use.

- Motion: circular vibrating
- Infinitely adjustable speed setting
- Speed display scale
- With overheating protection
- Minimal self-heating
- Maintenance-free motor

Technical specifications:

Model	Titramax 100	Vibramax 100
rpm range	150 to 1350 rpm	
Orbit	1.5 mm	3 mm
Weight capacity	2 kg	
Time switch	0 to 120 min or continuous run	
Power consumption	15 W	
Dimensions of working surface (W x D)	220 x 220 mm	
Dimensions of unit (W x H x D)	245 x 125 x 310 mm	
System of protection	IP 30	
Weight	5500 g	
Current	230/240 V, 50/60 Hz	

① Titramax 100

The purpose-made holders can hold up to 4 microtiter plates, size 85 x 128 mm.

② Vibramax 100

Standard equipment: Rubber platform with beaded edge. Optional accessory: platform with two tension rollers (please order separately).

Type	Art. No.	Pack Qty.	€
Titramax 100	H831.1 *	1	822,00
Vibramax 100	H832.1 *	1	840,00

Accessories:

③ Universal-top for Vibramax 100, with 2 adjustable tighteners	H833.1 *	1	114,00
Clamping roller for universal attachment	LY48.1 *	1	32,00

* Longer delivery times possible. Please check with our Sales Department.



Orbital shaker KS 130 basic complete set

By IKA. Suitable for mixing liquids in various vessels through the use of different attachments.

- Circular movement
- Speed display: 10 LED display bar with scale in graduations of 80 rpm
- Time adjustment: 10 LED display bar with scale in increments of 5 min
- Max. shaking weight: 2 kg

Technical specifications:

Speed control range	80 to 800 rpm
Shaking amplitude (stroke)	4 mm
Timer	5 to 50 min or continuous duty
Dimensions (W x D x H)	270 x 316 x 98 mm
Perm. ambient conditions	+5 to +50 °C at 80 % rel. humidity
Weight	8.8 kg

Delivery incl. dish attachment AS 130.3 (surface area: W 340 x D 220 mm) for culture bottles and petri dishes with integrated non-slip mat.

Art. No.	Pack Qty.	€
PA19.1	1	924,00

Attachment systems and accessories for KS 130 basic shaker

By IKA.

① Universal attachment AS 130.1

Can be adjusted to fit all types of vessel with infinitely adjustable clamping rolls. Surface area: 220 x 220 mm.

Delivery incl. 3 clamping rolls.

Model	Art. No.	Pack Qty.	€
Universal attachment AS 130.1	PA23.1	1	183,00

② Fixing clip attachment AS 130.2

Suitable for shaking round bottomed flasks, volumetric flasks and Erlenmeyer flasks, etc. Dimensions: W 230 x D 230 x H 24 mm.

Holding clamps not included (please order separately).

Model	Art. No.	Pack Qty.	€
Fixing clip attachment AS 130.2	PA24.1	1	82,80

③ Fixing clips

Model	Art. No.	Pack Qty.	€
Fixing clips for 25 ml flasks (max. 20)	X185.1 *	1	21,50
Fixing clips for 50 ml flasks (max. 12)	X186.1 *	1	21,50
Fixing clips for 100 ml flasks (max. 12)	X187.1 *	1	21,50
Fixing clips for 200/250 ml flasks (max. 4)	X188.1 *	1	38,00
Fixing clips for 500 ml flasks (max. 4)	X189.1 *	1	38,00

* Longer delivery times possible. Please check with our Sales Department.

④ Test tube attachment AS 130.4

For intensive shaking of small tubes, test tubes and centrifuge tubes, etc. For 64 test tubes with diameters from 10 to 16 mm. Minimum test tube height: 80 mm. Dimensions: W 200 x D 230 x H 95 mm.

Model	Art. No.	Pack Qty.	€
Test tube attachment AS 130.4	PA25.1	1	183,00

Shakers, Mixers



Rotamax 120 platform shaker

By Heidolph. Suitable for agitating 5 petri dishes, with optional attachment for Erlenmeyer flasks up to 1000 ml.

- Max. load capacity: 2 kg
- Continuous speed adjustment
- Speed display with scale

Technical specifications:

Type of motion	Orbital
Speed range	20-300 rpm
Shaking amplitude (stroke)	20 mm
Timer	0-120 min / continuous operation
Shaking area (W x D)	220 x 220 mm
Dimensions (W x H x D)	245 x 125 x 310 mm
Weight	5.5 kg
Perm. ambient conditions	0 to +50 °C at 80 % rH
Power supply	230 V, 50/60 Hz

Delivery incl. non-slip rubber mat with raised edge.

Art. No.	Pack Qty.	€
LY47.1	1	901,00

Accessories for Rotamax 120 platform shaker

By Heidolph.

① Universal attachment

With 2 adjustable clamping rollers

Type	Art. No.	Pack Qty.	€
Universal attachment	H833.1 *	1	114,00

Clamping roller for universal attachment

Additional clamping roller suitable for universal attachment.

Type	Art. No.	Pack Qty.	€
Clamping roller for universal attachment	LY48.1 *	1	32,00

② Tablar 100 perforated platform

For shaking Erlenmeyer flasks. Perforated for individual arrangement of flasks, secured with spring clips.

Delivery without spring clips (please order separately).

Type	Art. No.	Pack Qty.	€
Tablar 100 perforated platform	LY49.1 *	1	69,00

③ Spring clips for Tablar 100

Type	Art. No.	Pack Qty.	€
Spring clips for 25 ml flasks (max. 16)	HL12.1 *	1	16,00
Spring clips for 50 ml flasks (max. 16)	HL13.1 *	1	16,00
Spring clips for 100 ml flasks (max. 8)	HL14.1 *	1	21,00
Spring clips for 250 ml flasks (max. 5)	HL15.1 *	1	24,00
Spring clips for 500 ml flasks (max. 3)	HL16.1 *	1	30,00
Spring clips for 1000 ml flasks (max. 2)	HL17.1 *	1	35,00



Shaker VXR basic Vibrax®

By IKA.

Features

- Movement: circular
- Infinitely adjustable speed setting
- Speed display with scale
- Load max. 2 kg (including platform)
- Units have been designed for continuous operation
- **Doesn't come with platform** (please order separately)

Technical specifications:

Rpm range	0 to 2200 rpm
Shaking stroke	4 mm
Motor power: input / output	35/13.2 W
Dimensions (W x D x H)	157 x 247 x 130 mm
Weight (without platform)	5700 g

Art. No.	Pack Qty.	€
Y517.1	1	1237,00

Top systems for shaker VXR basic

By IKA.

① Single-hand top VX 1

For shaking single, not fixed vessels from 1 to 250 ml.
Dimensions: W 130 x D 135 x H 40 mm. Weight 160 g.

Art. No.	Pack Qty.	€
Y518.1	1	83,85

② Test tube glass holder VX 2

For up to 36 test tubes or centrifuge tubes with Ø 16 mm.
Dimensions: W 140 x D 145 x H 115 mm. Weight 300 g.

Art. No.	Pack Qty.	€
Y519.1	1	327,00

③ Test tube rack VX 2E

For shaking of up to 64 1.5 ml test tube.
Dimensions: W 210 x D 210 x H 65 mm. Weight 790 g.

Art. No.	Pack Qty.	€
Y520.1	1	340,00

④ Tray top VX 7

For gentle shaking, e.g. culture flasks and petri dishes.
Dimensions: W 410 x D 210 x H 40 mm. Weight 740 g.

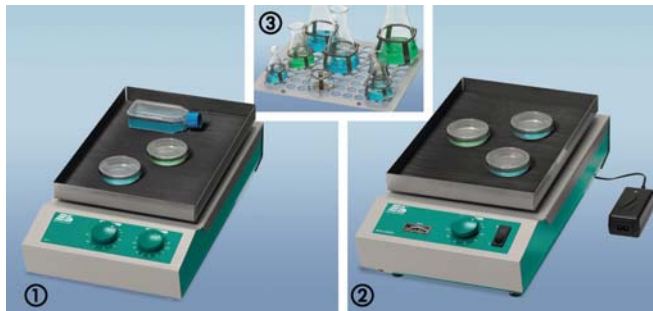
Art. No.	Pack Qty.	€
Y521.1	1	235,00

⑤ Universal top VX 8

For quick and secure clamping of e.g. two 500 ml Erlenmeyer flasks.
Span range 25 to 135 mm. Min. height of vessel 80 mm.
Dimensions: W 265 x D 136 x H 60 mm. Weight 760 g.

Art. No.	Pack Qty.	€
Y522.1	1	542,00

Shakers, Mixers



Small shakers KM 2 battery-driven and KM 2 Vario

By Edmund Bühler.

② Small shakers KM 2 Battery

- Circular shaking movement
- Low heat emission also enables **use in refrigerators or incubators** (working temperature between +5 °C and +40 °C)
- Mains-free operation via rechargeable battery (minimum operating time under max. load 24 h)
- Battery can be recharged with a mains/battery charger or switched on permanent run. Mains pack should be placed outside refrigerator/incubator.

Delivery incl. basic unit including vibration platform with raised rim (20 mm) and fine-rib mat. With main adapter.

① Small shaker KM 2 Vario

- Space-saving circular shaker
- Robust, hard-wearing shell
- Easy to operate

Delivery incl. basic unit including vibration platform with raised rim (20 mm) and fine-rib mat.

Technical specifications for KM 2 battery-driven and KM 2 Vario:

rpm range	30 to 420 rpm
Shaking amplitude (stroke)	8 mm
Time switch	0 to 120 min /continuous run
Shaking surface (W x D)	200 x 295 mm
Max. load	2 kg
Dimensions (W x D x H)	225 x 410 x 125 mm
Weight	approx. 6000 g

Type	Art. No.	Pack Qty.	€
KM 2 battery-driven with mains pack	H696.1 *	1	1854,40
KM 2 Vario	L646.1 *	1	1393,20

* Please check with our Sales Department for delivery period of these products.

Accessories for KM 2 battery and KM 2 Vario

By Edmund Bühler.

③ Universal tray

Can be individually fit with spring clips. Suitable for loading e.g. 8 x 500 ml or 12 x 250 ml Erlenmeyer flasks. Without spring clips (for spring clips, see shaker-accessories). Length 300 x W 360 mm.

Art. No.	Pack Qty.	€
L647.1	1	204,25

Tension roller KM

To fix standing vessels safely on small shaker KM 2 battery-driven and Vario. Suitable for loading e.g. 2 x 1000 ml or 9 x 100 ml Erlenmeyer flasks. Tension roller KM is attached to the rim of shaker vibrating plate with star grip screws.

Art. No.	Pack Qty.	€
T519.1	1	45,15



Shaker Multi Reax

By Heidolph.

Properties:

- Digital rpm display
- Motion: circular, vibrating
- Has overheating protection
- Time switch: 0 to 999 min (with acoustic signal) or continuous run
- With space for 26 tubes, Ø 10 to 16 mm, length max. 160 mm and for 12 tubes, Ø 16 to 32 mm, length max. 120 mm.

Technical specifications:

rpm	150 to 2000 rpm
Orbit	3 mm
Power consumption	33 W
Dimensions of unit (W x D x H)	270 x 410 x 172 mm
Safe ambient conditions	-0 to +50 °C at 80 % rh
Weight	9800 g
Current	230/240 V, 50 Hz

Art. No.	Pack Qty.	€
Y359.1 *	1	1178,00

* Please check with our Sales Department for delivery period of these products.



Shakers, Mixers



Shakers

By Heidolph. **5-kg-Class**, versatile shakers with 4 different shaking movements. Maintenance-free with electronically controlled mixing movements. Infinitely adjustable speed. With timer or **permanent run capabilities**. All shakers in the 5-kg-class come equipped with a mounting plate made of non-slip rubber. Different attachments can be mounted as required. Suitable for permanent run, with overload protection. Electrical supply 230/240 V, 50/60 Hz. Protective system IP 40. Standard equipment includes rubber support with beaded rim. Can be used with incubator (compatible with Incubator 1000, Art. No. H844.1). Weight 8 kg. Power 30/25 W.

Technical specifications:

Model	UNIMAX 1010	PROMAX 1020	DUOMAX 1030	POLYMAX 1040
Motion	circular	back and forward	see-saw	three dimensional tumbling
Shaking frequency (min ⁻¹)	30 - 500	20 - 250	2 - 50	2 - 50
Orbit	10 mm	32 mm	-	-
Angle	-	-	5°	5°
W x D x H (mm)	320 x 375 x 125	320 x 375 x 125	320 x 375 x 185	320 x 375 x 195
Table (mm)	258 x 290	258 x 290	258 x 290	258 x 290
Speed display	digital	digital	Scale	Scale
Timer	digital 0 - 999 min	digital 0 - 999 min	timer 0 - 120 min	timer 0 - 120 min

① UNIMAX 1010

Rotating (circular) movement. Digital display. Membrane keyboard control panel. Shaking frequency can be set with the turn switch.

Art. No.	Pack Qty.	€
H834.1 *	1	1392,00

PROMAX 1020

Back and forward movement. Digital display. Key pad control panel. Shaking frequency can be set with the turn switch.

Art. No.	Pack Qty.	€
H835.1 *	1	1349,00

DUOMAX 1030

Seesaw motion, angle of inclination 5°. Rotary switch control.

Art. No.	Pack Qty.	€
H836.1 *	1	1292,00

③ POLYMAX 1040

Three dimensional tumbling motion, angle of inclination 5°. Rotary switch control.

Art. No.	Pack Qty.	€
H837.1 *	1	1309,00

* Please check with our Sales Department for delivery period of these products.

Accessories for UNIMAX 1010, PROMAX 1020, DUOMAX 1030 and POLYMAX 1040

By Heidolph.

Type	Art. No.	Pack Qty.	€
Tray for 14 Erlenmeyer flasks 50 ml	H838.1 *	1	165,00
Tray for 9 Erlenmeyer flasks 100 ml	H839.1 *	1	151,00
Tray for 4 Erlenmeyer flasks 500 ml	KA78.1 *	1	139,00
Tray for 2 Erlenmeyer flasks 1000 ml	KA79.1 *	1	130,00
② Tray for 5 Erlenmeyer flasks 250 ml	H840.1 *	1	141,00
Tray with 2 tension rolls, general-purpose use	H841.1 *	1	225,00
Tray for 4 separating funnels 50 ml or 100 ml	H842.1 *	1	216,00

* Please check with our Sales Department for delivery period of these products.



Incubator 1000 for 5 kg-class shakers

By Heidolph.

Properties

- Rapid heating, no condensation in system
- Dimensions of incubation hood: W 546 x H 267 x D 394 mm
- Suitable for large volume or high vessels, e.g. Erlenmeyer flasks up to 1000 ml
- Compatible with Unimax 1010, Promax 1020, Duomax 1030 and Polymax 1040 models (please order separately)
- Hinged hood

Technical specifications of heating module:

Ideal for temperatures	+5 °C over room temperature to 65 °C
Heating	electr. recirculating air heating with fan
Heating capacity	300 W
Temperature control	electronic, with 2-digit display of set and actual value
Temperature accuracy	±2 K to 50 K; ±4 K from 50 to 65 K
Temperature sensor	Pt 100
Power supply	230/240 V, 50/60 Hz

Delivery incl. heating module with incubation hood.

Art. No.	Pack Qty.	€
H844.1 *	1	1612,00

* Please check with our Sales Department for delivery period of these products.



KL 2 combination shaker

By Edmund Bühler. Practical small shaker which can be switched over at any time **from circular to reciprocating movement**.

- **Max. load: 2 kg**
- Variable, electronic control
- Accessories (Tension roller, Clamping roller, Spring roller, see shaker accessories)
- Suitable for loading e.g. 4 x 500 ml or 2 x 1000 ml Erlenmeyer flasks
- Standard equipment: basic unit including platform system with 3 tension rollers h and fine-rib mat

Technical specifications:

rpm range	30 to 420 rpm
Shaking amplitude (stroke)	8 mm
Time switch	0 to 120 min / continuous run
Shaking surface (W x D)	300 x 300 mm
Dimensions (W x D x H)	355 x 455 x 195 mm
Weight	12.5 kg
Current	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
P436.1 *	1	1677,00

* Please check with our Sales Department for delivery period of these products.



Shaker Multi Vortex Genie®

By Scientific Industries. Robust and reliable shaking device for mixing and shaking of samples in Erlenmeyer flasks or vials.

Properties

- Digital display for speed and time
- Speed increase in steps of 10 rpm
- Robust metal case
- Secure stand at high speed thanks to supports with high vibration damping
- Can be loaded with e. g. max. 6 Erlenmeyer flasks 250 ml or 2 multi racks each for 12 test tubes (max. tube Ø 10-29 mm, length min. 85 mm)
- After 10 minutes not in use, the mixer switches to "sleep" mode

Technical specifications:

Type of motion	circular, vibrating
Speed control range	250 to 950 rpm
Timer	1 to 99 min or continuous operation
Orbit	4 mm
Shaking area (W x D)	238 x 264 mm
Loading capacity	4.0 kg
Dimensions (W x D x H)	310 x 270 x 195 mm
Perm. ambient conditions	0 to +38 °C at 90 % rH
Weight	11.3 kg
Power supply	230 V, 50 Hz

Delivery incl. platform with clamp/tension roller (for securely attaching standing vessels) and 2 multi-racks.

Art. No.	Pack Qty.	€
LX88.1 *	1	2170,45

* Longer delivery times possible. Please check with our Sales Department.

Shakers, Mixers



Laboratory shakers Unimax 2010, Promax 2020 and Polymax 2040

By Heidolph. Can be used with various tops for mixing liquids in Erlenmeyer flasks, staining troughs and Petri dishes.

- Digital Speed display
- **Large platform for holding numerous samples, shaking surface: W 390 x D 340 mm**
- Max. load capacity 10 kg

Technical specifications:

Model	Unimax 2010	Promax 2020	Polymax 2040
Movement type	circular	reciprocating	tumbling
Speed range (rpm)	20 to 400		2.5 to 50
Shaking amplitude stroke (mm)	20		-
Angle of inclination (°)	-		5
Timer	0-120 min / permanent operation		
Dimensions W x D x H (mm)	426 x 455 x 135		426 x 455 x 208
Perm. ambient conditions	0 to +50 °C at 80 % rh		
Weight (kg)	16		
Power supply	230/240 V, 50 Hz		

Delivery incl. rubber top with beaded edge rim.

Type	Art. No.	Pack Qty.	€
Unimax 2010	HL06.1 *	1	2006,00
Promax 2020	HL07.1 *	1	2101,00
① Polymax 2040	HL08.1 *	1	2123,00

Adapter systems and accessories for laboratory shakers

By Heidolph.

② Base frame for tension rollers

Together with tensions rollers for attaching various vessels.

Delivery without tensions rollers, please order separately.

Type	Art. No.	Pack Qty.	€
Base frame for tension rollers	HL09.1 *	1	155,00

③ Tension roller for base frame

Together with base frame for attaching various standing vessels.

Suitable for loading: e.g. 20 Erlenmeyer flasks 100 ml

or 9 Erlenmeyer flasks 500 ml. Please order at least 2 rollers.

Type	Art. No.	Pack Qty.	€
Tension roller for base frame	HL10.1 *	1	49,00

④ Universal tray 2000

For shaking Erlenmeyer flasks.

With bore holes for individual mounting with spring clips.

Delivery without spring clips, please order separately.

Type	Art. No.	Pack Qty.	€
Universal tray 2000	HL11.1 *	1	155,00

⑤ Spring clips for universal tray 2000

Type	Art. No.	Pack Qty.	€
Spring clip for 25 ml flask (max. 36)	HL12.1 *	1	16,00
Spring clip for 50 ml flask (max. 36)	HL13.1 *	1	16,00
Spring clip for 100 ml flask (max. 23)	HL14.1 *	1	21,00
Spring clip for 250 ml flask (max. 12)	HL15.1 *	1	24,00
Spring clip for 500 ml flask (max. 9)	HL16.1 *	1	30,00
Spring clip for 1000 ml flask (max. 5)	HL17.1 *	1	35,00
Spring clip for 2000 ml flask (max. 3)	KA43.1 *	1	46,00

* Longer delivery times possible. Please check with our Sales Department.



CO₂ resistant orbital shaker

By Thermo.

Features:

- Circular movement
- Protects specially treated mechanical components against CO₂ concentrations of up to 20 % and humidity of up to 95 %
- External control unit (corded L 2.0 m, Ø 6 mm) with LED display for speed (resolution 1 rpm) and runtime (resolution 1 min)
- Low-maintenance magnetic drive
- Minimal heat emission, does not affect the conditions inside the CO₂ incubator
- Stainless steel construction for protection against corrosive CO₂ gas

Technical specifications:

Speed control range	30 to 300 rpm
Shaking amplitude (stroke)	19 mm
Load capacity	6 kg
Timer	0 to 99 h 59 min or continuous operation
Dimensions (W x D x H)	360 x 300 x 96 mm (shaker) 95 x 158 x 26 mm (control unit)
Permissible ambient conditions	4 to 60 °C at 95 % rel. humidity; 0 to 20 % (CO ₂ concentration)
Weight	13 kg
Power supply	100-240 V, 50/60 Hz

Delivery incl. external control unit. Without all-purpose aluminium pullout tray and fixing clips (please order separately).

Art. No.	Pack Qty.	€
CXT3.1	1	2436,00

Accessories for CO₂ resistant orbital shaker

All-purpose aluminium pullout tray

For shaking Erlenmeyer flasks. Perforated for individual arrangement

of flasks, secured with spring clips.

Delivery without fixing clips (please order separately).

Type	Art. No.	Pack Qty.	€
All-purpose aluminium pullout tray	CXT4.1	1	146,00

Fixing clips

Type	Art. No.	Pack Qty.	€
Fixing clips for 50 ml flasks (max. 30)	CXT5.1	1	8,70
Fixing clips for 100 ml flasks (max. 15)	CXT6.1	1	9,20
Fixing clips for 150 ml flasks (max. 15)	CXT7.1	1	12,10
Fixing clips for 200 ml flasks (max. 15)	CXT8.1	1	14,10
Fixing clips for 250 ml flasks (max. 15)	CXT9.1	1	13,70
Fixing clips for 500 ml flasks (max. 9)	CXX0.1	1	20,30
Fixing clips for 1000 ml flasks (max. 6)	CXX1.1	1	33,30
Fixing clips for 2000 ml flasks (max. 4)	CXX2.1	1	48,80
Fixing clips for 3000 ml flasks (max. 2)	CXX3.1	1	60,90
Fixing clips for 5000 ml flasks (max. 1)	CXX4.1	1	81,20

Test tube racks

Variable inclination angle. Dimensions: L 285 x W 125 x H 175 mm.

Type	Art. No.	Pack Qty.	€
For 40 Ø 16 mm tubes (max. 2)	CXX5.1	1	78,00



Flask shaker SF1

By Stuart. Simulates a powerful hand movement.

- For max. 8 Erlenmeyer flasks or 500 ml screw thread bottles
- Robust construction with 4 vibration-absorbing feet

Technical specifications:

Speed	8-800 oscillations/min
Timer	10-60 min / permanent operation
Shaking amplitude (stroke)	1.5 mm
Load capacity	3 kg
Dimensions (W x D x H)	780 x 270 x 240 mm
Weight	8.3 kg
Mains supply	230 V, 50 Hz

Delivery incl. clamps.

Art. No.	Pack Qty.	€
EP81.1 *	1	1695,00

* Please check with our Sales Department for delivery period of this product. .



Compact shakers KS-series

By Edmund Bühler.

Models KS:

- Model KS 15 A: circular movement
- Model KS 15 B: reciprocating movement
- Without digital display

Models KS control:

- Model KS 15 A control: circular movement
- Model KS 15 B control: reciprocating movement
- With digital display of set/actual speed
- Preset-function of last selected setting respectively Programming of selective sequences (shaking frequency/length possible)

Technical specifications:

Speed range	30 to 420 rpm
Shaking amplitude (stroke)	17 mm
Weight capacity	15 kg
Time switch	KS 15 A/B control: 1 min - 30 h / continuous operating KS 15 A/B: 0- 120 min or continuous run
Dimensions (W x D x H)	515 x 495 x 235 mm
Weight	22 kg
Current	230 V, 50/60 Hz

Delivery without top (please order separately). With the incubation hood TH 15 unit can be used as shaking incubator (please order separately, Art. No. L492.1, see shaker-accessories).

Type	Art. No.	Pack Qty.	€
KS 15 A	P432.1 *	1	1736,15
KS 15 B	P433.1 *	1	1795,25
KS 15 A control	L490.1 *	1	2193,00
KS 15 B control	L491.1 *	1	2257,50

* Please check with our Sales Department for delivery period of these products.

Accessories for compact shakers KS-series

By Edmund Bühler.

Standard attachment Combifix KS

Attachment rack with 3 tensioning bars and finely fluted rubber mat. Shaking surface 400 x 275 mm. For safe attachment of standing vessels. Can be loaded with: e.g. 20 Erlenmeyer flasks 100 ml or 2 Erlenmeyer flasks 2000 ml. Can also be used for other vessels when additional bars are used (see shaker accessories).

Art. No.	Pack Qty.	€
T497.1 *	1	351,55

Universal tray KS

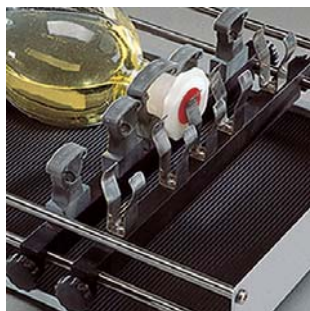
Coated tray with holes which can be individually fit with spring clips or test tube racks. Shaking surface 430 x 300 mm. Suitable for loading e.g. 15 x 250 ml or 5 x 1000 ml Erlenmeyer flasks.

Delivery without spring clips (please order separately, see shaker-accessories).

Art. No.	Pack Qty.	€
P434.1 *	1	231,15

* Please check with our Sales Department for delivery period of these products.

Shakers, Mixers



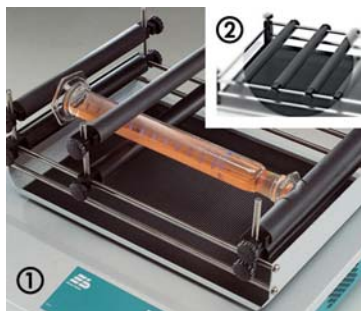
Clamping roller / Spring roller

Fits

- Compact shaker KS 15A/B (L490.1, L491.1, P432.1, P433.1)
- Compact shaker (P436.1)
- Standard tray KS (T497.1)

For securing spherical separating funnels both rollers are required.

Type	Art. No.	Pack Qty.	€
Clamping roller	L669.1	1	112,90
Spring roller	L670.1	1	98,90



Tension rollers h / v

Fits

Compact shaker KS 15A/B (L490.1, L491.1, P432.1, P433.1), compact shaker KL 2 (P436.1) and standard tray KS (T497.1)

Tension roller h

Ideal for securing all vessels with flat base, e.g. Erlenmeyer flasks, glass beakers, test tube holders.

Tension roller v

Is used in combination with tension roller h to secure lying vessels or to support the side of tall vessels.

Max distance between rollers: 60 mm

Type	Art. No.	Pack Qty.	€
② Tension roller h	P435.1	1	66,65
① Tension roller v	L668.1	1	82,80



Test tube trays made of stainless steel

Can be secured to platforms with tension bars h. Can be attached to the standard trays: in combination with the swivel base (please order separately). Swivel base also enables the angle of the rack to be varied.

Type	Art. No.	Pack Qty.	€
for 68 test tubes Ø 14 mm	T498.1	1	66,15
for 44 test tubes Ø 16 mm	T499.1	1	66,15
for 44 test tubes Ø 18 mm	T500.1	1	66,15
for 14 sample-/centrifuge tubes Ø 30 mm	AH14.1	1	78,50
Swivel base for test tube holders	T501.1	1	40,85

Spring clips

For securing Erlenmeyer flasks on the multi-purpose platforms.

Type	Art. No.	Pack Qty.	€
for 10 ml Erlenmeyer flasks	L648.1	1	15,40
for 25 ml Erlenmeyer flasks	L649.1	1	16,45
for 50 ml Erlenmeyer flasks	L650.1	1	17,65
for 100 ml Erlenmeyer flasks	L651.1	1	20,90
for 250 ml Erlenmeyer flasks	L652.1	1	26,35
for 500 ml Erlenmeyer flasks	L653.1	1	30,75
for 1000 ml Erlenmeyer flasks	L654.1	1	34,10
for 2000 ml Erlenmeyer flasks	L655.1	1	46,15



Incubation hood TH 15

Fits

- Compact shaker KS 15A/B (L490.1, L491.1, P432.1, P433.1)
- Micro titre plate shaker TiMix 5 (T490.1, T491.1, T492.1)

Technical specifications:

Ideal for temperatures	+5 °C over room temperature to +50 °C
Temperature sensor	Pt 100
Control accuracy	±1 % of set value
Air circulation	240 m³/h
Dimensions (L x W x H)	510 x 460 x 470 mm
Power supply	230 V, 50/60 Hz, 343 VA

Art. No.	Pack Qty.	€
L492.1 *	1	3085,25

* Please check with our Sales Department for delivery period of these products.



Universal shakers SM 30

By Edmund Bühler. Desktop shakers for high load in permanent run.

- All desired parameters can be set with control knobs
- Electronic speed control with gentle start-up
- Consistent of speed and run times are also possible with different loads
- Time switch: 0 to 120 min or continuous run
- Different shaking movements:

Model A: revolvable

Model B: see-saw (horizontal)

Model C: can be switched over from circulating to see-saw

Together with the incubation hood TH 30 can be used as a shaking incubator (Please order incubation hood separately).

Technical specifications:

Speed range	15 to 300 rpm, infinitely variable
Shaking amplitude (stroke)	26 mm (Models A + C) 30 mm (Model B)
Max. load	30 kg
Ambient temperature	5 to 50 °C at 85 % rh
Dimensions (W x D x H)	680 x 615 x 160 mm
Weight	32 kg
Current	230 V, 50/60 Hz

Delivery incl. base unit plus vibrating plate and rubber mat.
Comes without holder (please order desired holder separately).

Type	Art. No.	Pack Qty.	€
① Model A	AH15.1 *	1	2789,65
Model B	AH16.1 *	1	2848,75
Model C	AH17.1 *	1	3692,65

* Longer delivery times possible. . Please check with our Sales Department.

Attachment systems for universal shakers SM 30

By Edmund Bühler.

Attachment rack Combifix SM, Set A

Rack with 5 tensioning bars h. For secure attachment of different standing vessels. Can be loaded with: e.g. 6 Erlenmeyer flasks 2000 ml or 20 Erlenmeyer flasks 250 ml.

Art. No.	Pack Qty.	€
AH18.1 *	1	392,40

② Platform rack Combifix SM, Set B

Rack with 4 tensioning bars h and 4 tensioning bars v. Ideal for clamping horizontal vessels between the bars or for high vessels. Distance between bars h + v: max. 60 mm. Loading: e.g. 6 Erlenmeyer flasks 2000 ml or 12 Erlenmeyer flasks 500 ml.

Art. No.	Pack Qty.	€
AH19.1 *	1	489,15

③ Universal tray SM

Laminated board with bore holes for individual attachment of spring clips and test tube racks. Can be loaded with: e.g. 11 Erlenmeyer flasks 1000 ml or 23 Erlenmeyer flasks 250 ml.

Delivery without spring clips and test tube racks (please order separately, see shaker accessories).

Art. No.	Pack Qty.	€
AH20.1 *	1	263,40

* Longer delivery times possible. Please check with our Sales Department.



Incubation hood TH 30

By Edmund Bühler. Heating and cooling chambers with standard and UV-lighting. Combined with the SM-shakers it can be used either as a complete shaking incubator or independently.

A socket for smaller appliances is mounted inside the hood.

Standard features:

- Coated metal casing with 3 windows
- The front door opens upwards
- Safety switch-off of UV-light and automatic stop of shaker when front door is opened (when combined with universal shakers SM 30)

Technical specifications:

Ideal for temperatures	5 °C above room temperature to 50 °C
Temperature constancy	±1 % of desired value
Lighting	Standard 15 W UV-lighting 15 W
Temperature sensor	PT 100
Inner dimensions (W x D x H)	660 x 540 x 430 mm (High enough for 2 l Erlenmeyer flasks)
Outer dimensions (W x D x H)	680 x 610 x 560 mm
Weight	33 kg
Current	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
AH21.1 *	1	3923,75

Options:

Extended temperature range up to 60 °C.

Installation of additional heating appliances is possible to achieve temperatures of max 60 °C. **Please order with first order, if required.**

Art. No.	Pack Qty.	€
AH22.1 *	1	247,25

Cooling device for TH 30

Installation of cooling coil and connecting sleeves for connection of an external cooling device (circulating cooler etc. Please order separately). Depending on the cooling capacity of the cooling device, temperatures of app. 5 °C below room temperature can be achieved.

Please order with first order, if required.

Art. No.	Pack Qty.	€
AH23.1 *	1	564,40

* Longer delivery times possible. Please check with our Sales Department.

► For multichannel pipettors, see page 415

► Labels for microtiter plates, see page 463

Shakers for microtitration plates



Magnetic shaker Monoshake

By Thermo. Ideal for shaking liquids in microwell plates

- Space efficient overall size
- Movement: circular
- Automatic centric zero positioning of shaking platform

Technical specifications:

Rpm range	100 to 2000 rpm
Shaking amplitude (stroke)	2 mm
Accuracy zero position	±0.1 mm
Ambient temperature	+5 to +40 °C at 95 % rh
Housing material	Aluminium/brass (nickel-plated)
Dimensions (W x D x H)	146 x 103 x 47 mm
Current	230 V, 50 Hz

Art. No.	Pack Qty.	€
X826.1 *	1	840,00

* Please check with our Sales Department for delivery period of these products.

► For microwell plates, see page 451



MicroPlate Genie®-series microtitre plate shakers

By Scientific Industries. Specially designed for small samples in MT plates.

- Circular movement
- High speed for optimal mixing

MicroPlate Genie®

For powerful shaking of 1 MT plate

Digital MicroPlate Genie® Pulse

like MicroPlate Genie®, but with extra functions:

- Digital display of speed and running time
- Choice of standard shake mode or pulse mode
- Depending on the selected pulse and pause duration, rapid and vigorous mixing or an intermittent mixing function is available
- Pulse and pause duration (On/Off) is adjustable from 0.1 s to 99 min

Multi-MicroPlate Genie®

For reliable shaking of 4 MT plates. An additional attachment for a further 4 MT plates is optional (please order separately).

Technical specifications:

Type	MicroPlate Genie®	Digital MicroPlate Genie® Pulse	Multi-MicroPlate Genie®
Number of microtitration plates	for 1 MT plate		for 4 MT plates (8 MT plates with optional attachment)
Speed control range (rpm)	750 to 2700	500 to 2850	750 to 2700
Shaking amplitude (mm)	1		
Speed display/Timer	Scale/Scale	Digital / Digital	Scale/Scale
Time range	1 to 60 min / continuous duty		
Dimensions W x D x H (mm)	165 x 165 x 165		350 x 240 x 165
Weight (kg)	2.75		3.7
Power supply	230 V, 50/60 Hz		

Image	Type	Art. No.	Pack Qty.	€
①	MicroPlate Genie®	CH98.1 *	1	618,15
②	Digital MicroPlate Genie® Pulse	XP69.1 *	1	794,45
③	Multi-MicroPlate Genie®	EH53.1 *	1	800,90

* Longer delivery times possible. Please check with our Sales Department

Attachment for Multi-MicroPlate Genie®

By Scientific Industries. For 4 additional MT-plates attached.

As a 2nd rack on top of the standard attachment.

Can only be used together with Multi-MicroPlate Genie® (EH53.1).

Art. No.	Pack Qty.	€
EH54.1	1	145,15

Shakers for microtitration plates



Microwell plate shakers TiMix 5

By Edmund Bühler.

Available with either platforms for **8 or 16 microtitre plates**. A variety of other platforms enable various other applications. Adjustable mass balance ensures stability with different loads. Temperature control of samples is possible when an incubation hood (TH 15) is placed on device (please order separately).

Model TiMix 5

High speed for best possible mixing of small sample volumes.

Delivery incl. basic unit without platform (please order separately).

Model TiMix 5 control

With digital display of set/actual speed. Preset-function of last selected setting or programming of selective sequences possible (shaking frequency/length).

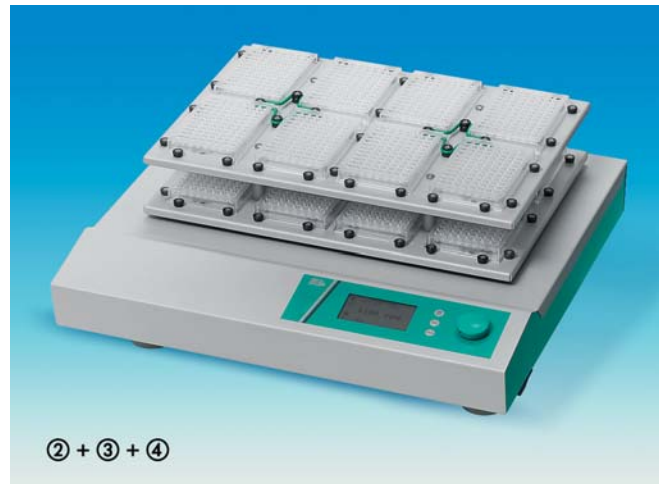
Delivery incl. basic unit without platform (please order separately).

Technical specifications:

Model	TiMix 5	TiMix 5 control
Time switch	0 to 120 min /continuous run	1 min to 30 h / continuous run
rpm range	100 to 1400 rpm, electronically infinitely variable	
Shaking amplitude (stroke)	3 mm	
Weight capacity	max. 5 kg	
Shaking surface (W x D)	400 x 300 mm	
Dimensions (W x D x H)	460 x 470 x 188 mm	
Weight	approx. 18 kg	

Type	Art. No.	Pack Qty.	€
① TiMix 5	T490.1 *	1	2096,25
② TiMix 5 control	T491.1 *	1	2741,25

* Please check with our Sales Department for delivery period of these products.



Platforms / accessories for Microwell plate shakers TiMix 5

By Edmund Bühler.

③ Standard top TiMix 5

For 8 microtiter plates and for Microwell-, Deepwell- and other plates in microtiter plate-format.

Art. No.	Pack Qty.	€
T493.1 *	1	258,00

④ Extension plate TiMix 5

For an additional 8 plates on a 2nd level on top of the standard top TiMix 5. Comes with attachment material.

Art. No.	Pack Qty.	€
T494.1 *	1	285,95

⑤ Top with tension bushes for microtiter plates

For 8 standard-microwell plates.

Art. No.	Pack Qty.	€
T495.1 *	1	406,35

Platform with large spring collets for 2 microwell plates

Directly on top of each other.

Art. No.	Pack Qty.	€
T496.1 *	1	462,25

Universal tray without spring clips (spring clips see shaker accessories).

Art. No.	Pack Qty.	€
P434.1 *	1	231,15

Standard platform KS

With 3 tension bars h for different vessels with flat base.

Art. No.	Pack Qty.	€
T497.1 *	1	351,55

Incubation hood TH 15

Temperature control of samples possible when incubation hood is attached. (see shaker accessories).

Art. No.	Pack Qty.	€
L492.1 *	1	3085,25

* Please check with our Sales Department for delivery period of these products.

Incubation shaker



Microtitration plate shakers SSM5 and SSL5

By Bibby Scientific.

- A combination of high speed and low amplitude produces the vibration shaking action required to mix small quantities
- Digital display of speed and running time
- Reaction vial holders are optionally available as accessories (please order separately). Up to 2 racks can be attached to one appliance

Technical specifications:

Type	SSM5	SSL5
Number of microtitration plates	For 4 MT plates	For 8 MT plates
Speed display	LED	
Speed control range (rpm)	250 to 1250 in increments of 10	
Shaking amplitude	1.5 mm	
Timer display	LED	
Timer	1 s to 9999 min / continuous operation	
Shaking area (mm)	220 x 220	306 x 306
Load capacity (kg)	1	2
Permissible ambient conditions	4 to 40 °C at 80 % rel. humidity	
Dimensions W x D x H (mm)	240 x 300 x 160	360 x 420 x 160
Power supply	230 V, 50 Hz	

Delivery incl. anti-slip mat.

Type	Art. No.	Pack Qty.	€
SSM5	YH91.1 *	1	930,00
SSL5	YH92.1 *	1	1746,00

Accessories:

Holder for 50 microcentrifuge tubes 1.5 ml	YH93.1 *	1	106,00
Holder for 50 microcentrifuge tubes 0.5 ml	YH94.1 *	1	106,00
Holder for 50 microcentrifuge tubes 0.2 ml	YH95.1 *	1	105,00

* Please check with our Sales Department for delivery period of these products.



Ventura series incubator shakers

For 4 standard microtiter plates or deepwell plates.

- LCD display for simultaneous indication of temperature, runtime and speed
- Timer with audio signal (does not affect heater function; no deactivation on expiration of timer). A separate timer can be started for each microtiter plate.
- The shaking motion stops on expiration of the last timer.
- With transparent lid

Technical specifications:

Type	Ventura Standard	Ventura Deepwell
Microtiter plate type	For standard MT plates with H 15 mm	For deepwell plates with H 45 mm
Temperature range	+5 °C above ambient temperature up to 45 °C	
Resolution of temperature display	1 °C	
Temperature adjustment range	15 to 45 °C	
Temperature variation	±1 °C	
Speed control range	600 to 1300 rpm in 10 rpm increments	
Shaking amplitude (stroke)	1.5 mm	
Timer	1 to 9999 min in 1-min increments	
Dimensions (W x D x H)	200 x 520 x 220 mm	200 x 520 x 260 mm
Heating output	100 W	
Permissible ambient temperatures	12 to 30 °C at 80 % rel. humidity	
Weight	4200 g	
Power supply	100-230 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
Ventura Standard	YX79.1 *	1	2176,90
Ventura Deepwell	YX80.1 *	1	2176,90

* Please check with our Sales Department for delivery period of this products.

► Labels for microtiter plates, see page 463

Incubation shaker



KS 3000 i control incubator shaker

By IKA. For shaking, mixing and heating/cooling samples.

- Circular movement
- LED display for speed and time adjustment as well as temperature
- With RS 232 port and USB port
- Additional PT 1000.60 temperature probe for temperature control directly within samples (included)

Technical specifications:

Temperature range	5 °C above ambient temperature up to +80.0 °C
Temperature accuracy / resolution	±0.1 °C / 0.1 °C
Control accuracy with sensor probe	±0.5 K
Speed control range	10 to 500 rpm
Shaking amplitude (stroke)	20 mm
Timer	1 min to 999 h or continuous operation
Inner dimensions (W x D x H)	330 x 330 x 260 mm
Outer dimensions (W x D x H)	465 x 695 x 430 mm*
Heating output	1000 W
Power supply	230 V, 50/60 Hz

*Required floor space: 600 x 600 mm

Delivery without rack attachment (please order desired rack attachment separately).

Art. No.	Pack Qty.	€
XT43.1 *	1	4519,00

Attachment systems for KS 3000 i control

By IKA.

① Universal attachment AS 260.1

Suitable for use with all types of vessel thanks to infinitely adjustable clamping rolls. Installation surface 320 x 320 mm. Variable loading options, e.g. 8 250 ml Erlenmeyer flasks or 15 100 ml Erlenmeyer flasks.

Delivery incl. 4 clamping rolls.

Type	Art. No.	Pack Qty.	€
Universal attachment AS 260.1	X182.1 *	1	223,00

② Fixing clip attachment AS 260.2

Suitable for shaking round-bottom flasks, volumetric flasks and Erlenmeyer flasks, etc. Dimensions: W 330 x D 330 x H 24 mm.

Does not include fixing clips (please order separately).

Type	Art. No.	Pack Qty.	€
Fixing clip attachment AS 260.2	X184.1 *	1	116,00

Fixing clips

Type	Art. No.	Pack Qty.	€
Fixing clips for 25 ml flasks (max. 31)	X185.1 *	1	21,50
Fixing clips for 50 ml flasks (max. 23)	X186.1 *	1	21,50
Fixing clips for 100 ml flasks (max. 23)	X187.1 *	1	21,50
Fixing clips for 200/250 ml flasks (max. 11)	X188.1 *	1	38,00
Fixing clips for 500 ml flasks (max. 9)	X189.1 *	1	38,00
Fixing clips for 1000 ml flasks (max. 5)	PA26.1 *	1	38,00

③ Dish attachment AS 260.3

For the gentle movement of cell cultures or nutrient media in petri dishes etc. Installation surface: 320 x 320 mm.

Type	Art. No.	Pack Qty.	€
Dish attachment AS 260.3	X183.1 *	1	98,00

* Longer delivery times possible. Please check with our Sales Department



Incubation shaker KS 4000 i control

By IKA.

- Movement: circular
- LED display for speed and time setting plus temperature
- Integrated PID temperature control
- With RS 232 interface
- Socket for use of an additional PT 1000.60 temperature probe in the working area (included)

Technical specifications:

Temperature range	5 °C above room temperature to +80.0 °C
Temperature constancy / Resolution	±0.1 °C / 0.1 °C
Speed range	10 to 500 rpm
Control accuracy with sensor probe	±0.5 K
Shaking amplitude (stroke)	20 mm
Time switch	1 min to 999 h or permanent run
Max. load	20 kg
Height of interior	280 mm
Outer dimensions (W x D x H)	580 x 750 x 520 mm*
Heating power	1000 W
Power supply	230 V, 50/60 Hz

*Required floor space 600 x 600 mm

Delivery without top attachment (please order desired attachment separately).

Art. No.	Pack Qty.	€
KH89.1 *	1	5530,00

Top attachment systems for KS 4000 i control

By IKA.

① Universal top AS 4000.1

Attachment holder with 6 infinitely adjustable tension rollers for universal fit to all vessels. Floor space W 380 x D 410 mm. Can hold: e.g. 2 Erlenmeyer flasks 2000 ml or 9 Erlenmeyer flasks 500 ml

Type	Art. No.	Pack Qty.	€
Universal top AS 4000.1	KH90.1 *	1	694,00

② Clamp holder AS 4000.2

For shaking Erlenmeyer flasks and bottles with a circular cross-section.

Doesn't come with clamps (please order separately).

Type	Art. No.	Pack Qty.	€
Clamp holder AS 4000.2	KH91.1 *	1	604,00

Retaining clamps

Type	Art. No.	Pack Qty.	€
Retaining clamps for 25 ml flasks (max. 50)	X185.1 *	1	21,50
Retaining clamps for 50 ml flasks (max. 48)	X186.1 *	1	21,50
Retaining clamps for 100 ml flasks (max. 25)	X187.1 *	1	21,50
Retaining clamps for 250 ml flasks (max. 16)	X188.1 *	1	38,00
Retaining clamps for 500 ml flasks (max. 12)	X189.1 *	1	38,00
Retaining clamps for 1000 ml flasks (max. 7)	PA26.1 *	1	38,00

③ Top attachment for dishes AS 4000.3

For gentle shaking of cell cultures or nutrient media in Petri dishes. Floor space W 430 x D 430 mm.

Type	Art. No.	Pack Qty.	€
Tray top AS 4000.3	KH92.1 *	1	146,00

* Please check with our Sales Department for delivery period of this product.

Incubation shaker



Incubator shakers SI-500

By Stuart. Ideal for tempering samples and at the same time shaking and mixing them.

- Circular movement
- Digital LED-display for speed, timer and temperature
- Smoked acrylic glazing
- With pull-out platform for easy removal and filling of samples
- With timer: at the end of the preset time, the shaking movement stops and the temperature is maintained
- Air circulation for constant heating of samples
- With USB-interface for recording the temperature sequence
- Suitable for loading: e.g. 12 Erlenmeyer flasks 250 ml or 9 Erlenmeyer flasks 500 ml or 6 Erlenmeyer flasks 1000 ml
- Alternatively 4 centrifuge or vial racks can be attached. Tilt angle can be adjusted by 30°. Please order reaction and centrifuge tube racks separately.

Technical specifications:

Temperature range	5 °C above room temperature to 60 °C
Constancy of temperature / Resolution	±0.5 °C / 0.1 °C
Speed range	30 to 300 rpm
Shaking amplitude (stroke)	16 mm
Max. load	10 kg
Timer	1 s to 9 d
Shaking area (W x D)	335 x 335 mm
Inner dimensions (W x D x H)	422 x 408 x 250 mm
Outer dimensions (W x D x H)	450 x 474 x 522 mm
Heating power	250 W
Weight	30 kg
Power supply	230 V, 50/60 Hz

Delivery incl. platform with 4 tensioning bars and USB-cable.

Art. No.	Pack Qty.	€
KA99.1 *	1	4795,00

* Please check with our Sales Department for delivery period of this product.

Racks made of stainless steel for SI-500

By Stuart.

Type	Art. No.	Pack Qty.	€
for 64 reaction tubes 1.5 ml	KC00.1	1	312,00
for 25 centrifuge tubes 15 ml	KC01.1	1	312,00
for 12 centrifuge tubes 50 ml	KC02.1	1	312,00



Incubation shaker MaxQ Digital 4000 set

By Thermo.

- Circular movement
- Digital display for speed, time and temperature on three individual displays
- Visual/audible signals alert you to temperature and speed deviate from optimal levels
- Automatic unbalanced load sensor stops the device if increased vibration is detected. An acoustic/visual alarm is issued at the same time.
- Soft start feature prevents sudden starts and stops.
- **Clamp starter kit** comprising
1 x 250 ml, 1 x 500 ml, 1 x 1000 ml and 1 x 2000 ml flask clamps

Technical specifications:

Temperature range	10 °C above ambient temperature up to +80 °C
Temperature accuracy / resolution	±0.1 °C / 0.1 °C
Speed control range	15 to 500 rpm
Shaking amplitude (stroke)	19 mm
Max. load	22.7 kg
Timer	0.1 min to 999.9 h or continuous operation
Inside dimensions (L x W x H)	508 x 533 x 330 mm
Outside dimensions (L x W x H)	813 x 572 x 559 mm
Heating output	1000 W
Weight	75.8 kg
Power supply	230 V, 50/60 Hz

Delivery incl. universal tray (457 x 457 mm), clamp starter kit (holding clamps for flasks from 250 to 2000 ml) and adhesion mat (210 x 210 mm).

Art. No.	Pack Qty.	€
LY29.1 *	1	6599,00

Accessories for MaxQ Digital 4000

By Thermo.

Additional holding clamps

Type	Art. No.	Pack Qty.	€
Retainer clips for microliter / deep-well plate (max. 10)	LY30.1 *	1	24,40
Holding clamps for flasks 10 ml (max. 113)	LY31.1 *	1	21,50
Holding clamps for flasks 25 ml (max. 64)	LY32.1 *	1	22,80
Holding clamps for flasks 50 ml (max. 32)	LY33.1 *	1	23,80
Holding clamps for flasks 125 ml (max. 32)	LY34.1 *	1	23,30
Holding clamps for flasks 250 ml (max. 16)	LY35.1 *	1	27,80
Holding clamps for flasks 300 ml (max. 16)	LY36.1 *	1	30,30
Holding clamps for flasks 500 ml (max. 16)	LY37.1 *	1	32,00
Holding clamps for flasks 1000 ml (max. 9)	LY38.1 *	1	41,20
Holding clamps for flasks 2000 ml (max. 6)	LY39.1 *	1	55,40

Test tube stand, with variable tilt angle.

Dimensions Art No LY40.1: L 248 x W 127 x H 70 mm.

Dimensions Art No LY41.1: L 248 x W 110 x H 82 mm.

Type	Art. No.	Pack Qty.	€
For 72 tubes Ø 14 to 17 mm (max. 4)	LY40.1 *	1	239,00
For 24 tubes Ø 26 to 30 mm (max. 4)	LY41.1 *	1	238,00

* Longer delivery times possible. Please check with our Sales Department.



Tilting mixers Spec-Mix and Vari-Mix for sample tubes

By Thermo. For gentle, tilt-mixing of samples in sample tubes

Speci-Mix: with fixed speed 18 rpm and fixed tilt angle of 48°

Vari-Mix: with variable speed control in the range 2 to 20 rpm and manual tilt angle setting from 1 to 48°

Silicone attachment can be used on both sides. A closing lip integrated on one side prevents short tubes from slipping (L<107 mm). The other side is intended for longer tubes.

Technical specifications:

Model	Speci-Mix	Vari-Mix
Type of motion	Tilt motion	
Number of sample tubes	8 (L 10-20 mm) or 3 (L 22-30 mm)	16 (L 10-20 mm) or 7 (L 22-30 mm)
Speed (rpm)	18	2-20
Tilt angle (°)	48	1 to 48
Dimensions: L x W x H (mm)	139 x 191 x 107	139 x 381 x 107
Ambient conditions	+4 to +40 °C at 80 rF	
Weight (kg)	1.4	26

Delivery incl. attachment made of silicone.

Type	Art. No.	Pack Qty.	€
Speci-Mix	PP08.1	1	416,00
Vari-Mix	PP09.1	1	667,00



Tilt/roller mixer RS-TR Series

Simultaneous rolling and tilting movement for thorough mixing of samples, e.g. in centrifuge tubes and sample tubes. For vessels with max. Ø 100 mm.

RS-TR 05:

with variable speed control from 0 to 70 rpm using analog rotary knob with scale.

RS-TR 10:

with speed control from 10 to 70 rpm with illuminated LCD display for setting time and speed.

Technical specifications:

Model	RS-TR 05	RS-TR 10
Number of rollers	6	
LCD display	-	Yes
Timers	-	1-1199 min or continuous operation
Speed range (rpm)	0 to 70	10 to 70
Dimensions per roller L x Ø (mm)	280 x 30	340 x 30
Dimensions W x D x H (mm)	260 x 460 x 120	260 x 530 x 120
Ambient conditions	5 to 40 °C at 80 % rel. humidity	
Weight (kg)	4.5	5.1
Power supply	100-240 V, 50/60 Hz	

Type	Art. No.	Pack Qty.	€
RS-TR 05	XK30.1	1	467,65
RS-TR 10	XK31.1	1	962,15



Mixers



Tilt/roller mixers SRT series

By Stuart. With simultaneous rolling and tilting movement for thorough mixing.

- With spillage tub
- Rollers are easily removable to accommodate larger vessels with max. Ø 100 mm.

Two models with different roller numbers available:

SRT6 and SRT9: With fixed speed of 33 rpm

SRT6D and SRT9D: With variable speed control from 5 to 60 rpm, digital speed display and timer function.

Technical specifications:

Model	① SRT 6	SRT 9	SRT 6D	② SRT 9D
Number of rollers	6	9	6	9
Timer	-		1 s to 90 min or 1 min to 9 h	
Speed (rpm)	33		5 to 60	
Amplitude (mm)	16			
Dim. of each roller L x Ø (mm)	340 x 30			
Dim. W x D x H (mm)	565 x 240 x 110	565 x 360 x 110	565 x 240 x 110	565 x 360 x 110
Permissible working temp.	4 to 60 °C at 80 % rh			
Weight (kg)	5.1	6.9	5.1	6.9
Power supply	230 V, 50 Hz			

Type	Art. No.	Pack Qty.	€
SRT 6	HA30.1	1	899,00
SRT 9	HA31.1	1	1095,00
SRT 6D	HA32.1	1	1198,00
SRT 9D	HA33.1	1	1395,00



Roller series tilt/roller mixers

By IKA. Simultaneous tilt and roll movements. Rollers are easily removable to accommodate larger vessels with max. Ø 185 mm.

Two model versions with different numbers of rollers are available:

Roller basic: with fixed speed of 30 rpm

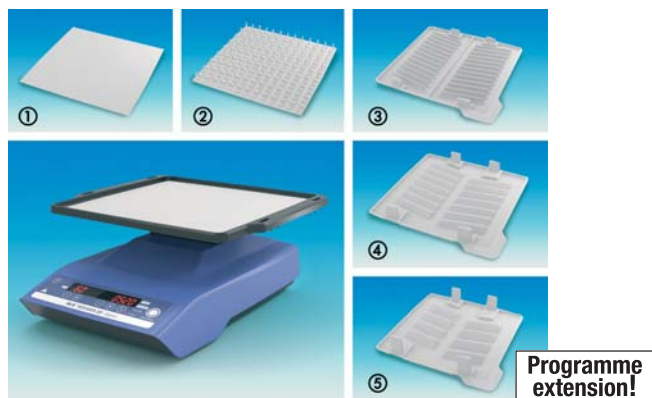
Roller digital: with variable speed control from 5 to 80 rpm, digital speed display and timer function.

Technical specifications:

Model	Roller 6 basic	Roller 10 basic	Roller 6 digital	Roller 10 digital
Number of rollers	6	10	6	10
LED display	-		yes	
Timers	-		1 s to 99 h or continuous duty	
Speed range (rpm)	30		5 to 80	
Dimensions per roller L x Ø (mm)	325 x 32			
Dimensions W x D x H (mm)	240 x 545 x 115	380 x 545 x 115	240 x 545 x 115	380 x 545 x 115
Ambient conditions	4 to 50 °C at 80 % rel. humidity			
Weight (kg)	4	6	4	6
Power supply	100-240 V, 50/60 Hz			

Delivery incl. side protection plates (prevents the tubes from jumping out at the sides).

Type	Art. No.	Pack Qty.	€
Roller 6 basic	XT39.1	1	1153,00
Roller 10 basic	XT40.1	1	1431,00
Roller 6 digital	XT41.1	1	1299,00
Roller 10 digital	XT42.1	1	1575,00



Rocker 2D series gyrotory shakers

By IKA. Various attachments are available for different applications. Suitable for petri dishes, culture bottles and sample tubes.

Rocker 2D basic:

- With digital speed display
- Fixed tilt angle

Rocker 2D digital:

- With digital speed and timer display
- Manually adjustable tilt angle

Technical specifications:

Model	Rocker 2D basic	Rocker 2D digital
Type of motion	Rocking movement	
Speed display	LED	
Speed range (rpm)	5 to 80	
Timer display	-	LED
Timer	-	1 s to 99.9 h or continuous operation
Tilt angle (°)	8	0 to 15
Shaking area W x D (mm)	240 x 240	
Load capacity (kg)	2	
Ambient conditions	4 to 50 °C at 80 % rel. humidity	
Dimensions W x D x H (mm)	280 x 330 x 150	
Weight (kg)	2.2	
Power supply	100-240 V, 50/60 Hz	

Delivery incl. basic table, ① non-slip all-purpose mat for securing culture bottles, petri dishes etc.

Type	Art. No.	Pack Qty.	€
Rocker 2D basic	XT46.1	1	599,00
Rocker 2D digital	XT47.1	1	675,00

Accessories for Rocker series

By IKA.

Type	Art. No.	Pack Qty.	€
② Textured mat for test tubes	CHH3.1	1	23,95
③ Attachment for 28 5 ml sample tubes (Ø 12 mm)	XT48.1	1	29,00
④ Attachment for 16 ml sample tubes (Ø 16 mm)	XT49.1	1	29,00
⑤ Attachment for 10 ml sample tubes (Ø 28 mm)	XT50.1	1	29,00

Extension table for Rocker series

By IKA.

Additional platform attachable to basic table as a 2nd level. Please order desired attachment/mat separately.

Type	Art. No.	Pack Qty.	€
Extension table for Rocker series	XT51.1	1	52,00



Gyrotory shakers ProBlot 25/25 XL

For dyeing, bleaching and washing gels, DNA-extraction, and for hybridisation.

- Gentle, linear tilting movement
- Tilt angle is fixed
- With antislip rubber mat
- With timer (0-120 min)

Model	ProBlot			
	① 25	② 25 D	25 XL	25 XLD
Platform design	Standard	with 2 platforms	Standard	with 2 platforms
Shaking surface (mm)	260 x 200		300 x 300	

Technical specifications:

Movement	Tilting movement
Speed range	10-120 rpm
Timer	0-120 min / continuous operation
Angle of inclination	7°
Distance to 2nd platform (ProBlot 25 D and ProBlot 25 XLD only)	9 cm
Load capacity	5 kg
Dimensions (W x D x H)	250 x 320 x 145 mm
Ambient conditions	+4 to +40 °C at 80 % rH
Weight	6 kg
Power supply	230 V, 50/60 Hz

Type	Platform design	Art. No.	Pack Qty.	€
ProBlot 25	Standard	LX35.1 *	1	818,10
ProBlot 25 D	with 2 platforms	LX36.1 *	1	866,45
ProBlot 25 XL	Standard	LX37.1 *	1	920,20
ProBlot 25 XLD	with 2 platforms	LX38.1 *	1	1014,80

* Longer delivery times possible. Please check with our Sales Department.



GyroMini™ and Enduro MiniMix™ 3D rocker shakers

General specifications of both models

- Space-saving design with small footprint
- Speed and angle of inclination are preset

① GyroMini™ 3D rocker shaker

For sample tubes. For gentle mixing of samples, e.g. in blood sample tubes or centrifuge tubes.

Loading options: 60 1.5/2.0 ml reaction vials or 16 15 ml centrifuge tubes or 8 50 ml centrifuge tubes or 20 7 ml standard blood sample tubes.

② Enduro MiniMix™ 3D rocker shaker

For sensitive gels and blots. The smaller angle of inclination prevents gels/blots from drying out and/or breaking.

Technical specifications:

Model	GyroMini™	Enduro MiniMix™
Type of motion	Orbital 3D rocking motion	
Speed range (rpm)	20	
Tilt angle (°)	20	5
Shaking area W x D (mm)	240 x 170	
Load capacity (g)	800	
Dimensions W x D x H (mm)	240 x 170 x 150	
Permissible ambient conditions	+4 to +40 °C at 80 % rel. humidity	
Weight (kg)	0.88	
Power supply	230 V, 50 Hz	

GyroMini™ 3D rocker shaker

Delivery incl. removable silicon mat.

Art. No.	Pack Qty.	€
ET51.1	1	495,60

Enduro MiniMix™ 3D rocker shaker

Delivery incl. non-slip rubber mat and 2 large blotting boxes.

Art. No.	Pack Qty.	€
NP21.1	1	418,20

Accessories for Enduro MiniMix™

Blotting box, large.

Dimensions: L 117 x W 89 mm. For 6-10 ml of solution.

Art. No.	Pack Qty.	€
NP22.1	10	59,15

Blotting box, small.

Dimensions: L 91 x W 66 mm. For 3-5 ml of solution.

Art. No.	Pack Qty.	€
NP23.1	10	53,25



Rocker 3D series wobble shakers

By IKA. Various attachments are available for different applications. Ideal for shaking low-foaming samples, DNA extraction, colouring and decolouring.

Rocker 3D basic:

Fixed tilt angle and speed.

Rocker 3D digital:

- With digital speed and timer display
- Manually adjustable tilt angle

Technical specifications:

Model	Rocker 3D basic	Rocker 3D digital
Type of motion	Wobble motion	
Speed display	-	LED
Speed range (rpm)	30	5 to 80
Timer display	-	LED
Timer	-	1 s to 99.9 h or continuous operation
Tilt angle (°)	8	0 to 15
Shaking area W x D (mm)	240 x 240	
Load capacity (kg)	2	
Ambient conditions	4 to 50 °C at 80 % rel. humidity	
Dimensions W x D x H (mm)	280 x 330 x 165	280 x 330 x 185
Weight (kg)	2.2	
Power supply	100-240 V, 50/60 Hz	

Delivery incl. basic table, ① non-slip all-purpose mat for securing culture bottles, petri dishes etc.

Type	Art. No.	Pack Qty.	€
Rocker 3D basic	XT52.1	1	722,00
Rocker 3D digital	XT53.1	1	798,00

Accessories for Rocker series

By IKA.

Type	Art. No.	Pack Qty.	€
② Textured mat for test tubes	CHH3.1	1	23,95
③ Attachment for 28 5 ml sample tubes (Ø 12 mm)	XT48.1	1	29,00
④ Attachment for 16 ml sample tubes (Ø 16 mm)	XT49.1	1	29,00
⑤ Attachment for 10 ml sample tubes (Ø 28 mm)	XT50.1	1	29,00

Extension table for Rocker series

By IKA.

Additional platform attachable to basic table as a 2nd level. Please order desired attachment/mat separately.

Type	Art. No.	Pack Qty.	€
Extension table for Rocker series	XT51.1	1	52,00



3D rocker shakers GyroTwister™

With orbital 3D rocking motion. For DNA extraction, staining and destaining of gels and for cultivation/aeration applications.

- Continuous speed adjustment
- Model with fixed or adjustable tilt angle

Technical specifications:

Model	Standard	Vario
Type of motion	Orbital 3D rocking motion	
Speed range	3-60 rpm	
Timer	20 to 120 min or continuous operation	
Tilt angle	7° (fixed)	Manual adjustable from 3 to 10°
Shaking surface area, platform type M (L x W)	300 x 300 mm	
Load capacity	5 kg	
Dimensions (W x D x H)	330 x 352 x 210 mm	
Permissible ambient conditions	+4 to +70 °C at 80 % rel. humidity	
Weight	6.6 kg	
Power supply	230 V, 50 Hz	

Delivery incl. platform type M (L 300 x W 300 mm) with integrated anti-slip mat and dimpled mat for test tubes.

Type	Art. No.	Pack Qty.	€
Standard	YC55.1	1	1066,40
Vario	YC56.1	1	1326,55

Platforms for GyroTwister™

Delivery incl. anti-slip mat.

Platform type L

Dimensions: L 400 x W 400 mm.

Type	Art. No.	Pack Qty.	€
Platform type L	YC57.1	1	163,40

Platform type XL

Dimensions: L 500 x W 500 mm.

Type	Art. No.	Pack Qty.	€
Platform type XL	YC58.1	1	184,90



① 3D gyratory shakers SSM3 and SSL3

By Stuart. With circulating 3D-seesaw movement. Ideal for DNA-extraction, staining and bleaching gels, and for particularly low foaming.

General informations for both models

- Gentle seesaw movement
- Digital LED-display for speed and timer
- Can alternatively be extended to 3 levels with 2 additional platforms (see diagram; please order separately).

① Model SSM3

- Mini-platform for minimal sampling
- Shaking surface (W x D) 235 x 235 mm
- Space efficient design

③ Model SSL3

- Large platform for holding numerous samples
- Shaking surface (W x D) 335 x 335 mm

Technical specifications:

Model	SSM3	SSL3
Motion	Circular 3D-seesaw movement	
rpm range	5 to 70 rpm	
Time switch	0 to 999 min or continuous run	
Angle of inclination	Manually adjustable from 3 to 12°	
Shaking surface (W x D)	235 x 235 mm	335 x 335 mm
Weight capacity	3 kg	10 kg
Dimensions (W x D x H)	240 x 300 x 165 mm	360 x 420 x 170 mm
Ambient temperature	+4 to +40 °C at 80 % rh	
Weight	5 kg	10 kg
Power supply	230 V, 50/60 Hz	

Delivery incl. 1 platform with integrated anti-slip mat.

Type	Art. No.	Pack Qty.	€
SSM3	AT53.1 *	1	895,00
SSL3	EP82.1 *	1	1189,00

* Longer delivery times possible. Please check with our Sales Department.

② Platform for 3D gyratory shaker SSM3 and SSL3

By Stuart.

With two further platforms as 2nd and 3rd levels.

Quick to assemble, no tools required.

Delivery incl. 8 retaining bars.

For model	Art. No.	Pack Qty.	€
SSM3	AT54.1 *	1	205,00
SSL3	EP83.1 *	1	259,00

* Longer delivery times possible. Please check with our Sales Department.

Overhead mixers, rotators



Tube-Revolver test tube rotator

By Thermo. For mixing samples in test tubes.

- With LED speed display
- Turntable can be positioned at any angle (exception: turntable for 50 ml centrifuge tubes can only be positioned horizontally or vertically)
- Turntable are easy to replace
- Overhead mixing function with activable agitation mode (additional shaking every 40° during every second rotation cycle)
- Max. 4 turntables can be attached at once (exception: only 1 turntable can be attached for 50 ml centrifuge tubes)

Technical specifications:

Speed:	10 to 40 rpm
Dimensions (W x D x H)	225 x 154 x 195 mm
Permissible operating temperature	4 to 60 °C at 80 % rel. humidity
Weight	1,2 kg
Power supply	100-240 V, 50/60 Hz

Delivery incl. 2 turntables for 7 centrifuge tubes 15 ml, 2 turntables for 7 blood collection tubes 5/7 ml, 2 turntables for 15 reaction vials 1.5/2.0 ml, 2 turntables for 21 reaction vials 0.5/0.8 ml and 1 turntable for 6 centrifuge tubes 50 ml.

Art. No.	Pack Qty.	€
ATX1.1	1	350,00

Turntables for Tube-revolver

By Thermo.

For	Art. No.	Pack Qty.	€
7 centrifuge tubes 15 ml (Ø 16-17 mm)	ATX2.1	2	8,50
7 blood collection tubes 5/7 ml (Ø 12-13 mm)	ATX3.1	2	8,50
15 reaction vials 1.5/2.0 ml (Ø 10-11 mm)	ATX4.1	2	8,50
21 reaction vials 0.5/0.8 ml (Ø 7.5-8.5 mm)	ATX5.1	2	8,50
6 reaction vials 50 ml (Ø 28-29 mm)	ATX6.1	1	12,95



Rotator Revolver Mixer for reaction vials and sample tubes

For a variety of mixing tasks in microbiology, biochemistry and histochemistry.

- Sample containers can be positioned horizontally and vertically, as well as in any intermediate position
- Both halves of the particular rotary module can be arranged separately
- With fixed speed of 20 rpm
- Gentle horizontal mixing for applications such as hybridisation (rolling mixing motion); or vertical positioned tubes for overhead mixing of blood sample tubes for example
- Rotary module halves can be fixed without tools

Technical specifications:

Speed	20 rpm
Dimensions (W x D x H)	239 x 127 x 225 mm
Permissible operating temperature	4 to 65 °C at 80 % rel. humidity
Weight	2.0 kg
Mains connection	230 V, 50/60 Hz

Delivery incl. rotary module for 36 reaction vials 1.5/2.0 ml. Please order any required additional rotary modules separately.

Art. No.	Pack Qty.	€
PP49.1	1	407,45

Rotary plate for rotator Revolver Mixer

For	Art. No.	Pack Qty.	€
10 centrifuge tubes 15 ml and 16 blood sample tubes 5/7 ml	PP50.1	1	50,35
6 centrifuge tubes 50 ml	PP51.1	1	50,35

Overhead mixers, rotators



NEU
NOUVEAU
NEW

RS-RR 5 overhead rotator

With soft rotating overhead mixing function for reaction vials and other test tubes / centrifuge vials.

- Analog variable speed adjustment
- Adjustable screw feet

Technical specifications:

Speed range	0 to 80 rpm
Max. load	
1.5/2.0 ml reaction vials	34 pcs.
15 ml centrifuge vials	22 pcs.
50 ml centrifuge vials	16 pcs.
Dimensions (W x D x H)	530 x 150 x 190 mm
Weight	1.7 kg
Power supply	100-240 V, 50/60 Hz

Delivery incl. 36 clips for reaction vials 1.5/2.0 ml and 12 clips for centrifuge tubes 15/50 ml.

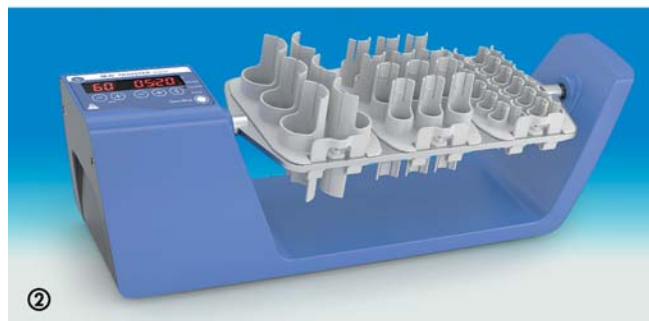
Art. No.	Pack Qty.	€
CHA4.1	1	499,90

Fastening clips for RS-RR 5 overhead rotator

For	Art. No.	Pack Qty.	€
Reaction vials 1.5/2.0 ml (Ø 11 mm)	CHA1.1	12	24,65
Centrifuge vials 15 ml (Ø 17 mm)	CHA2.1	12	24,65
Centrifuge vials 50 ml (Ø 29 mm)	CHA3.1	12	24,65



①



②

Trayster overhead mixer for reaction vials and test tubes

By IKA. For a wide range of mixing applications in molecular biology. For mixing samples in reaction vials, test tubes and blood sample tubes. Suitable for separating and mixing powdery and liquid samples. With soft rotating overhead mixing function.

Trayster basic: With fixed speed

Trayster digital: With infinitely variable speed adjustment and timer function

Technical specifications:

Model	① Trayster basic	② Trayster digital
Speed display	-	LED
Speed range (rpm)	20	5-80
Timer display	-	LED
Timer	-	1 s to 99 h or continuous operation
Permissible ambient conditions	4 to +50 °C at 80 % rel. humidity	
Dimensions W x D x H (mm)	460 x 160 x 150	
Weight (kg)	1.7	
Power supply	100-240 V, 50/60 Hz	

Delivery incl. standard pullout tray for a total of 3 inserts. Inserts are not included. Please order separately.

Type	Art. No.	Pack Qty.	€
① Trayster basic	ANE5.1	1	593,00
② Trayster digital	ANE6.1	1	752,00

Inserts for Trayster standard pullout tray

By IKA.

For	Art. No.	Pack Qty.	€
24 reaction vials 1.5/2.0 ml (Ø 11 mm)	ANE7.1	1	32,00
24 test tubes 5 ml (Ø 12 mm)	ANE8.1	1	32,00
12 centrifuge tubes 15 ml (Ø 17 mm)	ANE9.1	1	32,00
6 centrifuge tubes 50 ml (Ø 29 mm)	ANH0.1	1	32,00

Overhead mixers, rotators



RS-RD 5 rotator

For soft and gentle mixing of samples in various tubes/vials.

- Analog variable speed adjustment
- Adjustable screw feet
- Fixed 90° rotation angle

Technical specifications:

Speed range	0 to 80 rpm
Max. load	
1.5/2.0 ml reaction vials	48 pcs.
15 ml centrifuge vials	8 pcs.
50 ml centrifuge vials	8 pcs.
Dimensions (W x D x H)	220 x 300 x 310 mm
Weight	2.0 kg
Power supply	100-240 V, 50/60 Hz

Delivery incl. 36 clips for reaction vials 1.5/2.0 ml and 12 clips for centrifuge tubes 15/50 ml.

Art. No.	Pack Qty.	€
CHA0.1	1	499,90

Fastening clips for RS-RD 5 rotator

For	Art. No.	Pack Qty.	€
Reaction vials 1.5/2.0 ml (Ø 11 mm)	CHA1.1	12	24,65
Centrifuge vials 15 ml (Ø 17 mm)	CHA2.1	12	24,65
Centrifuge vials 50 ml (Ø 29 mm)	CHA3.1	12	24,65



Loopster-series rotators

By Ika. Suitable for soft separation and mixing of powdery and liquid samples. Freely adjustable rotary angle (0 to 90°). Different attachments enable units to be used for a variety of applications.

Loopster basic: with fixed speed.

Loopster digital: with infinitely adjustable speed, digital timer function and speed display.

Technical specifications:

Model	Loopster basic	Loopster digital
Speed display	-	LED
Speed range	20 rpm	5 to 80 rpm
Timer display	-	LED
Timer	-	1 s to 99 h or continuous operation
Dimensions (W x D x H)	300 x 300 x 360 mm	
Permissible ambient conditions	4 to 50 °C at 80 % rel. humidity	
Weight	3.0 kg	
Power supply	100-240 V, 50/60 Hz	

Delivery without turntables. Please order required turntables separately.

Type	Art. No.	Pack Qty.	€
Loopster basic	ANH1.1	1	570,00
Loopster digital	ANH2.1	1	654,00

Standard turntables for Loopster-series

By IKA.

For	Art. No.	Pack Qty.	€
48 reaction vials 1.5/2.0 ml (Ø 11 mm)	ANH3.1	1	157,00
24 test tubes 5 ml (Ø 12 mm)	ANH4.1	1	113,00
20 centrifuge tubes 15 ml (Ø 17 mm)	ANH5.1	1	113,00
12 test tubes 30 ml (Ø 25 mm)	ANH6.1	1	113,00
12 centrifuge tubes 50 ml (Ø 29 mm)	ANH7.1	1	113,00

Universal turntable for Loopster-series

By IKA.

Individually configurable. Fastening clips are required for attaching test tubes. Please order separately.

Type	Art. No.	Pack Qty.	€
Universal turntable	ANH8.1	1	101,05

Fastening clips for universal turntables

By IKA.

For	Art. No.	Pack Qty.	€
Reaction vials 1.5/2.0 ml (Ø 11 mm)	ANH9.1	12	27,00
(max. 36 clips)			
Test tubes 5 ml (Ø 12 mm) (max. 24 clips)	ANK0.1	12	28,00
Centrifuge tubes 15 ml (Ø 17 mm) (max. 12 clips)	ANK1.1	12	30,00
Test tubes 30 ml (Ø 25 mm) (max. 8 clips)	ANK2.1	12	32,00
Centrifuge tubes 50 ml (Ø 29 mm) (max. 8 clips)	ANK3.1	12	32,00



Rotators SB 2 and SB 3

By Stuart. Ideal for gentle mixing samples in culture tubes, blood vials or sample tubes.

- Rotary dish for different vessels available
- Angle of rotary dish is adjustable
- **Model SB 2:** with fixed speed
- **Model SB 3:** with variable speed, digital speed display and timer function

Technical specifications:

Model	SB 2	SB 3
Rpm	20 rpm	adjustable from 2-40 rpm
Speed display	none	digital
Timer function	none	1 to 999 min
Dimensions (W x D x H)	200 x 270 x 240 mm	
Max. operating temperature	4 to 60 °C at 80 % rh	
Weight	3200 g	
Power supply	230 V, 50 Hz	

Delivery incl. base unit without rotary dish. Please order the desired rotary dishes separately.

Type	Art. No.	Pack Qty.	€
SB 2	Y549.1	1	469,00
SB 3	Y550.1	1	669,00

Rotary dishes for rotators SB 2 and SB 3

By Stuart.

For	Art. No.	Pack Qty.	€
46 tubes 1,5/2,0 ml	Y551.1	1	218,00
20 sample vials Ø 9-20 mm	Y552.1	1	218,00
12 centrifuge tubes 50 ml	Y553.1	1	218,00
63 culture tubes Ø 12 mm	Y554.1	1	265,00
63 culture tubes Ø 16 mm	Y555.1	1	218,00

Double mounting for 2 turntables

By Stuart. Allows the simultaneous use of 2 turntables. Please order required turntable separately.

Art. No.	Pack Qty.	€
XK80.1	1	90,50



Rotator Genie™

By Scientific Industries. Overhead rotator for mixing specimens in reaction vials, culture tubes, test tubes etc.

- Easy, tool-free platform replacement
- The platforms can be loaded from both sides (assuming they are loaded evenly)

Standard platform

- ① With rubber straps for flexible attachment of different vessels and tubes with diameters of up to 85 mm. For strap length adjustment, clamps are provided at the centre of the platform.
- ② The standard platform attaches variably to the mixer at an angle of 90°. Various mixing actions are possible thanks to the flexible attachment system and different tube placements.

③ Magnetic platform

Mounts for tubes and other specimens can be attached to the magnetic plate (please order mounts separately).

Technical specifications:

rpm:	5 to 35 rpm
Dimensions of standard platform	260 x 260 mm
Dimensions of magnetic platform	292 x 292 mm
Overall dimensions (W x D x H)	400 x 175 (290 with horizontal platform) x 400 mm
Weight	5.2 kg
Mains connection	230 V, 50/60 Hz

Type	Art. No.	Pack Qty.	€
① ② Rotator Genie with standard platform and 8 straps	PH63.1	1	940,65
③ Rotator Genie with magnetic platform	PH64.1	1	987,95

Additional platforms for Rotator Genie™

By Scientific Industries.

Type	Art. No.	Pack Qty.	€
Standard platform with 8 rubber straps	PH65.1	1	191,35
Magnetic platform	PH66.1	1	237,60

Accessories for magnetic platform

By Scientific Industries.

Type	Art. No.	Pack Qty.	€
Holder with 12 clips for tubes from 10 to 13 mm	P519.1	6	191,35
Holder with 6 clips for tubes from 15 to 17 mm	P520.1	6	191,35
Holder with 3 clips for tubes from 28 to 30 mm	P521.1	6	191,35
Magnetic strip for bags, 75 x 75 mm	P522.1	16	80,65

Overhead mixers, rotators



Rotator STR4

By Stuart. Supplied with various rotary modules for different applications.

Technical specifications:

Time switch	10 to 60 min /continuous run
Rotation speed	6 to 60 rpm
Dimensions (W x D x H)	650 x 250 x 250 mm
Weight	6400 g
Current	230 V, 50 Hz

Delivery incl. basic unit without rotary module (please order the desired rotary module separately).

Art. No.	Pack Qty.	€
X466.1 *	1	1149,00

* Please check with our Sales Department for delivery period of these products.



Rotary module for sample vials for rotator STR4

By Stuart. 4 different holders can be attached to the rotary module via clip mechanism

Delivery incl. rotary module for sample vials without clip holders (please order separately).

Type	Art. No.	Pack Qty.	€
Rotary module for sample vials	X467.1 *	1	359,00

* Please check with our Sales Department for delivery period of these products.

Clip holders

Type	Art. No.	Pack Qty.	€
for 12 vials Ø 12 mm	X468.1 *	2	139,00
for 10 vials Ø 16 mm	X469.1 *	2	139,00
for 8 vials Ø 19 mm	X470.1 *	2	139,00
for 7 vials Ø 24 mm	X471.1 *	2	139,00

* Please check with our Sales Department for delivery period of these products.



Rotary module for rotator STR4

By Stuart. To attach 4 vessels (bottles, cans) with adjustable velcro straps.

- With 4 x divided acrylic glass holder
- Max. vessel dimensions: length 300 mm, Ø 120 mm
- Max. load: 5000 g

Art. No.	Pack Qty.	€
X472.1 *	1	405,00

* Please check with our Sales Department for delivery period of these products.



Rotary module for centrifuge vials for rotator STR4

By Stuart. 4 racks for 60 each centrifuge tubes 1.5 ml.

Type	Art. No.	Pack Qty.	€
Rotary module for centrifuge tubes	X473.1 *	1	829,00
Spare rack for 60 x 1.5 ml tubes	X474.1 *	1	90,50

* Please check with our Sales Department for delivery period of these products.



Multi-functional shaker Roto-Shake Genie®

By Scientific Industries. Extremely versatile shaker with tilting, revolving and shaking movements. Depending on the positioning of the vials, different mixing movements can be attained: revolving, tilting/shaking, tilting/revolving, tilting/rolling, revolving/rolling as well as a combination of these movements. The moving part consists of a double-sided, magnetic stainless steel plate, 34 x 20 cm. Easy to operate. **Change-over from rotating to tilting movement as achieved using a single hand movement.** Holders for vials with a diameter of 10 to 13 mm, 15 to 17 mm, or 28 to 30 mm or magnetic strips for holding the bags 75 x 75 mm can be placed on the magnetic plates.

Technical specifications:

Dimensions (L x W x H)	508 x 252 x 267 mm (With mounted platform: Width 305 mm)
Weight	11 800 g
Speed	Tilting: infinitely variable from 10 to 70 cycles per minute. Revolving: infinitely variable from 5 to 35 rpm
Vibrating angle	±10° from the horizontal line
Ambient conditions	0 to 38 °C

Delivery incl. 1 Multifunction mixer Roto-Shake Genie®, 1 holder with 12 clips for 10 to 13 mm tubes, 1 holder with 6 clips for 15 to 17 mm tubes, 1 holder with 3 clips for 28 to 30 mm tubes, 4 magnetic strips for 2 bags 75 x 75 mm, 1 shaking platform (203 x 305 mm) with slip-resistant map for petri dishes etc.

Art. No.	Pack Qty.	€
P518.1	1	1407,20

Accessories for Roto-Shake Genie® and Enviro-Genie®

By Scientific Industries.

Holders with 12 clips for tubes-Ø 10 to 13 mm

Art. No.	Pack Qty.	€
P519.1	6	191,35

Holders with 6 clips for tubes-Ø 15 to 17 mm

Art. No.	Pack Qty.	€
P520.1	6	191,35

Holders with 3 clips for tubes-Ø 28 to 30 mm

Art. No.	Pack Qty.	€
P521.1	6	191,35

Magnetic strips for bags 75 x 75 mm

Art. No.	Pack Qty.	€
P522.1	16	80,65

24 magnetic strips for bags 75 x 75 mm and 2 trays

Art. No.	Pack Qty.	€
P523.1	1	256,95



Temperature-controllable multifunction mixer Enviro-Genie®

By Scientific Industries. Mixing, stirring and tempering units for 5 different applications: **Cooling - incubating - rotating - tilting/shaking - stirring**

- Easy-to-read, digital display
- With large window for viewing samples
- **Change-over from rotating to tilting in one movement**
- Holders for vials and other vessels, e.g. for blood and sample vials, centrifuge tubes, tissue culture bottles, staining vessels, sample bags can be placed on the magnetic platform.
- **Temperature range adjustable from +4 to +75 °C**
- With visual and acoustic alarm for temperature and time
- Programmable timer function (up to 96 h)
- **Two magnetic stirrers are integrated in the incubator**, Reverse mode is possible. Max. stirring amount per platform: 1 Liter. Platform-Ø: 90 mm each.
- RS 232-interface.

Technical specifications:

Speed	
Rotating	1 to 35 rpm
Tilting	2 to 70 cycles per min
Stirring	1 to 2000 rpm
Heating and cooling function	
Ideal for temperatures	+4 to +75 °C
Resolution	0.1 °C
Accuracy	±0.2 °C
Dimensions	
Outer dimensions (W x D x H)	622 x 495 x 368 mm
Inner dimensions (W x D x H)	362 x 254 x 260 mm
Others	
Max. load	4500 g
Volume	24 l
Weight	36 kg
Power supply	230 V, 50/60 Hz

Delivery incl. 1 Multi-functin mixer Enviro-Genie®, 1 double-sided magnetic platform (200 x 340 mm), 1 holder with 12 clips for 10 to 13 mm tubes, 1 holder with 6 clips for 15 to 17 mm tubes, 1 holder with 3 clips for 29 to 32 mm tubes, 4 magnetic strips for 2 bags 15.3 x 15.3 cm, 1 wire rack, 1 shaking tray (203 x 305 cm).

Art. No.	Pack Qty.	€
AH71.1 *	1	7057,40

* Longer delivery times possible. Please check with our Sales Department.

Overhead mixers, rotators



Overhead mixer REAX 2

By Heidolph. Extremely versatile mixer with electronically regulated rotor speed. Can be used with two alternative holders. **Holder 1** for mixing of max. 20 test tubes Ø 10-18 mm please order separately.

Technical specifications:

Rpm	20 to 100 rpm
Power consumption	27 W
System of protection	IP 21
Ambient temperature	0 to +40 °C at 80 % rh
Dimensions (W x D x H)	510 x 180 x 235 mm
Weight	5200 g
Power supply	230 V, 50 Hz

Delivery incl. universal holder for attaching closed vessels or test tube racks. Height continuously adjustable from 45 to 160 mm.

Art. No.	Pack Qty.	€
H827.1 *	1	1335,00

Accessories for overhead mixer REAX 2

By Heidolph.

Holder 1

For attaching max. 20 test tubes (Ø 10-18 mm).

Art. No.	Pack Qty.	€
H828.1 *	1	205,00

* Please check with our Sales Department for delivery period of these products.



Mixer BagRotator

By Scientific Industries. Even overhead, rotational movements for mixing substances in sample bags and blood bags etc.

- Suitable for simultaneous mixing of 40 bags each with 300 ml volume
- The rotary module (= basket) is divided into 8 compartments; each compartment can be filled with 5 bags
- The extremely gentle mixing movement prevents accidental damage to bag
- Speed remains constant even with maximum load

Technical specifications:

Fixed speed	3 rpm
Dimensions (W x D x H)	508 x 252 x 267 mm
Weight	7.7 kg
Current	230 V, 50 Hz

Art. No.	Pack Qty.	€
CH97.1 *	1	1138,45

* Longer delivery times possible. Please check with our Sales Department.



Overhead mixer REAX 20-series

By Heidolph. Enables overhead rotation of vessels of different sizes and properties. Suitable for mixing cylinders and wide neck bottles with a length of 160 to 290 mm and diameter up to 136 mm. Ideal for water, sewage water and mud analysis in accordance with DIN 36414. Infinitely adjustable speed range.

Technical specifications:

Model	REAX 20/4	REAX 20/8	REAX 20/12
Capacity	4 bottles	8 bottles	12 bottles
Speed	1 to 16 rpm		
Output (W)	280 W		
Dimensions W x H x D (mm)	490 x 465 x 520	770 x 465 x 520	1050 x 465 x 520
Perm. ambient conditions	0 to 40 °C at 80 % rh		
Weight (kg)	23	28	33
Mains supply	230 V, 50 Hz		

Delivery incl. holder for 2 l bottles.

Type	Capacity	Art. No.	Pack Qty.	€
Overhead mixer REAX 20/4	4 bottles	KH64.1 *	1	2547,00
Overhead mixer REAX 20/8	8 bottles	H830.1 *	1	2875,00
Overhead mixer REAX 20/12	12 bottles	KH65.1 *	1	3261,00

Accessories:

Attachment set for 4 x 1.0 l bottles	KH66.1 *	1	55,00
Attachment set for 4 x 0.5 l bottles	KH67.1 *	1	55,00

* Please check with our Sales Department for delivery period of this product.

► Homogenizing bags, see page 237

Microlitre centrifuges



① Rotilabo®-mini-centrifuge

With openings for **6 microcentrifuge tubes** 1.5/2.0 ml. Maximum speed **6000 rpm** (equivalent to 2000 x g). **Small, handy and powerful.** **Start and stop are controlled by an extra switch.** Features transparent polycarbonate lid. Centrifuge is supplied with adapter for 0.5 ml micro-centrifuge tubes. Dimensions: H 120 x W 130 x D 150 mm. Weight: 494 g. Power supply 220 V, 50/60 Hz.

Art. No.	Pack Qty.	€
T464.1	1	220,40

② Rotilabo®-centrifuge with butterfly-rotor

Same as Art. No. **T464.1**, however suitable for PCR-strips of 2 x 8 micro-centrifuge tubes at 200 µl per strip.

Art. No.	Pack Qty.	€
T465.1	1	220,40



Rotilabo®-mini-centrifuge "Uni-fuge"

- Replaceable rotor system (for easy insertion and removal of all rotors included in delivery)
- **Start and stop are controlled by a supplementary switch**
- Small, handy and powerful
- With transparent PC-lid

Technical specifications:

Speed max.	6000 rpm
Max. RCF	2000 x g
Dimensions (W x D x H)	130 x 150 x 120 mm
Weight	494 g
Power supply	220 V, 50/60 Hz

Delivery incl. standard rotor for centrifuge tubes 6 x 1.5/2.0 ml, adapter for 0.5 ml centrifuge tubes and a rotor for PCR®-tube strips with 2 x 8 centrifuge tubes à 200 µl per strip.

Art. No.	Pack Qty.	€
CX73.1	1	231,15



Mini-centrifuge with microscope slide rotor

For speedy drying of microscope slides, e.g. for micro-array analysis. Suitable for all micro-array slides 25 x 76 x 1 mm. Dries micro-array substrates in less than 10 s.

- Rotor capacity: 2 microscope slides
- The liquid is retained in the microscope slide cassettes
- Cassettes can be removed for cleaning or replaced when necessary
- Max. speed 4000 rpm (500 to 850 x g)
- Space efficient, compact unit (Ø 127 mm)

Art. No.	Pack Qty.	€
AH48.1	1	564,40

Accessories:

Spare cassettes for microscope slides	AH49.1	1 Pair	132,25
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Microlitre centrifuges



Mini G mini centrifuge

By IKA.

- Max. capacity: 8 x 1.5/2.0 ml reaction vials
- Rotor interchangeable without tools
- **Digital operating time display (adjustable from 1 to 99 min)**

Technical specifications:

Max. speed	6000 rpm
Max. RCF	2000 x g
Dimensions (W x D x H)	155 x 175 x 105 mm
Power supply	230 V, 50/60 Hz

Delivery incl. standard rotor for 8 x 1.5/2.0 ml reaction vials and a rotor for PCR® tube strips with 4 x 8 reaction vials, each 200 µl per strip and adaptors for 0.5/0.4/0.2 ml reaction vials.

Art. No.	Pack Qty.	€
XT15.1	1	285,00



Rotilabo®-microlitre centrifuge Gusto™

- Max. capacity: 12 x 1.5/2.0 ml reaction vials
- Digital display of speed and running time
- Actual status display during operation
- Pulse button for short spin
- Optional display of rpm or x g
- Rotor changing without tools

Technical specifications:

Max. speed	12500 rpm adjustable in increments of 100
Min. speed	500 rpm
Max. RCF	9800 x g
Operating time	1 s to 30 min, adjustable in increments of 1 s per short cycle
Dimensions (W x H x D)	171 x 114 x 203 mm
Power supply	100-240 V, 50/60 Hz

Delivery incl. 12-place microlitre rotor with lid, PCR® tube strip rotor for 4 x 8 tube strips à 200 µl per strip and 12 adaptors for 0.5 and 0.2 ml reaction vials.

Art. No.	Pack Qty.	€
XP51.1	1	661,15



Rotilabo®-microcentrifuge tubes

Made of PP. Capacity 1.5 ml. With dull finish labelling area. Graduated. Can be centrifuged up to 18 000 x g. Temperature stable from -70 to 121 °C. Autoclavable.

Colour	Art. No.	Pack Qty.	€
colourless	4182.1	1000	17,10
red	4189.1	1000	18,10
blue	4190.1	1000	18,10
yellow	4204.1	1000	18,10
green	4209.1	1000	18,10
assorted colours (5 x 1000 pieces)	5913.1	5000	80,65



Microlitre centrifuge Force-series

Design:

- **Max. capacity 12 or 18 centrifuge tubes 1.5/2.0 ml**
- Microprocessor control
- Digital-display for speed and operating time
- Display alternatively from rpm or x g
- Speed can be increased in 1000 x increments
- Impulse function for centrifuging samples
- Safety lid catch

Technical specifications:

Model	Force 1418
Speed max.	13000 rpm
Min. speed	1000 rpm
Max. RCF	14000 x g
Max. capacity	18 x 1.5 / 2.0 ml
Timer function	to 99 min
Dimensions (W x D x H)	267 x 236 x 178 mm
Weight	5.5 kg

Delivery incl. 18-place microliter rotor with spring catch lid.

Art. No.	Pack Qty.	€
AC72.1 *	1	1343,75

* Longer delivery times possible. Please check with our Sales Department.

Adapters for microlitre centrifuge Force-series

Type	Art. No.	Pack Qty.	€
for 0.5 ml centrifuge tubes 0,5 ml	N890.1	6	51,30
for 0.4 ml centrifuge tubes	N891.1	6	51,30
for 0.2 ml centrifuge tubes	N892.1	6	51,30



**NEU
NOUVEAU
NEW**

Microlitre centrifuge MIKRO 185

By Hettich. Sample preparation for molecular biological applications, as well as in the PCR laboratory and much more.

- Max. capacity 24 x 1.5/2.0 ml reaction vials
- Adjustment of centrifuging time, rpm or RCF by means of membrane keyboard

Technical specifications:

Max. speed	13300 rpm, adjustable in increments of 100 rpm
Min. speed	500 rpm
Maximum RCF (in rotor type 1226)	17008 x g
Operating time	1 to 99 min / continuous duty / short cycle (pulse key)
Dimensions (H x W x D)	228 x 262 x 352 mm
Weight	10 kg
Power supply	208-240 V, 50/60 Hz

Delivery without microlitre rotor. Please order separately.

Art. No.	Pack Qty.	€
ANP9.1	1	1195,40

Microlitre rotors for Mikro 185

By Hettich.

① 24-tube microlitre rotor (45°) type 1226

- For 24 x 1.5/2.0 ml reaction vials
- Max. speed 13300 rpm max. RCF 17008 x g

Delivery incl. lid with bioseal, phenol resistant and autoclavable.

Type	Art. No.	Pack Qty.	€
24-tube microlitre rotor type 1226	ANT0.1	1	334,35

12-tube microlitre rotor (45°) type 1252

- For 12 x 1.5/2.0 ml reaction vials
- Max. speed 13300 rpm max. RCF 14041 x g

Delivery incl. lid.

Type	Art. No.	Pack Qty.	€
12-tube microlitre rotor type 1252	ANT1.1	1	209,65

18-tube microlitre rotor (45°) for Spin Column Kits type 1213

- For Micro Spin Column Kits (micro tubes with filter cartridge) 18 x 1.5/2.0 ml
- Max. speed 13300 rpm max. RCF 15030 x g

Delivery without lid. Please order separately if required.

Type	Art. No.	Pack Qty.	€
18-tube microlitre rotor type 1213	ANT2.1	1	248,35
Lid type 1246 with bioseal for rotor type 1213	ANT3.1	1	188,15

Accessories:

Adaptor sleeves for 0.2 ml reaction vials	AA67.1 *	6	11,30
Adaptor sleeves for 0.5 ml reaction vials	Y059.1 *	6	11,30
Adaptor sleeve, tapered, for 1.5 ml vials	AA68.1 *	6	12,40

* Delivery times may apply to these products. Please ask our sales staff.

Microlitre centrifuges



Microlitre centrifuges MIKRO 200/200 R

By Hettich.

Standard features for both models:

- **Max capacity: 24 x 1.5/2.0 ml centrifuge tubes**
- Motor-driven lid lock
- Parameter input via keypad
- Actual value display during run
- Impulse button for quick-run pre-centrifuging
- "Open lid" button
- RCF button
- Safety: lid catch, emergency unlock, motor overheating protection and automatic unbalance switch-off

Cooling Centrifuge Mikro 200 R

- Infinitely adjustable from -10 to +40 °C in 1 °C increments
- Pre-cooling function (in 10 to 15 min to +4 °C)
- Stand-by cooling maintains desired temperature
- Cooling automatically switches off when lid is open or after a pre-set time

Technical specifications:

Model	MIKRO 200 classic	MIKRO 200 R cooled
Maximum rpm speed	14 000 rpm, adjustable in 100 increments	
Minimum rpm speed	500 rpm	
Maximum RCF	18 626 x g	
Operation time	1 to 99 min / continuous run / short run	
Temperature range	-	-10 °C to +40 °C
Min. Temperature at max. speed	-	+4 °C
Dimensions (W x H x D)	275 x 260 x 347 mm	281 x 260 x 547 mm
Weight	11.5 kg	28.5 kg
Power supply	220-240 V, 50/60 Hz	

Delivery without rotor. Please order separately.

Type	Art. No.	Pack Qty.	€
MIKRO 200 classic	AA69.1 *	1	1747,95
MIKRO 200 R cooled	AA70.1 *	1	4267,75

Accessories for MIKRO 200/200 R centrifuges

By Hettich.

Angle rotor for max 24 centrifuge tubes 1.5 / 2.0 ml

50° angle, with standard lid.

Type	Art. No.	Pack Qty.	€
Angle rotor für 24 x 1.5/2.0 ml	AA71.1 *	1	311,75

Aerosol-tight lid, autoclavable

Type	Art. No.	Pack Qty.	€
Lid, aerosol-tight	AA72.1 *	1	124,70

Reducing bushes

Type	Art. No.	Pack Qty.	€
Adaptor sleeves for 0.5 ml reaction vials	Y059.1 *	6	11,30
Adaptor sleeves for 0.2 ml reaction vials	AA67.1 *	6	11,30

Reducing bush for conical 1.5 ml centrifuge tubes

Positive reduction, recommended for high-speed centrifuging.

Type	Art. No.	Pack Qty.	€
Adaptor sleeve, tapered, for 1.5 ml vials	AA68.1 *	6	12,40

* Delivery times may apply to these products. Please ask our sales staff.



Heraeus® Pico® and Fresco® microlitre centrifuges

By Thermo.

General information for all models

- **Max. capacity: 24 x 1.5/2.0 ml centrifuge tubes**
- Heraeus® Pico® and the cooled Heraeus® Fresco® are each available in the 17 000 x g- and 21 100 x g version
- Short brake and acceleration times
- Minimal running noise even at maximum speed
- LED-display for speed and operating time
- Optional display of rpm or x g
- Speed can be increased in increments of 100
- Various sets available with different rotors.
e.g. a two-row rotor for holding 18 x 1.5/2.0 ml- and 18 x 0.5 ml centrifuge tubes

Cooling centrifuge models Fresco® 17 and Fresco® 21

- Cooled microlitre centrifuges
- With stop-period cooling

Technical specifications:

Model	Pico® 17 and Fresco® 17	Pico® 21 and Fresco® 21
Maximum speed	13 300 rpm	14 800 rpm
Minimum speed	300 rpm	
Maximum RCF	17 000 x g	21 100 x g
Operating time	1 to 99 min / Continuous Run / Quick Run	
Temperature setting range	Pico® 17 / 21: Air-cooled or without cooling function Fresco® 17 / 21: -9 to +40 °C in 1 °C increments	
Dimensions (H x W x D)	Pico® 17 / 21: 243 x 225 x 352 mm Fresco® 17 / 21: 295 x 330 x 445 mm	
Power supply	230 V, 50/60 Hz	

Heraeus® Pico® and Fresco® packages with 1 rotor

Centrifuge incl. 24 x 1.5/2.0 ml rotor with aerosol-tight ClickSeal lid.

Type	Art. No.	Pack Qty.	€
Heraeus® Pico® 17 with 24-place rotor	HE09.1 *	1	1671,00
Heraeus® Fresco® 17 with 24-place rotor	HE10.1 *	1	4031,00
Heraeus® Pico® 21 with 24-place rotor	HE11.1 *	1	2115,00
Heraeus® Fresco® 21 with 24-place rotor	HE12.1 *	1	4507,00

Heraeus® Pico® and Fresco® packages with 2 rotors

Centrifuge incl. 24 x 1.5/2.0 ml rotor with aerosol-tight ClickSeal lid and two-row 18 x 0.5 ml and 18 x 1.5/2.0 ml rotor with screw lid.

Type	Art. No.	Pack Qty.	€
Heraeus® Pico® 21 with 24- and 36-place rotor	HE13.1 *	1	2494,00
Heraeus® Fresco® 21 with 24- and 36-place rotor	HE14.1 *	1	4945,00

Reducing sleeves for Pico® and Fresco®

By Thermo.

Type	Art. No.	Pack Qty.	€
Reducing sleeves for 0.5 ml centrifuge tubes	X118.1 *	24	147,00
for 0.4 ml/0.25 ml centrifuge tubes	X119.1 *	24	148,00
Reducing sleeves for 0.2 ml centrifuge tubes	X121.1 *	24	147,00

* Please check with our Sales Department for delivery period of these products.



Table centrifuges Mikro 220 / 220 R

By Hettich.

General specifications for both models

- 9 braking and starting ramps plus unbraked run-out possible
- Memory capacity for 10 programs
- Automatic rotor recognition
- Optional display of rpm or x g upon entry of rotor radius
- Window in lid
- Metal housing
- Safety features: Emergency unlocking device, motor overheating protection, unbalance switch-off

Cooling centrifuge Mikro 220 R cooled

- Infinitely variable from -20 to +40 °C in 1 °C-increments
- Precooling function

Technical specifications:

Model	Mikro 220 classic	Mikro 220 R cooled
Max. speed (in microlitre rotor)	18 000 rpm, adjustable to increments of 10	
Min. speed	500 rpm	
Max. RCF (in microlitre rotor)	31 514 x g	
Min. RCF	24 x g	
Operation time	1 to 99 min, continuous run, impulse key	
Temperature range	-	-20 to +40 °C
Dimensions (W x D x H)	330 x 420 x 313 mm	330 x 650 x 313 mm
Weight	21 kg	42 kg
Power supply	220-240 V, 50/60 Hz	

Delivery without rotor (please order separately).

Type	Art. No.	Pack Qty.	€
Mikro 220 classic	LE07.1 *	1	2663,85
Mikro 220 R cooled	LE08.1 *	1	4824,60

* Longer delivery times possible. Please check with our Sales Department.



Rotors and accessories for Mikro 220 / 220 R

By Hettich.

Model	① 1195-A	② 1189-A	③ 1160	④ 1016
Max. capacity	24 x 1.5/2.0 ml	30 x 1.5/2.0 ml	6 PCR-Strips	3 x 50 ml
Max. speed	18 000 rpm	14 000 rpm	14 000 rpm	6000 rpm
Max. RCF	31 514 x g	21 255 x g	18 845 x g	3783 x g

*Rotor suitable only for Mikro 220 R (Art.-No. LE08.1).

① 24-place microlitre rotor Model 1195-A

- Max. capacity 24 x 1.5/2.0 ml centrifuge tubes
- High performance: max. 18 000 rpm, max. RCF 31514 x g

Delivery incl. lid.

Type	Art. No.	Pack Qty.	€
24-place microlitre rotor Model 1195-A	LE09.1 *	1	428,95
Adaptor sleeves for 0.5 ml reaction vials	Y059.1 *	6	11,30
Adaptor sleeves for 0.2 ml reaction vials	AA67.1 *	6	11,30

② 30-place microlitre rotor for centrifuge tubes Model 1189-A

- Max. capacity 30 x 1.5/2.0 ml centrifuge tubes
- High performance: max. 14 000 rpm, max. RCF 21255 x g

Delivery incl. lid.

Type	Art. No.	Pack Qty.	€
30-place microlitre rotor Model 1189-A	LE10.1 *	1	537,50
Adaptor sleeves for 0.5 ml reaction vials	Y059.1 *	6	11,30
Adaptor sleeves for 0.2 ml reaction vials	AA67.1 *	6	11,30

③ 6-place angle rotor for PCR-strips Type 1160

- For PCR-tube strips of 6 x 8 centrifuge tubes à 200 µl per strip
- Max. speed 14000 rpm, max. RCF 18845 x g

Delivery without lid (please order separately if required).

Type	Art. No.	Pack Qty.	€
6-place PCR-strip angle rotor Type 1160	LE11.1 *	1	522,45
Lid for PCR-strip rotor Type 1160	LE12.1 *	1	113,95

④ 6-place angle rotor for PCR-strips Type 1016

- Rotor only suitable for Mikro 220 R (Art. No. LE08.1)

- Max. capacity 3 x 50 ml
- Max. speed 6000 rpm, max. RCF 3783 x g

Delivery without adaptor for vials, please order separately.

Adaptors are required to operate.

Type	Art. No.	Pack Qty.	€
6-place angle rotor for vials Type 1016	LE13.1 *	1	552,55

Adapters for angle rotor Type 1016

Nominal volume of vial	15 ml	15 ml Type Falcon®	50 ml Type Falcon®
Number of containers per rotor	6	6	3
Adaptors required per rotor	6	6	3
Max. tube length	100 mm	120 mm	115 mm
Max. tube Ø	17 mm	17 mm	29 mm
Shape of bottom	round	conical	conical

Type	Art. No.	Pack Qty.	€
Adaptor for 15 ml standard test tubes	LE14.1 *	1	32,25
Adaptor for 15 ml tubes of type Falcon®	LE15.1 *	1	32,25
Adaptor for 50 ml tubes of type Falcon®	LE16.1 *	1	32,25

* Delivery times may apply to these products. Please ask our sales staff.

Microlitre centrifuges



Compact PCR plate centrifuge C1000

For 2 PCR plates in 96-well format.

- Suitable for skirted, non-skirted or semi-skirted plates (with/without half frame)
- To prevent soiling inside the rotor, only PCR plates that have been hot-laminated or sealed with film should be used
- PCR plates are inserted vertically into the rotor
- Fast centrifugation of droplets or condensate

Technical specifications:

Max. speed	2500 rpm
Max. RZB	500 x g
Max. capacity	2 PCR plates
Dimensions (W x D x H)	190 x 210 x 183 mm
Weight	1.5 kg
Voltage	230 V, 50/60 Hz

Art. No.	Pack Qty.	€
PP33.1	1	654,70

Adapter for strips and small PCR plates

The adapter's dimensions are identical to those of a standard 96 well PCR plate. Suitable for 0.2 ml PCR tubes, 8 ml PCR reaction vials, 12 ml PCR reaction vials, 24 well PCR plates and 48 well PCR plates.

Art. No.	Pack Qty.	€
TA20.1	2	58,70



Haematocrit centrifuge 200

By Hettich. For determining the percentage by volume of erythrocytes in blood.

Haematocrit determination for diagnostic purposes and drug testing.

- Adjustment of time and speed
- Remaining runtime and rotational speed are shown on the display
- Safety: lid locking and holding, imbalance switch-off

Technical specifications:

Max. speed	13000 rpm, adjustable in increments of 100 rpm
Min. speed	500 rpm
Max. RCF	16060 x g
Operating time	1 to 99 min / continuous duty / short cycle (pulse key)
Dimensions (H x W x D)	228 x 262 x 352 mm
Weight	10 kg
Power supply	208-240 V, 50/60 Hz

Delivery without haematocrit rotor. Please order separately.

Art. No.	Pack Qty.	€
ANX2.1	1	1681,30

Rotor for haematocrit centrifuge 200

By Hettich.

24-tube haematocrit rotor

- For 24 standard capillary tubes
- Each capillary has its own chamber and is cushioned by holding trays at the outer rim
- Max. speed 13000 rpm max. RCF 16060 x g

Delivery incl. lid with integrated evaluation disc.

Art. No.	Pack Qty.	€
ANX3.1	1	146,20

Centrifuges



Manual centrifuge

By Hettich. With 4-place oscillating rotors for 15 ml centrifuge tubes.

- With clamp device (max. span width approx. 40 mm) for attaching the centrifuge to lab desktops, etc.
- Dimensions: W 140 x D 175 x H 285 mm
- Weight approx. 0.9 kg

Technical specifications:

Max. capacity	4 x 15 ml
Speed max.	3000 rpm
Max. RCF	1076 x g
Max. tube length	125 mm
Max. tube Ø	17 mm

Delivery without oscillating rotor, please order separately.

Type	Art. No.	Pack Qty.	€
Manual centrifuge, without rotor	EE90.1	1	130,10

Accessories:

4-place oscillating rotor	EE91.1	1	125,80
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Rotilabo®-centrifuge tubes

Made of highly transparent PP. Lid made of PE. **Sterile** or unsterile.

With printed, black graduation. Certified free of nucleases, endotoxins and metals (<1 ppm). Not cytotoxic. Temperature stability: from -80 to +122 °C.

Without vertical lip, with white labelling area, centrifugable max.

17 000 x g (15 ml-vials) resp. 20 000 x g (50 ml-vials).

Volume (ml)	Type	Ø x H (mm)	Packaging	Art. No.	Pack Qty.	€
15	unsterile	17 x 120	50 in a bag	N458.1	500	106,45
15	sterile	17 x 120	50 in a bag	N459.1	500	117,20
15	unsterile	17 x 120	25 in a rack	N460.1	500	133,20
15	sterile	17 x 120	25 in a rack	N461.1	500	142,90
50	unsterile	29 x 115	50 in a bag	N462.1	500	128,50
50	sterile	29 x 115	50 in a bag	N463.1	500	140,85
50	unsterile	29 x 115	25 in a rack	N464.1	500	151,60
50	sterile	29 x 115	25 in a rack	N465.1	500	156,95

With vertical lip, with white labelling area, centrifugable up to 10 000 x g

Volume (ml)	Type	Ø x H (mm)	Packaging	Art. No.	Pack Qty.	€
50	unsterile	29 x 117	50 in a bag	X063.1	500	156,95
50	sterile	29 x 117	50 in a bag	X064.1	500	183,85



EBA 200 and 200 S small centrifuge

By Hettich. For centrifugation of blood and urine samples, clarification of water and soil samples, etc.

General specifications of both models:

- Lid can be opened at the touch of a button
- Housing and lid made of impact resistant plastic, metal lid inner
- Overheating protection
- With 8-tube angle rotor

For use of the following types of vessel:

- 8 x 15 ml standard test tubes (Ø 17 x L 100 mm)
- 4 x 15 ml centrifuge tubes of type Falcon (Ø 17 x L 120 mm)
- 4 x 8 ml urine test tubes (Ø 16 x L 125 mm)
- 8 x 7.5-10 ml blood collection tubes (Ø 15/16 x L 92 mm)
- 8 x 4.5-4.9 ml blood collection tubes (Ø 11 x L 92 mm, Ø 13 x L 90 mm)
- 8 x 10 ml blood collection tubes (Ø 15 x L 102 mm)

Technical specifications:

Model	EBA 200	EBA 200 S
Max. speed	6000 rpm, adjustable in increments of 100 rpm	8000 rpm, adjustable in increments of 100 rpm
Min. speed	500 rpm	
Max. RCF	3461 x g	6153 x g
Operating time	1 to 99 min / continuous duty / short cycle (pulse key)	
Dimensions (H x W x D)	228 x 262 x 352 mm	
Weight	8 kg	10 kg
Power supply	208-240 V, 50/60 Hz	

Delivery incl. 8-tube angle rotor for max. capacity 8 x 15 ml.

Type	Art. No.	Pack Qty.	€
EBA 200	ANT4.1	1	1048,15
EBA 200 S	ANT5.1	1	1946,85

Accessories:

Adaptor type 1054-A for 5/6 ml vials (Ø 12 x L 75/82 mm)	ANT6.1	1	18,85
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Centrifuges



Small centrifuge EBA 270

By Hettich. With 6-slot oscillating rotor for centrifuging blood sample vessels, urine test tubes and standard centrifuge tubes.

- Variable speed and cycle time
- Display of parameters during centrifugation
- "Open lid" key for one-touch opening
- Safety: lid lock, emergency lid lock release, imbalance switch-off and metal lid
- Stainless steel centrifuging chamber

For use of the following types of vessel:

- 15 ml standard test tubes (Ø 17 x L 100 mm)
- 5/6 ml standard test tubes (Ø 12 x L 75/82 mm)
- 2.6-2.9 ml blood sample vessels (Ø 13 x L 65 mm), 2.7-3 ml (Ø 11 x L 66 mm)
- 4-5.5 ml blood sample vessels (Ø 15 x L 75 mm), 4.5-5 ml (Ø 11 x L 92 mm), 4.9 ml (Ø 13 x L 90 mm), 7.5-8.5 ml (Ø 15 x L 92 mm), 9-10 ml (Ø 16 x L 92 mm), 10 ml (Ø 15 x L 102 mm)
- 1.6-5 ml urine test tubes (Ø 13 x L 75 mm), 4.5-7 ml (Ø 13 x L 100 mm), 4-7 ml (Ø 16 x L 75 mm), 8.5-10 ml (Ø 16 x L 100 mm)

Technical specifications:

Max. speed	4000 rpm, adjustable in increments of 100 rpm
Min. speed	500 rpm
Max. RCF	2254 x g
Operating time	1 to 99 min 59 s / continuous or intermittent duty
Dimensions (W x D x H)	326 x 389 x 239 mm
Weight	13 kg
Mains connection	208-240 V, 50/60 Hz

Delivery incl. 6-slot oscillating rotor (90), 6 sleeves with hole Ø 17.5 x L 80 mm and 6 sleeves with hole Ø 17.5 x L 50 mm.

Art. No.	Pack Qty.	€
PH35.1	1	1128,75



Small centrifuge Heraeus® Labofuge® 200

By Thermo.

Properties

- Extremely easy to operate
- Maintenance-free induction motor
- Microprocessor controlled time and speed
- Programme memory: final values remain stored
- Appliance safety: lid catch and lock, protective covering

For use with following vessel types:

- 15 ml glass tubes (Ø 16 mm, length 100 mm)
- 10 ml vacutainer (Ø 16 mm, length 100 mm)

Technical specifications:

Max. speed	5300 rpm
Min. speed	1600 rpm
Max RCF	3030 x g
Operation time	1 to 99 min / continuous run / quick-run
Dimensions (H x W x D)	240 x 284 x 375 mm
Power input	65 W
Weight (with rotor)	10 700 g

Adapter set

Consists of 12 adapters type yellow and 12 adapters type cream. Can be used for following vessels:

Adapter type yellow	Adapter type cream
7 ml glass tubes (DIN)	3-5 ml VenoJect II
7 ml VenoJect II	3-5 ml Vacutainer
7 ml Vacutainer	4 ml Sarstedt-Monovetta 5 ml Sarstedt-Monovetta

Delivery incl. Centrifuge with fixed angle rotor (autoclavable), max. capacity: 12 x 15 ml and adapter set.

Art. No.	Pack Qty.	€
X123.1*	1	1375,00

Accessories for Heraeus® Labofuge® 200

By Thermo.

Pads for 9 ml Sarstedt monovettes

Vessel nominal size: Ø 16.5 x L 92 mm.

Reduction to max. 6 tubes per rotor.

Art. No.	Pack Qty.	€
X166.1*	12	66,70

* Please check with our Sales Department for delivery period of these products.



Table centrifuge Heraeus® Labofuge® 300

By Thermo. Compact, ventilated small centrifuge

- With 8-place oscillation rotor
- Rotor with hanger for vessels with up to 15 ml volumes
- Optimal centrifugation of blood sample vessels
- Carbon brush free induction mechanism
- Microprocessor driven by EASYcontrol with variable preselection and display of speed and time
- Programme memory: Final data input is stored.
- Appliance safety: lid catch and lock

Technical specifications:

Max. capacity	8 x 15 ml
Max. speed	3600 rpm adjustable in steps of 100
Min. speed	300 rpm
Max. RCF	2028 x g
Operation time	1 to 99 min / continuous run / quick-run
Dimensions (H x W x D)	315 x 380 x 475 mm
Power input	180 W
Weight (without rotor)	30 kg

Hanger Oscillation rotor	Max vessel size :		Vessels per rotor	Colour of hanger
	Ø (mm)	Length (mm)		
Hanger 15 ml	16.5	113	8	red
Hanger 7 ml	13	113	8	yellow
Distance padding	-	90	-	-

Delivery incl. Labofuge® 300, Oscillating rotor 8 x 15 ml, 8 hanger for 7 ml 8 hanger for 15 ml, Distance padding.

Art. No.	Pack Qty.	€
X124.1 *	1	1890,00

* Please check with our Sales Department for delivery period of these products.



Benchtop centrifuge Rotofix 32 A

By Hettich. For sample preparation in research and industrial laboratories.

Design:

- Display of actual status during run
- Window in lid
- Automatic rotor recognition
- Optional display of rpm or x g
- Metal casing and lid are covered with a blow/scratchproof coating
- Safety: lid locking device and tumbler, unbalance switch-off, emergency unlocking device

Technical specifications:

Max. speed (in angular rotor)	6000 rpm
Min. speed	500 rpm
Max. RCF (in angular rotor)	4146 x g
Setting range	in steps of 100
Operation time	1 to 99 min / continuous operation / button for short run
Dimensions (W x D x H)	366 x 430 x 257 mm
Weight	25 kg

Delivery without rotor, please order separately.

Type	Art. No.	Pack Qty.	€
Table centrifuge Rotofix 32 A	EC34.1 *	1	1820,00

Accessories for Rotofix 32 A

By Hettich.

① 12-place fixed angle rotor type 1613 for 15 ml vials

For 12 standard 15 ml vials with round base (Ø 17 x L 100 mm) or 6 centrifuge tubes 15 ml (Ø 17 x L 120 mm) with conical base. Max. speed 6000 rpm, max. RCF 4146 x g.

Type	Art. No.	Pack Qty.	€
12-place angular rotor type 1613	EC35.1 *	1	299,95

② 8-place swinging bucket rotor type 1617 (45°) for 15/50 ml centrifuge tubes

For 50 ml centrifuge tubes with conical base (Ø 29 x L 115 mm). An additional adapter is required for 15 ml centrifuge tubes (Ø 17 x L 120 mm), please order separately. Max. speed 4000 rpm, max. RCF 2469 x g.

Type	Art. No.	Pack Qty.	€
8-place oscillating rotor type 1617	EC36.1 *	1	588,05
Adapter for centrifuge tubes 15 ml	EC37.1 *	1	21,00

③ 4-place swinging bucket rotor type 1624 (90°) for tube beaker

For attaching 4 tube beakers. Max. speed 4000 rpm, max. RCF 2308 x g. Please order tube beakers separately.

Type	Art. No.	Pack Qty.	€
4-place oscillating rotor type 1624	EC38.1 *	1	331,10

Tube beaker for standard 15 ml tubes

For centrifuging standard 15 ml tubes (Ø 17 x L 100 mm) with round base. Number of tubes: 4 tubes per beaker, 16 tubes per rotor. 4 tube beakers are required when working with swinging bucket rotor type 1624.

Type	Art. No.	Pack Qty.	€
Tube beaker for rotor type 1624	EC39.1 *	1	33,35

* Longer delivery times possible. Please check with our Sales Department.

Centrifuges



EBA 280 small centrifuge

By Hettich. Centrifugation of water and soil samples as well as sedimentation of cells, yeasts, bacteria, etc.

- Programmable control system with 10 memory slots
- Adjustment of centrifuging time, rpm or RCF
- Input of start and stop times in increments from 1 to 9
- Safety: lid locking and holding, emergency lid lock release

Technical specifications:

Max. speed	6000 rpm, adjustable in increments of 100 rpm
Min. speed	500 rpm
Maximum RCF (in rotor type 1226)	3703 x g
Operating time	1 to 99 min / continuous duty / short cycle (pulse key)
Dimensions (H x W x D)	242 x 326 x 389 mm
Weight	11 kg
Power supply	200-240 V, 50/60 Hz

Delivery without rotor. Please order separately.

Art. No.	Pack Qty.	€
ANT7.1	1	2136,05



Rotor and accessories for EBA 280

By Hettich.

6-tube angle rotor (35°) type 1137

- Max. capacity 6 x 50 ml
- Max. speed 6000 rpm max. RCF 3703 x g
- Rotor is suitable for 6 50 ml standard test tubes (Ø 34 x L 100 mm) without adaptor
- If an adaptor is required for standard, Falcon® or Oak-Ridge tubes, please order separately

Type	Art. No.	Pack Qty.	€
6-tube angle rotor (35°) type 1137	ANT8.1	1	535,35

Adaptor for 6-tube angle rotor type 1137

Nominal capacity of vessel	7 ml	15 ml	25 ml	15 ml type Falcon®
Number of vessels per rotor	18	6		
Required number of adaptors per rotor	6	6		
Max. vessel length (mm)	100	100	100	120
Max. vessel Ø (mm)	12	17	24	17
Bottom shape	round	round	round	conical

Nominal capacity of vessel	50 ml type Falcon®	30 ml type Oak-Ridge	50 ml type Oak-Ridge
Number of vessels per rotor	3	6	
Required number of adaptors per rotor	3	6	
Max. vessel length (mm)	115	95	107
Max. vessel Ø (mm)	29	26	29
Bottom shape	conical	round	round

Type	Art. No.	Pack Qty.	€
Adaptor for 7 ml standard test tubes	ANT9.1	1	34,65
Adaptor for 15 ml standard test tubes	LE14.1 *	1	32,25
Adaptor for 25 ml standard test tubes and for 30 ml tubes of type Oak-Ridge	ANX0.1	1	34,65
Adaptor for 15 ml tubes of type Falcon®	LE15.1 *	1	32,25
Adaptor for 50 ml tubes of type Falcon®	LE16.1 *	1	32,25
Adaptor for 50 ml tubes of type Oak-Ridge	ANX1.1	1	34,65

* Delivery times may apply to these products. Please ask our sales staff.



Benchtop centrifuges Universal 320 / 320 R

By Hettich.

General specifications for both models

- Short accelerating and breaking times
- It is possible to select between 9 breaking and accelerating intervals or a brakeless run-out
- Memory capacity for 10 programs
- Automatic rotor recognition
- Optional display of rpm or x g upon entry of rotor radius
- Simple rotor change
- Window in lid
- Metal housing
- Security: emergency unlocking device, motor overheating protections, unbalance switch-off

Cooling centrifuge Universal 320 R cooled

- Infinitely variable from -20 to +40 °C in 1 °C-increments
- Precooling function

Technical specifications:

Model	Universal 320 classic	Universal 320 R cooled
Max. speed (in microlitre rotor)	15 000 rpm, adjustable to steps of 10	
Min. speed	500 rpm	
Max. RCF (in microlitre rotor)	21 382 x g	
Min. RCF	24 x g	
Operation time	1 to 99 min, continuous run, impulse key	
Temperature range	-	-20 to +40 °C
Dimensions (W x D x H)	395 x 520 x 346 mm	401 x 695 x 346 mm
Weight	29 kg	52 kg
Power supply	220-240 V, 50/60 Hz	

Delivery without rotor (please order separately).

Type	Art. No.	Pack Qty.	€
Universal 320 classic	EC40.1 *	1	2915,40
Universal 320 R cooled	EC41.1 *	1	5527,65

* Longer delivery times possible. Please check with our Sales Department.

► More rotors and adapters are available upon request!



Rotors and accessories for Universal 320 / 320 R

By Hettich.

Type	① 1420	② 1617	③ 1460/1453	④ 1494
Max. capacity	24 x 1.5/2.0 ml	8 x 50 ml	8 MT-plates	4 x 50 ml
Speed max.	15 000 rpm	5000 rpm	4000 rpm	5000 rpm
Max. RCF	21 382 x g	3875 x g	2218 x g	4165 x g

① Microlitre rotor type 1420

- Max. capacity 24 x 1.5/2.0 ml
- High performance: max. 15 000 rpm, max. RCF 21382 x g

Type	Art. No.	Pack Qty.	€
Microlitre rotor type 1420	EC42.1 *	1	392,40

② 8-place oscillating rotor type 1617 (45°) for centrifuge tubes 15/50 ml

For 8 conical 50 ml centrifuge tubes (Ø 29 x L 115 mm). An additional adapter will be required for centrifuge tubes 15 ml (Ø 17 x L 120 mm), (please order separately).

Max. speed 5000 rpm, max. RCF 3875 x g.

Type	Art. No.	Pack Qty.	€
8-place oscillating rotor type 1617	EC36.1 *	1	588,05
Adapter for centrifuge tubes 15 ml	EC37.1 *	1	21,00

③ 2-place oscillating rotor for microtiter plates type 1460/1453

- Incl. 2 hangers for 8 microtiter plates (L 128 x W 86 x H 15 mm)
- Max. speed 4000 rpm, max. RCF 2218 x g

Type	Art. No.	Pack Qty.	€
2-place oscillating rotor type 1460/1453	EC43.1 *	1	1116,95

④ 4-place oscillating rotor type 1494 (90°) for vials

- Max. capacity 4 x 50 ml
- Max. speed 5000 rpm, max. RCF 4165 x g

Delivery without insertion beaker and adapter for vials (please order separately). 4 insertion beakers and the designated adapter are required to operate.

Type	Art. No.	Pack Qty.	€
4-place oscillating rotor type 1494	EC44.1 *	1	488,05
Insertion beaker type 1427 for rotor type 1494	EC45.1 *	1	172,00

Adapter for insertion beaker

Nominal volume of vial	15 ml	15 ml type Falcon®	50 ml type Falcon®
Max. vials per adapter	6	1	1
Number of containers per rotor	24	4	4
Max. tube length	100 mm	120 mm	115 mm
Max. tube Ø	17 mm	17 mm	29 mm
Base shape	round	conical	conical

Type	Art. No.	Pack Qty.	€
Adapters for 15 ml-tubes	EE32.1 *	1	58,05
Adapter for 15 ml-vials type Falcon®	EC46.1 *	1	76,35
Adapter for 50 ml-vials type Falcon®	EC47.1 *	1	119,35

* Longer delivery times possible. Please check with our Sales Department

Centrifuges



Benchtop centrifuges Heraeus Megafuge-8 series

By Thermo.

General specifications of both models:

- 2 profiles configurable for fast or gentle acceleration and deceleration times
- Optional display of revolutions in rpm or x g
- Safe rotor-changing at the touch of a button (without additional tools) for quick changeover between various applications and easy cleaning
- 3 program memory with one-touch key, with naming option
- Direct, brushless induction motor
- Illuminated display
- Text messages in various languages: German, English, French, Spanish, Russian, Italian and Dutch
- **Annual inspection acc. to BGR 500 recommended**

Megafuge 8R cooling centrifuge

- Infinitely adjustable from -10 to +40 °C in increments of 1 °C
- Precool function

Technical specifications:

Model	Megafuge 8	Megafuge 8R
Max. speed (in microlitre rotor)	14 000 rpm adjustable in increments of 100	
Min. speed (rpm)	300	
Max. RCF (in microlitre rotor)	21 693 x g	
Min. RCF	10 x g	
Max. runtime	9 h 99 min / continuous operation / Quick Run	
Temperature adjustment range (°C)	-	-10 to +40
Dimensions W x D x H (mm)	370 x 480 x 310	460 x 670 x 320
Weight (kg)	35	71
Power supply	230 V, 50/60 Hz	

Delivery without rotor (please order separately).

Type	Art. No.	Pack Qty.	€
Megafuge 8	NN26.1 *	1	2040,00
Megafuge 8R	APT4.1 *	1	4809,00

* Longer delivery times possible. Please check with our Sales Department



Rotors and accessories for Megafuge 8

Technical specifications:

Type	① TX-150	② MicroClick	③ M-10	④ HIGHConic III
Max. capacity (ml)	8 x 50	30 x 1.5/2.0	4 MT plates	6 x 50
Max. speed (rpm)	4500	14 000	4400	8700
max. RCF (x g)	3260	21 693	2576	10 155

① Oscillating rotor TX-150 (90°) - cell culture kit

For centrifuging 15 ml or 50 ml vials of the type Falcon®.

- Max. capacity 8 x 50 ml
- Max. speed 4500 rpm max. RCF 3260 g

Delivery incl. 4 oval beakers suitable for 8 50 ml vials of the type Falcon® (no adaptor required) and 8 adaptors for 15 ml vials of the type Falcon®.

Type	Art. No.	Pack Qty.	€
Oscillating rotor TX-150, cell culture kit	NN27.1 *	1	2030,00

② 30-place microlitre rotor MicroClick (45°) for 30 x 1.5/2 ml reaction vials

- Max. capacity 30 x 1.5 / 2.0 ml
- Max. speed 14 000 rpm max. RCF 21 693 x g

Delivery incl. aerosol-tight lid.

Type	Art. No.	Pack Qty.	€
MicroClick microlitre rotor	NN28.1 *	1	960,00
Adaptor sleeves for 0.5 ml reaction vials	NN29.1 *	30	188,00
Adaptor sleeves for 0.2 ml reaction vials	NN30.1 *	30	188,00

③ Microtitration plate rotor M-10

- For 4 standard microtiter plates or 2 deepwell plates
- Max. speed 4400 rpm max. RCF 2576 x g

An M-10 rotor and two open carriers are required for operation (please order both products separately)

Type	Art. No.	Pack Qty.	€
Microtitration plate rotor M-10	NN31.1 *	1	1066,00
Open carrier	NN32.1 *	2	586,00

④ Fixed angle rotor HIGHConic III (45°)

- Max. capacity 6 x 50 ml
- Max. speed 8700 rpm max. RCF 10 155 x g

Rotor is suitable for 50 ml vials of the type Falcon® without adaptor

Delivery incl. aerosol-tight screw cap.

Type	Art. No.	Pack Qty.	€
Fixed angle rotor HIGHConic III	NN33.1 *	1	1600,00

Adaptor for fixed angle rotor HIGHConic III

Nominal capacity of vessel	15 ml type Falcon®	16 ml tubes	1.5/2.0 ml reaction vials
Number of vessels per rotor	6		12
Required number of adaptors per rotor	6		
Max. vessel length (mm)	123		11
Max. vessel Ø (mm)	17	18	40
Bottom shape	Conical	Round	Conical

Type	Art. No.	Pack Qty.	€
Adaptor for 15 ml type Falcon® vessels	NN34.1 *	6	366,00
Adaptor for 16 ml round bottom tubes	NN35.1 *	6	366,00
Adaptor for 1.5/2.0 ml reaction vials	NN36.1 *	6	366,00

* Longer delivery times possible. Please check with our Sales Department



Benchtop centrifuges Megafuge 16/16R

By Thermo.

General specifications of both models:

- 6 program presets with speed buttons
- Multilingual display of programming steps, run conditions, alarms and servicing information
- Selection of 9 acceleration profiles and 10 braking profiles
- Optional display of revolutions in rpm or x g
- **Easy** tool-less fitting and changing of rotors with a single push of a button
- **Electronic** imbalance detection
- Motor-operated lid lock
- **Annual inspection acc. to BGR 500 recommended**

Megafuge 16R cooling centrifuge

- Infinitely adjustable from -10 to +40 °C in increments of 1 °C
- Precool function

Technical specifications:

Model	Megafuge 16	Megafuge 16R
Max. speed (in microlitre rotor)	15200 rpm adjustable in increments of 100	
Min. speed	300 rpm	
Max. RCF (in microlitre rotor)	25830 x g	
Min. RCF	17 x g	
Max. runtime	1 min to 9 h, 99 min / continuous operation / Quick-Run	
Temperature adjustment range	-	-10 to +40 °C
Dimensions H x W x D (mm)	360 x 440 x 605	360 x 623 x 605
Weight (kg)	57.5	91.5
Power supply	230 V, 50/60 Hz	

Delivery without rotor (please order separately).

Type	Art. No.	Pack Qty.	€
Megafuge 16	XP77.1 *	1	3351,00
Megafuge 16 R	XP78.1 *	1	5600,00

* Longer delivery times possible. Please check with our Sales Department



Rotors and accessories for Megafuge 16/16R

By Thermo.

Type	① TX-400 (90°)	② Micro 30 x 2	③ M-20
Max. capacity (ml)	4 x 400	30 x 1.5/2.0	6 MT plates
Max. speed (rpm)	5000	15200	4000
Max. RCF	4696 x g	25830 x g	2272 x g

① Oscillating rotor TX-400 (90°)

- Max. capacity 4 x 400 ml
- Max. speed 5000 rpm max. RCF 4696 x g
- **Delivery without** round cup, lid and adaptor for tubes (please order separately). 4 round cups and 4 adaptors are required for operation.

Type	Art. No.	Pack Qty.	€
Oscillating rotor TX-400	XP79.1 *	1	1291,00
Round cup for TX-400	XP80.1 *	4	1157,00
ClickSeal lid for round cups	XP81.1 *	4	320,00

Adaptor for oscillating rotor TX-400

Nominal capacity of vessel	15 ml type Falcon®	50 ml type Falcon®	25 ml universal tubes	250 ml type Nalgene® Oak Ridge bottle
Number of vessels per rotor	36	16	12	4
Required number of adaptors per rotor	4			
Max. vessel length (mm)	121	116	110	135
Max. vessel Ø (mm)	17	29.5	25	62
Bottom shape	Conical		Round	

Type	Art. No.	Pack Qty.	€
Adaptor for 15 ml type Falcon® vessels	XP82.1 *	4	325,00
Adaptor for 50 ml type Falcon® vessels	XP83.1 *	4	325,00
Adaptor for 25 ml universal tubes	XP84.1 *	4	327,00
Adaptor for 250 ml Oak Ridge bottle	XP85.1 *	4	326,00

② 30-place angle rotor for 30 x 1.5/2.0 ml micro reaction vials

- **Aerosol tight**
- Max. capacity 30 x 1.5/2.0 ml
- High performance: max. 15200 rpm max. RCF 25830 x g
- **Delivery incl.** aerosol-tight lid

Type	Art. No.	Pack Qty.	€
Microlitre rotor type 30 x 2	XP86.1 *	1	969,00
Reducing sleeves for 0.5 ml centrifuge tubes	X118.1 *	24	147,00
Reducing sleeves for 0.2 ml centrifuge tubes	X121.1 *	24	147,00

③ Microtitration plate rotor M-20

- For 2 x 3 standard microtitration plates or 2 x 1 deepwell plates
- Max. speed 4000 rpm max. RCF 2272 x g
- Max. H 65 mm
- **Delivery incl.** 2 supports and 2 adaptors, but without lid (if a lid is required, an additional support set with lid must be ordered separately).

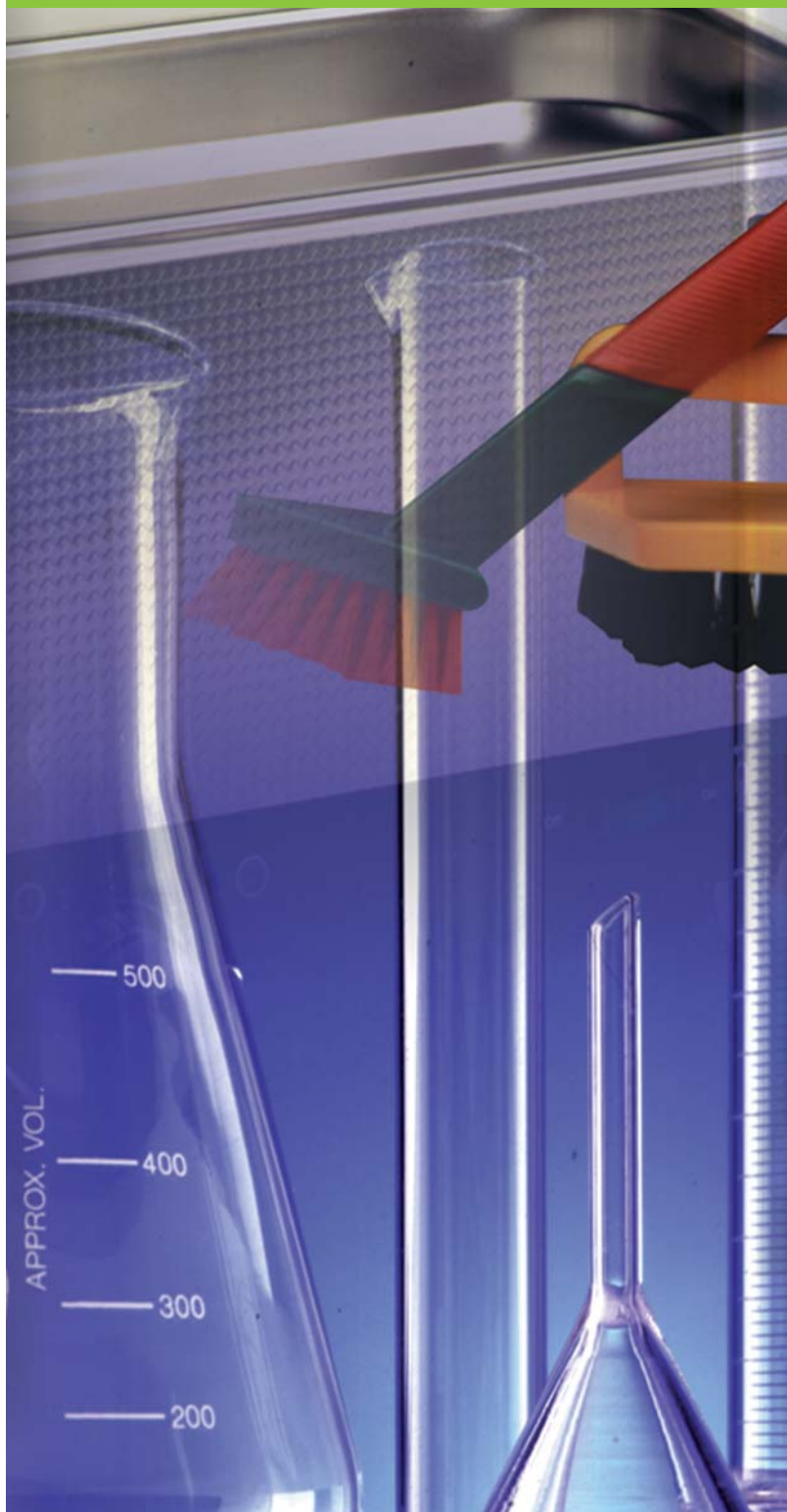
Type	Art. No.	Pack Qty.	€
Microtitration plate rotor M-20	XP89.1 *	1	1416,00

Aerosol tight support set with lid for microtitration plate rotor M-20

Microtitration plates max. H 45 mm.

Type	Art. No.	Pack Qty.	€
Aerosol-tight support set	XP90.1 *	2	802,00

* Longer delivery times possible. Please check with our Sales Department



Cleaning, Care & Aids

Adhesive- and isolation tapes	1102
Adhesives	1100
Anti-static spray	1085
APIEZON®-lubricants and waxes	1097
Bench-Top protection paper	1090
Boiling chips	1108
Brushes, cleaning utensils	1094
Casting resins, epoxides	1101
Cleaning agents (floor, glass and stainless steel)	1079
Descaler	1078
Disinfectants for instruments	1070
Disinfecting agents	1070
Disinfecting agents for surfaces	1072
Floor mops	1094
Gasleak detectors	1104
Glass beads / Beads®	1106
Heating bath fluids	1105
Label remover	1081
Magnesia scoops and rods	1106
neodisher® for laboratory dishwashers	1067
Office cleaning agents	1084
Preservatives (wood, metal, etc.)	1099
Release agents	1099
RBS® for laboratory dishwashers	1066
Sealing agents	1103
Sealing agents / greases	1196
Solvents	1105
Sprays	1081
Universal cleaners RBS®	1063
Ultrasonic baths and accessories	1054
Ultrasonic cleaners	1061
Vacuum cleaners	1055
Water bath preservatives	1078
Wipes	1085
Wipes / cellulose tissues	1086

Ultrasonic baths



Ultrasonic compact baths

By Bandelin.

- Power supply 230 V, 50/60 Hz
- Robust stainless steel shell
- Unit frequency 35 kHz
- Protected against drips and splashes
- For intensive and gentle cleaning of glassware, metal parts, electronic components, instruments etc.
- For degassing liquids
- For accelerating slurry processes
- For manufacturing emulsions

① SONOREX SUPER ultrasonic compact baths

- Timer 1 to 15 min or continuous run
- Type "H"-units with heating 30-80 °C, can be set in 5°-increments (except Type RK 31 H: Heating cannot be adjusted but is permanently set at 65 °C)

② SONOREX DIGITEC ultrasonic compact baths

- Membrane keypad with clear symbols
- Timer 1 to 30 min or continuous run
- "H"-units with heating 20 to 80 °C, adjustable in 5°-increments
- Safety switch-off after 12 h
- LED-display for temperature and heating phase
- Warning-LED for excess temperature
- Degas - function can be activated

① SONOREX SUPER ultrasonic compact baths

Delivery without perforated basket and lid (optional) (please order separately).

Type	Capacity (l)	Tubs-inner dimensions L x W x H (mm)	Unit-outer dimensions L x W x H (mm)	Maximum output (W)	HF-effective output (W)	Drainage - ball stop-cock	Art. No.	Pack Qty.	€
RK 31	0,9	190 x 85 x 60	205 x 100 x 155	240	30	without	P390.1 *	1	311,75
RK 31 H	0,9	190 x 85 x 60	205 x 100 x 155	240	30	without	P391.1 *	1	365,50
RK 52	1,8	150 x 140 x 100	175 x 165 x 225	240	60	without	P392.1 *	1	542,90
RK 52 H	1,8	150 x 140 x 100	175 x 165 x 225	240	60	without	P393.1 *	1	693,40
RK 100 H	3,0	240 x 140 x 100	260 x 160 x 250	320	80	without	P394.1 *	1	731,00
RK 102 H	3,0	240 x 140 x 100	260 x 160 x 250	480	120	G ¼"	P395.1 *	1	1042,75
RK 103 H	4,0	240 x 140 x 150	260 x 160 x 310	640	160	G ¼"	P396.1 *	1	1064,25
RK 255 H	5,5	300 x 150 x 150	325 x 175 x 305	640	160	G ¼"	P397.1 *	1	1198,65
RK 106	5,6	∅ 240 x 130	∅ 265 x 270	480	120	G ¼"	P398.1 *	1	924,50
RK 156	6,0	500 x 140 x 100	530 x 165 x 245	480	120	G ¼"	P399.1 *	1	1091,15
RK 156 BH	9,0	500 x 140 x 150	530 x 165 x 300	860	215	G ¼"	P400.1 *	1	1467,40
RK 510	9,7	300 x 240 x 150	325 x 265 x 305	640	160	G ½"	P401.1 *	1	1091,15
RK 510 H	9,7	300 x 240 x 150	325 x 265 x 305	640	160	G ½"	P402.1 *	1	1343,75
RK 514 H	13,5	325 x 300 x 150	355 x 325 x 305	860	215	G ½"	P403.1 *	1	1838,25
RK 514 BH	18,7	325 x 300 x 200	355 x 325 x 385	860	215	G ½"	P404.1 *	1	1897,40
RK 1028 H	28	500 x 300 x 200	535 x 325 x 400	1200	300	G ½"	P405.1 *	1	2477,90

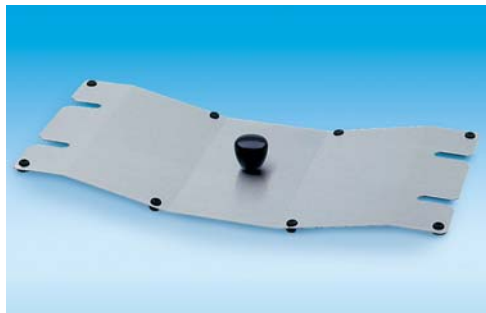
② SONOREX DIGITEC ultrasonic compact baths

Delivery without perforated basket and lid (optional) (please order separately).

Type	Capacity (l)	Tubs-inner dimensions L x W x H (mm)	Unit-outer dimensions L x W x H (mm)	Maximum output (W)	HF-effective output (W)	Drainage - ball stop-cock	Art. No.	Pack Qty.	€
DT 31	0,9	190 x 85 x 60	205 x 100 x 170	240	30	without	HE28.1 *	1	381,65
DT 31 H	0,9	190 x 85 x 60	205 x 100 x 170	240	30	without	HE29.1 *	1	435,40
DT 52	1,8	150 x 140 x 100	175 x 165 x 230	240	60	without	HE30.1 *	1	548,25
DT 52 H	1,8	150 x 140 x 100	175 x 165 x 230	240	60	without	HE31.1 *	1	698,75
DT 100	3	240 x 140 x 100	260 x 160 x 250	320	80	without	HE32.1 *	1	612,75
DT 100 H	3	240 x 140 x 100	260 x 160 x 250	320	80	without	HE33.1 *	1	736,40
DT 102 H	3	240 x 140 x 100	260 x 160 x 250	480	120	G ¼"	HE34.1 *	1	1053,50
DT 103 H	4	240 x 140 x 150	260 x 160 x 310	640	160	G ¼"	HE35.1 *	1	1075,00
DT 106	5,6	∅ 240 x 130	∅ 265 x 270	480	120	G ¼"	HE36.1 *	1	935,25
DT 156	6	500 x 140 x 100	530 x 165 x 245	640	160	G ¼"	HE37.1 *	1	1101,90
DT 156 BH	9	500 x 140 x 150	530 x 165 x 300	860	215	G ¼"	HE38.1 *	1	1483,50
DT 255	5,5	300 x 150 x 150	325 x 175 x 295	640	160	G ¼"	HE39.1 *	1	994,40
DT 255 H	5,5	300 x 150 x 150	325 x 175 x 295	640	160	G ¼"	HE40.1 *	1	1209,40
DT 510	9,7	300 x 240 x 150	325 x 265 x 305	640	160	G ½"	HE41.1 *	1	1101,90
DT 510 H	9,7	300 x 240 x 150	325 x 265 x 305	640	160	G ½"	HE42.1 *	1	1354,50
DT 514	13,5	325 x 300 x 150	355 x 325 x 305	860	215	G ½"	HE43.1 *	1	1580,25
DT 514 H	13,5	325 x 300 x 150	355 x 325 x 305	860	215	G ½"	HE44.1 *	1	1849,00
DT 514 BH	18,7	325 x 300 x 200	355 x 325 x 385	860	215	G ½"	HE45.1 *	1	1908,15
DT 1028	28	500 x 300 x 200	535 x 325 x 400	1200	300	G ½"	HE46.1 *	1	2150,00
DT 1028 H	28	500 x 300 x 200	535 x 325 x 400	1200	300	G ½"	HE47.1 *	1	2488,65

* Longer delivery times possible. Please check with our Sales Department.

Ultrasonic baths



Lids for ultrasonic baths SONOREX

By Bandelin. Made of stainless steel.

For model	Art. No.	Pack Qty.	€
RK/DT 31, RK/DT 31 H	P406.1	1	19,35
RK/DT 52, RK/DT 52 H	P407.1	1	35,50
DT 100, RK/DT 100 H, RK/DT102 H, RK/DT 103 H	P408.1	1	35,50
DT 255, RK/DT 255 H	P411.1	1	45,15
RK/DT 106	P412.1	1	58,05
RK/DT 156, RK/DT 156 BH	P413.1	1	63,45
RK/DT 510, RK/DT 510 H	P415.1	1	53,75
RK/DT 514, RK/DT 514 H, RK/DT 514 BH	P416.1	1	62,35
DT 1028, RK/DT 1028 H	P418.1	1	72,05



Insertion baskets for ultrasonic baths SONOREX

By Bandelin. Made of stainless steel. Measurements without holder.

For model	Inner dimensions: L x W x H (mm)	Art. No.	Pack Qty.	€
RK/DT 31, RK/DT 31 H	170 x 65 x 50	P419.1	1	35,50
RK/DT 52, RK/DT 52 H	120 x 110 x 40	P420.1	1	48,40
DT 100, RK/DT 100 H, RK/DT102 H	200 x 110 x 40	P421.1	1	57,00
RK/DT 103 H	200 x 110 x 40	P423.1	1	62,35
DT 255, RK/DT 255 H	260 x 110 x 40	P424.1	1	68,80
RK/DT 106	Ø 215 x 50	P425.1	1	109,65
RK/DT 156	460 x 100 x 50	P426.1	1	187,05
RK/DT 156 BH	460 x 100 x 50	P427.1	1	189,20
RK/DT 510, RK/DT 510 H	250 x 195 x 50	P428.1	1	165,55
DT 514, RK/DT 514 H	275 x 245 x 50	P429.1	1	183,85
RK/DT 514 BH	275 x 245 x 50	P430.1	1	186,00
DT 1028, RK/DT 1028 H	455 x 245 x 50	P431.1	1	239,75



SONOREX ultrasonic pipette cleansing set

By Bandelin. SONOREX PR 140 C ultrasonic pipette cleansing unit, suitable for pipettes and other glass vessels up to 755 mm.

- Cleansing and rinsing in one vessel based on the siphon principle
- Short cleansing time
- No rearranging of pipettes necessary - less breakage of glass

Technical specifications:

Net volume	13.9 l
Outer dimensions: Height / Footprint (L x W)	1130 mm / 335 x 255 mm
Inner dimensions: Useable depth / Sonic radiating surface	765 mm / Ø 150 mm
Frequency of unit	35 kHz
Ultrasonic peak power (W)	860 W
HF-output	215 W _{eff}
Water flow rate during rinsing	2 l / min at 3-8 bar
Power supply	230 V, alternatively 115 V, 50/60 Hz
Timer adjustable	1-60 min

Accessories:

- Pipette basket made of PE Inside measurements: Ø x H 120 x 275 mm
Following number of pipettes can fit in basket for cleansing:
Ø 9.0 mm - approx 90; Ø 10.7 mm - approx. 55;
Ø 14.0 mm - approx. 35; Ø 20.0 mm - approx. 15;
Ø 29.0 mm - approx. 10
- The stainless steel lid fits ultrasonic pipette cleansing unit

Delivery incl. ultrasonic cleansing unit PR 140 C, pipette basket and lid.

Type	Art. No.	Pack Qty.	€
① + ② Ultrasonic pipette cleansing set	KA01.1	1	2413,40

Accessories:

Spare Lid	KA06.1	1	43,00
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► Compact Ultrasonic Processors see page 999

Ultrasonic baths



Ultrasonic units, Elmasonic S series

By Elma. For intensive cleaning of laboratory instruments made of glass, plastic and metal. Suitable for degassing HPLC-solvents and beverage samples containing carbon dioxide.

- Operating frequency 37 kHz
- Housing made of stainless steel
- **Sweep-Function:** continuous frequency change for fast and consistent cleaning
- **Degas-Function:** for degassing cleaning solutions and liquids
- Timer 0-30 min and continuous run, safety switch- off after 12 h
- Quick run function on the S 30 and later models
- Some models have a heating component which can run dry, and is infinitely adjustable from 30-80°C
- **Autostart-function:** Ultrasonic cleaning begins when the preselected cleaning temperature has been reached
- LED displays for ultrasound function and heating („H“ devices only)

Delivery without perforated basket and lid (optional)
(please order separately).

Model	Capacity (l)	Tubs-inner dimensions L x W x H (mm)	Unit-outer dimensions L x W x H (mm)	Effective ultrasonic power (W)	Maximum ultrasonic power (W)	Heating power (W)	Art. No.	Pack Qty.	€
S 10 (with lid)	0,8	190 x 85 x 60	206 x 116 x 178	30	240	-	CC84.1 *	1	279,50
S 10H (with lid)	0,8	190 x 85 x 60	206 x 116 x 178	30	240	60	CC85.1 *	1	344,00
S 15	1,75	151 x 137 x 100	175 x 180 x 212	35	280	-	CC86.1 *	1	505,25
S 15H	1,75	151 x 137 x 100	175 x 180 x 212	35	280	60	CC87.1 *	1	602,00
S 30	2,75	240 x 137 x 100	300 x 179 x 214	80	320	-	CC88.1 *	1	575,15
S 30H	2,75	240 x 137 x 100	300 x 179 x 214	80	320	200	CC89.1 *	1	639,65
S 40	4,25	240 x 137 x 150	300 x 179 x 264	140	560	-	CC90.1 *	1	827,75
S 40H	4,25	240 x 137 x 150	300 x 179 x 264	140	560	200	CC91.1 *	1	951,40
S 60	5,75	300 x 151 x 150	365 x 186 x 264	150	600	-	CC92.1 *	1	951,40
S 60H	5,75	300 x 151 x 150	365 x 186 x 264	150	600	400	CC93.1 *	1	1118,00
S 70	6,9	505 x 137 x 100	564 x 179 x 214	150	600	-	CC94.1 *	1	1096,50
S 70H	6,9	505 x 137 x 100	564 x 179 x 214	150	600	600	CC95.1 *	1	1198,65
S 80	9,4	505 x 137 x 150	564 x 179 x 264	150	600	-	CC96.1 *	1	1198,65
S 80H	9,4	505 x 137 x 150	564 x 179 x 264	150	600	600	CC97.1 *	1	1386,75
S 180	18	327 x 300 x 200	390 x 340 x 321	200	800	-	CC98.1 *	1	1628,65
S 180H	18	327 x 300 x 200	390 x 340 x 321	200	800	800	CC99.1 *	1	1881,25

* Longer delivery times possible. Please check with our Sales Department.



Plastic lids

By Elma. For ultrasonic baths Elmasonic S. Noise inhibiting. Can be used as a drainage tray.

For model	Art. No.	Pack Qty.	€
S 15 / S 15H	CE01.1 *	1	18,85
S 30 / S 30H; S 40 / S 40H	CE02.1 *	1	21,00
S 60 / S 60H	CE03.1 *	1	26,35
S 70 / S 70H; S 80 / S 80H	CE04.1 *	1	34,40
S 180 / S 180H	CE05.1 *	1	36,55

* Longer delivery times possible. Please check with our Sales Department.

- **Special-ultrasonic cleaner Ultrasonol®**,
see page 1061

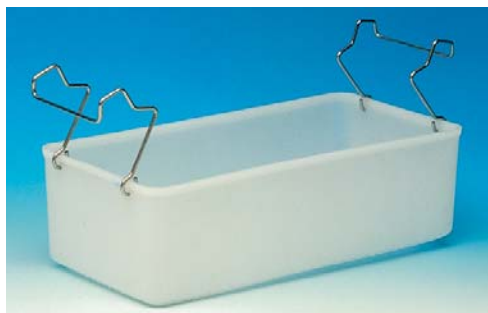


Insert baskets

By Elma. Made of electropolished stainless steel 1.4301. Handles with heat-insulated coating. For ultrasonic baths Elmasonic S.

For model	L x W (mm)	Art. No.	Pack Qty.	€
S 10 / S 10H	177 x 73	CE06.1 *	1	36,55
S 15 / S 15H	112 x 103	CE07.1 *	1	39,80
S 30 / S 30H	198 x 106	CE08.1 *	1	46,25
S 40 / S 40H	190 x 105	CE09.1 *	1	52,70
S 60 / S 60H	255 x 115	CE10.1 *	1	65,60
S 70 / S 70H	465 x 106	CE11.1 *	1	153,75
S 80 / S 80H	455 x 106	CE12.1 *	1	179,55
S 180 / S 180H	280 x 250	CE13.1 *	1	159,10

* Longer delivery times possible. Please check with our Sales Department.



Hostalen-insert tubs

By Elma.

For model	L x W x H inner (mm)	Art. No.	Pack Qty.	€
S 15, S 15H	95 x 95 x 57	C309.1	1	17,55
S 30, S 30H, P 30 H, X-tra	200 x 95 x 57	0613.1	1	19,80
S 40, S 40H	200 x 95 x 57	C310.1	1	19,80



High-grade steel insert covers

By Elma. For beakers.

For model	Type	Ø boreholes (mm)	Art. No.	Pack Qty.	€
S 10, S 10H	for 2 beakers	80	H555.1	1	27,45
S 15, S 15H	for 1 beaker	95	H556.1	1	34,95
S 30, S 30H, S 40, S 40H, P 30 H	for 2 beakers	95	H557.1	1	44,10



Immersion baskets

By Elma. For all types of ultrasonic baths.
Stainless steel basket with 0.8 mm mesh.

Material	Working measurement Ø (mm)	Working measurement height (mm)	Art. No.	Pack Qty.	€
Hostalen	74	40	H558.1	1	9,60
High grade steel	59	60	H559.1	1	37,65



Elmasonic P digital ultrasonic cleaning units

By Elma.

- Stainless steel vibration tank and housing
- Digital LED display for clear indication of frequency, output, actual and nominal temperatures and timer
- 3/8" drainage valve on back of unit (operated at the side)
- Ultrasonic frequency is switchable between 37 kHz (basic cleaning, mixing, dissolving) and 80 kHz (mild cleaning, low noise)
- Ultrasonic intensity is adjustable from 30 % (for sensitive surfaces) to 100 % in increments of 10%
- Automatic frequency switch-over for simultaneous coarse and fine cleaning
- **Sweep function** for an optimised sound field distribution
- **Pulse function** for intensification of ultrasonic cleaning power by up to 20 %
- Auto **Degas function** for quick degassing
- Temperature-controlled ultrasonic cleaning
- Dry run safe heating, adjustable from 30 to 80 °C in increments of 10°
- Automatic safety switch-off at a bath temperature of 90 °C or after more than 12 h of continuous duty

Technical specifications:

Type	Internal dimensions of tank L x W x H (mm)	External dimensions of unit L x W x H (mm)	Heating output (W)	Effective / maximum ultrasonic power (W)
P 30H	240 x 137 x 100	300 x 179 x 221	200	100 / 400
P 60H	300 x 151 x 150	365 x 186 x 271	400	150 / 600
P 70H	505 x 137 x 100	568 x 179 x 221	600	220 / 880
P 120H	300 x 240 x 200	365 x 278 x 321	800	330 / 1320
P 180H	327 x 300 x 200	390 x 340 x 321	800	330 / 1320
P 300H	505 x 300 x 200	568 x 340 x 321	1200	380 / 1520

Delivery without perforated basket and lid (optional)
(please order separately).

Type	Capacity (l)	Art. No.	Pack Qty.	€
P 30H	2,75	LX70.1	1	978,25
P 60H	5,75	LX71.1	1	1349,15
P 70H	6,9	LX72.1	1	1419,00
P 120H	12,75	LX73.1	1	2031,75
P 180H	18,0	LX74.1	1	2236,00
P 300H	28,0	LX75.1	1	2596,15

Covers

By Elma. For Elmasonic P ultrasonic cleaning units.
Sonic-absorbing. Usable as a drip tray.

For model	Art. No.	Pack Qty.	€
P 30H	CE02.1 *	1	21,00
P 60H	CE03.1 *	1	26,35
P 70H	CE04.1 *	1	34,40
P 120H	LX84.1	1	34,40
P 180H	CE05.1 *	1	36,55
P 300H	LX85.1	1	43,00

Stainless steel baskets

By Elma. For Elmasonic P ultrasonic cleaning unit.
Made of stainless steel, with heat-insulating coated handles.

For model	L x W x H (mm)	Art. No.	Pack Qty.	€
P 30H	198 x 106 x 50	CE08.1 *	1	46,25
P 60H	255 x 115 x 75	CE10.1 *	1	65,60
P 70H	465 x 106 x 50	CE11.1 *	1	153,75
P 120H	250 x 190 x 115	LX86.1	1	139,75
P 180H	280 x 250 x 115	CE13.1 *	1	159,10
P 300H	455 x 250 x 115	LX87.1	1	181,70

* Longer delivery times possible. Please check with our Sales Department.

Ultrasonic baths



Elmasonic S 50 R

By Elma. Ultrasonic cleaning unit for cleaning test sieves, HPLC solvent degassing and sample preparation. With microprocessor-controlled ultrasound modes and special programs for routine laboratory applications and cleaning tasks.

- **Sieve cleaning function:**
Strong cleaning pulses make for optimal sieve cleaning
- **Degas/(Autodegas) function:**
Efficient and noise-reduced degassing of HPLC solvents and carbonate drink samples
- **Sample preparation function:**
For routine tasks such as mixing, dissolving, dispersing and cleaning
- Short-time operation between 1 and 30 minutes or continuous duty, adjustable using rotary switch
- LED display of set cleaning time and remaining cleaning time
- Cleaning bath made of cavitation resistant stainless steel
- Can be connected to laboratory stand for noise-reduced operation
- Plastic carry handles

Technical specifications:

Outer dimensions of unit	Ø 260 x H 350 mm
Inner dimensions of bath	Ø 240 x H 130 mm
Total power consumption	150 W
Effective ultrasonic power	150 W
Max. ultrasonic power	600 W
Ultrasonic frequency	37 kHz
Max. filling capacity	5.3 l
Weight	5 kg

Delivery without accessories (please order separately).

Art. No.	Pack Qty.	€
YE61.1	1	865,40

Accessories for Elmasonic S 50 R

Cover

Made of PP, blue, sound-absorbing.

Art. No.	Pack Qty.	€
YE62.1	1	26,90

① Cover with opening

Made of PP, blue. Opening Ø 97 mm. Cover with opening in combination with rubber ring suitable for 600 ml beakers (low form) and 1000 ml beakers (high form). Please order rubber ring separately.

Art. No.	Pack Qty.	€
YE63.1	1	26,90

② Sieve holder for laboratory sieves

Made of stainless steel 1.4301.
Suitable for laboratory sieve Ø 100 and 200 mm.

Art. No.	Pack Qty.	€
YE65.1	1	60,20

Rubber ring

Art. No.	Pack Qty.	€
YE64.1	1	3,15

③ Insertion basket

Made of stainless steel. Basket inner dimensions Ø 220 x H 70 mm.
Mesh size 10 x 10 mm. Handles with heat-insulating coating.

Art. No.	Pack Qty.	€
YE66.1	1	82,80

Set of fixtures for glass flasks for HPLC degassing

Delivery incl. three finger clamp, fastening sleeve and stand rod (length 600 mm).

Art. No.	Pack Qty.	€
YE67.1	1	51,60



Noise protection boxes for ultrasonic cleaning devices

By Elma. Noise protection boxes for ultrasonic cleaning devices reduce typical cavitation noises by approx. 20 dBA and subjective noises by 75 %. Cover made of Plexiglas to identify the unit function and fill level. Integrated air extraction to remove steam from the box, manually connectable. This allows the box to be used directly at work stations in chemical laboratories, dental laboratories and workshops.

Technical specifications:

Type	Noise protection box, size M	Noise protection box, size L
For Elmasonic models	S 10, S 15, S 30, P 30, S 40, S 60, P 60	S 90, S 100, S 120, P 120, S 130, X-tra 30, X-tra 50, X-tra 70, Transsonic TI-H-5
Inner dimensions W x D x H (mm)	380 x 240 x 315	440 x 310 x 480
Outer dimensions W x D x H (mm)	465 x 415 x 360	530 x 490 x 530
Weight (kg)	12.6	15.2

Delivery without ultrasonic cleaning unit (please order separately).

Type	Art. No.	Pack Qty.	€
Noise protection box, size M	YP19.1	1	577,30
Noise protection box, size L	YP20.1	1	625,65



Ultrasonic devices Elmasonic X-tra series

By Elma.

- Highly effective thanks to additional vibration systems
- Operating frequency 35 kHz
- Housing made of stainless steel
- Tubs made of cavitation-proof stainless steel
- Sweep-function for optimal sound distribution by electric oscillation of sound field (permanent)
- Two cleaning stages are available: Powerclean/Softclean
- High heating performance ensures short warm-up times
- Heating safe to run dry is infinitely adjustable from 30-80 °C
- Time switch: 0 to 15 min and continuous run
- With quick run

Technical specifications:

Type	Capacity (l)	Tub interior measurements L x W x H (mm)	Device-exterior measurements L x W x H (mm)	Effective ultrasonic intensity of power, switchable (W)	Heating power (W)
X-tra 30 H	3.0	240 x 130 x 100	360 x 205 x 250	70/120	400
X-tra 50 H	4.5	240 x 130 x 150	360 x 205 x 300	100/160	400
X-tra 70 H	6.5	300 x 150 x 150	360 x 225 x 300	110/180	400
X-tra 150 H	14.0	300 x 240 x 200	425 x 315 x 350	180/300	800

Delivery without perforated basket and lid (optional) (please order separately).

Type	Art. No.	Pack Qty.	€
X-tra 30 H	CC34.1 *	1	1085,75
X-tra 50 H	CC35.1 *	1	1150,25
X-tra 70 H	CC36.1 *	1	1359,90
X-tra 150 H	CC37.1 *	1	1881,25

* Longer delivery times possible. Please check with our Sales Department.



High-grade steel lids

By Elma. For ultrasonic baths Elmasonic X-tra.

For model	Art. No.	Pack Qty.	€
X-tra 30 H / 50 H	CC38.1 *	1	37,65
X-tra 70 H	CC39.1 *	1	62,35
X-tra 150 H	CC40.1 *	1	68,80

Insert baskets

By Elma. Made of stainless steel. For ultrasonic baths Elmasonic X-tra.

For model	L x W x H inner (mm)	Art. No.	Pack Qty.	€
X-tra 30 H / 50 H	224 x 114 x 80	CC41.1 *	1	75,25
X-tra 70 H	284 x 134 x 80	CC42.1 *	1	95,70
X-tra 150 H	281 x 224 x 140	CC43.1 *	1	105,35

* Longer delivery times possible. Please check with our Sales Department.



Ultrasonic multi-frequency baths Transsonic TI-H

By Elma.

- Frequencies (35/130 kHz) can be switched over for intensive cleaning and gentle cleaning of sensitive surfaces
- Stainless steel shell. Oscillating tub made of 1.5 mm strong special stainless steel, extremely robust and hard wearing
- Degas-function for rapid, effective degassing
- Sweep-function for optimum sound field distribution
- Outlet on back of housing, electrical control via push-button
- With heating, adjustable from 30-80 °C

Technical specifications:

Type	Capacity (l)	Tub interior L x W x H (mm)	Unit outer measurements L x W x H (mm)	Maximum ultrasonic power (W)
TI-H-5	3.7	240 x 130 x 150	340 x 265 x 370	400
TI-H-10	8.6	300 x 240 x 150	400 x 390 x 370	800
TI-H-15	12.2	300 x 240 x 200	400 x 390 x 420	800
TI-H-20	16.8	330 x 300 x 200	460 x 450 x 420	1000

Delivery without perforated basket and lid (optional) (please order separately).

Type	Art. No.	Pack Qty.	€
TI-H-5	T712.1 *	1	1970,50
TI-H-10	T713.1 *	1	2209,15
TI-H-15	T714.1 *	1	2480,05
TI-H-20	T715.1 *	1	2602,60

High-grade steel lids

By Elma. For ultrasonic multi-frequency baths.

For model	Art. No.	Pack Qty.	€
TI-H-5	T716.1 *	1	39,80
TI-H-10	T717.1 *	1	45,15
TI-H-15	T718.1 *	1	45,15
TI-H-20	T719.1 *	1	50,55

Baskets

By Elma. Made of stainless steel. For multi-frequency baths.

For model	L x W x H inner (mm)	Art. No.	Pack Qty.	€
TI-H-5	210 x 110 x 140	T720.1 *	1	126,85
TI-H-10	270 x 220 x 140	T721.1 *	1	179,55
TI-H-15	270 x 220 x 185	T722.1 *	1	179,55
TI-H-20	300 x 280 x 185	T723.1 *	1	191,35

* Longer delivery times possible. Please check with our Sales Department.

Ultrasonic baths



NEU
NOUVEAU
NEW

Mini ultrasonic cleaning unit

For cleaning small parts. Vibration tank and housing made of stainless steel 1.4301. Power supply 220-240 V, 50/60 Hz.

- Timer 1-60 min or continuous operation
- Operating frequency approx. 45 kHz

Technical specifications:

Capacity	0.5 l
Outer dimensions (L x W x H)	175 x 110 x 175 mm
Inner dimensions of tank (L x W x H)	150 x 85 x 65 mm
Inner dimensions of perforated basket (L x W x H)	148 x 80 x 62 mm
Ultrasonic output	60 W

Delivery incl. cover and perforated basket made of stainless steel.

Art. No.	Pack Qty.	€
CLL4.1	1	138,70



NEU
NOUVEAU
NEW

Mini ultrasonic cleaning unit with heater

For cleaning small parts. Vibration tank and housing made of stainless steel 1.4301. Power supply 220-240 V, 50/60 Hz.

- Timer 1-15 min or continuous operation
- Heating is adjustable up to approx. 80 °C
- Operating frequency approx. 45 kHz

Technical specifications:

Capacity	0.8 l
Outer dimensions (L x W x H)	200 x 110 x 160 mm
Inner dimensions of tank (L x W x H)	180 x 90 x 50 mm
Inner dimensions of perforated basket (L x W x H)	178 x 80 x 42 mm
Ultrasonic output	60 W
Heating capacity	60 W

Delivery incl. cover and perforated basket made of stainless steel.

Art. No.	Pack Qty.	€
CLL5.1	1	188,15



NEU
NOUVEAU
NEW

Ultrasonic cleaning units H-series

Compact universal cleaning units for cleaning laboratory utensils, allowing faster dissolution and degassing of fluids. Vibration tank and housing made of stainless steel 1.4301. Mains connection 220-240 V, 50/60 Hz.

Features:

- Timer 1-60 min or continuous operation
- Heating is adjustable up to approx. 80 °C
- Operating frequency approx. 45 kHz
- Models H 30 to H 120 with outlet

Technical specifications:

Model	Capacity (l)	Inner dimensions of tank L x W x H (mm)	Outer dimensions L x W x H (mm)	Heating output (W)	Ultrasonic output (W)
H 12 Q	1.2	150 x 138 x 65	180 x 165 x 220	60	60
H 20 Q	2.0	150 x 138 x 100	175 x 165 x 225	60	60
H 22	2.2	238 x 138 x 65	300 x 170 x 225	100	60
H 30	3.0	238 x 138 x 100	300 x 165 x 225	120	120
H 40	4.0	302 x 152 x 100	330 x 175 x 225	120	120
H 60	6.0	302 x 152 x 150	330 x 175 x 290	120	180
H 120	12.0	500 x 135 x 150	600 x 165 x 355	200	300

Delivery incl. cover and perforated basket made of stainless steel.

Model	Capacity (l)	Inner dimensions of perforated basket L x W x H (mm)	Art. No.	Pack Qty.	€
H 22	2,2	236 x 136 x 62	CPK5.1	1	299,95
H 30	3,0	236 x 136 x 62	CPK6.1	1	428,95
H 40	4,0	300 x 150 x 98	CPK7.1	1	536,45
H 60	6,0	300 x 150 x 148	CPK8.1 *	1	643,95
H 120	12,0	498 x 133 x 147	CPK9.1 *	1	966,45

* Delivery times may apply to these products. Please consult our sales department.



NEU
NOUVEAU
NEW

Digital ultrasonic cleaning units, D-series

High-performance universal cleaning units with digital display for cleaning laboratory utensils, allowing faster dissolution and degassing of fluids. Vibration tank and housing made of stainless steel 1.4301. Mains connection 220-240 V, 50/60 Hz.

Features:

- Timer 1-60 min or continuous operation
- Heating is adjustable up to approx. 80 °C
- Power control 50/100 %
- Sweep technology
- Degas function
- Operating frequency approx. 40 kHz
- Models D 30 to D 280 with outlet

Technical specifications:

Model	Capacity (l)	Inner dimensions of tank L x W x H (mm)	Outer dimensions L x W x H (mm)	Heating output (W)	Ultrasonic output (W)
D 20 Q	2.0	150 x 138 x 100	175 x 165 x 225	60	80
D 30	3.0	238 x 138 x 100	300 x 165 x 225	120	160
D 40	4.0	302 x 152 x 100	330 x 175 x 225	120	160
D 60	6.0	302 x 152 x 150	330 x 175 x 290	120	240
D 100	10.0	302 x 239 x 150	353 x 265 x 325	200	320
D 130	13.0	302 x 239 x 200	330 x 270 x 355	200	400
D 280	28.0	502 x 298 x 200	530 x 330 x 360	300	640

Delivery incl. cover and perforated basket made of stainless steel.

Model	Capacity (l)	Inner dimensions of perforated basket L x W x H (mm)	Art. No.	Pack Qty.	€
D 20 Q	2,0	148 x 136 x 98	CPL0.1	1	321,45
D 30	3,0	236 x 136 x 98	CPL1.1	1	590,20
D 40	4,0	300 x 150 x 98	CPL2.1	1	751,45
D 60	6,0	300 x 150 x 148	CPL3.1	1	858,95
D 100	10,0	300 x 237 x 148	CPL4.1	1	1138,45
D 130	13,0	300 x 237 x 198	CPL5.1	1	1558,75
D 280	28,0	500 x 297 x 198	CPL6.1	1	2096,25

* Delivery times may apply to these products. Please consult our sales department.



Ultrasonol® 7 - neutral

Gentle on materials, this special cleaner assists and intensifies the ultrasonic cleaning process.

- Also suitable for sensitive objects and materials.
- Non-irritating and non-toxic
- Non-flammable, non-gassing, biodegradable
- Liquid concentrate pH 7

Use 2-10 % in water.

Reaction time approx. 10 min; after washing, rinse thoroughly and dry.

⚠ **Warning** H319

Art. No.	Pack Qty.	€
5356.1	1 l	15,05
5356.2	5 l	54,75
5356.4	20 kg	173,10



Ultrasonol® 11 - alkaline

This highly effective special cleaner assists and intensifies the ultrasonic cleaning process.

- Removes distillation residues, tars, resins, Canada balsam, adhesives, silicones, greases, oils and similar contaminants
- Non-flammable, non-gassing, biodegradable
- Liquid concentrate pH 12.9

Use 2-10 % in water.

Reaction time 1 to 10 min; after washing, rinse thoroughly and dry.

⚠ **Danger** H290-H314-EU031

Art. No.	Pack Qty.	€
5354.1	1 l	14,75
5354.2	5 l	54,30

Ultrasonic cleaners



Ultrasonic cleaner Elma clean 10

Alkalic cleaning concentrate.

Suitable for thorough ultrasonic cleaning of laboratory equipment and technical instruments, and objects made of steel, glass, plastic and ceramics.

Removes blood, saliva, proteins, albumen- and bone residue as well as grease, oil, grinding and polishing paste.

Dosage: 5 % in ultrasonic and immersion baths, higher dosages can be used for heavy contamination.

Danger H290-H315-H318

Art. No.	Pack Qty.	€
CC48.1	1 l	15,05

Ultrasonic cleaner Elma clean 70

Alkalic, universal cleaning concentrate.

For thorough cleaning of laboratory equipment, tools and instruments made of glass, ceramics, alkaline-stable plastic, rubber (e.g. respiratory masks), metal and light metal. Removes oils, greases, dust, soot and other organic impurities.

Dosage: 1-5 % at 20-80 °C, in immersion bath without ultrasound 5-10 %.

Danger H315-H318

Art. No.	Pack Qty.	€
CC46.1	1 l	13,65

Ultrasonic cleaner Elma clean 75

Ammoniacal cleaning concentrate for use in the laboratory, in workshops and for cleaning jewellery

Removes dirt particles, grease, oil, skin-, grinding-, polishing- and lapping residue. Precious metals and nonferrous metal become brighter.

May attack zinc, aluminium and light metal alloys.

Dosage: 5-10 %; in immersion bath without ultrasound 15 %.

Danger H315-H318-H336-H412

Art. No.	Pack Qty.	€
CC47.1	1 l	15,05

Ultrasonic cleaner Elma clean 65

Gentle neutral cleansers with corrosion inhibitor.

For instruments and metals made of sensitive materials such as glass, plastic, rubber and metal. Removes finger prints, dust, pigments, light greases and oils.

Dosage: 2-5 % at 20-80 °C.

Danger H318

Art. No.	Pack Qty.	€
CC45.1	1 l	13,45

Ultrasonic cleaner Elma clean 60

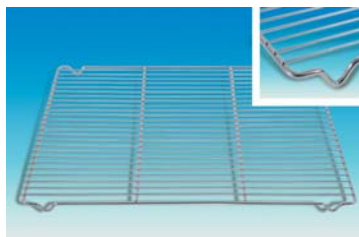
Acidic instruments cleaner for the laboratory and workshop.

Suitable for cleaning laboratory equipment and tools made of stainless steel, glass and plastic. Removes metal oxides and mineral dirt, e.g. lime, rust, mineral oils and greases.

Dosage: 1-10 % at 40-70 °C, in immersion bath without ultrasound >3 %.

Danger H290-H314

Art. No.	Pack Qty.	€
CC44.1	1 l	21,75



Rotilabo®-draining grid

Made of stainless steel 18/10, wire thickness 2.5 mm, frame wire 6 mm, heavy duty. Autoclavable.

L x W x H (mm)	Art. No.	Pack Qty.	€
440 x 310 x 20	YX63.1	1	28,60
470 x 310 x 22	YX64.1	1	30,75
590 x 390 x 26	YX65.1	1	38,10



Rotilabo®-draining mat

Made of PP, black, variable assembly, hole size: 2 x 2 cm, 4 mm surface clearance allows unobstructed drainage of drip water. Rugged quality. Weight 57 g. Autoclavable.

L x W x H (mm)	Art. No.	Pack Qty.	€
315 x 210 x 8	YX62.1	1	3,05



Draining rack

Made of PS, with 72 slot-in pegs (Ø 15 x L 95 mm) which can be inserted randomly. The peg slots are sealed at the back and therefore leakproof. With drainage channel and tube (L 300 mm, outer Ø 12 mm).

For wall mounting. Dimensions: L 630 x W 450 x D 110 mm.

Delivery incl. slot-in pegs and fixing hardware.

Art. No.	Pack Qty.	€
CT39.1	1	85,50

Accessories for draining rack

Slot-in pegs made of PS.

Type	Peg Ø x L (mm)	Art. No.	Pack Qty.	€
For small Ø vessels	6 x 95	CT40.1	11	11,70
Standard	15 x 95	TT76.1	72	34,30

RBS® laboratory cleaning agent

Advantages at a glance:

- **No residues:** all RBS® cleaning agents wash off without leaving any traces. No residues of cleaner are visible on the cleaned article after rinsing. For consistent and error-free analytical results.
- **Safe and environmentally friendly:** RBS® cleaning solutions produce no harmful vapours or unpleasant odours under normal working conditions, and therefore are safe to use. All surfactants contained in the product are biodegradable.
- **Effective:** efficiently removes stubborn residues due to excellent emulsifying, wetting and dispersing properties. A safe alternative to hazardous bases or acid mixtures (e.g. alkaline baths, chromic-sulphuric acid).
- **Inexpensive:** RBS® cleaning agents are highly economical due to their low usage concentration.



All RBS®-cleaners at a glance

For manually or self-actingly cleaning

Type	Type	pH	Art. No.	Pack Qty.	€
RBS® 25	liquid	basic	AL89.1	5 l	57,95
RBS® 35	liquid	basic	9238.1	1 l	15,90
RBS® 35	liquid	basic	9238.2	5 l	65,40
RBS® 35	liquid	basic	9238.4	20 kg	188,15
RBS® IND 470	liquid	basic	TA00.1	5 l	49,25
RBS® IND 470	liquid	basic	TA00.2	20 kg	149,45
RBS® Neutral T	liquid	neutrally	0180.1	1 l	16,15
RBS® Neutral T	liquid	neutrally	0180.2	5 l	61,85
RBS® Neutral T	liquid	neutrally	0180.4	20 kg	192,45
RBS® pF T	liquid	basic	9243.1	1 l	15,60
RBS® pF T	liquid	basic	9243.2	5 l	65,05
RBS® pF T	liquid	basic	9243.4	20 kg	209,65
RBS® T 105	liquid	basic	PY99.1	5 l	36,35
RBS® T 115	liquid	basic	LY18.1	5 l	38,20
RBS® T 230	liquid	neutrally	LY17.1	5 l	36,05
RBS® T 305	liquid	acid	KT39.1	5 l	47,20

For mechanically pre- and secondary cleaning

Type	Type	pH	Art. No.	Pack Qty.	€
RBS® NA 2	liquid	acid	AL93.1	5 l	53,55
RBS® A 375	liquid	acid	TK44.1	5 l	42,80

For mechanically first cleaning

Type	Type	pH	Art. No.	Pack Qty.	€
RBS® 50	liquid	basic	9232.1	1 l	20,70
RBS® 50	liquid	basic	9232.2	5 l	92,45
RBS® 50	liquid	basic	9232.4	20 kg	260,15
RBS® B 210 T	liquid	basic	KC19.1	5 l	64,20
RBS® SOLID	pulver	basic	5715.1	5 kg	54,30

For mechanically pre-cleaning

Type	Type	pH	Art. No.	Pack Qty.	€
RBS® R 60	liquid	acid	AL94.1	5 l	53,55
RBS® R 60 pF	liquid	acid	AL96.1	5 l	64,30

RBS®-qualities	Manual cleaning	Immersion bath cleaning	Ultrasonic bath cleaning	Lab dishwashers	Pre-purification and neutralizing	Post-purification	Chlorinated substances	Not foaming	Phosphate-free	For hard water	For sensitive objects
RBS® 25	x	x	x				x				
RBS® 35	x	x	x				x			x	
RBS® 50	x	x	x	x			x	x		x	
RBS® Neutral T	x	x									x
RBS® IND 470	x	x	x						x	x	
RBS® pF T	x	x					x		x	x	
RBS® T 105	x	x	x				x			x	
RBS® T 115	x	x	x				x		x	x	
RBS® T 230		x	x							x	x
RBS® T 305	x	x								x	
RBS® A 375				x	x	x		x	x		
RBS® NA 2				x	x	x		x			
RBS® B 210 T				x				x		x	x
RBS® SOLID				x			x	x		x	
RBS® R 60				x		x		x			
RBS® R 60 pF				x		x		x	x		x

- Effective cleaning of laboratory glassware, plastics, porcelain, ceramics, crystal, stainless steel, etc. in laboratories (analysis, monitoring, research and development), universities, institutes, industry etc.
- Effective against grease, oils, salts, limescale, proteins, radioactive contamination and other chemical and biological residues.
- Suitable for manual cleaning, dishwashers and ultrasound baths or for automatic cleaning in immersion bath

RBS laboratory cleaning agent



RBS® 25

Alkaline liquid laboratory cleaning concentrate

- For manual cleaning
- For cleaning in immersion baths and ultrasonic baths

Cleans and degreases surfaces made of glass, ceramics, porcelain, synthetics, or stainless steel. Also suitable for industrial applications (processing of electronic components, wafers, lenses, etc.).

- pH value use concentration 2 %: approx. 11.9
- Density 1.094 g/ml
- Foaming
- **Ingredients:** sodium hydroxide, sodium hypochlorite solution, surfactants, phosphates

Use concentration: 20 ml per liter of water. Temperatures up to approx. 50 °C accelerate the cleaning process. Items to be cleaned should remain in the immersion bath for 3 hours. Rinse thoroughly with deionised water.

Danger H290-H314-EUH031

Art. No.	Pack Qty.	€
AL89.1	5 l	57,95

RBS® 35

Alkaline liquid laboratory cleaning concentrate

- For mechanical cleaning and normal dirt
- For cleaning in immersion baths and ultrasonic baths
- Also suitable for use with hard water

For cleaning and degreasing all non-corrosive materials and surfaces. Also suitable for industrial cleaning and degreasing of metals, electronic components, wafers, lenses, etc. Rinses off trace-free.

- pH value use concentration 2 %: approx. 11.5
- Density 1.07 g/ml
- Slightly foaming
- **Ingredients:** sodium hydroxide, tetrapotassium diphosphate, sodium carbonate, sodium hypochlorite solution, surfactants

Use concentration: 20 ml per liter of water; increase the dosage for stubborn dirt.

Rinse thoroughly with deionised water.

Danger H290-H314-EUH031

Art. No.	Pack Qty.	€
9238.1	1 l	15,90
9238.2	5 l	65,40
9238.4	20 kg	188,15

RBS® 50

Highly alkaline liquid laboratory cleaning concentrate

- For stubborn dirt
- For universal cleaning, immersion bath and ultrasonic bath cleaning, as well as for laboratory dishwashers

For cleaning and degreasing all non-ferrous material and surfaces. Also removes problematic substances such as radioactive residues, Canada balsam, silicones, etc. For industrial applications to treat metal parts, lenses, electronic components, etc.

- pH pure product: 13.5
- Density 1.244 g/ml
- Non foaming
- Also suitable for use with hard water
- **Ingredients:** tetrapotassium diphosphate, sodium hydroxide, sodium hypochlorite solution, mineral salts

Use concentration:

Manual and automatic cleaning: 10 ml per liter of water.

Cleaning in dishwashers and ultrasonic baths :

3-5 ml per litre of water. Dishwasher cleanable, particularly effective in combination with RBS NA 2 and/or RBS R 60.

Rinse thoroughly with deionised water.

Danger H290-H314-EUH031

Art. No.	Pack Qty.	€
9232.1	1 l	20,70
9232.2	5 l	92,45
9232.4	20 kg	260,15

RBS® Neutral T

Neutral liquid laboratory cleaning concentrate

- For manual or automatic cleaning
- In tissue culture and microbiology

Suitable for all, particularly sensitive materials and surfaces. Non-corrosive, no damaging influence on the culture growth.

- Chlorine-free
- pH-neutral cleaning solution
- Density 1.072 g/ml
- Slightly foaming
- **Ingredients:** surfactants, isotridecanol, ethylene glycol monophenyl ether, phosphates
- Biodegradable

Use concentration: 4 to 6 % v/v depending on amount of dirt.

Rinse thoroughly with deionised water.

Danger H318

Art. No.	Pack Qty.	€
0180.1	1 l	16,15
0180.2	5 l	61,85
0180.4	20 kg	192,45



Dosing pumps for RBS® canisters

Made of HDPE.

Suitable for RBS® canister size	Dosing volume/stroke (ml)	Art. No.	Pack Qty.	€
5 l (DIN 55)	25	HL77.1	1	9,70
30 l (DIN 60)	100	P242.1	1	57,55

RBS laboratory cleaning agent


RBS® IND 470

Alkaline liquid laboratory cleaning concentrate for decontaminating radioactive residues (tested for ⁹⁹Mo, ¹⁹²Ir, ¹³¹I). Also removes greases, silicone oils, carbonates, metal particles, dust and organic substances. Suitable for automatic or manual ultrasound cleaning of objects, containers and surfaces made of glass, stainless steel and plastic.

Halogen free (Cl; I; Br; F <20 µg/g) and **phosphate free** (P <5 µg/g).

- pH pure product: 14.0
- Density at 20 °C: 1.06
- Slightly foaming
- **Ingredients:** potassium hydroxide, isotridecanol, surfactants
- Unsuitable for corrodible metals
- Also suitable for use with hard water

Use concentration: 2 % v/v for normal contamination, temperatures up to approx. 50 °C accelerate the cleaning process. Soak parts to be decontaminated in a 10 % solution at 60 °C for at least 6 h. Rinse thoroughly with deionised water.

 **Danger** H290-H314

Art. No.	Pack Qty.	€
TA00.1	5 l	49,25
TA00.2	20 kg	149,45

RBS® pF T


Alkaline liquid laboratory cleaning concentrate

- **Phosphates-free**
- **For manual or automatic cleaning**
- **Also suitable for use with hard water**

Particularly suitable for use in analytic laboratories. Equalizes water hardness. Rinses off trace-free.

- pH value use concentration 2 %: approx. 11.8
- Density 1.072 g/ml
- Slightly foaming
- **Ingredients:** tetrasodium salt, sodium hydroxide, sodium carbonate, sodium hypochlorite solution, surfactants
- Biodegradable

Use concentration: 20 ml per liter of water; increase the dosage for stubborn dirt. Rinse thoroughly with deionised water.

 **Danger** H290-H314


Art. No.	Pack Qty.	€
9243.1	1 l	15,60
9243.2	5 l	65,05
9243.4	20 kg	209,65

RBS® T 105

Alkaline liquid laboratory cleaning concentrate. For self and manual cleaning or use in ultrasound baths. Suitable for laboratory glassware, stainless steel, porcelain and plastics. Removes organic and biological substances, such as greases, distillation residues, proteins and cell cultures. Reduces water hardness and counteracts scaling. Rinses off easily without leaving a residue.

- pH of a 2 % cleaning solution: 11.8; pH of concentrate: 13.3
- Density at 20 °C: 1.12
- Foaming
- **Ingredients:** tetrapotassium diphosphate, surfactants, sodium hypochlorite solution
- Unsuitable for corrodible metals
- Also suitable for use with hard water

Use concentration: 2 % v/v (higher concentrations can be used to remove stubborn dirt). Temperatures up to approx. 50 °C accelerate the cleaning process. Rinse thoroughly with deionised water.

 **Warning** H319

Art. No.	Pack Qty.	€
PY99.1	5 l	36,35

RBS® T 115

Alkaline liquid laboratory cleaning concentrate with excellent emulsifying and wetting properties. For self and manual cleaning or use in ultrasonic baths. Strongly recommended for laboratory glass, quartz, porcelains or synthetics. Removes organic and inorganic substances such as fats, proteins, distillation residues, and biological contaminants. Reduces water hardness and counteracts scaling. Is free of phosphates and is therefore suitable for use in analytical labs. Biodegradable.

- **Phosphates-free**
- pH of a 2 % cleaning solution: 11.7
- Density at 20 °C: 1.08
- Slightly foaming
- **Ingredients:** tetrasodium salt, sodium hydroxide, sodium carbonate, sodium hypochlorite solution, surfactants
- Unsuitable for corroding metals and sensitive materials
- Also suitable for use with hard water

Application concentration: 2 % v/v (higher concentrations can be used to remove stubborn dirt). Temperatures up to approx. 50 °C accelerate the cleaning process. Rinse thoroughly with deionised water.

 **Danger** H290-H314

Art. No.	Pack Qty.	€
LY18.1	5 l	38,20

RBS® T 230

Neutral liquid laboratory cleaning concentrate for cleaning sensitive materials such as volumetric glassware, aluminium, zinc, tin, PS or PC. Non-corrosive and fully biodegradable. Self-acting (no mechanical cleaning required). Also suitable for use in microbiology, as it has no harmful effect on culture growth.

- **Chlorine- and oxidant-free**
- pH-neutral cleaning solution
- Density at 20 °C: 1.07
- Non-corrosive, non-toxic and non-irritant
- Slightly foaming
- **Ingredients:** surfactants, isotridecanol, ethylene glycol monophenyl ether, phosphates
- Also suitable for use with hard water

Usage concentration: 4 to 6 % v/v, i.e. 40 to 60 ml RBS® T 230 per litre of water depending on contamination. Objects should be fully immersed for cleaning.

Application time: 2 to 12 h. Temperatures up to approx. 60 °C accelerate the cleaning process. Stubborn dirt be removed by brush or rinsing prior to application. Rinse thoroughly with deionised water.

 **Danger** H318

Art. No.	Pack Qty.	€
LY17.1	5 l	36,05


RBS® T 305

Acidic liquid laboratory cleaning concentrate for manual cleaning.

Particularly well suited to the removal of grease, oils, limescale residue, metal oxides, salts and inorganic residues from glass, ceramic, porcelain and non-corrosive stainless steel surfaces, and acid-resistant synthetics. Also for cleaning floors, workbenches and animal cages. Apply the cleaning agent, allow it to act; if necessary, brush off and rinse thoroughly with water.

- **Free of chlorine**
- pH value use concentration: 1.5 to 1.2
- Density 1.40 g/ml
- Foaming
- **Ingredients:** phosphoric acid, isotridecanol, surfactants
- Biodegradable
- Also suitable for use with hard water

Use concentration: 2 to 5 % v/v depending on amount of dirt.

 **Danger** H290-H314

Art. No.	Pack Qty.	€
KT39.1	5 l	47,20

RBS for laboratory dishwashers

RBS® A 375

Liquid, acidic pre-rinse and neutralisation agent for laboratory glassware washers


Removes lime scale deposits, hydroxides and many other residues from glass, plastic, porcelain, ceramic, crystal, stainless steel etc.

- **Free of surfactant, chlorine and phosphate**
- Rinses off easily without leaving a residue
- Also suitable for use with hard water
- Non foaming
- pH value (0.5 %): 2.6
- **Ingredients:** citric acid, lactic acid

Prewash: removes stubborn dirt and stains, increasing the effectiveness of alkaline main cleaning concentrates.

Rinsing: neutralises alkaline cleaning concentrate residues after the main cleaning cycle and protects the garment and machine from lime scale deposits.

Usage concentration: 0.2 % (in the case of stubborn dirt/stains or hard water, the concentration can be increased up to 0.5 %). Rinse with deionised water to ensure residue-free results. Particularly effective in combination with RBS® 50.

 **Danger** H315-H318

Art. No.	Pack Qty.	€
TK44.1	5 l	42,80

RBS® NA 2

Liquid, acidic pre-rinse and neutralisation agent for laboratory glassware washers

Prewash: removes stubborn dirt such as carbonates, hydroxides, salts and organic bases. Enhances the performance of alkaline main wash cycle detergents.

Rinsing: neutralizes alkaline detergent residues and prevent limescale deposits on the parts cleaned and in the dishwashers.

- **Free from tensides and chlorine**
- pH value use concentration: 2.2 to 1.8
- Density 1.378 g/ml
- Non foaming
- **Ingredients:** phosphoric acid

Use concentration: 0.2 to 0.5 % v/v. Particularly effective in combination with RBS® SOLID, RBS® B 210 T or RBS® 50. Rinse with deionised water.

 **Danger** H290-H314

Art. No.	Pack Qty.	€
AL93.1	5 l	53,55

RBS® B 210 T


Mildly alkaline cleaning concentrate for laboratory glassware washers

- **For sensitive instruments and parts in laboratories and industry**
- **High cleaning effect**

Effectively removes dust and inorganic contaminants. Also suitable for aluminium and synthetics, such as PC and PS. No defoamers or neutralising agents.

- **Free from chlorine**
- pH value in use concentration: 9.7
- Density 1.178 g/ml
- **Ingredients:** Na-EDTA, diethylene glycol, mineral salts
- Also suitable for use with hard water

Use concentration: 0.5 % v/v. Higher concentrations can be used to remove stubborn contamination. Temperatures from 40-60 °C speed up the cleaning process. Rinse with deionised water.

 **Danger** H318

Art. No.	Pack Qty.	€
KC19.1	5 l	64,20




RBS® SOLID

Powder-based, alkaline high-performance detergent for laboratory dishwashers

Suitable for laboratory glassware, quartz, stainless steel and alkaline-resistant synthetics. Removes grease, oils, distillation residues and other organic and anorganic substances. Rinses off trace-free.

- pH value use concentration 0.3 %: 10.6
- **Ingredients:** tetrapotassium diphosphate, sodium carbonate, sodium silicate, sodium dichlorisocyanurate dihydrate, surfactants
- Biodegradable

Application concentration: 0.1 % v/v, higher concentrations can be used to remove stubborn dirt. Temperatures between 50 and 90 °C accelerate the cleaning process. Particularly effective in combination with RBS® NA 2 and/or RBS® R 60. Rinse with deionised water.

   **Danger** H290-H332-H314-H335-H411-EU031

Art. No.	Pack Qty.	€
5715.1	5 kg	54,30



RBS® R 60

Liquid, slightly acidic neutralisation agent for laboratory glassware washers

Neutralizes alkaline detergent residues and prevents limescale deposits on item cleaned and in the dishwashers. Accelerates the drying process and produces a glossy finish.

- **Free of chlorine**
- pH value use concentration: 6.3 to 3.6
- Density 1.016 g/ml
- Non-foaming
- **Ingredients:** surfactants, sodium cumolsulphonate, 2-propanol, phosphoric acid

Use concentration: 0.1 to 0.3 % v/v. Particularly effective in combination with RBS® 50 and/or RBS® SOLID. Rinse with deionised water.

  **Warning** H226-H290-H315-H319-H412

Art. No.	Pack Qty.	€
AL94.1	5 l	53,55



RBS® R 60 pF

Liquid, slightly acidic neutralisation agent for laboratory glassware washers

Neutralizes alkaline detergent residues and prevents limescale deposits on item cleaned and in the dishwasher. Accelerates the drying process and produces a glossy finish. Free of phosphates and therefore suitable for use in analytical labs.

- **Free of phosphates and chlorine**
- pH value use concentration: 6.5 to 4.4
- Density 1.015 g/ml
- Non-foaming
- **Ingredients:** surfactants, sodium cumolsulphonate, 2-propanol, citric acid, amidosulphuric acid

Use concentration: 0.1 to 0.3 % v/v. Rinse with deionised water.

  **Warning** H226-H315-H319-H412

Art. No.	Pack Qty.	€
AL96.1	5 l	64,30

neodisher®- Grades	Manual washing/immersion bath	Laboratory glassware washers	Pre-wash	Post-wash and neutralisation	CE approved	Chlorinated ingredients	Low-foaming	Phosphates-free	For hard water	For easily breakable objects
neodisher® DuoClean		X			X	X		X	X	
neodisher® EM		X	X				X		X	
neodisher® anti-foaming agent S		X	X	X	X		X	X	X	X
neodisher® FA		X			X				X	
neodisher® LaboClean A8		X				X			X	
neodisher® LaboClean F		X						X		
neodisher® LaboClean FLA		X						X		
neodisher® LaboClean FM		X						X	X	
neodisher® LaboClean FT		X				X				
neodisher® LaboClean GK		X				X	X		X	
neodisher® LaboClean LA		X					X		X	
neodisher® LaboClean PLM		X					X			X
neodisher® LaboClean UW		X				X		X		X
neodisher® LM 2	X		X		X		X		X	
neodisher® LM 3	X	X	X					X		
neodisher® LM 10	X		X			X	X			
neodisher® MA		X			X		X		X	X
neodisher® N		X	X	X	X		X		X	
neodisher® PM 5	X				X				X	X
neodisher® PolyKlar		X		X		X				X
neodisher® TS		X		X		X				X
neodisher® Z		X	X	X	X		X	X	X	X



neodisher® LaboClean A8

By Dr. Weigert. **Alkaline intensive cleanser (powder)** with extraordinary cleaning power and high soil carrying capacity. **Free of tensides.**

For mechanical cleaning. Removes blood, serum, food residues, pharmaceuticals, colours, paint, gelatine and other organic residues. Contains phosphates, disodium metasilicate, sodium hydroxide, sodium carbonate and dichloroisocyanurate. Not suitable for aluminium and light metal alloys.

Danger H314-H335

Art. No.	Pack Qty.	€
N330.1	1 kg	11,75
N330.2	10 kg	83,85
N330.3	25 kg	196,75

neodisher® LaboClean UW

By Dr. Weigert. **Mild, alkaline cleaning agent (powder)**, protects the material. **Free of phosphates.**

For mechanical cleaning of laboratory glassware and other utensils in water laboratories, serological institutes and in the phosphates industry. Removes anorganic and organic contamination. Contains disodium metasilicate, sodium carbonate, sodium nitrilotriacetate and sodium perborate. Reduced efficiency with hard water.

Danger H314-H335

Art. No.	Pack Qty.	€
Y222.1	10 kg	108,60

neodisher® LaboClean GK

By Dr. Weigert. **Mild, alkaline cleaning agent (powder)**. **Free of phosphates and surfactants.**

For mechanical cleaning of synthetics and glassware for cell and tissue cultures in the area of microbiology, virology and nuclear medicine, as well as in isotope laboratories. Removes nutrient media, cell and tissue residues, radioactive contaminations, organic colour and pigment contaminations. Easy to rinse. Contains trisodium phosphates and dichloroisocyanurate.

Warning H315-H319-H335-H411

Art. No.	Pack Qty.	€
N331.1	10 kg	109,65

**NEU
NOUVEAU
NEW**

neodisher® LaboClean PLM

By Dr. Weigert. **Mildly alkaline defoaming cleaner (powder)** for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing blood, protein, oils, ointments, cream bases and felt-tip pen markings. Contains sodium carbonate, sodium metasilicate and surfactants. **Free of chlorine and oxidants.**

Danger H314-H335

Art. No.	Pack Qty.	€
CLP2.1	10 kg	123,65

**NEU
NOUVEAU
NEW**

neodisher® LaboClean LA

By Dr. Weigert. **Highly alkaline intensive cleaner (powder)** with a highly emulsifying, dispersing and defoaming action for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing greases, oils, resins, paraffin wax and organic dyes. Contains sodium hydroxide and disodium metasilicate. **Chlorine-free.** Also suitable for use with hard water.

Danger H290-H314-H335

Art. No.	Pack Qty.	€
CLP1.1	3 kg	38,50
CLP1.2	25 kg	278,45

**NEU
NOUVEAU
NEW**

neodisher® LaboClean F

By Dr. Weigert. **Highly alkaline intensive cleaner (powder)** with high cleaning power for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing greases, oils, paraffin wax, resins, organic dyes and felt-tip pen markings. Good complexing and dispersing effect. Contains sodium hydroxide, sodium metasilicate and sodium carbonate. **Free of phosphates, chlorine and surfactants.**

Danger H290-H314-H335

Art. No.	Pack Qty.	€
CLN9.1	3 kg	38,60
CLN9.2	25 kg	284,90

neodisher for laboratory dishwashers



neodisher® PM 5

By Dr. Weigert. **Mildly alkaline cleaner (powder)** for manual and automatic cleaning of laboratory glassware and other materials in an immersion bath. High cleaning power for blood and protein, food leftovers as well as inorganic and organic residues. Material tolerant and easily rinsed off. Contains phosphates, sodium carbonate and surfactants.

CE approved according to 93/42/EEC directive.

Warning H315-H319

Art. No.	Pack Qty.	€
CLP5.1	3 kg	77,95

neodisher® MA

By Dr. Weigert. **Mild, alkaline cleaning agent (powder)** with de-foaming properties. **Free of chlorine and oxidative additives.**

For mechanical cleaning of medical utensils, laboratory glassware and babies bottles. Removes residues of blood, protein and food. Excellent cleaning properties and very gentle on materials. Contains phosphates, disodium metasilicate and a nonionic tenside. Suitable for all water hardness levels.

CE mark according to MPG.

Danger H314-H335

Art. No.	Pack Qty.	€
AA59.1	1 kg	14,65
AA59.2	10 kg	100,55



neodisher® LM 2

By Dr. Weigert. **Mildly alkaline cleaner (liquid concentrate)** for use in immersion and ultrasonic baths as well as for manual cleaning. Removes organic residues such as blood and protein from laboratory glassware, instruments and objects made of ceramic, stainless steel and plastics. Easy to rinse off and low-foaming, ideal for cleaning pipettes. Contains potassium hydroxide, surfactants and phosphates. **Chlorine-free.**

CE approved according to 93/42/EEC directive.

Warning H315-H319-EUH208

Art. No.	Pack Qty.	€
CLP3.1	10 l	144,05
CLP3.2	20 kg	232,20



neodisher® LM 3

By Dr. Weigert. **Liquid alkaline universal cleaning agent. Phosphates-free, chlorine-free and low-foaming.**

For mechanical and manual cleaning and use in immersion baths. Removes all anorganic and organic residues, blood, protein and food remains, as well as radioactive substances. Also for pre-cleaning laboratory glassware and for cleaning pipettes and viscometers. Contains potassium hydroxide and amphotere tenside. Not suitable for aluminium and light metal alloys.

Danger H290-H314-EUH208

Art. No.	Pack Qty.	€
Y223.1	1 l	16,70
Y223.2	10 l	131,15

neodisher® LM 10

By Dr. Weigert. **Alkaline cleaner with oxidising action (liquid concentrate)** for manual washing of laboratory glassware in an immersion bath. For decontamination of radioactively contaminated objects and removal of stubborn organic residues. Contains potassium hydroxide, phosphates and sodium hydroxide. Surfactant and foam-free. Also suitable for pre-washing glassware before main wash cycle. No intermediate rinsing required.

Danger H290-H314-H412

Art. No.	Pack Qty.	€
CLP4.1	10 l	145,15

neodisher® LaboClean FM

By Dr. Weigert. **Alkaline intensive cleaner (liquid concentrate)** with a highly emulsifying and dispersing action for mechanical cleaning of laboratory glassware and laboratory utensils. Ideal for removing oils, greases, resins, paraffin wax and organic dyes. Contains sodium hydroxide and surfactants. **Free of phosphates, chlorine and oxidants.** Also suitable for use with hard water.

Danger H290-H314

Art. No.	Pack Qty.	€
CLP0.1	5 l	56,95
CLP0.2	20 l	188,15

neodisher® LaboClean FLA

By Dr. Weigert. **Alkaline intensive cleanser (liquid)** with extraordinary cleaning power and high soil carrying capacity. **Free of tensides, chlorine, phosphor compounds and oxidants.**

For mechanical cleaning. Removes stubborn, oil-based residues and other organic dirt. Contains polycarboxylate, potassium hydroxide and sodium nitrilotriacetate. Reduced efficiency with hard water. Not suitable for aluminium and light metal alloys.

Danger H290-H302-H314

Art. No.	Pack Qty.	€
N333.1	5 l	47,20
N333.2	10 l	87,10
N333.3	25 kg	153,75

Programme extension!

neodisher for laboratory dishwashers



neodisher® LaboClean FT

By Dr. Weigert. **Liquid, alkaline cleaning agent.**
Oxidizing, **free of tensides.**

Particularly effective for residue-free cleaning of pharmacy glassware, infusion flasks, glassware for cell and tissue cultures, as well as in the areas of microbiology, virology and nuclear medicine. Removes residual nutrient media, blood, protein, radioactive contamination, residues of tissue cultures and cell layers as well as other organic residues. Contains phosphates, potassium hydroxide and sodium hypochlorite. Reduced efficiency with hard water.

Danger H290-H314-H400-H411

Art. No.	Pack Qty.	€
N334.1	12 kg	97,85
N334.3	25 kg	192,45



Programme extension!

neodisher® N

By Dr. Weigert. **Liquid acidic neutralisation and cleaning agent.**
Free of tensides.

For mechanical cleaning of laboratory glass. Ideal for neutralising carried over alkaline residue in first rinsing or for acidic pre-cleaning. Removes limescale and other acid-soluble residue. Easy to rinse. Contains phosphoric acid. **CE mark according to MPG.** Not suitable for anodised aluminium, non-ferrous metals and acid-resistant synthetics.

Danger H290-H314

Art. No.	Pack Qty.	€
N335.1	1 l	19,30
N335.2	5 l	78,70
N335.3	12 kg	121,50
N335.4	25 kg	231,15

neodisher® FA

By Dr. Weigert. **Liquid alkaline cleaning agent - free of tensides, chlorine and oxidizing additives.**

For mechanical cleaning of medical utensils, laboratory glassware and babies bottles. Removes blood, protein and nutrient media as well as gelatine. Very good cleaning action and very gentle on materials (colour changes might occur with titanium). Contains phosphates, disodium and potassium metasilicate. **CE mark according to MPG.**

Danger H290-H314

Art. No.	Pack Qty.	€
N332.1	5 l	52,60
N332.3	25 kg	165,55



neodisher® Z

By Dr. Weigert. **Liquid acidic neutralisation and cleaning agent.**
Free of tensides, phosphates and nitrogen

For mechanical cleaning of laboratory glass. Ideal for neutralising carried over alkaline residue in first rinsing or for acidic pre-cleaning. Removes limescale and other acid-soluble residue. Especially gentle on materials. Contains citric acid. **CE mark according to MPG.** No suitable for anodised aluminium and non-ferrous metals.

Warning H319

Art. No.	Pack Qty.	€
N336.1	1 l	14,95
N336.2	5 l	61,85



neodisher® DuoClean

By Dr. Weigert. **Highly alkaline liquid detergent.**
Free of phosphates, silicates and oxidizing agents.

For mechanical cleaning of surgical instruments made of stainless steel and other alkali-resistant surfaces. High cleaning action for removing blood proteins and stubborn OP residues, even for other particularly adhesive dirt. Contains sodium nitrilotriacetate, sodium hydroxide and amphotere tensides. **CE mark according to MPG.**

Danger H290-H314

Art. No.	Pack Qty.	€
KP95.1	5 l	53,35
KP95.2	20 l	184,90

neodisher® TS

By Dr. Weigert. **Acidic neutralising and clear rinsing agent** for mechanical cleaning in food-processing plants and in livestock stalls. Prevents scaling, improves and accelerates drying. Suitable for objects made of glass, stainless steel, aluminium and plastics such as polycarbonate and polyetherimide. Contains citric acid, phosphates and surfactants.

Art. No.	Pack Qty.	€
CLP7.1	1 l	12,80
CLP7.2	10 l	94,20



Disinfecting agents



neodisher® PolyKlar

By Dr. Weigert. **Acidic clear rinsing agent (liquid)** for the mechanical treatment of animal cages. Ideal for polycarbonate, polysulfone, polyphenylsulfone and polyetherimide. Adjusted for acidity. Neutralises alkaline residues and prevents corrosion of polycarbonate and polysulfone during the subsequent autoclaving process. Prevents the formation of stress cracks after autoclaving. Improves and accelerates drying. **Surfactant-free.** Contains citric acid and polycarboxylates.

Art. No.	Pack Qty.	€
CLP6.1	10 l	112,90



neodisher® EM

By Dr. Weigert. Liquid, **emulsifying and dispersing additive** to intensify the cleaning power of cleaning agents during mechanical cleaning of laboratory glassware and laboratory utensils. Suitable for removing stubborn residues of solids, paraffin wax, oils and greases. With defoaming action. Contains surfactants. Also suitable for use with hard water.

Art. No.	Pack Qty.	€
CLN8.1	5 l	120,40

neodisher® anti-foaming agent S

Neutral liquid concentrate based on emulsified silicone oil, designed to hinder the formation of foam in dishwashers. Can be used to remove foaming residues, such as surfactants, proteins and soaps including all neodisher® cleaning agents for pre-wash and main wash cycles. High effectiveness even at low temperatures. Dispensing: depending on type and quantity of foaming impurities, add 0.05-0.1 ml/l using suitable dispensing apparatus or manually. **CE mark in accordance with directive 93/42/EEC.**

Art. No.	Pack Qty.	€
YC39.1	1 l	32,20
YC39.2	10 l	289,20



Roti®-Splish P

Intensive cleaning powder for all standard dishwashers. Even the most tenacious dirt can be removed and chalky deposits reduced. Dosage depends on water hardness: 1-2 g/litre fresh water to 8° dH, 2-3 g/litre fresh water from 9° dH.

Danger H314-H335-H412

Art. No.	Pack Qty.	€
N047.1	5 kg	20,35

Roti®-Splish KS

Lime removing, flow-foam clear rinsing agent containing citric acid. For all standard dishwashers. Also highly effective when machine is full with different ware, e.g. porcelain, plastic, metal. Dosage depends on water hardness: 0.5-0.8 ml/litre fresh water at 8° dH, 0.9-1.0 ml/litre fresh water from 9° dH.

Warning H319

Art. No.	Pack Qty.	€
N048.1	1 l	6,40

Roti® Splish RS

High-purity dishwasher salt for dishwashers. Effective water softening, protects dishes and machine from scale deposits. Completely soluble.

Type	Art. No.	Pack Qty.	€
Fine grained, 0.1-1.6 mm	N049.1	2 kg	7,50
Coarse grained, 1.0-6.5 mm	NH60.1	2 kg	8,55



Disinfecting agents



Korsolex® extra

Aldehyde instruments disinfectant on the basis of aldehydes and quaternary ammonium compounds. For thermolabile and -stable instruments, e.g. in endoscopy. Suitable for glass, ceramics, stainless steel, nonferrous heavy metal, aluminium, plastic, hard plastic, silicon, rubber, hard rubber, latex and porcelain. **VAH- and IHO-listed, CE-identification** acc. to MPG.

Spectrum of activity: Bactericidal, levurocidal, tuberculocidal, partially virucidal (incl. HBV, HIV, HCV), SARS, FCV and rotavirus. Also effective against germs resistant to antibiotics and *Helicobacter pylori* within the framework of VAH-concentrations. Economical operating concentration of 1-4 %. Can be used in high-grade steel ultrasonic baths.

Use disinfectants carefully. Always read the labels and product information before use.



Danger H226-H302+H332-H315-H317-H318-H334-H335-H400-H411

Art. No.	Pack Qty.	€
Y863.1	2 l	n. a.
Y863.2	5 l	n. a.



Korsolex® basic

Aldehyde disinfectant for thermolabile and -stable instruments based on glutaral and (Ethylenedioxy)dimethanol. Can be used in the dipping method and for all standard circulation methods of semi-automatic to fully automatic models in cold methods.

Also suitable for ultrasonic disinfection.

Spectrum of activity: Bactericidal, levurocidal, fungicidal, tuberculocidal, mycobactericidal, sporocidal, partially virucidal (incl. HBV, HIV, HCV), virucidal (incl. HAV). Also effective against SARS-coronavirus, germs resistant to antibiotics and *Helicobacter pylori* within the framework of VAH-concentrations. Concentration for use: 1 to 5 %.

VAH-, IHO- and RKI-listed, CE-designation in accordance with MPG.

Use disinfectants carefully. Always read the labels and product information before use.



Danger H302+H332-H314-H317-H334-H335

Art. No.	Pack Qty.	€
AK41.1	2 l	n. a.
AK41.2	5 l	n. a.



Korsolex® med AF

Aldehyde-free instrument disinfectant based on amine. Suitable for instruments made of stainless steel, glass, ceramic, aluminium, hard rubber and rigid plastic; with corrosion inhibitors for good compatibility of materials. Powerful soil-dissolving effect, high protein resilience.

Spectrum of activity: Bactericidal, levurocidal, tuberculocidal, mycobactericidal, partially virucidal (incl. HBV, HIV, HCV, adeno-, polyoma-, rotavirus). **VAH- and IHO-listed, CE-marking** in accordance with MPG and MDD. Free from aldehyde, QAV, phenol and chlorine. Can be used in stainless steel ultrasonic baths. Economical concentration (1-5 %).

Use disinfectants carefully. Always read labels and product information carefully before use!



Danger H226-H302-H314-H372-H400-H411

Art. No.	Pack Qty.	€
KY66.1	2 l	n. a.
KY66.2	5 l	n. a.



Helipur® H plus N

Alcohol and aldehyde-based formaldehyde-free instrument disinfectant. Also suitable for heat-sensitive materials and instruments, such as flexible endoscopes and anesthesiology accessories.

Spectrum of activity: bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and virucidal, adeno-, polyoma-, rota- and poliovirus.

Listing: VAH, IHO and DGHM, **CE- marking in accordance with MPG.** Usable in ultrasonic baths. Exceptionally economical usage concentration (1-1.5 %) and short reaction time (15-30 min).

Use disinfectants carefully. Always read the labelling and product information before use.



Danger H302+H332-H334-H335-H314-H317

Art. No.	Pack Qty.	€
LK27.1	1 l bottle	23,05
LK27.2	5 l canister	101,95

► Measuring jugs and dosing pumps see p. 1077

Disinfecting agents for surfaces



Meliseptol®

Ready-to-use alcohol-based fast-acting disinfectant without additional active substances. Also suitable for hard-to-reach areas and objects. Can be applied by wiping or spraying on.

Spectrum of activity: bactericidal (incl. MRSA, TbB and mycobacteria), fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against rotavirus, adenovirus and norovirus.

Listings: VAH, IHO and DGHM.

CE approved in accordance with German Medical Products Act.

Short reaction time of 1 min.

Use disinfectants carefully. Always read the labelling and product information before use.

Warning H226

Art. No.	Pack Qty.	€
EAA6.1	250 ml spray bottle with spray head	5,95
EAA6.2	1 l spray bottle without spray pump	10,70
EAA6.3	5 l canister	47,20

Accessories:

Spray pump for 1 l spray bottle	LP76.1	1	5,85
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Meliseptol® rapid

Ready-to-use, fast-acting alcoholic spray disinfectant on an alcohol base. Aldehyde- and alkylamine-free. Also suitable for difficult to reach surfaces and objects.

Spectrum of activity: bacteria, (incl. MRSA and TbB), fungicidal, virucidal to a limited extent (incl. HBV, HIV, HCV) and virucidal (incl. Noro-virus).

Listing: VAH, IHO and DGHM, **CE- marking in accordance with MPG.** Ready-to-use. Very fast acting, reaction time 1 min; 10 min. for virucidal efficacy.

Use disinfectants carefully. Always read marking and product information carefully before use!

Danger H226-H318-H336

Art. No.	Pack Qty.	€
LK31.1	250 ml spray bottle with spray head	6,80
LK31.2	1 l spray bottle without spray pump	12,15
LK31.3	5 l canister	50,45

Accessories:

Spray pump for 1 l spray bottle	LP76.1	1	5,85
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Meliseptol® Foam pure

Ready-to-use disinfecting foam based on propane-1-ol and didecyldimethyl ammonium chloride for **fast-acting disinfection of medical products and sensitive surfaces.**

Aerosol-free, also suitable for use in the food industry. Good compatibility, even with alcohol-sensitive materials such as acrylic glass, examination tables, vaginal probes and ultrasound probes.

Aldehyde, amine and fragrance free, neutral odour.

Spectrum of activity: bactericidal (including MRSA and TbB), fungicidal, limited virucidal efficacy (including HBV, HIV and HCV) and active against rota viruses, polyoma viruses, noro viruses and aviary influenza viruses.

Listing: VAH, IHO and DGHM, **CE mark according to MPG.**

Rated "very good" in dermatological tests. Short reaction time ≤5 min.

Use disinfectants carefully. Always read the labelling and product information before use.

Danger H226-H318

Type	Art. No.	Pack Qty.	€
750-ml foam sprayer bottle	XP56.1	1	11,85
5 l canister	XP56.2	1	46,55



B. Braun Wipes

Fleece wipes dispenser system for filling with disinfectant solution for cleaning and disinfection of surfaces. Absorbent and lint-free fleece wipes made of 100 % PET reliably release the active ingredients during surface disinfection.

- Practical removal of individual tear-off wipes
- Economical in use of wipes and application solution
- Reclosable lid protects against contamination and evaporation of solutions
- Tested with B. Braun surface disinfectant, e.g. Meliseptol® rapid and Foam Pure
- Ready-to-use solution can be used up to four weeks after preparation

Delivery without fleece roll (please order separately).

B. Braun Wipes

Type	Art. No.	Pack Qty.	€
2.5 l dispenser system with blue lid	CAT1.1	1	23,15
Fleece roll with 100 wipes, each 19 x 36 cm	CAT2.1	1	21,85
ECO fleece roll with 120 wipes, each 19 x 36 cm	CAT3.1	1	15,05

B. Braun Wipes mini ECO

Type	Art. No.	Pack Qty.	€
700 ml dispenser system with blue lid	CAT4.1	1	9,15
ECO fleece roll with 60 wipes, each 15 x 20 cm	CAT5.1	1	7,50



neoform K Spray

By Dr. Weigert. Ready-to-use fast-acting disinfectant (propane-1-ol and ethanol based) for quick disinfection of surfaces and equipment in the foods sector. Also suitable for use in refrigerated areas.

Spectrum of activity: bactericidal, fungicidal, limited virucidal efficacy and effective against norovirus. Dries without leaving any residue, no additional rinsing needed. DVG and IHO listed.

Use disinfectants with care. Always read the label and the product information before use.

Danger H226-H319-H336

Art. No.	Pack Qty.	€
CLP9.1	0,75 l	14,95
CLP9.2	10 l	141,90



Mikrobac® food

Aldehyde-free surface disinfectant for the food sector with active substances benzyl-C12-C18-alkyldimethylammoniumchloride and N-(3-Aminopropyl)-N-dodecylpropan-1,3-diamin. Mikrobac® food can be used as a disinfectant in all areas of the kitchen and food processing (also suitable for the milk and milk processing industry). Ideal for cleaning and disinfecting floors, tiles, work surfaces, transport containers, equipment used for processing treating, and for industrial dishwashers.

Spectrum of activity: Bactericidal (incl. salmonellae and listeria), levuoricidal, partially virucidal (incl. HBV, HIV, HCV). Concentration for use: 0.5 to 3.0 %. **VAH- and DVG-listed.**

Use disinfectants carefully. Always read the labels and product information before use.

Danger H226-H302-H314-H410

Art. No.	Pack Qty.	€
AK43.2	2 l	n. a.
AK43.3	5 l	n. a.



neoform K plus

By Dr. Weigert. Disinfectant (liquid concentrate), decyldimethylammonium chloride and N-(3-aminopropyl)-N-dodecylpropan-1.3-diamine based. For combined cleaning and disinfection of surfaces and objects in the foods sector. Outstanding cleaning results and safe disinfection.

Spectrum of activity: bactericidal, yeasticidal, limited virucidal efficacy. Free of fragrance and colouring agents.

Use disinfectants with care. Always read the label and the product information before use.

Danger H302-H314-H400-H411

Art. No.	Pack Qty.	€
CLP8.1	2 l	19,90
CLP8.2	10 l	82,70



Kohrsolin® extra

Surface disinfectant with aldehyde.

Active substances: (Ethylene dioxy)dimethanol, glutaral, didecyldimethyl ammonium chloride. For day-to-day preventive application and for final disinfection. The disinfectant has good cleaning power, wide spectrum of activity, and low dosage. Short reaction time (1 h).

Compatibility of material tested for: Metals: Stainless steel (V2A), aluminium, copper, brass. Plastics: PE, PP, PS, PU, PVC, silicone, rubber, latex, Macrolon®, Plexiglass®, Teflon®. No material damage is likely if used correctly.

Register: VAH, IHO, RKI list (in acc. with §18 IfSG), CE-designation in compliance with MPG.

Spectrum of activity: Bactericidal, levuocidal, fungicidal, sporicidal, tuberculocidal, viricidal, partially viricidal (incl. HBV, HIV, HCV), Hepatitis A-, MNV-, Adeno-, Polyoma- and Rotavirus. Concentration: 0.25-4 %.

Use disinfectants carefully. Always read labels and production information before use.

Danger H226-H302+H332-H314-H317-H334-H335-H410

Type	Art. No.	Pack Qty.	€
Liquid concentrate, 5 l	KC13.1	1	n. a.

Disinfecting agents for surfaces



Bacillo® AF

Ready-to use aldehyde and fragrance free fast-acting disinfectant based on propan-1-ol, propan-2-ol and aldehyde. Excellent wetting, fast acting and drying, leaves no visible residue.

Applications: for fast disinfection of alcohol-resistant surfaces by wiping or spraying, if fast effect and residue-free drying are required, e.g.

- In sensitive areas with direct product contact (class C/D cleanrooms)
- If medical equipment and inventory falls under the Medical Products Act (to MPG)
- In hospitals and nursing homes (to BPD)
- In canteens and in the foodstuffs industry (to BPD)

Spectrum of activity: bactericidal, levurocidal, fungicidal, tuberculocidal, mycobactericidal, partially virucidal (incl. HBV, HIV, HCV), adeno-, noro-, polyoma- and rota-viruses. **Listing:** VAH, DVG, IHO, RKI. **CE-mark of conformity** to MPG. Ready to use. Reaction time: 1 min or longer.

Use disinfectants carefully. Always read the labelling and product information before use.

Danger H226-H318-H336

Art. No.	Packaging	Pack Qty.	€
PY18.1	Bottle	1 l	n. a.
PY18.2	Canister	5 l	n. a.

Accessories:

Spray nozzle for 500 ml and 1 l bottles	X827.1	1	7,50
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Bacillo® 30 foam

Ready-to-use alcohol-based fast-acting disinfectant for sensitive surfaces. Very gentle on materials, also suitable for sensitive materials such as Plexiglas®, Makrolon® and Polysulfon. User-friendly application in easy-to-use spray bottle with foam spray head for optimal wetting.

Spectrum of activity: bactericidal, yeasticidal, limited virucidal efficacy (incl. HBV, HIV, HCV), and effective against murine norovirus, polyoma virus and rotavirus.

Applications: For rapid disinfection of sensitive plastic surfaces, medical inventory and surfaces in clinics, surgeries and laboratories. Also suitable for the disinfection of displays and keyboards as well as control panels on mobile and stationary communication devices.

Listing: VAH, IHO. **CE-mark of conformity** to MPG.

Active ingredients: ethanol, propan-2-ol, propan-1-ol and n-alkyl aminopropyl glycine.

Use disinfectants carefully. Always read the label and product information before use.

Warning H226-H319-H336

Art. No.	Pack Qty.	€
ANY8.1	750 ml bottle incl. foam spray head	n. a.
ANY8.2	5 l canister	n. a.



Bacillo® plus

Ready-to use spray bottle speed-disinfecting agent made with a propanol and glutaral base. Free from formaldehyde. Enables excellent wetting of even highly inaccessible surfaces and objects. Effective after 30 seconds. Fast drying without any visible residue, gentle on materials.

VAH-listed, CE-identification acc. to MPG.

Spectrum of activity: Bactericidal, (incl. salmonellae and listeria), levurocidal, fungicidal, tuberculocidal, mycobactericidal, partially virucidal (incl. HBV/HIV/HCV, adeno, polyoma and rota viruses).

Ideal for wiping or spraying. Spray head for 500 ml and 1 l bottles not included in delivery, please order separately.

Use disinfectants carefully.

Always read the labels and product information before use.

Danger H226-H318-H336

Type	Art. No.	Pack Qty.	€
Bacillo® plus	L300.1	500 ml	n. a.
Bacillo® plus	L300.2	1 l	n. a.
Bacillo® plus	L300.3	5 l	n. a.

Accessories:

Spray nozzle for 500 ml and 1 l bottles	X827.1	1	7,50
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Kohrsolin® FF

Surface disinfectant on the basis of benzyl-C12-18-alkyl-dimethylammoniumchlorid and didecylmethylammoniumchlorid. Formaldehyde-free. Suitable for disinfecting washable surfaces and objects by wiping them. Low concentration (0.5 to 3 %), good material compatibility and environmentally friendly. The ready-to-use solution can be dried up almost totally residue-free.

VAH- and IHO-listed, CE-identification acc. to MPG.

Spectrum of activity: Bactericidal, levurocidal, fungicidal, tuberculocidal, partially virucidal (incl. HBV, HIV, HCV), virucidal, MNV, adeno-, polyoma- and rotavirus.

Use disinfectants carefully. Always read the labels and product information before use.

Danger

H302+H332-H315-H317-H318-H334-H335-H400-H411

Art. No.	Pack Qty.	€
L301.1	125 bags x 40 ml	n. a.
L301.2	5 l	n. a.

Disinfecting agents for surfaces



Bode X-Wipes

All-purpose fleece wipes dispenser system for filling with all liquid Bode surface disinfectants.

Absorbent and tear resistant fleece wipes made of 100 % PET (60 g/m²) ensure optimal release of active ingredients during disinfection.

- Colour sealing cap for easier differentiation between products in use
- Smooth surfaces and 3-part lid system protect against contamination or evaporation of the solution
- Minimal processing required before use of fleece roll in the foil bag, bag can be filled directly with application solution
- Shelf life of application solution: approx. 28 days

Applications:

Disinfection of surfaces in areas where a maximum of hygiene, economy and utility is required. Suitable for pre-cleaning and disinfection of non-soakable medical instruments and endoscopes.

Bode X-Wipes 2.5 litre wipes dispenser

Delivery without wipes (please order separately).

Type	Art. No.	Pack Qty.	€
Wipes dispenser with blue lid	CAT6.1	1	n. a.
Wipes dispenser with red lid	CAT7.1	1	n. a.
Wipes dispenser with green lid	CAT8.1	1	n. a.

Bode X-Wipes fleece rolls

For 2.5 litre wipes dispenser, wipe size 20 x 38 cm.

Delivery incl. self-adhesive security label for labelling with product name, concentration and filling date.

Type	Art. No.	Pack Qty.	€
Fleece roll with 90 wipes	CAT9.1	1	n. a.
Fleece roll with 90 wipes in foil bag, incl. cutter ring	CAX0.1	1	n. a.



Meliseptol® Wipes sensitive

Ready-to-use, fast-acting disinfectant wipes for medical products and sensitive surfaces. Soft, non-linting fleece avoids scratching. Very good compatibility, even with alcohol-sensitive materials such as acrylic glass, Makrolon, silicone rubber, latex and rubber as well as examination tables, vaginal probes and ultrasound probes. Aldehyde, amine, dye and fragrance free, neutral odour.

Propane-1-ol and didecyldimethylammonium chloride based impregnating fluid.

Spectrum of activity: bactericidal (including MRSA and TbB), fungicidal, limited virucidal efficacy (including HBV, HIV and HCV) and effective against rota viruses, polyoma viruses, noro viruses and avian influenza viruses.

Listing: VAH, IHO and DGHM, **CE mark according to MPG.**

Rated "very good" in dermatological tests. Short reaction time ≤5 min.

Wipe dimensions: 152 x 200 mm.

Use disinfectants carefully. Always read the labelling and product information before use.

Danger H318

Type	Art. No.	Pack Qty.	€
Dispenser box containing 60 wipes	XP57.1	1	14,15
Refill pack containing 60 wipes	XP57.2	1	10,25



Bacillo® Tissues

Ready-to use wipes for speedy disinfection of surfaces.

Made with a propanol base. Free from perfume and aldehydes. Suitable for all alcohol-insensitive surfaces, smaller areas, stock and instruments.

Moist and dries difficult to reach areas well and quickly without streaking. Are kind to the skin. Begin to work after only 30 seconds (in accordance to the new VAH standards).

VAH-, DVG-, IHO-listed, CE-designation in compliance with MPG.

Spectrum of activity: Bactericidal, levurocidal, fungicidal, tuberculocidal, mycobactericidal, partially virucidal (incl. HBV, HIV, HCV), Adenovirus, Noro-, MNV-, Polyoma- and Rotavirus.

Use disinfectants carefully.

Always read labels and product information before use.

Warning H226-H319

Type	Art. No.	Pack Qty.	€
Dispenser box with 100 wipes	KC11.1	1	n. a.
Refill pack with 100 wipes	KC12.1	1	n. a.



Meliseptol® HBV wipes

Ready-to-use fast-acting disinfection wipes for easy disinfection of alcohol-resistant surfaces. Alcohol-based impregnating fluid, aldehyde and alkylamine free. Packed individually for hygiene in practical dispenser box, dermatologically tested.

Spectrum of activity: bactericidal (incl. MRSA and TbB), fungicidal, limited virucidal efficacy (including HBV, HIV and HCV) and virucidal (incl. noro viruses).

Listing: VAH, IHO and DGHM, **CE mark according to MPG.** Ready to use. Very fast acting, reaction time 1 min; 10 min. for virucidal efficacy. Dimensions tissues: 145 x 200 mm.

Use disinfectants carefully. Always read the labelling and product information before use.

Danger H228-H318-H336

Type	Art. No.	Pack Qty.	€
Dispenser box containing 100 wipes	XP58.1	1	11,20
Refill pack containing 100 wipes	XP58.2	1	7,65

Disinfecting agents for surfaces



Bacillo® AF tissues

Alcohol-based, fast-acting disinfection wipes with a broad efficacy spectrum for simple disinfection of alcohol-resistant surfaces in accordance with BPD: surfaces in industrial kitchens and food processing areas and in sensitive areas where there is direct contact with products; surfaces in healthcare facilities as well as surfaces of non-invasive medical devices.

Spectrum of activity: bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, limited virucidal efficacy (incl. HBV, HIV, HCV, adeno virus, polyoma virus, rotavirus and murine norovirus).

- Supplied with **Bacillo® AF** pre-soaked, ready -to-use disinfection wipes
- Rapid and comprehensive action
- Aldehyde, colourant and fragrance free
- Practical wipe folding system allows easy and safe removal of individual tissues from the resealable flowpack packaging
- High-quality, tear resistant and absorptive PET fleece, Wipe size 180 x 200 mm
- Good wetting and rapid drying

Use disinfectants carefully. Always read the label and product information before use.

Warning H226-H319

Type	Art. No.	Pack Qty.	€
Flowpack containing 80 wipes	AHC1.1	1 pieces	n. a.



Kohrsolin® extra tissues

Aldehyde-containing disinfection wipes with virucidal activity for daily prophylactic disinfection as well as for specific disinfection where a broader spectrum of efficacy is required.

Applications: for washable surfaces on medical devices and inventory, and in hygiene-sensitive areas in the pharmaceuticals industry, cosmetics industry and laboratories.

Spectrum of activity: bactericidal, yeasticidal, fungicidal, tuberculocidal, mycobactericidal, sporicidal (Clostridium difficile spores), limited virucidal efficacy (incl. HBV, HIV, HCV), virucidal and effective against murine norovirus, hepatitis A virus, polyoma virus and rotavirus.

- Supplied with **Kohrsolin® extra** pre-soaked, ready-to-use disinfection wipes
- Rapid and comprehensive action
- Good material compatibility
- Practical wipe folding system allows easy and safe removal of individual tissues from the resealable flowpack packaging
- High-quality, tear resistant and absorptive PET fleece, Wipe size 180 x 200 mm
- Good wetting and cleaning, leaves minimal residue

Use disinfectants carefully. Always read the label and product information before use.

Type	Art. No.	Pack Qty.	€
Flowpack containing 80 wipes	APA0.1	1	n. a.



Bacillo® 30 tissues

Nonaggressive disinfection wipes for rapid disinfection of sensitive surfaces in food processing areas, in sensitive areas where there is direct contact with products, surfaces in healthcare facilities as well as surfaces of medical devices and inventory. Also suitable for the disinfection of displays, keyboards and control panels on sensitive equipment.

Spectrum of activity: bactericidal, yeasticidal, limited virucidal efficacy (incl. HBV, HIV, HCV, polyoma virus, rotavirus and murine norovirus).

- Supplied with **Bacillo® 30 Foam** pre-soaked, ready-to-use disinfection wipes
- Rapid and comprehensive action
- Aldehyde, colourant and fragrance free
- Tested for material compatibility with PC, PS, Plexiglas®, latex and synthetic leather (examination tables etc.)
- Practical wipe folding system allows easy and safe removal of individual tissues from the resealable flowpack packaging
- High-quality, tear resistant and absorptive PET fleece, Wipe size 180 x 200 mm
- Good wetting and rapid drying

Use disinfectants carefully. Always read the label and product information before use.

Warning H226-H319

Type	Art. No.	Pack Qty.	€
Flowpack containing 80 wipes	ANY9.1	1	n. a.



Kohrsolin® FF tissues

Aldehyde-containing disinfection wipes for prophylactic surface disinfection.

Applications: for washable surfaces on medical devices and inventory, and in hygiene-sensitive areas in the pharmaceuticals industry, cosmetics industry and laboratories.

Spectrum of activity: bactericidal, yeasticidal, fungicidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against murine norovirus, adeno virus, polyoma virus and rotavirus.

- Supplied with **Kohrsolin® FF** pre-soaked, ready-to-use disinfection wipes
- Formaldehyde-free
- Excellent material compatibility
- Practical wipe folding system allows easy and safe removal of individual tissues from the resealable flowpack packaging
- High-quality, tear resistant and absorptive PET fleece, Wipe size 180 x 200 mm
- Good wetting and cleaning, leaves very little residue

Use disinfectants carefully. Always read the label and product information before use.

Type	Art. No.	Pack Qty.	€
Flowpack containing 80 wipes	APA1.1	1	n. a.

Disinfecting agents for surfaces



Mikrobac® tissues

Nonaggressive alcohol and aldehyde free disinfection wipes for rapid disinfection of sensitive, alcohol-sensitive medical devices and work surfaces in clinics, surgeries, nursing homes and laboratories.

Spectrum of activity: bactericidal, yeasticidal, limited virucidal efficacy (incl. HBV, HIV, HCV) and effective against murine norovirus, adeno virus, polyoma virus and rotavirus.

Active ingredients: didecyldimethylammonium chloride and benzyl-C12-18-alkyl dimethyl ammonium chloride.

- Fast-acting
- Alcohol, aldehyde, colourant and fragrance free
- Excellent material compatibility
- Practical wipe folding system allows easy and safe removal of individual tissues from the resealable flowpack packaging
- High-quality, tear resistant and absorptive PET fleece
- Good wetting and cleansing effect

Use disinfectants carefully. Always read the label and product information before use.

Mikrobac® Tissues

Wipe size 180 x 200 mm. For convenient disinfection of small surfaces, range approx. 1 m².

Type	Art. No.	Pack Qty.	€
Flowpack containing 80 wipes	APA2.1	1	n. a.

Mikrobac® Tissues XXL

Wipe size 250 x 380 mm. For complete disinfection of large surfaces, range approx. 2 m².

Type	Art. No.	Pack Qty.	€
Flowpack containing 40 wipes	APA3.1	1	n. a.



Flow pack wall holder

Made of stainless steel. For safe storage of Mikrobac® Tissues, Kohrsolin® FF and Kohrsolin® extra Tissues as well as Bacilloi® 30 and Bacilloi® AF Tissues. Easy removal of wipes with one hand avoids contamination.

Art. No.	Pack Qty.	€
APA4.1	1	39,75



Disinfection tubs

Made of PVC. High-quality disinfection tubs for safe make-up of disinfection and cleaning solutions for manual treatment of instruments.

- Basket insert enables the user to remove instruments by hand without coming into direct contact with the disinfectant and allows instruments to be drip dried before use
- Moulded handles in the tub and basket ensure safe handling
- Resistant to all BODE cleaning agents and disinfectants
- Temperature stable up to +59 °C
- 30-litre tub with drain cock

Delivery incl. lid and basket insert made of PVC.

Capacity (l)	Type	L x W x H (mm)	Art. No.	Pack Qty.	€
3	White lid with slit	300 x 200 x 110	APT0.1	1	58,05
5	Transparent lid	550 x 200 x 120	APT1.1	1	79,05
10	Transparent lid	390 x 290 x 170	APT2.1	1	88,70
30	Transparent lid	615 x 400 x 220	APT3.1	1	188,15



Dosing pumps

For sample removal from BODE-carboys (Korsolex®, Kohrsolin®, Bacilloi®, Dismofix® and Microbac®). For 2-litre bottles and 5-litre canisters. Alternatively with 10 ml or 20 ml dispensing volumes.

Dosing volume (ml)	Art. No.	Pack Qty.	€
10 ml	AK03.1	1	10,70
20 ml	AK04.1	1	10,70

Measuring jugs

With measuring scale, ideal for preparing ready-to-use solutions. Capacity 250 ml.

Art. No.	Pack Qty.	€
AK05.1	1	3,95

Preservatives



Programme extension!



AKASOLV Aqua Care

Water bath stabiliser for preventing the formation of algae, fungi and bacteria in water baths and thermostat circuits.

AKASOLV Aqua Care - With blue colour indicator.

If the blue coloration disappears, a new water bath solution must be prepared. Low usage concentration (0.1 %): 100 ml of concentrate are sufficient for 100 l of demineralised water.

Use biocidal products with care. Always read the label and the product information before use.

  **Warning** H315-H319-H411

Art. No.	Pack Qty.	€
AN93.1	100 ml	16,10

AKASOLV Aqua Care CF - Without colour indicator.

Depending on contamination and/or after 3 months at the latest, prepare a new water bath. Low usage concentration (0.1 %): 100 ml of concentrate are sufficient for 100 l of demineralised water.




Use biocidal products with care. Always read the label and the product information before use.

Art. No.	Pack Qty.	€
CPY8.1	100 ml	16,10



Urea-hydrogen peroxide

Easily dissolving oxidation agent. Tablet Ø 12 mm, weight 1,0 g. H₂O₂ content 35 %, weight minimum. Active-oxygen 16.5 % / weight minimum. For bleaching and fixing.


   **Danger** H272-H315-H318-H335

Art. No.	Pack Qty.	€
7641.1	500 tablets (= 500 g)	34,30



Citric acid

For removing lime deposits. Odourless, non-toxic, does not attack materials, biodegradable. For use, dilute 10-100 g citric acid in 1 litre of cold water depending on contamination.



 **Warning** H319

Art. No.	Pack Qty.	€
1818.1	1 kg	14,30

Descaler

Ideal for removing lime deposits.

Contents: Formic acid 83 %, inhibitors and colorants. Biodegradable. For use dissolve about 50 ml descaler in 1 l water.

  **Danger** H290-H302+H332-H314-EUH071


Art. No.	Pack Qty.	€
0023.1	500 ml	7,85



Micropur® water steriliser

Based on silver ions. Kills bacteria in water tanks and containers and keeps water free of germs, algae and odour.

Use biocidal products with care. Always read the label and the product information before use.

 **Warning** H410

Type	Art. No.	Pack Qty.	€
Standard tablets for 1 l water each	0591.1	100	23,65
Large tablets for 10 l water each	0593.1	40	27,70

Universal cleaners



All-purpose cleaner ECO 1

Surfactant and lemon based, with ammonium chloride. Quick and thorough cleaning of all washable surfaces and floors, removes coarse dirt and greasy films. Gentle on materials, kind to the skin, pleasant scent.

Warning H319

Art. No.	Pack Qty.	€
PY17.1	1 l	3,45
PY17.2	10 l	22,55

Dishwashing detergent ECO 11

Extremely versatile, cleans fast and thoroughly. High foam properties, very gentle on the skin, with citrus scent. Usage: 50-100 ml per 10 l water.

Art. No.	Pack Qty.	€
PY16.1	1 l	3,20
PY16.2	10 l	20,05



Neutral cleaner G530

Surfactant-based. For manual cleaning of all water-resistant materials and surfaces. High grease-dissolving power, high foam activity. Cleaned objects dry quickly and streak-free, no additional drying by hand needed. Gentle on materials, kind to the skin, pleasant scent. Suitable for use in foodstuffs processing businesses, also ideal as a dishwashing detergent. Tried and tested in car washes and industry.

Art. No.	Pack Qty.	€
PY15.1	1 l	6,15
PY15.2	10 l	42,80



Concentryl® ActiveFoam

Alkaline degreaser for the foodstuffs sector. Active foam thoroughly removes all grease and oil from stainless steel, glass and other alkaline resistant surfaces.

Danger H314

Art. No.	Pack Qty.	€
NH50.1	1 l	9,65



Stainless steel care PRO127

For the care and protection of all washable metal objects. Removes greasy films, dust, streaks, water marks and fingerprints. Leaves glossy, streak-free surfaces, protects against re-soiling. Easy to use. Note: do not use on hot surfaces.

Art. No.	Pack Qty.	€
PY19.1	500 ml	16,70



Urea-hydrogen peroxide

Easily dissolving oxidation agent. Tablet Ø 12 mm, weight 1,0 g. H₂O₂ content 35 %, weight minimum. Active-oxygen 16.5 % / weight minimum. For bleaching and fixing.

Danger H272-H315-H318-H335

Art. No.	Pack Qty.	€
7641.1	500 tablets (= 500 g)	34,30

Universal cleaners



Rotisol®

Universal alcoholic solvent, extraction agent, mobile phase, and elution medium, for dehydrating in histology, recrystallisation, etc. Mixable with water.

Ingredients:

dehydrated ethanol ~99 % · acetone ~5 % · methyl ethyl ketone ~1 % ·
Flp 12 °C · Kp 56-80 °C · D ~0.79 · highly flammable.

Danger H225-H319-EUH066

Art. No.	Pack Qty.	€
7917.3	1 l	n. a.
7917.1	2,5 l	n. a.
7917.2	25 l	n. a.



Methylated spirit

Denatured ethyl alcohol. Suitable for use as a detergent, a fuel additive and an antifreeze agent.

Danger H225-H319

Art. No.	Pack Qty.	€
AL30.1	1 l bottle	n. a.
AL30.2	10 l canister	n. a.
AL30.3	20 l canister	n. a.



Silvosol®

Removes stains of silver nitrate, film developer or iodine from surfaces and textiles. Apply undiluted by gently dabbing.

Warning H351-H361d-H412

Art. No.	Pack Qty.	€
0047.1	250 ml	17,15
0047.2	1 l	34,35



Roti-Plasticlean®

Plastic cleaner with antistatic effect. Ideal for plastic casing, furniture and floors. Cleans and protects against embrittlement.

Warning H226-H319

Art. No.	Pack Qty.	€
1953.1	500 ml	18,85

Cable cleanser

For cleaning and degreasing stripped cables.
Not suitable for plastic cables.

Danger H226-H315-H317-H304-H400-H410

Art. No.	Pack Qty.	€
5235.1	1 l	20,10

Label remover

Pure vegetable. Dab on generously, allow to act, repeat if necessary, pull off label. Wipe off remaining glue with label remover.

Danger H226-H315-H317-H304-H400-H410

Art. No.	Pack Qty.	€
2958.1	1 l	18,20



Label remover 130

Removes self-adhesive labels quickly and effectively. Applications: casing, clothing, print cylinders, glass ceramics, non-porous materials. Propellant: propane.

Danger H222-H229-H315-H317-H336-H410

Art. No.	Pack Qty.	€
P530.1	200 ml	8,50

Label remover SOLVENT 50 SUPER

With NSF certificate, specially for the food, animal feeds and packaging industries and retail trade. Label remover with attachable dosing brush. Propellant: CO₂.

NSF K3-certified for use in foodstuff-related industries.

Danger H222-H229-H315-H319-H336-H411

Art. No.	Pack Qty.	€
KL91.1	200 ml	12,50



Inox Kleen stainless steel cleaning spray

Special, aqueous cleaning and care foam for stainless steel, aluminium and chrome.

Registered for use in the food industry acc. to NSF A7/C1. Removes dirt, fingerprints and water stains quickly. Leaves an even glossy finish after cleaning. A wafer-thin, water-repellent protective film gives long-lasting gloss.

Propellant: propane/butane.

Warning H229-H319

Art. No.	Pack Qty.	€
YK85.1	500 ml	12,70



Multischaum 77

Universal foam cleaner for all surfaces.

Contains highly surface active ingredients for powerful and gentle removal of dirt from all glass, ceramic, paint, metal or plastic surfaces.

The cleansing foam is very stable and does not run off on vertical surfaces. With antistatic effect.

Propellant: Propane/butane.

Danger H222-H229-H319

Art. No.	Pack Qty.	€
YK87.1	400 ml	n. a.



Cold cleaner

Ideal for cold cleaning and removing grease. Speedy, residue-free evaporation. Dissolves fat, oil, tar, wax, etc. Application: machine parts, electric motors, switches, relays, etc. Propellant: CO₂.

Danger H222-H229-H315-H336-H411

Art. No.	Pack Qty.	€
P529.1	400 ml	10,75

Sprays



Compressed air spray 67 NF

Non-flammable compressed gas spray (compliant to 2008/47/EC), based on ecofriendly raw materials technology. Has a much lower Global Warming Potential than conventional compressed gas sprays. Highly pure, oil free and leaves no residues. Application: for removing dust and dirt from systems, devices and machines in precision mechanics, optics, electronics and electrical engineering. Propellant: hydrofluoro-olefin (HFO). **Delivery incl.** nozzle for targeted use.

Warning H229

Art. No.	Pack Qty.	€
TC26.1	200 ml	16,10



High pressure compressed air spray 67 With extra-powerful spray jet.

According to the safety test required by Aerosol Directive 75/324/EEC, this product does not present a fire or explosion hazard in the presence of ignition sources. Contains pure, dry pressurised gas. The extra-powerful pressurised gas jet is ideal for removing large and stubborn dust and dirt deposits in electrical systems and equipment.

Propellant: tetrafluoroethane.

Delivery incl. spray tube for targeted application.

Warning H229

Art. No.	Pack Qty.	€
YK84.1	340 ml	n. a.



Compressed air spray 360

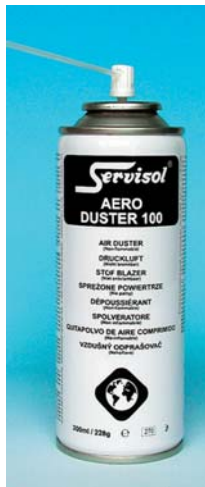
With 360° nozzle. According to the safety test required by Aerosol Directive 75/324/EEC, this product does not present a fire or explosion hazard when used as directed. Contains pure, dry pressurised gas. Special 360° nozzle allows spraying from any position in hard-to-reach areas. For removing dust and dirt in fine mechanics, electronics and electrical engineering.

Propellant: tetrafluoroethane.

Delivery incl. spray tube for targeted application.

Warning H229

Art. No.	Pack Qty.	€
YK83.1	200 ml	n. a.



Programme extension!

Compressed-air dust spray

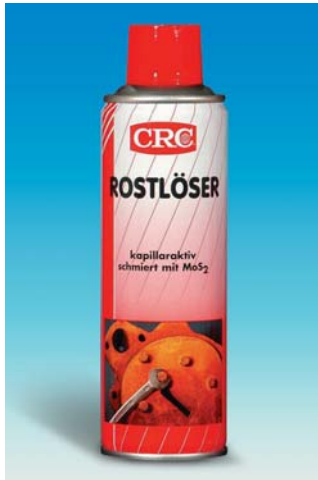
For easy removal of dust and small amounts of dirt from sensitive parts or in places that are difficult to reach. Comes with attachable capillary tube for precise application. Dry, strong air jet. Application: metrology, microscopy, precision mechanics, photography and optics, etc.

Propellant: tetrafluoroethane.

Warning H229

Art. No.	Pack Qty.	€
P528.1	200 ml	9,65
P528.2	400 ml	17,00

Sprays



Rust remover spray

With surface active penetrating oil and MoS₂ additive. The silicone free fine oil penetrates even the tiniest gaps and cracks quickly, wets surfaces and reduces friction. For easy removal of fastener elements such as screws, bolts or nuts. The MoS₂ additive prevents repeat seizing and aids future removal.

Propellant: CO₂.

Delivery incl. spray tube for targeted application.

Warning H223-H229

Art. No.	Pack Qty.	€
YK88.1	300 ml	n. a.



Cold spray

Enables quick and easy fault-finding during thermal breakdown. Speedy cooling to -50 °C. Cools, freezes, shrinks. Application: thermostats, transistors, diodes, etc. Propellant: tetrafluoroethane.

Warning H229

Art. No.	Pack Qty.	€
P525.1	200 ml	10,35



Zinc spray

Powdered zinc coating for excellent galvanic corrosion protection of iron and steel. The protective coating contains 98.5% high-purity zinc and forms a galvanically active anticorrosion coating in accordance with EN ISO 1461:1999. Fast-drying, temperature stable, weldable, recoatable. Matt grey finish. Propellant: dimethyl ether.

Danger H222-H229-H319-H410

Art. No.	Pack Qty.	€
YK89.1	400 ml	12,05



Cold spray 75 NF

Non-flammable cold spray (compliant to 2008/47/EC), based on ecofriendly raw materials technology. Has a much lower Global Warming Potential than conventional cold sprays.

High cooling effect to at least -50 °C.

Application: rapid cooling of electronic components and surfaces, testing of thermostats and thermocouples, cold shrinkage of metal parts and shock freezing of rubber, plastic or histological preparations.

Propellant: hydrofluoro-olefin (HFO).

Delivery incl. nozzle for targeted use.

Warning H229

Art. No.	Pack Qty.	€
TC27.1	200 ml	16,10

Office cleaning agent



TFT screen cleaning foam

Gentle special cleaner for TFT screens and LCDs. The resistant active foam cleans without solvents such as alcohol, petroleum ether or ammonia. Propellant: propane/butane.

Warning H229

Art. No.	Pack Qty.	€
KL90.1	200 ml	10,40



Cleanser stick

Using the adhesive power of the tip, the stick removes impurities sticking to smaller vessels such as lenses from objectives, eyepieces or cameras. The tip can be cleaned with water. Total length 12 cm.

Art. No.	Pack Qty.	€
AK15.1	1	12,40



Cleaning set

For environmentally friendly cleaning of telephones, faxes, computers, screens, keyboards and other plastic casing. **Includes 125 ml surface cleaner** for antistatic cleaning of appliance surfaces and plastic casing, **125 ml screen cleanser** with antistatic effect, **20 non-fluffing fleece wipes**, **1 microfibre tissue**, **2 telephone wipes**, **1 fax wipe** for cleaning document reader and rubber transport roller and **2 small cleaning rods** and **1 spatula** for small areas and crevices.

Art. No.	Qty. (set)	€
H993.1	1	16,10



TFT screen cleaning cloths

Screen cleaner Duotuch: The damp cleaning cloth provides streak-free, effective cleaning of all TFT, CRT and LCD monitors, and all notebooks and handhelds. The dry cloth guarantees gentle cleaning of the monitor surface.

Art. No.	Pack Qty.	€
KL92.1	1 folding box with 10 damp/dry cleaning cloths	4,85



Wet wipes

Wet wipes for cleaning surfaces with alcohol. Made of cellulose rayon tissue. For non-streaking and anti-static cleaning of office equipment such as keyboards, fax machines, photocopiers, telephones and other smooth surfaces. 100 wipes, 138 x 220 mm in refillable dispenser and sealed in aluminium foil. Dispenser dimensions: Ø 85 mm, H 190 mm.

Warning: Not suitable for TFT monitors.

Warning H226-H319

Type	Art. No.	Pack Qty.	€
Dispenser	E170.1	1	6,35
Refill pack with 100 wipes	E171.1	1	4,85

Antistatic utensils



Anti-static spray

Prevents electrostatic charging and subsequently dust. Ideal for plastics, screens, EDP-equipment, casing, telephones, floors, seat covers, polished metal parts, wooden surfaces, etc. Propellant: propane.

Danger H222-H229-H319-H336

Art. No.	Pack Qty.	€
P531.1	200 ml	7,00



Antistatic brushes

Made of natural and synthetic fibres. Conductive fibres free surfaces, (e.g. glass, plastic materials and electronic components) of electrically charged particles and dust particles. Operative range max. 65 °C, washable.

Width (mm)	Art. No.	Pack Qty.	€
20	AK12.1	1	18,10
30	AK37.1	1	41,40
60	AK14.1	1	53,25



Antistatic cloth

Made from **blended fabrics**. The highly conductive properties of the tissue safely remove electrically charged particles. The ultra-soft microfibres gently remove dust and all types of soiling from film, electronic circuit boards, CDs, monitor and scanner screens as well as plastic. Washable at 40 °C. Dimensions: 250 x 450 mm.

Art. No.	Pack Qty.	€
AK11.1	1	13,90



Microfiber dusters and polishing cloths

By 3M. Made of 50 % polyester and 50 % polyamide. For dusting and polishing shiny surfaces such as glass, mirrors, monitors, etc. Washable to max. 95 °C.

Art. No.	Pack Qty.	€
EE68.1	4 packs à 2 cloths	21,40



Microfiber multi-purpose cloth

By 3M. Made of 95 % polyester and 5 % polyamide. Ideal for all smooth and sensitive surfaces. Removes dust, grease and dirt. Cleans without leaving stripes and without fluffing. Washable at max. 95 °C. Dim.: 32 x 30 cm

Art. No.	Pack Qty.	€
EE69.1	1	6,35



Cleansing wipes

By 3M. Can be used wet or dry. Durable and highly absorbent. Washable to max. 60 °C. Dimensions: L 37 x W 40 cm.

Art. No.	Pack Qty.	€
EE57.1	2 packs with 2 wipes	9,15

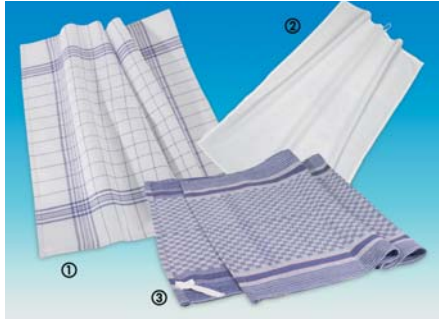


Polytex®-wipes

100 % PP. Colour blue. Non-fluffing, highly absorbent, washable, tearproof and solvent-proof. Wipes at 40 x 42 cm.

Art. No.	Pack Qty.	€
EH09.1	2 x 35 wipes	15,60
EH09.2	12 x 35 wipes	74,20

Wipes



Rotilabo®-dishcloths

Made of cotton. Robust, low-linting, fast-drying and adsorptive. With hanging loop. Suitable for foodstuffs.

Type	Weight per unit area (g/m ²)	L x W (cm)	Art. No.	Pack Qty.	€
① Dishtowel	210	70 x 50	YX97.1	1	2,75
② Glass towel	210	60 x 45	YX98.1	1	3,85
③ Kitchen towel	110	100 x 50	YX99.1	1	2,80



KIMTECH® Pure multi-purpose tissues

By Kimberly-Clark. Made of **PP**, white, low fluff, soft and highly absorbent. Ideal for absorbing acids, bases, solvents, oils, and aqueous solutions, etc. Suitable for application in clean rooms, ISO-class 7 and higher.

Type Extra, 38 x 35 cm, 70 µm thick.

Type	Art. No.	Pack Qty.	€
7624	0393.2	pack of 70 tissues in a bag	27,75
7624	0393.1	pack of 210 tissues in a carton	78,50



Lab towels

Made of 100 % cotton, can be washed at 90 °C. Dimensions: 50 x 100 cm, weight approx. 160 g.

Colour	Art. No.	Pack Qty.	€
light blue	1617.1	3	23,15
creamy-yellow	1616.1	3	23,15
pure white	0121.1	3	23,15



Wypall® X70

By Kimberly-Clark. 1-ply, white. Tightly spunbonded cellulose fibres. Extremely tearproof and strong when wet or dry. Can be wrung out and reused. Solvent-stable and quick-absorbance.

Box with 152 wipes 31.7 x 42.6 cm.

Type	Art. No.	Pack Qty.	€
8383	X216.1	1 Box	53,25

Roll with 42 x 38 cm preperforated wipes.

Type	Roll width (cm)	Ø (cm)	Art. No.	Pack Qty.	€
7249	42	30	X217.1	1 roll à 210 m	164,50



Sekuroka®-folded towels

Suitable for Sekuroka®-folded towel dispenser CY01.1 and CY02.1.

Type	Size (mm)	Art. No.	Pack Qty. (Sheet)	€
2-ply, tissue, natural, zigzag folds	25,5 x 23	CY03.1	20 x 160	32,15
2-ply, tissue, green, zigzag folds	25 x 23	CY04.1	20 x 160	32,15
1-ply, crepe, natural, quire folding	25 x 33	CY05.2	24 x 154	36,15



Rotizell®-tissues

2-ply, made of 100 % bleached FFC pulp.
Extra soft, absorbent, low fluff fibres. Tissue size 21 x 20 cm.

Art. No.	Pack Qty.	€
0087.2	1 carton (25 x 150 pieces)	42,50



Rotilabo®-wall dispenser

Made of **stainless steel**. Suitable for all Rotiprotect® glove dispensers.
By lightly pressing the two metal hoops together, other dispensers of max. 7.5 cm width can be inserted. Comes with two loops for wall attachment. Dowels and screws included.

Type	Dimensions L x W x H (mm)	Art. No.	Pack Qty.	€
For one box	180 x 85 x 135	Y383.1	1	21,45
For three boxes	245 x 100 x 477	AC07.1	1	51,55



KIMTECH® Science laboratory tissues

By Kimberly-Clark.

- Two-ply, white, bleached without using chlorine
- **Made of 100 % pure pulp** - therefore particularly absorbent and soft
- Suitable for application with solvents and chemicals
- Low-fluffing and especially ideal for sensitive areas
- Excellent for wiping smaller amounts of liquid and for cleaning pipettes and slides

Type	Towel size L x W (mm)	Art. No.	Pack Qty.	€
7558	200 x 205	P502.1	1 box à 200 tissues	6,40
7558	200 x 205	P502.4	15 boxes à 200 tissues	74,85
7557	200 x 210	X213.1	1 box à 100 tissues	4,45
7557	200 x 210	X213.3	24 boxes à 100 tissues	73,10



KIMTECH® Science precision tissues

By Kimberly-Clark. 1-ply, white. Made from specially treated, extremely low fluff and absorbent fibres (**100 % cellulose**). Ideal for precise wiping during sensitive applications, e.g. cleaning electronic components and contacts, optical lenses and slides. Easy removal from dispenser box.

Type	Towel size L x W (mm)	Art. No.	Pack Qty.	€
7551	304 x 304	AA63.1	1 box à 196 tissues	15,60
7551	304 x 304	AA63.2	15 boxes à 196 tissues	175,25
7552	213 x 114	AA64.1	1 box à 280 tissues	6,60
7552	213 x 114	AA64.2	30 boxes à 280 tissues	146,20



KC Professional wipers

By Kimberly-Clark. Disposable cleaning cloths with central dispenser, suitable for rough surfaces. Preperforated cloths, 32 x 31 cm, white.

Type	Art. No.	Pack Qty. (box)	€
38667	CLT0.1	6 rolls à 60 tissues	175,25

Wipes



Rotizell®-wipes T

Double-ply cellulose. Lint free. 64 perforated tissues L 25 x W 26 cm on 1 roll. Inner Ø 38 mm, for standard wall dispensers. Made of recycled paper. Unbleached.

Art. No.	Pack Qty.	€
0264.1	1 carton of 28 rolls	37,60

Rotilabo®-roll holder

With plastic foot and roll-stop device for fixing roll to tear off sheets. Roll is elevated 2 cm above working surface, therefore always stays dry. Rolls are easy to change.

Art. No.	Pack Qty.	€
K879.1	1	21,45



Mini single-sheet paper dispenser

- Hygienic removal of one towel at a time
- Easy to fill
- Viewing slot enables towel level to be checked
- Plastic, white
- Dimensions: W 16 x D 13.5 x H 31 cm

For wall assembly, incl. wall fittings. Matching tissue papers (Art. No. EE85.1) please order separately.

Art. No.	Pack Qty.	€
EE84.1	1	32,20

Tissue papers

100 % cellulose, white, 2-ply. W 11 x L 18 cm. 9000 tissues, with point-to-point embossing. Suitable for mini single-sheet paper dispenser (Art. No. EE84.1).

Art. No.	Pack Qty.	€
EE85.1	36 packs à 250 towels	53,65



Wypall® L20

By Kimberly-Clark. Made of 100 % recycled cellulose. Special AIRFLEX® structure for higher absorption capacity. Highly absorbent, for water and oil. Tear resistant, also suitable for cleaning sensitive surfaces. Preperforated tissues, 33 x 38 cm, white.

Ply	Roll width (cm)	Ø (cm)	Art. No.	Pack Qty.	€
2	33	30	EA31.1	1 roll à 380 m	33,35



Wypall® L40

By Kimberly-Clark. Ultra-thick paper towels made of a textile-like and ultrasoft AIRFLEX® material with extremely high tear strength even when wet. Outstanding water and oil absorbency, for fast absorption of large quantities of liquid.

Single Ply, white, cellulose/latex blend

Type	Towel size L x W (mm)	Art. No.	Pack Qty.	€
7471, quarter-folded	317 x 330	NH08.1	1 box = 18 x 56 towels	149,45
7452, perforated	315 x 340	NH09.1	1 roll = 750 towels	130,10

3-ply, blue, for high-performance applications

Type	Towel size L x W (mm)	Art. No.	Pack Qty.	€
7425	235 x 380	NH10.1	1 roll = 750 towels	53,70
7426	330 x 380	NH11.1	1 roll = 750 towels	70,75



Rotizell®-wipes

On large rolls.

Wypall® X70

Highly absorbent cellulose fibres in a spunbonded fleece of polypropylene. Absorbs liquids immediately, very high absorption capacity. Highly tear resistant and robust. Solvent-resistant, reusable. Preperforated tissues, 42 x 38 cm, white.

Ply	Roll width (cm)	Ø (cm)	Art. No.	Pack Qty.	€
1	42	30	X217.1	1 roll à 210 m	164,50

Wypall® L20

Made of 100 % recycled cellulose. Special AIRFLEX® structure for higher absorption capacity. Highly absorbent, for water and oil. Tear resistant, also suitable for cleaning sensitive surfaces. Preperforated tissues, 33 x 38 cm, white.

Ply	Roll width (cm)	Ø (cm)	Art. No.	Pack Qty.	€
2	33	30	EA31.1	1 roll à 380 m	33,35

XL2 1500

Made of soft cellulose. Highly absorbent and tear resistant, suitable for water and oil. Preperforated tissues, 26.5 x 38 cm, white.

Ply	Roll width (cm)	Ø (cm)	Art. No.	Pack Qty.	€
2	26,5	39	AN56.1	2 rolls à 570 m	74,10

XXL2 Blue

Made of cellulose. Highly absorbent and tear resistant, ideal for dust, grease and oils. Preperforated tissues, 38 x 38 cm, blue.

Ply	Roll width (cm)	Ø (cm)	Art. No.	Pack Qty.	€
2	38	29	4695.1	2 rolls à 380 m	81,70

XXL3 1000

Made of cellulose. Highly absorbent and tear resistant, ideal for dust, grease and oils. Preperforated tissues, 38 x 38 cm, white.

Ply	Roll width (cm)	Ø (cm)	Art. No.	Pack Qty.	€
3	38	39	AN57.1	1 roll à 380 m	49,35

L3 Blue

Made of cellulose. Highly absorbent and tear resistant, ideal for dust, grease and oils. Preperforated tissues, 22 x 38 cm, blue.

Ply	Roll width (cm)	Ø (cm)	Art. No.	Pack Qty.	€
3	22	39	A972.1	2 rolls à 380 m	73,00

Absorptive crepe tissue S

Made of recycled cellulose. Highly absorbent. Tissue size: 24 x 38 cm, light grey.

Ply	Roll width (cm)	Ø (cm)	Art. No.	Pack Qty.	€
4	24	35	1997.1	2 rolls à 300 m	61,20



Rotizell®-dispenser

With cut-off bar and holder for a waste bag. Overall dimensions: W 104 x H 48 x D 64 cm. Max. roll width 42 cm.

Art. No.	Pack Qty.	€
0273.1	1	78,45

Matching waste disposal bags:

Rotizell®-waste bags, made of Octen-plastic foils, blue, 120 l, 700 x 1100 mm, 50 bags pre-perforated on roll.

Art. No.	Pack Qty. (roll)	€
5382.1	1	14,55



Rotizell®-roll-off stand

Silver, with tear bar. Dimensions: W 44 x H 97 x D 38 cm. Max. roll width 34 cm.

Art. No.	Pack Qty.	€
1798.1	1	39,70

Wall roll holder

Suitable for wipes of maximum 42 cm roll width. Robust design. With tear bar and holder for waste bags (120 l). Overall dimensions: W 49 x H 58 x D 27 cm.

Art. No.	Pack Qty.	€
AH00.1	1	52,60

Wipes and backings



Rotizell®-ply cellulose tissues

Absorbent and tear-proof. Made of recycled paper, 40 x 60 cm.

Creped, single ply, light grey

Art. No.	Pack Qty.	€
1745.1	1 x 5 kg	21,45
1745.2	3 x 5 kg	48,35

Creped, single ply, bleached bright

Art. No.	Pack Qty.	€
X859.1	1 x 5 kg	41,40
X859.2	3 x 5 kg	107,30

4-ply, horse-nail embossed, bleached bright

Art. No.	Pack Qty.	€
1746.1	1 x 5 kg	52,15



Rotilabo®-filter papers

100 % cellulose quality filter papers. High absorbency. Standard filter paper with a smooth surface for analysis. Colour white. Larger sizes are ideal as surface protection paper or working surface.

Type 600

Weight 64 g/m², thickness 0.15 mm. Retention 10-20 µm.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
420	520	XP43.1	500	62,15
500	500	XP44.1	500	70,45
600	600	XP45.1	500	102,15

Type 601

Weight 73 g/m², thickness 0.16 mm. Retention 5-13 µm.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
450	450	XP46.1	500	170,95
460	570	XP47.1	100	39,80

Type 122

Weight 73 g/m², thickness 0.17 mm. Retention 17-30 µm.

Length (mm)	Width (mm)	Art. No.	Pack Qty.	€
520	520	XP48.1	500	160,20
600	600	XP49.1	500	189,20



Rotilabo®-absorbent papers

Bench-Top Protection Paper

Highly absorbent white paper, coated on one side with water-resistant PE. Suitable as a protective working surface for lab tops or for lining cupboards and drawers. Protects surfaces against chemicals, dirt and contamination. Also suitable for analytical and isotope laboratories.

Weight: 144 g/m², absorbency approx. 250-280 g/m²

Cut	Size	Art. No.	Pack Qty.	€
Sheets	48 cm x 60 cm	1941.1	100	166,00
Roll	48 cm x 100 m	1959.1	1	244,00
Roll	60 cm x 100 m	1006.1	1	297,00

Weight: 125 g/m², absorbency approx. 170 g/m²

Cut	Size	Art. No.	Pack Qty.	€
Sheets	42 cm x 52 cm	HY90.1	100	59,15
Sheets	46 cm x 57 cm	HY91.1	100	63,65
Sheets	50 cm x 60 cm	HY92.1	100	85,80
Roll	49 cm x 50 m	HY93.1	1	85,80
Roll	60 cm x 50 m	HY94.1	1	102,70
Roll	92 cm x 50 m	HY95.1	1	136,55

Weight: 225 g/m², absorbency approx. 200 g/m²

Cut	Size	Art. No.	Pack Qty.	€
Sheets	46 cm x 57 cm	HY96.1	50	63,45
Sheets	50 cm x 60 cm	HY97.1	50	58,60
Roll	49 cm x 50 m	HY98.1	1	160,20
Roll	60 cm x 50 m	HY99.1	1	196,75
Roll	92 cm x 50 m	KA00.1	1	277,35



Rotilabo®-Joseph-wipes

Low-linting fine grade paper for cleaning and drying. Highly absorptive. Surface weight 25 g/m².

Type	L x W (mm)	Art. No.	Pack Qty.	€
Single	150 x 150	XP41.1	200	5,85
Folded	350 x 350	XP42.1	500	44,10

Dish washing brushes and sponges



Cotton wool

Made of 100 % cotton, perforated. For filtering and cleaning.

Type	Art. No.	Pack Qty.	€
perforated	0571.1	1 kg (10 x 100 g)	23,60
not perforated	PE40.1	700 g (7 x 100 g)	13,90



Sponge cloths

By 3M. Highly absorbent. Absorb 10-times their own weight. Washable at max. 60 °C. Dimensions: L 18 x W 20 cm.

Art. No.	Pack Qty.	€
EE56.1	2 x 5	13,95



Scouring spiral pads

By 3M. Made of stainless high-grade steel. For removal of stubborn dirt.

Art. No.	Pack Qty.	€
EE55.1	4 packs with 3 pads	10,25



Rotilabo®-button brushes

With dispenser in handle, to be filled with cleaning detergent. Pressing the brush head opens dispenser, releases detergent into brush. Brush bristles made of Nylon 6.6. Length of brush 90 mm, Ø 70 mm.

Art. No.	Pack Qty.	€
A842.1	2	8,40



Rotilabo®-dish washing brushes set

Made of breakproof plastic, with nylon bristles.

Length 28 cm, weight approx. 50 g.

Delivery incl. 12 dish washing brushes: 6 round brushes, 6 elongated brushes, the latter with tough scratching bristles at tip.

Art. No.	Pack Qty. (assortment)	€
0667.1	1	31,10



Sponges for cleaning

By 3M. With scouring fleece for cleaning stubborn dirt. Ribbed for good grip and easy application. Dimensions: L 90 x W 70 x H 45 mm.

Art. No.	Pack Qty.	€
EE54.1	3 packs with 3 sponges	11,10



Non-scratch scrub sponges

By 3M. Scotch-Brite™. Made of a non-scratch non-woven material specially designed for effective cleaning of sensitive surfaces such as stainless steel, CERAN®, Teflon® and glass. Cleans effectively but is gentle on surfaces. Highly absorbent.

Two-sided: non-woven abrasive on one side, natural sponge on the other. Dimensions: L 85 x W 65 x H 40 mm.

Art. No.	Pack Qty.	€
TT83.1	3 packs of 2	10,70

Brushes



Rotilabo®-cleaning brushes

Excellent for cleaning laboratory glass and plastic containers. Made of soft, non-scratching PE-foam. Does not absorb liquid and is considerably more durable than conventional brush material.

① Pliable for narrow vessels

Head Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
20	410	Y111.1	1	12,40

② Round head for tall vessels

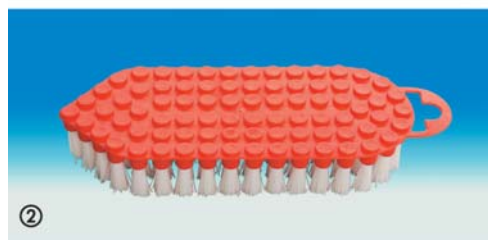
Head Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
70	480	Y109.1	1	10,70

③ Round head for low vessels

Head Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
60	250	Y110.1	1	10,25

④ Special brushes with bristles for cleaning test tubes and extremely narrow vessels. Pliable to fit vessel form.

Head Ø (mm)	Length (mm)	Art. No.	Pack Qty.	€
20	220	Y112.1	1	7,00



Rotilabo®-scrubbing brushes

① Made of wood. S-shape. Bristles made of PP. L 210 x W 70 x H 35 mm.

Art. No.	Pack Qty.	€
ET48.1	5	11,80

② Made of PP. Flexible. Ideal for cleaning corners, curves and edges. L 195 x W 70 x H 43 mm.

Art. No.	Pack Qty.	€
ET49.1	2	8,95



Rotilabo® cleaning brushes

Bristle materials:

1: brass 0.15

2: bronze 0.15

3: natural fibres/Perlon

4 to 11: pig bristles

9, 10 and 11: with woollen head

Type	Overall length (mm)	Brush length (mm)	Brush Ø (mm)	Art. No.	Pack Qty.	€
1	300	100	25	2018.1	5	34,95
2	300	100	15	2023.1	5	34,10
3	500	150	80	2017.1	5	56,45
4	480	120	60	1850.1	5	29,00
5	370	85	50	2013.1	10	35,05
6	500	100	18	1202.1	10	24,70
7	500	100	12	2003.1	10	23,45
8	500	100	6	2002.1	10	23,45
9	270	115	30	2011.1	10	18,75
10	270	80	20	2009.1	10	16,35
11	280	70	15	2019.1	10	17,15

Rotilabo®-brushes set

Type	Type	Art. No.	Pack Qty. (assortment)	€
Set of 12	4 brushes each, type 6, 7, 8	2006.1	1	36,50
Set of 8	1 each of types 1, 2, 3, 4, 5, 9, 10, 11	2027.1	1	45,70



Rotilabo® pipette brushes

With uncoloured natural bristles. Durable, highly resistant to chemicals, heat resistant to approx. 150 °C.

Type	Overall length (mm)	Brush length (mm)	Brush Ø (mm)	Art. No.	Pack Qty.	€
a	400	100	5/10/5	KE62.1	5	19,90
b	490	190	4/20/4	KE63.1	5	25,05
c	450	180	12/25	KE64.1	5	21,30
d	160	70	10	KE65.1	5	10,45



Rotilabo®-cleaning brushes

Made of natural bristles/wool head or all-wool. Galvanised twist-in wire.

Brush Ø x L (mm)	Overall length (mm)	Type	Art. No.	Pack Qty.	€
5 x 85	280	Natural bristles/wool head	XK58.1	5	10,55
8 x 85	280	Natural bristles/wool head	XK59.1	5	10,35
10 x 60	230	Natural bristles/wool head	XK60.1	5	10,35
12 x 85	280	Natural bristles/wool head	XK61.1	5	10,35
15 x 85	280	Natural bristles/wool head	XK62.1	5	10,00
20 x 105	270	Natural bristles/wool head	XK63.1	5	10,35
30 x 115	270	Natural bristles/wool head	XK64.1	5	16,60
35 x 100	330	Wool	XK65.1	1	7,00
40 x 130	520	Natural bristles/wool head	XK66.1	1	5,70
50 x 150	320	Natural bristles/wool head	XK67.1	1	4,85
55 x 140	390	Wool	XK68.1	1	7,00
60 x 145	520	Natural bristles/wool head	XK69.1	1	5,85



Rotilabo®-cleaning brushes

Made of **Nylon**. Overall length 300 mm.

Brush Ø x L (mm)	Twist-in wire	Art. No.	Pack Qty.	€
2 x 60	Chrome nickel	XK71.1	5	13,35
3 x 100	Chrome nickel	XK72.1	5	10,90
4 x 100	galvanised	XK73.1	5	11,10
5 x 100	galvanised	XK74.1	5	11,10
8 x 100	galvanised	XK75.1	5	11,50
10 x 100	galvanised	XK76.1	5	11,50
20 x 100	galvanised	XK77.1	5	12,40
30 x 100	galvanised	XK78.1	5	13,35
50 x 100	galvanised	XK79.1	5	16,60



Rotilabo®-cleaning brush with joint

Made of natural bristles with wooden handle.

Overall length (mm)	Brush length (mm)	Art. No.	Pack Qty.	€
440	50	XK70.1	1	17,45



Rotilabo® hose/burette brushes

With uncoloured pig bristles, durable, highly resistant to chemicals, heat resistant up to approx. 150 °C.

Type	Overall length (mm)	Brush length (mm)	Brush Ø (mm)	Art. No.	Pack Qty.	€
e	1000	150	12	KE66.1	5	19,15
f	1000	150	15	KE67.1	5	20,35
g	1000	150	30	KE68.1	5	21,45



Rotilabo® hose brushes

With Nylon bristles, abrasion-proof and highly resistant to chemicals, heat resistant to approx. 100 °C.

Type	Overall length (mm)	Brush length (mm)	Brush Ø (mm)	Art. No.	Pack Qty.	€
h	1180	60	6	KE69.1	2	17,00
i	2500	150	8	KE70.1	2	23,55
j	1500	150	9	KE71.1	2	15,00
k	1500	150	16	KE72.1	2	14,65



Pipe cleaners

Made of cotton, with stiff wire. Tapered, Ø 1.5-6 mm. Length approx. 170 mm Ideal for cleaning hard-to-reach small parts such as nozzles, drill holes, connectors, stopcocks, pipettes and hoses.

Art. No.	Pack Qty.	€
YC35.1	80	5,60

Wipers and brush and dustpan set



PROFI floor mops

By Leifheit. With convenient foot control and changeable mop heads for universal use on all floor surfaces. Aluminium handle with hanging loop and non-slip grip. Flexible, flat-folding 360-degree swivel head enables effective cleaning in a wavy line. Wiping width 420 mm.

Delivery incl. PROFI micro duo mop head.

Type	Length (mm)	Art. No.	Pack Qty.	€
Aluminium handle	140	XP59.1	1	49,25
Extending handle	80-135	XP60.1	1	49,25

Mop heads for PROFI floor mops

① PROFI micro duo

Duo-fibre system enables easy dirt pickup. Suitable for all floor types. Washable at 60 °C.

Art. No.	Pack Qty.	€
XP61.1	1	22,50

② PROFI cotton plus

Containing cotton, ideal for tiles and stone floors. Also removes coarse dirt. Washable at 60 °C.

Art. No.	Pack Qty.	€
XP62.1	1	22,50

③ PROFI static plus

For dry cleaning. Attracts dust and hairs using static electricity. Washable at 40 °C.

Art. No.	Pack Qty.	€
XP63.1	1	22,50



PROFI Evo mop wringer

By Leifheit. Made of PP. Capacity: 8 litres. Sturdy foot-operated mop wringer allows cleaning without bending down, using force or getting hands in dirty water.

The wringer can be stowed inside the bucket to save space.

With sturdy carry handle and two built-in castors for easy transport.

Ideal for use in combination with PROFI floor mops.

Art. No.	Pack Qty.	€
XP64.1	1	83,85



Powerslide window wiper

By Leifheit. Made of ABS. For streak-free cleaning of smooth surfaces. Movable joint reduces wrist strain. Locking mechanism on handle to control wiping angle. Wiper width 280 mm.

Art. No.	Pack Qty.	€
XP65.1	1	11,65



Brush and dustpan set

By Leifheit. Made of PP. Ergonomic non-slip handle.

With special bristles and flexible rubber lip for easy collection of dirt.

Large dirt chamber for safe transport.

Art. No.	Pack Qty.	€
XP66.1	1	13,95



Rotilabo®-brush and dustpan set

Made of PP. Square. Dustpan with brush comb and lip. Bristles made of polymex. L 330 x W 195 x H 90 mm.

Art. No.	Pack Qty.	€
ET50.1	1	6,40

Vacuum cleaners



Multi-purpose vacuum cleaner NSG uClean 1432 ST

For dry and wet cleaning. Suitable for dust, coarse dirt particles and water.

Features:

- 32 l impact resistant special plastic container
- Water level detection
- Carry handle with hose reel and connector fixture
- Storage depots for accessories
- 2 swivel castors
- Parking aid

Technical specifications:

Dimensions	L 42 x W 39 x H 64 cm
Weight	9,3 kg
Container volume	Gross 32 l, dust 28 l, water 21 l
Power requirement	max. 1400 W
Vacuum	max. 259 mbar
Air flow	max. 69 l/s
Splash protection	IP 24
Length of cable	8 m
Suction hose	L 1.75 m/Ø 4.9 cm
Incl. accessories	1 suction hose (Ø 4.9 cm, 1.75 m), 2 suction pipes (length 50 cm), 1 floor nozzle (width 36 cm), 1 coarse dirt nozzle, 1 crevice nozzle (length 16 cm), 1 fleece filter bag, 1 foam filter for extracting water and 1 dust filter cartridge.

Type	Art. No.	Pack Qty.	€
Multi-purpose vacuum cleaner NSG uClean 1432 ST	X247.1	1	289,20
Replacement fluted filter cartridge FP 3600	X248.1	1	37,55
Replacement fleece filter bag FBV 25/35	X249.1	5	36,05
Replacement foam filter FSS 1200	X250.1	1	18,25



Wet and dry handheld vacuum cleaner

Cordless vacuum cleaner for dust and liquids. Powerful, easy to clean, with charge indicator light, over charge and deep discharge protection. Dimensions: L 293 x W 90 x H 113 mm.

Delivery incl. permanent filter, crevice nozzle with brush attachment, rubber nozzle for extracting liquids, 12 V car connecting cable as well as wall mount with charger.

Art. No.	Pack Qty.	€
P764.1	1	60,20



Air pressure suction gun

For dust extraction. Has a NW 10 connection for flexible pressure tubing to fit pneumatic systems or pressure gas bottles (nitrogen, air, argon). The easy to empty dust bag made of felt can be disposed off completely if needed. Vacuum hose and vacuum nozzle are 20 cm in length when connected and can be rotated in every direction. The opening slit is 70 x 5 mm. For air pressure up to approx. 6 bar. Suction volume 700 l/min. Vacuum 40 kPa (0.4 bar). Weight approx. 700 g.

Type	Art. No.	Pack Qty.	€
Air pressure suction gun	5776.1	1	256,95
Spare dust bag with screw cap	5777.1	1	87,80



Air pressure gun made of aluminium

Electroplated, robust version. With short jet for thin stream. Working pressure up to 15 bar. Equipped with lever valve, connector for tubing with inner span 7 mm. With integrated loop for hanging.

Art. No.	Pack Qty.	€
5454.1	1	16,35

► Tubes see page 355

Grease



Silicone greases Rotisilon®

Rotisilon® A

Grease for glass connections and lubricant for rubber on glass. Liquid, temperature range -48 to +150 °C.

Art. No.	Pack Qty.	€
0830.1	250 ml	14,95
0830.2	1 l	39,70

Rotisilon® B

All-purpose grease, especially suitable for stopcocks. Vaseline-like, transparent, temperature range from -45 to +180 °C.

Art. No.	Pack Qty.	€
0836.1	250 g	22,50
0836.2	1 kg	78,40

Rotisilon® C/D

For normal vacuum (water jet pump). Paste consistency, transparent, temperature stable from -40 to +200 °C.

Art. No.	Pack Qty.	€
8537.1	100 g	21,85



KWS-grease

For vacuum, high vacuum and backflow distillation.

Silicone-free, acid- and alkali-proof. For greasing ground glass joints, can be applied at temperatures between -40 and +200 °C. Vapour pressure 10⁻⁵ mbar. Excellent adhesion viscosity and releasing properties.

Art. No.	Pack Qty.	€
0930.2	50 g	28,95
0930.1	100 g	50,35



Vaseline

For lubricating ground joints, desiccators, stopcocks, etc. Silicone-free, FDA-compliant. Density approx. 0.8 g/cm³, melting point approx. 52 °C.

Art. No.	Pack Qty.	€
E746.1	Tube with 100 g	3,95

► Glass components, see page 130



KORASILON®-pastes

For use as grinding paste, sealing paste, lubricant and protective paste. Moisture repellent. Also suitable as a sealant for electrical appliances, as a lubricant paste for cooling units and as a mould release agent. Temperature resistant in the range -50 to +200 °C.

Type	Art. No.	Pack Qty.	€
low viscosity	0855.1	35 g	5,60
medium viscosity	0856.1	35 g	5,60
high viscosity	0857.1	35 g	5,60

KORASILON®-pastes assortment

Assortment of 2 x each tube low viscosity, medium viscosity and high viscosity.

Art. No.	Pack Qty.	€
0858.1	6 x 35 g	28,50



KORASILON® M-S 2 pastes

For use as an anti-friction, lubricating and release agent for grinding, apparatus, seals, valves, cables and wires etc. Suitable for use as an assembly aid and as a protective and sealing paste. Colourless, odourless, non-toxic, insoluble in water, resistant to salt water and hot steam. Good electrical insulation, inert to many chemicals and resistant to micro-organisms.

Compliant with BfR Recommendation XV. Silicone.

Compliant with FDA 178.3570 "Lubricants with incidental food contact".

With NSF-H1 approval.

Temperature stable from -40 to +200 °C.

Type	Art. No.	Pack Qty.	€
M-S 2-300, low viscosity	APA5.1	35 g	10,70
M-S 2-270, medium viscosity	APA6.1	35 g	10,70
M-S 2-200, high viscosity	APA7.1	35 g	10,70



Water-soluble grease

Transparent grease. Vacuum-tight, removable by washing with water. Virtually no change in consistency between -30 and +200 °C. Does not resinify. Easily decomposable.

Art. No.	Pack Qty.	€
E691.1	80 g	26,35



APIEZON®-lubricants

High lubricating and gettering properties. Extremely low steam pressures.

- Chemically inert
- Silicone free
- Non-toxic
- Temperature resistant
- 10 years shelf life



Type	Features	Melting point	Steam pressure (at +20 °C)	Temperature range	Art. No.	Pack Qty.	€
AP 100	High vacuum; good lubrication, resists alkali, acid and corrosive gases. Particularly good for polished ground glass joints.	+47 °C	7×10^{-11} torr	+10 to +30 °C	C986.1	50 g	145,15
AP 101	Heavy duty grease for a wide temperature range . Medium vacuum.	> +200 °C	$<1 \times 10^{-5}$ torr	-40 to +180 °C	C987.1	50 g	69,35
L	Special quality lubricant, free of additives for high vacuums. With high absorption capacity for other hydrocarbons. High resistance to radiation. Can also be used in stationary phases in gas chromatography. Free of halogene.	+47 °C	7×10^{-11} torr	+10 to +30 °C	1682.1	50 g	134,40
M	All-purpose lubricant, similar to type L, but stiffer. Free of halogene.	+44 °C	$1,7 \times 10^{-9}$ torr	+10 to +30 °C	1683.1	100 g	112,90
N	High vacuum lubricant for cryo-applications , rubbery, tenacious. Free of halogene. Identification: R: 12-52/53	+43 °C	6×10^{-10} torr	-269 to +30 °C	1684.1	25 g	149,45
T	All-purpose lubricant. For medium vacuum. Free of halogene.	+125 °C	$4,6 \times 10^{-9}$ torr	+10 to +120 °C	1685.1	25 g	127,95
H	Versatile lubricant for very high temperatures. Does not melt at high temperatures over 40 °C.	> +250 °C	$1,7 \times 10^{-9}$ torr	-10 to +240 °C	1686.1	25 g	134,40



APIEZON®-waxes and sealing agent

APIEZON®-waxes W, W 40, W 100

Provides lasting, high-vacuum sealing, excellent gettering properties and low vapour pressure. Is resistant to acids such as hydrofluoric acid, nitric acid and acetic acid. Can be removed with hydrocarbons and chlorinated hydrocarbons.

APIEZON®-sealing kit Q

Ideal for sealing joints and for filling cracks. Especially suitable for vacuum technology when extremely low vapour pressure is not required. Waterproof.



Type	Features	Melting point	Steam pressure (at +20 °C)	Temperature range	Art. No.	Pack Qty.	Packaging	€
W	Sealing agent for seams which can heat up during operation.	80 to 90 °C	4.5×10^{-9} torr	-10 to +75 °C	AL06.1	1 kg	Block	116,10
W	Sealing agent for seams which can heat up during operation.	80 to 90 °C	4.5×10^{-9} torr	-10 to +75 °C	AL06.2	~20 g	Stick	8,20
W 40	Sealing agent can be poured into or around a seam.	40 to 50 °C	6×10^{-8} torr	-10 to +35 °C	AL07.1	250 g	Can	140,85
W 100	The soft wax reduces the risk of cracking in response to vibration loads.	50 to 60 °C	4.5×10^{-9} torr	-10 to +45 °C	AL08.1	250 g	Can	141,90
Sealing kit Q	Versatile sealing compound for vacuum technology.	40 to 50 °C	1×10^{-4} torr	-10 to +30 °C	AL09.1	1 kg	Can	141,90

Lubricants



APIEZON®-high-temperature vacuum lubricant PFPE 501

Chemically inert lubricant, gliding and sealing agent based on perfluoropolyether and PTFE. Can be used between -15 and +250 °C.

- Extremely resistant to solvents and aggressive chemicals (including halogens, nitric acid, as well as gaseous and liquid oxygen)
- High load-carrying capacity, as well as excellent sliding friction thanks to film-forming, highly dense perfluoropolyether structure
- Non-flammable, not poisonous
- Versatile; protects, lubricates and seals stock, valves, gears, threads, o-rings, seals, etc.

Technical specifications:

Relative density at 25 °C	2003 g/cm ³
Steam pressure at 25 °C	1.3 x 10 ⁻¹² torr
Four-ball test acc. to ASTM D2266 (40 kg)	0.94 mm

Art. No.	Pack Qty.	€
YT61.1	100 g	159,10



Ballistol®-oil and -spray

Pure, mildly alkaline special oil with cleaning, conserving, protecting, regenerating, impregnating, lubricating and disinfecting properties. Low surface tension, wets even the smallest cracks and gaps. Does not gum or cure. Free from chlorinated hydrocarbons, environmentally friendly and biologically degradable. Also suitable for use on wood and leather. Dermatologically tested and approved for parts coming into contact with product in the foodstuffs industry.

Ballistol®-oil

Warning H226

Art. No.	Packaging	Pack Qty.	€
AA74.1	Glass	50 ml	5,40
AA74.2	Glass	500 ml	24,20

Ballistol®-spray

Danger H222-H229

Art. No.	Packaging	Pack Qty.	€
AA75.1	Spray can	200 ml	9,60



PTFE paste

Suitable for sealing fine threads and cuts. High viscosity, good lubrication properties, good electrical resistance properties. Chemically inert. Temperature stable from -30 to +300 °C.

Art. No.	Pack Qty.	€
0124.1	100 g	117,75



Limesoil

Super lubricant® for quick fit connections and stopcocks. Protects glass against seizing and metals against corrosion. Produces a non-tearing film and is resistant to aggressive substances such as methylisobutylketone, IPA, etc. No flowing, no pulling strings.

Temperature range: -40 to +185 °C. Steam pressure: 9.33 x 10⁻⁴ N/m² (7 x 10⁻⁶ Torr) at +20 °C and 1.33 N/m² (10⁻² Torr) at +100 °C.

Art. No.	Pack Qty.	€
3067.1	50 g	55,90



Rotifluid®

Low-viscosity mineral oil-based lubricant for precision mechanics.

Art. No.	Pack Qty.	€
1264.1	200 ml	8,00
1266.1	1 l	18,60

Coating and preserving



Sprayflon®

Multi-purpose PTFE-lubricant, gliding and separating agent with extremely low friction factor. Resistant against water, oil and aggressive substances. Anti-adhesive, dirt repellent, prevents freezing and is temperature stable to +260 °C. Free of grease and silicone. Propellant propane/butane.

Danger H222-H229

Art. No.	Pack Qty.	€
K007.1	300 ml	14,75



Paraloid™ B-72

Transparent, light-resistant thermoplastic acrylic resin for conserving samples. Also ideal for coating and sealing wood, stone, metals, and other materials. The coat is permanently stable and non-yellowing. Compatible with cellulose, silicone, PVC, and many other plastics and metals. Resistant to water and many chemicals. Dissolves in toluene or ethyl acetate. Can be applied with brush, spray gun or in immersion bath. Hardens by air drying or heat exposure (approx. 30 mins at 150 °C)

Art. No.	Pack Qty.	€
9639.1	1 kg	55,80
9639.2	5 kg	161,15



KORASILON universal silicone spray

Solvent-free, ready-to-use release agent, lubricant and preservative with dielectric properties and a wide range of applications:

- **Lubricant:** reduces surface friction and optimises lubrication effect
- **Impregnating agent:** water and dirt repellent
- **Antifreeze:** prevents freezing and sticking of seals
- **Preservative and care product** for rubber, plastics, wood, metals etc.
- **Release agent:** allows residue-free demoulding of plastic products
- **Electrically insulating**, prevents current leakage at electrical contacts
- Heat resistant up to approx. 350 °C

Delivery incl. additional spray nozzle with extension capillary tubing.

Danger H222-H229

Art. No.	Pack Qty.	€
5432.1	400 ml	9,15

KORASILON release agent M

Silicone-based mould release agent for duromers and thermoplastic materials. With high, long-lasting release capacity. Its extremely thin spray film is easy to apply and provides improved lubricity, surface gloss and scratch resistance.

Heat resistant up to approx. 150 °C, leaves no residues on hot surfaces.

Danger H222-H229-H315-H336-H411

Art. No.	Pack Qty.	€
0895.1	400 ml	8,55



Zaponlack varnish

Fast drying, clear varnish with a nitrocellulose base. Crystal clear, for protecting copper or brass against oxidation, and for fixing paper, wood, glass, leather, etc. Apply by brushing, spraying or dipping.

Danger H225-H319-H336-EUH066-H412

Art. No.	Pack Qty.	€
6804.1	500 ml	32,15

Gluing and Sealing



Instant glue CA 221

Ethyl cyanoacrylate based single-component instant glue for plastics, metals and porcelain. The adhesive bonds are to a large degree temperature and chemical resistant. Not suitable for permanent contact with water. Starts to harden in less than 1 minute and cures fully after 8-10 hours. Storage temp. +10 °C. Shelf life approx. 6 months.

Warning H315-H319-H335

Art. No.	Pack Qty.	€
0258.1	Dispenser bottle 10 ml	6,25



One components silicone rubber

For gluing, sealing, covering. High temperature stability, virtually chemical resistant. UV/ozone resistant. Polymerizes at room temperature through air humidity to a permanently elastic rubber. Ready-to-use in tubes of 85 ml.

Scrintec® 600, oxime cross-linking

Paste-like, **transparent**. Temperature stable from -50 to +180 °C. Spec. weight 1.02 g/cm³, shore-hardness 20°.

Type	Art. No.	Pack Qty.	€
Scrintec® 600	E046.1	1 tube	12,40

Scrintec® 901, acetic acid cross-linking

Liquid, **opaque red**. Temperature stable from -60 to +250 °C. Spec. weight 1.20 g/cm³, shore-hardness 35°.

Type	Art. No.	Pack Qty.	€
Scrintec® 901	2024.1	1 tube	13,95



Thermokitt Roth 1100 °C

Heat resistant embedding medium, seals and glues metal, glass, ceramic, porcelain. Has ideal electric resistance properties, ideal insulation for heating elements. **With stands temperatures to +1100 °C**, is free of phosphate and resistant to oil, acids, and solvents. The components of powder (component 1) and liquid (component 2) are mixed in a ratio of 2:1 by weight. Sets after 24 hours. Kit for mixing 300 g ready to use medium.

Set contains component 1 (powder, Art. No. 2391) and component 2 (liquid, Art. No. 2392).

Contents of this kit may not be bought separately.

Warning H302+H312+H332-H315-H319

Art. No.	Pack Qty.	€
3040.1	200 g components 1 and 100 g components 2	34,75



Autostic FC8

Single-component adhesive filler for connecting, sealing, coating or gluing ceramics, glass, quartz crystal, metal etc. **Max. usage temperature +1000 °C**, non-flammable. Ready to use, viscosity 3000 MPa. Setting occurs at room temperature or can be accelerated by heating at up to 90 °C. Depending on temperature, humidity and the properties of the material to be glued as well as the required layer thickness, setting is complete after 36-48 h.

Art. No.	Pack Qty.	€
0279.1	Tin 500 g (250 ml)	42,80

Gluing and Sealing



Araldit® Epoxy Systems

Suitable for joining metal, ceramic, or plastic together in any combination. Also ideal for filling gaps in these materials.

Araldit® adhesive B 1

On an epoxy base, low viscosity, transparent. For connecting metal parts and filling hollow spaces. Hardens with hardener H 2 (Percentage by weight 100:8).

Warning H315-H317-H319-H411-EUH205

Art. No.	Pack Qty.	€
2530.1	500 g	57,75

Araldit® Resin G 2

Epoxy resin, low viscosity. Suitable for casting and embedding electronic components. Curing at room temperature with hardener H 2 (percentage by weight 10:1).

Warning H315-H317-H319-H411-EUH205

Art. No.	Pack Qty.	€
2545.1	500 g	33,90

Aradur® hardener H2, liquid

Danger H302+H312-H314-H317-H412

Art. No.	Pack Qty.	€
2551.1	100 g	13,90
2551.2	500 g	48,30



Araldite® Rapid

Two component all-purpose glue, made with an epoxid-resin base. Glues practically everything except PP, PE, PTFE, PVC and Acryl. Fast setting, heat resistant up to +100 °C, resistant against alcohol, water, petrol, mineral oils and similar substances. Mixing 1:1. Process of setting starts after 5 min, will support itself after another 15 mins and is fully stable after 8-10 h. Kit contains 15 ml each of component A and B.

Warning H315-H317-H319-H411

Art. No.	Pack Qty.	€
3131.1	Two kits (= 60 ml glue)	36,45



Plexit® 55 Röhml

Viscous acryl-resin for embedding. Hardens after addition of a catalyst and blue light (340-400 nm). Makes crystal clear blocks, that can be worked mechanically. Hardening with catalyst (percentage by volume 100:1 to 100:2).

Acryl-resin-se

Set contains resin (Art. No. PL78) and catalyst (Art. No. 2494). Resin may not be bought separately.

Danger H225-H315-H317-H335-H360Df-H400

Art. No.	Pack Qty.	€
2490.1	1 l resin and 10 g catalyst	45,90
2490.2	2,5 l resin and 25 g catalyst	88,50

Thinner 30

Danger H225-H315-H317-H335

Art. No.	Pack Qty.	€
2498.1	1 l	38,20

Catalyst 22

Danger H360Df-H400

Art. No.	Pack Qty.	€
2494.1	50 g	8,90
2494.2	250 g	17,10



Two component sealing resin Metaflux®

Suitable for metal, porcelain, wood, stone, for sealing pipes and tanks, and for filling holes and dents. Hardens after 3 hours.

Temperature stable up to +200 °C. Mechanically processible. Compression/tensile strength 800/300 kp/cm². Mixture 1:1.

Warning H315-H319-H317-H412

Art. No.	Pack Qty.	€
1279.1	400 g	38,60

Gluing and Sealing



Hot glue gun Glueomatic 5000

By Steinel. Cordless hot melt applicator with extremely high melting capacity.

- Very short heating times
- Glue is heated automatically when the unit is placed onto the charger
- Electronic temperature control using state-of-the-art PTC heating technology
- Continuous operation with power cable possible
- Energy-saving standby mode
- Mechanical glue stick feeder for speedy, well-metred working
- Replaceable glue nozzles

Technical specifications:

Dimensions (L x W x H)	185 x 32 x 180 mm
Weight (without stand)	330 g
Output	Working phase approx. 120 W, warm-up phase approx. 500 W
Warm-up phase	3-5 min.
Melt temperature	210-220 °C
Delivery rate	approx. 22 g/min.

Delivery incl. charger with drip protection, short nozzle Ø 2.0 mm, long nozzle Ø 2.8 mm, 5 Ultra Power glue stick, power cable.

Art. No.	Pack Qty.	€
PE36.1	1	68,75

Accessories:

Glue sticks Ultra Power, 250 g, Ø 11 mm	PE37.2	10	10,70
Glue sticks Transparent, 250 g, Ø 11 mm	PE38.2	10	10,70
Fine nozzle Ø 1.0 mm	PE39.1	1	8,30

► More adhesive tapes starting on page 635



Temperature stable adhesive tapes

Self-adhesive tape. Ideal for extreme temperatures. Temperature stable from **-196 to +287 °C**. Suitable for use in the cryo sector, incubators, autoclaves, sterilizers, etc. Surface with textile finish, can be marked.

Width (mm)	Length (m)	Art. No.	Pack Qty.	€
12,7	7,6	L034.1	1	31,10
19,0	7,6	L035.1	1	34,95
25,4	7,6	L036.1	1	52,15



tesaband® Premium

Fabric tape, 25 mm wide. Wear and tear resistant. Good adhesion even on rough surfaces. Can be written on. Temperature resistant up to +130 °C.

Art. No.	Pack Qty.	€
1263.2	1 roll (25 m)	23,60



Scotch Mount 4032 double-sided adhesive foam tape

Double-sided self adhesive, made of polyurethane. For fixing down surfaces to prevent slipping, or as a stick-on tape for pin-up boards, posters, etc. Slightly stretchable, good adhesion, and is easy to remove. Width 25 mm, 0.8 mm thick.

Art. No.	Pack Qty.	€
1283.1	1 roll (11 m)	29,60



PTFE thread sealant tape

Protects, seals and secures all types of thread. Highly flexible, usable from -190 to +260 °C. Chemically inert. Tape width 12 mm, thickness 0.08 mm. Roll length 12 m.

Art. No.	Pack Qty.	€
1715.1	3 rolls = 36 m	4,80

► PTFE-spray, see page 1099



PTFE flat sealing tape

Self-adhesive, for pipe connections and other surfaces. Soft, easily adaptable, smoothes out irregularities. Temperature range: -240 to +270 °C. Pressure range: up to 120 bar. Vacuum leakage rate for helium: 1.3×10^3 mbar/s at 20 N/m². Surface pressure. Width 3.0 mm, 1.5 mm thick.

Art. No.	Pack Qty.	€
0801.1	2,5 m	37,60



O-ring set from Loctite®

Ideal for making different sized O-ring seals. Work pack with approx. 20 g special glue, cutter, 1 m elastic bands each with Ø 1.6; 2.4; 3.0; 5.7 and 8.4 mm and instructions. Drying time for rings approx. 10 min.

Art. No.	Pack Qty.	€
1725.1	1 Set	74,45



Electro insulation tape

Made of high-gloss PVC, synthetic rubber adhesive. Heat resistant from -10 to 105 °C. Resistant to moisture, oil, diluted acids and alkalis, as well as UV radiation. Penetration resistance 40 kV/mm. Good adhesive force and high flexibility, elongation at break ≥ 160 %, tear strength 18.0 N/mm². Width 19 mm, thickness 0.19 mm, roll length 20 m, weight 100 g.

Art. No.	Pack Qty.	€
1256.1	1 roll	5,35



Sekuroka®-velcro fastening

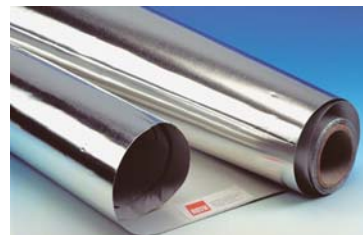
Easily removable, consists of loop and hook components with self-adhesive back. Fastener is closed by gently pressing hooks into the loops. Ideal for applications where a high amount of opening and closing is expected. Approx. 2.5 mm thick when closed. Length 230 cm, width 25.4 mm.

Art. No.	Pack Qty.	€
K956.1	1	41,90

Sekuroka®-snap fastening

Self-adhesive, flexible. With interlocking semi-spherical heads (62 heads/cm²). Provides extremely secure and resilient connections to most materials with high, permanent adhesive power. Approx. 5.8 mm thick when closed. Length 230 mm, width 25.4 mm.

Art. No.	Pack Qty.	€
0295.1	1	39,70



Heat protection foil

Self-adhesive, made of 0.05 mm thick aluminium foil. Ideal for covering windows and other smooth surfaces. 50 cm wide. Temperature stable to +80 °C.

Art. No.	Pack Qty.	€
0193.1	roll 5 m	23,15

► Hotplates, see page 961

► Temperature control baths, see page 906

Gas-leak tester



Gas-leak tester Roth

Special liquid for finding smallest leaks in tubing or hollow spaces that are under gas or air pressure. Nontoxic, non-inflammable, non-corrosive. Suitable for compressed air, butane, natural gas, town gas, propane, CO₂, O₂, N₂, H₂ and ammonia. Spray possible leakage area. Bubbles appear at site of leak.

Art. No.	Packaging	Pack Qty.	€
2686.1	pump spray bottle	500 ml	17,15



Nekal® BX

Ideal for leak testing of pipes, containers, threads and enamel coatings. Hygroscopic powder. Dissolve 15 g in boiling hot water and make up to 1 litre with cold water. Wet or immerse test areas. Leaks produce visible foam. Has a degreasing effect and can also be used for testing solder seams and greased threads. Do not use on containers made of zinc, zinc alloys, aluminium, or iron.

⚠ **Warning** H302-H315-H319

Art. No.	Pack Qty.	€
5240.1	1 kg	99,55
5240.2	5 kg	424,65



Leak detection spray

For reliable leak detection in gas and compressed air systems. DVGW-certified and compliant with DIN EN 14291. The aqueous test fluid forms easily visible foam bubbles at the leak and can be used for all gas types. Compatible with standard sealants, plastics and metals, silicone free and non flammable. Propellant: N₂O.

⚠ **Warning** H229-H319

Art. No.	Pack Qty.	€
YK86.1	400 ml	n. a.



Gas leak detector testo 316-1

By Testo. Ideal for tracing leaks in pipes, flanges, screw connectors, gas pipes etc. For methane. With visual and acoustic alarm. Sensor has extremely short reaction time.

Technical specifications:

Range	0 to 10.000 ppm CH ₄
Alarm threshold	>200 ppm LED yellow / >10.000 ppm LED red
Battery life	>5 h
Working temperature	4 to 45 °C
Dimensions (L x W x H)	190 x 57 x 42 mm
Weight	300 g

Delivery incl. battery (9 V).

Art. No.	Pack Qty.	€
P757.1	1	215,00



Rotitherm®-heating and cooling mediums

For filling water baths, cooling chests, thermostats, etc.

Technical specifications:

Rotitherm®	H 250	M 220	M 150	K + H
Density at 0 °C	1.05 g cm ⁻³	1.00 cm ⁻³	1.00 cm ⁻³	1 l = 1.15 kg
Density at +180 °C	0.90 cm ⁻³	0.85 cm ⁻³	0.85 cm ⁻³	1 l = 1.15 kg
Heat stable to (°C)	+250	+220	+150	+170
Heat factor J (m s K) ⁻¹	0.131	0.170	0.163	approx. 0.200
Ignition point (°C)	>360	>360	>370	-
Pour point (°C)	-65	<-50	<-50	-35
Flame point (°C)	>300	>320	>310	>275

Rotitherm® H 250

Silicone oil for heating baths.

Steam pressure	at +20 °C: ~ 1,33 x 10 ⁻⁴ N/m (10 ⁻⁶ Torr) at +150 °C: ~ 1,33 x 10 ⁻² N/m (10 ⁻⁴ Torr)
Kinematic viscosity	at +20 °C: 200 mm ² s ⁻¹ (cSt) at +100 °C: 34 mm ² s ⁻¹ (cSt)

Type	Art. No.	Pack Qty.	€
Rotitherm® H 250	1670.1	1 l	117,20
Rotitherm® H 250	1670.2	10 l	987,95

Rotitherm® M 220

Silicone oil for heating baths. Brown.

Steam pressure	at +20 °C: ~10 ⁻⁴ mbar at +150 °C: ~10 ⁻² mbar
Kinematic viscosity	at +20 °C: 1000 mm ² s ⁻¹ (cSt) at +100 °C: 300 mm ² s ⁻¹ (cSt)

Type	Art. No.	Pack Qty.	€
Rotitherm® M 220	0991.1	1 l	40,35

Rotitherm® M 150

Silicone oil for heating baths.

Steam pressure	10 ⁻⁵ to 10 ⁻⁴ mbar from +25 °C to +175 °C
Kinematic viscosity	at +25 °C: 100 mm ² s ⁻¹ (cSt) at +100 °C: 32 mm ² s ⁻¹ (cSt)

Type	Art. No.	Pack Qty.	€
Rotitherm® M 150	0990.1	1 l	29,80
Rotitherm® M 150	0990.2	5 l	128,50

Rotitherm® K + H

Heat transfer fluid for heating baths. Usage temperature from approx. +10 to +200 °C. Can be mixed with water in any ratio. No susceptibility to water hardness. Does not form build-up even when heated and can easily be removed using water.

Kinematic viscosity: concentrate	at +20 °C: 540 mm ² s ⁻¹ (cSt) at +60 °C: 67 mm ² s ⁻¹ (cSt) at +100 °C: 19 mm ² s ⁻¹ (cSt)
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Type	Art. No.	Pack Qty.	€
Rotitherm® K + H	0244.1	1 l	36,45
Rotitherm® K + H	0244.2	5 l	132,15



Rotisol®

Universal alcoholic solvent, extraction agent, mobile phase, and elution medium, for dehydrating in histology, recrystallisation, etc. Mixable with water.

Ingredients:

dehydrated ethanol ~99 % · acetone ~5 % · methyl ethyl ketone ~1 % · Flp 12 °C · Kp 56-80 °C · D ~0.79 · highly flammable.

Danger H225-H319-EUH066

Art. No.	Pack Qty.	€
7917.3	1 l	n. a.
7917.1	2,5 l	n. a.
7917.2	25 l	n. a.



Floating pellets

Made of PP. Protect against evaporation and fast temperature loss. Decrease hazardous vapours. Resistant against most acids, bases, solvents and mineral oils. Temperature stable, depending on size of pellet, up to +100 °C.

Ø (mm)	Type	Art. No.	Pack Qty.	€
20	for 0,10 m ²	A753.1	250	26,85
38	for 0,13 m ²	A754.1	100	38,60
45	for 0,20 m ²	A755.1	100	42,80

► For heating baths, see page 906



Boiling pebbles

Prevent delayed boiling. Ensure uniform distillation of low-viscosity liquids.

Type A: for standard distillation. Natural stone product mainly made of quartz. Contains small amounts of iron. Granules are approx. 5-8 mm. Suitable for vacuum distillation.

Art. No.	Pack Qty.	€
1691.1	75 g = about 1000 pebbles	16,05

Type B: for ananalysis. Natural, alkaic aluminosilicates, without ceolit. Granules are approx. 5 mm.

Art. No.	Pack Qty.	€
1692.1	80 g = about 1700 pebbles	17,75

Boiling pebbles made of PTFE

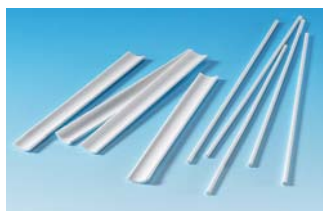
Irregularly formed granulate. Prevent uncontrolled overheating of solutions during warming up of volatile liquids. Resistant and inert against most aggressive chemicals (acids, bases, hydrocarbons). Doesn't scratch glass and leaves no powdery deposits. Maximum working temperature +260 °C. Granules 1 to 5 mm.

Art. No.	Pack Qty.	€
L429.1	50 g	6,75

Boiling pebbles, resistant

For preparative and analytical operations in biochemistry, biotechnology, microbiology, microanalysis, etc. Can be used in vacuums and in high-vacuum distillation, even with minimal amounts of liquid. Do not abrade or absorb solvents, are immediately effective after every interruption. Are also suitable for strong acids, bases, aggressive solvents and oxidation agents. Can be sterilized by calcinating. Granules are approx. 3-4 mm.

Art. No.	Pack Qty.	€
H751.1	50 g = ca. 1785 pebbles	30,05



Magnesia scoops

For annealing and incineration of samples, as well as for the production of oxygen melts for the detection of chromium, manganese etc. and for bead tests. W 9 x L 100 mm.

Art. No.	Pack Qty.	€
6537.1	25	20,40

Magnesia rods

Ideal for flame analysis of sodium, etc. For borax-bead analysis of cobalt. For bead tests. Ø 1.5 x L 140 mm.

Art. No.	Pack Qty.	€
6543.1	25	21,45



Glass beads

Reflex beads made of soda-lime glass. Specific weight approx. 2.5 g/cm³.

Technical Specifications:

Apparent density depending on size 1.46-1.51 kg/l. Refraction index 1.5188. Chemical composition: SiO₂ 72.5 %; Na₂O 13.0 %; K₂O 0.2 %; CaO 9.6 %; MgO 4.22 %; Al₂O₃ 0.58 % Fe₂O₃ 0.11 %.

Ø (mm)	Art. No.	Pack Qty.	€
0,25-0,5	A553.1	1 kg	24,55
0,75-1,0	A554.1	1 kg	24,55
1,25-1,65	A555.1	1 kg	24,55
1,7-2,1	A556.1	1 kg	24,55
2,85-3,45	A557.1	1 kg	24,55

Glass beads

Glass beads made of high-purity soda-lime glass. Manufactured using a special process which can produce beads of extremely accurate roundness from a 4 mm size range.

- very smooth surface
- low proportion of air bubbles

Can be used as stirring and mixing beads for aerosol sprays or as a ball valve for bottle caps. Because of their high purity the beads can be used as grinding and dispersing beads during wet grinding of pigments, agrochemicals, biological and other preparations.

Technical specifications: Refractive index 1.5159. Chemical composition: SiO₂ 72 %; Na₂O 13.8 %; K₂O 0.1 %; CaO 9.0 %; MgO 4.0 %; Al₂O₃ 1.0 %; Fe₂O₃ 0.1 %. Specific weight approx. 2.5 g/cm³.

Ø (mm)	Art. No.	Pack Qty.	€
4 ± 0.3	HH55.1	1 kg	24,55
5 ± 0.3	HH56.1	1 kg	24,55
10 ± 0.5	HH57.1	1 kg	24,55
15 ± 0.5	HH58.1	1 kg	24,55
20 ± 0.5	HH59.1	1 kg	56,90

Beads®

Glass Beads®

Ø (mm)	Art. No.	Pack Qty.	€
0,1	N029.1	450 g	55,40
0,5	N030.1	450 g	55,40
1,0	N031.1	450 g	55,40
2,7	N032.1	450 g	55,40

Zirconia/Glass-Beads®

Ø (mm)	Art. No.	Pack Qty.	€
0,1	N033.1	450 g	83,85
0,5	N034.1	450 g	83,85
1,0	N035.1	450 g	83,85
2,3	N036.1	450 g	83,85

Zirconia-Beads®

Ø (mm)	Art. No.	Pack Qty.	€
0,7	N037.1	450 g	147,30
1,0	N038.1	450 g	147,30
2,0	N039.1	450 g	147,30

Stainless steel Beads®

Ø (mm)	Art. No.	Pack Qty.	€
1,4	P329.1	45 g	77,40