



all for your lab

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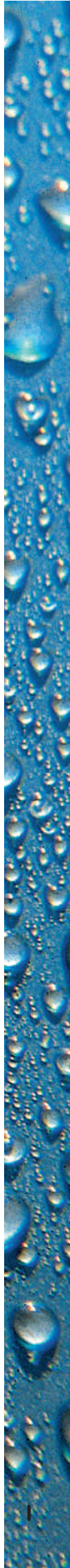
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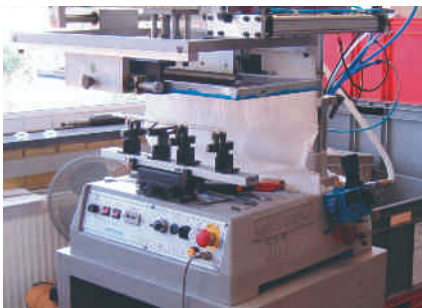
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GENERAL CATALOG

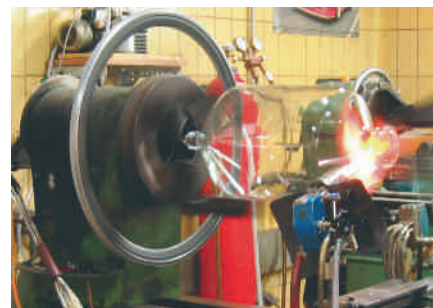




Factory 1 - Production & Administration



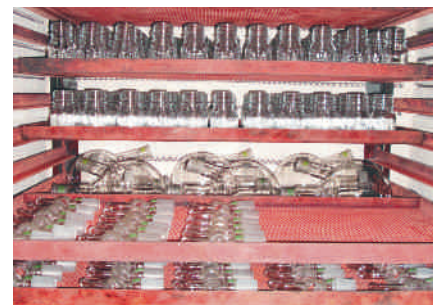
Printing Department



Glass blowing



Color code bottles



Oven with bottles and flasks



Liquid Handling



Oven with measuring flasks



Factory 2 - Stock & Dispatch



Drilling of glass



Drilling of glass



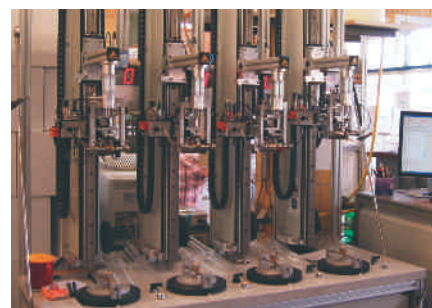
Melting of glass



Measuring instruments



Adjustment of measuring cylinders



Adjustment of pipettes

DIN EN ISO 9001

Whenever you work according to EN ISO 9000 et seq., with the products of witeg you process it easily. Quality is our target to the benefit of our partnership.

Together with witeg into the future

It is our aim to keep on translating our company's philosophy into reality, preliminarily quality to the benefit of our customers. We permanently perform investment of qualified and engaged collaboration in order to reach the optimum level of quality.

Furthermore, we stress to make use of the latest computer-aided equipment and technique which is necessary to obtain best performance and utmost quality.



witeg-quality certified according to DIN EN ISO 9001 at a very early stage

Already in May 1994 we obtained the Certification "ISO 9001" ensuring officially that witeg complies with the highest international standards of requirement.

To our business partners this means confidence and reliability for a common safety handling of our products in the future. In order to offer high value instruments, in a period of tough international competition, it is important to rely on rational quality-ensuring economical processes. Eventually, we wish to remain powerful pricewise.

Quality-assurance at the users, an additional achievement at no cost ... from witeg

Quality Assurance with Liquid Handling Products

ACCURACY • REPRODUCIBILITY • STANDARD DEVIATION

Accuracy

Is the deviation of mean value from the nominal value related to the nominal value in %.

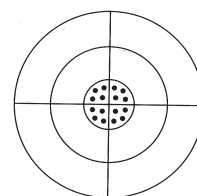
Reproducibility

(Coefficient of variation)

is the standard deviation in % related to the mean value.

Standard deviation

after 16 pump-strokes with the Labmax-Dispenser - the target helps to illustrate the results: all hits are close together - that means:



Good reproducibility

All hits are closely around the nominal value - that means:

Good accuracy.

Warranty

witeg volumetric instruments (liquid handling products) are strictly manufactured in accordance to the quality assurance system defined by DIN EN ISO 9001

The symbol H certifies the conformity of its production with the official specifications, i.e. the German Rules for Official certification (Eichordnung, Annex 12)



The result:

minute systematic errors, narrow scatters - permissible limits are not exceeded.

TOP PRIORITY for our customers

We wish to be a strong and reliable partner to our customers. We want our customers to be satisfied with us. For that reason we always have an open ear for questions or problems that may occur. That is what counts!

And that you can expect from us:

- high quality level
- fair and competitive prices
- friendly and competent staff
- speedy and professional order processing
- an open ear - even in case of special and small-lot productions
- large stocks of our products

With witeg always a step ahead

witeg manufactures and supplies a wide range of laboratory instruments, made from glass and plastics, as well as Liquid Handling products of highest precision to make the job of our customer easier, faster and safer f.e. with witeg volumetric measuring instruments - dependable results will only be possible, if the volumetric instruments employed for the sample preparation are equally accurate and reliable.

• How to recognize the conformity certification?

The instruments carry the symbol of conformity - a stylized "H" as well as the code of the issuer of the conformity certificate. For Disposables the "H" appears on the packaging and/or the accompanying documents.

• What does conformity stand for?

Conformity means compliance of an instrument with the German Rules for Official Certification (Eichordnung, Annex 12). The conformity certification procedure is described by DIN 12 600. The "Exemption from Certification Act" has become obsolete.

• Which instruments must be conformity certified?

The conformity certification is obligatory for the instruments mentioned under "conformity certification according to the Rules for Official Certification" and their volumetrically relevant accessories. Moreover, instruments and accessories belonging together must be clearly identified by the manufacturer. The crucial date is the 1st of January 1989. In the interest of a consistent quality of measurements, older instruments should be replaced by conformity certified instruments as soon as possible.

• Official Certification and Conformity certification

Germany's Rules for Official Certification - valid as of August 12, 1988 - call for a certification of conformity rather than for an official test certificate for volumetric instruments which are kept and used for commercial and pharmaceutical purposes. The same applies for volumetrically relevant accessories.

• Who certifies conformity?

In general, the manufacturer certifies the conformity of his production and - on request - the "Authority of Weights and Measures" as well.

• Who is responsible for enforcing these regulations?

The instrument manufacturer is responsible for the conformity of the instruments, the purchaser for the procuring and availability of conformity certified instruments and the head of the laboratory for their use.



• Conformity certification by witeg

Since the above regulations have come into effect a new symbol is to be found on witeg instruments or their accompanying documents: 

The  stands for conformity certification and  for Witeg, Wertheim. The symbol  on the instruments may be supplemented by the symbol  which refers to the operating manual. These references must be strictly observed.

Witeg certifies the conformity for volumetric instruments of glass directly on the instrument, for disposable products on the smallest packing unit, and for Liquid Handling products on the instrument and/or an accompanying documents along with references to volumetrically relevant accessories.

The purpose of conformity certification is, to ensure a uniform and constant high level of quality in the sense of accurate measuring results.

Various terms are used to define measuring accuracy. "Error limit" or "absolute error" (/EL; compare Eichordnung, Annex 12)! Accuracy (A%) and reproducibility (coefficient of variation, CV% or V%). "Accuracy" describes the deviation of the measured value from the nominal value - the smaller A% is - the better. "Reproducibility" describes the repeatability of the result - the smaller CV% is - the better. By agreement - the manufacturer may either state EL, or A% and CV%.

The relation is defined by the following formula: (V_n = Nominal volume)

$$FG [EL] \geq \frac{(R\% [A\%] + 2 V\% [CV\%])}{100 \% } V_n$$

This information is based on DIN 1319 T3 where the basic terms of measuring technology are defined. These values are maximum values.

• Reproducibility and accuracy of witeg volumetric instruments

The calibration of volumetric instruments is made by modern electronical adjusting automatons. DIFFICO Graduated Measuring - and Volumetric Pipettes as well as Measuring Cylinders, Volumetric Flasks and Burettes are calibrated fully automatic and permanent checks during the manufacturing processes guarantees the production of volumetric instruments with the smallest possible deviation. The results are minute systematic errors, narrow scatter without exhausting permissible limits.

witeg volumetric instruments are manufactured to the quality assurance system defined by DIN EN ISO 9001.

The properties of the borosilicate glass we work with:

DURAN represents the internationally established type of borosilicate glas 3.3 (DIN-ISO 3585) and the major international standards as the English, American and French. Highest possible chemical restance, minimum thermal expansion as well as the thereby conditioned high thermal shock resistance are its essential characteristics. This optimum physical and chemical behaviour predisposes DURAN to the application in laboratories and for large industrial installations in chemical plant systems. It is considered moreover to be an all-round industrial glass in all other fields of application where maximum thermal resistance, thermal shock resistance, mechanical resistance as well as unusal chemical resistance are required.

Below 510 °C (10^{14.5} dPas, lower annealing temperature), DURAN can be annealed quickly, without major permanent stresses re-freezing. To eliminate permanent stresses, DURAN is heated up to a maximum of 550 °C and maintained at said temperature during 30 minutes- For subsequent annealing the rates in the table below are recommended:

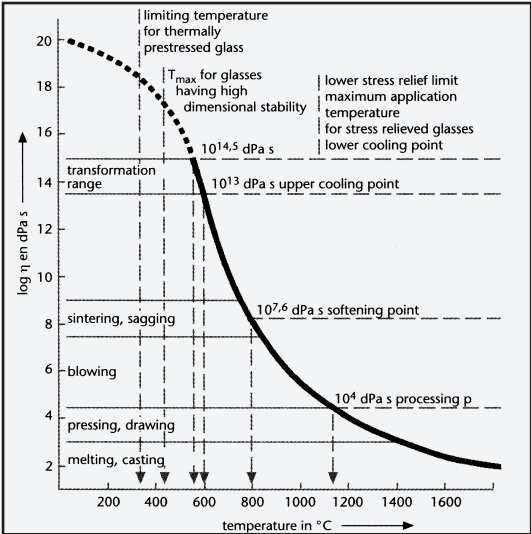
Type of Glasses	Linarer coeff. of expansion	Chemical reistant classes				
	$\alpha_{20/300\text{ }^{\circ}\text{C}}$ 10 ⁻⁶ K ⁻¹	transforming temperature DIN 53 324 °C	softening temperature (poise) 10 ^{7.6} °C	Resist. against Water	Resist. against Acids	Resist. against Alcalic DIN 52 322
Soda-lime glass	9.0	520	708	3	1	2
Borosilikate glass	4,9	570	790	2	1	2
DURAN® *	3,25	530	815	1	1	2
FIOLAX® *	45,9	560	783	1	1	2
SUPREMAX® *	4,1	730	950	1	4	3
Schott-Thermometer glass	8,67	540	720	3	1	2
Thermometer-Spezialglass	6,2	590	790	1	3	2

Physical properties and characteristics for the processing of DURAN by glassblowers

Maximum use temperature: 500 °C
Transformation temperature DIN/ISO 3585: 525 °C

Upon cooling from the melting temperature (10¹ bis 10³ poise), the glasses go through a wide range of viscosity, which ranges from a relatively viscous region (at about 10⁴ bis 10⁸ poise) to the plastic range (10⁸ bis 10¹² poise) and up into the know elastic-brittle state (>10¹³ poise). Thus, glass shows a constant increase in viscosity upon cooling and has no soldification point as is the case for crystalline substances. For the processing of glass, certain sections of the viscosity range are of particular importance. In the transformation range, the elastic-britle behaviour of the glass changes to a noticeably viscous behaviour with increasing temperature, which significantly changes all physical and chemical properties as a function of temperature. Thus, the Temperature region of the transformation range determines the elimination of stress during heating and the onset of stresses during cooling of the glass. The position of the transformation range is indicated by the transformation temperature T_g DIN 52324.

Normal temperature dependence /viscosity curve of, for example, DURAN; viscosity ranges of important processing techniques, position of fixed points of viscosity and various limiting temperatures.



Chemical properties of DURAN®

DURAN is highly resistant to water, neutral and acid solutions, concentrated acids and their mixtures, as well as to chlorine, bromine, iodine and organic matters. Even during extended periods of reaction and at temperatures above 100 °C, its chemical resistance exceeds that of most metals and other materials. By the action of water and acids only small amounts of mainly monovalent ions are eliminated from the glass. On the glass surface, a very thin, almost non-porous silica gel layer then forms inhibiting any further attack. Only hydrofluoric acid, very hot phosphoric acid and alkaline solutions increasingly attack the glass surface with rising concentration and temperature. The chemical resistance of different glass types and their classification in stability classes are determined in Germany according to the standard methods DIN 12111, 12116 and 52322. On the basis of these methods, DURAN meets all requirements of

hydrolytic class	1
acid class	1
alkaline solution class	2

Acid resistance according to DIN 12116 / DIN ISO 1776

Removal of Na₂O < 100 µg/dm²
The attack curves in Figure 3 show a maximum in acid ranges between 4-7 N (HCl, for example in the azeotrope containing 20.2 % by weight). At higher concentrations, the reaction rate decreases significantly, so that the layer thicknesses which are attacked are only in the range of a few thousandths of a millimetre after years. Thus, the mechanisms of acid attack are not relevant given the wall thicknesses used in practice. Therefore, it is rightly called "acid-resistant borosilicate glass".

Alkali resistance according to DIN 52322

Alkali resistance class DIN 52322-A2 (corresponds to alkali resistance class ISO 695-A2). The surface removal curve in Figure 4 shows that visible attack on the glass surface does not take place until above about 60 °C. At lower temperatures (incorporation of coolers in the NaOH cycle), the reaction rates are so low that hardly any reduction of the wall thickness takes place over a period of year. Longterm tests have shown that the use of NaOH having a concentration of 1 mol/l (corresponds to 4 % strength by weight sodium hydroxide solution, pH 14) at an operating temperature of 50 °C gives a glass surface removal of 1 mm after 25 years in a continuous flow through a glass pipeline.

Abridgement „Properties of glass“ by favour of company DURAN Groupe, Mainz

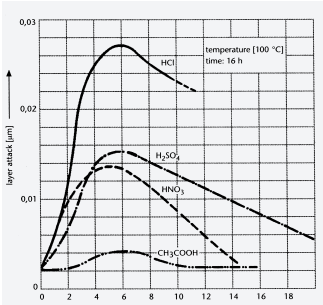


Fig. 3: Acid attack on borosilicate glass as a function of acid concentration.

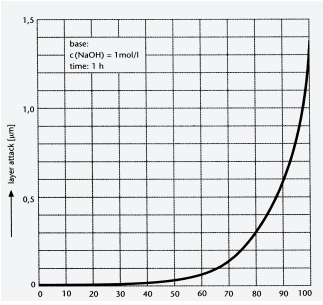


Fig. 4: Alkali attack on DURAN as a function of temperature.

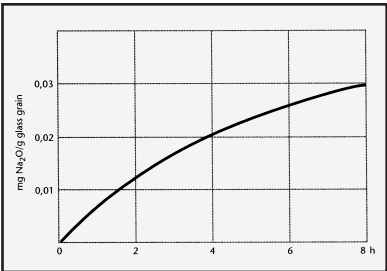
Hydrolytic resistance according to ISO 719 (98 °C)

Hydrolytic resistance by the glass grain method class ISO 719-HGB 1 (corresponds to the previous DIN 12111, hydrolytic class 1).

Hydrolytic resistance according to ISO 720 (121 °C)

Hydrolytic resistance by the glass grain method class ISO 720-HGA 1.

Fig. 2: Hydrolytic attack on DURAN as a function of time (100 °C) approx. to ISO 719.



Plastics

PHYSICAL AND CHEMICAL PROPERTIES

Due to so many advantages as breakage resistance, low weight, very good chemical resistance and their good physical properties laboratory instruments made from plastics have nowadays their proper place in laboratories. Which plastics can be used in the laboratories is dependend of well-informed evaluation of the user. The below mentioned recommendations of the raw-material manufacturers are intended only as a hint to find a decision and can not replace a suitability test by the user.

Internationally used abbreviations and standard norms of plastic resins (according to DIN 7723/7728)

Since we can give only a selsection of the most commonly used plastic resins for the production of labor items and their physical and chemical properties, you will find below an index of nearly all abbreviations used in the plastic industry. This list will help you to a better orientation when using technical/scientific literature.

DIN abb.	Specifications
ABS	Acrylonitrile-butadiene-styrene copolymer
HDPE	High density polyethylene (PE)
LDPE	Low density polyethylene (PE)
MF	Melamine
PA	Polyamide
PC	Polycarbonate
PE	Polyethylene
PMP	Poly-4-methylpentene
PMMA	Polymethyl-methacrylate
POM	Polyoxymethylene, polyacetal
PP	Polypropylene
PS	Polystyrene
SAN	Styrene-acrylonitrile copolymer
SI	Silicones
PVDF	Polyvinylfluoride
PTFE	Polytetrafluorethylene
E-CTFE	Ethylene-chlortrifluorethylene
ETFE	Ethylene-tetrafluorethylene
PFA	Perfluoralkoxy (Hostaflon®)
FEP	Polytetrafluorethylene-Perfluorpropylene
PVC	Polyvinylchlorid
EPM	Ethylene-propylene copolymers
PO	Polyolefines

THERMAL RESISTANCE			THERMAL RESISTANCE		
DIN Abk.	Perm. temp. stress	Range of application °C (short period)	DIN Abk.	Perm. temp. stress	Range of application °C (short period)
ABS		+ 90 / + 105	POM	- 40	+ 90 / + 145
C	+ 100		PP	- 10 / - 25	+ 140
HDPE	- 40	+ 110	PPO		+ 130 / + 140
LDPE	- 40	+ 95 / + 100	PS	- 40	+ 70 / + 90
M	- 40	+ 120 / + 140	PTFE	- 200 / - 270	+ 260 / + 300
PA		+ 140 (moistly)	PUR		+ 74 / + 175
PC	- 190	+ 135 / + 160	PVC		+ 40 / + 80
PE	look at HDPE / LDPE		SAN	- 49	+ 95 / + 110
PF		+ 100	SIR	- 50 / - 100	+ 180 / + 300
PETP	- 40	+ 200 / + 250	TPX	- 180	+ 180 / + 200
PFEP	- 100 / - 170	+ 205 / + 260	UF		+ 100
PMMA	- 60	+ 70 / + 95			

Sterilisation of Plastic-Labware					
DIN	Autoklav	Gas (Ethylenoxid)	dry 160 °	chemical (Formalin)	Y-rays
ABS	no	yes	no	yes	yes
HDPE	no	yes	no	yes	yes
LDPE	no	yes	no	yes	yes
PC	yes*	yes	no	yes	yes
PFA/FEP	yes	yes	yes	yes	no
PMP (TPX)	yes	yes	no	yes	no
PP	yes	yes	no	yes	no
PS	no	yes	no	yes	yes
PTFE	yes	yes	yes	yes	no
ETFE/ECTFE	yes	yes	yes	yes	no
PVC	no	yes	no	yes	no
SI	yes	yes	yes	yes	no
* autoclavable at 121 °C/20 min.					
Abridgement by favour of company Vitlab.					

Plastic resins and their properties

Chemicals at 20 or 50 °C, resp.	C/MF	ETFE E-CTFE 50	PAG 20	PC 20	PE 50	PMMA 50	POM 50	PP 50	PS 50	FEP, PFA PTFE 50	PVC 20	SAN 50	PMP (TPX) 50
Acetaldehyde	CH ₃ CHO	++	+	-	0	--		0	--	++	--	--	
Aceton	CH ₃ COCH ₃	++	+/1	--	++		+	0	--	++	--	--	0
Acetophenone	C ₆ H ₅ COCH ₃	++	++					0	--	++		--	0
Ethyl acetate	C ₂ H ₅ COOCH ₃	++	+	+/1	0	0	--	0	--	++	--	--	0
Ethyl alcohol 96 %	C ₂ H ₅ OH	++	++	+/9	++	++	-	++	++	++	++	-	++
Ethylene chloride	H ₂ C=CHCl ₂	++	++	+/2	--	-	--	-	--	++		--	-
Ethylene glycol	HOH ₂ C-CH ₂ -OH	++	++	++	++	++		++	++	++	++	++	++
Allyl alcohol	H ₂ C=CH-CH ₂ -OH	++	++	0	++	0		++	-	++		--	-
Aluminium chloride	AlCl ₃	++	+	++	++	+	++	++	++	++		++	++
Formic acid 85 %	HCO-OH	++	++	--	--	++	--	+	-	++	++	-	+
Ammonia 25 % aq. soln.		++	--	--	++	-	++	++	+	++		+	++
Ammonia	NH ₃	++			++			++		++			
Ammonium chloride aq. soln	NH ₄ Cl	++		++	++	++		++	++	++		++	++
Amyl acetate (Pentyl acetate)	CH ₃ -COOC ₅ -H ₁₁	++	+/2		++	++		++	--	++		--	
Amyl alcohol	C ₅ H ₁₁ OH	++	++	++	++			++	0	++	++	-	++
Aniline	C ₆ H ₅ NH ₂	++	0/1		+	--		+	--	++	--	--	++
Arsenic acid	H ₃ AsO ₄	++	++		++	+		++	++	++			
Benzaldehyde	C ₆ H ₅ -CHO	++	0/2		+	-		+	--	++		--	++
Benzene		++	++	++	-		++	-	--	++	--	--	0
Benzole	C ₆ H ₆	++	++	+	--	--	0	--	--	++	--	--	
Lead acetate	(CH ₃ -COO) ₂ Pb-3H ₂ O	++	++	++				--					
Lead acetate aq. soln.		++	0	++				--	++	++		++	
Boric acid 10 % aq. soln.	H ₃ BO ₃	++	++/8		++			++	+	++		++	++
Hydrobromic acid 69 %	HBr-2H ₂ O	++	-		+			+	--	++			
Butyl acetate	CH ₃ COOC ₄ H ₉	++	+/1		0	--	0	0	--	++		--	0
Calcium chloride aq.soln.	CaCl ₂	++	++/9		++	++	++	++	++	++		++	++
Calcium hypochloride aq. soln.	Ca(OCl) ₂		++	++	++	0		++	+	++		++	++
Chloride	Cl	++			--			--	--	++	--	--	--
Chlorobenzene	C ₆ H ₅ Cl	++	++/2	--	-				--	++		--	
Chloroform	CHCl ₃	++	0/5	--	--	--		--	--	++		--	-
Chloururetted (chlorine-) water	(HCl)-(HOC)	++	--		-	++		-	-	++	0	0	-
Chromic acid 20 %	CrO ₃	++		++	--			-	+	++	++	0	
Chromatosulphuric acid conc.	H ₂ SO ₄ -K ₂ Cr ₂ O ₇	++			--			--	-	++	0	-	--
Decahydronaphthalene (Decalini) (Perhydronaphthalene)	C ₁₀ H ₁₈	++	++/1	++	--	0		--	--	++		--	-
Diethyl ether	H ₃ C-O-C ₂ H ₅	++			+	-		+	--	++		--	0
Dibutyl phthalate	C ₄ H ₉ (COOC ₂ H ₅) ₂	++	++		0	0	++	+	--	++		--	+
1,4 Dioxane	C ₄ H ₈ O ₂	++	++	--	++			++	++	++			++
Chrystalline (glacial) acetic acid	CH ₃ COOH	0	++	--	++		+	+	0	++	++	-	0
Fluorine	F(FI)		-	++	--			--		++			
Fluorinated hydrocarbons		++			--			-	--	++		-	
Hydrofluoric acid 35 %	(HF) ₂	--	++	--	++	-		++	+	++		0	++
Formaldehyde	HCHO	++	++/10	++	++	++	++	++	+	++	++	-	++
Glycerine	CH ₂ OH-CHOH-CH ₂ OH	++	++/1	++	++	++	++	++	++	++		++	++
Urea (carbamide and others)	H ₂ N-CO-NH ₂	++	++		++			++	+	++		++	++
Hexane	CH ₃ -(CH ₂) ₄ -CH ₃	++	++		0	++	++	0	-	++		++	+
Iodine (tincture of ..)		++	--	++	+	--		+	0	++		0	++
Potassium chloride aq. soln.	KCl	++	++	++						++			
Potassium hydroxide	KOH	+	++	++	++	++		++	0	++	++	+	++
Potassium permanganate aq. soln.	KMnO ₄	++	--	++	++	++	++	++	0	++		+	++
Aqua regia (HNO ₃) (HCl) HNO ₃ + 3 HCl NOCl + Cl ₂ + 2H ₂ O		--	++	--	-			-	-	++	-		0
Cupric sulphate aq. soln.	CuSO ₄	++	++	++	++	++		++	++	++		++	
Magnesium chloride aq. soln.	MgCl ₂	++	+/7	++	++	++		++	++	++		++	
Methyl alcohol (methanol)	CH ₃ -OH	++	++/9	--	++	--		++	+	++		-	++
Methylene chloride	CH ₂ Cl ₂	++	0/10	--	--			--	--	++		--	
Sodium carbonate	Na ₂ CO ₃	++	++/7		++	++	++	++	+	++	++	+	++
Sodium dichromate	Na ₂ Cr ₂ O ₇	++	++	++	++	++	+	++	++	++	++		++
Sodium hydroxide	NaOH	0	++	--	++	+		++	+	++	++	0	++
Oxalic acid, 10% aq. soln.	HOOC-COOH	++	0/8	++	++	++		++	++	++	++	++	++
Ozone < 0.5 ppm (active oxygen)	O ₃												
Perchloroethylene	Cl ₂ C=CCl ₂	++	--	++	-	++		0	+	++		++	-
Phenol 100% (crystals)	CH ₃ H ₃ OH	++	--	--	++	--	--	++	-	++	-	--	++
Phosphoric acid	H ₃ PO ₄	--	++	++	+	--	0	+	+	++	++	+	+
Phosphorus trichloride	PCl ₃			--	++								
Pyridine	C ₅ H ₅ N	++	++	--	+	--		+	--	++		--	+
Mercury	Hg	++	++	++	++	++		++	++	++	++	++	++
Mercurous+mercuric chlorid	Hg ₂ Cl ₂ + HgCl ₂	++	++	++	++	++		++	0	++	++	++	++
Nitric acid 50 % conc.	HNO ₃	-	++	--	0	-	--	-	0	++	++	0	++
Hydrochloric acid (hydrogen chloride)	HCl	++	--	++	++	++	--	++	0	++		0	++
Sulphuric acid 95 %	H ₂ SO ₄	++	--	--	+	--	--	+	-	++		--	++
Silver nitrate	AgNO ₃	++	++	++	++	++		++	+	-		+	
Carbon tetrachloride	CCl ₄	++	++/1	--	-	--	+	0	--	++	--	--	0
Tetrahydrofuran	THF	++	++/2	--	-			-	--	++		--	--
Toluene	C ₆ H ₅ CH ₃	++	++/1	--	-	--	++	-	--	++	-	--	0
Trichloroethylene	C ₂ H ₃ Cl ₃	++	0/2	++	--	--	0	-	--	++	--	--	0
Tri-sodium phosphate	Na ₃ PO ₄		++		++			++		++			
Hydrogen peroxide 30%	H ₂ O ₂	0	++	0	++	0	-	++		++	++		
Xylene	C ₆ H ₄ (CH ₃) ₂	++		--	--	--	++	-	0	++	--	--	0
Zinc chloride 10% aq. soln.	ZnCl ₂	++	0/7	++	++	++		++	0	++		++	++
Zinc sulphate 10% aq. soln.	SnSO ₄	++		++	++			++	++	++		++	

++ resistant
+ virtually resistant
0 reistant with exceptions
- slightly resistant
-- non resistant

The numbers written behind the / give the percentage increase in weight.
The figures shown below the material (20 or 50, resp.) refer to the temperature of the test substance in °C.

The physical chart as well as the chemical resistance chart is carefully checked to our experience, and based on the information given by the producers of existing literature.

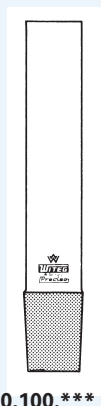
For the above reason we cannot give any guaranty, and cannot be made responsible for the given information, nor accept claims for damage. We cannot undertake to pay any compensation.

Of course ist will be our service to give you further information if requested.

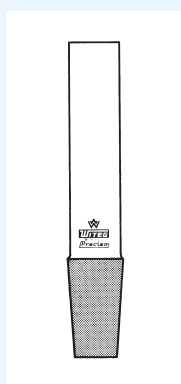


Ground joints

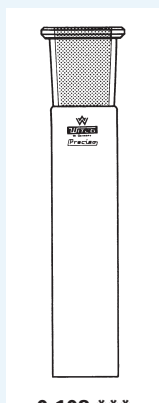
Rodages



0.100.***



0.101.***



0.102.***

ST-Cones acc. to DIN 12 249, made of borosilicate glass

Allonges à rodage conique mâle, en verre borosilicaté

ST Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
5/13	4	120	0.8	0.100.005
7/16	6	120	1.5	0.100.007
10/19	8	120	1.5	0.100.010
12/21	11	120	1.5	0.100.012
14/23	13	120	1.5	0.100.014
19/26	17	150	1.8	0.100.019
24/29	22	150	1.8	0.100.024
29/32	26	150	2.0	0.100.029
34/35	30	150	2.0	0.100.034
40/38	36	150	2.0	0.100.040
45/40	40	150	2.3	0.100.045
50/42	46	180	2.3	0.100.050
55/44	50	180	2.5	0.100.055
60/46	56	180	2.5	0.100.060
71/51	65	200	3.2	0.100.071
85/55	80	200	3.5	0.100.085
100/60	90	200	3.5	0.100.100

ST-Cones full length, made of borosilicate glass

Allonges à rodage conique mâle, long, en verre borosilicaté

ST Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
5/20	4	120	0.8	0.101.005
7/25	6	120	1.5	0.101.007
10/30	8	120	1.5	0.101.010
12/32	11	120	1.5	0.101.012
14/35	13	120	1.5	0.101.014
19/38	17	150	1.8	0.101.019
24/40	22	150	1.8	0.101.024
29/42	26	150	2.0	0.101.029
34/45	30	150	2.0	0.101.034
45/50	40	150	2.3	0.101.045

ST-Sockets acc. to DIN 12 249, made of borosilicate glass

Allonges à rodage conique femelle, en verre borosilicaté

ST Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
5/13	8	120	0.8	0.102.005
7/16	10	120	1.5	0.102.007
10/19	13	120	1.5	0.102.010
12/21	15	120	1.8	0.102.012
14/23	17	120	1.8	0.102.014
19/26	22	125	1.8	0.102.019
24/29	28	135	2.0	0.102.024
29/32	33	135	2.0	0.102.029
34/35	40	150	2.3	0.102.034
40/38	46	150	2.3	0.102.040
45/40	50	150	2.5	0.102.045
50/42	56	180	2.5	0.102.050
55/44	60	180	3.2	0.102.055
60/46	65	180	3.2	0.102.060
71/51	75	200	3.2	0.102.071
85/55	90	200	3.5	0.102.085
100/60	110	200	5.0	0.102.100



ST-Sockets full length, made of borosilicate glass

Allonges à rodage conique femelle, long, en verre borosilicaté

ST Rodage	Outer Ø Ø. ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
5/20	8	120	0.8	0.103.005
7/25	10	120	1.5	0.103.007
10/30	13	120	1.5	0.103.010
12/32	15	120	1.8	0.103.012
14/35	17	120	1.8	0.103.014
19/38	22	125	1.8	0.103.019
24/40	28	135	2.0	0.103.024
29/42	33	135	2.0	0.103.029
34/45	40	150	2.3	0.103.034
45/50	50	150	2.5	0.103.045



0.103.***

PTFE-Sleeves with ribs

Manchons avec nervures, en téflon (PTFE)

ST Rodage	Wall thick. Epaisseur mm	Order No. N° de code
7/16	0.05	0.106.007
10/19	0.05	0.106.010
12/21	0.05	0.106.012
14/23	0.05	0.106.014
19/26	0.05	0.106.019
24/29	0.05	0.106.024
29/32	0.05	0.106.029
34/35	0.05	0.106.034
45/40	0.05	0.106.045
50/42	0.05	0.106.050
55/44	0.05	0.106.055
60/46	0.05	0.106.060



0.106.***

PTFE-Sleeves with gripping ring

Manchons avec anneau, en téflon (PTFE)

ST Rodage	Wall thick. Epaisseur mm	Order No. N° de code
10/19	0.05	0.106.110
12/21	0.05	0.106.112
14/23	0.05	0.106.114
19/26	0.05	0.106.119
24/29	0.05	0.106.124
29/32	0.05	0.106.129
34/35	0.05	0.106.134
45/40	0.05	0.106.145
50/42	0.05	0.106.150
55/44	0.05	0.106.155
60/46	0.05	0.106.160



0.106.1**

ST-Cones full length, skirted, made of borosilicate glass

Allonges à rodage conique mâle, avec dégagement, en verre borosilicaté

ST Rodage	Outer Ø Ø. ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
14/35	13	120	1.5	0.107.014
19/38	17	150	1.8	0.107.019
24/40	22	150	1.8	0.107.024
29/42	26	150	2.0	0.107.029
34/45	30	150	2.0	0.107.034
45/50	40	150	2.3	0.107.045



0.107.***

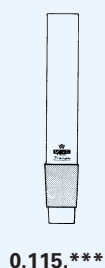
ST-Sockets, cylindrical shape, made of borosilicate glass, acc. to DIN 12 249

Allonges à rodage conique femelle, en verre borosilicaté

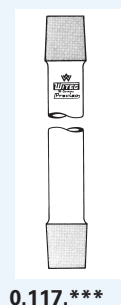
ST Rodage	Outer Ø. Ø. ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
14/23	17	120	1.8	0.112.014
19/26	22	125	1.8	0.112.019
24/29	28	135	2.0	0.112.024
29/32	33	135	2.0	0.112.029
34/35	38	135	2.3	0.112.034
45/40	50	135	2.5	0.112.045



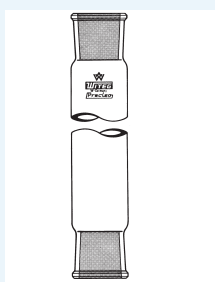
0.112.***



0.115.***



0.117.***



0.118.***



0.119.***



0.120.***

ST-Cones, skirted, acc. to DIN 12 249,
made of borosilicate glass

Allonges à rodage conique mâle,
avec dégagement, en verre borosilicaté

ST Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
7/16	6	120	1.5	0.115.007
10/19	8	120	1.5	0.115.010
12/21	11	120	1.5	0.115.012
14/23	13	120	1.5	0.115.014
19/26	17	150	1.8	0.115.019
24/29	22	150	1.8	0.115.024
29/32	26	150	2.0	0.115.029
34/35	30	150	2.0	0.115.034
40/38	36	150	2.0	0.115.040
45/40	40	150	2.3	0.115.045
50/42	46	180	2.3	0.115.050
55/44	50	180	2.5	0.115.055
60/46	56	180	2.5	0.115.060
71/51	65	200	3.2	0.115.071

ST-Cones, double, acc. to DIN 12 249,
made of borosilicate glass

Allonges à rodage conique mâle, double, en verre borosilicaté

ST Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
14/23	13	135	1.5	0.117.014
19/26	17	140	1.8	0.117.019
24/29	22	170	1.8	0.117.024
29/32	26	170	2.0	0.117.029

ST-Sockets, double, acc. to DIN 12 249,
made of borosilicate glass

Allonges à rodage conique femelle, double, en verre borosilicaté

ST Rodage	Outer Ø. Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
14/23	17	135	1.8	0.118.014
19/26	22	140	1.8	0.118.019
24/29	28	170	2.0	0.118.024
29/32	33	170	2.0	0.118.029

Bellows, made of PTFE

Raccords pour joints, en téflon (PTFE)

Socket/Cone Femelle/Male	Order No. N° de code
14/23	0.119.014
19/26	0.119.019
24/29	0.119.024
29/32	0.119.029
45/40	0.119.045

Cones, FCH-V, (for high vacuum), made of borosilicate glass, greaseless

Allonges à rodage conique mâle,
(pour vide poussé), en verre borosilicaté,
sans graisse

ST Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
14/23	12	120	1.5	0.120.014
19/26	17	140	1.8	0.120.019
24/29	22	140	1.8	0.120.024
29/32	26	140	2.0	0.120.029
34/35	30	140	2.0	0.120.034
45/40	38	140	2.3	0.120.045



Cones, FCH-V, skirted, (for high vacuum),
made of borosilicate glass, greaseless

*Allonges à rodage conique mâle, avec
dégagement, (pour vide poussé), en verre
borosilicaté, sans graisse*

ST Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
14/23	12	120	1.5	0.121.014
19/26	17	140	1.8	0.121.019
24/29	22	140	1.8	0.121.024
29/32	26	140	2.0	0.121.029
34/35	30	140	2.0	0.121.034
45/40	38	140	2.3	0.121.045



0.121.***

Sockets, FCH-V, (for high vacuum), made
of borosilicate glass, greaseless

*Allonges à rodage conique femelle
(pour vide poussé), en verre borosilicaté,
sans graisse*

ST Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
14/23	17	120	1.5	0.122.014
19/26	22	140	1.8	0.122.019
24/29	28	140	1.8	0.122.024
29/32	33	140	2.0	0.122.029
34/35	38	140	2.3	0.122.034
45/40	50	140	2.5	0.122.045



0.122.***

Spare seals, made of VITON

Joints de rechange, en VITON

ST Rodage	Order No. N° de code
14/23	0.123.014
19/26	0.123.019
24/29	0.123.024
29/32	0.123.029
34/35	0.123.034
45/40	0.123.045



0.123.***

Spare seals, made of PTFE

Joints de rechange, en Téflon (PTFE)

ST Rodage	Order No. N° de code
14/23	0.124.014
19/26	0.124.019
24/29	0.124.024
29/32	0.124.029
34/35	0.124.034
45/40	0.124.045



0.124.***

Spherical joints, ball members,
inch range, made of borosilicate glass, acc.
to DIN 12264/12244, or Rotulex

*Tubes de jonction à rodage sphérique mâle, en
verre borosilicaté, selon DIN 12264/12244, ou
Rotulex*

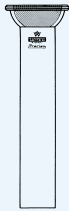
S Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code Rotulex	Order No. N° de code
13/2	8	100	2.7	0.125.002 R	0.125.002
13/5	8	100	1.5	0.125.005 R	0.125.005
19/9	13	100	1.5	0.125.009 R	0.125.009
29/15	19	120	1.8	0.125.015 R	0.125.015
35/20	24	120	1.8	-	0.125.020
35/25	30	120	2.0	-	0.125.021
40/25	30	150	2.0	0.125.025 R	0.125.025
41/25	32	150	2.0	-	0.125.026
51/30	36	150	2.8	-	0.125.030
64/40	48	150	3.2	-	0.125.040



0.125.***



0.125.*** R



0.126.***

Spherical joints, socket members,
inch range, made of borosilicate glass, acc.
to DIN 12264/12244, or Rotulex

*Tubes de jonction à rodage sphérique femelle, en
verre borosilicaté, selon DIN 12264/12244, ou
Rotulex*

S Rodage	Outer Ø Ø ext. mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code Rotulex	Order No. N° de code
13/2	8	100	2.7	0.126.002 R	0.126.002
13/5	8	100	1.5	0.126.005 R	0.126.005
19/9	13	100	1.5	0.126.009 R	0.126.009
29/15	19	120	1.8	0.126.015 R	0.126.015
35/20	24	120	1.8	-	0.126.020
35/25	30	120	2.0	-	0.126.021
40/25	30	150	2.0	0.126.025 R	0.126.025
41/25	32	150	2.0	-	0.126.026
51/30	36	150	2.8	-	0.126.030
64/40	48	150	3.2	-	0.126.040

Spherical ground joint sleeves
made of PTFE

Joints pour rodage sphériques, en Téflon (PTFE)

Size Taille	Order No. N° de code
13	0.126.100
19	0.126.101
29	0.126.102
35	0.126.103
40	0.126.104
51	0.126.105
64	0.126.106



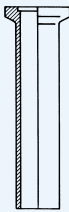
0.126.1**

HV-Flat flanges, fire polished DIN 28403,
with groove for seals, made of borosilicate
glass, thick wall or standard wall

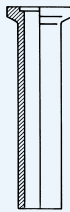
*Raccords plat avec rainure pour joint DIN 28403,
en verre borosilicaté, à paroi épaisse ou à paroi
standard*

Norm width Largeur normalisée mm	Order No. N° de code Thick wall Paroi épaisse	Order No. N° de code Standard wall Paroi standard
10	0.128.210 ST *	0.128.210
16	0.128.215 ST *	0.128.215
25	0.128.225 ST *	0.128.225
40	0.128.240 ST *	0.128.240
50	0.128.250 ST *	0.128.250
65	-	0.128.265
90	-	0.128.290

** not acc. to DIN / * ne répond pas à la norme DIN*



0.128.2**



0.128.2** ST

Internal center rings, O-ring seals made of
Perbunan/stainless steel or made of
PTFE/Teflon - Viton

*Joints d'intérieur
en perbunan/acier inox ou en PTFE/teflon - Viton*

Norm width Largeur normalisée mm	Order No. N° de code PTFE/Teflon - Viton	Order No. N° de code S/S
10	0.128.310 P	0.128.310
15	0.128.315 P	0.128.315
25	0.128.325 P	0.128.325
40	0.128.340 P	0.128.340
50	-	0.128.350
65	-	0.128.365
90	-	0.128.390

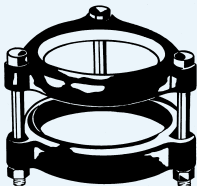


0.128.3**

Supports, for flat flanges, U-clamp
(quick-release) or three point clamp

*Supports pour raccords plats, avec fixation en U
(déblocage rapide) ou fixation à 3-points*

Norm width Largeur normalisée mm	Order No. N° de code U-clamp Fixation en U	Order No. N° de code Three point Fixation à 3 points
10	0.128.510	0.128.410
15	0.128.515	0.128.415
25	0.128.525	0.128.425
40	0.128.540	0.128.440
50	0.128.550	0.128.450
65	-	0.128.465
90	-	0.128.490



0.128.4**



Grease for ground joints, „LABOFLEX“

Sealing and gliding material for fixed and rotating connections of glass joints, movable connections, made of plastic and metal. Resistant to most acids, alkalis and gases at temperatures from - 40 °C to + 300 °C. High vacuum resistant. It is absolutely silicone-free.

Graisse pour rodages

exempt de silicone, à haute résistance à la chaleur de - 40 / + 300 °C et au vide poussé

Capacity <i>Capacité</i>	Order No. <i>N° de code</i>
g	
60	0.129.003
High vacuum grease, middle-visco „Baysilon“ <i>Graisse pour vide poussé à viscosité moyenne</i>	0.129.110



0.129.***

Matrix stick „Make up“

in the handy design from a lipstick to grease ground joints, resistant up to 250 °C (lower than 10⁻⁴ Torr)

Bâtonnet "Make-up", pour graisser les rodages, résistant jusqu'à 250°C (inférieur à 10⁻⁴ Torr)

	Order No. <i>N° de code</i>
	0.129.120

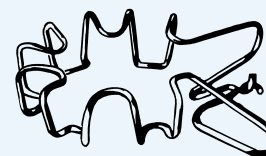


0.129.120

Clips for ground joints,
made of stainless steel, (DBGM)

Pinces pour rodages coniques,
en acier inoxydable

ST <i>Rodage</i>	Order No. <i>N° de code</i>
34/35 - 34/45	0.130.034
45/40 - 45/50	0.130.045



0.130.***

Clips for ground joints, made of stainless steel

Pinces pour rodages coniques,
en acier inoxydable

ST <i>Rodage</i>	Order No. <i>N° de code</i>
7/16 - 7/25	0.131.007
10/19 - 10/30	0.131.010
12/21 - 12/32	0.131.012
14/23 - 14/35	0.131.014
19/26 - 19/38	0.131.019
24/29 - 24/40	0.131.024
29/32 - 29/42	0.131.029
34/35 - 34/45	0.131.034
45/40 - 45/50	0.131.045



0.131.***

Clips for standard ground joints,
made of POM, excellent resistance against chemicals, with-standing temperatures up to approx. + 150 °C

Joints clip pour rodages coniques,
en polyacétal (POM), à haute résistance chimique et thermique jusqu'à 150°C.

ST <i>Rodage</i>	Order No. <i>N° de code</i>
10/19 - 10/30	0.131.110
12/21 - 12/32	0.131.112
14/23 - 14/35	0.131.114
19/26 - 19/38	0.131.119
24/29 - 24/40	0.131.124
29/32 - 29/42	0.131.129
34/35 - 34/45	0.131.134
40/38	0.131.140
45/40 - 45/50	0.131.145



0.131.1**



0.131.3**

Clips for standard conical ground joints,
made of Polyacetal (POM) "Keck-clips"

*Jointes pour rodages coniques en polyacétal
(POM) "Keck clips"*

ST Rodage	Colour Couleur	Order No. N° de code
10/19 - 10/30	Green	0.131.310
12/21 - 12/32	Purple	0.131.312
14/23 - 14/35	Yellow	0.131.314
19/26 - 19/38	Blue	0.131.319
24/29 - 24/40	Green	0.131.324
29/32 - 29/42	Red	0.131.329
34/35 - 34/45	Orange	0.131.334
40/38	Yellow	0.131.340
45/40 - 45/50	Brown	0.131.345



0.131.6**

Clamps for ground joints,
without screw, made of stainless steel

*Pincettes pour rodages coniques
sans vis à molette, en acier inoxydable*

ST Rodage	Order No. N° de code
14/23 - 14/35	0.131.614
19/26	0.131.619
24/29	0.131.624
29/32	0.131.629
45/40 - 45/50	0.131.645

Accessories/Accessoires

Tightening screw for 0.131.614 - 645 / *Vis de fixation pour 0.131.614 - 645* 0.131.666



0.133.0**



0.133.3**

Clamps for spherical joints,
with screw, made of stainless steel
or made of POM plastic

*Pincettes pour rodages sphériques
avec vis à molette, en acier inoxydable, ou selon
POM plastique*

ST Rodage	POM plastic POM plastique	Stainless steel Acier Inoxydable
13/2-13/5	0.133.313	0.133.013
19/9	0.133.319	0.133.019
29/15	0.133.329	0.133.029
35/20	0.133.335	0.133.035
40/25 - 41/25	-	0.133.040
51/30	-	0.133.051
64/40	-	0.133.064

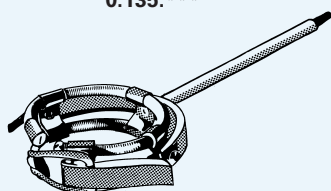


0.135.***

Flat flange, quick release clamps,
made of stainless steel

*Colliers de fermeture pour réacteur,
en acier inoxydable*

DN DN	Order No. N° de code
60	0.135.060
100	0.135.100
120	0.135.120
150	0.135.150
200	0.135.200



0.138.***

Flat flange, quick release clamps,
made of stainless steel and plastic

*Colliers de fermeture pour réacteur,
à queue de fixation, en acier inoxydable avec gar-
niture en plastique*

DN DN	Order No. N° de code
60	0.138.060
100	0.138.100



0.140.***

Superfix-safety devices,
solid security. Complete with cap, inner
part of thread cone and clamping O-ring,
suitable for cylindrical and conventional
connections of conical joints, packed in
cellophane bags.

*Dispositifs de fermeture à sécurité „Superfix“
pour rodages coniques. Complet avec bouchon,
partie intérieure du cône à serrer et joint de
fixation, recommandé pour les raccords
cylindriques et conventionnels de rodages
coniques, emballés dans sachets en cellophane.*

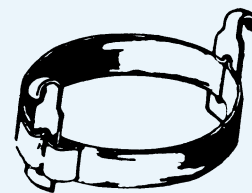
ST Rodage	Color Couleur	Standard Pack Conditionnement	Order No. N° de code
14/23 - 14/35	Red	10	0.140.014
19/26 - 19/38	Green	10	0.140.019
24/29 - 24/40	Yellow	10	0.140.024
29/32 - 29/42	Blue	10	0.140.029
34/35 - 34/45	White	5	0.140.034
45/40 - 45/50	Orange	5	0.140.045



Aluminium rings for flasks and sockets
with hooks for springs, a substitution for
glass hooks

*Anneaux en aluminium pour flacons et raccords
femelles avec crochets pour ressorts*

ST <i>Rodage</i>	Order No. <i>N° de code</i>
12 - 14	0.140.114
19 - 24	0.140.124
29 - 34	0.140.134
45	0.140.145



0.140.1**

Springs

fitting the metal rings 0.140.114 - 145

Ressorts

pour anneaux en métal 0.140.114 - 145

Overall length <i>Longueur totale</i> mm	Spiral length only <i>Longueur de la spire</i> mm	Order No. <i>N° de code</i>
25	10	0.140.225
35	20	0.140.235
45	32	0.140.245
60	45	0.140.260
85	75	0.140.285



0.140.2**

Screw caps, top closed, red, up to GL 45
made of PBTP with PTFE-liners, GL 50 and
larger made of PP, nature.
(Ideal for spinner flasks „Biogen“, heat
resistant up to approx. 180 °C.)

*Bouchons à visser en PBTP avec septum en
téflon (PTFE) jusqu'à taille GL 45 et en
polypropylène (PP) au-delà de la taille GL 50.
Résistant à la chaleur jusqu'à 180 °C.*

GL <i>GL</i>	Order No. <i>N° de code</i>
14	0.175.014
18	0.175.018
25	0.175.025
32	0.175.032
45	0.175.045
50	0.175.050
60	0.175.060
70	0.175.070
80	0.175.080
90	0.175.090
100	0.175.099

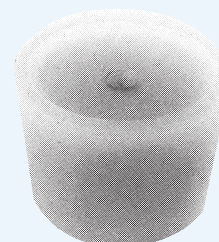


0.175.***

Silicone stoppers for spinner flasks
„BIOGEN“

*Bouchons en silicone, à utiliser avec les fioles
BIOGEN de la série 5.529.*

For Order No. <i>Pour N° de code</i>	Order No. <i>N° de code</i>
5.529.101 - 5.529.104	0.175.100
5.529.105 - 5.529.110	0.175.101

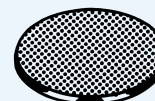


0.175.1**

Silicone rubber seals,
PTFE protected

*Septum en silicone
avec revêtement en PTFE*

GL <i>GL</i>	Order No. <i>N° de code</i>
14	0.175.111
18	0.175.112
25	0.175.113
32	0.175.114
45	0.175.115
50	0.175.116
60	0.175.117
70	0.175.118
80	0.175.119
90	0.175.120
100	0.175.121



0.175.11*



0.175.145



0.175.2**



0.175.3**



0.175.5**



0.175.6**

Screw caps, top closed, blue,
made of Polypropylene (PP)

Bouchons à visser
en polypropylène, bleu

GL	Order No.
GL	N° de code
25	0.175.125
32	0.175.132
45	0.175.145

Pouring rings, made of Polypropylene (PP),
autoclavable

Bagues anti-goutte en polypropylène (PP),
autoclavables

GL	Colour	Order No.
GL	Couleur	N° de code
32	●	0.175.201
45	●	5.526.166
45	●	5.526.177
45	●	5.526.188
45	○	5.526.199

Pouring rings, red, made of ETFE

Bagues anti-goutte en Téflon (ETFE), rouge

GL	Order No.
GL	N° de code
32	0.175.301
45	0.175.302

Standard Alu-Caps, made of aluminium
silvered, for tubes and flasks

Capuchons standards Alu-Caps, en aluminium
argenté, pour tubes et flacons

Inner Ø	Height	Packing	Order No.
Ø int.	Hauteur	Conditionnement	N° de code
mm	mm	pcs.	
11	25	100	0.175.501
12	25	100	0.175.502
14	25	100	0.175.504
15	25	100	0.175.505
16	30	100	0.175.506
17	30	100	0.175.507
18	30	100	0.175.508
20	30	100	0.175.509
22	30	100	0.175.510
28	30	100	0.175.511
32	30	100	0.175.512
44	40	10	0.175.514

LaboCap test tube closures with grip acc.
to Kapsenberg, made of coloured anodised
aluminium colored in silver, blue or red,
with internally fitted rust-proof chromium-
nickel springs

Capuchons LaboCap de Kapsenberg
avec tige, en aluminium coloré par anodisation,
ressort interne en acier nickel-chrome, en vente en
couleurs argenté, bleu ou rouge

For tubes Ø	Packing	Colour	Colour	Colour
Pour tubes Ø	Conditionnement	Couleur	Couleur	Couleur
mm	pcs.			
12-13	100	-	●	●
15-16	100	0.175.603	0.175.621	0.175.631
17-18	100	0.175.604	0.175.623	0.175.633
19-20	100	0.175.605	0.175.624	0.175.634
			0.175.625	0.175.635

Packing for blue or red caps, 1000 pcs.

Other colours are available on request

Conditionnement pour bleu ou rouge capuchons, 1000 pcs.

D'autres colories sont disponibles sur demande



Screw caps, top with hole, red,
made of PBTP, from GL 50 made of
Polypropylene (PP), nature

*Bouchons à visser avec trou central, rouge en
PBTP jusqu'à la taille GL 45 et en PP à partir de
la taille GL 50*

Screw thread <i>Filetage</i>	Bore Ø <i>Ø du trou</i>	Material <i>Matière</i>	Order No. <i>N° de code</i>
GL	mm		
14	9.5	PBTP	0.176.014
18	11.0	PBTP	0.176.018
25	15.0	PBTP	0.176.025
32	20.0	PBTP	0.176.032
45	34.0	PBTP	0.176.045
50	38.0	PP	0.176.050
60	48.0	PP	0.176.060
70	58.0	PP	0.176.070
80	68.0	PP	0.176.080
90	75.0	PP	0.176.090
100	85.0	PP	0.176.100



0.176.***

Gaskets, silicone rubber, with
vulcanized-on PTFE liners

Joints en silicone, sur couches de téflon (PTFE)

For screw thread <i>Pour filetage</i>	Seal <i>Joint</i>	for tubes Ø <i>pour tubes de Ø</i>	Order No. <i>N° de code</i>
GL	mm	mm	
14	12 x 6	5.5 - 6.5	0.177.006
18	16 x 6	5.5 - 6.5	0.178.006
18	16 x 8	7.5 - 9.0	0.178.008
18	16 x 10	9.0 - 11.0	0.178.010
25	22 x 8	7.5 - 9.0	0.179.008
25	22 x 10	9.0 - 11.0	0.179.010
25	22 x 12	11.0 - 13.0	0.179.012
32	29 x 10	9.0 - 11.0	0.180.010
32	29 x 12	11.0 - 13.0	0.180.012
32	29 x 14	13.0 - 15.0	0.180.014
32	29 x 16	15.0 - 17.0	0.180.016
32	29 x 18	17.0 - 19.0	0.180.018
45	42 x 26	25.0 - 27.0	0.180.026
45	42 x 32	31.0 - 33.0	0.180.032
50	48 x 34	33.0 - 35.0	0.180.034
50	48 x 36	35.0 - 37.0	0.180.036
60	58 x 38	37.0 - 39.0	0.180.038
60	58 x 44	43.0 - 45.0	0.180.044
70	68 x 46	45.0 - 47.0	0.180.046
80	78 x 50	49.0 - 51.0	0.180.050
90	89 x 60	59.0 - 61.0	0.180.060
90	89 x 70	69.0 - 71.0	0.180.070
100	98 x 80	78.0 - 81.0	0.180.080

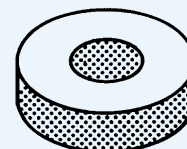


0.177.***

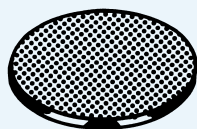
Gaskets, silicone rubber
without PTFE sockets

Joints en silicone, sans raccords en téflon

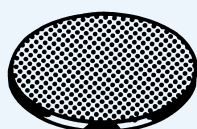
For screw thread <i>Pour filetage</i>	Seal <i>Joint</i>	for tubes Ø <i>pour tubes de Ø</i>	Order No. <i>N° de code</i>
GL	mm	mm	
14	12 x 6	5.5 - 6.5	0.177.106
18	16 x 6	5.5 - 6.5	0.178.106
18	16 x 8	7.5 - 9.0	0.178.108
18	16 x 10	9.0 - 11.0	0.178.110
25	22 x 8	7.5 - 9.0	0.179.108
25	22 x 10	9.0 - 11.0	0.179.110
25	22 x 12	11.0 - 13.0	0.179.112
32	29 x 10	9.0 - 11.0	0.180.110
32	29 x 12	11.0 - 13.0	0.180.112
32	29 x 14	13.0 - 15.0	0.180.114
32	29 x 16	15.0 - 17.0	0.180.116
32	29 x 18	17.0 - 19.0	0.180.118
45	42 x 26	25.0 - 27.0	0.180.126
45	42 x 32	31.0 - 33.0	0.180.132



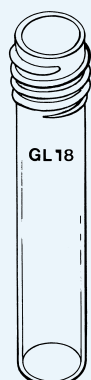
0.177.1**



0.181.***



0.181.2**



0.182.***

Silicone rubber seals, for piercing (Septa)

Jointes en silicone, pour perçage (Septum)

for GL pour GL	Outer Ø Ø Sup. mm	Thickness Épaisseur mm	Order No. N° de code
14	12	2.0	0.181.014
18	16	2.0	0.181.018
25	22	2.0	0.181.025
32	29	2.0	0.181.032
45	42	3.0	0.181.045
50	48	3.0	0.181.050
60	58	3.0	0.181.060
70	68	3.0	0.181.070
80	78	3.0	0.181.080
90	89	3.0	0.181.090
100	98	3.0	0.181.100

Silicone rubber seals, PTFE coated, for piercing (Septa)

Jointes en silicone à revêtement en PTFE, pour perçage (Septum)

for GL pour GL	Outer Ø Ø. Sup. mm	Thickness Épaisseur mm	Order No. N° de code
14	12	2.0	0.181.214
18	16	2.0	0.181.218
25	22	2.0	0.181.225
32	29	2.0	0.181.232
45	42	3.0	0.181.245

Tubing, threaded, straight, acc. to DIN 12216, with ISO screw thread, made of borosilicate glass, available with screw thread GL, RD or SVL

Tubes droits à raccord à vis ISO, en verre borosilicaté, disponibles avec filetage du type GL, RD ou SVL

Screw thread Filetage	Tubes outer Ø Ø ext. mm	Length Longueur mm	Wall thick Épaisseur mm	Order No. N° de code
GL				
14	12	110	1.5	0.182.014
14 *	12	110	2.2	0.182.014 ST
18	16	110	1.8	0.182.018
18 *	16	110	2.5	0.182.018 ST
25	22	110	1.8	0.182.025
25 *	22	110	2.5	0.182.025 ST
32	28	150	2.0	0.182.032
32 *	28	150	2.8	0.182.032 ST
45	40	150	2.3	0.182.045
45	40	300	2.3	0.182.046
45	40	150	3.2	0.182.047
45	40	300	3.2	0.182.048
50 *	46	130	2.3	0.182.050
50 *	46	130	3.2	0.182.051
60 *	56	130	2.5	0.182.060
60 *	56	130	3.5	0.182.061
70 *	65	130	3.2	0.182.070
80 *	75	130	3.2	0.182.080
90 *	85	130	3.5	0.182.090
100 *	95	130	3.5	0.182.100
RD				
10	8	110	1.5	0.182.210
14	12	110	1.5	0.182.214
SVL				
15	16	110	1.8	0.182.315
22	22	110	1.8	0.182.322
30	32	150	2.0	0.182.330
42	40	150	2.3	0.182.342

* not acc. to DIN / * ne répond pas à la norme DIN

* ST not acc. to DIN with thick wall / * ST = à paroi épaisse, ne répond pas à la norme DIN



Tubing, threaded, with restriction, acc. to DIN 12216, with ISO screw thread, made of borosilicate glass

Raccords à vis, selon DIN 12216, avec retressissement, en verre borosilicaté

Screw thread Filetage	Tubes outer Ø Ø ext.	Length Longueur	Wall thick Épaisseur	Order No. N° de code
GL	mm	mm	mm	
14	14	110	1.5	0.183.014
18	18	110	1.8	0.183.018
25	26	110	2.0	0.183.025
32	32	150	2.0	0.183.032
45	46	150	2.3	0.183.045
50 *	60	130	2.2	0.183.050
60 *	75	130	2.2	0.183.060
80 *	90	130	3.5	0.183.080
90 *	100	130	3.5	0.183.090

* not acc. to DIN / * ne répond pas à la norme DIN

also thickwalled available *.***.*** ST

Disponible également avec paroi épaisse. Rajouter ST au No. de code

Screw thread adapter couplings, made of fluoroplastic (PTFE), for flexible coupling of 2 glass screw threads with integral PTFE/FPM gasket, the medium is exposed only to PTFE, the screw caps are made of glass-fiber reinforced PPS or of PBTP

Brides d'assemblage à visser, en Téflon (PTFE), pour un raccordement flexible de 2 tubes filetés, avec joint en PTFE/FPM intégré, le produit n'entre en contact qu'avec le PTFE. Les capuchons vissables sont en PPS renforcé de fibre de verre ou en PBTP

Screw thread Filetage	Screw caps Capuchons	Screw caps Capuchons
GL	PPS + 250 °C	PBTP + 180 °C
14	0.184.014	0.184.114
18	0.184.018	0.184.118
25	0.184.025	0.184.125
32	0.184.032	0.184.132
45	0.184.045	0.184.145

SVS-tubing connection, bent, complete hose connection, with screw-cap and silicone seal, made of Polypropylene (PP) or Teflon (PFA)

Raccords à vis avec olive coudée en polypropylène (PP) ou en Téflon (PFA), à joint en silicone, pour flexible

Screw thread Filetage	Outer Ø Ø ext.	Material Matière	Material Matière
GL	mm	PP	PFA
14	8	0.185.001	0.186.001
18	11	0.185.016	0.186.016

SVS-tubing connection, straight, complete hose connection, with screw-cap and silicone seal, made of Polypropylene (PP) or Teflon (PFA)

Raccords à vis avec olive droite en polypropylène (PP) ou en Téflon (PFA), à joint en silicone, pour flexible

Screw thread Filetage	Outer Ø Ø ext.	Material Matière	Material Matière
GL	mm	PP	PFA
14	8	0.185.002	0.185.003
18	11	0.185.011	0.185.012

Plastic hose connection, bent, made of polypropylene (PP) or Teflon (PFA), with silicone-rubber-liners

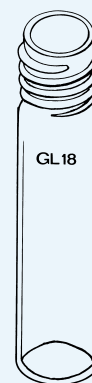
Raccords à vis avec olive coudée en polypropylène (PP) ou en Téflon (PFA), à joint en silicone

For screw thread Pour filetage	Outer Ø Ø ext.	Material Matière	Material Matière
GL	mm	PP	PFA
14	8	0.185.004	0.186.004
18	11	0.185.014	0.186.014

Plastic hose connection, straight, made of polypropylene (PP) or Teflon (PFA), with silicone-rubber-liners

Raccords à vis avec olive droite en polypropylène (PP) ou en Téflon (PFA), avec joint en silicone

For screw thread Pour filetage	Outer Ø Ø ext.	Material Matière	Material Matière
GL	mm	PP	PFA
14	8	0.185.005	0.185.006
18	11	0.185.007	0.185.008



0.183.***



0.184.0**

0.184.1**



0.186.001



0.185.003



0.186.004



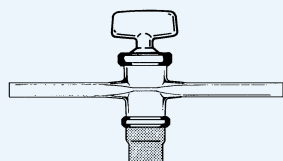
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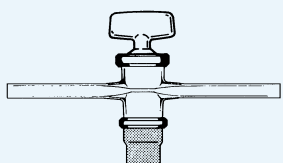
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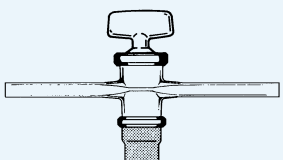
0.198.***



0.200.***



0.202.***



0.202.1**

Spare-liners, made of Silicone rubber
for hose connection

Joint de rechange en silicone, pour raccord à olive

Outer Ø Ø ext. mm	Order No. N° de code
8	0.185.009
11	0.185.010

Function-stops, for screw-threads, SVS, (DBGM), made of borosilicate glass

Obturbateurs, pour raccords à vis, en verre borosilicaté

FA	Tube outer Ø Ø ext. du tube mm	FA Outer Ø Ø ext. FA mm	Length Longueur mm	Wall thick. Epaisseur mm	Order No. N° de code
6	6	10	120	1.5	0.198.006
8	8	12	120	1.5	0.198.008
10	10	14	120	1.5	0.198.010
12	12	16	125	1.5	0.198.012
14	14	20	125	1.5	0.198.014
16	16	22	130	1.8	0.198.016
18	18	24	130	1.8	0.198.018

Stopcocks

Robinet

Stopcocks straight, acc. to DIN 12541, solid ST-plug, capillary side arms, with special screw-thread retaining nut (DGBM), made of borosilicate glass

Robinet droit à une voie, en verre borosilicaté avec clé interchangeable en verre plein, branches à tube capillaire et vis de fixation spéciale de maintien

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	12.5	8	100	0.200.001
2.5	14.5	9	100	0.200.002

Stopcocks straight, acc. to DIN 12541, solid ST-plug, with standard glass tube side arms, with special screw-thread retaining nut (DGBM), made of borosilicate glass

Robinet droit à une voie, en verre borosilicaté avec clé interchangeable en verre plein, branches à tube en verre standard et vis de fixation spéciale de maintien

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	12.5	8	100	0.202.001
2.5	14.5	9	100	0.202.002
4	18.8	10	110	0.202.004
6.3 *	21.5	13	120	0.202.006
8 *	24	15	120	0.202.008
10 *	29.2	18	120	0.202.010

* with rubber retaining nuts „SIE“ (DBGM) / * avec vis de fixation en caoutchouc

Stopcocks straight, with solid glass plug, with standard glass tube side arms, with special screw-thread retaining nuts, made of borosilicate glass

Robinet droit à une voie, en verre borosilicaté avec clé interchangeable en verre plein, branches à tube en verre standard et vis de fixation spéciale de maintien

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
2.5	12.5	9	100	0.202.102
4	14.5	10	110	0.202.104
6.3	18.8	13	120	0.202.106



ST-separate plugs, solid, made of borosilicate glass, acc. to DIN 12541

Clés à rodage, interchangeables, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Order No. N° de code
1.6	12.5	0.203.001
2.5	14.5	0.203.002
4	18.8	0.203.004
6.3	21.5	0.203.006
8	24	0.203.008
10	29.2	0.203.010

ST-separate plugs, solid, made of borosilicate glass

Clés à rodage, interchangeables, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Order No. N° de code
2.5	12.5	0.203.102
4	14.5	0.203.104
6.3	18.8	0.203.106

Stopcocks straight, acc. to DIN 12541, with ST-PTFE-plug, with capillary side arms, made of borosilicate glass

Robinets droits à une voie en verre borosilicaté, avec clé en PTFE interchangeable et branches à tube capillaire

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	12.5	8	100	0.204.001
2.5	14.5	9	100	0.204.002

Stopcocks straight, acc. to DIN 12541, with ST-PTFE-plug, with standard glass tube side arms, with special screw-thread retaining nut (DGBM), made of borosilicate glass

Robinet droit à une voie, en verre borosilicaté avec clé interchangeable en téflon (PTFE), branches à tube en verre standard et vis de fixation spéciale de maintien

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	12.5	8	100	0.205.001
2.5	14.5	9	100	0.205.002
4	18.8	10	110	0.205.004
6.3	21.5	13	120	0.205.006
8	24	15	120	0.205.008
10	29.2	18	120	0.205.010

Stopcocks straight, with ST-PTFE-plug, with standard glass tube side arms, with special screw-thread retaining nut, made of borosilicate glass

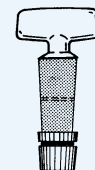
Robinet droit à une voie, en verre borosilicaté avec clé interchangeable en téflon (PTFE), branches à tube en verre standard et vis de fixation spéciale de maintien

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
2.5	12.5	9	100	0.205.102
4	14.5	10	110	0.205.104
6.3	18.8	13	120	0.205.106

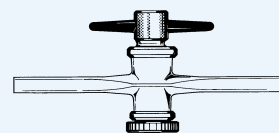
ST-PTFE-separate plugs, solid, acc. to DIN 12541

Clés à rodage en téflon (PTFE), seules

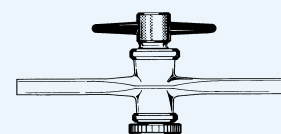
Bore of plug Voie de la clé mm	ST RIN	Order No. N° de code
1.6	12.5	0.206.001
2.5	14.5	0.206.002
4	18.8	0.206.004
6.3	21.5	0.206.006
8	24	0.206.008
10	29.2	0.206.010



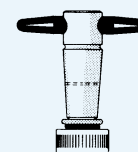
0.203.***



0.204.***



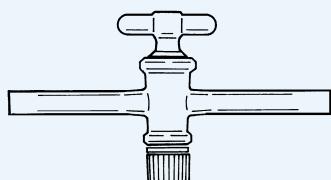
0.205.***



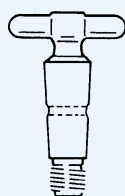
0.206.***



0.206.***



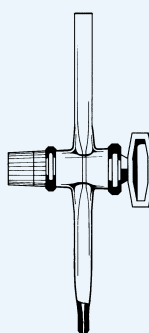
0.214.***



0.215.***



0.216.***



0.232.***

ST-PTFE-separate plugs, solid

Clés à rodage en téflon (PTFE), seules

Bore of plug Voie de la clé mm	ST RIN	Order No. N° de code
2.5	12.5	0.206.102
4	14.5	0.206.104
6.3	18.8	0.206.106

Stopcocks straight, „Type N“,
acc. to DIN 12541, with hollow ST-plug,
with glass grip, with special screw-thread
retaining nut (double testet), made of
borosilicate glass

Robinets droits en verre „Type N“,
à clé et vis de fixation spéciale de maintien, en
verre borosilicaté creux

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	12.5	8	100	0.214.001
2.5	14.5	9	100	0.214.002
4	18.8	10	110	0.214.004
6.3	21.5	13	120	0.214.006
8	24	15	120	0.214.008
10	29.2	18	120	0.214.010

ST-spare plugs, „Type N“, DIN 12541,
hollow, without special screw-thread
retaining nut, made of borosilicate glass

Clés en verre „Type N“,
sans système de fixation à vis, en verre borosilicaté
creux

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.215.001
2.5	14.5	0.215.002
4	18.8	0.215.004
6.3	21.5	0.215.006
8	24	0.215.008
10	29.2	0.215.010

Screw-thread retaining nut, „Type N“,
(screw cap, insert, O-ring)

Systèmes de fixation à vis „Type N“,
avec joint

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.216.001
2.5	14.5	0.216.002
4	18.8	0.216.004
6.3	21.5	0.216.006
8	24	0.216.008
10	29.2	0.216.010

Stopcock for burettes, straight, made of
borosilicate glass, acc. to DIN 12541, with
solid ST-plug

Robinet droit pour burettes, en verre borosilicaté
à clé interchangeable en verre plein

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.232.101

Stopcock for burettes of 10 ml, straight,
made of borosilicate glass, acc. to
DIN 12541, with solid ST-plug

Robinet droit pour burettes de 10 ml, en verre
borosilicaté à clé interchangeable en verre plein

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.232.111



Stopcock for burettes of 25 ml, straight, made of borosilicate glass, acc. to DIN 12541, with solid ST-plug

Robinet droit pour burettes de 25 ml, en verre borosilicaté à clé interchangeable en verre plein

Bore	ST	Order No.
Voie	RIN	N° de code
mm		
1.6	12.5	0.232.121

Stopcock for burettes of 50 ml, straight, made of borosilicate glass, acc. to DIN 12541, with solid ST-plug

Robinet droit pour burettes de 50 ml, en verre borosilicaté à clé interchangeable en verre plein

Bore	ST	Order No.
Voie	RIN	N° de code
mm		
1.6	12.5	0.232.151

Stopcock for burettes, straight, made of borosilicate glass, acc. to DIN 12541, with hollow ST-plug

Robinet droit pour burettes, en verre borosilicaté à clé interchangeable en verre creux

Bore	ST	Order No.
Voie	RIN	N° de code
mm		
1.6	12.5	0.233.101

Stopcock for burettes of 10 ml, straight, made of borosilicate glass, acc. to DIN 12541, with hollow ST-plug

Robinet droit pour burettes de 10 ml, en verre borosilicaté à clé interchangeable en verre creux

Bore	ST	Order No.
Voie	RIN	N° de code
mm		
1.6	12.5	0.233.111

Stopcock for burettes of 25 ml, straight, made of borosilicate glass, acc. to DIN 12541, with hollow ST-plug

Robinet droit pour burettes de 25 ml, en verre borosilicaté à clé interchangeable en verre creux

Bore	ST	Order No.
Voie	RIN	N° de code
mm		
1.6	12.5	0.233.121

Stopcock for burettes of 50 ml, straight, made of borosilicate glass, acc. to DIN 12541, with hollow ST-plug

Robinet droit pour burettes de 50 ml, en verre borosilicaté à clé interchangeable en verre creux

Bore	ST	Order No.
Voie	RIN	N° de code
mm		
1.6	12.5	0.233.151

Stopcock for burettes, straight, made of borosilicate glass, acc. to DIN 12541, with teflon (PTFE) ST-plug

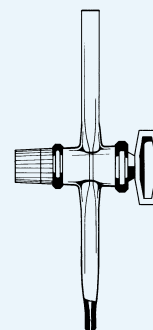
Robinet droit pour burettes, en verre borosilicaté à clé interchangeable en téflon (PTFE)

Bore	ST	Order No.
Voie	RIN	N° de code
mm		
1.6	12.5	0.234.101

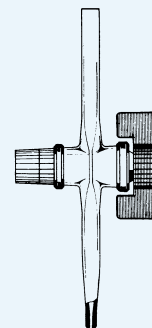
Stopcock for burettes of 10 ml, straight, made of borosilicate glass, acc. to DIN 12541, with teflon (PTFE) ST-plug

Robinet droit pour burettes de 10 ml, en verre borosilicaté à clé interchangeable en téflon (PTFE)

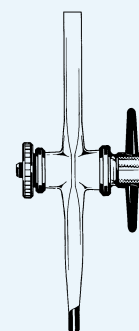
Bore	ST	Order No.
Voie	RIN	N° de code
mm		
1.6	12.5	0.234.111



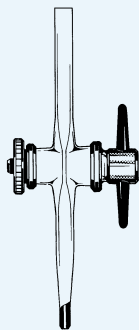
0.232.***



0.233.***



0.234.***



0.234.***

Stopcock for burettes of 25ml, straight, made of borosilicate glass, acc. to DIN 12541, with teflon (PTFE) ST-plug

Robinet droit pour burettes de 25 ml, en verre borosilicaté à clé interchangeable en téflon (PTFE)

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.234.121

Stopcock for burettes of 50ml, straight, made of borosilicate glass, acc. to DIN 12541, with teflon (PTFE) ST-plug

Robinets droits pour burettes de 50 ml, en verre borosilicaté à clé interchangeable en téflon (PTFE)

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.234.151

Stopcock for burettes, lateral, made of borosilicate glass, acc. to DIN 12541, with solid ST-plug

Robinet latéral pour burettes, en verre borosilicaté à clé interchangeable en verre plein

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.238.101

Stopcock for burettes of 10 ml, lateral, made of borosilicate glass, acc. to DIN 12541, with solid ST-plug

Robinet latéral pour burettes de 10 ml, en verre borosilicaté à clé interchangeable en verre plein

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.238.111

Stopcock for burettes of 25ml, lateral, made of borosilicate glass, acc. to DIN 12541, with solid ST-plug

Robinet latéral pour burettes de 25 ml, en verre borosilicaté à clé interchangeable en verre plein

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.238.121

Stopcock for burettes of 50 ml, lateral, made of borosilicate glass, acc. to DIN 12541, with solid ST-plug

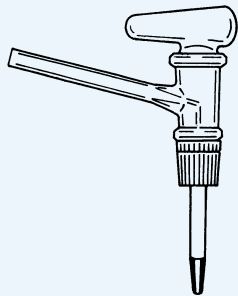
Robinet latéral pour burettes de 50 ml, en verre borosilicaté à clé interchangeable en verre plein

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.238.151

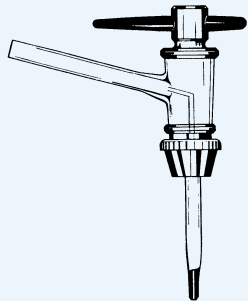
Stopcock for burettes, lateral, acc. to DIN 12541, with ST-teflon (PTFE) plug

Robinet latéral pour burettes, à clé interchangeable en téflon (PTFE)

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.240.101



0.238.***



0.240.***



Stopcock for burettes of 10ml, lateral,
made of borosilicate glass, acc. to
DIN 12541, with teflon (PTFE) ST-plug

*Robinet latéral pour burettes de 10 ml, en verre
borosilicaté à clé interchangeable en téflon
(PTFE)*

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.240.111

Stopcock for burettes of 25ml, lateral,
made of borosilicate glass, acc. to
DIN 12541, with teflon (PTFE) ST-plug

*Robinet latéral pour burettes de 25 ml, en verre
borosilicaté à clé interchangeable en verre en
téflon (PTFE)*

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.240.121

Stopcock for burettes of 50ml, lateral,
made of borosilicate glass, acc. to
DIN 12541, with teflon (PTFE) ST-plug

*Robinet latéral pour burettes de 50 ml, en verre
borosilicaté à clé interchangeable en verre en
téflon (PTFE)*

Bore Voie mm	ST RIN	Order No. N° de code
1.6	12.5	0.240.151

Needle valve, stopcock straight,
„Economy“, with PTFE-needle valve, with
sealing ring, sealing system with overtwist
safety device, made of borosilicate glass

*Robinets droit, en verre borosilicaté, à clé à
pointeau en Téflon (PTFE), avec anneau
d'étanchéité de sécurité*

Bore Voie mm	Order No. N° de code
0 - 3	0.243.100
0 - 6	0.243.150
0 - 10	0.243.160

Needle valve, stopcock angled,
„Economy“, with PTFE-needle valve, with
sealing ring, sealing system with overtwist
safety device, made of borosilicate glass

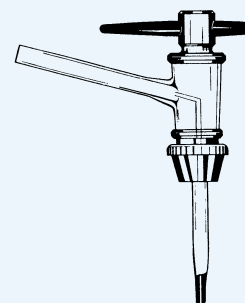
*Robinets angulaire, en verre borosilicaté à clé à
pointeau en Téflon (PTFE), avec anneau
d'étanchéité de sécurité*

Bore Voie mm	Order No. N° de code
0 - 3	0.243.200
0 - 6	0.243.250
0 - 10	0.243.260

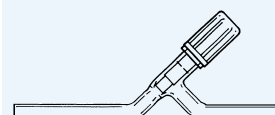
Needle valve, stopcock „Economy“,
for burettes, with PTFE-needle valve, with
sealing ring, sealing system with overtwist
safety device, made of borosilicate glass

*Robinets, en verre borosilicaté pour burette à clé à
pointeau en Téflon (PTFE), avec anneau
d'étanchéité de sécurité*

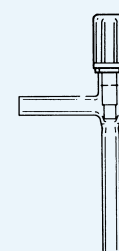
Bore Voie mm	Type Type	Order No. N° de code
0 - 3	lateral / <i>latérale</i>	0.243.300
0 - 3	straight / <i>droit</i>	0.243.400



0.240.***



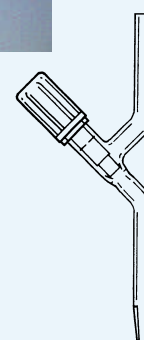
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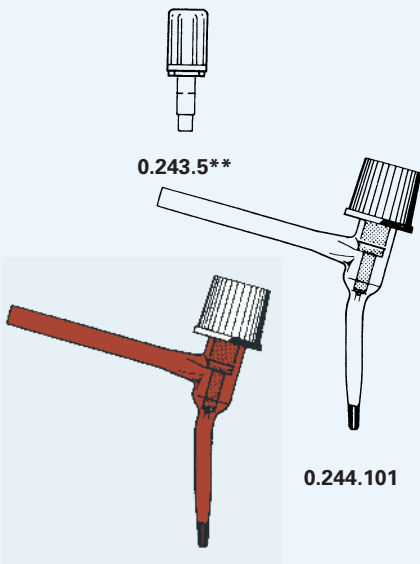
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0.243.3**



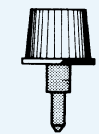
0.243.4**



0.243.5**

0.244.101

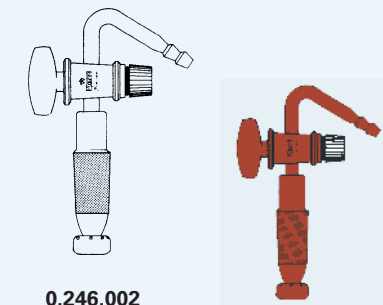
0.244.201



0.244.3**

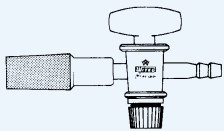


0.245.***
0.245.1**

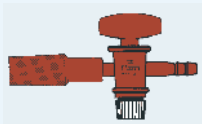


0.246.002

0.246.202



0.247.002



0.247.202

Spare PTFE-needle valve, for valves „Economy“, with sealing system, with overtwist safety device, made of PTFE

Clé à pointe en Téflon (PTFE) de rechange, pour vannes du type "Economy", avec système de fermeture et dispositif de sécurité

Bore Voie mm	Order No. N° de code
0 - 3	0.243.500
0 - 6	0.243.550
0 - 10	0.243.560

Needle valve stopcocks made of glass for burettes, lateral, with PTFE-needle valve

Robinetts latéraux en verre, pour burettes avec clé en Téflon (PTFE)

Bore Voie mm	Glass Verre	Order No. N° de code
0 - 2.5	Soda glass / verre de chimie	0.244.001
0 - 2.5	Borosilicate / verre borosilicaté	0.244.101
0 - 2.5	Amber glass / verre brun	0.244.201

Separate PTFE-needle valve, for lateral burettes plug

Clé en Téflon (PTFE) séparée, pour burettes à robinet latéral

Bore Voie mm	Order No. N° de code
0 - 2.5	0.244.300

Separate screw-thread retaining nuts, for solid standardized stopcock plugs, in 3 parts, made of Polypropylene (PP)

Systèmes de fermeture à vis pour clés en verre plein de robinet, en polypropylène (PP)

ST RIN	GL GL	Order No. N° de code
12.5	8	0.245.008
14.5	9	0.245.009
18.8	12	0.245.012

Separate screw-thread retaining nuts, for hollow standardized stopcock plugs, made of ULTRADUR

Systèmes de fermeture à vis pour clés en verre creux de robinet, en Ultradur

ST RIN	GL GL	Order No. N° de code
12.5	8	0.245.108
14.5	9	0.245.109
18.8	12	0.245.112
21.5	14	0.245.114

Stopcocks for dessicator lids, with cone ST 24/29, with solid plug 14.5, bore of plug 2.5 mm

Robinetts pour couvercle de dessicateur à RIN 24/29, à clé en verre plein. Voie de 2.5 mm

Glass Verre	Order No. N° de code
Borosilicate / verre borosilicaté	0.246.002
Amber glass / verre brun	0.246.202

Stopcocks for dessicator lateral tubes, with cone ST 24/29, with solid plug 14.5, bore of plug 2.5 mm

Robinetts pour dessicateur à raccordement latéral RIN 24/29, à clé en verre plein. Voie de 2.5 mm

Glass Verre	Order No. N° de code
Borosilicate / verre borosilicaté	0.247.002
Amber glass / verre brun	0.247.202

ATTENTION

NEW STOPCOCK DESIGN FOR DESSICATORS, SEE PAGE 315
NOUVEAU ROBINET POUR DESSICATEURS, PAGE 315



Taps for bottles, clear, made of borosilicate glass

Robinets forme canelle, en verre borosilicaté, clair, à rodage conique RIN

Cone ST <i>Rodage male</i>	Plug ST <i>Clé</i>	Bore <i>Voie</i> mm	Order No. <i>N° de code</i>
19/26	14.5	2.5	0.248.002
19/26	18.8	4	0.248.004
24/29	21.5	6.3	0.248.006
24/29	24	8	0.248.008
29/32	21.5	6.3	0.248.010
29/32	24	8	0.248.012

Taps for bottles, made of amber borosilicate glass

Robinets forme canelle, en verre brun borosilicaté à rodage conique RIN

Cone ST <i>Rodage male</i>	Plug ST <i>Clé</i>	Bore <i>Voie</i> mm	Order No. <i>N° de code</i>
19/26	18.8	4	0.248.104
29/32	21.5	6.3	0.248.110

Taps for aspirator bottles, made of clear borosilicate glass

Robinets à rodage conique pour bonbonne (baril), en verre clair borosilicaté

For Order No. <i>Pour N° de code</i>	Order No. <i>N° de code</i>
5.611.001 / 002	0.248.206
5.611.005 / 010	0.248.210

Stopcocks, double bore, acc. to DIN 12553, with solid ST-plug, with capillary side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre à deux voies à clé en verre plein interchangeable, branches à tube capillaire droit et système de fixation, en verre borosilicaté

Bore of plug <i>Voie de la clé</i> mm	ST <i>RIN</i>	Side arms Ø <i>Branche cap. Ø</i> mm	Side arms length <i>Long. de branche</i> mm	Order No. <i>N° de code</i>
1.6	14.5	8	100	0.250.001
2.5	18.8	9	100	0.250.002

Stopcocks, double bore, acc. to DIN 12553, with solid ST-plug, with standard glass tube side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre à deux voies à clé en verre plein interchangeable, branches droites à tube en verre standard et système de fixation, en verre borosilicaté

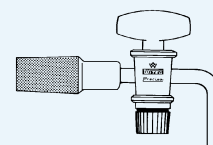
Bore of plug <i>Voie de la clé</i> mm	ST <i>RIN</i>	Side arms Ø <i>Branche cap. Ø</i> mm	Side arms length <i>Long. de branche</i> mm	Order No. <i>N° de code</i>
1.6	14.5	8	100	0.251.001
2.5	18.8	9	100	0.251.002
4 *	21.5	10	110	0.251.004

* not acc. to DIN / * ne répond pas à la norme DIN

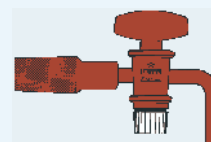
Stopcocks, double bore, acc. to DIN 12553, with ST-PTFE-plug, with capillary side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre à deux voies à clé interchangeable en PTFE, avec branches à tube capillaire et système de fixation à vis, en verre borosilicaté

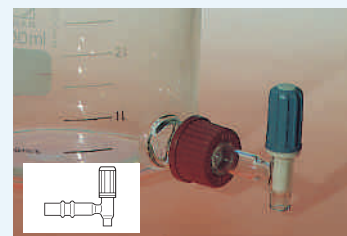
Bore of plug <i>Voie de la clé</i> mm	ST <i>RIN</i>	Side arms Ø <i>Branche cap. Ø</i> mm	Side arms length <i>Long. de branche</i> mm	Order No. <i>N° de code</i>
1.6	14.5	8	100	0.252.001
2.5	18.8	9	100	0.252.002



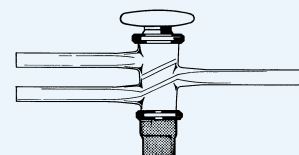
0.248.***



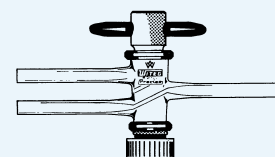
0.248.1**



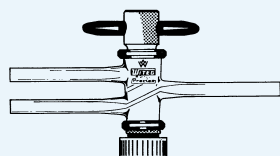
0.248.2**



0.250.***
0.251.***



0.252.***



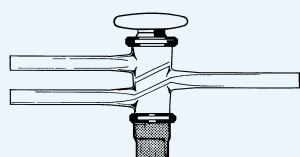
0.253.***

Stopcocks, double bore, acc. to DIN 12553, with ST-PTFE-plug, with standard glass tube side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre à deux voies à clé interchangeable en PTFE, avec branches à tube en verre standard et système de fixation à vis, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.253.001
2.5	18.8	9	100	0.253.002
4 *	21.5	10	110	0.253.004
6.3 *	24	13	120	0.253.006

* not acc. to DIN / * ne répond pas à la norme DIN



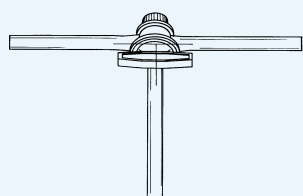
0.254.***

Stopcocks, double bore, acc. to DIN 12553, with hollow plug, with standard glass tube side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre à deux voies à clé interchangeable en verre creux, avec branches à tube en verre standard et système de fixation à vis, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.254.001
2.5	18.8	9	100	0.254.002
4 *	21.5	10	110	0.254.004
6.3 *	24	13	120	0.254.006

* not acc. to DIN / * ne répond pas à la norme DIN

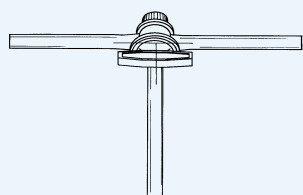


0.262.***

Stopcocks, three way, acc. to DIN 12554, T-bore, with solid ST-plug, with capillary side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre en Té à trois voies, à clé interchangeable en verre plein, avec branches à tube capillaire et système de fixation à vis, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.262.001
2.5	18.8	9	100	0.262.002



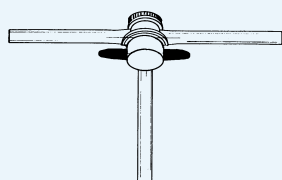
0.263.***

Stopcocks, three way, acc. to DIN 12554, T-bore, with solid ST-plug, with standard glass tube side arms with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre en Té à trois voies, à clé interchangeable en verre plein, avec branches à tube en verre standard et système de fixation à vis, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.263.001
2.5	18.8	9	100	0.263.002
4 *	21.5	10	110	0.263.004
6.3 *	24	13	120	0.263.006
8 *	29.2	13	120	0.263.008

* not acc. to DIN / * ne répond pas à la norme DIN



0.264.***

Stopcocks, three way, acc. to DIN 12554, T-bore, with ST-PTFE-plug, with capillary side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre en Té à trois voies, à clé interchangeable en PTFE, avec branches à tube capillaire et système de fixation à vis, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	12.5	8	100	0.264.000
1.6	14.5	8	100	0.264.001
2.5	18.8	9	100	0.264.002



Stopcocks, three-way, acc. to DIN 12554, T-bore, with ST-PTFE-plug, with standard glass tube side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre en Té à trois voies, à clé interchangeable en PTFE, avec branches à tube en verre standard et système de fixation à vis, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.265.001
2.5	18.8	9	100	0.265.002
4 *	21.5	10	110	0.265.004
6.3 *	24	13	120	0.265.006
8 *	29.2	13	120	0.265.008

* not acc. to DIN / * ne répond pas à la norme DIN

Stopcocks, three-way, acc. to DIN 12554, T-bore, with hollow plug, with standard glass tube side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre en Té à trois voies, à clé interchangeable en verre creux, avec branches à tube en verre standard et système de fixation à vis, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.266.001
2.5	18.8	9	100	0.266.002
4 *	21.5	10	110	0.266.004
6.3 *	24	13	120	0.266.006
8 *	29.2	13	120	0.266.008

* not acc. to DIN / * ne répond pas à la norme DIN

Stopcocks, three-way, acc. to Czako, acc. to DIN 12563, with solid ST-plug, with capillary side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre en Té à 3 voies, type Czako et clé en verre plein interchangeable. Branches à tube capillaire et système de fixation à vis, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.268.001
2.5	18.8	9	100	0.268.002

Stopcocks, three-way, acc. to Czako, acc. to DIN 12563, with solid ST-plug, with standard glass tube side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

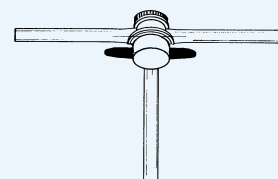
Robinets en verre en Té à 3 voies, type Czako et clé en verre plein interchangeable, avec branches à tube en verre standard et système de fixation à vis, en verre borosilicaté

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.268.101
2.5	18.8	9	100	0.268.102
4	21.5	10	110	0.268.104

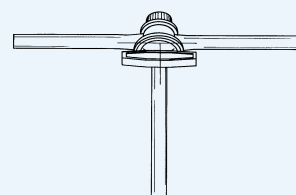
Stopcocks, three-way, acc. to Czako, acc. to DIN 12563, with ST-PTFE-plug, with capillary side arms, with screw-thread retaining nut (DGBM), made of borosilicate glass

Robinets en verre en Té à 3 voies, type Czako et clé en PTFE interchangeable. Branches à tube capillaire et système de fixation à vis, en verre borosilicaté

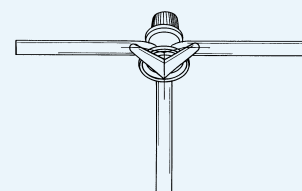
Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.269.001
2.5	18.8	9	100	0.269.002



0.265.***



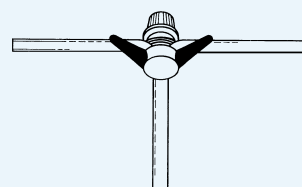
0.266.***



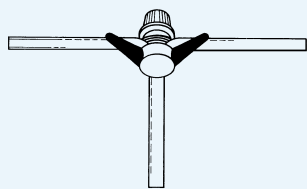
0.268.***



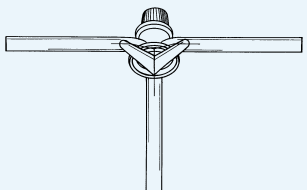
0.268.1**



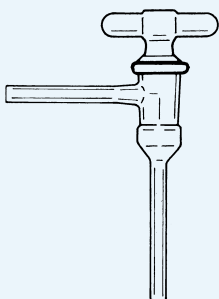
0.269.***



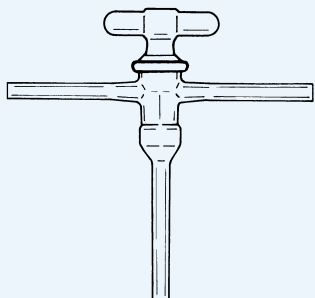
0.269.***
0.269.1**



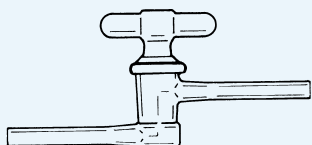
0.269.2**



0.270.***



0.272.***



0.274.***

Stopcocks, three-way, acc. to Czako,
acc. to DIN 12563, with ST-PTFE-plug, with
standard glass tube side arms, with
screw-thread retaining nut (DGBM), made
of borosilicate glass

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.269.101
2.5	18.8	9	100	0.269.102
4	21.5	10	110	0.269.104

*Robinets en verre en Té à 3 voies, type Czako et
clé en PTFE interchangeable, avec branches à
tube en verre standard et système de fixation à vis,
en verre borosilicaté*

Stopcocks, three-way, acc. to Czako,
acc. to DIN 12563, with hollow plug, with
standard glass tube side arms, with
screw-thread retaining nut (DGBM), made
of borosilicate glass

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
1.6	14.5	8	100	0.269.201
2.5	18.8	9	100	0.269.202
4	21.5	10	110	0.269.204

*Robinets en verre en Té à 3 voies, type Czako et
clé en verre creux interchangeable, avec branches
à tube en verre standard et système de fixation à
vis, en verre borosilicaté*

Stopcocks, acc. to Schiff, L-shape,
acc. to DIN 12545, with hollow ST-plug,
high vacuum, made of borosilicate glass

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
2.5	14.5	9	100	0.270.002
4	18.8	10	110	0.270.004
6.3	21.5	13	120	0.270.006
8 *	24	15	120	0.270.008
10	29.2	18	120	0.270.010
12 **	34.5	20	120	0.270.012

*Robinets en forme de L, selon Schiff, à clé en
verre creux interchangeable, pour vide poussé, en
verre borosilicaté*

* acc. to DIN 12557
** without DIN / *ne répond pas à la norme DIN*

Stopcocks, acc. to Schiff, T-shape,
acc. to DIN 12545, with hollow ST-plug,
high vacuum, made of borosilicate glass

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
2.5	14.5	9	100	0.272.002
4	18.8	10	110	0.272.004
6.3	21.5	13	120	0.272.006
8 *	24	15	120	0.272.008
10	29.2	18	120	0.272.010
12 **	34.5	20	120	0.272.012

*Robinets en forme de Té, selon Schiff, à clé en
verre creux interchangeable, pour vide poussé, en
verre borosilicaté*

* acc. to DIN 12557
** without DIN / *ne répond pas à la norme DIN*

Stopcocks, acc. to Schiff,
acc. to DIN 12545, with hollow ST-plug,
high vacuum, made of borosilicate glass

Bore of plug Voie de la clé mm	ST RIN	Side arms Ø Branche cap. Ø mm	Side arms length Long. de branche mm	Order No. N° de code
2.5	14.5	9	100	0.274.002
4	18.8	10	110	0.274.004
6.3	21.5	13	120	0.274.006
8 *	24	15	120	0.274.008
10	29.2	18	120	0.274.010
12 **	34.5	20	120	0.274.012

*Robinets selon Schiff à clé en verre creux
interchangeable, pour vide poussé, en verre
borosilicaté*

* acc. to DIN 12557
** without DIN / *ne répond pas à la norme DIN*