

REACTORS & ACCESSORIES

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Flat Flange Reactors & Filter Systems

*Clicking on the desired chapter will take you to the corresponding page.
The blue arrow takes you back to the table of contents.*

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SCHMIZO Reactor Systems: One Reactor System – Different Vessel Sizes

Features

- Volumes from 0.1 to 20 liters (other volumes on request)
- Available with single jacket and vacuum jacket
- Covers compatible with all reactor sizes
- Temperature range -80°C to $+200^{\circ}\text{C}$ (up to $+250^{\circ}\text{C}$ with special materials)
- Dry running mechanical seal (optionally with ceramic ball bearing for aggressive media). Vacuum proof 1mbar
- Innovative zero dead space bottom discharge valve

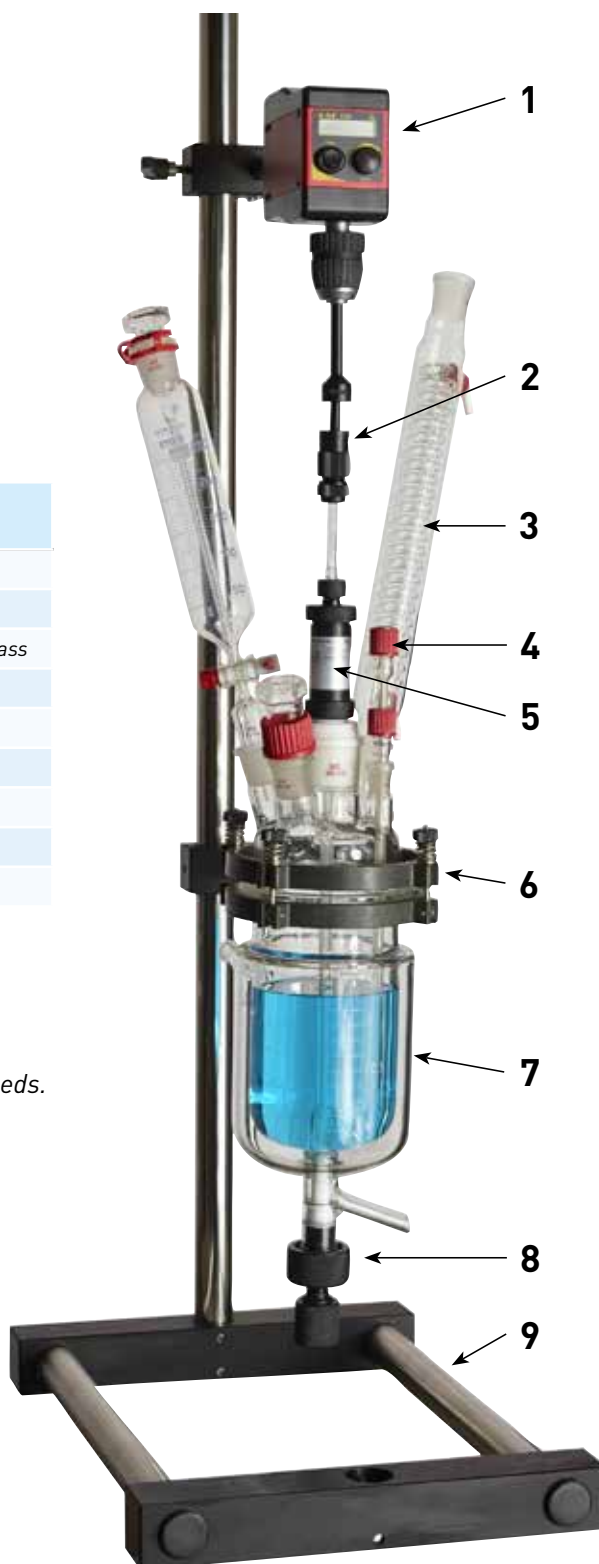
Main Components of Opposite Reactor System:

No.	Article No.	Article	Page
1	23.658.10	Stirrer motor CAT R20	55
2	23.656.45	BOLA globe stirrer coupling	54
3	21.275.30	Condenser, reflux, 300 mm *	Laboratory glass
4	40.430.55	Temperature probe Pt-100	59
5	23.623.24	Mechanical seal	53
6	12.344.37	Reactor holder type SCHMIZO	33
7	17.110.81	Reactor jacketed 1000 ml	16
8	17.940.10	Bottom discharge valve 10 mm	35
9	50.000.10	Laboratory rack **	63

* Find all additional accessories as condensers, coolers etc. in our Laboratory Glassware catalogue.

** This kind of rack is only available with oblique foot.

We will be pleased to make you an offer that corresponds to your needs.

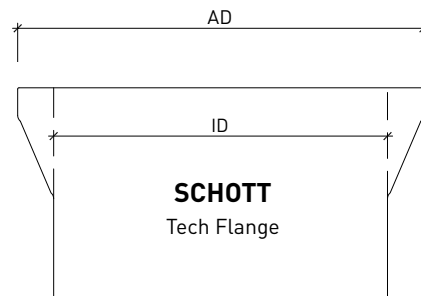
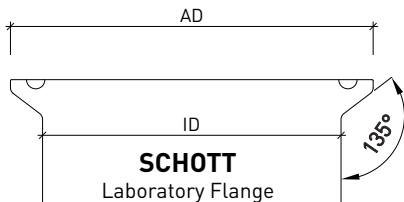
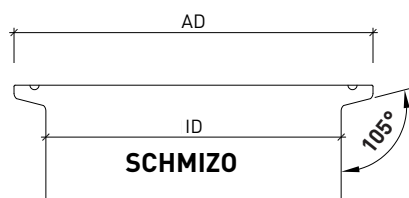


17.521.81



17.500.81

Flat Flanges



SCHMIZO Flat Flange

DN	ID mm	AD mm
60	68	98
100	105	137
120	120	150
150	150	184

SCHOTT Laboratory Flange

DN	ID mm	AD mm
60	59	100
100	96	138
120	118	158
150	141	184
200	199	242

SCHOTT Tech Flange

DN	ID mm	AD mm
200	200	242
300	300	340

Tolerances by analogy to DURAN glass tubes.

DN = nominal width, ID = inner diameter, AD = outer diameter

Tempering Ports

AD = outer diameter, ID = inner diameter



Flat Flange / KF3

DN	ID mm	AD mm
15	15	28.6
25	25	42.2
40	40	57.4
50	50	70

Spherical Joints (KS)

KS	DN mm	AD mm
19/9	9	19
29/15	15	29

Other sizes by request

Screwthread Tube

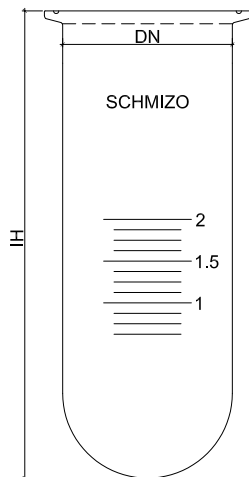
Type	ID mm	AD mm
GL14	9	12
GL18	12.4	16
GL25	18.4	22
SVL15	12.4	16
SVL22	18.4	22

Other sizes by request

On request also available with hose connections (AD 6 - 12 mm). All other kinds of flanges or connection systems by request.

Round Bottom Vessel, Cylindrical Shape

Reaction vessel, cylindrical shape, round bottom, flat flange SCHMIZO with a groove



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Cylindrical Shape

The inner diameter is equal to the vessel opening.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
16.100.55	100	60	60	69	-	
16.100.63	200	60	105	69	-	
16.100.65	250	60	120	69	-	
16.100.67	300	60	145	69	-	
16.100.70	350	60	160	69	-	
16.100.73	500	60	200	69	-	
16.110.65	250	100	85	105	-	
16.110.73	500	100	135	105	-	
16.110.79	750	100	175	105	-	
16.110.81	1000	100	205	105	-	
16.110.85	1500	100	255	105	-	
16.110.87	2000	100	315	105	-	
16.120.73	500	120	120	120	-	
16.120.79	750	120	150	120	-	
16.120.81	1000	120	175	120	-	
16.120.85	1500	120	210	120	-	
16.120.87	2000	120	270	120	-	
16.120.88	2500	120	250	120	-	
16.130.81	1000	150	130	150	-	
16.130.85	1500	150	180	150	-	
16.130.87	2000	150	210	150	-	
16.130.88	2500	150	250	150	-	
16.130.89	3000	150	290	150	-	
16.132.94S	5000	200	260	200	-	
16.132.95S	6000	200	305	200	-	
16.132.96S	10000	200	420	200	-	
16.132.97S	15000	200	590	200	-	
16.132.98S	20000	200	770	200	-	

DN 60

DN 100

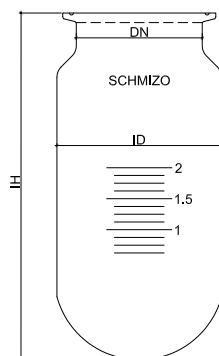
DN 120

DN 150

DN 200

Round Bottom Vessel, Wide Shape

Reaction vessel, wide shape, round bottom, flat flange SCHMIZO with a groove



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Wide Shape

The inner diameter of the vessel is bigger than the vessel opening.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
16.600.73	500	60	120	105	-	
16.600.79	750	60	160	105	-	
16.600.81	1000	60	190	105	-	
16.610.85	1500	100	230	120	-	
16.610.87	2000	100	290	120	-	
16.610.88	2500	100	230	160	-	
16.610.89	3000	100	260	160	-	
16.610.92	4000	100	300	160	-	
16.610.94	5000	100	300	180	-	
16.610.95	6000	100	350	180	-	
16.610.96	10000	100	350	240	-	
16.610.97	15000	100	490	240	-	
16.610.98	20000	100	535	260	-	
16.620.89	3000	120	260	160	-	
16.620.92	4000	120	300	160	-	
16.620.94	5000	120	300	180	-	
16.620.95	6000	120	350	180	-	
16.620.96	10000	120	350	240	-	
16.620.97	15000	120	490	240	-	
16.620.98	20000	120	535	260	-	
16.630.89	3000	150	260	160	-	
16.630.92	4000	150	300	160	-	
16.630.94	5000	150	310	180	-	
16.630.95	6000	150	350	180	-	
16.630.96	10000	150	350	240	-	
16.630.97	15000	150	490	240	-	
16.630.98	20000	150	535	260	-	
16.631.94S	5000	200	310	200	-	
16.631.95S	6000	200	345	200	-	
16.631.96S	10000	200	390	240	-	
16.631.97S	15000	200	460	260	-	
16.631.98S	20000	200	550	260	-	

DN 60

DN 100

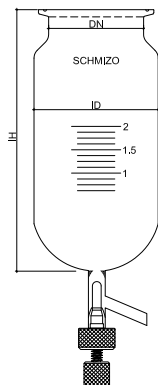
DN 120

DN 150

DN 200

Reaction Vessel with Bottom Outlet

Reaction vessel, wide shape, round bottom, with bottom outlet opening for discharge valve type SCHMIZO, flat flange SCHMIZO with groove



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Discharge Valve SCHMIZO

not included; see page 36.

Side Arm

On request with hose nozzle, spherical joint or GL/SVL thread on the pipe available.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore
16.602.74	500	60	120	105	10mm
16.602.79	750	60	160	105	10mm
16.602.81	1000	60	190	105	10mm

DN 60 / 10 mm

16.612.85	1500	100	230	120	10mm
16.612.87	2000	100	290	120	10mm
16.612.88	2500	100	230	160	10mm
16.612.89	3000	100	260	160	10mm
16.612.92	4000	100	300	160	10mm
16.612.94	5000	100	300	180	10mm
16.612.95	6000	100	350	180	10mm
16.612.96	10000	100	350	240	16mm
16.612.97	15000	100	490	240	16mm
16.612.98	20000	100	535	260	16mm

DN 100 / 10 mm

DN 100 / 16 mm

16.622.89	3000	120	260	160	10mm
16.622.92	4000	120	300	160	10mm
16.622.94	5000	120	300	180	10mm
16.622.95	6000	120	350	180	10mm
16.622.96	10000	120	350	240	16mm
16.622.97	15000	120	490	240	16mm
16.622.98	20000	120	535	260	16mm

DN 120 / 10 mm

DN 120 / 16 mm

16.632.89	3000	150	230	160	10mm
16.632.92	4000	150	300	160	10mm
16.632.94	5000	150	300	180	10mm
16.632.95	6000	150	350	180	10mm
16.632.96	10000	150	350	240	16mm
16.632.97	15000	150	490	240	20mm
16.632.98	20000	150	535	260	20mm

DN 150 / 10 mm

DN 150 / 16 mm

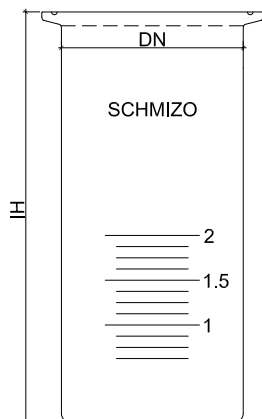
DN 150 / 20 mm

16.633.94S	5000	200	310	200	20mm
16.633.95S	6000	200	345	200	20mm
16.633.96S	10000	200	390	240	20mm
16.633.97S	15000	200	460	260	20mm
16.633.98S	20000	200	550	260	20mm

DN 200 / 20 mm

Flat Bottom Vessel, Cylindrical Shape

Reaction vessel, cylindrical shape, flat bottom, flat flange SCHMIZO with a groove



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Cylindrical Shape

The inner diameter is equal to the vessel opening.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
16.200.55	100	60	45	69	-	
16.200.63	200	60	90	69	-	
16.200.65	250	60	105	69	-	
16.200.67	300	60	130	69	-	
16.200.70	350	60	145	69	-	
16.200.73	500	60	195	69	-	
16.200.79	750	60	290	69	-	
16.200.81	1000	60	390	69	-	
16.210.65	250	100	60	105	-	
16.210.73	500	100	110	105	-	
16.210.79	750	100	150	105	-	
16.210.81	1000	100	180	105	-	
16.210.85	1500	100	230	105	-	
16.210.87	2000	100	290	105	-	
16.220.73	500	120	90	120	-	
16.220.79	750	120	120	120	-	
16.220.81	1000	120	145	120	-	
16.220.85	1500	120	190	120	-	
16.220.87	2000	120	240	120	-	
16.220.88	2500	120	250	120	-	
16.230.81	1000	150	90	150	-	
16.230.85	1500	150	140	150	-	
16.230.87	2000	150	170	150	-	
16.230.88	2500	150	210	150	-	
16.230.89	3000	150	250	150	-	
16.232.94S	5000	200	240	200	-	
16.232.95S	6000	200	285	200	-	
16.232.96S	10000	200	400	200	-	
16.232.97S	15000	200	570	200	-	
16.232.98S	20000	200	750	200	-	

DN 60

DN 100

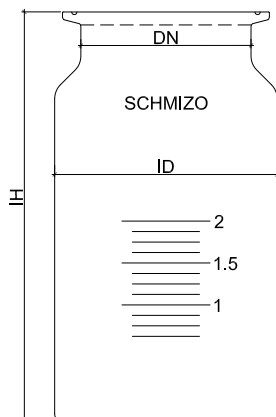
DN 120

DN 150

DN 200

Flat Bottom Vessel, Wide Shape

Reaction vessel, wide shape, flat bottom, flat flange SCHMIZO with a groove



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Wide Shape

The inner diameter of the vessel is bigger than the vessel opening.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
16.700.73	500	60	120	105	-	
16.700.79	750	60	160	105	-	
16.700.81	1000	60	190	105	-	
16.710.85	1500	100	230	120	-	
16.710.87	2000	100	290	120	-	
16.710.88	2500	100	230	160	-	
16.710.89	3000	100	260	160	-	
16.710.92	4000	100	300	160	-	
16.710.94	5000	100	323	180	-	
16.710.96	10000	100	380	220	-	
16.710.97	15000	100	410	260	-	
16.710.98	20000	100	500	280	-	
16.720.89	3000	120	260	160	-	
16.720.92	4000	120	300	160	-	
16.720.94	5000	120	323	180	-	
16.720.96	10000	120	380	220	-	
16.720.97	15000	120	410	260	-	
16.720.98	20000	120	500	280	-	
16.730.89	3000	150	260	160	-	
16.730.92	4000	150	300	160	-	
16.730.94	5000	150	323	180	-	
16.730.96	10000	150	380	220	-	
16.730.97	15000	150	410	260	-	
16.730.98	20000	150	500	280	-	
16.732.96S	10000	200	380	220	-	
16.732.97S	15000	200	410	260	-	
16.732.98S	20000	200	500	280	-	

DN 60

DN 100

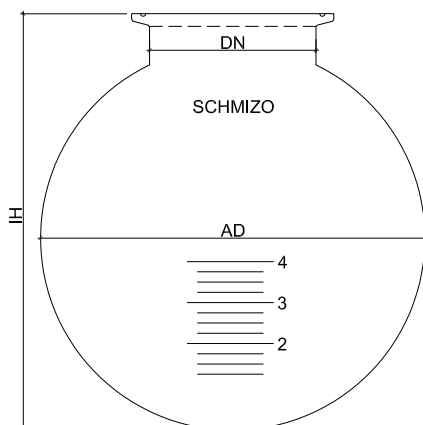
DN 120

DN 150

DN 200

Round Bottom Flask

Reaction vessel, round bottom flask, flat flange SCHMIZO with a groove



SCHMIZO Flat Flange

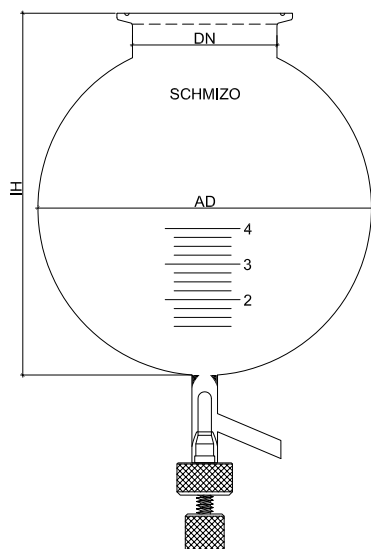
DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
16.300.73	500	60	150	105	-	DN 60
16.300.81	1000	60	180	131	-	
16.300.87	2000	60	210	166	-	
16.310.81	1000	100	145	131	-	DN 100
16.310.87	2000	100	220	166	-	
16.310.89	3000	100	240	185	-	
16.310.92	4000	100	260	206	-	
16.310.94	5000	100	275	223	-	
16.310.95	6000	100	290	236	-	
16.310.96	10000	100	315	279	-	
16.320.87	2000	120	220	166	-	DN 120
16.320.89	3000	120	240	185	-	
16.320.92	4000	120	260	206	-	
16.320.94	5000	120	275	223	-	
16.320.95	6000	120	290	236	-	
16.320.96	10000	120	315	279	-	
16.330.89	3000	150	240	185	-	DN 150
16.330.92	4000	150	260	206	-	
16.330.94	5000	150	275	223	-	
16.330.95	6000	150	290	236	-	
16.330.96	10000	150	315	279	-	
16.340.96S	10000	200	360	279	-	DN 200
16.340.98S	20000	200	420	345	-	

Round Bottom Flask with Bottom Outlet

Reaction vessel, round bottom flask, with bottom outlet opening for discharge valve type SCHMIZO, flat flange SCHMIZO with groove



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Discharge-Valve SCHMIZO

not included; see page 36.

Side Arm

On request with hose nozzle, spherical joint or GL/SVL thread on the pipe available.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
16.302.74	500	60	150	105	10mm	
16.302.81	1000	60	180	131	10mm	
16.302.87	2000	60	210	166	10mm	
16.312.81	1000	100	190	131	10mm	
16.312.87	2000	100	220	166	10mm	
16.312.89	3000	100	240	185	10mm	
16.312.92	4000	100	260	206	10mm	
16.312.94	5000	100	275	223	10mm	
16.312.95	6000	100	290	236	10mm	
16.312.96	10000	100	340	279	16mm	
16.322.87	2000	120	220	166	10mm	
16.322.89	3000	120	240	185	10mm	
16.322.92	4000	120	260	206	10mm	
16.322.94	5000	120	275	223	10mm	
16.322.95	6000	120	290	236	10mm	
16.322.96	10000	120	340	279	16mm	
16.332.89	3000	150	240	185	10mm	
16.332.92	4000	150	260	206	10mm	
16.332.94	5000	150	275	223	10mm	
16.332.95	6000	150	290	236	10mm	
16.332.96	10000	150	340	279	16mm	
16.342.96S	10000	200	360	279	20mm	
16.342.98S	20000	200	420	345	20mm	

DN 60 / 10 mm

DN 100 / 10 mm

DN 100 / 16 mm

DN 120 / 16 mm

DN 120 / 16 mm

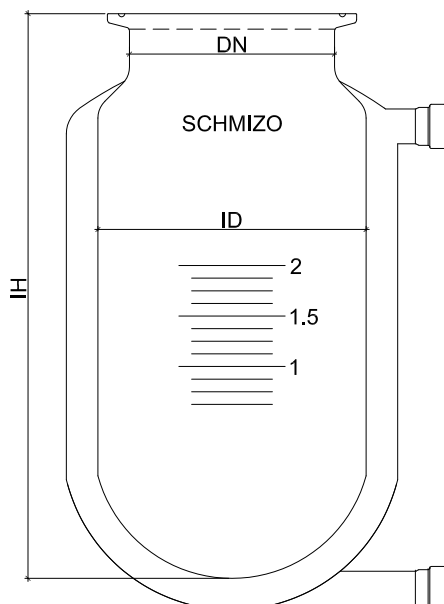
DN 150 / 10 mm

DN 150 / 16 mm

DN 200 / 20 mm

Jacketed Reaction Vessel with Round Bottom

Reaction vessel, jacketed, flat flange SCHMIZO with a groove, round bottom, inlet/outlet flat flange DN 15



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Inlet/Outlet

Flat flange DN 15

On request also available with spherical joints, GL or SVL threads.

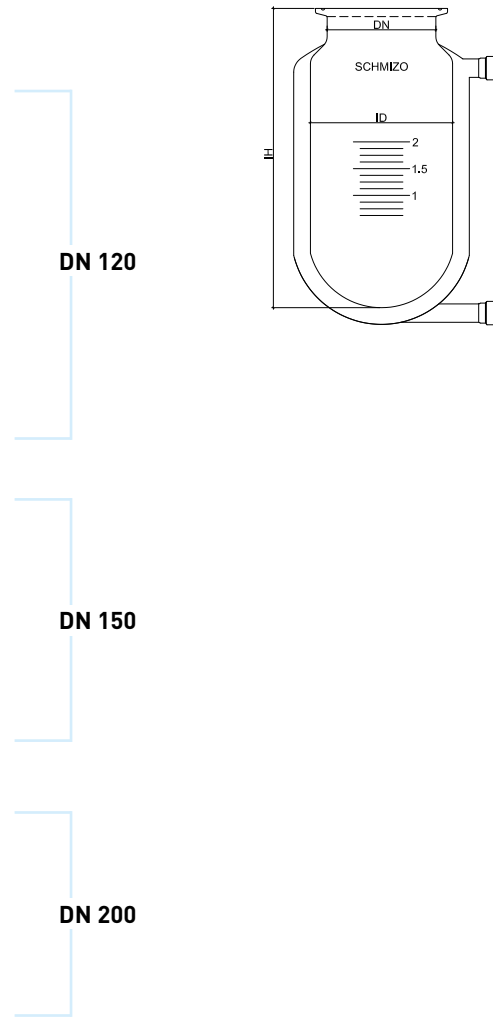
Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
17.300.55	100	60	95	65	-	
17.300.65	250	60	155	65	-	
17.300.70	350	60	195	65	-	
17.300.73	500	60	250	65	-	
17.300.74	500	60	190	85	-	
17.300.79	750	60	185	105	-	
17.300.81	1000	60	210	105	-	
17.310.73	500	100	150	105	-	
17.310.79	750	100	190	105	-	
17.310.81	1000	100	210	105	-	
17.310.85	1500	100	230	120	-	
17.310.87	2000	100	205	160	-	
17.310.88	2500	100	230	160	-	
17.310.89	3000	100	260	160	-	
17.310.92	4000	100	300	160	-	
17.310.94	5000	100	300	180	-	
17.310.95	6000	100	350	180	-	
17.310.96	10000	100	350	240	-	
17.310.97	15000	100	490	240	-	
17.310.98	20000	100	535	260	-	

DN 60

DN 100

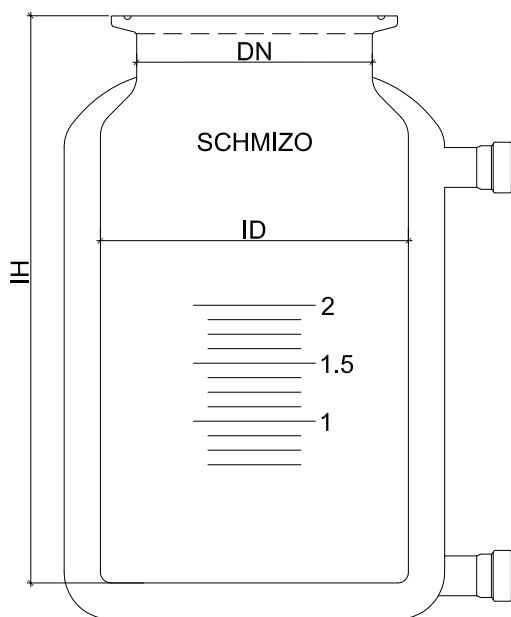
Jacketed Reaction Vessel with Round Bottom (Continuation)

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
17.320.81	1000	120	180	120	-	
17.320.85	1500	120	230	120	-	
17.320.87	2000	120	290	120	-	
17.320.88	2500	120	230	160	-	
17.320.89	3000	120	260	160	-	
17.320.92	4000	120	300	160	-	
17.320.94	5000	120	300	180	-	
17.320.95	6000	120	350	180	-	
17.320.96	10000	120	350	240	-	
17.320.97	15000	120	490	240	-	
17.320.98	20000	120	535	260	-	
17.330.88	2500	150	230	160	-	
17.330.89	3000	150	260	160	-	
17.330.92	4000	150	300	160	-	
17.330.94	5000	150	310	180	-	
17.330.95	6000	150	350	180	-	
17.330.96	10000	150	350	240	-	
17.330.97	15000	150	490	240	-	
17.330.98	20000	150	535	260	-	
17.331.94S	5000	200	310	200	-	
17.331.95S	6000	200	345	200	-	
17.331.96S	10000	200	470	200	-	
17.332.96S	10000	200	390	240	-	
17.332.97S	15000	200	460	260	-	
17.332.98S	20000	200	550	260	-	



Jacketed Reaction Vessel with Flat Bottom

Reaction vessel, jacketed, flat flange SCHMIZO with a groove, flat bottom, inlet/outlet flat flange DN 15



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Inlet/Outlet

Flat flange DN 15

On request also available with spherical joints, GL or SVL threads.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
17.200.55	100	60	85	65	-	
17.200.65	250	60	145	65	-	
17.200.70	350	60	185	65	-	
17.200.73	500	60	240	65	-	
17.200.74	500	60	185	85	-	
17.200.79	750	60	165	105	-	
17.200.81	1000	60	190	105	-	
17.210.73	500	100	125	105	-	
17.210.79	750	100	165	105	-	
17.210.81	1000	100	200	105	-	
17.210.85	1500	100	230	120	-	
17.210.87	2000	100	175	160	-	
17.210.88	2500	100	205	160	-	
17.210.89	3000	100	230	160	-	
17.210.92	4000	100	290	160	-	
17.210.94	5000	100	285	180	-	
17.210.95	6000	100	335	200	-	
17.210.96	10000	100	380	220	-	
17.210.97	15000	100	410	260	-	
17.210.98	20000	100	500	280	-	

DN 60

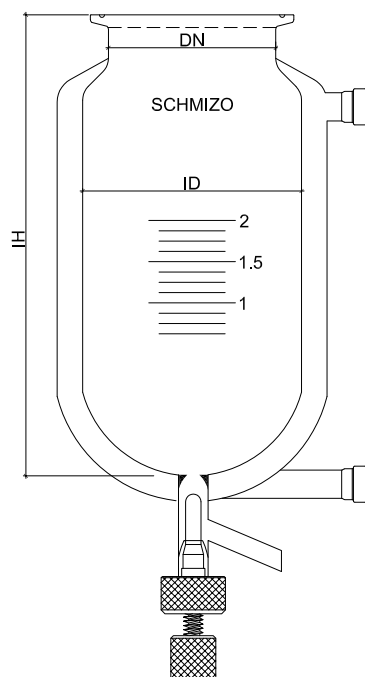
DN 100

Jacketed Reaction Vessel with Flat Bottom (Continuation)

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
17.220.81	1000	120	170	120	-	
17.220.85	1500	120	220	120	-	
17.220.87	2000	120	275	120	-	
17.220.88	2500	120	205	160	-	
17.220.89	3000	120	230	160	-	
17.220.92	4000	120	290	160	-	
17.220.94	5000	120	285	180	-	
17.220.95	6000	120	335	200	-	
17.220.96	10000	120	380	220	-	
17.220.97	15000	120	410	260	-	
17.220.98	20000	120	500	280	-	
DN 120						
17.230.88	2500	150	200	160	-	
17.230.89	3000	150	230	160	-	
17.230.92	4000	150	290	160	-	
17.230.94	5000	150	290	180	-	
17.230.95	6000	150	335	200	-	
17.230.96	10000	150	380	220	-	
17.230.97	15000	150	410	260	-	
17.230.98	20000	150	500	280	-	
DN 150						
17.231.94S	5000	200	260	180	-	
17.231.95S	6000	200	335	200	-	
17.231.96S	10000	200	450	220	-	
DN 200						
17.232.96S	10000	200	380	240	-	
17.232.97S	15000	200	410	260	-	
17.232.98S	20000	200	500	280	-	

Jacketed Reaction Vessel with Bottom Outlet

Reaction vessel, jacketed, round bottom, with bottom outlet opening for discharge valve type SCHMIZO, flat flange SCHMIZO with groove, inlet/outlet flat flange DN 15



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with ~~inlet/outlet~~ flange.

Flat flange DN 15

On request also available with spherical joints, GL or SVL threads

Discharge-Valve SCHMIZO

not included; see page 36.

Side Arm

On request with hose nozzle, spherical joint or GL/SVL thread on the pipe available.

Article No.	Volume ml	DN	IH mm	ID mm	Valve bore	
17.105.55	100	60	95	65	10mm	
17.105.65	250	60	155	65	10mm	
17.105.70	350	60	195	65	10mm	
17.105.73	500	60	250	65	10mm	
17.105.74	500	60	190	85	10mm	
17.105.79	750	60	185	105	10mm	
17.105.81	1'000	60	210	105	10mm	
17.110.73	500	100	150	105	10mm	
17.110.79	750	100	190	105	10mm	
17.110.81	1'000	100	210	105	10mm	
17.110.85	1'500	100	210	120	10mm	
17.110.86	2'000	100	280	120	10mm	
17.110.87	2'000	100	205	160	10mm	
17.110.88	2'500	100	230	160	10mm	
17.110.89	3'000	100	260	160	10mm	
17.110.92	4'000	100	290	160	10mm	
17.110.94	5'000	100	290	180	10mm	
17.110.95	6'000	100	335	180	10mm	
17.110.96	10'000	100	340	240	16mm	
17.110.97	15'000	100	450	240	16mm	
17.110.98	20'000	100	520	260	16mm	

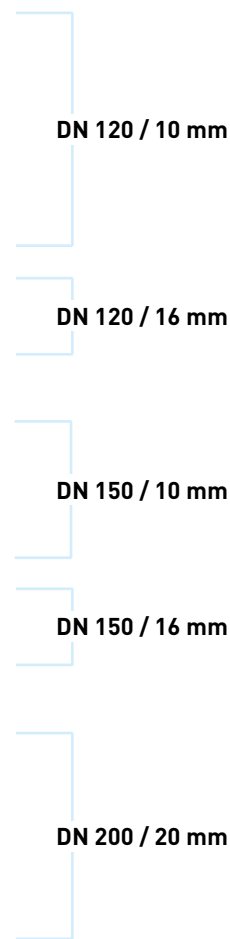
DN 60 / 10 mm

DN 100 / 10 mm

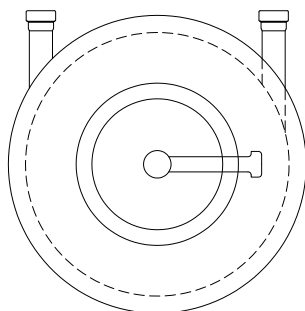
DN 100 / 16 mm

Jacketed Reaction Vessel with Bottom Outlet (Continuation)

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
17.120.81	1'000	120	180	120	10mm	
17.120.85	1'500	120	220	120	10mm	
17.120.87	2'000	120	280	120	10mm	
17.120.88	2'500	120	230	160	10mm	
17.120.89	3'000	120	260	160	10mm	
17.120.92	4'000	120	290	160	10mm	
17.120.94	5'000	120	310	180	10mm	
17.120.95	6'000	120	335	180	10mm	
17.120.96	10'000	120	350	240	16mm	
17.120.97	15'000	120	450	240	16mm	
17.120.98	20'000	120	520	260	16mm	
17.130.88	2'500	150	230	160	10mm	
17.130.89	3'000	150	260	160	10mm	
17.130.92	4'000	150	290	160	10mm	
17.130.94	5'000	150	310	180	10mm	
17.130.95	6'000	150	335	180	10mm	
17.130.96	10'000	150	350	240	16mm	
17.130.97	15'000	150	450	240	16mm	
17.130.98	20'000	150	520	260	16mm	
17.132.94S	5'000	200	260	200	20mm	
17.132.95S	6'000	200	360	200	20mm	
17.132.96S	10'000	200	480	200	20mm	
17.133.96S	10'000	200	360	240	20mm	
17.133.97S	15'000	200	460	260	20mm	
17.133.98S	20'000	200	550	260	20mm	



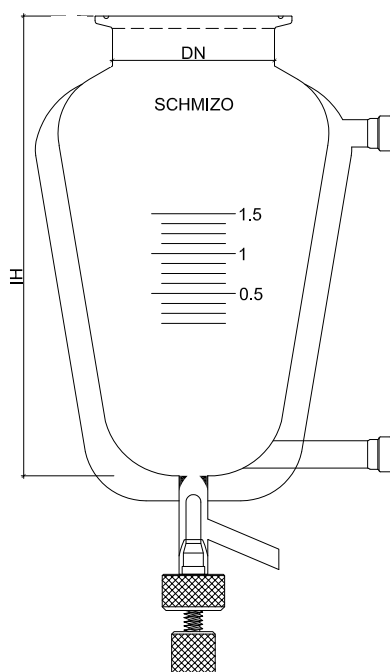
On request all articles are also available with valve bore 20 mm.



Top view: Inlet/outlet backwards, side arm rightwards. On request we can customize this arrangement.

Jacketed Reaction Vessel, Conical Shape, with Bottom Outlet

Reaction vessel, jacketed, conical shape, with bottom outlet opening for discharge valve type SCHMIZO, flat flange SCHMIZO with groove, inlet/outlet flat flange DN 15



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Inlet/Outlet

Flat flange DN 15

On request also available with spherical joints, GL or SVL threads

Discharge-Valve SCHMIZO

not included; see page 36.

Side Arm

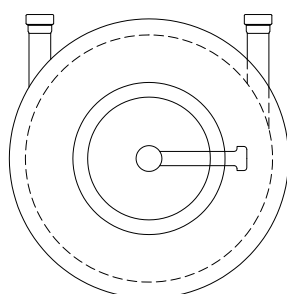
On request with hose nozzle, spherical joint or GL/SVL thread on the pipe available.

Article No.	Volume ml	DN	IH mm	ID mm	Valve bore	
17.500.73	500	100	285		10mm	
17.500.81	1000	100	290		10mm	
17.501.81	1000	120	340		10mm	
17.501.87	2000	120	340		10mm	
17.502.87	2000	150	375		10mm	
17.502.89	3000	150	520		10mm	

DN 100 / 10 mm

DN 120 / 10 mm

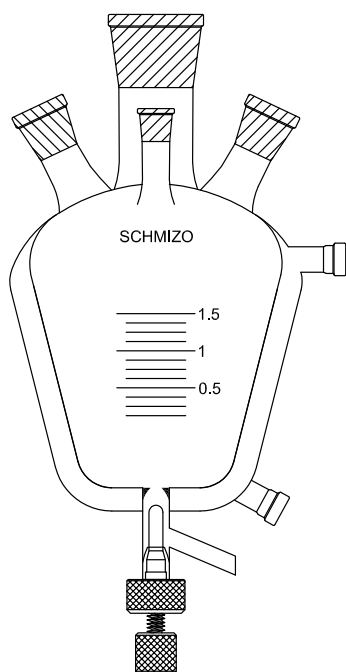
DN 150 / 10 mm



Top view: Inlet/outlet backwards, side arm rightwards. On request we can customize this arrangement.

Jacketed Sulphonating Flask with Bottom Outlet

Jacketed sulphonating flask, with bottom outlet opening for discharge valve type SCHMIZO, inlet/outlet flat flange DN 15



Inlet/Outlet

Flat flange DN 15

On request also available with spherical joints, GL or SVL threads.

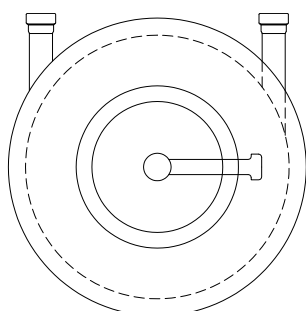
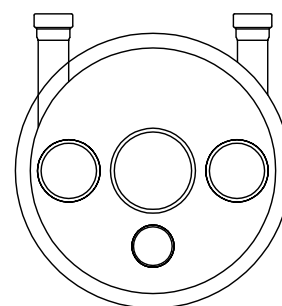
Discharge-Valve SCHMIZO

not included; see page 36.

Side Arm

On request with hose nozzle, spherical joint or GL/SVL thread on the pipe available.

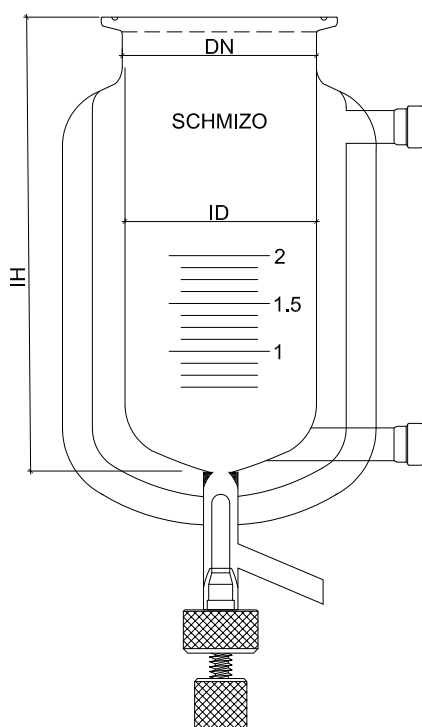
Article No.	Volume ml	Central NS	Lateral NS	Lateral NS	Lateral NS	
17.510.72	350	45	29	14	-	
17.510.73	500	45	29	29	-	
17.510.79	750	45	29	29	-	
17.510.85	1500	45	29	29	14	
17.510.89	2500	45	29	29	14	



Top view: Inlet/outlet backwards, side arm rightwards. On request we can customize this arrangement.

Vacuum Jacketed Reaction Vessel with Bottom Outlet

Vacuum-triple-walled reaction vessel, round bottom, with bottom outlet opening for discharge valve type SCHMIZO, flat flange SCHMIZO with groove, inlet/outlet flat flange DN 15



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Inlet/Outlet

Flat flange DN 15

On request also available with spherical joints, GL or SVL threads

Discharge-Valve SCHMIZO

not included; see page 36.

Side Arm

On request with hose nozzle, spherical joint or GL/SVL thread on the pipe available.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
17.520.73	500	60	250	65	10mm	
17.521.73	500	100	190	105	10mm	
17.521.81	1000	100	250	105	10mm	
17.521.87	2000	100	265	150	10mm	
17.521.89	3000	100	320	150	10mm	
17.521.92	4000	100	380	150	10mm	
17.522.81	1000	120	180	120	10mm	
17.522.87	2000	120	290	120	10mm	
17.522.89	3000	120	330	150	10mm	
17.522.92	4000	120	390	150	10mm	
17.522.94	5000	120	360	180	10mm	
17.522.95	6000	120	400	180	10mm	
17.523.87	2000	150	240	150	10mm	
17.523.89	3000	150	285	150	10mm	
17.523.92	4000	150	330	150	10mm	
17.523.94	5000	150	350	180	10mm	
17.523.95	6000	150	370	180	10mm	

— DN 60 / 10 mm

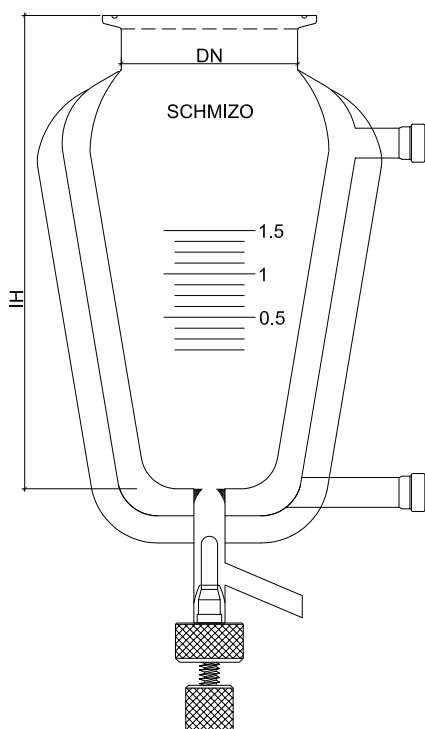
DN 100 / 10 mm

DN 120 / 10 mm

DN 150 / 10 mm

Vacuum Jacketed Reaction Vessel, Conical Shape, with Bottom Outlet

Vacuum-triple-walled reaction vessel, conical shape, with bottom outlet opening for discharge valve type SCHMIZO, flat flange SCHMIZO with groove, inlet/outlet flat flange DN 15



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Inlet/Outlet

Flat flange DN 15

On request also available with spherical joints, GL or SVL threads

Discharge-Valve SCHMIZO

not included; see page 36.

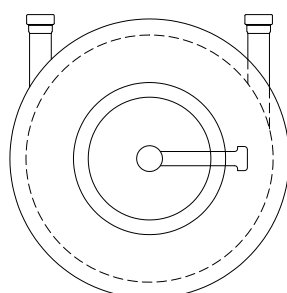
Side Arm

On request with hose nozzle, spherical joint or GL/SVL thread on the pipe available.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
17.530.73	500	100	285		10mm	
17.530.81	1000	100	290		10mm	
17.531.81	1000	100	340		10mm	
17.531.87	2000	100	340		10mm	
17.532.87	2000	120	375		10mm	
17.532.89	3000	120	520		10mm	

DN 100 / 10 mm

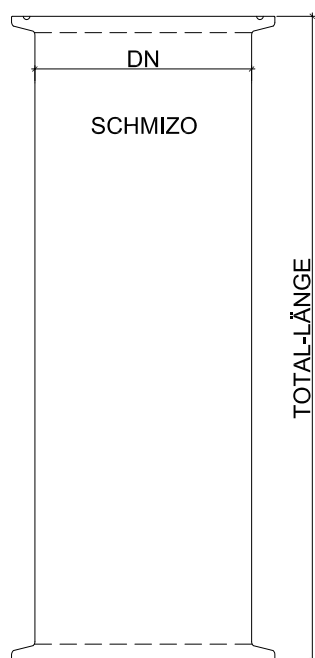
DN 120 / 10 mm



Top view: Inlet/outlet backwards, side arm rightwards. On request we can customize this arrangement.

Column Extender

with two flat flanges type SCHMIZO: 1x with groove, 1x without groove



SCHMIZO Flat Flange

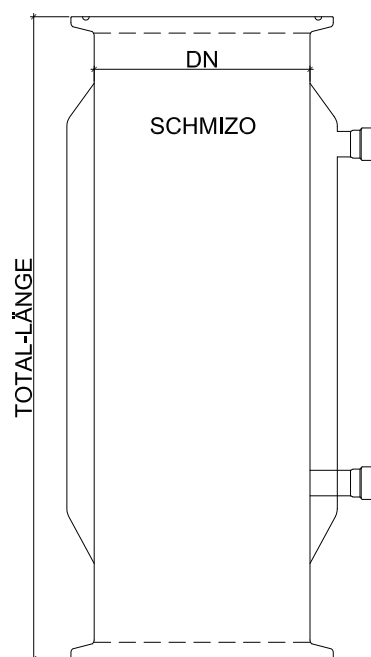
DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Article No.	Length mm	DN	
17.540.55	250	60	DN 60
17.540.65	400	60	
17.542.63	300	100	DN 100
17.542.67	500	100	
17.544.63	300	120	DN 120
17.544.65	400	120	
17.544.67	500	120	
17.546.65	400	150	DN 150
17.546.67	500	150	
17.548.65S	400	200	DN 200
17.548.67S	500	200	
17.548.68S	600	200	
17.548.69S	750	200	

Column Extender Jacketed

with two flat flanges type SCHMIZO: 1x with groove, 1x without groove;
inlet/outlet flat flange DN 15



SCHMIZO Flat Flange

DN = Diameter nominal

All reaction vessels are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number. Size DN 200 is only available with SCHOTT-flange.

Inlet/Outlet

Flat flange DN 15

On request also available with spherical joints, GL or SVL threads.

Article No.	Length mm	DN	
17.550.55	250	60	
17.550.65	400	60	
17.552.63	300	100	
17.552.67	500	100	
17.554.63	300	120	
17.554.65	400	120	
17.554.67	500	120	
17.556.65	400	150	
17.556.67	500	150	
17.558.65S	400	200	
17.558.67S	500	200	
17.558.68S	600	200	

DN 60

DN 100

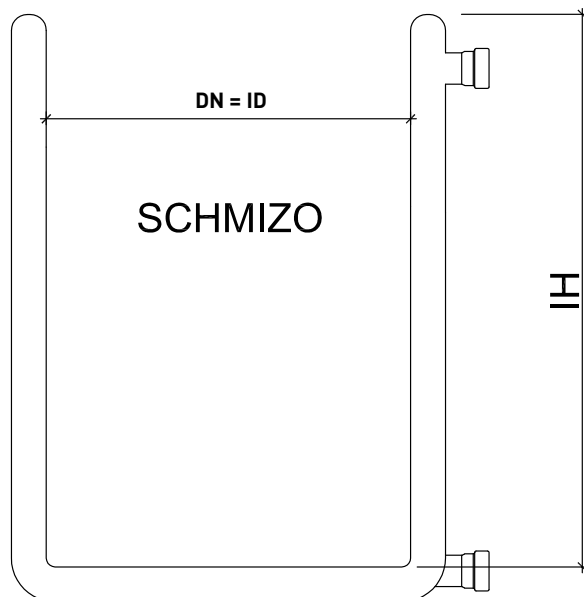
DN 120

DN 150

DN 200

Jacketed Beaker

Jacketed beaker with flat bottom, inlet/outlet flat flange DN 15



Inlet/Outlet

Flat flange DN 15

On request also available with spherical joints, GL or SVL threads.

Article No.	Volume ml	DN	IH mm	ID mm	Valve Bore	
17.515.55	100	60	60	60	-	
17.515.65	250	60	120	60	-	
17.515.73	500	60	210	60	-	
17.516.81	1000	100	170	100	-	
17.516.87	2000	100	290	100	-	
17.517.87	2000	120	205	120	-	
17.517.88	3000	120	295	120	-	
17.518.89	3000	150	205	150	-	
17.518.92	4000	150	260	150	-	
17.518.94	5000	150	365	150	-	
17.518.95	6000	150	390	150	-	

DN / ID 60

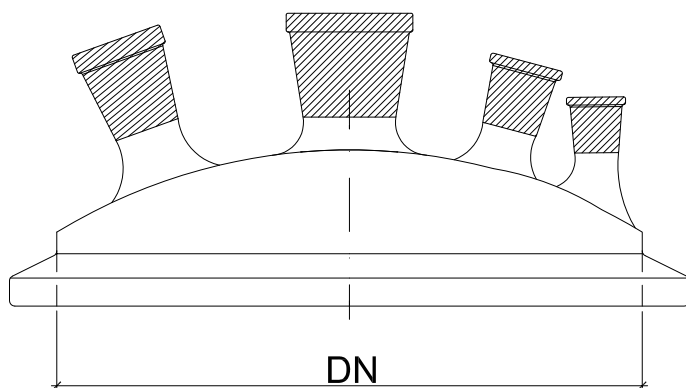
DN / ID 100

DN / ID 120

DN / ID 150

Flat Flange Lid DN 60

Flat Flange SCHMIZO without a groove



SCHMIZO Flat Flange

DN = Diameter nominal

All lids are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number.

Article No.	DN	Central NS	Lateral Vertical NS	Lateral Angled NS	Lateral Angled NS	Lateral Angled NS	
17.500.00	60						
17.501.10	60	14					
17.501.25	60	29					
17.501.35	60	45					
17.501.45	60	71					
17.502.10	60	14	14				
17.502.25	60	29	14				
17.502.30	60	29	29				
17.503.20	60	29	14	14			
17.503.25	60	29	14	29			
17.504.20	60	29	14	14	14		
17.504.25	60	29	14	14	29		
17.504.30	60	29	14	29	29		
17.505.50	60	29	14	14	29	14	

Blank Lid

1-Neck

2-Neck

3-Neck

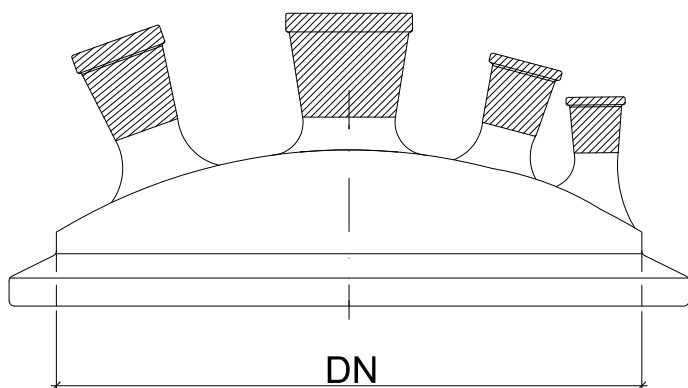
4-Neck

5-Neck

Special designs on request

Flat Flange Lid DN 100

Flat Flange SCHMIZO without a groove



SCHMIZO Flat Flange

DN = Diameter nominal

All lids are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number.

Article No.	DN	Central NS	Lateral Vertical NS	Lateral Angled NS	Lateral Angled NS	Lateral Angled NS	
17.600.00	100						
17.601.10	100	14					
17.601.25	100	29					
17.601.35	100	45					
17.601.45	100	71					
17.602.10	100	14	14				
17.602.25	100	29	14				
17.602.30	100	29	29				
17.602.35	100	45	14				
17.602.40	100	45	29				
17.603.20	100	29	14	14			
17.603.25	100	29	14	29			
17.603.30	100	45	14	14			
17.603.40	100	45	14	29			
17.604.20	100	29	14	14	14		
17.604.25	100	29	14	14	29		
17.604.30	100	29	14	29	29		
17.604.35	100	45	14	14	14		
17.604.45	100	45	14	29	29		
17.605.20	100	29	14	29	29	29	
17.605.25	100	29	14	14	29	29	
17.605.30	100	45	14	29	29	29	
17.605.35	100	45	14	14	29	29	

Blank Lid

1-Neck

2-Neck

3-Neck

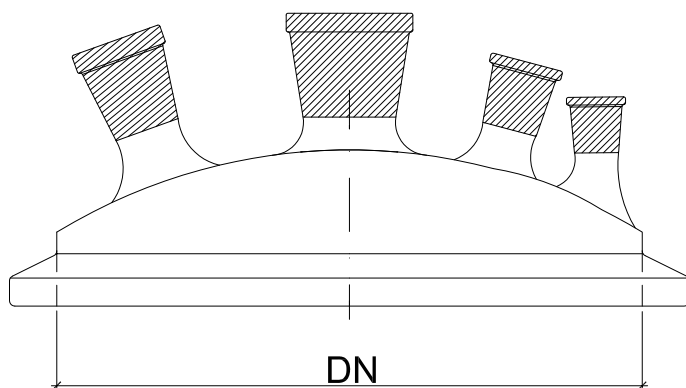
4-Neck

5-Neck

Special designs on request

Flat Flange Lid DN 120

Flat Flange SCHMIZO without a groove



SCHMIZO Flat Flange

DN = Diameter nominal

All lids are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number.

Article No.	DN	Central NS	Lateral Vertical NS	Lateral Angled NS	Lateral Angled NS	Lateral Angled NS	
17.700.00	120						
17.701.10	120	14					
17.701.25	120	29					
17.701.35	120	45					
17.701.45	120	71					
17.702.10	120	14	14				
17.702.25	120	29	14				
17.702.30	120	29	29				
17.702.35	120	45	14				
17.702.40	120	45	29				
17.703.20	120	29	14	14			
17.703.25	120	29	14	29			
17.703.30	120	45	14	14			
17.703.40	120	45	14	29			
17.704.20	120	29	14	14	14		
17.704.25	120	29	14	14	29		
17.704.30	120	29	14	29	29		
17.704.35	120	45	14	14	14		
17.704.45	120	45	14	29	29		
17.705.20	120	29	14	29	29	29	
17.705.25	120	29	14	14	29	29	
17.705.30	120	45	14	29	29	29	
17.705.35	120	45	14	14	29	29	

Blank Lid

1-Neck

2-Neck

3-Neck

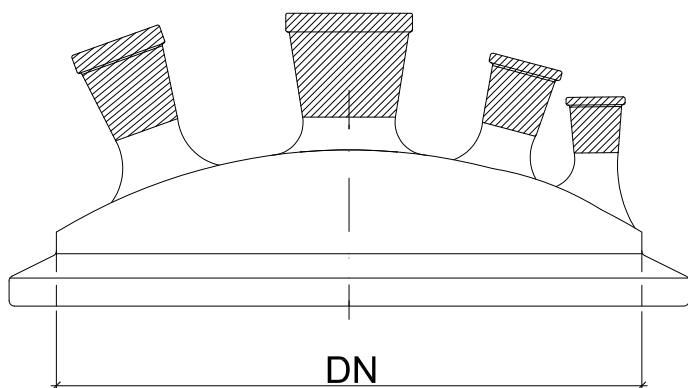
4-Neck

5-Neck

Special designs on request

Flat Flange Lid DN 150

Flat Flange SCHMIZO without a groove



SCHMIZO Flat Flange

DN = Diameter nominal

All lids are also available with „SCHOTT“ flange (DURAN laboratory flange): Please add „S“ at the end of the article number.

Article No.	DN	Central NS	Lateral Vertical NS	Lateral Angled NS	Lateral Angled NS	Lateral Angled NS	
17.800.00	150						
17.801.10	150	14					
17.801.25	150	29					
17.801.35	150	45					
17.801.45	150	71					
17.802.10	150	14	14				
17.802.25	150	29	14				
17.802.30	150	29	29				
17.802.35	150	45	14				
17.802.40	150	45	29				
17.803.20	150	29	14	14			
17.803.25	150	29	14	29			
17.803.30	150	45	14	14			
17.803.40	150	45	14	29			
17.804.20	150	29	14	14	14		
17.804.25	150	29	14	14	29		
17.804.30	150	29	14	29	29		
17.804.35	150	45	14	14	14		
17.804.45	150	45	14	29	29		
17.805.20	150	29	14	29	29	29	
17.805.25	150	29	14	14	29	29	
17.805.30	150	45	14	29	29	29	
17.805.35	150	45	14	14	29	29	

Blank Lid

1-Neck

2-Neck

3-Neck

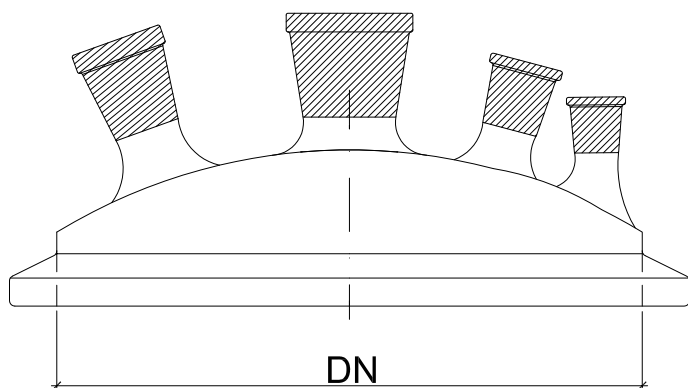
4-Neck

5-Neck

Special designs on request

Flat Flange Lid DN 200

Flat Flange SCHOTT without a groove



SCHMIZO Flat Flange

DN = Diameter nominal

All lids DN 200 are only available with „SCHOTT“ flange (DURAN laboratory flange).

Article No.	DN	Central NS	Lateral Vertical NS	Lateral Angled NS	Lateral Angled NS	Lateral Angled NS	
17.900.00S	200						
17.901.25S	200	29					
17.901.35S	200	45					
17.901.45S	200	71					
17.902.25S	200	29	14				
17.902.30S	200	29	29				
17.902.35S	200	45	14				
17.902.40S	200	45	29				
17.903.20S	200	29	14	14			
17.903.25S	200	29	14	29			
17.903.30S	200	45	14	14			
17.903.40S	200	45	14	29			
17.904.20S	200	29	14	14	14		
17.904.25S	200	29	14	14	29		
17.904.30S	200	29	14	29	29		
17.904.35S	200	45	14	14	14		
17.904.45S	200	45	14	29	29		
17.905.20S	200	29	14	29	29	29	
17.905.25S	200	29	14	14	29	29	
17.905.30S	200	45	14	29	29	29	
17.905.35S	200	45	14	14	29	29	

Blank Lid

1-Neck

2-Neck

3-Neck

4-Neck

5-Neck

Special designs on request

Filter Element & Filter Support

For filter funnel reactors, a filter element is clamped between a column extender and a glass part with outlet and a bottom valve. This setup allows to easily replace the filter whenever required.

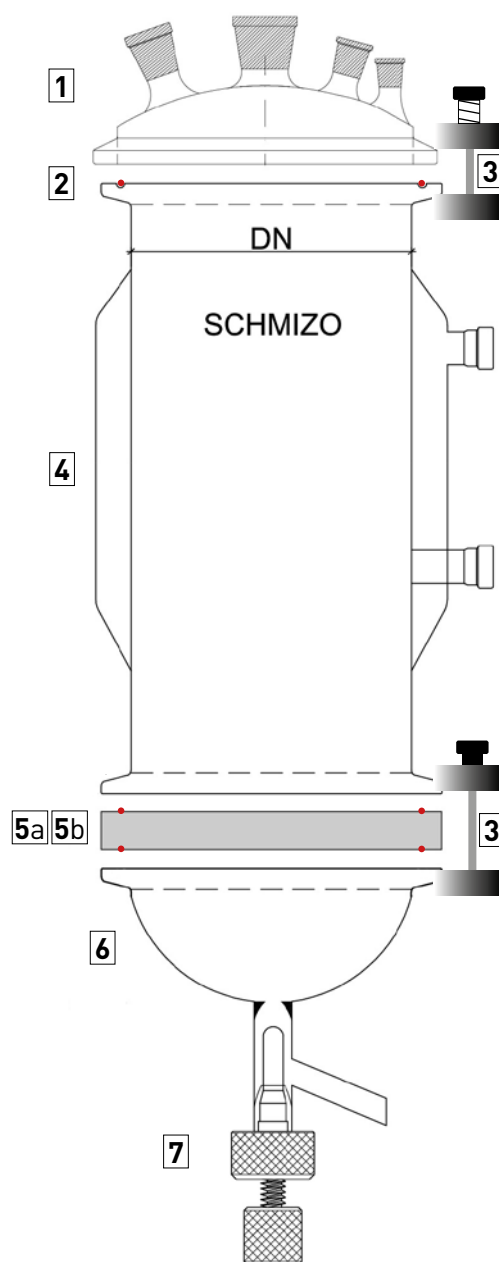


Bottom Part (6), fits Filter Part and Filter Support with flat flange SCHMIZO without groove, glass part for bottom valve Schmizo *

Article No.	DN	Outlet Ø mm	
23.016.60	60	10	
23.016.61	100	10	
23.016.62	120	10	
23.016.63	150	10	
23.016.64	200	10	
23.016.93	150	20	
23.016.94	200	20	

* also available with SCHOTT-flange: Please add „S“ at the end of the article number.

others valves on request



Design of a Filter Funnel Reactor:

- 1 Cover (from page 25)
- 2 O-Ring (s. 33)
- 3 2x reactor holder (s. 34)
- 4 Column extender (p. 22/23)
- 5 Filter part / Filter support
O-Rings included
- 6 Bottom part with outlet
- 7 Outlet valve (s. 36)

Filter Element PTFE (5a) with Sealed Glass Filter Plate

O-Rings are included

x = Porosity (0 - 5)

Article No.	DN	
Filter element		
23.016.06x	60	
23.016.10x	100	
23.016.12x	120	
23.016.15x	150	
23.016.20x	200	



Filter Support PTFE (5b) for Paper or Membrane Filters

O-Rings are included

Article No.	DN	
Filter support		
23.016.50	60	
23.016.51	100	
23.016.52	120	
23.016.53	150	
23.016.54	200	



When using thicker filter papers or membranes, it may be necessary to use a press ring (on request) to ensure tightness.

Reactor with Glass Filter Plate

All reaction vessels - if single, jacketed or vacuum jacketed reactors - can also be manufactured with fixed glass filters of all porosities.

We would be pleased to provide an offer according to your requirements.



Jacketed reactor with fused-in glass filter plate P3

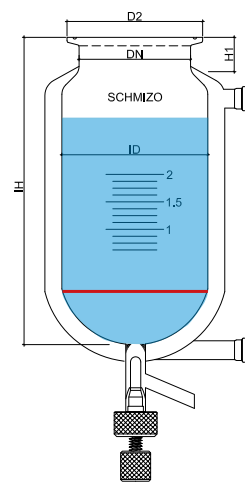
Volumes of Filter Reactors

The volume of filter reactors can be understood in two ways. Please specify the desired option you are interested in.

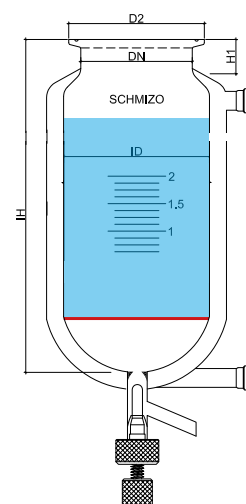
 Glass filter plate

 Volume of the Reactor

Option 1



Option 2



International Standards for Porosities in Glass Sintered Filters

ISO International Standard

ASTM American Standard

BS British Standard

We usually offer filter plates according to International Standard. Other porosities on request.

Porosities according to ISO 4793-80

Porosity	Pore size µm
Por. 00	250 - 500
Por. 0	160 - 250
Por. 1	100 - 160
Por. 2	40 - 100
Por. 3	16 - 40
Por. 4	10 - 16
Por. 5	1 - 1,6

Seals & Holders for Flat Flanges

O-Ring FEP covered with Silicone Core (-80°C up to 200°C)

Flat Flange **SCHMIZO**

Article No.	DN	
17.930.10	60	
17.930.20	100	
17.930.30	120	
17.930.40	150	

Flat Flange **SCHOTT**

Article No.	DN	
17.935.10	60	
17.935.20	100	
17.935.30	120	
17.935.40	150	
17.935.50	200	



O-Ring Viton/FPM 75 Shore (-20°C up to 200°C)

Flat Flange **SCHMIZO**

Article No.	DN	
17.920.10	60	
17.920.20	100	
17.920.30	120	
17.920.40	150	



PTFE Flat Seal (-200°C up to 260°C)

Flat Flange **SCHOTT / KF3**

Article No.	DN	
17.936.10	15	
17.936.20	25	
17.936.30	40	
17.936.40	200	
17.936.50	300	



Quick Release Clamb, Stainless Steel

Article No.	DN	Fits Flange Type
12.343.60	60	SCHMIZO / SCHOTT
12.343.10	100	SCHMIZO / SCHOTT
12.343.12	120	SCHOTT
12.343.15	150	SCHMIZO / SCHOTT
12.343.20	200	SCHOTT



Reactor Holder Type SCHMIZO, Polyester (glass-fiber reinforced) , Max. Temp. 160° C (temporary up to 200° C)

Article No.	DN	Fits Flange Type
12.344.98	60	SCHMIZO
12.346.98	60	SCHOTT
12.344.37	100	SCHMIZO
12.346.37	100	SCHOTT
12.344.50	120	SCHMIZO
12.346.50	120	SCHOTT
12.344.80	150	SCHMIZO
12.346.80	150	SCHOTT



The reactor holders DN 60 / DN 100 / DN 120 (pict. 1) are delivered with a thread rod M8 13 x 200 mm. Optionally you can modify them with a twin rod (pict. 3).

The reactor holder DN 150 (pict. 2) has two lateral support segments for rods up to 13 mm diameter. They are not included in delivery.

See also picture following page.



Twin Rod for Reactor Holder Type SCHMIZO

Article No.	DN	Fits Flange Type
12.348.40	60 - 120	SCHMIZO / SCHOTT



Reactor Holder, Stainless Steel

for lateral fixation with two rods \varnothing 13 mm

Article No.	DN	Fits Flange Type
12.349.10	100	SCHOTT
12.349.12	120	SCHOTT
12.349.15	150	SCHOTT
12.349.20	200	SCHOTT

The rods are not included in delivery.



Holding Devices for SCHOTT Tech-Flange, Plastics

Article No.	DN	Fits Flange Type
12.347.07	200	SCHOTT TECH
12.347.09	300	SCHOTT TECH

Screws and springs are included in delivery



SCHMIZO reactor holder DN 150

Bottom Discharge Valve SCHMIZO

Bottom Discharge Valve SCHMIZO (-30°C up to +200°C)

Article No.	For Aperture mm	Construction
17.940.10	10	standard
17.940.12	10	O-Ring KALREZ
17.940.14	10	O-Ring Viton
17.940.16	10	with Pt-100 probe
17.942.10	16	standard
17.942.12	16	O-Ring KALREZ
17.942.14	16	O-Ring Viton
17.942.16	16	with Pt-100 probe
17.944.10	20	standard
17.944.12	20	O-Ring KALREZ
17.944.14	20	O-Ring Viton
17.944.16	20	with Pt-100 probe

Also available with pneumatic cylinder.

The discharge valve can be used with limited leak tightness up to -100°C.



Construction of valve plug →



Standard

O-Ring

Pt-100

Components / Spare Parts

No.	Name
1	Valve plug PTFE
2	Fixing screw
3	Valve knob with thread and integrated pressure spring
4	Conical seal seat with O-ring joint
5	Spacer
6	Coupling nut
7	Spring

We can check if it is worth to revise a damaged discharge valve. The repair can be carried out in our workshop.

All spare parts can also be ordered separately. Information about size and length of the plug will be necessary (standard length is 75 mm).

A manual with detailed instructions for assembly and disassembly of the bottom valve is available.



Hose Adapters for Jacket Inlet/Outlet

Stainless Steel Adapters for Flat Flanges DN 15 and DN 25
with PEEK connecting screw and O-Ring FEP/silicone

Article No.	Type	Connection	Form	Seal
17.981.96P	DN 15	Olive 10mm	straight	O-Ring
17.980.96P	DN 15	Olive 12mm	straight	O-Ring
17.980.95P	DN 15	M 16x1	straight	O-Ring
17.980.97P	DN 15	M 16x1	90°	O-Ring
17.980.94P	DN 15	M 24x1.5	straight	O-Ring
17.980.98P	DN 15	M 24x1.5	90°	O-Ring
17.981.97P	DN 25	M 16x1	90°	O-Ring
17.981.94P	DN 25	M 24x1.5	straight	O-Ring
17.981.98P	DN 25	M 24x1.5	90°	O-Ring

Type DN 25 with connection M30 and spare connection screws on request



Polyetheretherketon (abbreviated PEEK) is a high-temperature-resistant thermoplastic belonging to the polyaryletherketone group of substances. The melting temperature is 335 °C (Wikipedia).

Replacement Seals for Stainless Steel Adapter DN 15 / DN 25

Art.Nr.	Typ	Grösse	Material	max. Temp.
17.982.15	O-Ring	DN 15	FEP/Silicone	205°C *
17.982.25	O-Ring	DN 25	FEP/Silicone	205°C *

* Kalrez O-ring for higher temperatures on request



Hose Connection 12 mm



Thread M 16 x 1 straight



Thread M 16x1 90° bent

The new version with PEEK screw no longer needs a safety spring. The sealing is still done by an O-ring. The metal part is identical to the version with the stainless steel screw.

Another advantage is that the PEEK screw can remain on the reactor when the metal adapter is separated from the reactor.



Stainless Steel Adapters for Flat Flanges DN 15 and DN 25
with metal connecting screw and O-Ring FEP/silicone

Article No.	Type	Connection	Form	Seal
17.981.96	DN 15	Olive 10mm	straight	O-Ring
17.980.96	DN 15	Olive 12mm	straight	O-Ring
17.980.9	DN 15	M 16x1	straight	O-Ring
17.980.9	DN 15	M 16x1	90°	O-Ring
17.980.94	DN 15	M 24x1.5	straight	O-Ring
17.980.98	DN 15	M 24x1.5	90°	O-Ring
17.981.97	DN 25	M 16x1	90°	O-Ring
17.981.94	DN 25	M 24x1.5	straight	O-Ring
17.981.98	DN 25	M 24x1.5	90°	O-Ring



Type DN 25 with connection M30 on request

Replacement Springs for Stainless Steel Adapter (O-Rings on page 37)

Article No.	Type	Size	Material	Max. Temp.
17.982.50	Spring	DN 15	Stainl. Steel	260°C
17.982.51	Spring	DN 25	Stainl. Steel	260°C



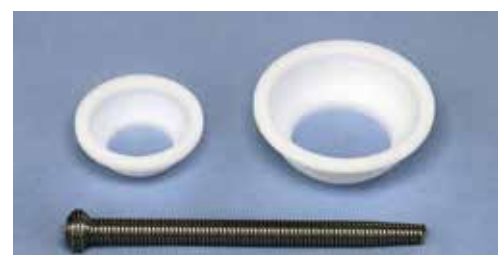
Stainless Steel Adapter for Spherical Joints KS 19 and KS 29
with metal connecting screw and PTFE seal

Article No.	Type	Thread	Form	Seal
17.980.10	KS 19	M 16x1	straight	KS-D
17.980.11	KS 19	M 16x1	90°	KS-D
17.980.20	KS 29	M 16x1	straight	KS-D
17.980.21	KS 29	M 16x1	90°	KS-D
17.980.22	KS 29	M 24x1.5	straight	KS-D
17.980.23	KS 29	M 24x1.5	90°	KS-D



Seals and Springs for Spherical Joints Stainless Steel Adapters

Article No.	Type	Size	Material	max. Temp.
12.355.22	Seal	KS 19	PTFE	260°C
12.355.40	Seal	KS 29	PTFE	260°C
17.982.55	Spring	KS 19	Edelstahl	260°C
17.982.56	Spring	KS 29	Edelstahl	260°C



Spherical Joint with Hose Connection (borosilicate glass)

Article No.	SJ	
17.950.19	19/9	
17.950.29	29/15	

Clamps for Spherical Joints
stainless steel, with tightening screw

Article No.	Size SJ	
12.341.14	19	
12.341.18	29	



Other sizes are available on request

PTFE Hose Connection with PBT Cap for GL-Threads

Article No.	Form	for GL	ID mm	OD mm	
12.259.40	straight	14	5.0	9.0	
12.259.42	straight	18	7.5	10.5	
12.259.44	straight	25	10	13	
12.259.46	arced	14	5.0	9.0	
12.259.48	arced	18	7.5	10.5	



PP Hose Connection with PBT Cap for GL-Threads

Article No.	Form	for GL	ID mm	OD mm	
12.259.03	straight	14	5.0	8.6	
12.259.06	straight	18	6.8	10.8	
12.259.05	arced	14	4.0	8.6	
12.259.08	arced	18	6.8	10.8	



Replacement PP Hose Connection with silicone seal

Article No.	Form	for GL	ID mm	OD mm	
12.259.02	straight	14	5.0	8.6	
12.259.07	straight	18	6.8	10.8	
12.259.04	arced	14	4.0	8.6	
12.259.09	arced	18	6.8	10.8	



Insulated Metal Hoses

Metal Hose STANDARD

Wave hose made of stainless steel with special silicone foam insulation and end cap, fitting SCHMIZO reactors and hose adapters.

Article No.	Thread	Length m	DN mm	Temperature range °C	
17.985.10	M 16x1	1.0	10	-100 ... +260	
17.985.15	M 16x1	1.5	10	-100 ... +260	
17.985.20	M 16x1	2.0	10	-100 ... +260	
17.985.30	M 16x1	3.0	10	-100 ... +260	
17.985.55	M 24x1.5	1.0	12	-100 ... +260	
17.985.60	M 24x1.5	1.5	12	-100 ... +260	
17.985.65	M 24x1.5	2.0	12	-100 ... +260	
17.985.70	M 24x1.5	3.0	12	-100 ... +260	



Metal Hose ECO

Wave hose made of stainless steel with silicone insulation, fitting SCHMIZO reactors and hose adapters.

Article No.	Thread	Length m	DN mm	Temperature Range °C	
17.986.10	M 16x1	1.0	10	-30 ... +200	
17.986.15	M 16x1	1.5	10	-30 ... +200	
17.986.20	M 16x1	2.0	10	-30 ... +200	
17.986.30	M 16x1	3.0	10	-30 ... +200	



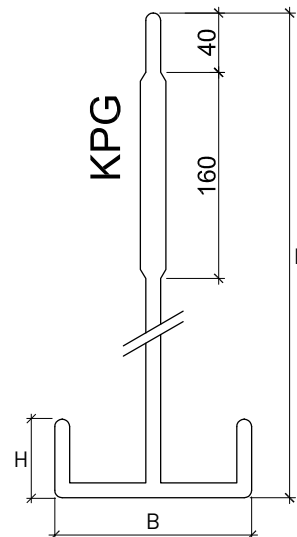
Anchor Stirrers

KPG Anchor-Stirrer (KPG-length 160 mm)

Please indicate desired length **L** when placing your order!

Article No.	Ø KPG mm	Chuckling Ø mm	Width B mm	Height H mm
24.603.06	10	8	60	60
24.603.09	10	8	90	90
24.603.11	10	8	110	110
24.603.14	10	8	140	140
24.604.06	16	10	60	60
24.604.09	16	10	90	90
24.604.11	16	10	110	110
24.604.14	16	10	140	140

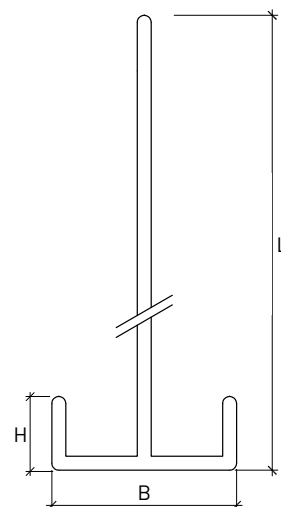
All stirrers are also available with ZRS instead of KGP
(ZRS-length 300mm).



Anchor Stirrer with Simple Glass Shaft

Please indicate desired length **L** when placing your order!

Article No.	Shaft Ø mm	Chuckling Ø mm	Width B mm	Height H mm
24.605.06	8	8	60	60
24.605.09	8	8	90	90
24.605.11	8	8	110	110
24.605.14	8	8	140	140
24.606.06	10	10	60	60
24.606.09	10	10	90	90
24.606.11	10	10	110	110
24.606.14	10	10	140	140



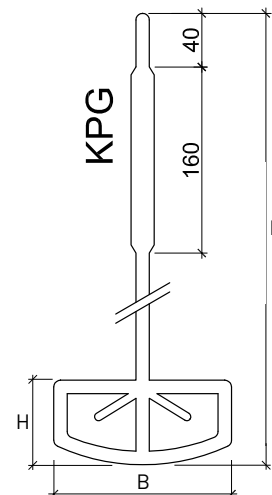
Pretzel Stirrer

KPG Pretzel Stirrer (KPG-Length 160 mm)

Please indicate desired length **L** when placing your order!

Article No.	Ø KPG mm	Chucking Ø mm	Width B mm	Height H mm
24.618.06	10	8	60	55
24.618.09	10	8	90	85
24.618.11	10	8	110	85
24.618.14	10	8	140	100
24.619.06	16	10	60	55
24.619.09	16	10	90	85
24.619.11	16	10	110	85
24.619.14	16	10	140	100

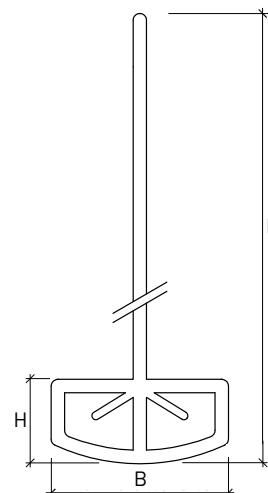
All stirrers are also available with ZRS instead of KGP (ZRS-length 300mm).



Pretzel Stirrer with Simple Glass Shaft

Please indicate desired length **L** when placing your order!

Article No.	Shaft Ø mm	Chucking Ø mm	Width B mm	Height H mm
24.620.06	8	8	60	55
24.620.09	8	8	90	85
24.620.11	8	8	110	85
24.620.14	8	8	140	100
24.621.06	10	10	60	55
24.621.09	10	10	90	85
24.621.11	10	10	110	85
24.621.14	10	10	140	100



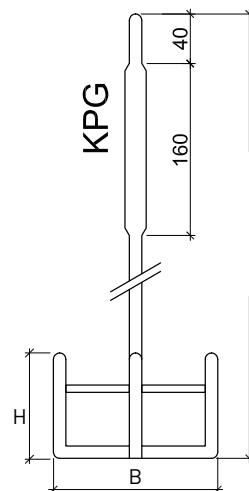
Double Anchor Stirrer

KPG Double anchor stirrer (KPG-Length 160 mm)

Please indicate desired length **L** when placing your order!

Article No.	Ø KPG mm	Chucking Ø mm	Width B mm	Height H mm
24.626.06	10	8	60	60
24.626.09	10	8	90	90
24.626.11	10	8	110	110
24.626.14	10	8	140	140
24.627.06	16	10	60	60
24.627.09	16	10	90	90
24.627.11	16	10	110	110
24.627.14	16	10	140	140

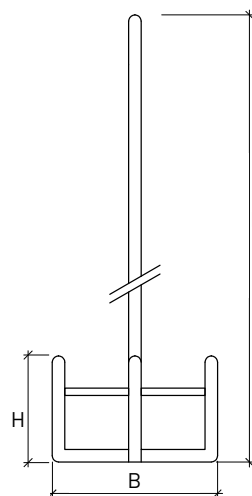
All stirrers are also available with ZRS instead of KGP
(ZRS-length 300mm).



Double Anchor Stirrer with Simple Glass Shaft

Please indicate desired length **L** when placing your order!

Article No.	Shaft Ø mm	Chucking Ø mm	Width B mm	Height H mm
24.628.06	8	8	60	60
24.628.09	8	8	90	90
24.628.11	8	8	110	110
24.628.14	8	8	140	140
24.629.06	10	10	60	60
24.629.09	10	10	90	90
24.629.11	10	10	110	110
24.629.14	10	10	140	140



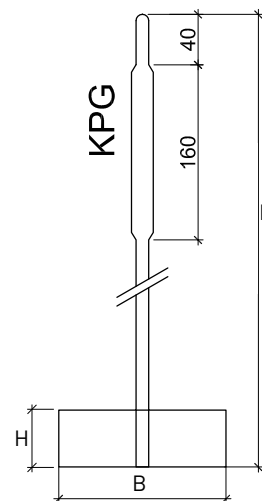
4 Blade Stirrer

KPG 4 Blade Stirrer (KPG Length 160 mm)

Please indicate desired length **L** when placing your order!

Article No.	Ø KPG mm	Chucking Ø mm	Width B mm	Height H mm
24.634.24	10	8	24	25
24.634.40	10	8	40	25
24.634.60	10	8	60	25
24.635.24	16	10	24	25
24.635.40	16	10	40	25
24.635.60	16	10	60	25

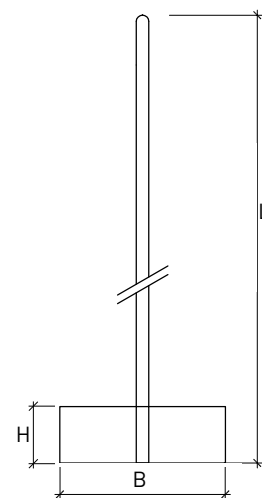
All stirrers are also available with ZRS instead of KPG
(ZRS-length 300mm).



4 Blade Stirrer with Simple Glass Shaft

Please indicate desired length **L** when placing your order!

Article No.	Shaft Ø mm	Chucking Ø mm	Width B mm	Height H mm
24.636.24	8	8	24	25
24.636.40	8	8	40	25
24.636.60	8	8	60	25
24.637.24	10	10	24	25
24.637.40	10	10	40	25
24.637.60	10	10	60	25



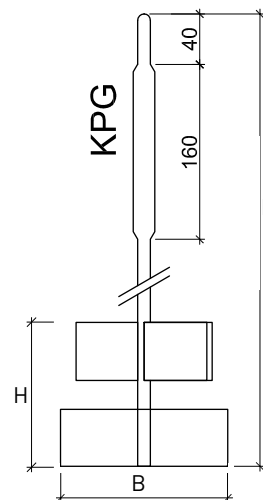
Double 4 Blade Stirrer

KPG Double 4 Blade Stirrer

Please indicate desired length **L** when placing your order!

Article No.	Ø KPG mm	Chucking Ø mm	Width B mm	Height H mm
24.642.24	10	8	24	65
24.642.40	10	8	40	65
24.642.60	10	8	60	65
24.643.24	16	10	24	65
24.643.40	16	10	40	65
24.643.60	16	10	60	65

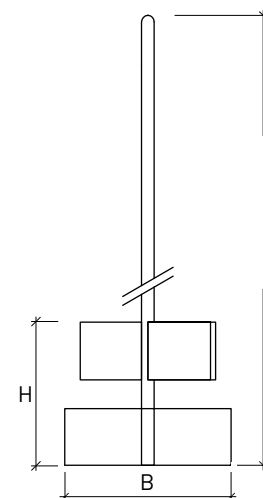
All stirrers are also available with ZRS instead of KPG (ZRS-length 300mm).



Double 4 Blade Stirrer with Simple Glass Shaft

Please indicate desired length **L** when placing your order!

Article No.	Shaft Ø mm	Chucking Ø mm	Width B mm	Height H mm
24.644.24	8	8	24	65
24.644.40	8	8	40	65
24.644.60	8	8	60	65
24.645.24	10	10	24	65
24.645.40	10	10	40	65
24.645.60	10	10	60	65



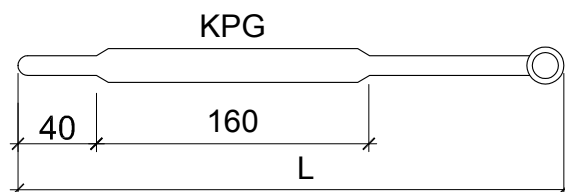
Stirrer Shafts with Eye

for PTFE blades with bolt and straddling stirrer

KPG Stirrer Shaft with Eye (KPG-Length 160 mm)
Please indicate desired length **L** when placing your order!

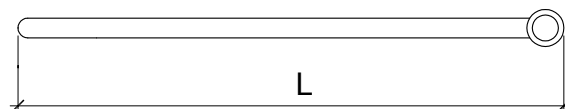
Article No.	Ø KPG mm	Chucking Ø mm	
23.638.21	10	8	
23.638.24	16	10	

All stirrers are also available with ZRS instead of KGP (ZRS-length 300mm).



Stirrer shaft with Eye with Simple Glass Shaft
Please indicate desired length **L** when placing your order!

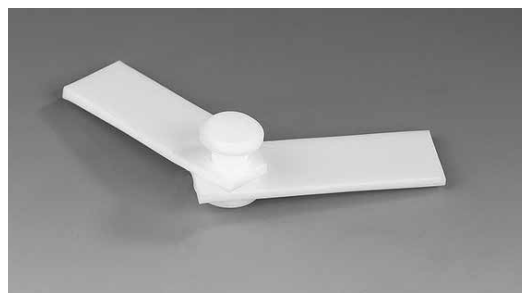
Article No.	Ø shaft mm	Chucking Ø mm	
23.629.08	8	8	
23.629.10	10	10	
23.629.12	12	10	
23.629.14	14	10	
23.629.16	16	10	



Straddling Stirrer Blade with Bolt
for stirrer shafts with eye, suitable for joints size NS 24 or bigger.

Article No.	Stirring Ø mm	Bolt Ø mm	
23.643.07	50	8	
23.643.09	70	8	
23.643.11	90	8	

Replacement bolts and other sizes on request.
(Available with blade widths 30, 120 and 140 mm, however with different bolt sizes!)



Stirrer Shafts with Double Pivot

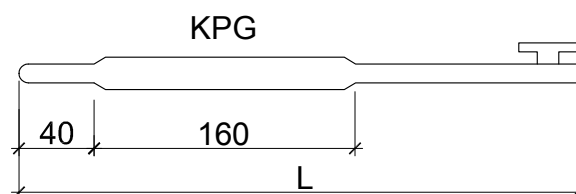
for PTFE moon-shaped stirrer blades with double-sided eyelet

KPG Stirrer Blade with Double Pivot (KPG Length 160 mm)

Please indicate desired length **L** when placing your order!

Article No.	Ø KPG mm	Chucking Ø mm	
23.638.01	10	8	
23.638.04	16	10	

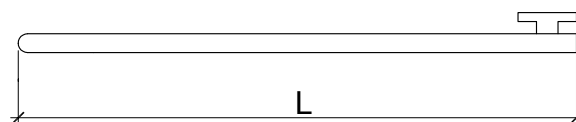
All stirrers are also available with ZRS instead of KGP (ZRS-length 300mm).



Stirrer Blade with Double Pivot with Simple Glass Shaft

Please indicate desired length **L** when placing your order!

Article No.	Ø Shaft mm	Chucking Ø mm	
23.640.01	10	10	



PTFE Moon-Shaped Stirrer Blades with Double-Sided Eyelet

for stirrer shafts with double pivot

Article No.	Stirrer blade mm	fits NS	
23.644.01	50 x 18 x 3	24	
23.644.02	50 x 24 x 3	29	
23.644.04	65 x 18 x 3	24	
23.644.05	68 x 24 x 3	29	
23.644.06	75 x 24 x 3	29	
23.644.07	90 x 24 x 3	29	
23.644.08	110 x 24 x 3	29	
23.644.09	125 x 24 x 3	29	
23.644.10	145 x 35 x 4	45	



Stirrer Shaft with Thread Head

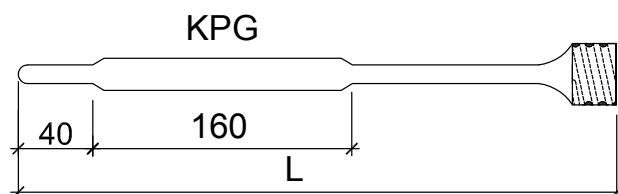
for PTFE stirrer heads with SVL TORION 5 thread

KPG Stirrer Shaft with Thread Head (KPG Length 160 mm)

Please indicate desired length **L** by placing your order!

Article No.	Ø KPG mm	Chuckling Ø mm	
23.647.01	10	8	
23.647.04	16	10	

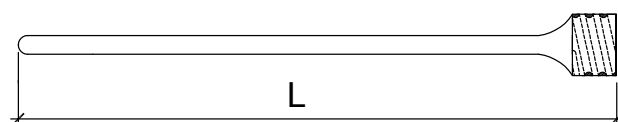
All stirrers are also available with ZRS instead of KGP (ZRS-length 300mm).



Stirrer Shaft with Thread Head with Simple Glass Shaft

Please indicate desired length **L** by placing your order!

Article No.	Ø Shaft mm	Chuckling Ø mm	
23.648.01	10	10	
23.648.02	12	10	
23.648.03	14	10	
23.648.04	16	10	



PTFE Stirrer Heads with Thread

fits stirrer shafts with SVL TORION 5 thread

Article No.	Stirrer head type	Wide mm	
23.650.10	Straddling blades (1)	70	
23.650.20	Leaf (2)	70	
23.650.30	Small anchor (3)	54	
23.650.35	Big anchor (4)	90	
23.650.40	Propeller (5)	80	



1



2



3



4

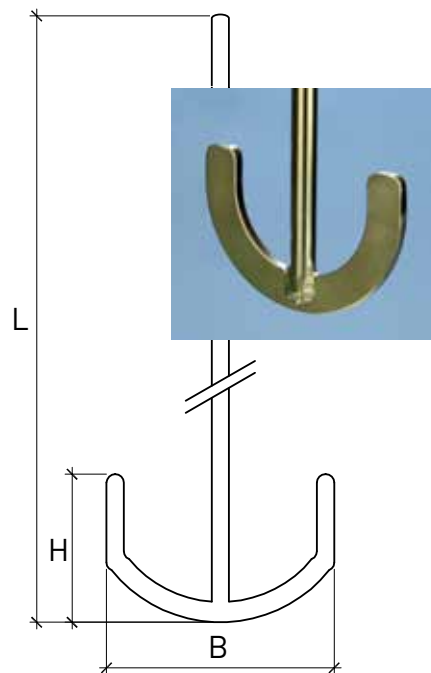


5

Stainless Steel Stirrer

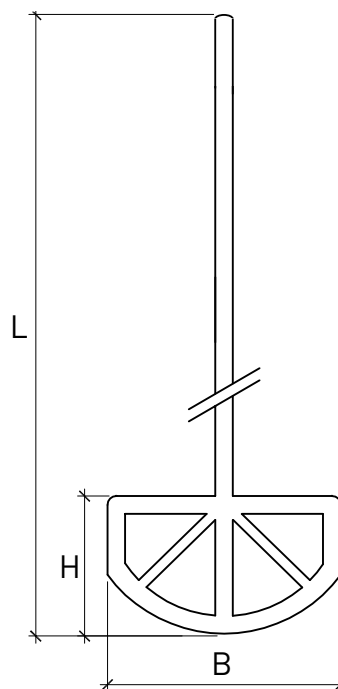
Anchor Stirrer

Article No.	Width B mm	Height H mm	Length L mm	Ø Shaft mm
23.651.01	60	60	800	10
23.651.02	60	60	1000	10
23.651.41	90	90	800	10
23.651.42	90	90	1000	10
23.651.03	110	110	800	10
23.651.04	110	110	1000	10
23.651.05	140	140	800	10
23.651.06	140	140	1000	10
23.651.07	140	140	1200	10
23.651.08	190	190	800	10
23.651.09	190	190	1000	10
23.651.10	190	190	1200	10



Pretzel-Stirrer

Article No.	Width B mm	Height H mm	Length L mm	Ø Shaft mm
23.651.21	60	60	800	10
23.651.22	60	60	1000	10
23.651.45	90	90	800	10
23.651.46	90	90	1000	10
23.651.23	110	110	800	10
23.651.24	110	110	1000	10
23.651.25	140	140	800	10
23.651.26	140	140	1000	10
23.651.27	140	140	1200	10
23.651.28	190	190	800	10
23.651.29	190	190	1000	10
23.651.30	190	190	1200	10



All other forms and sizes by request. Stainless steel stirrer shafts can be coated with HALAR (max. working temperature- 150°C).

BOLA Stirrers Stainless Steel/PFTE

As alternative to glass or stainless steel stirrers, we offer BOLA stirrers. Please find the whole BOLA range on:

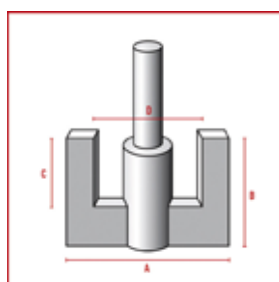
<http://www.bola.de/en/products/stirring-and-mixing/stirrer-shafts.html>

BOLA stirrers are made with a PTFE covered stainless steel shaft and blades of PTFE. The steel core provides high stability and allows safe fixing in the stirrer coupling. The product wich is stirred is only exposed to PTFE.

Temperature range: -200°C up to +250°C

Chemical resistance: +++ universal

Example: **Anchor Stirrer**



BOLA Stirrer with one Paddle



BOLA Stirrer with two Paddles



BOLA Propeller Stirrer



BOLA Centrifugal Stirrer



BOLA Disc Stirrer

Article No.	Length mm	Shaft Ø mm	Chucking Ø mm	A mm	B mm	C mm	D mm
C 384-01	350	8	6.5	40	35	20	26
C 384-02	350	8	6.5	60	40	25	30
C 384-04	450	8	6.5	60	40	25	30
C 384-06	450	8	6.5	80	50	30	44
C 384-08	600	8	6.5	80	50	30	44
C 384-10	600	8	6.5	100	60	35	56
C 384-16	350	10	8	80	50	30	44
C 384-17	450	10	8	80	50	30	44
C 384-24	600	10	8	100	60	35	56
C 384-28	800	10	8	100	60	35	56
C 384-32	1000	10	8	100	60	35	56
C 384-40	1200	10	8	100	60	35	56
C 384-44	600	10	8	130	80	55	80
C 384-48	800	16	8	130	80	55	80
C 584-52	800	16	10	150	120	90	90
C 584-58	1000	16	10	150	120	90	90
C 584-64	1200	16	10	150	120	90	90

Stirrer Bearings with Glass Shaft Guide

KPG Stirrer Bearing with NS Joint Cone, optionally with Grease Cup

suitable for KPG stirrer bearings

Article No.	Ø KPG mm	NS Joint Cone	grease cup	
23.601.32	10	24	-	
23.602.32	10	29	-	
23.603.32	10	45	-	
23.604.32	10	24	✓	
23.605.32	10	29	✓	
23.606.32	10	45	✓	
23.606.48	16	45/40	✓	



Jacketed Stirrer Bearing

suitable for simple glass or KPG stirrer shafts

The screw cap with seal for the upper thread and the screw caps with hoses for the Inlet/Outlet are included.

Article No.	Inner Ø	NS Joint Cone	Upper thread	Inlet/ Outlet	
23.610.32	8 mm	24	GL 18	GL 14	
23.610.40	8 mm	29	GL 18	GL 14	
23.610.42	8 mm	45	GL 18	GL 14	
23.610.46	8 mm	71	GL 18	GL 14	
23.612.32	KPG 10	24	GL 18	GL 14	
23.612.40	KPG 10	29	GL 18	GL 14	
23.612.48	KPG 10	45	GL 18	GL 14	
23.615.45	KPG 16	45	GL 25	GL 14	



Jacketed KPG Stirrer Bearing, KPG Inside the Jacket

suitable for KPG stirrer shafts.

Screw caps with hoses are included.

Article No.	KPG Ø mm	NS Joint Cone	Inlet/ Outlet	
23.613.01	10	29	GL 14	
23.613.02	10	45	GL 14	
23.613.23	16	45	GL 14	
23.613.24	16	60	GL 14	
23.613.25	16	71	GL 14	



Jacketed KPG Stirrer Bearing, KPG above the Jacket

suitable for KPG stirrer shafts.

Srew caps with hoses are included.

Article No.	Ø KPG mm	NS Joint Cone	Inlet/ Outlet
23.613.11	10	29	GL 14
23.613.12	10	45	GL 14
23.613.33	16	45	GL 14
23.613.44	16	60	GL 14
23.613.45	16	71	GL 14



Stirrer Bearing Eco

Stirrer Bearing with PTFE Shaft Guide

suitable for all kind of stirrer shafts. Gasket and guide shaft are exchangeable.

Article No.	Ø mm	NS Joint Cone	Upper Thread
23.616.10	8	29	GL 25
23.616.15	10	29	GL 25
23.616.20	10	45	GL 25
23.616.25	16	45	GL 32



Replacement PTFE Shaft Guide, Gasket included

Article No.	Ø mm
23.616.01	8
23.616.02	10
23.616.03	16



Replacement Special Gasket PTFE/FPM

Article No.	Ø mm
23.616.11	8
23.616.12	10
23.616.13	16



Stirrer Bearing DURA

Vacuum* and pressure tight due to variable, easily replaceable sealing elements made of PTFE (brown parts with glass fiber additive).

* Leaking rate at 400 rpm: $1,2 \times 10^{-3}$ mbar/s (with new seal kits)

Stirrer Bearing DURA

with replaceable double lip seal

Article No.	Ø mm	NS Cone
23.622.03	10	29
23.622.04	10	45
23.622.07	16	29
23.622.08	16	45

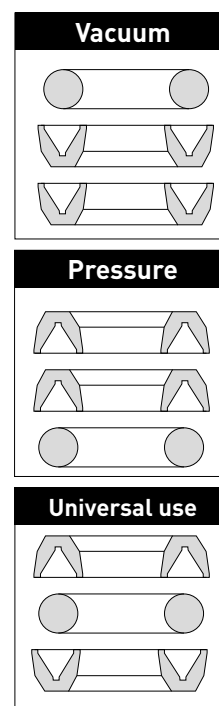
new in assortment



Spare Parts for Stirrer Bearing DURA



DURA is suitable for vacuum, pressure or universal use, depending on the installation of the sealing elements:



Article No.	Ø mm	Spare part
23.622.10	10	Seal kit (1) *
23.622.11	10	Guide sleeve (2)
23.622.12	10	Square ring Viton (3)
23.622.13	10	Pressure screw (4) with square ring
23.622.17	10	Glass body NS 29/32 (5)
23.622.18	10	Glass body NS 45/40 (5)
23.622.20	16	Seal kit (1) *
23.622.21	16	Guide sleeve (2)
23.622.22	16	Square ring Viton (3)
23.622.23	16	Pressure screw (4) with square ring
23.622.27	16	Glass body NS 29/32 (5)
23.622.28	16	Glass body NS 45/40 (5)

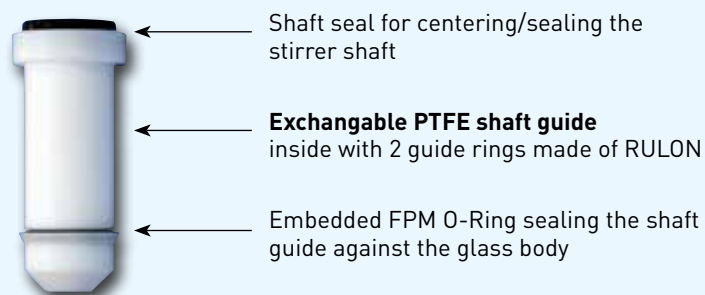
* The complete variant contains 2 seal kits (1), consisting of 2 lip seals and 1 PTFE O-ring.

Stirrer Bearing FLUKA

Suitable for vacuum and lightly over-pressure

The core part of the FLUKA stirrer bearing is the shaft guide made of PTFE, which is equipped with a shaft seal and two inside FPM O-rings for guiding the stirrer rod. The embedded O-ring seals the guide sleeve against the glass part. In addition to the optimized guidance of the stirring rod, this guiding system enables to work under vacuum and slight overpressure.

The stirrer bearing is available either with a screw cap or a suction head.



Stirrer Bearing FLUKA with GL-Screw Cap

with exchangeable PTFE shaft guide and shaft seal for centering. Suitable for all kind of stirrer shafts.

Article No.	Ø mm	NS Joint Cone	GL
23.619.20	10	29	32
23.619.22	10	45	32
23.619.40	16	29	45
23.619.42	16	45	45

Due to lack of demand, we no longer offer the Ø 8mm and Ø 14mm variants.



Replacement Shaft Guide FLUKA

shaft seal included; suitable for all kind of stirrer shafts.

Article No.	Ø mm
23.619.25	10
23.619.45	16



Replacement Shaft Seal Typ A, NBR

Quality according to DIN 3760 / ISO 6194

Article No.	Ø mm
23.689.15	10
23.689.35	16



Stirrer Bearing FLUKA with Suction Head

with exchangeable PTFE shaft guide, centering with 2 shaft seals. Fitting all kind of stirrer shafts.

Article No.	Ø mm	NS Joint Cone	GL
23.618.20	10	29	32
23.618.22	10	45	32
23.618.40	16	29	45
23.618.42	16	45	45



Suction Head for Stirrer Bearing FLUKA

Article No.	GL
23.618.00	32
23.618.02	45



Stirrer Bearing TORION

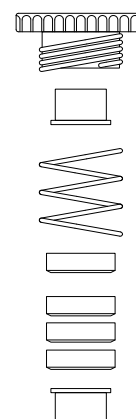
For vacuum up to 20 mbar.

Unfortunately, the TORION internal threads for the stirring guide are currently not available anywhere. We therefore offer the DURA stirring guide as a replacement (see page 53).

The spare parts are still available as long as stocks last:

Spare Parts for Stirrer Bearing TORION

Article No.	Artikel
23.626.20	Sealing complete
23.626.30	10 pcs. gaskets
SVL720-03	Pressure screw



Mechanical Seals

Mechanical seals ensure a maximum of tightness with a minimum of abrasion.

Characteristics / Benefits:

- Completely oil and grease free
- Vacuum up to 1 mbar
- Excellent chemical resistance
- FDA compatible
- Meets GMP-guidelines
- Joint with tempering optionally
- Stainless steel ball bearing
- Provides non shedding of material into the reaction

Materials in contact with the product:

Borosilicate glass, Perfluorelastomer-FFKM, PTFE, PFA



2

The models for stirrer shafts with Ø 16 mm, the NS glass cone is fixed with a spring and is equipped with a PTFE sleeve.

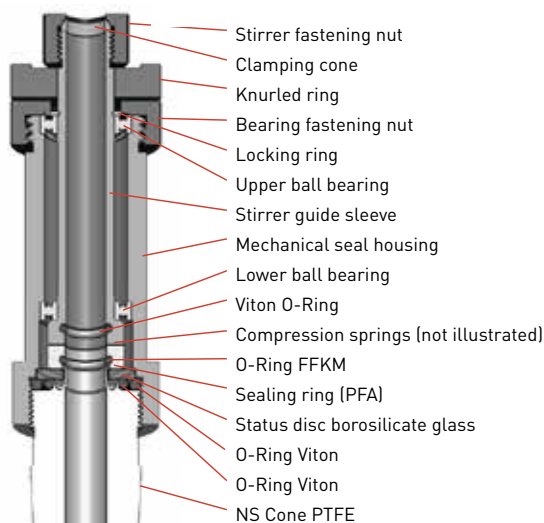
Spare parts, models for KF 25/3 and KF 40/3 as well as variants for the expolsition protected area on request.

* Model with NS cone cooling



1

Structure of the mechanical seal 29/10



Article No.	Ø Shaft mm	Cone	Installation Length mm	Material NS Cone	Pict no.
23.623.16	8	NS 14	75	PTFE	
23.623.18	8	NS 19	75	PTFE	
23.623.20	10	NS 24	120	PTFE	
23.623.22	10	NS 29	120	PTFE	1
23.623.24	10	NS 45	120	PTFE	
23.623.40	16	NS 45	160	Glass	2
23.623.42 *	16	NS 45	160	Glass	

Stirrer Couplings

Stirrer Coupling with Double Cardan Joint

with compression fittings made of PVDF, handling without any tool. The PVDF head is exchangeable. Max. 1000 rpm.

Article No.	Opening Ø mm	Total length mm	
23.656.08	8	150	
23.656.10	10	150	



Replacement PVDF Head

Article No.	Opening Ø mm	
23.656.09	8	
23.656.11	10	



Clamp Coupling with Double Cardan Joint

especially for stainless steel stirrer shafts. Fixation of the stirrer shaft with an Allen screw. Max. 1000 rpm.

Article No.	Opening Ø mm	Total length mm	
23.656.18	8	130	
23.656.20	10	132	
23.656.21	14	134	
23.656.22	16	136	



BOLA Globe Stirrer Coupling made of POM plastics with compression fittings, handling without any tool. By turning the head the opening changes. Max. 1200 rpm.

Article No.	Opening Ø mm	Total length mm	
23.656.45	8 +10	190	



CAT Stirrer Motors



CAT stirrer motors stand out with an excellent price-performance ratio.

Complete technical specifications you can find here: <http://www.cat-ing.de>



CAT R100 Series - high torque stirrer motors in four different executions for stirring volumes up to 200 liters of water.

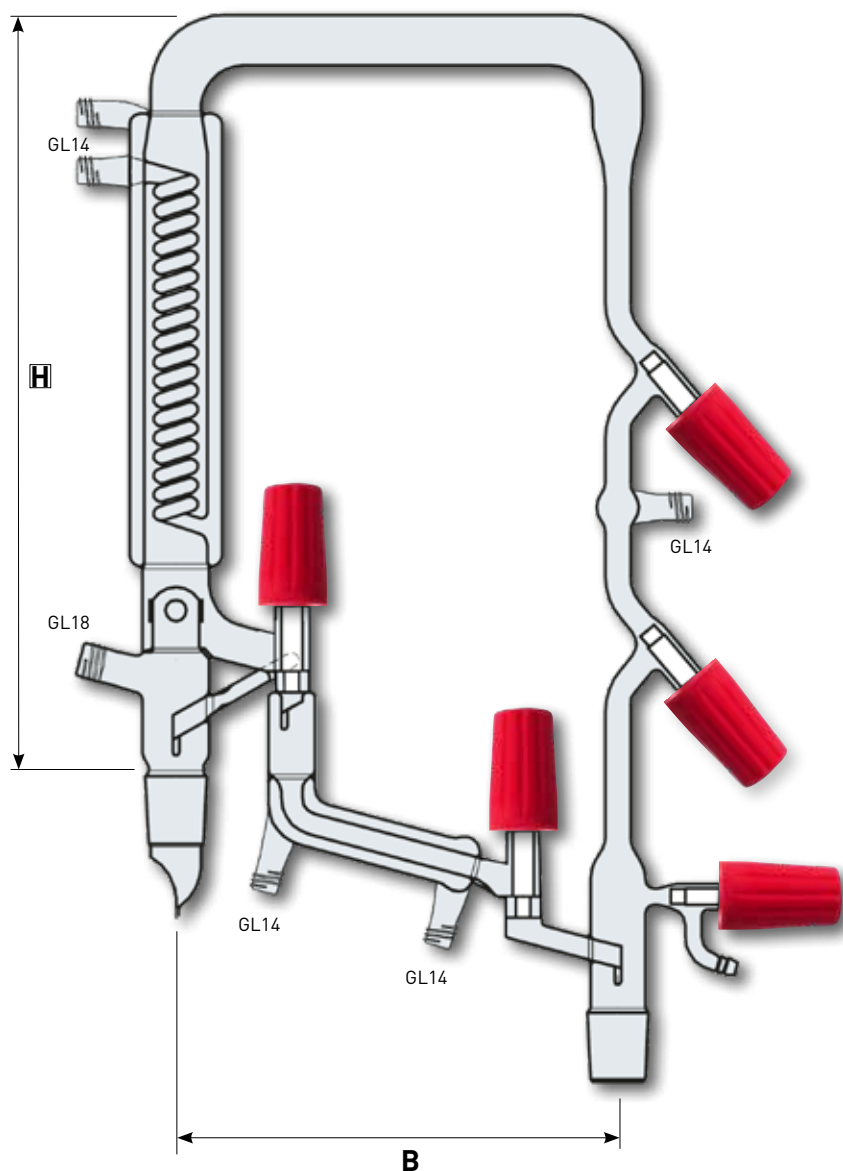
CAT R20 - lightweight, maintenance-free stirrer motor for volumes up to 30 liters of water.

Article No.	Type	Engine output	Revolutions Rpm	Torque Ncm	Chuck mm	Weight kg	
23.658.10	R20	60 W	50 - 2000	20	0.5 - 8	1.3	
23.658.20	R100 SD	300 W	40 - 2000	100	1 - 10,5	5.0	
23.658.30	R100 C	300 W	40 - 2000	150	1 - 10,5	5.0	
23.658.40	R100 CL	300 W	30 - 1100	250	1 - 10,5	5.0	
23.658.50	R100 CT	300 W	10 - 500	600	1 - 10,5	5.5	

We also can offer stirrer motors from other manufacturers.

Liquid Dividers

The manually operated column heads are used to adjust the reflux ratio between reflux and drain in distillation columns. Depending on the version, they are designed for operation under vacuum and/or normal pressure.



As there are countless variants and variations, we present here our best-selling liquid divider. Of course, all parameters of this model can also be configured according to your wishes. We will gladly offer you a liquid divider according to your needs.

PRODURAN® Valves



- Precise dosing
- Unscrew protection
- Vacuum-tight, leak rate $< 1 \times 10^{-6}$ mbar x l/s



All GL-14 connections with cap and PP olive (optionally PTFE)

Liquid Divider with Intensive and Intercooler, Dead Volume free

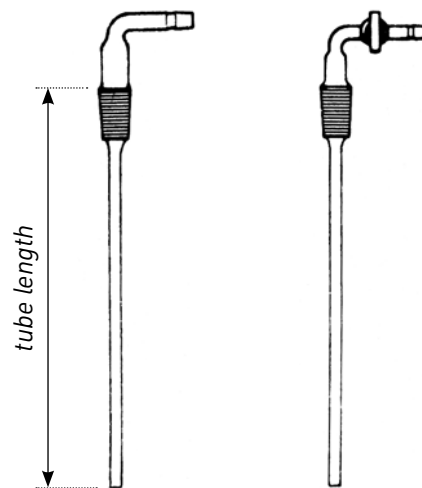
In- an outlet NS 29/32, intensive cooler 200 mm

Article No.	H mm	B mm	Valves	Vakuum operation
20.738.30	370	170	Produran 6	yes

Gas Inlet Tubes & Vacuum Pieces

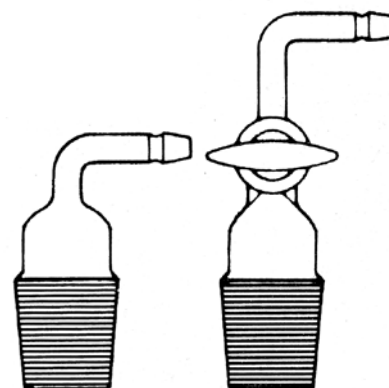
Gas Inlet Tubes, right angle bend, with hose nozzle and NS joint. Available with or without stopcock (glass/PTFE). Please indicate desired tube length (as drawn).

Article No.	NS Joint Cone	Stopcock
20.754.12	14/23	without
20.754.40	29/32	without
20.760.12	14/23	glass key, NS 14 / Bore 2.5
20.760.40	29/32	glass key, NS 14 / Bore 2.5
20.765.12	14/23	PTFE key, NS 14 / Bore 2.5
20.765.40	29/32	PTFE key, NS 14 / Bore 2.5



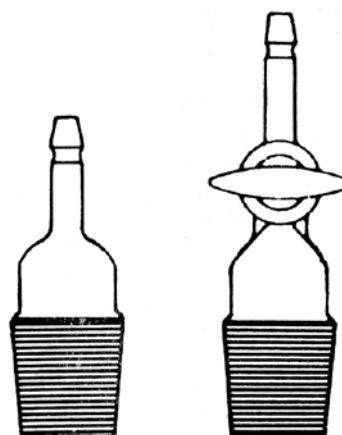
Vacuum Pieces Right Angle Bend, with hose nozzle and NS joint. Available with or without stopcock (glass/PTFE).

Article No.	NS Joint Cone	Stopcock
20.332.12	14/23	without
20.332.40	29/32	without
20.344.12	14/23	glass key, NS 14 / Bore 2.5
20.344.40	29/32	glass key, NS 14 / Bore 2.5
20.345.12	14/23	PTFE key, NS 14 / Bore 2.5
20.345.40	29/32	PTFE key, NS 14 / Bore 2.5
20.351.40	29/32	Produran valve 0 - 4 mm



Vacuum Pieces Straight, with hose nozzle and NS joint. Available with or without stopcock (glass/PTFE).

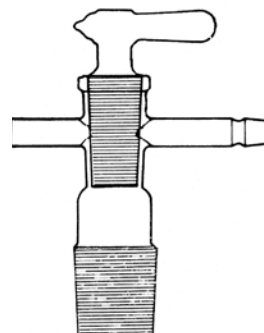
Article No.	NS Joint Cone	Stopcock
20.330.12	14/23	without
20.330.40	29/32	without
20.342.12	14/23	glass key, NS 14 / Bore 2.5
20.342.40	29/32	glass key, NS 14 / Bore 2.5
20.343.12	14/23	PTFE key, NS 14 / Bore 2.5
20.343.40	29/32	PTFE key, NS 14 / Bore 2.5



Vacuum Piece with High Vacuum Stopcock

laterally hose nozzle

Article No.	NS Joint Cone	Stopcock
20.350.12	14/23	glass key, borehole 6 mm
20.350.40	29/32	glass key, borehole 6 mm

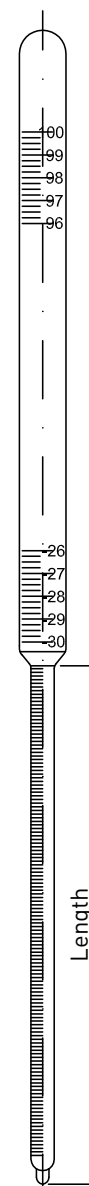


Alle articles are also available with NS-joint 19/26 or 24/29

Thermometer

Thermometer with Straight Stem, Stem Ø 8 mm, Subdivision 1°C

Article No.	Length mm	Measuring range	Filling
40.100.15	150	-30 +150°C	Petroleum
40.100.24	240	-30 +150°C	Petroleum
40.100.33	330	-30 +150°C	Petroleum
40.100.43	430	-30 +150°C	Petroleum
40.100.60	600	-30 +150°C	Petroleum
40.110.15	150	-30 +250°C	Isoamyl
40.110.24	240	-30 +250°C	Isoamyl
40.110.33	330	-30 +250°C	Isoamyl
40.110.43	430	-30 +250°C	Isoamyl
40.110.60	600	-30 +250°C	Isoamyl
40.130.15	150	-100 +100°C	Toluol
40.130.24	240	-100 +100°C	Toluol
40.130.33	330	-100 +100°C	Toluol
40.130.43	430	-100 +100°C	Toluol
40.130.60	600	-100 +100°C	Toluol



Temperature Probes

BOLA Temperature Probe - Lemo-Compact, PTFE

Thermocouple (PT 100) in a PTFE covered stainless steel tube.
 Probe Ø 8 mm, tip Ø 6 mm, collar ring Ø 12 mm. Connection by a coupling (type Lemo®, socket size 1, 4-pole) fixed directly at the end of the probe.
 Measuring range: -50°C to +250°C (Resistance -200°C to +250°C)



Article No.	Model	Total Length	Usable Length
40.419.10	P 1730-10	150 mm	80 mm
40.419.20	P 1730-20	370 mm	300 mm
40.419.23	P 1730-23	470 mm	400 mm
40.419.25	P 1730-25	570 mm	500 mm

Probes made of stainless steel by request

Temperature Probe Pt-100 (Glass), acc. to DIN EN 60751, K1A.

Tube Ø 8 mm made of borosilicate glass, head with screw cap with integrated Lemo® socket. Probe and tube are exchangeable.
 Measuring range from -200°C to +400°C.

Article No.	Probe	Stock Length	Thread Head
40.430.05	1 x Pt-100 2-Wire	150 mm	SVL 15
40.430.10	1 x Pt-100 2-Wire	240 mm	SVL 15
40.430.15	1 x Pt-100 2-Wire	330 mm	SVL 15
40.430.20	1 x Pt-100 2-Wire	430 mm	SVL 15
40.430.22	1 x Pt-100 2-Wire	600 mm	SVL 15
40.430.45	1 x Pt-100 4-Wire	150 mm	GL 18
40.430.50	1 x Pt-100 4-Wire	240 mm	GL 18
40.430.55	1 x Pt-100 4-Wire	330 mm	GL 18
40.430.60	1 x Pt-100 4-Wire	430 mm	GL 18
40.430.62	1 x Pt-100 4-Wire	600 mm	GL 18
40.430.65	2 x Pt-100 2-Wire	150 mm	GL 18
40.430.70	2 x Pt-100 2-Wire	240 mm	GL 18
40.430.75	2 x Pt-100 2-Wire	330 mm	GL 18
40.430.80	2 x Pt-100 2-Wire	430 mm	GL 18
40.430.82	2 x Pt-100 2-Wire	600 mm	GL 18



SVL 15
Lemo 2-Pol

GL 18
Lemo 4-Pol

Replacement Tubes for Pt-100 Probes

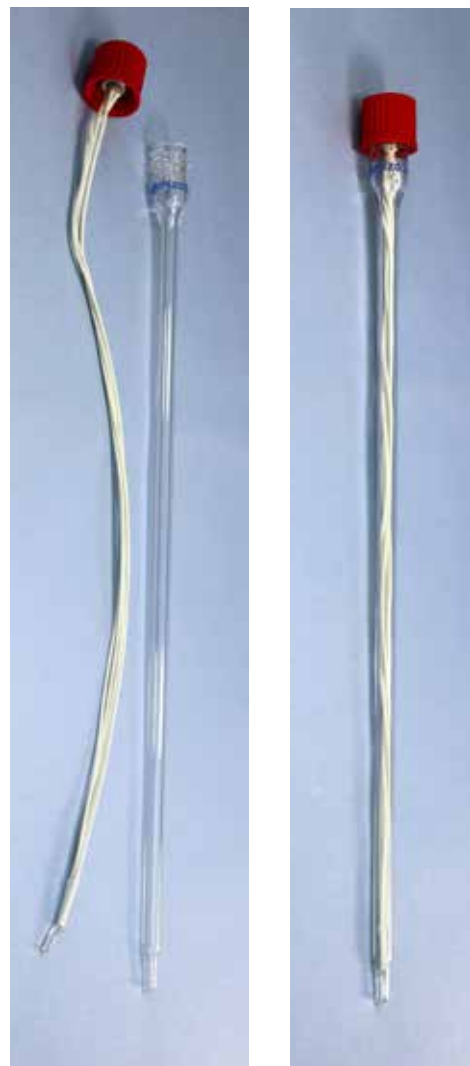
made of borosilicate glass. Please indicate desired Probe Type

Article No.	Thread Head	Stock Length
40.435.15	SVL 15	150 mm
40.435.24	SVL 15	240 mm
40.435.33	SVL 15	330 mm
40.435.43	SVL 15	430 mm
40.430.60	SVL 15	600 mm
40.438.15	GL 18	150 mm
40.438.24	GL 18	240 mm
40.438.33	GL 18	330 mm
40.438.43	GL 18	430 mm
40.438.60	GL 18	600 mm

black screw cap = SVL 15 (plug 2-pole)
red screw cap = GL 18 (plug 4-pole)



Guide tubes with other head threads by request



Replacement Probes Pt-100 According to DIN

incl. Lemo socket and screw cap. Please indicate desired wire length (150 / 240 / 330 / 430 / 600 mm).
Measuring range from -200°C to +400°C.

Article No.	Probe Type	Thread Head
40.440.10	1 x Pt-100 2-wire	SVL 15
40.440.25	1 x Pt-100 4-wire	GL 18
40.440.40	2 x Pt-100 2-wire	GL 18

Portable Electronic Temperature Measuring Device TEST0 110

One channel meter for demanding temperature measurement in the laboratory, suitable for SCHMIZO 1 x Pt-100 4-wire probes

Article No.	Measuring Range
40.441.00	- 100 ...+ 800 °C

Battery and calibration protocol are included.
Input: USB Type C (use cable with LEMO - USB Type C plugs).

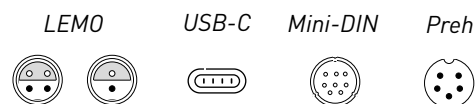
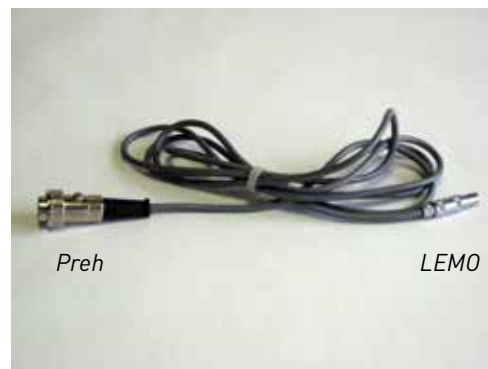


Probe Cables

Probe Cable for Pt-100

Cable length 200 cm, other length on request

Article No.	Plug	for Probe Type	Poles	
40.450.01	LEMO - none	1 x Pt-100 2-wire	2	
40.450.05	LEMO - none	1 x Pt-100 4-wire	4	
40.450.10	LEMO - none	2 x Pt-100 2-wire	4	
40.455.01	LEMO - Preh	1 x Pt-100 2-wire	2	
40.455.05	LEMO - Preh	1 x Pt-100 4-wire	4	
40.455.10	LEMO - Preh	2 x Pt-100 2-wire	4	
40.460.01	LEMO - LEMO	1 x Pt-100 2-wire	2	
40.460.05	LEMO - LEMO	1 x Pt-100 4-wire	4	
40.460.10	LEMO - LEMO	2 x Pt-100 2-wire	4	
40.465.50	LEMO - Mini-DIN	1 x Pt-100 4-wire	4	Testo 720
40.465.60	LEMO - USB-C	1 x Pt-100 4-wire	4	Testo 110

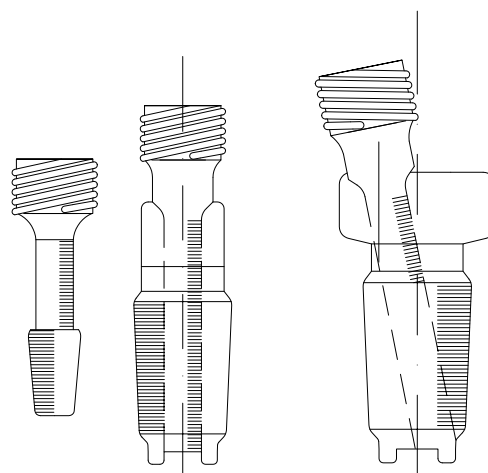


Probe Adapters

Guiding Tubes Ø 8 mm

for thermometers and probes; srew cap and joint are included

Art.Nr.	Ø mm	Form	NS	GL
23.682.12	8	straight	14	18
23.682.22	8	straight	19	18
23.682.32	8	straight	24	18
23.682.40	8	straight	29	18
23.683.32	8	oblique	24	18
23.683.40	8	oblique	29	18



Probe adapter straight

Probe adapter EXCENTER oblique

Spare Parts

for temperature probe adapters

Art.Nr.	Artikel
12.255.18	Srew cap GL 18
12.255.25	Srew cap GL 25
12.263.08	Joint 16 x 8 mm
12.265.12	Joint 22 x 12 mm



pH and Redox Electrodes

Schmizo pH and Redox Electrodes

Low cost pH and redox electrodes without temperature compensation, for the full pH range from 0 - 14, applicable at temperatures from 0°C to 80°C.

Connection: SC plug head.

Together with the Schmizo guiding tube optimized for the use in our reactors.

Please specify desired usable length when ordering!



Article No.	Model	Total length mm	Usable length mm
40.442.10	pH-Electrode	400 - 700	300 - 600
40.442.11	Redox-Electr.	400 - 700	300 - 600

Probe cable Schmizo pH-/Redox-Electrode

Ready made cable SC - BNC. Standard length 2 m (other lengths on request).



Article No.	Model	Ports	Length
40.442.15	pH / Redox	SC - BNC	2 m

Adapter for Schmizo pH-/Redox Electrodes

Guiding tube 12 mm straight, incl. cap GL 25 and seal 22x12 mm for pH-probes with shaft Ø12mm, NS cone 29/32

Article No.	Ø mm	Form	NS	GL
23.682.45	12	straight	29	25



Laboratory Racks

Table Racks for Reactors up to 5 Liters, Oblique Foot

made of anodized aluminium, tube Ø 34 mm made of stainless steel
 2 cross connectors are included; height-adjustable feet

Article No.	Fits Reactor Holder		Dimensions w x h x d mm
	Material	DN	
50.000.11	Polyester	60 / 100 / 120	500 x 500 x 1300
50.000.16*	Polyester	150	500 x 500 x 1300
50.000.21*	Stainl. Steel	120 / 150	500 x 500 x 1300

* incl. 2 mounting rods



Table Racks for Reactors up to 5 Liters, Straight Foot

completely made of stainless steel, tube Ø 34 mm
 2 cross connectors are included; height-adjustable feet

Article No.	Fits Reactor Holder		Dimensions w x h x d mm
	Material	DN	
50.075.10	Polyester	60 / 100 / 120	350 x 500 x 1300
50.075.45*	Polyester	150	350 x 500 x 1300
50.075.55*	Stainl. Steel	120 / 150	350 x 500 x 1300

* incl. 2 mounting rods

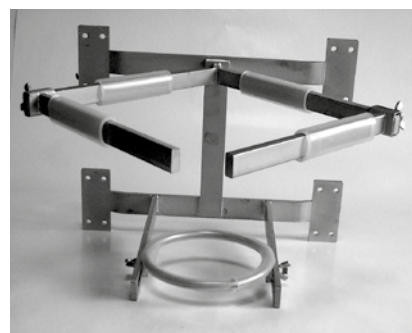


Special Holder for Jacketed Reactors, Made of Stainless Steel

suitable for wall or rack mounting

Article No.	Fitting Reactors with Volume	Dimensions * w x h x d mm
17.910.15	1'000 ml	355 x 332 x 250
17.910.50	2'000 - 6000 ml	355 x 332 x 370
17.910.60	10'000 ml	355 x 332 x 400
17.910.65	15'000 ml	355 x 332 x 450
17.910.70	20'000 ml	355 x 332 x 450

* approximate mass



Floor Standing Rack for Reactors up to 20 Liters

fitting reactor holders made of polyester DN 150 and reactor holders made of stainless steel DN 120 - 150; 1 cross connector is included. Strivings made of anodized aluminium, tube 1" (34 mm) made of stainless steel, height-adjustable feet or plastic rollers.

Article No.	Execution of the stand system	Dimensions w x h x d mm	
50.100.20	Adjustable feet	450 x 500 x 1300	
50.100.21	Plastic rollers	450 x 500 x 1500	



Floor Standing Rack for Reactors up to 20 Liters

fitting reactor holders DN 150 (polyester and stainless steel) and DN 200 (stainless steel); 1 cross connector is included. Completely made of stainless steel, tube 1" (34 mm), height-adjustable feet.

Article No.	Execution of the stand system	Dimensions w x d x h mm	
50.090.10	DN 150 / Plastic rollers	700 x 600 x 1800	
50.090.11	DN 150 / Adjustable feet	700 x 600 x 1800	
50.090.15	DN 200 / Plastic rollers	700 x 600 x 1800	
50.090.16	DN 200 / Adjustable feet	700 x 600 x 1800	



other sizes by request

Floor Standing Rack for Reactors up to 20 Liters with two Stackers

fitting reactor holders DN 150 (polyester and stainless steel) and DN 200 (stainless steel); 1 cross connector is included. Completely made of stainless steel, tube 1" (34 mm), height-adjustable feet or plastic rollers.

Article No.	Execution of the flange / stand system	Dimensions w x h x d mm	
50.080.10	DN 150 / Plastic rollers	700 x 690 x 1800	
50.080.11	DN 150 / Adjustable feet	700 x 690 x 1800	
50.080.15	DN 200 / Plastic rollers	700 x 690 x 1800	
50.080.16	DN 200 / Adjustable feet	700 x 690 x 1800	



All laboratory racks are also available with cross connectors fitting the **stirrer motors of the CAT 100-Series** (with 2 holders).

Cross Connector for CAT 100 Series Stirring Motors for 1 inch tubes

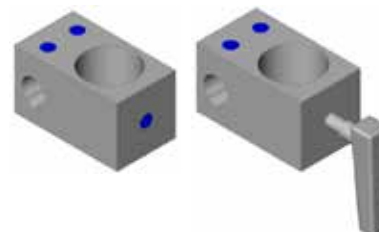
Article No.	Fixation	Ø1 mm	Ø2 mm	
50.010.40	Clamping screw	34	10 - 16	



Cross Connector Made of Anodized Aluminium

for 1 inch tubes

Article No.	Fixation	Ø1 mm	Ø2 mm	
50.010.05	Allen Srew	34	10 - 16	
50.010.15	Clamping screw	34	10 - 16	



Cross Connector Made of Stainless Steel

for 1 inch tubes

Article No.	Fixation	Ø1 mm	Ø2 mm	
50.120.15	Allen Srew	34	10 - 16	
50.120.20	Clamping screw	34	10 - 16	



Collecting Tray for Laboratory Rack

made of stainless steel

Article No.	fits rack foot:	Volume l	Dimensions mm	
50.050.00	straight	6.5	400 x 280 x 70	
50.050.10	oblique	5.5	380 x 340 x 60	



Ground Rods

for reactor holders

Article No.	Ø mm		
50.020.20	13	300	
50.020.25	13	490	
50.020.30	16	300	
50.020.35	16	490	
50.020.40	16	500	
50.020.45	16	550	

Supporting Ring

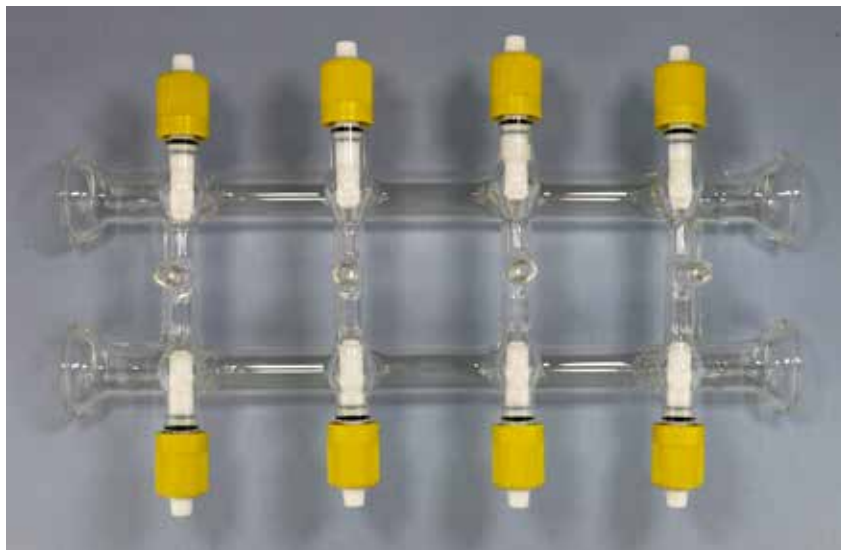
silicone covered

Article No.	Ø mm	
50.050.50	13	
50.050.55	16	



Schlenk Glassware

We offer Schlenk lines in all possible variations. Since these lines are usually very individually assembled, we do not have fixed article numbers that we list here. We will be happy to make you an offer according to your needs.



Valves according to your choice:

- Stopcock with glass key
- Stopcock with PTFE key
- PRODURAN high vacuum valve
- YOUNG high vacuum valve



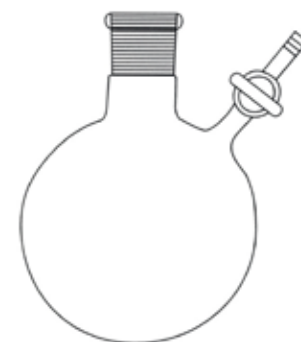
Schlenk line with YOUNG high vacuum valves

Schlenk Flasks

with NS socket and NS single or high vacuum valve

Article No.	Content	Neck NS	bore
23.20x.39 *	25 ml	14/23	2.5
23.20x.45 *	50 ml	14/23	2.5
23.20x.55 *	100 ml	14/23	2.5
23.20x.65 *	250 ml	14/23	2.5
23.20x.55 *	100 ml	29/32	2.5
23.20x.65 *	250 ml	29/32	2.5
23.20x.73 *	500 ml	29/32	2.5
23.20x.81 *	1000 ml	29/32	2.5

* $x = 0$: valve with glass key, * $x = 1$: valve with PTFE key,
* $x = 2$: with PRODURAN valve, * $x = 3$: with YOUNG valve

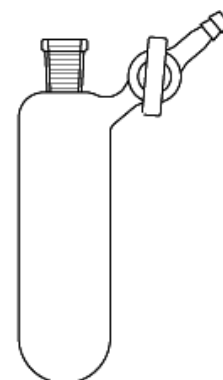


Schlenk Tubes

with NS socket and NS single or high vacuum valve

Article No.	Content	Neck NS	bore
23.21x.31 *	10 ml	14/23	2.5
23.21x.39*	25 ml	14/23	2.5
23.21x.45*	50 ml	14/23	2.5
23.21x.55*	100 ml	14/23	2.5
23.21x.65*	250 ml	14/23	2.5

All other sizes and combinations on demand



Technical Information

DURAN® Borosilicate Glass 3.3

For the manufacturing of our products we usually use DURAN® borosilicate glass 3.3. (manufactured by SCHOTT Rohrglas). The properties of DURAN® can be found on the homepage of DWK LIFE SCIENCES (www.dwk.com) or that of SCHOTT (www.schott.com) under the search term DURAN.

Pressure / Vacuum / Temperature

Schmizo reactors are designed for unpressurized operation. The authorized operating overpressure is generally 0.1 bar (but is dependent on the volume and type of vessel). Processed glass components in all nominal widths can be used at maximum vacuum, only vessels with flat bottom are not suitable for operation under slight overpressure and vacuum.

The maximum short-term operating temperature of borosilicat glass is 500° C, the maximum temperature shock must not exceed 100 Kelvin. Reactors with bottom valves made of PTFE can be operated at maximum temperature of 210° C. For jacketed reactors the maximum temperature difference ΔT between the reaction chamber and the heating jacket is 40 Kelvin and the maximum overpressure inside the heating jacket is 0.5 bar.

Before any evacuation or pressure load, glass vessels must be subjected a visual inspection for perfect condition. Damaged glass vessels should not be used to work with pressure and vacuum for safety reasons.

Coating of Glass Vessels

As splinter and leakage protection in case of glass breakage there are different kinds of coatings available. Gladly we make you a corresponding offer.

Special Designs

We are specialized in manufacturing customized system parts and can support you in development and realization with our specialist knowledge.

Glass Repairs


We perform all kinds of repairs if the defective component is made of borosilicate glass or quartz glass. In this case the breakage risk always remains by the contracting entity. For that we usually do not charge our costs in case of breakage.

Customer Service / Consultancy

We gladly stand at your disposal for a free consultation. Contact us by e-mail to info@schmizo.ch or by phone call to +41 (0)62 789 60 50.

Products & Services Overview

schmizo swiss scientific glass



REACTOR VESSELS & ACCESSORIES
VERSION 2

Our reactor catalogue features the SCHMIZO reactors manufactured in our workshop and, of course, everything else you need to assemble a complete reactor system.

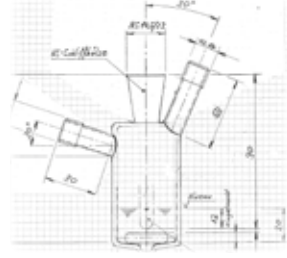
schmizo swiss scientific glass



Laboratory Glass
& Labware

Our laboratory glassware catalogue features the current standard products and equipment (trade goods and products made in-house). And, if you don't see what you need here, we can get it for you.


schmizo swiss scientific glass



Custom Products

We specialise in manufacturing custom products according to your specifications, even as one-offs. Our technical consultant will gladly assist you in planning your project.

schmizo swiss scientific glass



Repairs & Coatings

We perform glass repairs when they seem both reasonable and feasible. We also offer various coatings that protect against shattering and leaking in case of broken glassware.

Our Main Trading Partners

You can order these companies' products through Schmizo. We can also offer other brands if you wish.

Stirring Motors



Labware made of PTFE, PFA and FEP



Labware Made of Stainless Steel



DURAN Laboratory glass



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