

## Rodaviss® Grind Connections



In comparison to standard grind connections, the Rodaviss® grind connections have the advantage that the clamp is integrated and the connections holds a pressure up to 0,5 bar, compared to standard clamps, which didn't allow pressure. The dangerous situation at working with a soft pressure, that apparatus parts are blown with high speed through the room is limited.

Rodaviss Schliiffverbindungen halten Schliche nicht nur zusammen, sie können sie auch wieder gewaltlos trennen. Beim Lösen der Befestigungsmutter hakt sich ein Kunststoffring in einen Ring des Glaskernes ein und schiebt diesen nach oben.

An other advantage is the uses with PTFE sleeves, because in opposition to standard clamps, the Rodaviss screw connectors didn't disturb the sleeves.

As addition to the system there are closing caps for the sockets. Closing caps NS 34 and larger are not appropriate for vacuum.

Nearly all grind apparatuses can be provited with Rodaviss® Grind joints. Important! At closed systems must be used a pressure device to safe the system against a explosion.

### Accessories for Rodaviss® Grind Joints

#### O-Rings



NS	Article No.
14,5	100ROOR014
18,8	100ROOR019
24,0	100ROOR024
29,2	100ROOR029
34,5	100ROOR034
45,0	100ROOR045

#### Fixing Nut



NS	Article No.
14,5	100ROLOC14
18,8	100ROLOC19
24,0	100ROLOC24
29,2	100ROLOC29
34,5	100ROLOC34
45,0	100ROLOC45

#### Out pushing rings



NS	Article No.
14,5	100ROAS014
18,8	100ROAS019
24,0	100ROAS024
29,2	100ROAS029
34,5	100ROAS034
45,0	100ROAS045

#### Closing Caps



NS	Article No.
14,5	100ROCAP14
18,8	100ROCAP19
24,0	100ROCAP24
29,2	100ROCAP29
34,5	100ROCAP34
45,0	100ROCAP45

### PTFE Sleeves for Grind Joints

PTFE sleeves made allows the tight connection of NS Joints without grind fat. The So no grind fat is dropping into the product and the joints didn't stick together. The only one disadvantage it, that the PTFE sleeves are not vacuum stabil like grind fat.

#### NS-Sleeve



NS	Article No.
14,5	100BH930-14
18,8	100BH930-19
24,0	100BH930-24
29,2	100BH930-29
34,5	100BH930-34
45,0	100BH930-45

#### Ball Sleeves



KS	Article No.
13	100BH934-13
19	100BH934-19
29	100BH934-29
35	100BH934-35
41	100BH934-41
64	100BH934-64

### SS connection clamps

Joint clamps are used to to clamp grind joints together at a soft overpressure. This clamps are not suitable to hold grind apparatuses from above. Attention! Grind connections, which are clamping with the stress of a spring together can be a hidden danger at overpressure! Closed systems, which are provited with connection clamps must be provited with a overpressure divice. Systems with a connection to a vacuum pump are anytime closed systems!

#### NS SS Clamps



NS	Article No.
14,5	100NSKL14
18,8	100NSKL19
24,0	100NSKL24
29,2	100NSKL29
34,5	100NSKL34
45,0	100NSKL45

#### SS Joints for ball joints KS



KS	Article No.
13	100KSKL13
19	100KSKL19
29	100KSKL29
35	100KSKL35
41	100KSKL41
64	100KSKL64

**Keck® Clamps**

NS	Article No.
14,5	100BH930-14
18,8	100BH930-19
24,0	100BH930-24
29,2	100BH930-29
34,5	100BH930-34
45,0	100BH930-45

**GL Screw Connections**

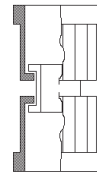
GL screw connections are preferred used for a flexible hose-glass connection. We decide between hard and soft connections. While hard connections like glass and PTFE never are leak tight, are connections with a thinn PTFE lip and a rubber O-ring behind it much more leak tight. But when this type of connection is much more thghter, it will never be 100% leak tight because at the glass side ever will be any leaking points in the surface. Anytime the leak rate is depending to the used glass screw thread.

**GL caps**

GL	Article No.
14	18 830 21
18	18 830 22
25	18 830 23
32	18 830 24
45	18 830 25

**GL fixing nuts**

GL	Article No.
14	18 830 31
18	18 830 32
25	18 830 33
32	18 830 34
45	18 830 35

**Screw connections**

G	Article No.
14	18 830 11
18	18 830 12
25	18 830 13
32	18 830 14
45	18 830 15

**Silikondichringe mit PTFE-Stulpe**

GL	für Rohre	Article No.
14	5,5 - 6,5 mm	18 830 41
18	5,5 - 6,5 mm	18 830 51
	7,5 - 9,0 mm	18 830 52
	9,0 - 11 mm	18 830 53
25	7,9 - 9,0 mm	18 830 61
	9,0 - 11 mm	18 830 62
	11 - 13 mm	18 830 63
32	9,0 - 11 mm	18 830 71
	11 - 13 mm	18 830 72
	13 - 15 mm	18 830 73
	15 - 17 mm	18 830 74
	17 - 19 mm	18 830 75
45	25 - 27 mm	18 830 81
	31 - 33 mm	18 830 82

**Hose connections straight**

Material PP	GL	Ø	Article No..
	14	9 mm	18830OPPG1409
	18	10 mm	18830OPPG1810

**Material PFA**

	14	9 mm	18830OPFG1409
	18	10 mm	18830OPFG1810

**Material PFA**

	18	10 mm	18830OSSG1810
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**Hose connections curved**

Material PP	GL	Ø	Article No.
	14	8 mm	18830OPPB1408
	18	10 mm	18830OPPB1810

**Material PFA**

	14	8 mm	18830OPFB1408
	18	10 mm	18830OPFB1810

**Sealings for grind less ball joints (Rotulex®)**

For grind less ball joints we have O-rings made of two different materials. Simple Viton O-rings are not very chemical resistant and are used mainly for vacuum pipelines. Much more chemical resistant are the PTFE jacketed silicone O-rings, but this types are less vacuum resistant.

**Viton O-Rings**

NS	Article No.
14,5	100KRORV13
18,8	100KRORV19
24,0	100KRORV29
29,2	100KRORV35
34,5	100KRORV41
45,0	100KRORV64

**Silicone - PTFE**

KS	Article No.
14,5	100KRORP13
18,8	100KRORP19
24,0	100KRORP29
29,2	100KRORP35
34,5	100KRORP41
45,0	100KRORP64

## NS - GL adapters



NS Joint / GL NS / GL	straight Article No.	45° curved Article No.	90° curved Article No.
NS 14,5 / GL14	193 14 14 00	193 14 14 45	193 14 14 90
NS 14,5 / GL18	193 14 18 00	193 14 18 45	193 14 18 90
NS 18,8 / GL14	193 18 14 00	193 18 14 45	193 18 14 90
NS 18,8 / GL18	193 18 18 00	193 18 18 45	193 18 18 90
NS 18,8 / GL25	193 18 25 00	193 18 25 45	193 18 25 90
NS 24 / GL14	193 24 14 00	193 24 14 45	193 24 14 90
NS 24 / GL18	193 24 18 00	193 24 18 45	193 24 18 90
NS 24 / GL25	193 24 25 00	193 24 25 45	193 24 25 90
NS 24 / GL32	193 24 32 00	193 24 32 45	193 24 32 90
NS 29 / GL14	193 29 14 00	193 29 14 45	193 29 14 90
NS 29 / GL18	193 29 18 00	193 29 18 45	193 29 18 90
NS 29 / GL25	193 29 25 00	193 29 25 45	193 29 25 90
NS 29 / GL32	193 29 32 00	193 29 32 45	193 29 32 90
NS 34 / GL14	193 34 14 00	193 34 14 45	193 34 14 90
NS 34 / GL18	193 34 18 00	193 34 18 45	193 34 18 90
NS 34 / GL25	193 34 25 00	193 34 25 45	193 34 25 90
NS 34 / GL32	193 34 32 00	193 34 32 45	193 34 32 90
NS 45 / GL14	193 45 14 00	193 45 14 45	193 45 14 90
NS 45 / GL18	193 45 18 00	193 45 18 45	193 45 18 90
NS 45 / GL25	193 45 25 00	193 45 25 45	193 45 25 90
NS 45 / GL32	193 45 32 00	193 45 32 45	193 45 32 90

In principle all reduction adapters can be provided with standard grind joints. To use the out pushing mechanism of Rodaviss® the adapters must be provided with a Rodaviss® cone.



Provided with Rodaviss® Cone = Article no + R

Exemple: Cone NS 29 Rodaviss®, GL 18, 45° curved = 193 29 18 45R

## NS - double GL adapters

Joint NS	GL above	GL side	Article No.	Rodaviss® Article No.
NS 14,5	GL14	GL14	194 14 T14	194 14 T14R
NS 14,5	GL18	GL18	194 14 T18	194 14 T18R
NS 18,8	GL14	GL14	194 18 T14	194 18 T14R
NS 18,8	GL18	GL18	194 18 T18	194 18 T18R
NS 24	GL14	GL14	194 24 T14	194 24 T14R
NS 24	GL18	GL18	194 24 T18	194 24 T18R
NS 24	GL25	GL25	194 24 T25	194 24 T25R
NS 29	GL14	GL14	194 29 T14	194 29 T14R
NS 29	GL18	GL18	194 29 T18	194 29 T18R
NS 29	GL25	GL25	194 29 T25	194 29 T25R
NS 34	GL14	GL14	194 34 T14	194 34 T14R
NS 34	GL18	GL18	194 34 T18	194 34 T18R
NS 34	GL25	GL25	194 34 T25	194 34 T25R
NS 45	GL14	GL14	194 45 T14	194 45 T14R
NS 45	GL18	GL18	194 45 T18	194 45 T18R
NS 45	GL25	GL25	194 45 T25	194 45 T25R



## S - Adapter

Joint NS	Type	Article No.	Rodaviss® Article No.
NS 14,5	gerade	194 14S1400	194 14S1400R
NS 14,5	gerade	194 19S1900	194 19S1900R
NS 24	gerade	194 24S2400	194 24S2400R
NS 29	gerade	194 29S2900	194 29S2900R
NS 34	gerade	194 34S3400	194 34S3400R
NS 45	gerade	194 45S4500	194 45S4500R
NS 14,5	15° schräg	194 14S1415	194 14S1415R
NS 14,5	15° schräg	194 19S1915	194 19S1915R
NS 24	15° schräg	194 24S2415	194 24S2415R
NS 29	15° schräg	194 29S2915	194 29S2915R
NS 34	15° schräg	194 34S3415	194 34S3415R
NS 45	15° schräg	194 45S4515	194 45S4515R



## KF - GL Adapter



Flange KF / GL	straight Article No.	45° curved Article No.	90° curved Article No.
KF 15/1 / GL18	193 151 18 00	193 151 18 45	193 151 18 90
KF 15/2 / GL18	193 152 18 00	193 152 18 45	193 152 18 90
KF 15/3 / GL18	193 153 18 00	193 153 18 45	193 153 18 90
KF 15/1 / GL 25	193 151 25 00	193 151 25 45	193 151 25 90
KF 15/2 / GL 25	193 152 25 00	193 152 25 45	193 152 25 90
KF 15/3 / GL 25	193 153 25 00	193 153 25 45	193 153 25 90
KF 25/1 / GL 18	193 251 18 00	193 251 18 45	193 251 18 90
KF 25/2 / GL 18	193 252 18 00	193 252 18 45	193 252 18 90
KF 25/3 / GL 18	193 253 18 00	193 253 18 45	193 253 18 90
KF 25/1 / GL 25	193 251 25 00	193 251 25 45	193 251 25 90
KF 25/2 / GL 25	193 252 25 00	193 252 25 45	193 252 25 90
KF 25/3 / GL 25	193 253 25 00	193 253 25 45	193 253 25 90
KF 25/1 / GL 32	193 251 32 00	193 251 32 45	193 251 32 90
KF 25/2 / GL 32	193 252 32 00	193 252 32 45	193 252 32 90
KF 25/3 / GL 32	193 253 32 00	193 253 32 45	193 253 32 90
KF 40/1 / GL 45	193 401 45 00	193 401 45 45	193 401 45 90
KF 40/2 / GL 45	193 402 45 00	193 402 45 45	193 402 45 90
KF 40/3 / GL 45	193 403 45 00	193 403 45 45	193 403 45 90
KF 50/1 / GL 45	193 501 45 00	193 501 45 45	193 501 45 90
KF 50/2 / GL 45	193 502 45 00	193 502 45 45	193 502 45 90
KF 50/3 / GL 45	193 503 45 00	193 503 45 45	193 503 45 90

## KF -NS Adapter

Construction with Rodaviss = Article no. + R



Flange KF / GL	straight Article No.	15° curved Article No.	30° curved Article No.	45° curved Article No.
KF 15/1 / NS 14,5	192 151 14 00	192 151 14 15	192 151 14 30	192 151 14 45
KF 15/2 / NS 14,5	192 152 14 00	192 152 14 15	192 152 14 30	192 152 14 45
KF 15/3 / NS 14,5	192 153 14 00	192 153 14 15	192 153 14 30	192 153 14 45
KF 25/1 / NS 29,2	192 251 29 00	192 251 29 15	192 251 29 30	192 251 29 45
KF 25/2 / NS 29,2	192 252 29 00	192 252 29 15	192 252 29 30	192 252 29 45
KF 25/3 / NS 29,2	192 253 29 00	192 253 29 15	192 253 29 30	192 253 29 45
KF 40/1 / NS 29,2	192 401 29 00	192 401 29 15	192 401 29 30	192 401 29 45
KF 40/2 / NS 29,2	192 402 29 00	192 402 29 15	192 402 29 30	192 403 29 45
KF 40/3 / NS 29,2	192 403 29 00	192 403 29 15	192 403 29 30	192 403 29 45
KF 50/1 / NS 29,2	192 501 29 00	192 501 29 15	192 501 29 30	192 501 29 45
KF 50/2 / NS 29,2	192 502 29 00	192 502 29 15	192 502 29 30	192 502 29 45
KF 50/3 / NS 29,2	192 503 29 00	192 503 29 15	192 503 29 30	192 503 29 45
KF 50/1 / NS 45	192 501 45 00	192 501 45 15	192 501 45 30	192 501 45 45
KF 50/2 / NS 45	192 502 45 00	192 502 45 15	192 502 45 30	192 502 45 45
KF 50/3 / NS 45	192 503 45 00	192 503 45 15	192 503 45 30	192 503 45 45

## Reduction adapters NS - NS

Ausführung als Rodaviss = Artikelnr. + R



Cone	Socket NS 14 Article No.	Socket NS 19 Article No.	Socket NS 24 Article No.	Socket NS 29 Article No.	Socket NS 34 Article No.	Socket NS 45 Article No.
14,5		191 14 19	191 14 24	191 14 29	191 14 34	191 14 45
18,8	191 19 14		191 19 24	191 19 29	191 19 34	191 19 45
24	191 24 14	191 24 19		191 24 29	191 24 34	191 24 45
29,9	191 29 14	191 29 19	191 29 24		191 29 34	191 29 45
34	191 34 14	191 34 19	191 34 24	191 34 29		191 34 45
45	191 45 14	191 45 19	191 45 24	191 45 29	191 45 34	

## Injection tube



Flange below / above	straight Article No.	15° curved Article No.	30° curved Article No.	45° below Article No.
15/1 15/2	EIN1515121	EIN1515121.15	EIN1515121.30	EIN1515121.45
15/3 15/2	EIN1515321	EIN1515321.15	EIN1515321.30	EIN1515321.45
15/3 15/3	EIN1515331	EIN1515331.15	EIN1515331.30	EIN1515331.45
25/1 15/2	EIN2515121	EIN2515121.15	EIN2515121.30	EIN2515121.45
25/3 15/2	EIN2515321	EIN2515321.15	EIN2515321.30	EIN2515321.45
15/3 15/3	EIN2515331	EIN2515331.15	EIN2515331.30	EIN2515331.45
25/1 25/2	EIN2525121	EIN2525121.15	EIN2525121.30	EIN2525121.45
25/3 25/2	EIN2525321	EIN2525321.15	EIN2525321.30	EIN2525321.45
15/3 25/3	EIN2525331	EIN2525331.15	EIN2525331.30	EIN2525331.45

## Hollow stoppers and blind flanges



### Hexagon stoppers

Cone NS	Article No.
14,5/23	19 010 04
18,8/26	19 010 06
24/29	19 010 08
29,2/32	19 010 10
34,5/35	19 010 12
45/40	19 010 14



### Ball stoppers " type

Ball	Article No.	Rotulex Article No.
S13	19 013 13	19 013 13R
S19	19 013 19	19 013 19R
S29	19 013 29	19 013 29R
S35	19 013 35	19 013 35R
S40	19 013 40	19 013 40R
S51	19 013 51	19 013 51R
S64	19 013 64	19 013 64R

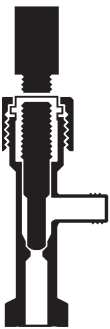
### Blindflansche

DN	Ball Article No.	Basin Article No.	Plane Article No.
15	BL 15/1	BL 15/2	BL 15/3
25	BL 25/1	BL 25/2	BL 25/3
40	BL 40/1	BL 40/2	BL 40/3
50	BL 50/1	BL 50/2	BL 50/3
80	BL 80/1	BL 80/2	BL 80/3
100	BL100/1	BL100/2	BL100/3
150	BL150/1	BL150/2	BL150/3
200	BL200/1	BL200/2	BL200/3
300	BL300/1	BL300/2	BL300/3
400			BL400/3
450			BL450/3
600			BL600/3



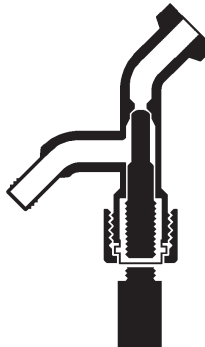
## Valves and spares

This stabil spindle valves are used in first line as venting, vacuum or outlet valves.



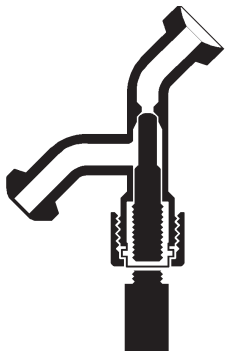
### Corner valve

KF .. /*	GL	Bohre	Article No.
15/*	18	3 mm	18 900 02-*
15/*	18	6 mm	18 900 03-*
15/*	18	10 mm	18 900 04-*
15/*	18	15 mm	18 900 05-* X
25/*	18	10 mm	18 900 06-*
25/*	32	25 mm	18 900 07-* X
40/*	45	40 mm	18 900 08-* X
50/*	45	50 mm	18 900 09-* X



### Straight way valve

KF .. /*	GL	Bohre	Article No.
15/*	18	3 mm	18 900 22-*
15/*	18	6 mm	18 900 23-*
15/*	18	10 mm	18 900 24-*
15/*	18	15 mm	18 900 25-* X
25/*	18	10 mm	18 900 26-*
25/*	32	25 mm	18 900 27-* X
40/*	45	40 mm	18 900 28-* X
50/*	45	50 mm	18 900 29-* X



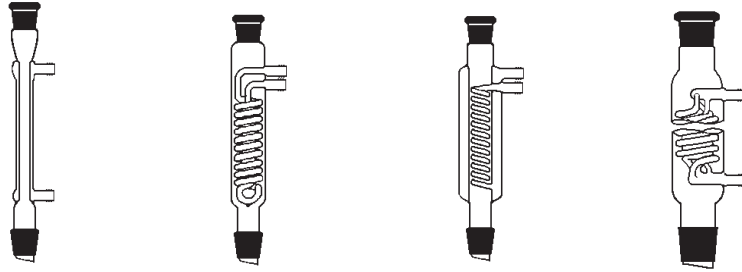
### Straight way valve

KF .. /*	KF .. /*	Bohrung	Best.Nr.
15/*	15/*	3 mm	18 900 32-**
15/*	15/*	6 mm	18 900 33-**
15/*	15/*	10 mm	18 900 34-**
15/*	15/*	15 mm	18 900 35-** X
25/*	25/*	10 mm	18 900 36-**
25/*	25/*	25 mm	18 900 37-** X
40/*	40/*	40 mm	18 900 38-** X
50/*	50/*	50 mm	18 900 39-** X

At the with X marked valves the spindles are provided with a spring which guarantees, that the valve is adjusting the spindle at a temperature change.

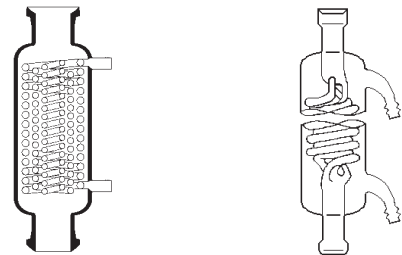
- \* 1 = Kugel
- \* 2 = Schale
- \* 3 = Plan

## Coolers



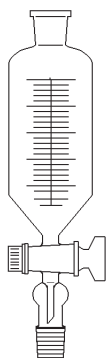
Working length	NS	Liebig condenser Art.no.	Dimroth cooler Art.no.	Intense cooler Art.no.	High-efficiency-c. Art.no.	Art.no.
200	14,5/23	21 120 08		21 141 08		21 160 08
300	14,5/23	21 120 12		21 141 12		21 160 12
400	14,5/23	21 120 14				21 160 14
200	18,8/26	21 120 22				21 160 22
300	18,8/26	21 120 26				21 160 26
400	18,8/26	21 120 28				21 160 28
200	24/29	21 120 36				21 160 36
300	24/29	21 120 40				21 160 40
400	24/29	21 120 42				21 160 42
200	29,2/32	21 120 48				21 160 48
250	29,2/32	21 120 50		21 141 50		21 160 50
300	29,2/32	21 120 52		21 141 52		21 160 52
400	29,2/32	21 120 54		21 141 54		21 160 54
0,2m <sup>2</sup>	45/40					21 200 55
250	45/40			21 141 66		21 160 66
0,3m <sup>2</sup>	45/40					21 200 68
300	45/40			21 141 68		21 160 68
400	45/40			21 141 70		21 160 70

## High-efficiency coolers



DN	cooling area m <sup>2</sup>	Fitting length	Water connectors	Cooler Art.no.	Product cooler Art.no.
25	0,2	570	GL 18	21 240 25	
40	0,2	570	GL 18	21 240 40	
50	0,2	570	GL 18	21 240 50	
15	0,2	350	GL 18		21 281 15
25	0,2	350	GL 18	21 243 25	
40	0,2	350	GL 18	21 243 40	
50	0,2	350	GL 18	21 243 50	
80	0,2	350	GL 18	21 243 80	
100	0,2	350	GL 18	21 243 100	
25	0,3	450	GL 18	21 245 25	21 281 25
40	0,3	450	GL 18	21 245 40	
50	0,3	450	GL 18	21 245 50	
80	0,3	450	GL 18	21 245 80	
100	0,3	450	GL 18	21 245 100	
50	0,6	725	GL 18	21 249 50	
80	0,6	725	GL 18	21 249 80	
100	0,6	725	GL 18	21 249 100	
50	0,6	500	GL 18	21 250 50	
80	0,6	500	GL 18	21 250 80	
100	0,6	500	GL 18	21 250 100	
150	0,6	500	GL 18	21 250 150	
150	1,0	700	GL 18	21 261 150	

larger condensers by request



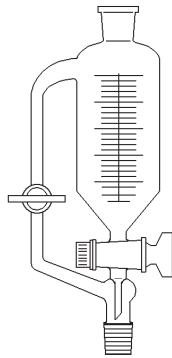
### Cylinder-shaped dropping funnel

with melt-in drop pin and massive standard ground joint glass plug

**21 120 \*\***

Alternatively with polished tap and plug made of PTFE **25 121 \*\***

Alternatively with glass tap and hollow glass plug **25 123 \*\***



### Dropping funnel with pressure compensation

with melt-in drop pin and massive standard ground joint glass plug

**25 125 \*\***

Alternatively with polished tap and plug made of PTFE **21 127 \*\***

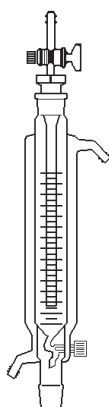
Alternatively with glass tap and hollow glass plug **25 129 \*\***

Cap. Bushing/Core Spacing Boring Art.no.

50	14,5/23	1,0	3	25 120 08
100	14,5/23	2,0	3	25 120 10
250	14,5/23	5,0	4	25 120 12
500	14,5/23	10,0	4	25 120 14
50	18,8/26	1,0	3	25 120 18
100	18,8/26	2,0	3	25 120 20
250	18,8/26	5,0	4	25 120 22
500	18,8/26	10,0	4	25 120 24
50	29,2/32	1,0	3	25 120 38
100	29,2/32	2,0	3	25 120 40
250	29,2/32	5,0	4	25 120 42
500	29,2/32	10,0	4	25 120 44
1000	29,2/32	20,0	6	25 120 46
2000	29,2/32	50,0	6	25 120 48

Cap. Bushing/Core Spacing Boring Art.no.

50	14,5/23	1,0	3	25 125 08
100	14,5/23	2,0	3	25 125 10
250	14,5/23	5,0	4	25 125 12
500	14,5/23	10,0	4	25 125 14
50	18,8/26	1,0	3	25 125 18
100	18,8/26	2,0	3	25 125 20
250	18,8/26	5,0	4	25 125 22
500	18,8/26	10,0	4	25 125 24
50	29,2/32	1,0	3	25 125 38
100	29,2/32	2,0	3	25 125 40
250	29,2/32	5,0	4	25 125 42
500	29,2/32	10,0	4	25 125 44
1000	29,2/32	20,0	6	25 125 46
2000	29,2/32	50,0	6	25 125 48

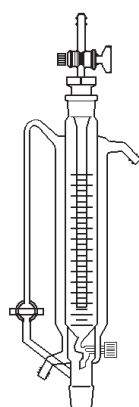


### Proportioning funnel

cylinder-shaped, graduated, with PEEK needle valve

without tempering jacket **25 620 \*\***

Alternatively with temp. jacket **25 625 \*\***



### Proportioning funnel

cylinder-shaped, with pressure compensation, graduated, with PEEK needle valve

without tempering jacket **25 623 \*\***

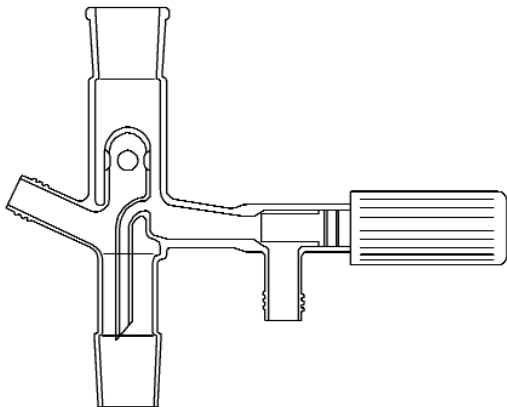
Alternatively with temp. jacket **25 628 \*\***

Cap. Bushing/Core Spacing Boring Art.no.

50	14,5/23	1,0	0-6	25 620 08
100	14,5/23	2,0	0-6	25 660 10
250	14,5/23	5,0	0-6	25 626 12
500	14,5/23	10,0	0-6	25 620 14
50	18,8/26	1,0	0-6	25 620 18
100	18,8/26	2,0	0-6	25 620 20
250	18,8/26	5,0	0-6	25 620 22
500	18,8/26	10,0	0-6	25 620 24
50	29,2/32	1,0	0-6	25 620 38
100	29,2/32	2,0	0-6	25 620 40
250	29,2/32	5,0	0-6	25 620 42
500	29,2/32	10,0	0-6	25 620 44
1000	29,2/32	20,0	0-6	25 620 46
2000	29,2/32	50,0	0-6	25 620 48

Cap. Bushing/Core Spacing Boring Art.no.

50	14,5/23	1,0	0-6	25 623 08
100	14,5/23	2,0	0-6	25 663 10
250	14,5/23	5,0	0-6	25 623 12
500	14,5/23	10,0	0-6	25 623 14
50	18,8/26	1,0	0-6	25 623 18
100	18,8/26	2,0	0-6	25 623 20
250	18,8/26	5,0	0-6	25 623 22
500	18,8/26	10,0	0-6	25 623 24
50	29,2/32	1,0	0-6	25 623 38
100	29,2/32	2,0	0-6	25 623 40
250	29,2/32	5,0	0-6	25 623 42
500	29,2/32	10,0	0-6	25 623 44
1000	29,2/32	20,0	0-6	25 623 46
2000	29,2/32	50,0	0-6	25 623 48

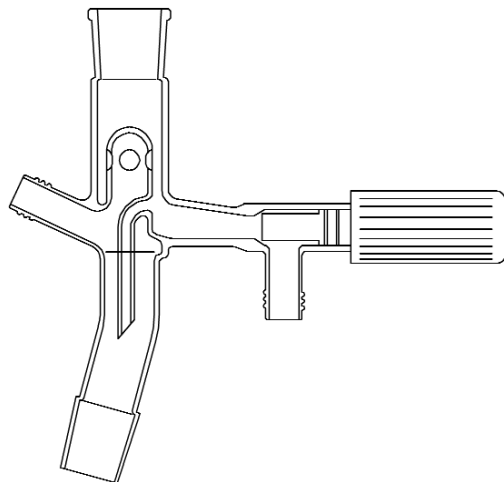


### Liquid divider

NS	with PTFE- valve	with PEEK needle-valve
	Art. no.	Art. no.
29,2/32	50 000 20	50 001 20
45/40	50 000 30	50 001 30

### vacuum jacketed and silvered

29,2/32	50 002 20	50 003 20
45/50	50 002 30	50 003 30

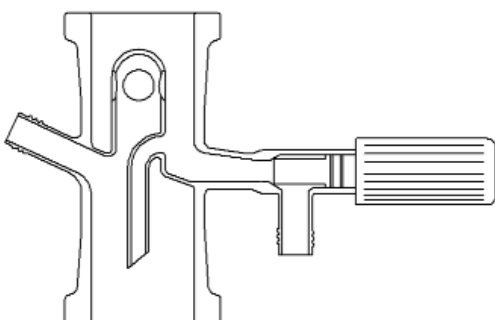


### liquid divider 15°

NS	with PTFE- valve	with PEEK needle-valve
	Art. no.	Art. no.
29,2/32	50 004 20	50 005 20
45/40	50 004 30	50 005 30

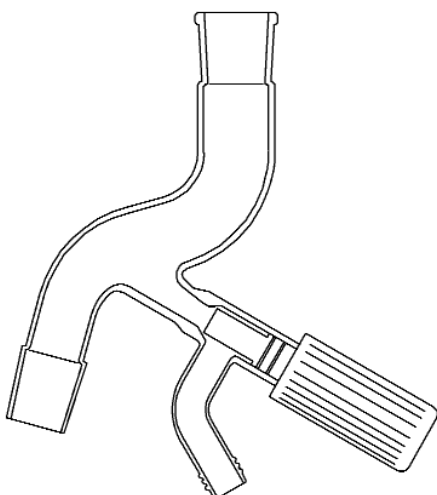
### vacuum jacketed and silvered

29,2/32	50 006 20	50 007 20
45/50	50 006 30	50 007 20



### liquid divider KF

NS	with PTFE- valve	with PEEK needle-valve
	Art. no.	Art. no.
25	50 008 20	50 009 20
40	50 008 30	50 009 30
50	50 008 40	50 009 40
80	50 008 50	50 009 50
100	50 008 60	50 009 60
150	50 008 70	50 009 70
200	50 008 80	50 009 80
300	50 008 90	50 009 90



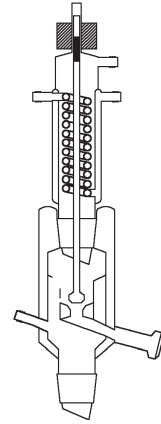
### Liquid divider 15° angled

NS	with PTFE valve
	Art.no
14,5/23	50 010 10
29,2/32	50 010 20
45/40	50 010 30



## Reflux divider for small quantities

Reflux divider with inside liquid separator and deadvolume-free discharge of the medium. In case of low volume flow these column heads enable a very precise condensate separation.



**NS Art.no.**

14,5/23	50 011 10	without vacuum jacket
29,2/32	50 011 20	
45/40	50 011 30	
14,5 / 23	50 013 10	with vacuum jacket
29,2/32	50 013 20	
45/40	50 013 30	
14,5/23	50 017 10	with silvered vacuum jacket
29,2/32	50 017 20	
45/40	50 017 30	

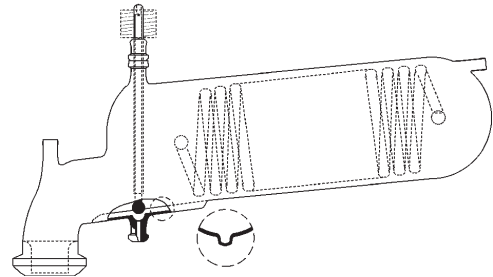
## Reflux divider with low overall height

**DN Art.no. m<sup>2</sup>**

40	50 030 30	0,2
50	50 030 40	0,2
80	50 030 50	0,6
100	50 030 60	0,9
150	50 030 70	2*0,75
40	50 031 30	0,3
50	50 031 40	0,3
80	50 031 50	0,75

with high-efficiency cooler

with jacketed high-efficiency cooler



## Standing reflux divider for larger quantities

**DN Art.no. m<sup>2</sup>**

without vacuum jacket

40	50 050 30	0,2
50	50 050 40	0,2
80	50 050 50	0,6
100	50 050 60	0,6
150	50 050 70	0,75
200	50 050 80	1,5
300	50 050 90	2,5

with vacuum jacket

40	50 053 30	0,2
50	50 053 40	0,2
80	50 053 50	0,6
100	50 053 60	0,6
150	50 053 70	0,75
200	50 053 80	1,5
300	50 053 90	2,5

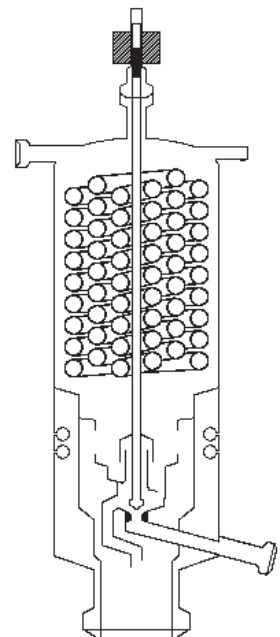
with silvered vacuum jacket

40	50 057 30	0,2
50	50 057 40	0,2
80	50 057 50	0,6
100	50 057 60	0,6
150	50 057 70	0,75
200	50 057 80	1,5
300	50 057 90	2,5

**DN Art.no. m<sup>2</sup>**

with silvered vacuum jacket and jacketed condenser

40	50 058 30	0,3
50	50 058 40	0,3
80	50 058 50	0,75
100	50 058 60	0,75
150	50 058 70	0,9
200	50 058 80	1,7
300	50 058 90	2,8



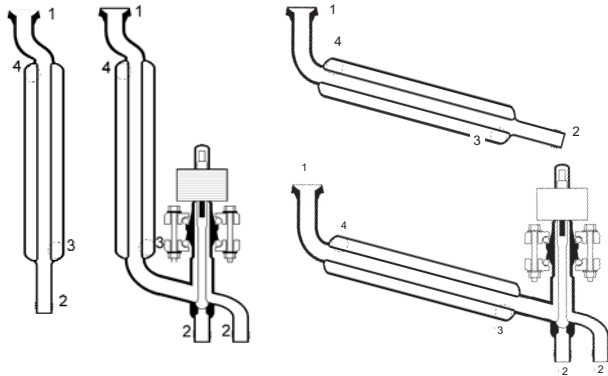
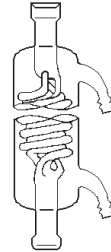
# Magnetic valve

24 V DC with coupling, without cable	50 600 01
with cable and plug	50 600 02



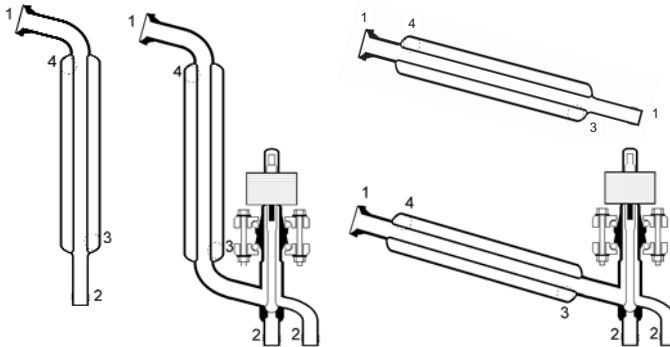
## Product cooler for high quantities

DN	surface m <sup>2</sup>	length mm	connections for cooling water	Art.no.
15	0,2	350	GL 18	21 281 15
25	0,3	450	GL 18	21 281 25



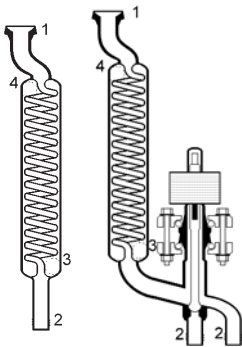
cooling surface Art.no.  
cm<sup>2</sup>

standing with valve	80	21 122 00
	80	21 122 05
laying with valve	80	21 122 11
	80	21 122 15



cooling surface Art.no.  
cm<sup>2</sup>

standing with valve	80	21 122 40
	80	21 122 45
laying with valve	80	21 122 50
	80	21 122 55



cooling surface Art.no.  
cm<sup>2</sup>

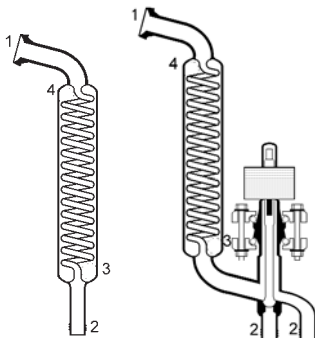
standing	230	21 122 20
	2000	21 122 23
	3000	21 122 25
with valve	230	21 122 30
	2000	21 122 33
	3000	21 122 35

### definition

- 1 = socket 15/2
- 2,3,4 = GL 18 screw

The valve has a magnetic valve 24 V DC

Other voltages are possible.



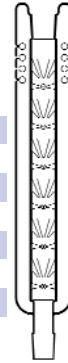
cooling surface Art.no.  
cm<sup>2</sup>

standing	230	21 122 60
	2000	21 122 63
	3000	21 122 65
with valve	230	21 122 70
	2000	21 122 73
	3000	21 122 75

## Vigreux-columns with ground joints



NS	active length mm	identations	iø	Art.no.
14/23	200	44	15	50 201 111
14/23	300	64	15	50 201 113
24/29	300	64	25	50 201 123
24/29	600	124	25	50 201 126
29/32	300	64	25	50 201 133
29/32	600	124	25	50 201 136
29/32	800	164	25	50 201 138



with vacuum jacket	silvered vacuum jacket with window
50 202 111	50 203 111
50 202 113	50 203 113
50 202 123	50 203 123
50 202 126	50 203 126
50 202 133	50 203 133
50 202 136	50 203 136
50 202 138	50 203 138

## Packed columns with ground joints



NS	active length mm	iø	Art.no.
14/23	200	15	50 301 110
14/23	300	15	50 301 120
14/23	200	20	50 301 211
14/23	300	20	50 301 221
24/29	200	20	50 301 411
24/29	300	20	50 301 421
24/29	400	20	50 301 431
24/29	300	25	50 301 422
24/29	400	25	50 301 432
24/29	600	25	50 301 452
24/29	800	25	50 301 462
29/32	300	25	50 301 222
29/32	400	25	50 301 232
29/32	600	25	50 301 252
29/32	800	25	50 301 262
29/32	400	30	50 301 233
29/32	600	30	50 301 253
29/32	800	30	50 301 263
45/40	400	30	50 301 333
45/40	600	30	50 301 353
45/40	800	30	50 301 363
45/40	400	35	50 301 334
45/40	600	35	50 301 354
45/40	800	35	50 301 364
45/40	400	40	50 301 335
45/40	600	40	50 301 355
45/40	800	40	50 301 365



with vacuum jacket	silvered vacuum jacket with window
50 311 110	50 321 110
50 311 120	50 321 120
50 311 211	50 321 211
50 311 221	50 321 221
50 311 411	50 321 411
50 311 421	50 321 421
50 311 431	50 321 431
50 311 422	50 321 422
50 311 432	50 321 432
50 311 452	50 321 452
50 311 462	50 321 462
50 311 222	50 321 222
50 311 232	50 321 232
50 311 252	50 321 252
50 311 262	50 321 262
50 311 233	50 321 233
50 311 253	50 321 253
50 311 263	50 321 263
50 311 333	50 321 333
50 311 353	50 321 353
50 311 363	50 321 363
50 311 334	50 321 334
50 311 354	50 321 354
50 311 364	50 321 364
50 311 335	50 321 335
50 311 355	50 321 355
50 311 365	50 321 365

# Tension braces and auxiliaries



## Quick release clamps

with  
tension spring  
purchase number

DN	
60	S 003 01
100	S 003 02
120	S 003 03
150	S 003 04
200	S 003 05

This spring gives the guaranty that the flange is tight every time and that the ends don't break out.



## Tension braces made of glass fiber for carrying the vessels fitted with lab flange

DN	purchase number
60	S 002 11
100	S 002 12
120	S 002 13
150	S 002 14

## Stainless steel made tension braces

DN	purchase number
60	S 002 31
100	S 002 32
120	S 002 33
150	S 002 34
200	S 002 35

## Tension braces made of stainless steel

DN	purchase number
60	S 002 41
100	S 002 42
120	S 002 43
150	S 002 44



## O-rings for lab flanges made of

Silicon

Viton

Silicone,  
seamless jacketed  
with FEP

DN			
15			F29 225 15
25			F29 225 25
60	S29 225 34	V29 225 34	F29 225 34
100	S29 225 46	V29 225 46	F29 225 46
120	S29 225 51	V29 225 51	F29 225 51
150	S29 225 57	V29 225 57	F29 225 57
200	S29 225 61	V29 225 61	F29 225 61



## Tension braces for Tech flanges

Screws and nuts made of stainless steel = ESVER

Screws made of stainless steel with additional  
compression springs = FSVER

PTFE

DN	made of plastic	made of metal	Collar joint	PTFE
15	FSVER 15K	FSVER 15S		SDICH 15T
25	FSVER 25K	FSVER 25S		SDICH 25T
40	FSVER 40K	FSVER 40S		SDICH 40T
50	FSVER 50K	FSVER 50S		SDICH 50T
80	FSVER 80K	FSVER 80S		SDICH 80T
100	FSVER 100K	FSVER 100S		SDICH 100T
150	FSVER 150K	FSVER 150S		SDICH 150T
200	FSVER 200K	FSVER 200S		SDICH 200T
300	FSVER 300K	FSVER 300S		SDICH 300T



# Our initiative for lower costs: stirring lock for lab agitators

laboratory stirring lock



Universal stirring lock with outstanding features as follows:

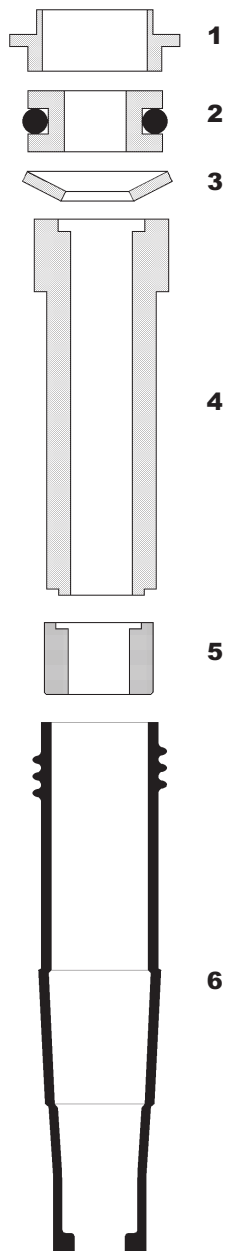
The sealings are not simultaneously as bearings, this enables a longer service life

The sealings can be readjusted

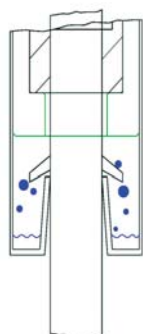
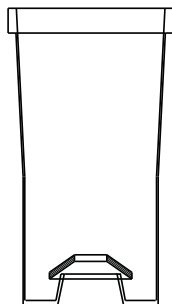
The individual bearing components are interchangeable

The bearing distance is very big, this ensures a good guidance

The lower bearing is led deep into the standard ground joint, this shortens the lever action of the agitator



particle catcher



laboratory stirring lock

particle catcher

NS	agitator ø	purchase no.	purchase no.
29,2/32	8mm	30 811 23	30 812 23
29,2/32	10mm	30 811 25	30 812 25
45/40	10mm	30 811 40	30 812 40
45/40	13mm	30 811 42	30 812 42
45/40	16mm	30 811 43	30 812 43

## Spare parts:

### 1 Pressure component

29,2/32	8mm	30 811 56
29,2/32	10mm	30 811 61
45/40	10mm	30 811 71
45/40	13mm	30 811 76
45/40	16mm	30 811 81

### 2 Upper shaft bearings, complete with Viton O-ring in a set

29,2/32	8mm	30 811 57
29,2/32	10mm	30 811 62
45/40	10mm	30 811 72
45/40	13mm	30 811 77
45/40	16mm	30 811 82

### 3 sets of sealings containing 3 sealings each

			particle catcher
29,2/32	8mm	30 811 68	30 812 68
29,2/32	10mm	30 811 63	30 812 63
45/40	10mm	30 811 73	30 812 73
45/40	13mm	30 811 78	30 812 78
45/40	16mm	30 811 83	30 812 83

### 4 Spacer

29,2/32	8mm	30 811 59
29,2/32	10mm	30 811 64
45/40	10mm	30 811 74
45/40	13mm	30 811 79
45/40	16mm	30 811 84

### 5 Lower shaft bearing

29,2/32	8mm	30 811 60
29,2/32	10mm	30 811 65
45/40	10mm	30 811 75
45/40	13mm	30 811 80
45/40	16mm	30 811 85

### 6 Glass component separately

29,2/32	8-10mm	30 811 66
45/40	10-16mm	30 811 86



## Magnetic coupling for stirrers 16 mm

DN	Nm	Art.no.
45	5,0	30 870 45
50	5,0	30 870 50
80	5,0	30 870 80
100	5,0	30 871 00
150	5,0	30 871 50

### Product Touching Materials

PTFE  
Edelstahl 1.4571  
Perfluorelastomer  
Graphit

## Mechanical seal

DN	stirrer Ø	Art.no.
40	22	308814022
40	22	308814022-P
40	22	308814022-G
40	22	308814022-PTFE
40	22	308814022-PTFE-P
40	22	308814022-PTFE-G
80	40	308818040
80	40	308818040-P
80	40	308818040-G
80	40	308818040-PTFE
80	40	308818040-PTFE-P
80	40	308818040-PTFE-G



Alle Gleitringdichtungen haben ein doppeltes Dichtsystem, so dass zum Produktraum und zum Lagergehäuse abgedichtet wird. Das Gehäuse ist wassergekühlt und kann sich somit weder durch die Prozesstemperatur, noch durch die Reibungstemperatur nennenswert aufheizen.

Die Typen P sind im Dichtraum drucküberlagert

Die Typen G sind im Dichtraum Inertgasgespült.

Alle Varianten sind mit begrenzter Drehzahl trockenlaufgeeignet.

Als Spermedium können sowohl Wasser als auch diverse Öle Verwendung finden.

Atex Varianten sind in EXII 2 G c/k TX erhältlich.

### Product Touching Materials

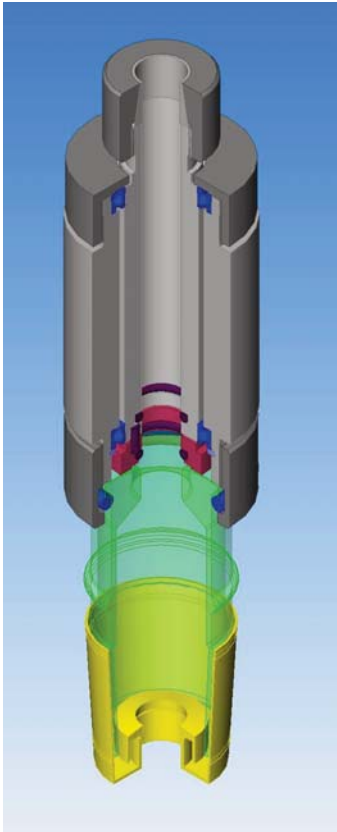
PTFE / PTFE-Graphite / PTFE-Carbon conductivity\*

Aluminiumoxidceramic

Perfluorelastomere

FEP

\* Atex Variant



## Mechanical seal

drying working

product contact: Borosilicate glass; PTFE; PTFE-graphite compound 85:15.

Particle catcher

Provided for vacuum down to 1 mbar

Bearing: SS ball bearing

height: from socket to the end: 200 mm

NS for stirrer Ø mounting length Purchase no.

NS 14	8 mm		75 mm	308831408
NS 19	8 mm		75 mm	308831908
NS 24	10 mm		120 mm	308832410
NS 29	10 mm		120 mm	308832910
NS 45	10 mm		120 mm	308834516
NS 45	16 mm		210 mm	308824516
NS 45	16 mm		210 mm	308824516T*
KF 25/3		16 mm	200 mm	308822516
KF 40/3		16 mm	210 mm	308824016

The types 30883 ... are provided with NS grind joint made of PTFE. The types 30882 ... are provided with grind joint made of borosilicate glass. The status ring is direct on top of the glass part.

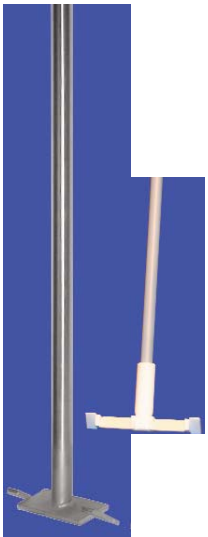
\* The grind joint is thermostated. So it is possible to take the process heat direct at the status disc out of the seal.



## Diehm special reversal stirrer

Specific for the low viscous liquids. The best stirring effects are achieved with special turbulence disturbing ribs in the vessel

reactors DN	shaft Ø mm	glass		E-CTFC coated		PTFE jacked		PTFE-ceramic coated	
		SS AISI 316L							
60	10	30 900 11	30 901 11	30 902 11	30 903 11	30 904 11			
100	10	30 900 12	30 901 12	30 902 12	30 903 12	30 904 12			
120	10	30 900 13	30 901 13	30 902 13	30 903 13	30 904 13			
150	10	30 900 14	30 901 14	30 902 14	30 903 14	30 904 14			
120	16	30 900 23	30 901 23	30 902 23	30 903 23	30 904 23			
150	16	30 900 24	30 901 24	30 902 24	30 903 24	30 904 24			
200	16	30 900 25	30 901 25	30 902 25	30 903 25	30 904 25			
300	16	30 900 26	30 901 26	30 902 26	30 903 26	30 904 26			
200	22	30900A45	30901A45	30902A45	30903A45	30904A45			
300	22	30900A46	30901A46	30902A46	30903A46	30904A46			
300	40	30900A66	30901A66	30902A66	30903A66	30904A66			
400	40	30900A67	30901A67	30902A67	30903A67	30904A67			





## Anchor stirrer

reactors DN	shaft Ø mm	glass	SS AISI 316L	E-CTFC coated	PTFE jacked	PTFE-ceramic coated
60	10	30 905 11	30 906 11	30 907 11	30 908 11	30 909 11
100	10	30 905 12	30 906 12	30 907 12	30 908 12	30 909 12
120	10	30 905 13	30 906 13	30 907 13	30 908 13	30 909 13
150	10	30 905 14	30 906 14	30 907 14	30 908 14	30 909 14
120	16	30 905 23	30 906 23	30 907 23	30 908 23	30 909 23
150	16	30 905 24	30 906 24	30 907 24	30 908 24	30 909 24
200	16	30 905 25	30 906 25	30 907 25	30 908 25	30 909 25
300	16	30 905 26	30 906 26	30 907 26	30 908 26	30 909 26
200	22	30905A45	30906A45	30907A45	30908A45	30909A45
300	22	30905A46	30906A46	30907A46	30908A46	30909A46
300	40	30905A66	30906A66	30907A66	30908A66	30909A66
400	40	30905A67	30906A67	30907A67	30908A67	30909A67

The total length of a stirrer is the length of the stirrer without the connection part for the coupling.  
The coupling end of the stirrer can be 8 and 10 mm for the 10 mm stirrers or 14 and 16 mm for the 16 mm stirrers.

This coupling end is any time 40 mm long and is not integrated in the stirrer length.

So a ordered stirrer with a length of 500 mm has a totaly length of 540 mm.

Larger stirrers 20/22 mm and 40 mm didn't use such coupling ends, because this stirreres have a special conical end to connect the stirrers to the DIEHM mechanical seal DN 40 or DN 80.

We deliver the stirrers in a 20 mm length steps.

For a higher charge we deliver also stirrers in a special length. The length and the diameter of the coupling end will be adapted to the length of the stirrer.

### Example:

A stirrer with a diameter of 16 mm for DN 200 made of SS, a stirrer length of 580 mm and coupling end of 16 mm dia has a total length of 620 mm and the order no. **3090125580.16**.

The same stirrer but with 22 mm dia and a total length of 690 mm and the order no. **3090145A580** and with a dia. of 22 mm a total length of 700 mm and the order no. **3090165A580**.

## Stirring couplings

between stirrer and stirring motor

### coupling with torsional spring

stirrer Ø		Art.No.	Inlet Set
10 mm	8 mm	30 842 05	30 842 051
10 mm	10 mm	30 842 06	30 842 061
16 mm	14 mm	30 842 07	30 842 071
16 mm	16 mm	30 842 08	30 842 081



### Coupling with cardan drive

10 mm	8 mm	30 842 15	30 842 151
10 mm	10 mm	30 842 16	30 842 161
16 mm	14 mm	30 842 17	30 842 171
16 mm	16 mm	30 842 18	30 842 181



### Clamping coupling with double cardan special for glass stirrers

10 mm	8 mm	30 842 25
10 mm	10 mm	30 842 26
16 mm	14 mm	30 842 27
16 mm	16 mm	30 842 28



### Clamping coupling with double cardan special for stainless steel stirrers

10 mm	8 mm	30 842 35
10 mm	10 mm	30 842 36
16 mm	14 mm	30 842 37
16 mm	16 mm	30 842 38





## PT 100 Sensors for reactors

Article numbers



Mounting length	with PT 100 Sensors and Lemo - coupling		buffle without PT			
	NS	KF	straight	offset axes	straight	offset axes
65		15/1	30 920 5065-1		30 920 5065-0	
80		15/1	30 920 5080-1		30 920 5080-0	
170	14,5/23		30 920 1170-X	30 923 1170-X (5°)	30 920 1170-0	30 923 1170-0 (5°)
220	14,5/23		30 920 1220-X	30 923 1220-X (5°)	30 920 1220-0	30 923 1220-0 (5°)
290	14,5/23		30 920 1290-X	30 923 1290-X (5°)	30 920 1290-0	30 923 1290-0 (5°)
260	29,2/32		30 920 3260-X	30 923 3260-X	30 920 3260-0	30 923 3260-0
280	29,2/32		30 920 3280-X	30 923 3280-X	30 920 3280-0	30 923 3280-0
290	29,2/32		30 920 3290-X	30 923 3290-X	30 920 3290-0	30 923 3290-0
330	29,2/32		30 920 3330-X	30 923 3330-X	30 920 3330-0	30 923 3330-0
340	29,2/32		30 920 3340-X	30 923 3340-X	30 920 3340-0	30 923 3340-0
345	29,2/32		30 920 3345-X	30 923 3345-X	30 920 3345-0	30 923 3345-0
350	29,2/32		30 920 3350-X	30 923 3350-X	30 920 3350-0	30 923 3350-0
400	29,2/32		30 920 3400-X	30 923 3400-X	30 920 3400-0	30 923 3400-0
410	29,2/32		30 920 3410-X	30 923 3410-X	30 920 3410-0	30 923 3410-0
420	29,2/32		30 920 3420-X	30 923 3420-X	30 920 3420-0	30 923 3420-0
430	29,2/32		30 920 3430-X	30 923 3430-X	30 920 3430-0	30 923 3430-0
450	29,2/32		30 920 3450-X	30 923 3450-X	30 920 3450-0	30 923 3450-0
470	29,2/32		30 920 3470-X	30 923 3470-X	30 920 3470-0	30 923 3470-0
500	29,2/32		30 920 3500-X	30 923 3500-X	30 920 3500-0	30 923 3500-0
510	29,2/32		30 920 3510-X	30 923 3510-X	30 920 3510-0	30 923 3510-0
520	29,2/32		30 920 3520-X	30 923 3520-X	30 920 3520-0	30 923 3520-0
550	29,2/32		30 920 3550-X	30 923 3550-X	30 920 3550-0	30 923 3550-0
640	29,2/32		30 920 3640-X	30 923 3640-X	30 920 3640-0	30 923 3640-0
700	29,2/32		30 920 3700-X	30 923 3700-X	30 920 3700-0	30 923 3700-0
640		40/1	30 920 7640-X	30 923 7640-X	30 920 7640-0	30 923 7640-0
670		40/1	30 920 7670-X	30 923 7670-X	30 920 7670-0	30 923 7670-0
680		40/1	30 920 7680-X	30 923 7680-X	30 920 7680-0	30 923 7680-0
710		40/1	30 920 7710-X	30 923 7710-X	30 920 7710-0	30 923 7710-0
720		40/1	30 920 7720-X	30 923 7720-X	30 920 7720-0	30 923 7720-0
780		40/1	30 920 7780-X	30 923 7780-X	30 920 7780-0	30 923 7780-0
910		40/1	30 920 7910-X	30 923 7910-X	30 920 7910-0	30 923 7910-0
930		40/1	30 920 7930-X	30 923 7930-X	30 920 7930-0	30 923 7930-0
960		40/1	30 920 7960-X	30 923 7960-X	30 920 7960-0	30 923 7960-0

### Explanation of the Article number

Type	NS/KF	Length	Numbers of Pt
30 920	1	260	-1
30 923	8	960	-2

- X means 1 or 2 for the numbers of sensors
- 1 equipped with one Pt 100, 3 m cable and Lemo plug S1.
- 2 equipped with two Pt 100, one with 3 m cable and Lemo plugg S1, the second with Lemo coupling S0 direct at the probe.

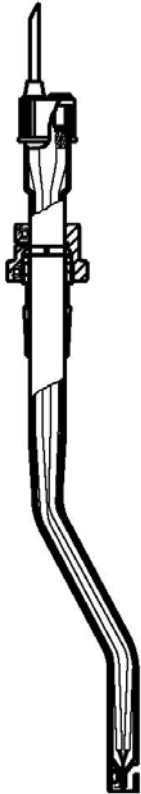
Other mounting lengths are possible.

### Connecting cable

Lemo S1 plug (for thermostats and so on) - Lemo S0 plug (at the sensor side)	2 m	6014020111
Lemo S1 plug (for thermostats and so on) - Lemo S0 plug (at the sensor side)	3 m	6014030111

## PT 100 Adjustable Sensors for reactors with PTFE clamping joint

It is possible to adjust the sensor in the height and the position.  
The clamping zone of the stirrer has a diameter of 22 mm.



Mounting length	Article numbers	
	straight	offset axes
400	309200400-X	309230400-X
430	309200430-X	309230430-X
480	309200480-X	309230480-X
530	309200530-X	309230530-X
570	309200570-X	309230570-X
580	309200580-X	309230580-X
720	309200720-X	309230720-X

Explanation of the Article number

Type	NS/KF	Length	Numbers of Pt
30 920	0	260	-1
30 923	0	960	-2

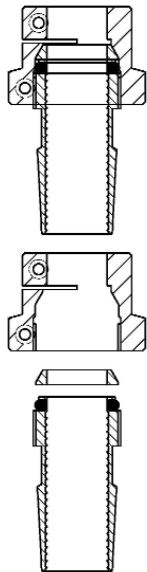
- X means 1 or 2 for the numbers of sensors
- 1 equipped with one Pt 100, 3 m cable and Lemo plug S1.
- 2 equipped with two Pt 100, one with 3 m cable and Lemo plug S1, the second with Lemo coupling S0 direct at the probe.

Other mounting lengths are possible.

### Connecting cable

Art. No.

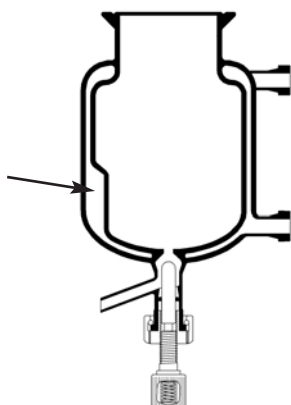
Lemo S1 plug (for thermostats and so on) - Lemo S0 plug (at the sensor side)	2 m	6014020111
Lemo S1 plug (for thermostats and so on) - Lemo S0 plug (at the sensor side)	3 m	6014030111



### NS clamping connector

To assemble the sensor leak tight to the NS 29 cone joint  
To use only with Rodaviss Socket.

	Art. No.
Clamping bush NS 29 for pipes 22 mm complete	188602922S
Spares:	
Fixing nut	188602922S.002
clamping ring	188602922.007
NS 29 PTFE-part only	188602922.001



### Baffles

To prevent liquid to rotate in the vessel, it is possible to make bursting ribs in the inside of the reactor. At using a DIEHM special reversal stirrer or a impeller stirrer a baffle is to use. It can be such a rib or a sensor, mounted as baffle.



### 4 wire PT 100 sensors

length	for GL18 with cable and Lemo plug	for GL18 with Lemo coupling	NS14 with cable and Lemo plug	NS14 with Lemo coupling	KF15/1 with cable and Lemo plug	KF15/1 with Lemo coupling
	65	61 101 065	61 102 065	61 111 065	61 112 065	61 121 065
85	61 101 085	61 102 085	61 111 085	61 112 085	61 121 085	61 122 085
100	61 101 100	61 102 100	61 111 100	61 112 100	61 121 100	61 122 100
125	61 101 125	61 102 125	61 111 125	61 112 125	61 121 125	61 122 125
150	61 101 150	61 102 150	61 111 150	61 112 150	61 121 150	61 122 150
200	61 101 200	61 102 200	61 111 200	61 112 200	61 121 200	61 122 200
250	61 101 250	61 102 250	61 111 250	61 112 250	61 121 250	61 122 250
300	61 101 300	61 102 300	61 111 300	61 112 300	61 121 300	61 122 300



### Thermometer tube for thermometers oder PT 100 sensors

length	NS 14	NS 29	KF 15/1	KF 15/3	KF 25/1	KF 25/3
65	61 201 065	61 202 065	61 211 065	61 212 065	61 221 065	61 222 065
85	61 201 085	61 202 085	61 211 085	61 212 085	61 221 085	61 222 085
100	61 201 100	61 202 100	61 211 100	61 212 100	61 221 100	61 222 100
125	61 201 125	61 202 125	61 211 125	61 212 125	61 221 125	61 222 125
150	61 201 150	61 202 150	61 211 150	61 212 150	61 221 150	61 222 150
200	61 201 200	61 202 200	61 211 200	61 212 200	61 221 200	61 222 200
250	61 201 250	61 202 250	61 211 250	61 212 250	61 221 250	61 222 250
300	61 201 300	61 202 300	61 211 300	61 212 300	61 221 300	61 222 300



### Hoseconnections

	außen ø innen ø		Art. No.			
	SHoseconnection PP	8mm	4mm	bent	for GL 14	18 830OPPB1408
SHoseconnection PP	9mm	5mm	straight	for GL 14	18 830OPPG1409	
SHoseconnection PFA	9mm	5mm	bent	for GL 14	18 830OPFB1408	
SHoseconnection PFA	9mm	5mm	straight	for GL 14	18 830OPFG1409	
SHoseconnection PP	10mm	7mm	bent	for GL 18	18 830OPPB1810	
SHoseconnection PP	10mm	7mm	straight	for GL 18	18 830OPPG1810	
SHoseconnection PFA	10mm	7mm	bent	for GL 18	18 830OPFB1810	
SHoseconnection PFA	10mm	7mm	straight	for GL 18	18 830OPFG1810	
SHoseconnection PP	16mm	10mm	straight	for GL 25	18 830OPPG2516	
SHoseconnection PFA	16mm	10mm	straight	for GL 25	18 830OPFG2516	
SHoseconnection PFA	21mm	10mm	straight	for GL 32	18 830OPFG3221	
Schlaucholive Edelstahl	10mm	7mm	straight	for GL 18	18 830OSSG1810	
Schlaucholive Edelstahl	12mm	10mm	straight	for GL 18	18 830OSSG1812	

### Metal plane flange connections



Plane flange DN 15 and DN 25 with inner thread 1/2" to connect adapters and sensors to glass flanges.

	Art. No.
Plane flange KF 15 - 1/2 " Inner thread	18 832 31
Plane flange KF 25 - 1/2 " Inner thread	18 832 32
Plane flange KF 15 Swagelok i.Ø 3 mm	18 833 03
Plane flange KF 15 Swagelok i.Ø 1/8 "	18 833 1/8
Plane flange KF 15 Swagelok i.Ø 4 mm	18 833 04
Plane flange KF 15 Swagelok i.Ø 5 mm	18 833 05
Plane flange KF 15 Swagelok i.Ø 6 mm	18 833 06
Plane flange KF 15 Swagelok i.Ø 1/4 "	18 833 1/4
Plane flange KF 15 Swagelok i.Ø 8 mm	18 833 08
Plane flange KF 15 Swagelok i.Ø 10 mm	18 833 10
Plane flange KF 15 Swagelok i.Ø 12 mm	18 833 12

## Metal plane flange connections



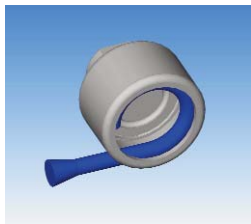
Plane flange DN 15 and DN 25 with Swagelok hose fittings for stainless steel tubes or PTFE-hoses from 3 to 12 mm or from 1/8" to 3/8"

	Art. No.
Plane flange KF 25 Swagelok i.Ø 3 mm	18 834 03
Plane flange KF 25 Swagelok i.Ø 1/8 "	18 834 1/8
Plane flange KF 25 Swagelok i.Ø 4 mm	18 834 04
Plane flange KF 25 Swagelok i.Ø 5 mm	18 834 05
Plane flange KF 25 Swagelok i.Ø 6 mm	18 834 06
Plane flange KF 25 Swagelok i.Ø 1/4 "	18 834 1/4
Plane flange KF 25 Swagelok i.Ø 8 mm	18 834 08
Plane flange KF 25 Swagelok i.Ø 10 mm	18 834 10
Plane flange KF 25 Swagelok i.Ø 12 mm	18 834 12
Plane flange KF 25 Swagelok i.Ø 3/8 "	18 834 3/8

For this fitting is a seal needed, as well as a Tension brace or a Tension brace.

SDICH 15T,  
FSVER 15K  
FSVER 15 SS

## Flange closing cap



Closing cap for plane flanges, product touching material PTFE, complete with fixing nut made of PVDF, temperature range -40 - 150°C

The cap must be pushed on the flange, together with the O-ring seal. Then the spring is to push into the opening and to close the fixing nut.

Closing cap DN 15	188501500
Closing cap DN 25	188502500

Closing cap for plane flanges, prepared to use in a EX zone.

Product touching material PTFE-carbone (conductivity and according to FDA), DN40 PTFE.

All other parts stainless steel AISI 304.

Closing cap DN 15	188501500-EX
Closing cap DN 25	188502500-EX
Closing cap DN 40	188504000-EX



O-ring silicone, FEP coated, DN 15	F2922515
O-ring silicone, FEP coated, DN 25	F2922525
O-ring silicone, FEP coated, DN 40	F2922540

## Flange Fitting



Flange Fitting

Clamping connectors for plane flanges, product touching material PTFE, Fixing nut PVDF. Temperature range -40 - 150°C

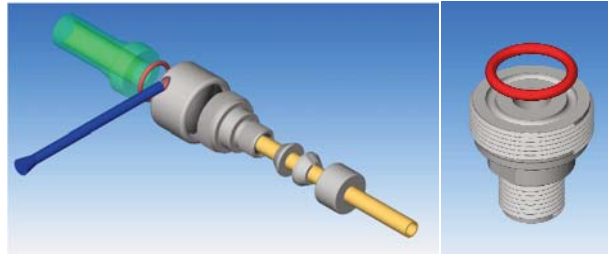
The flange connector must be pushed on the flange, together with the O-ring seal. Then the spring is to push into the opening and to close the fixing nut. At the other end, push a hose, with the sealing set and the fixing nut into the opening and tighten the nut. A supporting sleeve support the hose at high temperatures above 100 ° C and prevent against out pulling the tube, but at the same time it acts as a constriction.



Sealing Set

Type	DN	Bohre	Article No.
Flange fitting	15	6 - 10 mm	188501510I
Sealing set	15	6 mm	100BD639-54
Sealing set	15	8 mm	100BD639-62
Sealing set	15	10 mm	100BD639-74
Flange fitting	15	8 - 14 mm	188501514I
Sealing set	15	8 mm	188501508I.011
Sealing set	15	10 mm	188501510I.011
Sealing set	15	12 mm	188501512I.011
Sealing set	15	14 mm	188501514I.011
Flange fitting	25	6 - 10 mm	188501510I
Sealing set	25	6 mm	100BD639-54
Sealing set	25	8 mm	100BD639-62
Sealing set	25	10 mm	100BD639-74

## Flange Fitting



Flange Fitting

Clamping connectors for plane flanges, product touching material PTFE, Fixing nut PVDF. Temperature range -40 - 150°C

The flange connector must be pushed on the flange, together with the O-ring seal. Then the spring is to push into the opening and to close the fixing nut. At the other end, push a hose, with the sealing set and the fixing nut into the opening and tighten the nut. A supporting sleeve support the hose at high temperatures above 100 ° C and prevent against out pulling the tube, but at the same time it acts as a constriction.



Sealing Set

Type	DN	Bohre	Article No.
Flange fitting	25	8 - 14 mm	188502514I
Sealing set	25	8 mm	188501508I.011
Sealing set	25	10 mm	188501510I.011
Sealing set	25	12 mm	188501512I.011
Sealing set	25	14 mm	188501514I.011
Flange fitting	25	16 - 24 mm	188501524I
Sealing set	25	16 mm	188501516I.011
Sealing set	25	18 mm	188501518I.011
Sealing set	25	20 mm	188501520I.011
Sealing set	25	22 mm	188501522I.011
Sealing set	25	24 mm	188501524I.011



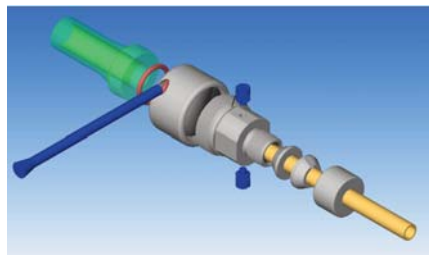
Supporting Sleeve

	for hoses	product touching Material		
Supporting sleeve	6 mm	2 mm	PFA	188501506I.008
Supporting s Sleeve	8 mm	4 mm	PFA	188501508I.008
Supporting sleeve	10 mm	6 mm	PFA	188501510I.008
Supporting sleeve	12 mm	8 mm	PFA	188501512I.008
Supporting sleeve	14 mm	10 mm	PFA	188501514I.008
Supporting sleeve	16 mm	12 mm	PFA	188501516I.008
Supporting sleeve	18 mm	14 mm	PFA	188501518I.008
Supporting sleeve	20 mm	16 mm	PFA	188501520I.008
Supporting sleeve	22 mm	18 mm	PFA	188501522I.008
Supporting sleeve	24 mm	20 mm	PFA	188501524I.008



O-Ring DN 15	FEP	F2922515
O-Ring DN 25	FEP	F2922525

## Flange Fitting for the EX area



These fittings are made of a conductive, carbon-PTFE compound, which is certified according to FDA guidelines. Two grounding bolts allow to ground the part acc. to TRBS 2153

Type	DN	Bohre	Article No.
Flanschverbindung	15	6 - 10 mm	188501510I
Flanschverbindung	15	8 - 14 mm	188501514I
Flanschverbindung	25	6 - 10 mm	188501510I
Flanschverbindung	25	8 - 14 mm	188501514I
Flanschverbindung	25	16 - 24 mm	188501524I

# Hose connecting parts made of stainless steel



Metal hose connecting part DN 15 / M16x1,0 straight and quick-release lock



Metal hose connecting part DN 15 / M16x1,0 straight with Pt 100 adapter and quick release lock



Rubber hose connecting part DN 15 / 12 mm straight and quick release lock



Metal hose connecting part DN 25 / M30x1,5 90° and quick release lock



Metal hose connecting part DN 25 / M16x1,0 90° and quick release lock



Metal hose connecting part DN 15 / M30x1,5 90° and quick release lock



Article	Article No.
Flange KF 15 screw M16x1 for metal hoses M 16 x 1	18 840 1516
Flange KF 15 screw M16x1 for metal hoses with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 1516
Flange KF15 hoseconnection 12mm, inner Ø 10 mm	18 840 1512
Flange KF 15 screw M16x1 for metal hoses, 90° curved	18 841 1516
Flange KF 15 screw M16x1 for metal hoses, 90° curved with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 1516
Flange KF 15 screw M30x1,5 for metal hoses, 90° curved	18 841 1530
Flange KF 15 screw M30x1,5 for metal hoses, 90° curved with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 1530
Flange KF 25 screw M16x1 for metal hoses, 90° curved	18 841 2516
Flange KF 25 screw M16x1 for metal hoses, 90° curved with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 2516
Flange KF 25 screw M30x1,5 for metal hoses, 90° curved	18 841 2530
Flange KF 25 screw M30x1,5 for metal hoses, 90° curved with Swagelok screwed connection 1/8" for Pt 100 sensors	18 846 2530
Pt 100 sensor 1/8" made of stainless steel with Lemo plug 4 Wire	61 130 01
Plane flange KF 15 - 1/2 "	18 832 31
Plane flange KF 25 - 1/2 "	18 832 32
<b>Plane flange DN X curved, with end Y and tube for venting or for assembling of sensors. Standard with locking cap.</b>	
KF 15...M16 x1	18 847 1516
KF 15...M19x1,5	18 847 1519
KF 15...M24x1,5	18 847 1524
KF 15...M30x1,5	18 847 1530
KF 25...M16x1	18 847 2516
KF 25...M19x1,5	18 847 2519
KF 25...M24x1,5	18 847 2524
KF 25...M30x1,5	18 847 2530
KF 25...M38x1,5	18 847 2538
Dichtset für Sensoren 6 mm	100BD639-54
Dichtset für Sensoren 8 mm	100BD639-62
Dichtset für Sensoren 10 mm	100BD639-74

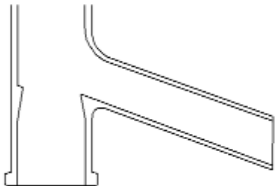
**bottom valve 16 mm**



**Pneumatic bottom valve**



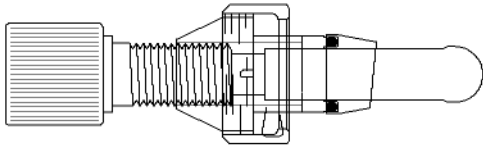
# Valve spare parts



**Glaspart**

Article No

	10 mm	16 mm	20 mm	25 mm
Article No	1891001	1891601	1892001	1892501



For standard applications without solid particles and crystals.

## Standard valve tape complete for standard reactors type 33004../33111..

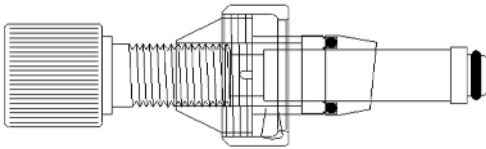
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891002	1891602	1892002	1892502

## for threeplex reactors type 33205..

Article no.:	1891002.205	1891602.205		
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## for threeplex reactors type 33206..

Article no.:		1891602.206	1892002.206	1892502.206
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For standard applications with solid particles and crystals high resistant for chemicals and temperatures.

## Valve tape complete with O-ring made of Perfluorelastomere for standard reactors type 33004../33111..

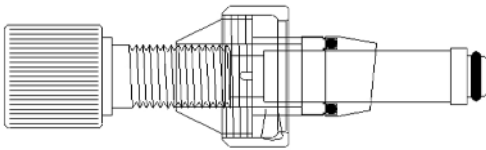
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891003	1891603	1892003	1892503

## for threeplex reactors type 33205..

Article no.:	1891003.205	1891603.205		
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## for threeplex reactors type 33206..

Article no.:		1891603.206	1892003.206	1892503.206
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Für Standardanwendungen mit Feststoffen und Kristallen, mittelresistent für Chemikalien und Temperaturen.

## Valve tape complete with O-ring made of Viton for standard reactors type 33004../33111..

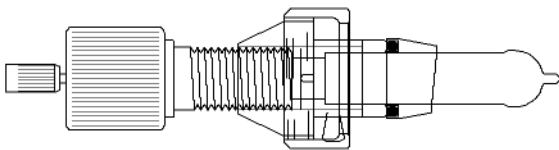
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891004	1891604	1892004	1892504

## for threeplex reactors type 33205..

Article no.:	1891004.205	1891604.205		
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## for threeplex reactors type 33206..

Article no.:		1891604.206	1892004.206	1892504.206
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For standard applications without solid particles and crystals. The Pt 100 probe is slower as a glass probe from top and not so exact.

## Valve tape complete with Pt 100 sensor for standard reactors type 33004../33111..

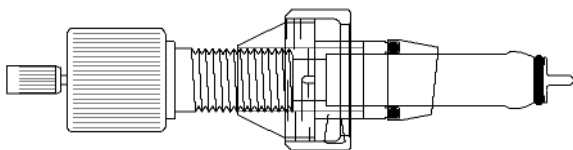
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891005	1891605	1892005	1892505

## for threeplex reactors type 33205..

Article no.:	1891005.205	1891605.205		
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## for threeplex reactors type 33206..

Article no.:		1891605.206	1892005.206	1892505.206
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For standard applications with solid particles and crystals high resistant for chemicals and temperatures. The Pt 100 probe is slower as a glass probe from top and not so exact.

## Valve tape complete with Pt 100 sensor and O-ring made of Perfluorelastomere

### for standard reactors type 33004../33111..

	10 mm	16 mm	20 mm	25 mm
Article no.:	1891007	1891607	1892007	1892507

### for threeplex reactors type 33205..

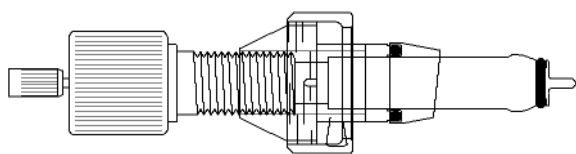
Article no.:	1891007.205	1891607.205		
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### for threeplex reactors type 33206..

Article no.:		1891607.206	1892007.206	1892507.206
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## Valve spare parts



For standard applications with solid particles and crystals midle resistant for chemicals and temperatures. The Pt 100 probe is slower as a glass probe from top and not so exact.

### Valve tape complete with Pt 100 sensor and O-ring made of Viton

for standard reactors type 33004../33111..

	10 mm	16 mm	20 mm	25 mm
Article no.:	1891008	1891608	1892008	1892508

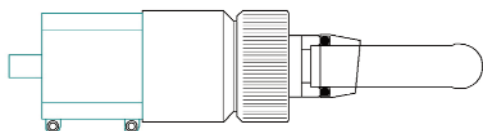
for threeplex reactors type 33205..

Article no.:	1891008.205	1891608.205
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for threeplex reactors type 33206..

Article no.:	1891608.206	1892008.206	1892508.206
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## Pneumatical valves



For standard applications without solid particles and crystals.

### Standard valve tape complete

for standard reactors type 33004../33111..

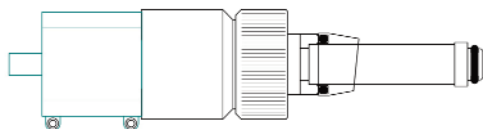
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891062	1891662	1892062	1892562

for threeplex reactors type 33205..

Article no.:	1891062.205	1891662.205
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for threeplex reactors type 33206..

Article no.:	1891662.206	1892062.206	1892562.206
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For standard applications with solid particles and crystals high resistant for chemicals and temperatures.

### Valve tape complete with O-ring made of Perfluorelastomere

for standard reactors type 33004../33111..

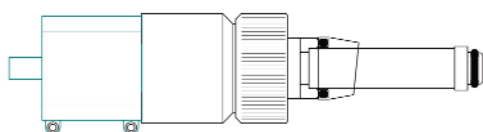
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891063	1891663	1892063	1892563

for threeplex reactors type 33205..

Article no.:	1891063.205	1891663.205
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for threeplex reactors type 33206..

Article no.:	1891663.206	1892063.206	1892563.206
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For standard applications with solid particles and crystals midle resistant for chemicals and temperatures.

### Valve tape complete with Pt 100 sensor and O-ring made of Viton

for standard reactors type 33004../33111..

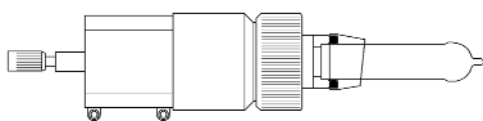
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891064	1891664	1892064	1892564

for threeplex reactors type 33205..

Article no.:	1891064.205	1891664.205
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for threeplex reactors type 33206..

Article no.:	1891664.206	1892064.206	1892564.206
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For standard applications without solid particles and crystals. The Pt 100 probe is slower as a glass probe from top and not so exact.

### Valve tape complete with Pt 100 sensor

for standard reactors type 33004../33111..

	10 mm	16 mm	20 mm	25 mm
Article no.:	1891065	1891665	1892065	1892565

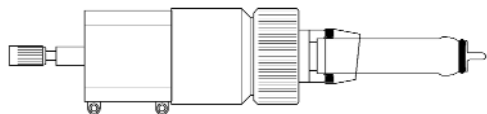
for threeplex reactors type 33205..

Article no.:	1891065.205	1891665.205
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for threeplex reactors type 33206..

Article no.:	1891665.206	1892065.206	1892565.206
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## Valve spare parts



For standard applications with solid particles and crystals high resistant for chemicals and temperatures. The Pt 100 probe is slower as a glass probe from top and not so exact.

### Valve tape complete with Pt 100 sensor and O-ring made of Perfluorelastomere

for standard reactors type 33004../33111..

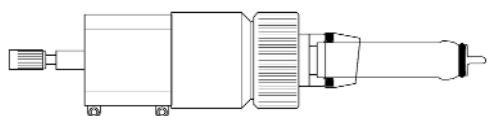
	10 mm	16 mm	20 mm	25 mm
Article no.:	1891067	1891667	1892067	1892567

for threeplex reactors type 33205..

Article no.:	1891067.205	1891667.205
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for threeplex reactors type 33206..

Article no.:	1891667.206	1892067.206	1892567.206
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For standard applications with solid particles and crystals middle resistant for chemicals and temperatures. The Pt 100 probe is slower as a glass probe from top and not so exact

### Valve tape complete with Pt 100 sensor and O-ring made of Viton

for standard reactors type 33004../33111..

	10 mm	16 mm	20 mm	25 mm
Article no.:	1891068	1891668	1892068	1892568

for threeplex reactors type 33205..

Article no.:	1891068.205	1891668.205
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for threeplex reactors type 33206..

Article no.:	1891068.206	1891668.206	1892068.206	1892568.206
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## Piece parts



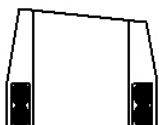
Articles	Sizes	10 mm	16 mm	20 mm	25 mm
<b>Back nut</b>		1891011	1891611	1892011	1892511



<b>Deposit spring</b>		1891012	1891612	1892012	1892512
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Valve seal					
<b>Perfluorelastomere</b>		1891026	1891626	1892026	1892526
<b>Viton</b>		1891027	1891627	1892027	1892527



<b>Conical seal compl.</b>		1891021	1891621	1892020	1892520
<b>O-rings set for conical seal</b>		1891026	1891626	1892026	1892526



<b>PTFE plug standard</b>		1891031	1891631	1892031	1892531
for type 33205..	1891031.205		1891631.205	1892031.205	1892531.205
for type 33206..			1891631.206	1892031.206	1892531.206



<b>PTFE plug with groove</b>		1891032	1891632	1892032	1892532
type 205	1891032.205		1891632.205	1892032.205	1892532.205
for type 33206..			1891632.206	1892032.206	1892532.206