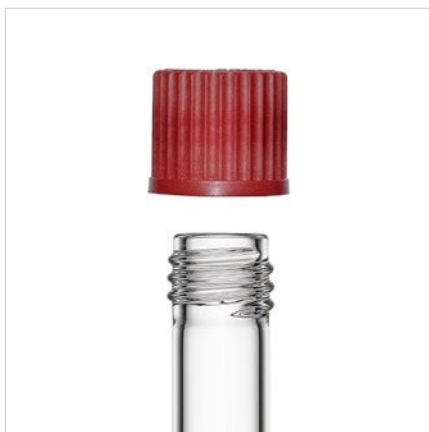
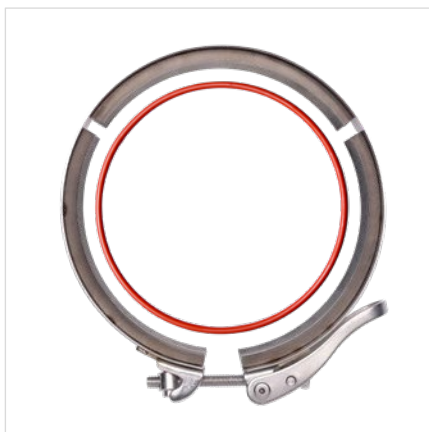


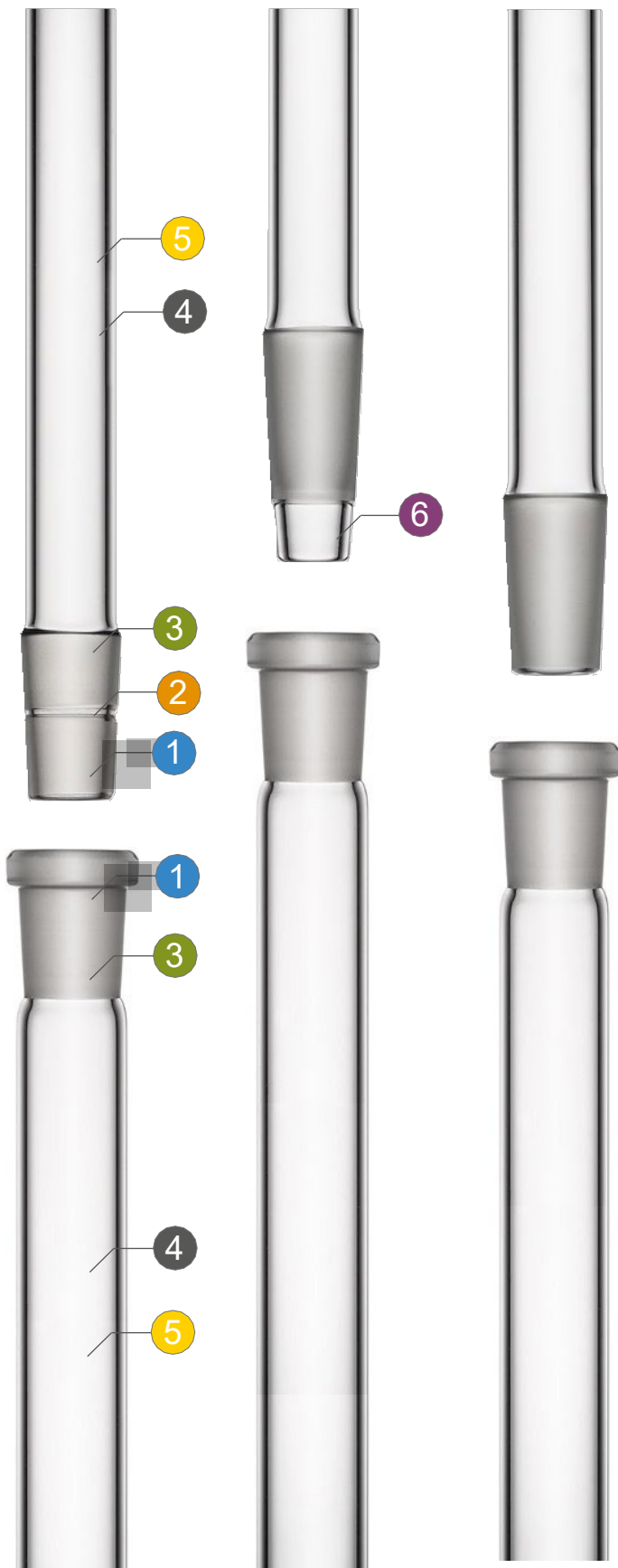
GENERAL

PFAUDLER NORMAG SYSTEMS attaches particular importance to high-quality connecting elements, as this is the only way we can create a tight, form-fit and durable connection. Every application requires a suitable connection. For laboratory use, spherical ground joints, conical ground joints, laboratory flat flanges, HF-KF System NORMAG, Rotulex and GL connections have established themselves due to their flexible application possibilities. For plant engineering

We also have KF and PF connections in our range. This means that we can offer you the right connection for every application so that you can achieve the best results. On the following pages you will find all the fasteners we can offer you. We also only use our high-quality fasteners for our systems and equipment in order to provide you with the best overall result.



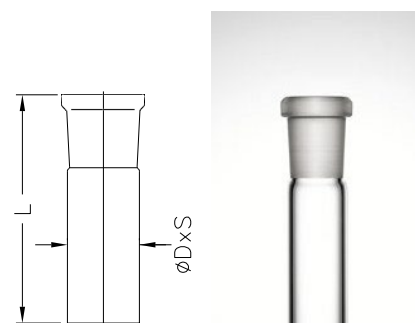
NS BEVELLED JOINTS



- 1 NORMAG fine grinding with very good leakage rate
- 2 With grease groove for increased tightness
- 3 Conical ground joints manufactured according to DIN 12242
- 4 Attachments manufactured according to DIN 12249
- 5 Thick-walled for high stability
- 6 with drain for liquids
- 7 Special versions available

NS conical ground joint sleeves

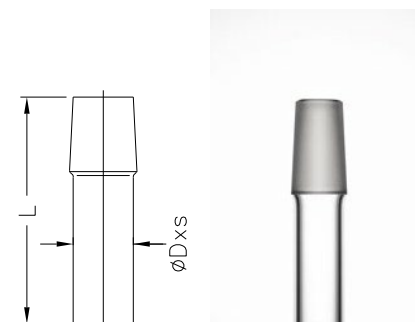
Nominal size NS	Length L [mm]	Pipe D x S [mm]	VE	Order no.
7/16	115	10 x 1,5	10	CNSS0716
10/19	115	13 x 1,5	10	CNSS1019
10/30	115	13 x 1,5	10	CNSS1030
12/21	115	15 x 1,8	10	CNSS1221
14/23	115	18 x 1,8	10	CNSS1423
14/35	115	17 x 1,8	10	CNSS1435
19/26	125	22 x 1,8	10	CNSS1926
19/38	125	22 x 1,8	10	CNSS1938
24/29	130	28 x 2,0	10	CNSS2429
24/40	130	28 x 2,0	10	CNSS2440
29/32	135	33 x 2,0	10	CNSS2932
29/42	135	33 x 2,0	10	CNSS2942
34/35	150	40 x 2,3	5	CNSS3435
34/45	150	40 x 2,3	5	CNSS3445
45/40	150	50 x 2,5	5	CNSS4540
45/50	150	50 x 2,5	5	CNSS4550



- other sizes available on request

NS taper ground cores

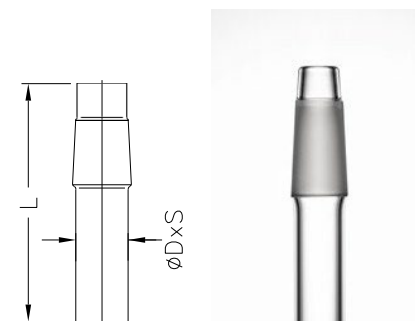
Nominal size NS	Length L [mm]	Pipe D x S [mm]	VE	Order no.
7/16	120	6 x 1,5	10	CNSC0716
10/19	120	8 x 1,5	10	CNSC1019
10/30	120	8 x 1,5	10	CNSC1030
12/21	120	11 x 1,5	10	CNSC1221
14/23	120	13 x 1,5	10	CNSC1423
14/35	120	13 x 1,5	10	CNSC1435
19/26	130	17 x 1,8	10	CNSC1926
19/38	130	17 x 1,8	10	CNSC1938
24/29	150	22 x 1,8	10	CNSC2429
24/40	150	22 x 1,8	10	CNSC2440
29/32	150	26 x 2,0	10	CNSC2932
29/42	150	26 x 2,0	10	CNSC2942
34/35	150	30 x 2,0	5	CNSC3435
34/45	150	30 x 2,0	5	CNSC3445
45/40	150	40 x 2,3	5	CNSC4540
45/50	150	40 x 2,3	5	CNSC4550



- other sizes available on request

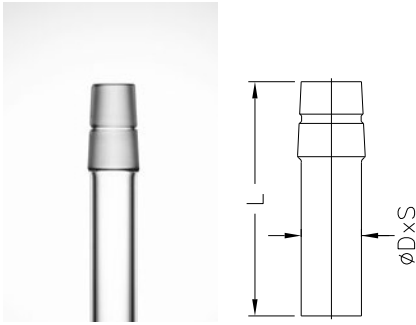
NS conical ground joint cores with drain

Nominal size NS	Length L [mm]	Pipe D x S [mm]	VE	Order no.
10/19	120	8 x 1,5	10	CNST1019
10/30	120	8 x 1,5	10	CNST1030
12/21	120	11 x 1,5	10	CNST1221
14/23	130	13 x 1,5	10	CNST1423
14/35	130	13 x 1,5	10	CNST1435
19/26	140	17 x 1,8	10	CNST1926
19/38	140	17 x 1,8	10	CNST1938
24/29	150	22 x 1,8	10	CNST2429
24/40	150	22 x 1,8	10	CNST2440
29/32	150	26 x 2,0	10	CNST2932
29/42	150	26 x 2,0	10	CNST2942
34/35	150	30 x 2,0	5	CNST3435
34/45	150	30 x 2,0	5	CNST3445
45/40	150	40 x 2,3	5	CNST4540
45/50	150	40 x 2,3	5	CNST4550



- other sizes available on request

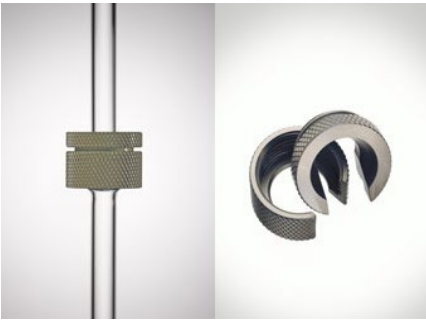
NS taper ground cores with grease groove



- other sizes available on request

Nominal size NS	Length L [mm]	Pipe D x S [mm]	VE	Order no.
10/19	120	8 x 1,5	10	CNSG1019
10/30	120	8 x 1,5	10	CNSG1030
12/21	120	11 x 1,5	10	CNSG1221
14/23	120	13 x 1,5	10	CNSG1423
14/35	120	13 x 1,5	10	CNSG1435
19/26	130	17 x 1,8	10	CNSG1926
19/38	130	17 x 1,8	10	CNSG1938
24/29	150	22 x 1,8	10	CNSG2429
24/40	150	22 x 1,5	10	CNSG2440
29/32	150	26 x 2,0	10	CNSG2932
29/42	150	26 x 2,0	10	CNSG2942
34/35	150	30 x 2,0	5	CNSG3435
34/45	150	30 x 2,0	5	CNSG3445
45/40	150	40 x 2,3	5	CNSG4540
45/50	150	40 x 2,3	5	CNSG4550

NS ground joint screw connections



- for a firm and secure connection
- for line construction, mounting of additional devices, for superstructure parts for reaction vessels, etc.
- Suitable for high temperatures
- Suitable for all cut lengths

Nominal size NS	Order no.
14	CJNS14
29	CJNS29
45	CJNS45

NS fork clamps

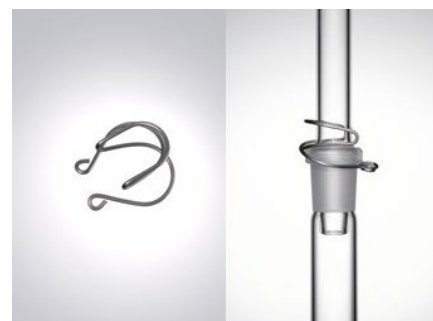


- For securing bevelled joints
- Made of stainless steel
- Suitable for high temperatures
- Suitable for all cut lengths

Nominal size NS	Order no.
14	CFNS14
19	CFNS19
29	CFNS29
45	CFNS45

LV wire terminals

Nominal size NS	VE	Order no.
10	10	CWNS10
14	10	CWNS14
19	10	CWNS19
29	10	CWNS29
45	10	CWNS45



- For securing tapered ground joints
- Made of stainless steel
- cannot be used with NS grip collar sleeves
- Suitable for all cut lengths

NS metal safety hooks

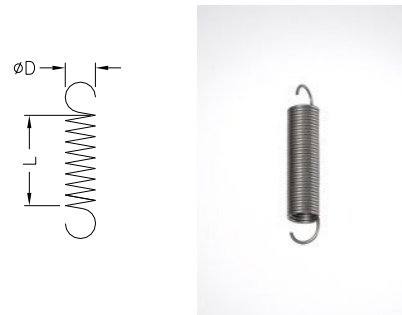
For nominal size NS	VE	Order no.
5	10	CSHNS05
7	10	CSHNS07
10	10	CSHNS10
14	10	CSHNS14
19	10	CSHNS19
29	10	CSHNS29
34	10	CSHNS34
45	10	CSHNS45



- For securing glass plugs in pump taps and conical ground joints
- Can be combined with rubber stopcocks (page 4.14) and NS retaining springs
- Suitable for high temperatures
- Holding springs not included in the scope of delivery
- Suitable for all cut lengths

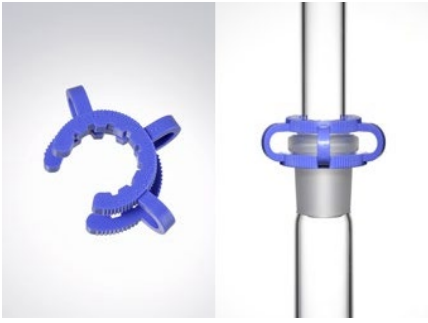
NS retaining springs

Length h [mm]	Diameter D [mm]	VE	Order no.
10	5	10	CHS010
15	5	10	CHS015
20	5	10	CHS020
25	5	10	CHS025
30	5	10	CHS030
40	5	10	CHS040
50	5	10	CHS050
70	5	10	CHS070
100	5	10	CHS100



- For securing taper ground joints with glass cams and NS metal locking hooks
- Made of stainless steel
- Suitable for high temperatures

NS-Keck™ clamps



For nominal size NS	VE	Order no.
12	10	CKNS12
14	10	CKNS14
19	10	CKNS19
24	10	CKNS24
29	10	CKNS29
34	10	CKNS34
45	10	CKNS45

- made of POM, T max. 90°C
- For securing bevelled joints
- cannot be used with grip collar sleeves
- Suitable for all cut lengths

NS grip collar sleeves PTFE



Nominal size NS	VE	Order no.
10/19	1	CSGNS1019
14/23	1	CSGNS1423
19/26	1	CSGNS1926
24/29	1	CSGNS2429
24/40	1	CSGNS2440
29/32	1	CSGNS2932
29/42	1	CSGNS2942
45/40	1	CSGNS4540
45/50	1	CSGNS4550

- T max. 250°C
- Can be used instead of grinding grease
- not suitable for clamps

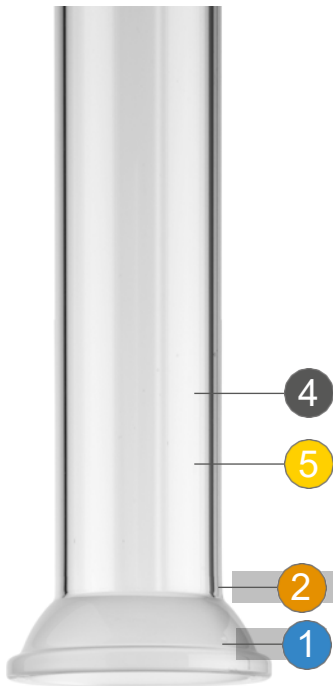
NS grooved sleeves PTFE



Nominal size NS	VE	Order no.
10/19	1	CSRNS1019
14/23	1	CSRNS1423
19/26	1	CSRNS1926
24/29	1	CSRNS2429
24/40	1	CSRNS2440
29/32	1	CSRNS2932
29/42	1	CSRNS2942
45/40	1	CSRNS4540
45/50	1	CSRNS4550

- T max. 250°C
- Can be used instead of grinding grease
- suitable for staples

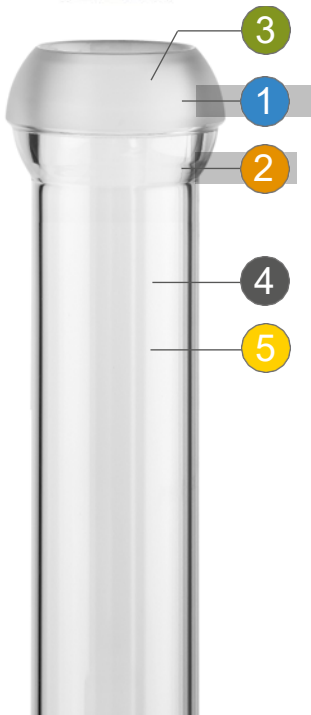
S/KS BEVELLED JOINTS



- 1 NORMAG fine grinding with very good leakage rate
- 2 5° deflectable
- 3 Spherical ground joints manufactured according to DIN 12242
- 4 Attachments manufactured according to DIN 12264
- 5 Thick-walled for high stability
- 6 NORMAG ground joint for increased safety and apparatus/plant engineering
- 7 NORMAG ground joint clamp ring connection for increased safety and apparatus/plant engineering

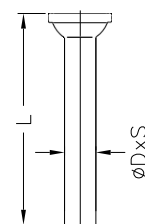


KS millimetre version available



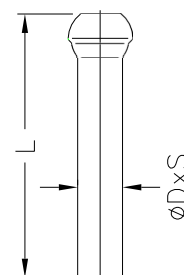
S/KS spherical ground bowls

Nominal size S/KS	Length L [mm]	Pipe D x S [mm]	Standard	VE	Order no.
S 13/5	100	8 x 1,5	Customs	10	CSC1305
S 19/9	110	12 x 1,5	Customs	10	CSC1909
S 29/15	120	19 x 1,8	Customs	10	CSC2915
S 35/25	120	28 x 2,0	Customs	5	CSC3525
S 40/25	150	28 x 2,0	Customs	5	CSC4025
S 51/30	150	36 x 2,8	Customs	1	CSC5130
S 64/40	150	48 x 3,2	Customs	1	CSC6440
KS 12/6	100	8 x 1,5	mm	10	CKSC1206
KS 18/9	110	12 x 1,5	mm	10	CKSC1809
KS 28/15	120	19 x 1,8	mm	10	CKSC2815
KS 35/20	120	24 x 1,8	mm	5	CKSC3520
KS 35/25	120	28 x 2,0	mm	5	CKSC3525
KS 50/30	150	36 x 2,8	mm	1	CKSC5030



S/KS spherical beads

Nominal size S/KS	Length L [mm]	Pipe D x S [mm]	Standard	VE	Order no.
S 13/5	100	8 x 1,5	Customs	10	CSB1305
S 19/9	110	12 x 1,5	Customs	10	CSB1909
S 29/15	120	19 x 1,8	Customs	10	CSB2915
S 35/25	120	28 x 1,8	Customs	5	CSB3525
S 40/25	150	28 x 2,0	Customs	5	CSB4025
S 51/30	150	36 x 2,8	Customs	1	CSB5130
S 64/40	150	48 x 3,2	Customs	1	CSB6440
KS 12/6	100	8 x 1,5	mm	10	CKSB1206
KS 18/9	110	12 x 1,5	mm	10	CKSB1809
KS 28/15	120	19 x 1,8	mm	10	CKSB2815
KS 35/20	120	24 x 2,0	mm	5	CKSB3520
KS 35/25	120	28 x 2,0	mm	1	CKSB3525
KS 50/30	150	36 x 2,8	mm	1	CKSB5030



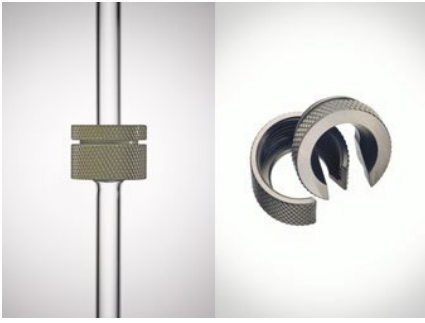
S/KS fork clamps

Nominal size S	Nominal size KS	VE	Order no.
13	12	5	CFS13
19	18	5	CFS19
29	28	5	CFS29
35	35	2	CFS35
40	-	2	CFS40
51	50	1	CFS51
64	-	1	CFS64



- For securing spherical ground joints in millimetre and inch versions and Rotulex connections
- Suitable for high temperatures
- Made of stainless steel

S/KS ground joints



Nominal size S	VE	Order no.
19	10	CJS19
29	10	CJS29
35	10	CJS35

- for a firm and secure connection
- for line construction, mounting of additional devices, for superstructure parts for reaction vessels, etc.
- Suitable for high temperatures

S/KS grip collar Seals PTFE



Nominal size S/KS	Standard	PU	Order no.
13	Customs	1	CSGS13
19	Customs	1	CSGS19
29	Customs	1	CSGS29
35	Customs	1	CSGS35
40	Customs	1	CSGS40
51	Customs	1	CSGS51
64	Customs	1	CSGS64
18	mm	1	CSGKS18
28	mm	1	CSGKS28
35	mm	1	CSGKS35

- T max. 250°C
- Can be used instead of grinding grease
- Not suitable for staples

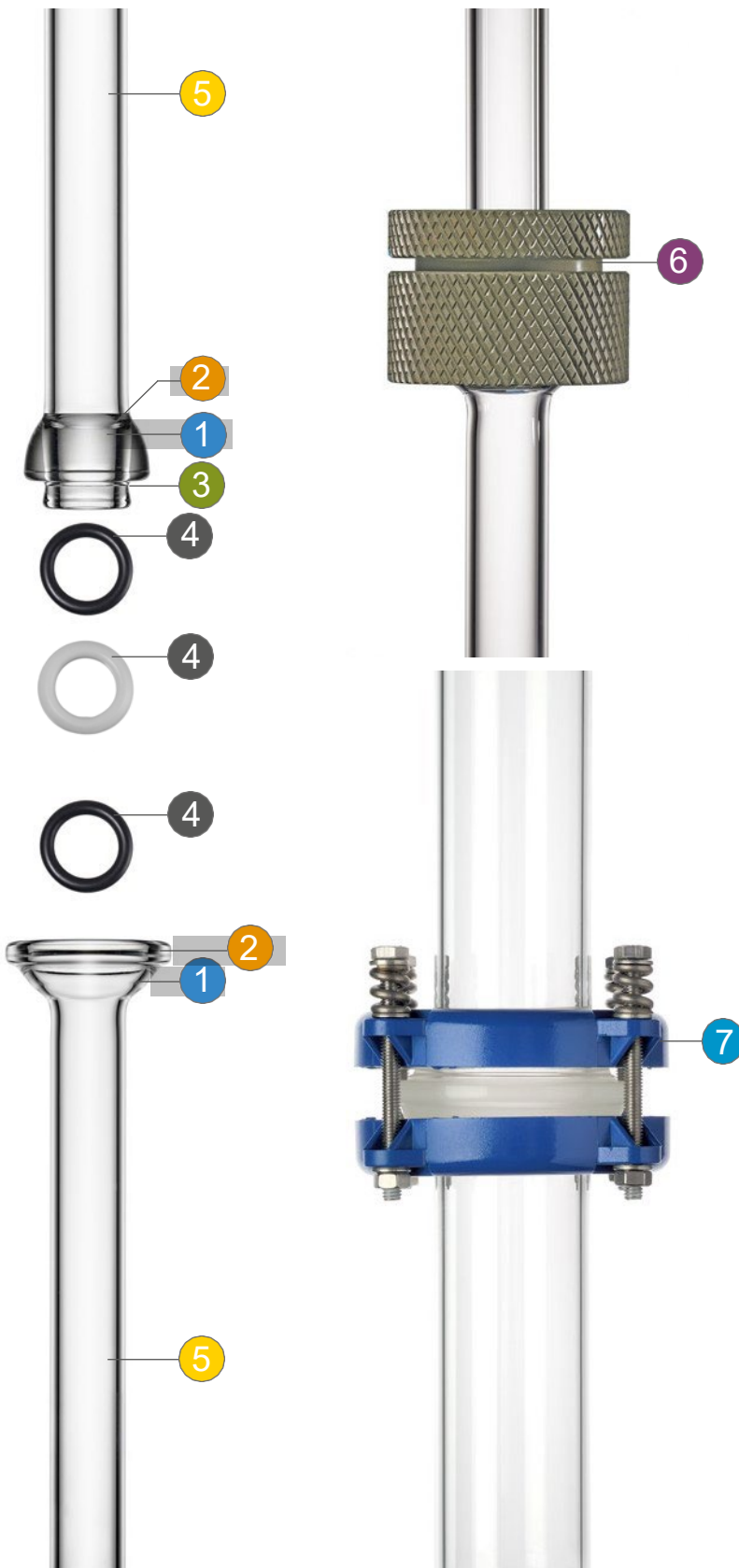
S/KS/RS clamp ring connections



Column diameter D [mm]	Order no.
35	CCS35
40	CCS40
51	CCS51
64	CCS64
75	CCS75
90	CCS90

- for the connection of sheathed and unsheathed components
- for a continuous and secure connection
- Handle collar seals can be used

RS-ROTULEX GROUND JOINTS

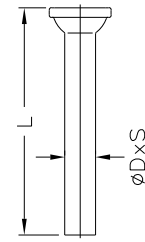


- 1 Polished sealing surfaces for lowest leakage rate
- 2 5° deflectable
- 3 Gasket holder for grease-free sealing
- 4 Various seals available
- 5 Thick-walled for high stability
- 6 NORMAG ground joint for increased safety and apparatus/plant engineering
- 7 NORMAG ground joint clamp ring connection for increased safety and apparatus/plant engineering

other sizes available

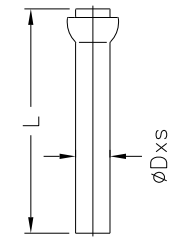
RS-Rotulex trays

Nominal size RS	Length L [mm]	Pipe D x S [mm]	VE	Order no.
13/5	100	8 x 1,5	5	CRSC1305
19/9	100	12 x 2,2	5	CRSC1909
29/15	120	18 x 2,5	5	CRSC2915
35/20	150	24 x 2,5	5	CRSC3520
41/25	150	28 x 2,8	5	CRSC4125
64/40	150	48 x 3,2	5	CRSC6440
75	150		1	CRSC75
90	150		1	CRSC90



RS-Rotulex balls

Nominal size RS	Length L [mm]	Pipe D x S [mm]	VE	Order no.
13/5	100	8 x 1,5	5	CRSB1305
19/9	100	12 x 2,2	5	CRSB1909
29/15	120	18 x 2,5	5	CRSB2915
35/20	150	24 x 2,5	5	CRSB3520
41/25	150	28 x 2,8	5	CRSB4125
64/40	150	48 x 3,2	5	CRSB6440
75	150		1	CRSB75
90	150		1	CRSB90



- Sealing rings must be ordered separately

RS gaskets FKM

Nominal size RS	VE	Order no.
13/5	5	CSVRS13
19/9	5	CSVRS19
29/15	5	CSVRS29
35/20	5	CSVRS35
41/25	5	CSVRS41
64/40	5	CSVRS64
75	1	CSVRS75
90	1	CSVRS90



- for applications in the high vacuum range
- Good chemical resistance
- T max. 180 °C

RS grip collar Seals FEP



- For applications in the low vacuum range up to 0.1 mbar
- Very good chemical resistance
- T max. 200 °C
- Silicone coated with FEP

Nominal size RS	VE	Order no.
13/5	5	CSFSP13
19/9	5	CSFSP19
29/15	5	CSFSP29
35/20	5	CSFSP35
41/25	5	CSFSP41
64/40	5	CSFSP64
75	1	CSFSP75
90	1	CSFSP90

RS gaskets FFKM



- for applications in the high vacuum range
- Very good chemical resistance
- T max. 270 °C

Nominal size RS	Order no.
13/5	CSKRS13
19/9	CSKRS19
29/15	CSKRS29
35/20	CSKRS35
41/25	CSKRS41
64/40	CSKRS64
75	CSKRS75
90	CSKRS90

RS fork clamps

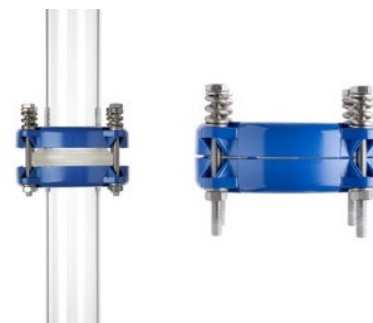


- For securing spherical ground joints in millimetre and inch versions and Rotulex connections

Nominal size RS	Order no.
13	CFS13
19	CFS19
29	CFS29
35	CFS35
40	CFS40
64	CFS64

S/KS/RS clamp ring connections

Nominal size S	Order no.
35	CCS35
40	CCS40
51	CCS51
64	CCS64
75	CCS75
90	CCS90



- for the connection of sheathed and unsheathed components
- for a stable and secure connection

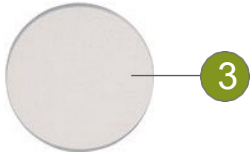
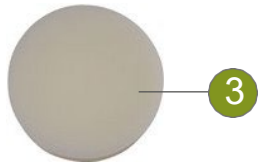
RS ground joints

Nominal size RS	Order no.
19	CJS19
29	CJS29
35	CJS35



- for a firm and secure connection
- for line construction, mounting of additional devices, for superstructure parts for reaction vessels, etc.
- Suitable for high temperatures

GL-GEWINDE

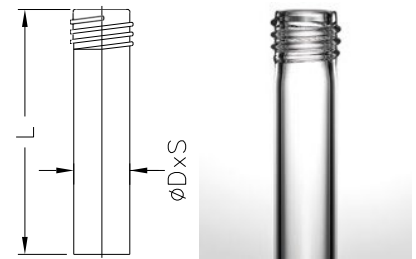


- 1 GL thread to DIN 12216
- 2 Universal connection for sensors, glass tubes, hoses, PTFE tubes, etc.
- 3 Many accessories available

SVL or metric threads available in special sizes on request

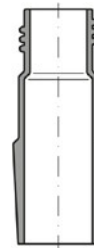
GL attachments

Nominal size GL	Length L [mm]	Pipe D x S [mm]	VE	Order no.
14	100	12 x 1,5	10	CGL014
18	100	16 x 1,8	10	CGL018
25	100	22 x 1,8	10	CGL025
32	120	28 x 2,0	10	CGL032
45	180	40 x 2,3	10	CGL045



Transition piece GL to NS taper ground joint

Nominal size GL	Nominal size NS	VE	Order no.
14	14/23	10	HAA 60125 01
14	19/26	10	HAA 60125 02
14	29/32	10	HAA 60125 03
18	14/23	10	HAA 60125 04
18	19/26	10	HAA 60125 05
18	29/32	10	HAA 60125 06
25	19/26	10	HAA 60125 07
25	29/32	10	HAA 60125 08
32	29/32	10	HAA 60125 09



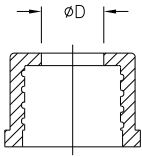
GL screw caps closed

Nominal size GL	Temperature resistance [°C]	VE	Order no.
14	180	10	CS014
18	180	10	CS018
25	180	10	CS025
32	180	10	CS032
45	180	10	CS045
14	250	10	CS014HT
18	250	10	CS018HT
25	250	10	CS025HT
32	250	10	CS032HT
45	250	10	CS045HT



- made of PBT, T max. 180°C
- serves as a sealing cap
- HT variant: T max. 250°C in black

GL screw caps open



- made of PBT, T max. 180°C
- Serves as a feed-through for thermometers, pipes or hoses
- HT variant: T max. 250°C in black

Nominal size GL	Bore D [mm]	Temperature resistance [°C]	VE	Order no.
14	9,5	180	10	CSO014
18	11	180	10	CSO018
25	15	180	10	CSO025
32	20	180	10	CSO032
45	34	180	10	CSO045
14	9,5	250	10	CSO014HT
18	11	250	10	CSO018HT
25	15	250	10	CSO025HT
32	20	250	10	CSO032HT
45	34	250	10	CSO045HT

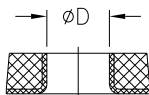
GL screw couplings



- made of PBT, T max. 180°C
- serves as a connecting piece
- HT variant: T max. 200°C in black

Nominal size GL	Temperature resistance [°C]	Order no.
14	180	CTC014
18	180	CTC018
25	180	CTC025
32	180	CTC032
45	180	CTC045
14	250	CTC014HT
18	250	CTC018HT
25	250	CTC025HT
32	250	CTC032HT
45	250	CTC045HT

GL gaskets with bore

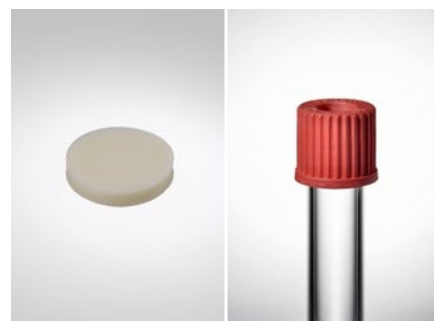


- Suitable for protruding screw caps with hole
- Silicone seal with PTFE cuff
- T max. 230°C

Nominal size GL	Bore D [mm]	VE	Order no.
14	6	10	CSPB01406
18	6	10	CSPB01806
18	8	10	CSPB01808
18	10	10	CSPB01810
25	8	10	CSPB02508
25	10	10	CSPB02510
25	12	10	CSPB02512
32	10	10	CSPB03210
32	12	10	CSPB03212
32	14	10	CSPB03214
32	16	10	CSPB03216
32	18	10	CSPB03218
45	26	10	CSPB04526
45	32	10	CSPB04532

GL gaskets and Septa PTFE

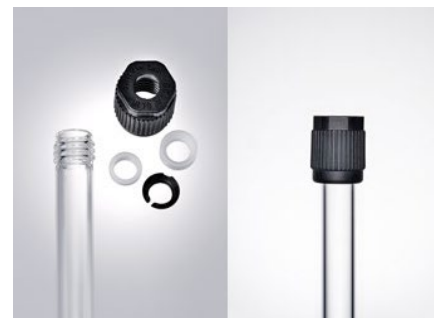
Nominal size GL	VE	Order no.
14	10	CSPC014
18	10	CSPC018
25	10	CSPC025
32	10	CSPC032
45	10	CSPC045



- Silicone seal with PTFE coating
- Can also be used as a septa for sampling with a syringe
- closes itself after piercing
- T max. 230°C

GL laboratory fittings

Thread GL	Tube OD [mm]	Temperature resistance [°C]	Order no.
14	6	150	CSJ014060
18	6	150	CSJ018060
18	8	150	CSJ018080
18	10	150	CSJ018100
25	8	150	CSJ025080
25	10	150	CSJ025100
25	12	150	CSJ025120
14	6	250	CSJ014060HT
14	8	250	CSJ014080HT
18	6	250	CSJ018060HT
18	8	250	CSJ018080HT
18	10	250	CSJ018100HT
25	8	250	CSJ025080HT
25	10	250	CSJ025100HT
25	12	250	CSJ025120HT
32	10	250	CSJ032100HT
32	12	250	CSJ032120HT
32	14	250	CSJ032140HT
45	10	250	CSJ045100HT
45	12	250	CSJ045120HT
45	14	250	CSJ045140HT



- made of PPS in contact with the product and PTFE
- Suitable for vacuum and up to 10 bar
- T max. 250°C
- Caps and Erstaz inner parts can be ordered individually

GL accessories

- Further GL accessories or other sizes available on request

HF HIGH VACUUM FLANGES NORMAG



- 1 Strong shoulders for stability and durability
- 2 for glass to metal connections
- 3 Compatible with small flanges to DIN 28403
- 4 High sealing forces can be applied due to special design
- 5 Only in conjunction with sealing rings for glass and glass-metal
- 6 only in conjunction with NORMAG HFN flange connections

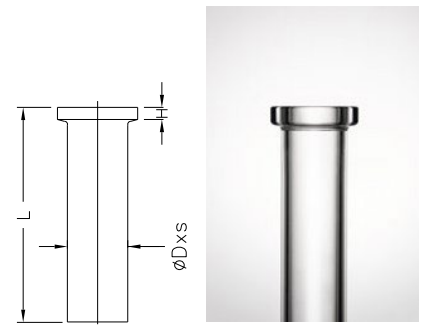
fat-free compound

Best vacuum tightness of all connection types



HF connectors

Nominal size HF	Length L [mm]	Pipe D x S [mm]	Height H [mm]	Order no.
10	130	16 x 2,5	5,5	CHFN10
16	130	22 x 2,5	5,5	CHFN16
25	130	30 x 2,8	6,0	CHFN25
40	130	46 x 3,2	6,0	CHFN40
50	130	56 x 3,5	6,0	CHFN50
10	130	16 x 2,5	3,0	CHF10
16	130	22 x 2,5	3,0	CHF16
25	130	30 x 2,8	3,0	CHF25
40	130	46 x 3,2	3,0	CHF40
50	130	56 x 3,5	3,0	CHF50



- Polished sealing surface
- CHF identical in shape to ISO-KF according to DIN 28403

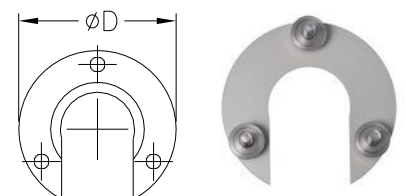
HF flange connections PTFE

Nominal size HF	Width D [mm]	Order no.
10/16	55	CPHF16
25	68	CPHF25

- Three-point design for optimum transmission of forces to the seal
- Made of anodised aluminium and with stainless steel screws
- Complete with screws and knurled nuts

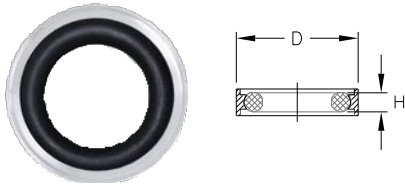
HF flange connections

Nominal size HF	Width D [mm]	Order no.
10/16	55	CAHF16
25	68	CAHF25
40	85	CAHF40
50	105	CAHF50



- Three-point design for optimum transmission of forces to the seal
- Made of anodised aluminium and stainless steel screws
- Complete with screws and knurled nuts

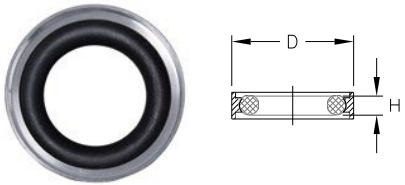
HF outer centring rings PTFE with FKM seal



Nominal size HF	Width D [mm]	Height H [mm]	Order no.
10/16	32	5	CSVPHF16
25	42	5	CSVPHF25
40	57	5	CSVPHF40
50	77	5	CSVPHF50

- PTFE outer centring ring
- Enables quick and easy installation
- Other variants and materials on request

HF outer centring rings with FKM seal



Nominal size HF	Width D [mm]	Height H [mm]	Order no.
10/16	32	5	CSVHF16
25	42	5	CSVHF25
40	57	5	CSVHF40
50	77	5	CSVHF50

- Aluminium outer centring ring
- Enables quick and easy installation
- Other variants and materials on request

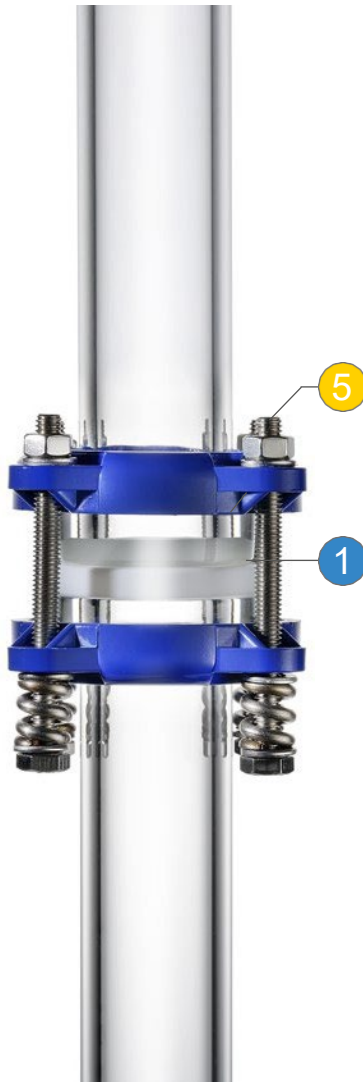
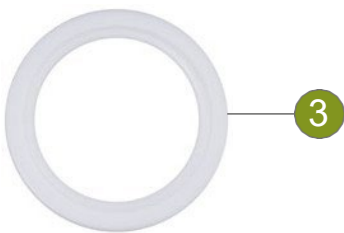
KF-BUND FLANGES



- 1 Ball cup deflectable up to 3°
- 2 Corrosion-resistant plastic design
- 3 Universal seal for ball and fan plan
- 4 Clamp connection can also be used for ATEX areas
- 5 Compact clamp connection for tight spaces

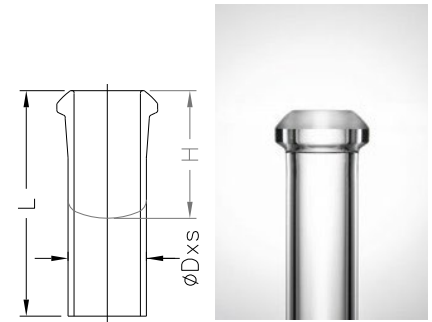
TA-Luft certificate certifies lowest leakage rate

Further accessories or connecting elements in the Process Technology Catalogue KF



KF attachment pieces Ball

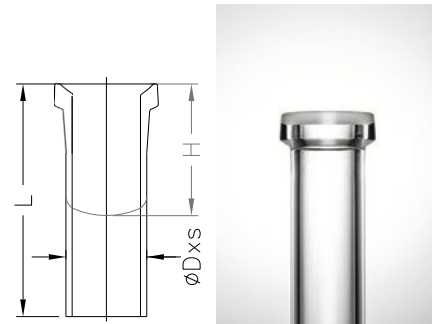
Nominal diameter DN	Length L [mm]	Height H [mm]	Pipe D x S [mm]	Order no.
15	100	-	22 x 2,5	CF1015
25	100	-	33 x 4,5	CF1025
40	100	-	50 x 5,0	CF1040
50	100	-	60 x 5,0	CF1050
80	100	-	87 x 5,0	CF1080
100	100	-	115 x 7,0	CF1100
150	-	120	-	CF1150
200	-	130	-	CF1200
300	-	180	-	CF1300



- up to DN 100 as extension piece
- From DN 150 as blind flange

KF attachment pieces Pan

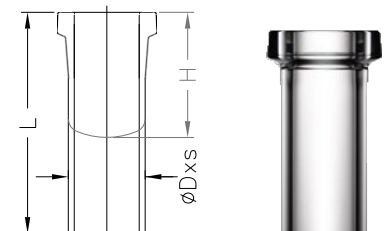
Nominal diameter DN	Length L [mm]	Height H [mm]	Pipe D x S [mm]	Order no.
15	100	-	22 x 2,5	CF2015
25	100	-	33 x 4,5	CF2025
40	100	-	50 x 5,0	CF2040
50	100	-	60 x 5,0	CF2050
80	100	-	87 x 5,0	CF2080
100	100	-	115 x 7,0	CF2100
150	-	120	-	CF2150
200	-	130	-	CF2200
300	-	180	-	CF2300



- up to DN 100 as extension piece
- From DN 150 as blind flange

KF attachment pieces Plan

Nominal diameter DN	Length L [mm]	Height H [mm]	Pipe D x S [mm]	Order no.
15	100	-	22 x 2,5	CF3015
25	100	-	33 x 4,5	CF3025
40	100	-	50 x 5,0	CF3040
50	100	-	60 x 5,0	CF3050
80	100	-	87 x 5,0	CF3080
100	100	-	115 x 7,0	CF3100
150	-	120	-	CF3150
200	-	130	-	CF3200
300	-	180	-	CF3300



- up to DN 100 as extension piece
- From DN 150 as blind flange

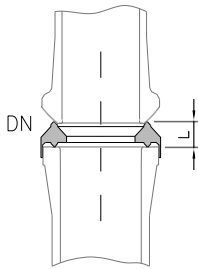
KF-PTFE universal seals



- Can be used for ball, pan and plan
- Cannot be used with plan on ball or plan on pan
- The collar keeps the seal in place during installation

Nominal diameter DN	Order no.
15	CGR015-K
25	CGR025-K
40	CGR040-K
50	CGR050-K
80	CGR080-K
100	CGR100-K
150	CGR150-K
200	CGR200
300	CGR300

KF transition gasket universal KF-PF

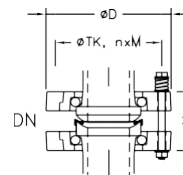


Nominal size DN	Length L [mm]	Order no.
15	6	CGE015
25	7	CGE025
40	8	CGE040
50	8	CGE050

- Transition between KF plan, pan or sphere to PF
- No additional seal required

KF clamp ring connections glass-glass

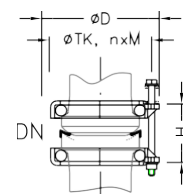
Nominal diameter DN	Diameter D [mm]	Height H [mm]	TK [mm]	Screws n x M x L [mm]	Order no.
15	ø70	38	ø50	3 x M6 x 65	CP015-K
25	ø105	49	ø85	4 x M8 x 85	CP025-K
40	ø132	72	ø110	4 x M8 x 105	CP040-K
50	ø147	70	ø125	4 x M8 x 105	CP050-K
80	ø184	95	ø160	8 x M8 x 130	CP080-K
100	ø204	98	ø180	8 x M8 x 140	CP100-K
150	ø266	102	ø240	8 x M8 x 140	CP150-K
200	ø321	108	ø295	8 x M8 x 150	CP200
300	ø428	115	ø400	12 x M8 x 150	CP300



- Complete with plastic clamp rings, plastic inserts, stainless steel screws, washers, thrust washers and nuts
- Individual parts can be ordered separately
- Suitable for ATEX

KF compact clamp ring connections glass-glass

Nominal diameter DN	Diameter D [mm]	Height H [mm]	TK [mm]	Screws n x M x L [mm]	Order no.
15	ø66	37	ø50	3 x M6 x 65	CAK015-K
25	ø81	44	ø65	4 x M6 x 70	CAK025-K
40	ø101	47	ø85	4 x M6 x 75	CAK040-K
50	ø116	57	ø100	4 x M6 x 90	CAK050-K
80	ø160	70	ø140	6 x M6 x 100	CAK080-K
100	ø184	75	ø160	6 x M6 x 105	CAK100-K



- Complete with clamp ring made of coated die-cast aluminium, stainless steel inserts, stainless steel screws, washers, compression springs and nuts
- Individual parts can be ordered separately

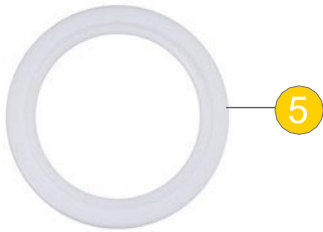
PF FLAT FLANGES



- 1 With guide and sealing groove for easy installation
- 2 Corrosion-resistant plastic design
- 3 Easy installation thanks to fewer screws and good guidance
- 4 Clamp connection can also be used for ATEX areas
- 5 PTFE collar seal for high chemical resistance

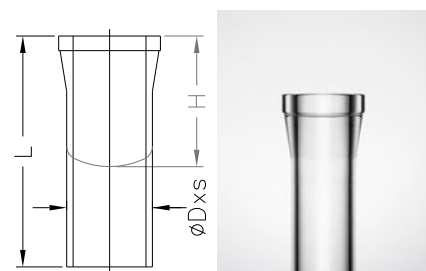
TA-Luft certificate certifies lowest leakage rate

Further accessories or connecting elements in the PF process technology catalogue



PF attachment pieces

Nominal diameter DN	Length L [mm]	Pipe R [mm]	Order no.
15	100	22 x 2,5	CF4015
25	100	33 x 4,5	CF4025
40	100	50 x 5,0	CF4040
50	100	60 x 5,0	CF4050
80	170	90 x 5,0	CF4080
100	170	115 x 7,0	CF4100
150	170	165 x 7,0	CF4150



PF-PTFE seals

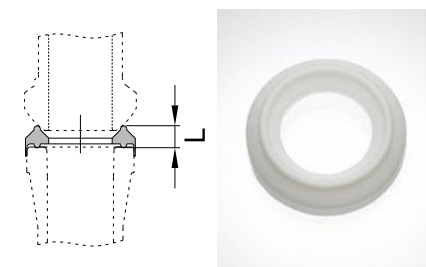
Nominal diameter DN	Order no.
15	CGR015-P
25	CGR025-P
40	CGR040-P
50	CGR050-P
80	CGR080-P
100	CGR100-P
150	CGR150-P



- The collar keeps the seal in place during installation
- Integrated sealing ring guides during assembly

PF transition gasket universal KF-PF

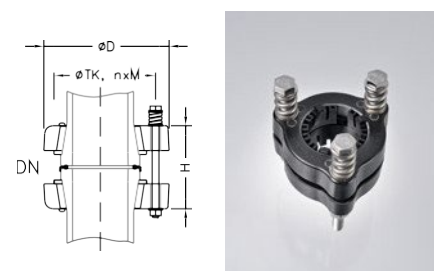
Nominal size DN	Length 1/2L [mm]	Order no.
15	6	CGE015
25	7	CGE025
40	8	CGE040
50	8	CGE050



- Transition between KF plan, pan or sphere to PF
- No additional seal required

PF clamp ring connections glass-glass

Nominal diameter DN	Diameter D [mm]	Height H [mm]	TK [mm]	Screws n x M x L [mm]	Order no.
15	70	39	50	3 x M6 x 65	CP015-P
25	90	61	70	3 x M8 x 90	CP025-P
40	109	66	86	3 x M8 x 100	CP040-P
50	122	73	98	3 x M8 x 105	CP050-P
80	160	87	133	6 x M8 x 120	CP080-P
100	204	98	178	6 x M8 x 130	CP100-P
150	280	100	254	6 x 118 x 150	CP150-P



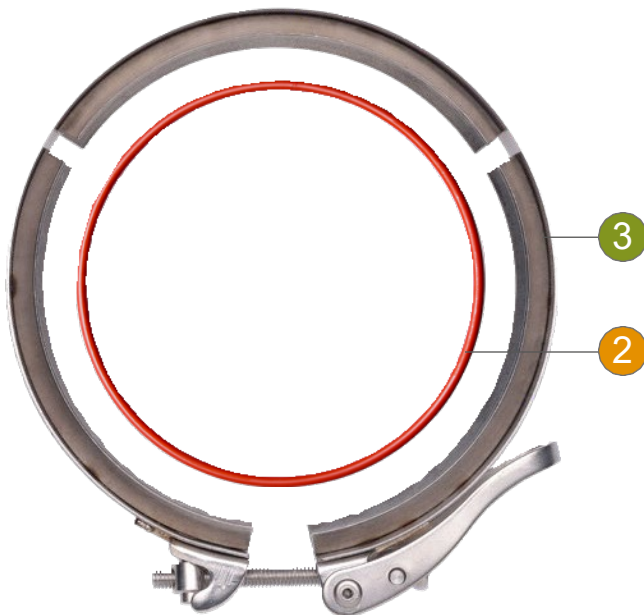
- Complete with plastic clamp rings, plastic inserts, stainless steel screws, washers, thrust washers and nuts
- Individual parts can be ordered separately, suitable for ATEX

LF LABORATORY PLANE FLANGES SCHOTT



4

- 1 One side with groove for seal
- 2 Good sealing and chemical resistance
- 3 Easy handling and quick opening and closing
- 4 one side without groove



3

2

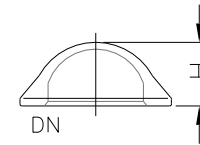
1

Universal connection that is mainly used for containers with lids



LF cover low design without groove

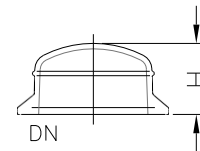
Nominal size DN	Height H [mm]	Pressure [bar]	VE	Order no.
60	42	2,5	6	CLFL060
100	44	1,5	4	CLFL100



- Pressure indicates the max. internal operating overpressure at 250°C

LF cover, high design without groove

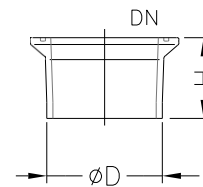
Nominal size DN	Height H [mm]	Pressure [bar]	VE	Order no.
100	65	1,5	3	CLFT100
120	70	1,3	4	CLFT120
150	70	1,0	2	CLFT150
200	95	1,0	2	CLFT200



- Pressure indicates the max. internal operating overpressure at 250°C

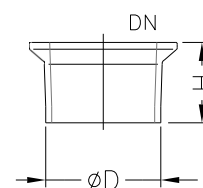
LF attachment pieces with groove

Nominal size DN	Outer diameter (OD) D	Height H [mm]	VE	Order no.
60	68	50	2	CLFW060
100	106	60	2	CLFW100
120	130	60	2	CLFW120
150	155	75	2	CLFW150
200	215	75	2	CLFW200



LF attachment pieces without groove

Nominal size DN	Outer diameter (OD) D	Height H [mm]	VE	Order no.
60	68	50	2	CLF060
100	106	60	2	CLF100
120	130	60	2	CLF120
150	155	75	2	CLF150
200	215	75	2	CLF200



LF gaskets FEP



- T max. 200°C
- Silicone coated with FEP

Nominal size DN	Order no.
60	CSFLF060
100	CSFLF100
120	CSFLF120
150	CSFLF150
200	CSFLF200

LF seals FKM



- T max. 180°C

Nominal size DN	Order no.
60	CSVLF060
100	CSVLF100
120	CSVLF120
150	CSVLF150
200	CSVLF200

LF gaskets FFKM



- T max. 270°C

Nominal size DN	Order no.
60	CSKLF060
100	CSKLF100
120	CSKLF120
150	CSKLF150
200	CSKLF200

LF quick-release fasteners



Nominal size DN	Order no.
60	CQ060-L
100	CQ100-L
120	CQ120-L
150	CQ150-L
200	CQ200-L

Further LF accessories can be found in the chapter Vessels and accessories