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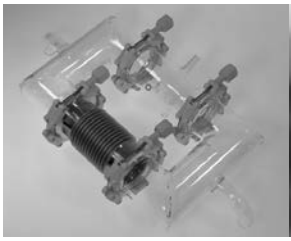
VACUUM
GLASS & QUARTZ COMPONENTS

**Neyco provides glass components for ultra-pure processes.
Glass is highly resistant to water and most chemicals and can be thoroughly cleaned and sterilized, which ensures that your processes are cleaner than with Stainless Steel or Aluminum.**



Several qualities are available according to the kind of component:

- Duran (standard or optical quality)
- Kodial
- Pyrex
- Quartz (standard or optical quality)

See Section A - Vacuum Guide *in this catalogue about technical properties of the different Glasses.*

The transition from glass to metal is no longer a problem but simply a matter of connecting two flanges. Vacuum measuring devices can, for example, easily be connected to glass systems by means of metal flanges.

Blank flanges can be used as inspection glasses. Optical blank flanges (parallel 6', level <3µm) are available. This allows measurements with IR, UV or visible light.

In metal systems, adapters made from glass can be used for electric insulation.

Applications

- CVD and PVD processes
- Plasma etching and cleaning processes
- UV, IR and laser measurement
- High frequency and microwave supported processes
- Physical / chemical experiments
- Inspection glasses, flow rate observation

Properties
- Antimagnetic
- Radiation resistant
- Suitable for cleanrooms
- Useable only with elastomer seals

KF GLASS FLANGES

The flange dimensions are identical to the KF flanges, with the exception of the side width on the outside diameter, which is 4 mm instead of 3 mm. The larger dimension makes the glass flanges stronger to prevent cracking when the chain is tightened. The (compressed) seal ring width is therefore only 2 mm. Connection to a standard KF flange is always possible with the aid of a wider seal (3 mm).

ISO-TAPERED GLASS FLANGES

ISO-Tapered glass flanges can be directly mounted on ISO-Tapered metal flanges. DN 80 to 125 can be directly mounted on ISO F metal flanges (with plastic wall clamps).

ELASTOMER SEALS FOR KF AND ISO-TAPERED GLASS FLANGES

Two sealing widths are available: 2mm and 3mm. Since the glass flanges have a 1 mm thicker flange, the sealing width (compressed) is no longer 4 mm (for metal to metal connection) but 2 mm. For connections between a standard KF metal flange and a glass flange, a 3 mm wide seal is used.

The total width of two flanges and one seal is always 10 mm:
- 4+2+4=10 for glass to glass connections
- 4+3+3=10 for glass to metal connections
- 3+4+3=10 for metal to metal connections

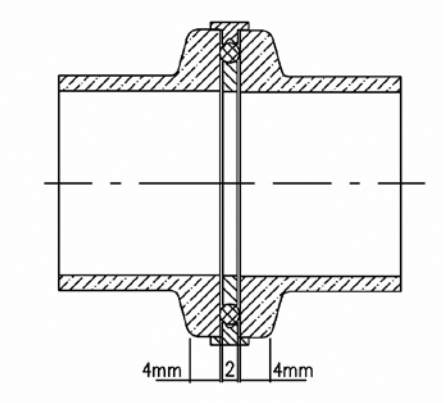
TEFLON BELLOWS

Properties
- Flanges: Teflon GRP* / Bellows: Teflon
- Temperature range: -50 ... +200°C
- Leak rate: < 1.10^{-6} mbar.l.s^{-1}

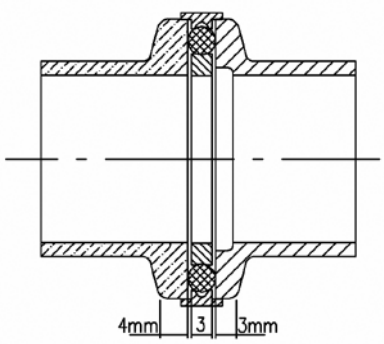
Advantages
- High flexibility
- Excellent corrosion resistance
- Suitable for glass and metal systems
- GRP* reinforced flanges
- Machined from one piece
- Electrical insulation
- Antimagnetic

Applications
- Compensation of axial, lateral or angular set-offs
- Prevention of vibration transfer
- Substitute for elastomer compensators
- Compensate thermal expansion

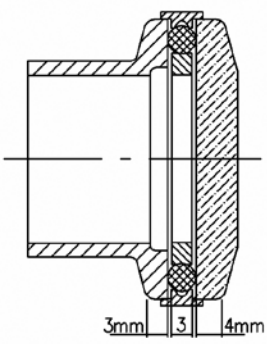
* Glass-Reinforced Plastic (also called fiberglass)



Glass to glass connection



Glass to metal connection



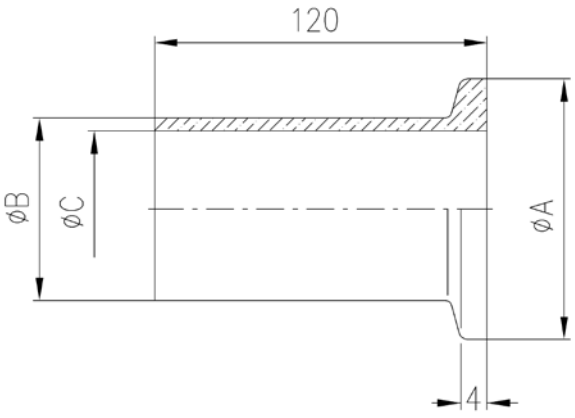
KF flange with glass blank flange

KF / ISO-Tapered Glass & Quartz Components DN 10-63, 80-160

APPLICATIONS

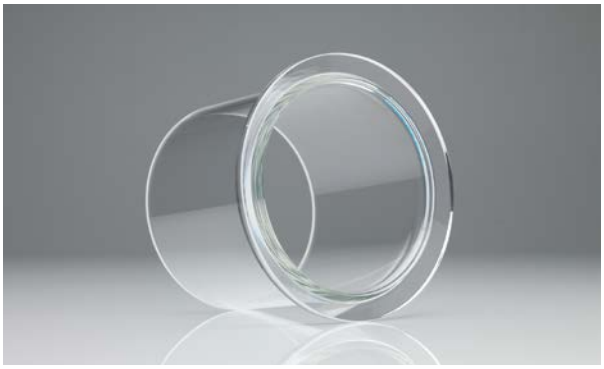
- Inspectable flanges for process control, plasma and oven
- Insertion of (UV) laser light into reaction tube (quartz flange)
- UV protection with Duran flanges / windows
- Quartz for lowest UV absorption
- Vacuum down to 10^{-9} mbar
- Temp. range of quartz up to 1000°C / Duran up to 450°C
- Pressure up to 2 bar (DN 10...50) / 1.5 bar (DN 63)
- Antimagnetic and radiation resistant
- Excellent chemistry / corrosion
- Cleanroom suitable and electrical isolation
- For ultra-pure processes as ion implanters etc. (quartz)

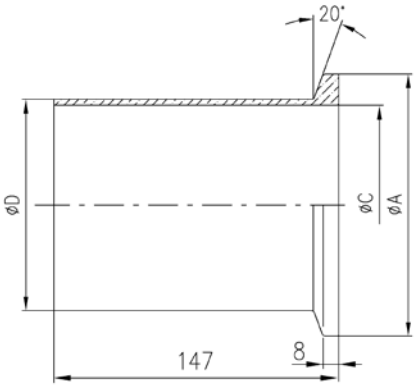
KF FLANGES



DN	A	B		C		P/N	
		Duran	Quartz	Duran	Quartz	Duran	Quartz
10	30	16	16	12.4	13	32.010007.113.710	32.010008.113.810
16	30	20	20	16.4	17	32.016007.113.716	32.016008.113.816
25	40	30	30	26	27	32.025007.113.725	32.025008.113.825
40	55	46	46	41.4	42	32.040007.113.740	32.040008.113.840
50	75	56	57	51	52	32.050007.113.750	32.050008.113.850
63	87	75	75	70.6	70.6	32.063007.113.763	32.063008.113.863

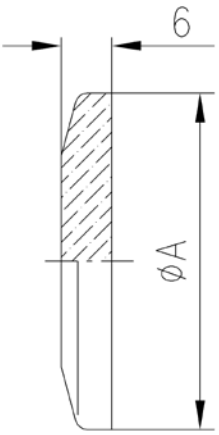
ISO-TAPERED FLANGES (20° angle)





DN	A	C	D	P/N	
				Duran	Quartz
80	114	83	89	32.080007.213.708	32.080008.213.808
100	134	102	110	32.100007.213.710	32.100008.213.810
125	161	127	135	32.125007.213.712	32.125008.213.812
160	190	153	160	32.160007.213.716	32.160008.213.816

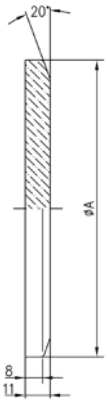
KF BLANK FLANGES



All dimensions are in mm.

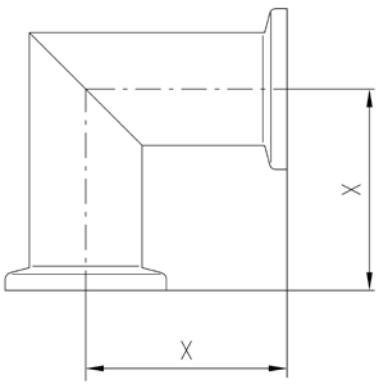
DN	A	P/N			
		Duran standard	Quartz standard	Duran optical	Quartz optical
10/16	30	32.016007.123.716	32.016008.123.816	32.016007.125.716	32.016008.125.816
25	40	32.025007.123.725	32.025008.123.825	32.025007.125.725	32.025008.125.825
40	55	32.040007.123.740	32.040008.123.840	32.040007.125.740	32.040008.125.840
50	75	32.050007.123.750	32.050008.123.850	32.050007.125.750	32.050008.125.850
63	87	32.063007.123.763	32.063008.123.863	32.063007.125.763	32.063008.125.863

ISO-TAPERED BLANK FLANGES (20° angle)



DN	A	P/N			
		Duran standard	Quartz standard	Duran optical	Quartz optical
80	114	32.080007.223.708	32.080008.223.808	32.080007.224.708	32.080008.224.808
100	134	32.100007.223.710	32.100008.223.810	32.100007.224.710	32.100008.224.810
125	161	32.125007.223.712	32.125008.223.812	32.125007.224.712	32.125008.224.812
160	190	32.160007.223.716	32.160008.223.816	32.160007.224.716	32.160008.224.816

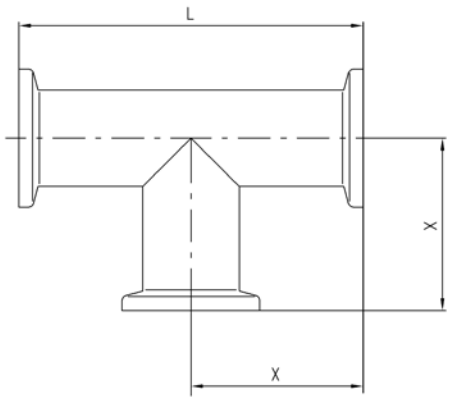
KF & ISO-TAPERED ELBOWS



All dimensions are in mm.

	DN	X	P/N	
			Duran	Quartz
KF	10	40	33.010007.151.710	33.010008.151.810
	16	40	33.016007.151.716	33.016008.151.816
	25	50	33.025007.151.725	33.025008.151.825
	40	65	33.040007.151.740	33.040008.151.840
	50	70	33.050007.151.750	33.050008.151.850
	63	75	33.063007.151.763	33.063008.151.863
ISO-TAPERED	80	98	33.080007.251.708	33.080008.251.808
	100	108	33.100007.251.710	33.100008.251.810
	125	118	33.125007.251.712	33.125008.251.812
	160	138	33.160007.251.716	33.160008.251.816

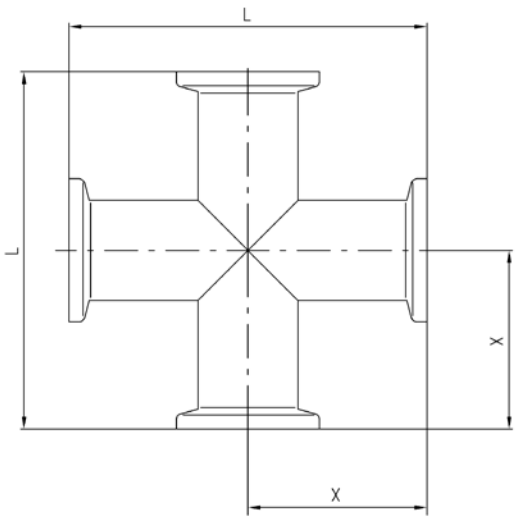
KF & ISO-TAPERED TEES



	DN	X	L	P/N	
				Duran	Quartz
KF	10	40	80	33.010007.161.710	33.010008.161.810
	16	40	80	33.016007.161.716	33.016008.161.816
	25	50	100	33.025007.161.725	33.025008.161.825
	40	65	130	33.040007.161.740	33.040008.161.840
	50	70	140	33.050007.161.750	33.050008.161.850
	63	75	150	33.063007.161.763	33.063008.161.863
ISO-TAPERED	80	98	196	33.080007.261.708	33.080008.261.808
	100	108	216	33.100007.261.710	33.100008.261.810
	125	118	236	33.125007.261.712	33.125008.261.812
	160	138	276	33.160007.261.716	33.160008.261.816

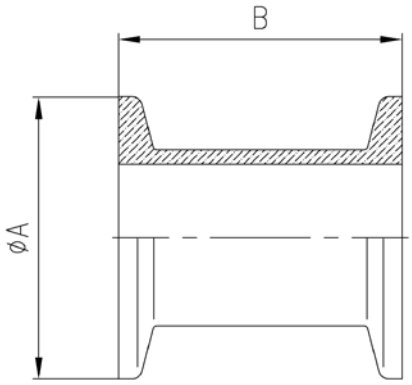
All dimensions are in mm.

KF & ISO-TAPERED CROSSES



	DN	X	L	P/N	
				Duran	Quartz
KF	10	40	80	33.010007.171.710	33.010008.171.810
KF	16	40	80	33.016007.171.716	33.016008.171.816
KF	25	50	100	33.025007.171.725	33.025008.171.825
KF	40	65	130	33.040007.171.740	33.040008.171.840
KF	50	70	140	33.050007.171.750	33.050008.171.850
KF	63	75	150	33.063007.171.763	33.063008.171.863
ISO-TAPERED	80	98	196	33.080007.271.708	33.080008.271.808
ISO-TAPERED	100	108	216	33.100007.271.710	33.100008.271.810
ISO-TAPERED	125	118	236	33.125007.271.712	33.125008.271.812
ISO-TAPERED	160	138	276	33.160007.271.716	33.160008.271.816

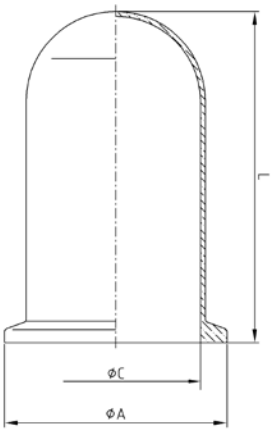
KF & ISO-TAPERED ADAPTORS



All dimensions are in mm.

	DN	A	B	P/N	
				Duran	Quartz
KF	10	30	120	33.010007.141.710	33.010008.141.810
	16	30	120	33.016007.141.716	33.016008.141.816
	25	40	120	33.025007.141.725	33.025008.141.825
	40	55	120	33.040007.141.740	33.040008.141.840
	50	75	120	33.050007.141.750	33.050008.141.850
	63	87	120	33.063007.141.763	33.063008.141.863
ISO-TAPERED	80	114	196	33.080007.222.708	33.080008.222.808
	100	134	216	33.100007.222.710	33.100008.222.810
	125	161	236	33.125007.222.712	33.125008.222.812
	160	190	276	33.160007.222.716	33.160008.222.816

KF & ISO-TAPERED JARS



	DN	A	C	L	P/N	
					Duran	Quartz
KF	10	30	12	120	33.010007.11A.710	33.010008.11A.810
	16	30	16	120	33.016007.11A.716	33.016008.11A.816
	25	40	26	120	33.025007.11A.725	33.025008.11A.825
	40	55	42	120	33.040007.11A.740	33.040008.11A.840
	50	75	52	120	33.050007.11A.750	33.050008.11A.850
	63	87	70	120	33.063007.11A.763	33.063008.11A.863
ISO-TAPERED	80	114	83	200	33.080007.21A.708	33.080008.21A.808
	100	134	102	200	33.100007.21A.710	33.100008.21A.810
	125	161	127	200	33.125007.21A.712	33.125008.21A.812
	160	190	153	200	33.160007.21A.716	33.160008.21A.816

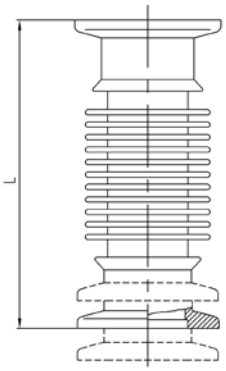
All dimensions are in mm.

KF Teflon Bellows DN 10/16-63

APPLICATIONS

- Ultra-high vacuum (10^{-9} mbar)
- Excellent corrosion resistance
- GRP* reinforced flanges
- Excellent electric insulation
- Antimagnetic
- Very good radiation tolerance
- Only with elastomer seals

DN	L	AXIAL TRAVEL [+/-mm]	LATERAL TRAVEL [+/-mm]	MAX. ANGLE [+/-°]	P/N
10	70	6	5	20	35.010087.101.610
16	70	7	6	25	35.016087.101.616
25	80	10	6	25	35.025087.102.625
40	100	20	8	30	35.040087.103.650
50	100	18	8	30	35.050087.103.650
63	100	17	8	30	35.063087.103.663



*GRP: Glass-fiber Reinforced Plastic

MOQ: 10 pieces

All dimensions are in mm.

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