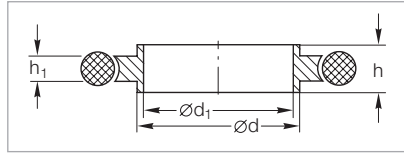
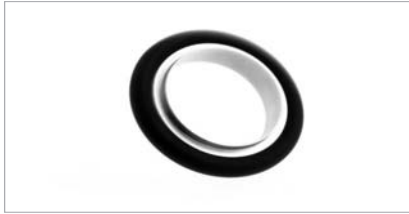


Centering Rings (Al AW-6082-T6/Stainless Steel 1.4301) with O-Ring (CR / FPM (FKM))



Dimensional drawing for the centering rings with O-ring

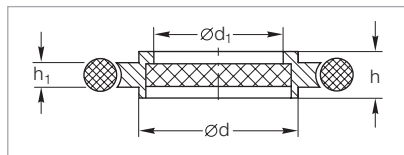
Technical Data

DN	ISO-KF	10	16	20	25	32	40	50
d	mm (in.)	12 (0.47)	17 (0.67)	22 (0.87)	26 (1.02)	34 (1.34)	41 (1.61)	52 (2.05)
d ₁	mm (in.)	10 (0.40)	16 (0.63)	20 (0.79)	25 (0.98)	32 (1.26)	40 (1.57)	50 (1.97)
h	mm (in.)	8 (0.31)	8 (0.31)	8 (0.31)	8 (0.31)	8 (0.31)	8 (0.31)	8 (0.31)
h ₁	mm (in.)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)

Ordering Information

Aluminum/CR	Part No.	183 21	183 26	183 22	183 27	183 23	183 28	183 25
Aluminum/FPM (FKM)	Part No.	182 01	182 06	182 02	182 07	182 03	182 08	182 05
Aluminum/FPM (FKM) (Set of 10 pcs)	Part No.	-	210841V01	-	210843V01	-	210845V01	-
	Part No.	-	-	210842V01	-	210844V01	-	210846V01
Stainless steel/FPM (FKM)	Part No.	883 21	883 46	883 22	883 47	883 23	883 48	883 25

Centering Rings (Stainless Steel) with Sintered Metal Filter (Stainless Steel 1.4404 and O-Ring (FPM (FKM)))



Dimensional drawing for the centering rings with sintered metal filter and O-ring

Sintered metal filter:

Air throughput at 20 °C (68 °F) and 200 mbar differential pressure approx. 1 m³ x h⁻¹ x cm², pore size: 20 µm

Technical Data

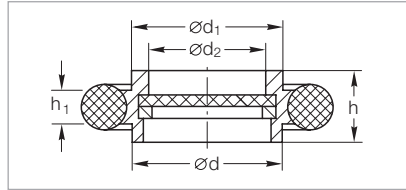
DN	ISO-KF	10	16	25	40	50
d	mm (in.)	12 (0.47)	17 (0.67)	26 (1.02)	41 (1.61)	52 (2.05)
d ₁	mm (in.)	8 (0.31)	14 (0.55)	23 (0.91)	38 (1.50)	48 (1.89)
h	mm (in.)	8 (0.31)	8 (0.31)	8 (0.31)	8 (0.31)	8 (0.31)
h ₁	mm (in.)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)

Ordering Information

Stainless steel	Part No.	883 50	883 51	883 52	883 53	883 54
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Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Centering Rings with Fine Filter (Stainless Steel 1.4305) with O-Ring (FPM (FKM))



Dimensional drawing for the centering rings with fine filter

Filter material:
Stainless steel mesh 1.4404,
size of pore: 4 μm

Separation grade:
1 μm particles to 98%
(Filter material not available separately)

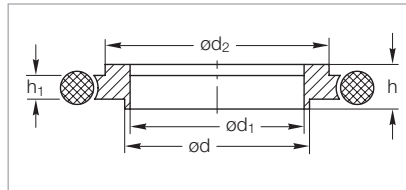
Technical Data

DN	ISO-KF	10	16	25	40	50
d	mm (in.)	12 (0.47)	17 (0.67)	26 (1.02)	41 (1.61)	52 (2.05)
d ₁	mm (in.)	12 (0.47)	17 (0.67)	26 (1.02)	41 (1.61)	52 (2.05)
d ₂	mm (in.)	9 (0.35)	13 (0.51)	22 (0.87)	35.5 (1.4)	46 (1.81)
h	mm (in.)	8 (0.31)	8 (0.31)	8 (0.31)	8 (0.31)	8 (0.31)
h ₁	mm (in.)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)

Ordering Information

Stainless steel	Part No.	883 95	883 96	883 97	883 98	883 99
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Centering Ring Adaptors (Al AW-6082-T6/Stainless Steel 1.4301) with O-ring (NBR / FPM (FKM))



Dimensional drawing for the centering ring adaptors with O-ring

Technical Data

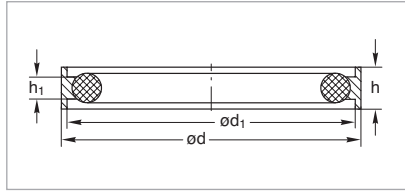
DN	ISO-KF	10/16	20/25	32/40
d	mm (in.)	12 (0.47)	22 (0.87)	34 (1.34)
d ₁	mm (in.)	10 (0.40)	20 (0.79)	32 (1.26)
d ₂	mm (in.)	17 (0.67)	26 (1.02)	41 (1.61)
h	mm (in.)	8 (0.31)	8 (0.31)	8 (0.31)
h ₁	mm (in.)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)

Ordering information

Aluminium/FPM (FKM)	Part No.	182 56	182 57	182 58
Aluminium/FPM (FKM) (Set of 10 pcs)	Part No.	-	210848V01	-
Aluminium/NBR	Part No.	183 56	183 57	183 58
Stainless steel/FPM (FKM)	Part No.	883 56	883 57	883 58

Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Outer Centering Rings (Al AW-6082-T6) with O-Ring (CR / FPM (FKM))



Dimensional drawing for the outer centering rings with O-ring

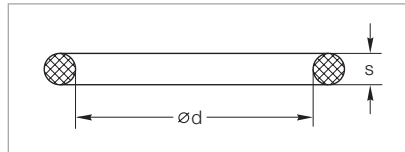
Technical Data

DN	ISO-KF	10/16	20/25	32/40	50
d	mm (in.)	32 (1.26)	42 (1.65)	57 (2.24)	77 (3.03)
d ₁	mm (in.)	30.2 (1.19)	40.2 (1.58)	55.2 (2.17)	75.2 (2.96)
h	mm (in.)	7 (0.28)	7 (0.28)	7 (0.28)	7 (0.28)
h ₁	mm (in.)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)	3.9 (0.15)

Ordering information

Material	Part No.	183 50	183 51	183 52	183 59
Aluminium/CR	Part No.	183 50	183 51	183 52	183 59
Aluminium/FPM (FKM)	Part No.	183 53	183 54	183 55	183 60

Spare O-Ring Gaskets for ISO-KF Flange Connections



Dimensional drawing for the spare O-ring gaskets for ISO-KF flange connections

Technical Data

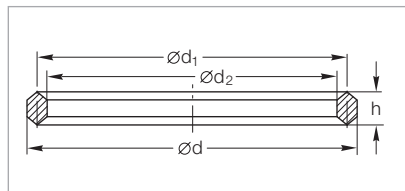
DN	ISO-KF	10	16 ¹⁾	20	25 ¹⁾	32	40 ¹⁾	50
d	mm (in.)	15 (0.59)	18 (0.71)	25 (0.98)	28 (1.10)	40 (1.57)	42 (1.65)	55 (2.17)
s	mm (in.)	5 (0.20)	5 (0.20)	5 (0.20)	5 (0.20)	5 (0.20)	5 (0.20)	5 (0.20)

Ordering Information

FPM (FKM) (Set of 10 pcs)	Part No.	ES210600	-	ES210610	-	ES210620	-	ES210630
Part No.	-	ES210605	-	ES210615	-	ES210625	-	-

¹⁾ Also for adaptor/centering rings

Ultra Sealing Rings (Aluminium 3.2315.71)



Dimensional drawing for the ultra sealing rings

Technical Data

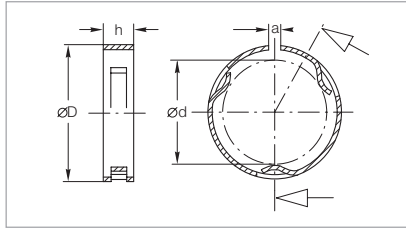
DN	ISO-KF	10/16	20/25	32/40	50
d	mm (in.)	25.6 (1.01)	35.6 (1.40)	50.6 (1.99)	65.6 (2.58)
d ₁	mm (in.)	22.6 (0.89)	32.6 (1.38)	47.6 (1.87)	62.6 (2.46)
d ₂	mm (in.)	19.6 (0.77)	29.6 (1.17)	44.6 (1.76)	59.6 (2.35)
h	mm (in.)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)

Ordering Information

Aluminium (set of 3 pieces)	Part No.	883 73	883 75	883 77	883 79
Part No.	883 73	883 75	883 77	883 79	

Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Outer Support Rings (Stainless Steel 1.4310) for Ultra Sealing Rings



Dimensional drawing for the outer support rings

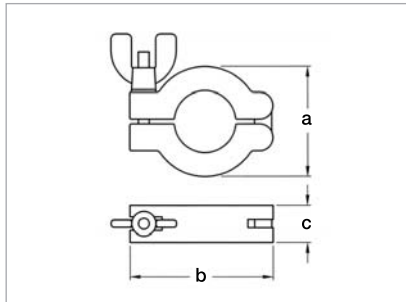
Technical Data

DN	ISO-KF	10/16	20/25	32/40	50
a	mm (in.)	3 (0.12)	3 (0.12)	3 (0.12)	3 (0.12)
D	mm (in.)	32 (1.26)	42 (1.65)	57 (2.24)	77 (3.03)
d	mm (in.)	25 (0.98)	35 (1.38)	50 (1.97)	65 (2.56)
h	mm (in.)	7 (0.28)	7 (0.28)	7 (0.28)	7 (0.28)

Ordering Information

Stainless steel	Part No.	883 74	883 76	883 78	883 69
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Clamping Rings (ADC 12)



Dimensional drawing for the clamping rings

Max. torque at the wing nut: 2 Nm

Technical Data

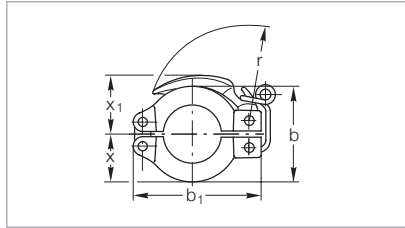
DN	ISO-KF	10/16	20/25	32/40	50
a	mm (in.)	45 (1.77)	55 (2.17)	70 (2.76)	92 (3.62)
b	mm (in.)	63 (2.48)	72 (2.83)	90 (3.54)	113 (4.45)
c	mm (in.)	16 (0.63)	16 (0.63)	16 (0.63)	20 (0.79)

Ordering Information

Aluminium	Part No.	183 41	183 42	183 43	183 45
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Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Quick Clamping Rings (Aluminium 3.2582.05)



Dimensional drawing for the quick clamping rings

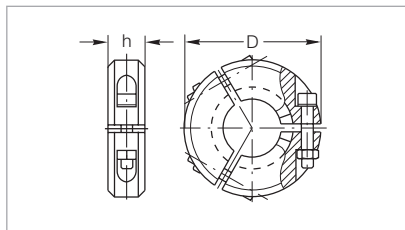
Technical Data

DN	ISO-KF	10/16	20/25	32/40
b	mm (in.)	45 (1.77)	55 (2.17)	70 (2.76)
b ₁	mm (in.)	61 (2.40)	72 (2.83)	90 (3.54)
r	mm (in.)	48 (1.89)	56 (2.20)	74 (2.91)
x	mm (in.)	22 (0.87)	27 (1.06)	35 (1.38)
x ₁	mm (in.)	30 (1.18)	34 (1.34)	44 (1.73)

Ordering Information

Aluminium	Part No.	183 46	183 47	183 48
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Clamping Collars (Aluminium 3.2162.05) for Ultra Sealing Rings



Dimensional drawing for the clamping collars for ultra sealing rings

Technical Data

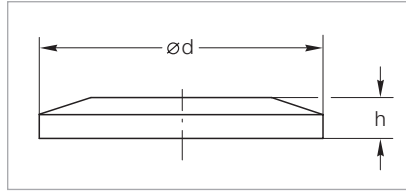
DN	ISO-KF	10/16	20/25	32/40	50
D	mm (in.)	52 (2.05)	75 (2.95)	90 (3.54)	115 (4.52)
h	mm (in.)	18 (0.71)	20 (0.79)	23 (0.90)	28 (1.10)
Hexagon socket screw to DIN 912	mm (in.)	M 4 x 30 (M 4 x 1.18)	M 6 x 30 (M 6 x 1.18)	M 8 x 35 (M 8 x 1.38)	M 8 x 50 (M 8 x 1.97)

Ordering Information

Aluminium	Part No.	882 75	882 77	882 78	882 79
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Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Blank Flanges (Al AW-6082-T6 / Stainless Steel 1.4301)



Dimensional drawing for the blank flanges

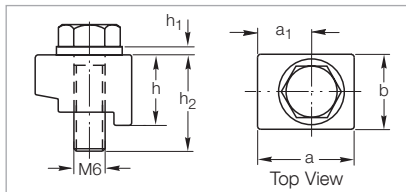
Technical Data

DN	ISO-KF	10	16	25	40	50
d	mm (in.)	30 (1.18)	30 (1.18)	40 (1.57)	55 (2.17)	75 (2.95)
h	mm (in.)	5 (0.20)	5 (0.20)	5 (0.20)	5 (0.20)	6 (0.24)

Ordering Information

Aluminium	Part No.	184 41	184 46	184 47	184 48	184 45
Stainless steel	Part No.	884 41	884 36	884 37	884 38	884 45

Claw, complete (Aluminium 3.2315.08)



Dimensional drawing for the claw, complete

Technical Data

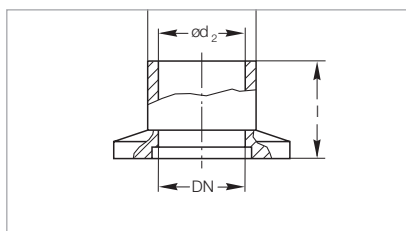
DN	ISO-KF	10 – 50
a	mm (in.)	19.5 (0.77)
a_1	mm (in.)	11.5 (0.45)
b	mm (in.)	14.0 (0.55)
h	mm (in.)	12.5 (0.49)
h_1	mm (in.)	1.6 (0.06)
h_2	mm (in.)	20.0 (0.79)

Ordering Information

Aluminium (Set of 4 pieces)	Part No.	885 00
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Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

ISO-KF Flanges with Short Tubulation (Steel 1.0037 / Stainless Steel 1.4301)
Flange according DIN 28403; Tube diameter different



Dimensional drawing for the ISO-KF flanges with short tubulation

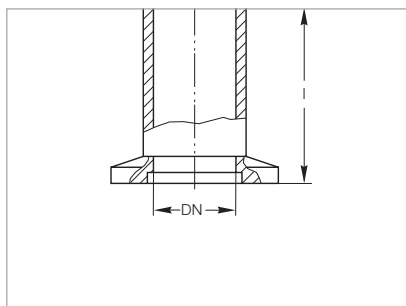
Technical Data

DN	ISO-KF	10	25	40	50
d ₁ (Steel/Stainless steel)	mm (in.)	16/16 (0.63/0.63)	30/30 (1.18/1.18)	45/45 (1.77/1.77)	55/54 (2.17/2.13)
d ₂ (Steel/Stainless steel)	mm (in.)	12/12 (0.47/0.47)	26/26 (1.02/1.02)	41/41 (1.61/1.61)	51/50 (2.01/1.97)
l	mm (in.)	20 (0.79)	20 (0.79)	20 (0.79)	20 (0.79)

Ordering Information

Steel	Part No.	182 31	182 33	182 34	182 35
Stainless steel	Part No.	866 31	866 33	866 34	866 35

ISO-KF Flanges with Long Tubulation (Steel 1.0037 / Stainless Steel 1.4301)
Flange according DIN 28403; Tube diameter different



Dimensional drawing for the ISO-KF flanges with long tubulation

Technical Data

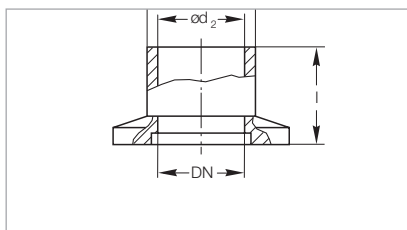
DN	ISO-KF	10	25	40	50
d ₁ (Steel/Stainless steel)	mm (in.)	16/16 (0.63/0.63)	30/30 (1.18/1.18)	45/45 (1.77/1.77)	55/54 (2.17/2.13)
d ₂ (Steel/Stainless steel)	mm (in.)	12/12 (0.47/0.47)	26/26 (1.02/1.02)	41/41 (1.61/1.61)	51/50 (2.01/1.97)
l	mm (in.)	70 (2.76)	70 (2.76)	70 (2.76)	70 (2.76)

Ordering Information

Steel	Part No.	182 81	182 83	182 84	182 85
Stainless steel	Part No.	866 81	866 83	866 84	866 85

Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

ISO-KF Flanges with Short Tubulation (Steel 1.0037 / Stainless Steel 1.4301)
Flange and tube according DIN 28403



Dimensional drawing for the ISO-KF flanges with short tubulation

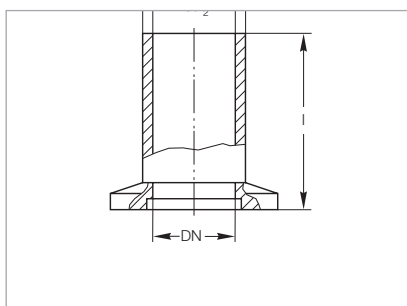
Technical Data

DN	ISO-KF	10	16	25	40	50
d_1	mm	14	20	28	44.5	57
	(in.)	(0.55)	(0.79)	(1.10)	(1.75)	(2.24)
d_2	mm	10	16	24	40.5	50.6
	(in.)	(0.39)	(0.63)	(0.94)	(1.59)	(1.99)
l	mm	20	20	20	20	20
	(in.)	(0.79)	(0.79)	(0.79)	(0.79)	(0.79)

Ordering Information

Steel	Part No.	182 31D	182 32	182 33D	182 34D	182 35D
Stainless steel	Part No.	866 31D	866 32	866 33D	866 34D	866 35D

ISO-KF Flanges with Long Tubulation (Steel 1.0037 / Stainless Steel 1.4301)
Flange and tube according DIN 28403



Dimensional drawing for the ISO-KF flanges with long tubulation

Technical Data

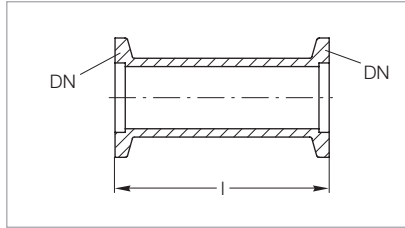
DN	ISO-KF	10	16	25	40	50
d_1	mm	14	20	28	44.5	57
	(in.)	(0.55)	(0.79)	(1.10)	(1.75)	(2.24)
d_2	mm	10	16	24	40.5	50.6
	(in.)	(0.39)	(0.63)	(0.94)	(1.59)	(1.99)
l	mm	70	70	70	70	70
	(in.)	(2.76)	(2.76)	(2.76)	(2.76)	(2.76)

Ordering Information

Steel	Part No.	182 81D	182 82	182 83D	182 84D	182 85D
Stainless steel	Part No.	866 81D	866 82	866 83D	866 84D	866 85D

Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Intermediate Pieces (Al AW-6082-T6 / Stainless Steel 1.4301)



Dimensional drawing for the intermediate pieces

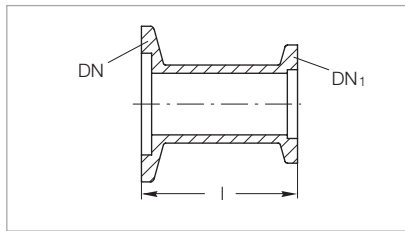
Technical Data

DN	ISO-KF	16	25	40
l	mm (in.)	80 (3.15)	100 (3.94)	130 (5.12)

Ordering Information

Aluminium	Part No.	184 80	184 81	184 82
Stainless steel	Part No.	884 17	884 18	884 19

Reducers (Al AW-6082-T6 / Stainless Steel 1.4301)



Dimensional drawing for the reducers

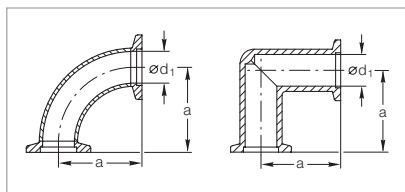
Technical Data

DN/DN ₁	ISO-KF	25/16	40/16	40/25	50/40
l	mm (in.)	40 (1.57)	40 (1.57)	40 (1.57)	40 (1.57)

Ordering Information

Aluminium	Part No.	183 86	183 89	183 87	183 88
Stainless steel	Part No.	885 04	885 07	885 05	885 06

Pipe Bend 90° (Stainless Steel 1.4301) / Mitred Elbow 90° (Aluminium 3.2315.08)



Dimensional drawings for the pipe bends 90° (stainless steel, left) and the mitred elbows 90° (aluminium, right)

Technical Data

DN	ISO-KF	16	16	25	25	40	40	50
a	mm (in.)	40 (1.57)	40 (1.57)	50 (1.97)	50 (1.97)	65 (2.56)	65 (2.56)	70 (2.76)
d ₁	mm (in.)	16 (0.63)	15 (0.59)	25 (0.98)	25 (0.98)	41 (1.62)	41 (1.62)	49 (1.93)
Conductance	l/s	6.5	-	18.9	-	56.5	-	-

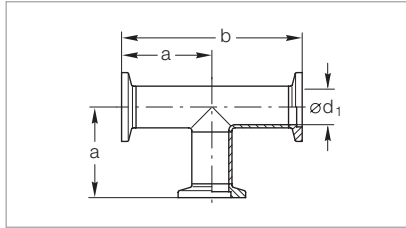
Ordering Information

Aluminium	Part No.	184 36	-	184 37	-	184 38	-	-
Stainless steel	Part No.	-	884 61	-	884 62	-	88464	884 65

Not suited for the mounting of turbo molecular pumps

Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Tees (Aluminium 3.2315.08 / Stainless Steel 1.4301)



Dimensional drawing for the tees

Technical Data

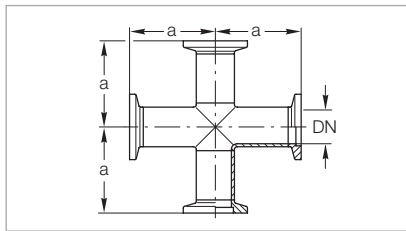
DN	ISO-KF	16	16	25	25	40	40	50
a	mm (in.)	40 (1.57)	40 (1.57)	50 (1.97)	50 (1.97)	65 (2.56)	65 (2.56)	70 (2.76)
b	mm (in.)	80 (3.15)	80 (3.15)	100 (3.94)	100 (3.94)	130 (5.12)	130 (5.12)	140 (5.51)
d ₁ (aluminium)	mm (in.)	16 (0.63)	-	25 (0.98)	-	39 (1.54)	-	-
d ₁ (stainless steel)	mm (in.)	-	16 (0.63)	-	25 (0.98)	-	41 (1.61)	53 (2.09)
Conductance	l/s	6.5	-	18.9	-	56.5	-	-

Ordering Information

Aluminium	Part No.	184 06	-	184 07	-	184 08	-	-
Stainless steel	Part No.	-	884 71	-	884 72	-	884 74	884 75

Not suited for the mounting of turbo molecular pumps

4-Way Crosses (Aluminium 3.2315.08 / Stainless Steel 1.4301)



Dimensional drawing for the 4-way crosses

Technical Data

DN	ISO-KF	16	16	25	25	40	40	50
a	mm (in.)	40 (1.57)	40 (1.57)	50 (1.97)	50 (1.97)	65 (2.56)	65 (2.56)	70 (2.76)
Conductance	l/s	6.5	-	18.9	-	56.5	-	-

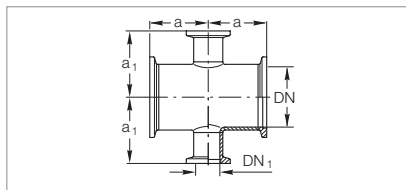
Ordering Information

Aluminium	Part No.	184 71	-	184 74	-	184 75	-	-
Stainless steel	Part No.	-	884 85	-	884 86	-	884 87	884 88

Not suited for the mounting of turbo molecular pumps

Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

4-Way Reducer Crosses with lateral DN 16 Flanges (Aluminium 3.2315.08 / Stainless Steel 1.4301)



Dimensional drawing for the 4-way reducer crosses with lateral DN 16 flanges

Technical Data

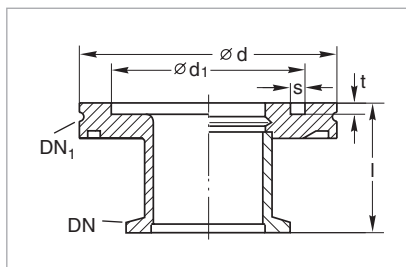
DN/DN ₁	ISO-KF	25/16	40/16	50/16
a	mm (in.)	35 (1.38)	40 (1.57)	50 (1.97)
a ₁	mm (in.)	35 (1.38)	45 (1.77)	(1.97)

Ordering Information

Material	Part No.	184 57	184 58	-
Aluminium	Part No.	184 57	184 58	-
Stainless steel	Part No.	884 96	884 97	884 98

Not suited for the mounting of turbo molecular pumps

Adaptors/Reducers ISO-KF – ISO-K



Dimensional drawing for the adaptor reducers ISO-KF – ISO-K;
left: aluminium; right: stainless steel

Technical Data

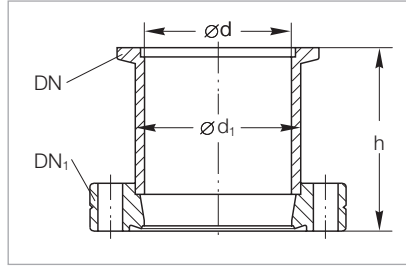
DN	ISO-KF	40	50	40
DN ₁	ISO-K	63	63	100
d	mm (in.)	95 (3.74)	95 (3.74)	130 (5.12)
d ₁	mm (in.)	70 (2.76)	70 (2.76)	102 (4.02)
l	mm (in.)	40 (1.57)	45 (1.77)	40 (1.57)
s	mm (in.)	5 (0.2)	5 (0.2)	5 (0.2)
t	mm (in.)	4.5 (0.18)	4.5 (0.18)	4.5 (0.18)
Weight	kg (lbs)	0.5 (1.10)	0.6 (1.32)	0.8 (1.77)

Ordering Information

Material	Part No.	887 40	887 41	887 42
Stainless steel 1.4305	Part No.	887 40	887 41	887 42
Aluminium 3.2315.71	Part No.	269 40	269 41	-

Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Adaptors ISO-KF – CF (Stainless Steel 1.4301)



Dimensional drawing for the adaptors CF – ISO-KF

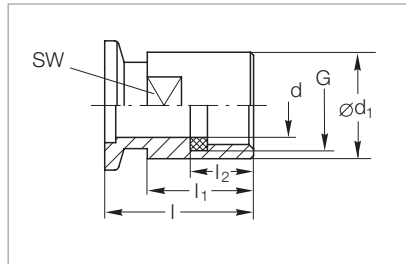
Technical Data

DN	ISO-KF	16	25	16	25	40	40
DN ₁	CF	16	16	40	40	40	63
d	mm (in.)	16 (0.63)	16 (0.63)	16 (0.63)	26 (1.02)	37 (1.36)	41 (1.61)
h	mm (in.)	35 (1.38)	35 (1.38)	30 (1.18)	30 (1.18)	50 (1.97)	35 (1.38)
d ₁ (tube)	mm (in.)	20 (0.79)	20 (0.79)	20 (0.79)	30 (1.18)	41 (1.61)	45 (1.77)

Ordering Information

Stainless steel DIN 1.4301	Part No.	837 81	837 83	837 82	837 84	837 36	837 86
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Screw-on Flanges (Stainless Steel 1.4305 / FPM (FKM))



Dimensional drawing for the screw-on flanges

Technical Data

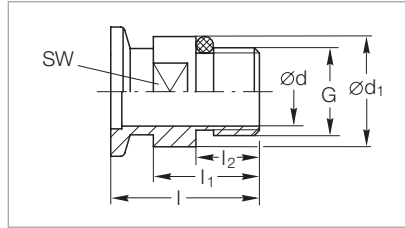
DN	ISO-KF	10	16	25	40
l	mm (in.)	35 (1.34)	35 (1.34)	45 (1.77)	50 (1.97)
l ₁	mm (in.)	25 (0.98)	25 (0.98)	35 (1.34)	40 (1.57)
l ₂	mm (in.)	15 (0.59)	15 (0.59)	25 (0.98)	30 (1.18)
d	mm (in.)	10 (0.39)	15 (0.59)	24 (0.94)	38 (1.50)
d ₁	mm (in.)	20 (0.79)	25 (0.98)	39 (1.54)	54 (2.13)
G (according to DIN ISO 228-1)		G 3/8	G 1/2	G 1	G 1 1/2
SW (width across flats)	mm (in.)	17 (0.67)	21 (0.83)	36 (1.42)	50 (1.97)

Ordering Information

Stainless steel	Part No.	884 25	884 26	884 27	884 28
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Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Screw-in Flanges (Stainless Steel 1.4301 / FPM (FKM))



Dimensional drawing for the screw-in flanges

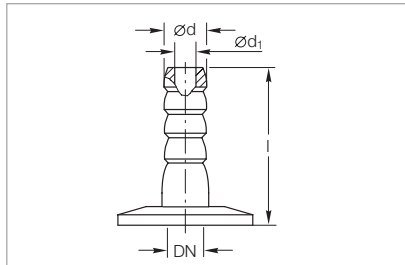
Technical Data

DN	ISO-KF	10	16	16	16	25	40
l	mm (in.)	35 (1.34)	26 (1.02)	35 (1.34)	42 (1.65)	45 (1.77)	50 (1.97)
l₁	mm (in.)	25 (0.98)	–	25 (0.98)	–	35 (1.34)	40 (1.57)
l₂	mm (in.)	15 (0.59)	8 (0.31)	15 (0.59)	11,5 (0.45)	25 (0.98)	30 (1.18)
d	mm (in.)	12 (0.47)	5 (0.20)	16 (0.63)	5 (0.20)	25 (0.98)	41 (1.61)
d₁	mm (in.)	22 (0.87)	16 (0.63)	26 (1.02)	–	39 (1.54)	54 (2.13)
M	mm (in.)	–	–	–	M 16 x 1,5 (M 16 x 0.06)	–	–
G (according to DIN ISO 228-1)		G 3/8	G 1/8	G 1/2	–	G 1	G 1 1/2
SW (width across flats)	mm (in.)	19 (0.75)	13 (0.51)	22 (0.87)	17 (0.67)	36 (1.42)	50 (1.97)

Ordering Information

Stainless steel 1.4301	Part No.	886 30	160 26	886 31	168 40 V01	886 32	886 33
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ISO-KF Flanges with Hose Nozzles (Al AW-6082-T6 and Stainless Steel 1.4305)



Dimensional drawing for the ISO-KF flanges with hose nozzle

Technical Data

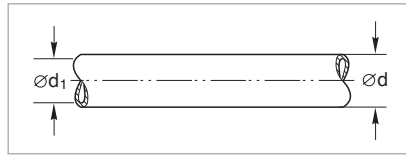
DN	ISO-KF	16	25	40
d	mm (in.)	12 (0.47)	12 (0.47)	12 (0.47)
d₁¹⁾	mm (in.)	7 (0.26)	7 (0.26)	7 (0.26)
l	mm (in.)	40 (1.57)	40 (1.57)	40 (1.57)

Ordering Information

Aluminium	Part No.	182 90	182 91	182 92
Stainless steel	Part No.	885 14	885 08	885 09

¹⁾ Also recommended inside diameter for the hose

Rubber Vacuum Hoses (NR) for Hose Nozzles



Dimensional drawing for rubber vacuum hoses

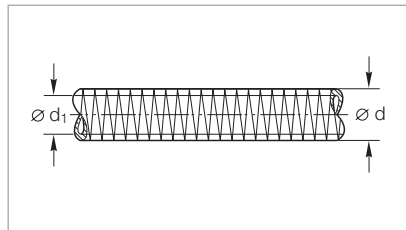
Technical Data

DN	ISO-KF	10	16	20
d	mm (in.)	17 (0.66)	25 (0.98)	32 (1.26)
d ₁	mm (in.)	7 (0.28)	10 (0.39)	16 (0.63)
Length	m (in.)	by the metre	by the metre	by the metre
Hardness – Shore A –		55 ±5	55 ±5	55 ±5
Temperature range	°C (°F)	-30 to +85 (-22 to +185)	-30 to +85 (-22 to +185)	-30 to +85 (-22 to +185)

Ordering Information

Rubber vacuum hose	Part No.	172 02	172 03	172 04
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PVC Coiled Vacuum Hoses without Flanges



Dimensional drawing for the PVC vacuum hoses

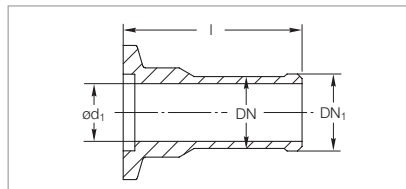
Technical Data

DN	ISO-KF	16	25	40
d	mm (in.)	23 (0.91)	33 (1.30)	53 (2.09)
d ₁	mm (in.)	16 (0.63)	25 (0.98)	40 (1.57)
Length	m (in.)	by the metre	by the metre	by the metre

Ordering Information

PVC coiled vacuum hose	Part No.	172 41	172 42	172 43
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ISO-KF Flanges with Hose Nozzle (Aluminium AW-6082-T6)



Dimensional drawing for the ISO-KF flanges with hose nozzle

Technical Data

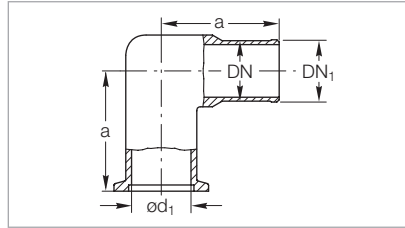
DN	ISO-KF	16	25	40
DN ₁ (tube)	mm (in.)	17 (0.67)	26 (1.02)	41 (1.61)
d ₁	mm (in.)	13 (0.51)	22 (0.87)	37 (1.46)
l	mm (in.)	40 (1.57)	40 (1.57)	40 (1.57)

Ordering Information

Aluminium	Part No.	182 45	182 46	182 47
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Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

Elbows 90° with Hose Nozzle (Aluminium 3.2381.02)



Dimensional drawing for the elbows 90° with hose nozzle

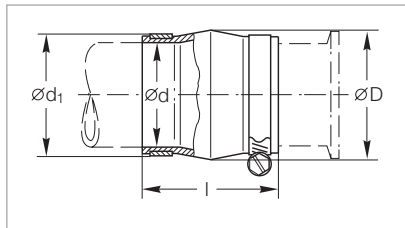
Technical Data

DN	ISO-KF	16	25	40
DN ₁ (tube)	mm (in.)	17 (0.67)	26 (1.02)	41 (1.61)
a	mm (in.)	40 (1.57)	50 (1.97)	65 (2.56)
d ₁	mm (in.)	16 (0.63)	25 (0.98)	39 (1.54)

Ordering Information

Aluminium	Part No.	182 15	182 16	182 17
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CR Compensation Elements with Integrated Support Ring



Dimensional drawing for the compensation elements with integrated support ring

Technical Data

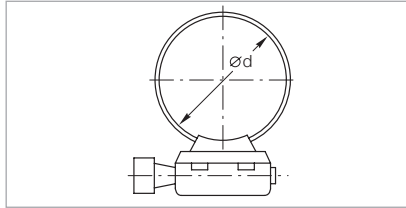
DN	ISO-KF	16	25	40
D	mm (in.)	44 (1.73)	50 (1.97)	68 (2.68)
d (tube tolerance)	mm (in.)	16 (0.63)	25 (0.98)	40 (1.57)
d ₁	mm (in.)	24 (0.94)	33 (1.30)	48 (1.89)
l	mm (in.)	58 (2.28)	60 (2.36)	64 (2.52)
Leak rate	mbar x l x s ⁻¹	≤ 1 x 10 ⁻⁵	≤ 1 x 10 ⁻⁵	≤ 1 x 10 ⁻⁵

Ordering Information

Stainless steel/CR	Part No.	182 78 ¹⁾	182 79 ¹⁾	182 80 ¹⁾
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¹⁾ Is supplied complete with stainless steel hose clamps

Hose Clamps (Stainless Steel 1.4301)



Dimensional drawing for the hose clamps

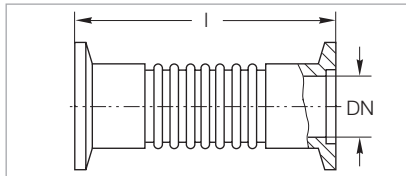
Technical Data

DN	ISO-KF	16	25	40
d (min. / max.)	mm (in.)	13 / 32 (0.51 / 1.26)	19 / 44 (0.75 / 1.73)	29 / 76 (1.14 / 2.99)

Ordering Information

Stainless steel	Part No.	866 21	866 22	866 23
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Bellows (Stainless Steel 1.4571) with Flanges (Stainless Steel 1.4301)



Dimensional drawing for the bellows with flanges

Technical Data

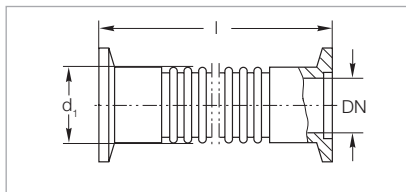
DN	ISO-KF	16	25	40	50
l	mm (in.)	70 (2.76)	80 (3.15)	100 (3.94)	100 (3.94)
Wall thickness	mm (in.)	0.13 (0.005)	0.13 (0.005)	0,15 (0.006)	0,2 (0.008)
Compression	mm (in.)	6.5 (0.26)	8 (0.31)	11 (0.43)	10 (0.39)
Tension	mm (in.)	4 (0.16)	5 (0.20)	7 (0.28)	6 (0.24)
max. angle	degrees ¹⁾	±21	±17	±15	±15
Lateral motion	mm (in.)	±4 (±0.16)	±3,5 (±0.14)	±7 (±0.28)	±8 (±0.31)

Ordering Information

Stainless steel	Part No.	872 41	872 43	872 45	872 46
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¹⁾ When utilizing the maximum bending angle, no extension along the axial axis will be possible!

Vacuum Hoses ¹⁾ with Flanges (Stainless Steel 1.4571)



Dimensional drawing for the vacuum hoses with flanges

Technical Data

DN	ISO-KF	16	25	40	50	
d ₁	mm (in.)	22.8 (0.90)	33 (1.30)	52 (2.05)	63 (2.48)	
Max. bending radius (inside)	with multiple bending	mm (in.)	68.5 (2.70)	103 (4.06)	129 (5.08)	198 (7.80)
	with single bend	mm (in.)	50 (1.97)	63 (2.48)	100 (3.94)	130 (5.12)
Wall thickness	mm (in.)	0.2 (0.008)	0.2 (0.008)	0.2 (0.008)	0.3 (0.012)	

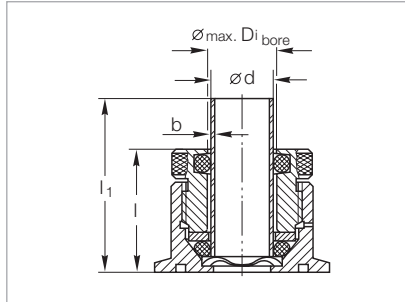
Ordering Information

l = 250 mm (9.84 in.)	Part No.	867 81	867 83	867 85	867 86
l = 500 mm (19.69 in.)	Part No.	867 91	867 93	867 95	867 96
l = 750 mm (29.53 in.)	Part No.	867 41	867 43	867 45	867 46
l = 1000 mm (39.37 in.)	Part No.	868 01	868 03	868 05	868 06

¹⁾ Flexible vacuum hoses must be linked to an external mechanical assembly

Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.

ISO-KF Flanges with Compression Fitting for Glass/Metal/Plastic Tubes (Aluminium 3.2315.71/FPM(FKM))



Dimensional drawing for the ISO-KF flanges with compression fitting

Only for pressure ≤ 1000 mbar (≤ 750 Torr)

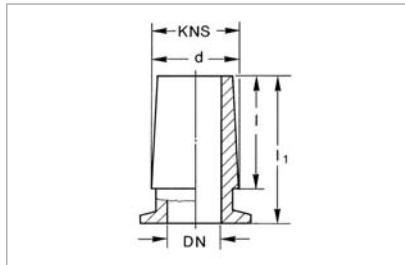
Technical Data

DN	ISO-KF	10	40
b	mm (in.)	1.5 (0.06)	1.5 (0.06)
d (glass)	mm (in.)	10 (0.39)	26 (1.02)
l	mm (in.)	30 (1.18)	45 (1.77)
l_1	mm (in.)	50 (1.97)	65 (2.56)
$Di_{\text{bore-max.}}$	± 0.2 mm (± 0.008 in.)	11 (0.43)	27 (1.06)

Ordering Information

Compression fitting	Part No.	184 61	184 66
Sealing set (FPM (FKM)) for high temperatures (150 °C (302 °F)) (set = 10 pcs)	Part No.	ES 105 94	ES 210 610

ISO-KF Flanges with Ground Cone (Stainless Steel 1.4301)



Dimensional drawing for the ISO-KF flanges with ground cone

Technical Data

DN	ISO-KF	16	25	40
KNS - d / l	mm (in.)	19 / 26 (0.75 / 1.02)	29 / 32 (1.14 / 1.26)	45 / 40 (1.77 / 1.57)
l_1	mm (in.)	40 (1.57)	45 (1.77)	55 (2.17)
Taper		1:10	1:10	1:10

Ordering Information

Stainless steel	Part No.	184 87	184 85	184 86
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Important: In the table of Chapter "General" the German designation for the type of steel is also stated in accordance with AISI.