BUSCH

VACUUM SOLUTIONS



COMPONENTS
for vacuum pumps

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Your Partner.
For All Your Vacuum Needs.



The future of vacuum. Since 1963.
Busch Vacuum Solutions offers vacuum and overpressure solutions for all industries. From individual vacuum pumps, blowers, and compressors to tailor-made vacuum systems. More than 50 years ago, Dr.-Ing. Karl and Ayhan Busch developed the ideal vacuum pump for the food packaging industry. Today, the family business from Maulburg in the Black Forest is the market leader in all areas of industrial vacuum. With over 3500 employees in more than 40 countries. Thanks to our great experience and highly qualified specialists, we are driving innovation. And working on the vacuum world of the future.

Essential connection components. To meet your vacuum system's requirements.
Connections are fundamental components of a vacuum system. They join the different parts to create one coherent, perfectly coordinated system. Our broad range comprises several hundred components for applications ranging from the rough to ultra-high vacuum ranges. Find a match to meet your needs from a variety of different connection types, sizes, and materials. State-of-the-art production technologies result in a tight fit and low outgassing (desorption) rates, ensuring that our components meet your requirements.

Connection components from Busch are easy to use and compatible with all applications. Making them ideal for your process.



Our extensive product portfolio draws on the widest range of vacuum and overpressure technologies.

ISO-KF: Small Flange for Vacuum Applications

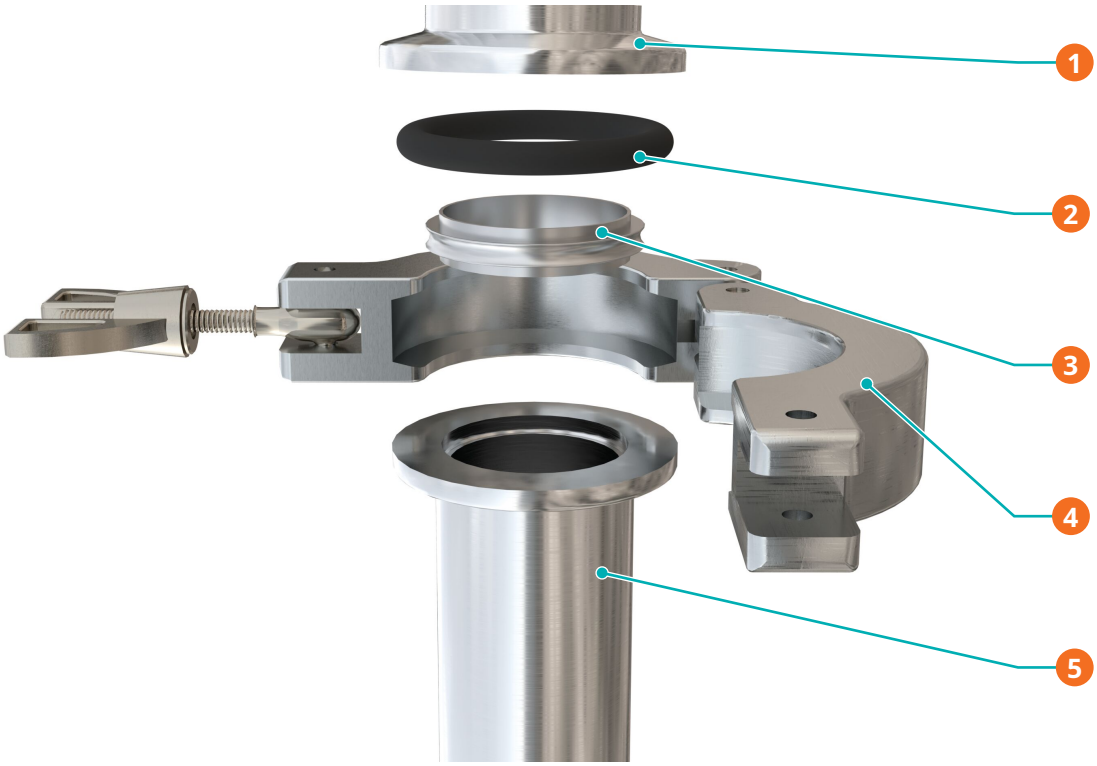


Designed for an optimal vacuum performance
- Suitable for pressures up to 10-8 hPa.
- Can be used for overpressures up to 1,500 hPa
- Two symmetrical flanges and one elastomer O-ring seal, which is positioned by a centering ring
- Pressing force created by a clamping ring
- Efficient assembly and disassembly without any tools
- According to DIN 28403 and ISO 2861
- Nominal diameter DN 10 up to DN 50

Extended pressure range to less than 10-9 hPa by using metal seals
- Significantly higher pressing force required, created by special clamps

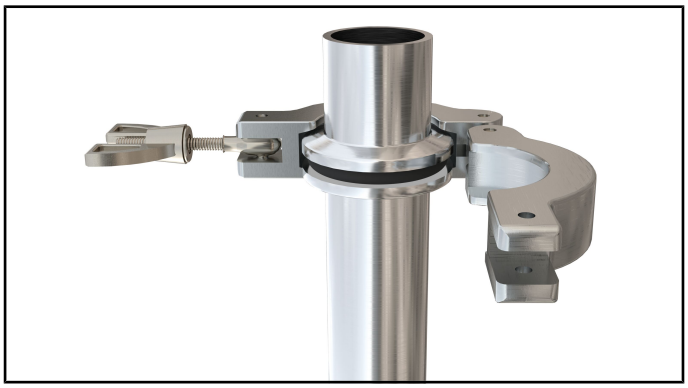
Alternative mounting on a base plate
Pressing force by claw clamps or bulkhead clamps

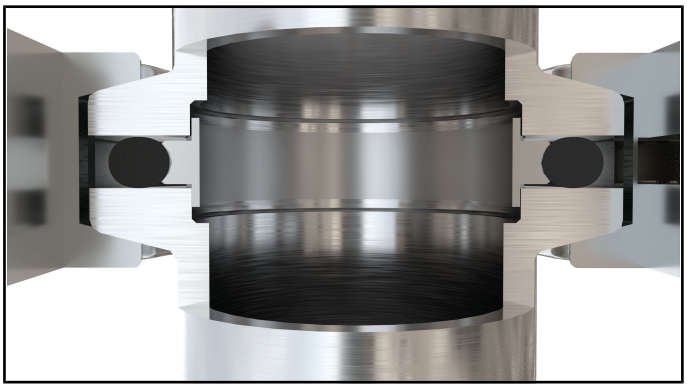
Material
- 1.4301/304
- 1.4404/316
- Aluminum
- Further material on request



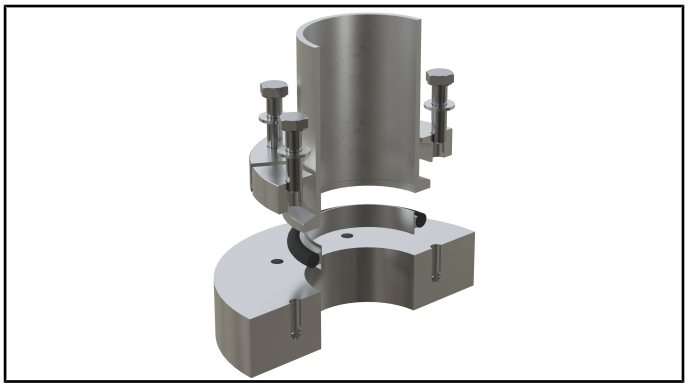
1 ISO-KF flange
2 O-Ring (e.g. FKM)
3 Centering ring
4 Clamping ring
5 ISO-KF flange

Operating principle ISO-KF with clamping ring



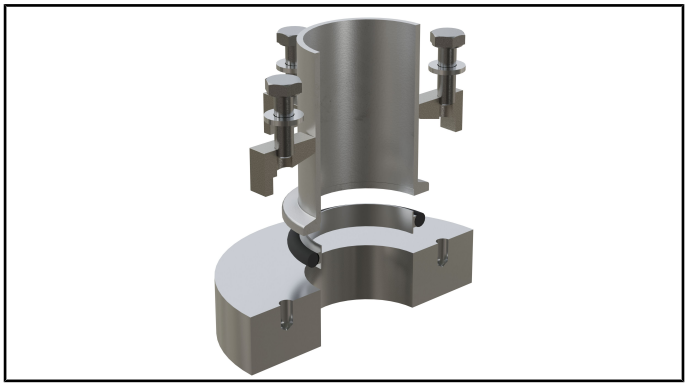


ISO-KF on base plate with bulkhead clamp and blind holes





ISO-KF on base plate with blind holes and single claw clamp





ISO-K / ISO-F: Clamping Flange for Vacuum Applications

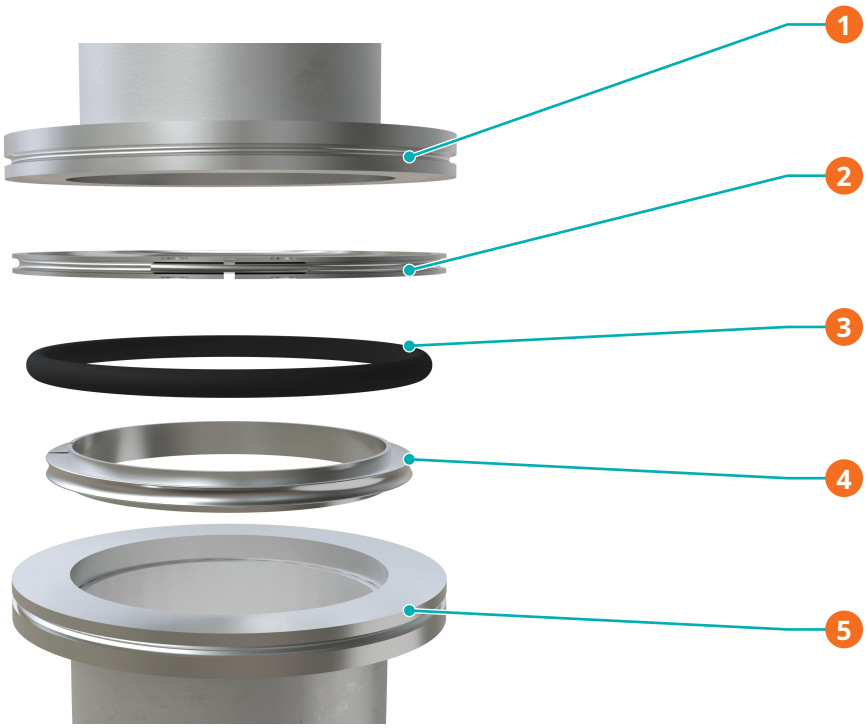


Designed for high vacuum applications
- Suitable for pressures up to 10-8 hPa.
- Can be used for overpressures up to 1,500 hPa
- Two symmetrical flanges and one elastomer O-ring seal, which is positioned by a centering ring
- Pressing force created claw clamps (ISO-K) respectively screws (ISO-F)
- Combination of ISO-K with ISO-F flanges possible due to rotatable bolt rings
- According to DIN 28404 and ISO 1609
- Commonly used sizes: DN 63 ISO-K, DN 100 ISO-K, DN 160 ISO-K...DN 630 ISO-K up to DN1000 ISO-F

Extended pressure range to less than 10-9 hPa by using metal seals
- Significantly higher pressing force required. ISO-F flanges with screws recommended. For ISO-K flanges increase the number of claw clamps.

Material
- 1.4301/304
- 1.4404/316
- Aluminum
- Further material on request

Functional principles ISO-K

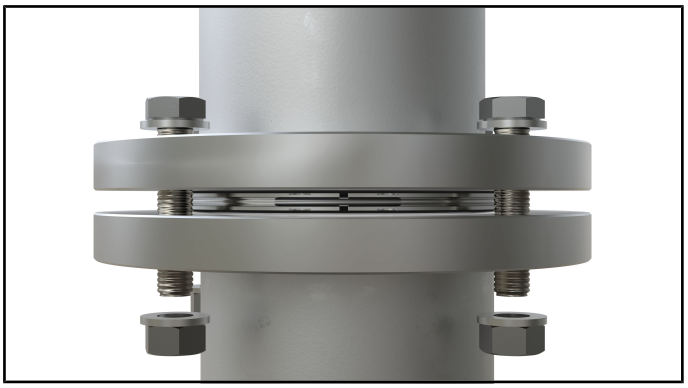


1 ISO-K flange
2 Outer ring
3 O-Ring (e.g. FKM)
4 Centering ring
5 ISO-K flange

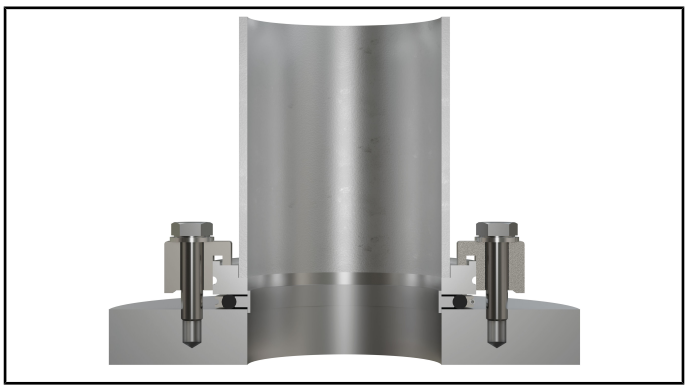
ISO-K connection with double claw clamp

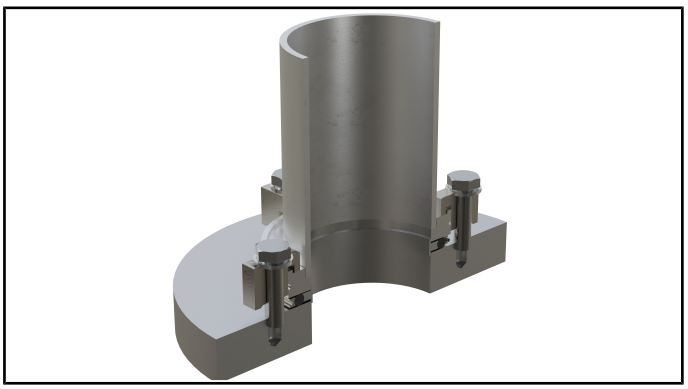


ISO-F centering ring same like ISO-K



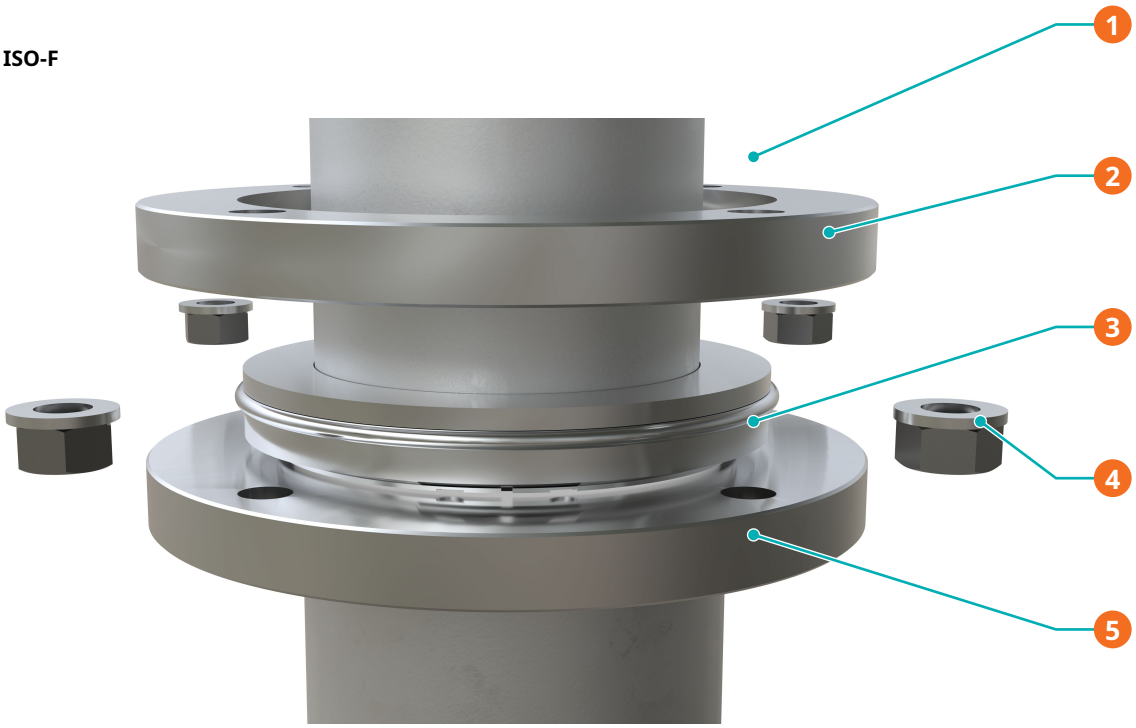
ISO-K on base plate with blind holes and single claw clamp





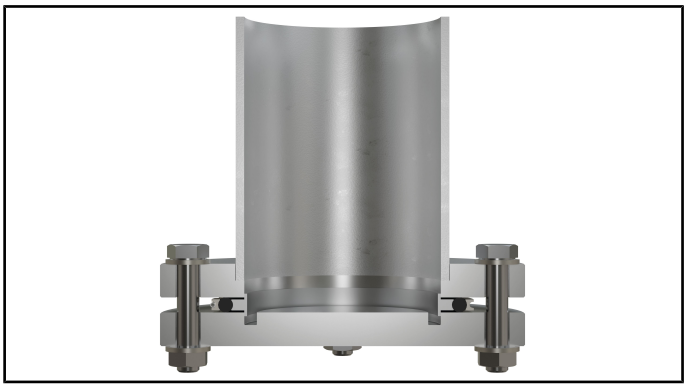
Functional principles ISO-K / ISO-F

Adaption ISO-K to ISO-F



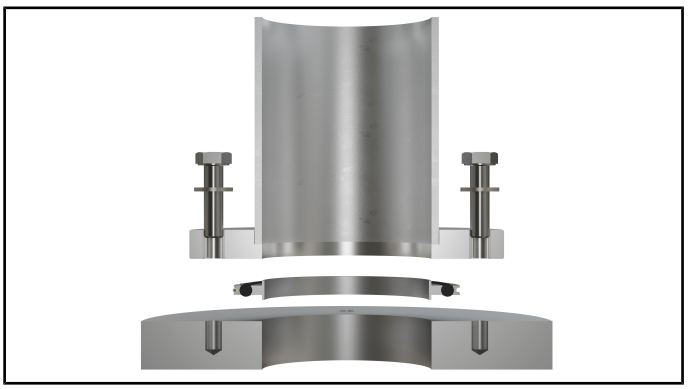
1 Screws M8–M12 accordingly
2 Rotateable collar flange
3 ISO-K flange
4 Through bore hole
5 Bolt nut screws M8–M12

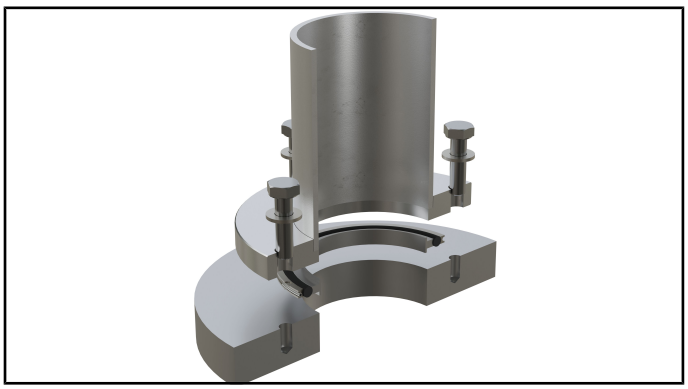
ISO-KF on base plate with bottom half shells and blind holes



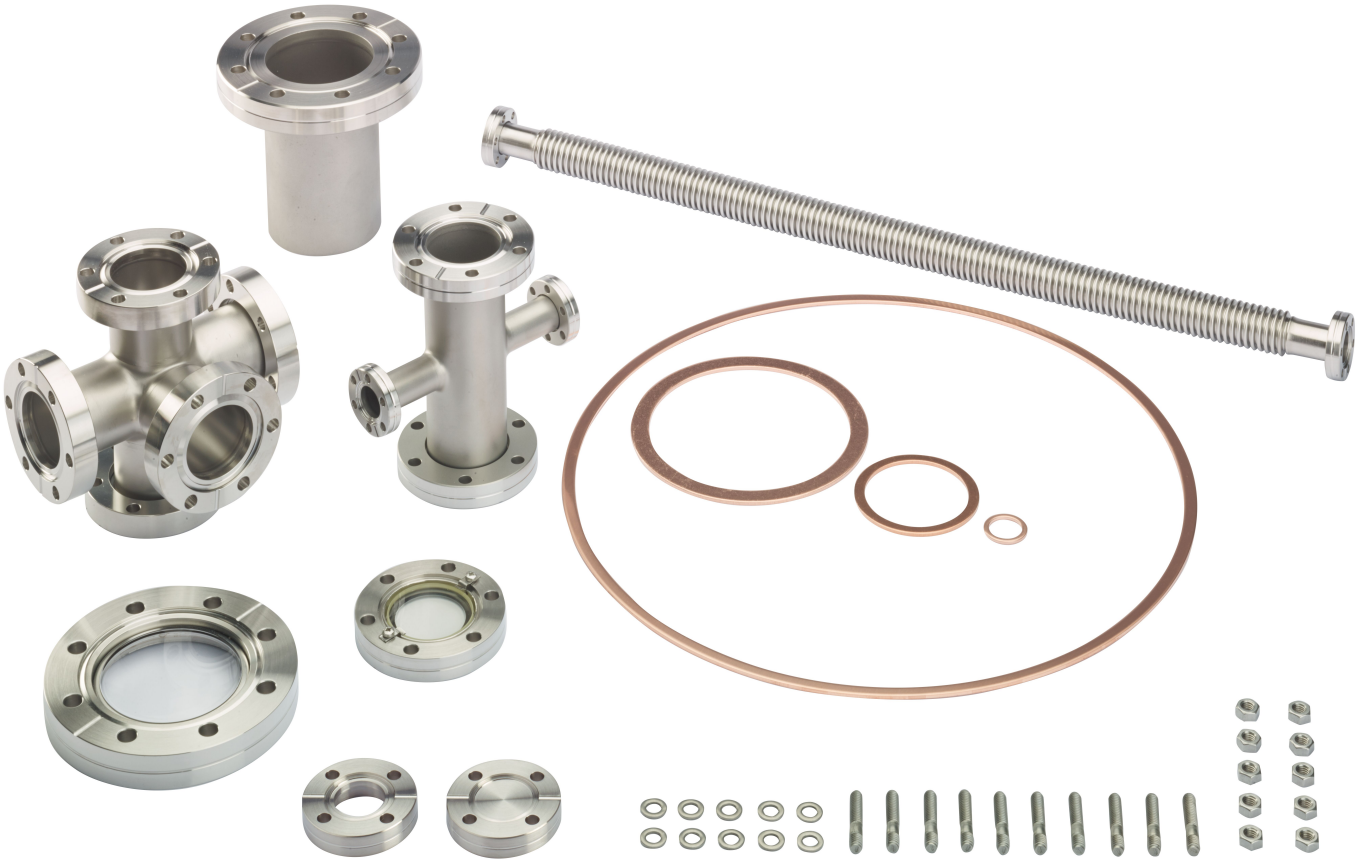


ISO-F on base plate with blind holes





CF: Flange suitable for Ultra-High Vacuum Applications (UHV)

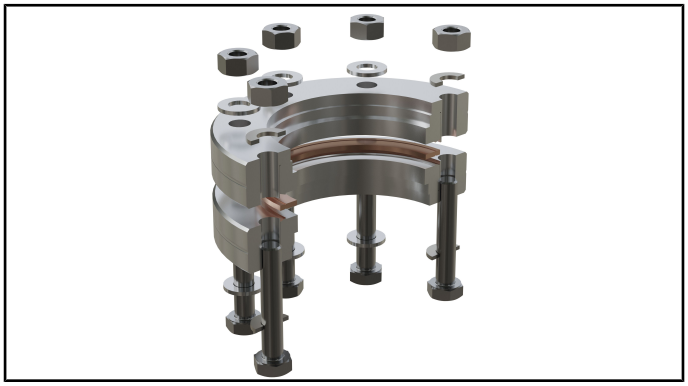


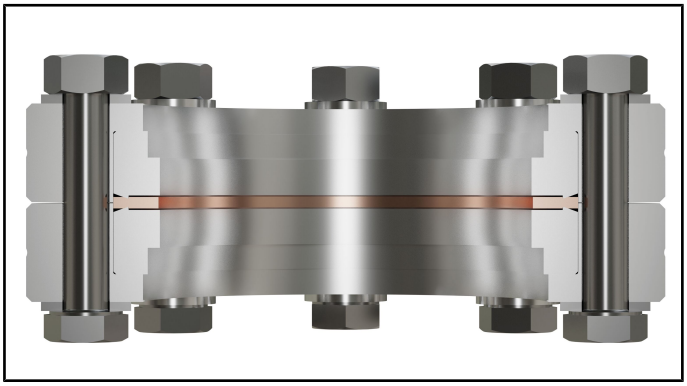
Designed for ultra-high vacuum applications

- From ambient pressure up to less than 10-12 hPa
- Bakable up to 450 °C
- Two symmetrical flanges with knife-edge and flat copper gasket which is positioned in a sealing recess
- Sufficient number of screws which provide the necessary high pressing force
- Knife-edges press into the copper seal and form a hermetically sealed connection (gasket cannot be reused)
- According to ISO 3669 in nominal diameters DN 10 to DN 400
- For nominal sizes larger than DN 250 different flange dimensions are still common

Material

- Stainless steel with low carbon content 1.4307 - sufficient for many applications
- For higher demands, e.g., regarding strength or low magnetizability premium steel 1.4429 ESR is recommended





COMPONENTS

ISO-KF

ISO-KF Centering Ring



- Material: O-ring in various materials
- Temperature range: FKM: -15 to 150 °C (shortly up to 200 °C);
  NBR: -25 to 120 °C;
  CR: -5 to 120 °C; EPDM: -50 to 130 °C

Dimensions



Aluminum EN AW-6061

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 KF	CR	12	10	3,9	8	5	2000049051
DN 16 KF	CR	17	16	3,9	8	5	2000049052
DN 25 KF	CR	26	25	3,9	8	5	2000049054
DN 40 KF	CR	41	40	3,9	8	5	2000049056
DN 50 KF	CR	52	50	3,9	8	5,33	2000049057
DN 10 KF	FKM	12	10	3,9	8	5	2000049609
DN 16 KF	FKM	17	16	3,9	8	5	2000049610
DN 25 KF	FKM	26	25	3,9	8	5	2000049613
DN 40 KF	FKM	41	40	3,9	8	5	2000049616
DN 50 KF	FKM	52	50	3,9	8	5,33	2000049617
DN 10 KF	NBR	12	10	3,9	8	5	2000049428
DN 16 KF	NBR	17	16	3,9	8	5	2000049429
DN 25 KF	NBR	26	25	3,9	8	5	2000049431

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 40 KF	NBR	41	40	3,9	8	5	2000049433
DN 50 KF	NBR	52	50	3,9	8	5,33	2000049434

According to ISO 2861

Stainless Steel 304/1.4301

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 KF	FKM	12	10	3,9	8	5	2000047814
DN 16 KF	FKM	17	16	3,9	8	5	2000047815
DN 25 KF	FKM	26	25	3,9	8	5	2000047817
DN 40 KF	FKM	41	40	3,9	8	5	2000047819
DN 50 KF	FKM	52	50	3,9	8	5,33	2000047820
DN 16 KF	EPDM	17	16	3,9	8	5	2000047274
DN 25 KF	EPDM	26	25	3,9	8	5	2000047276
DN 40 KF	EPDM	41	40	3,9	8	5	2000047278
DN 50 KF	EPDM	52	50	3,9	8	5,33	2000047279

According to ISO 2861

Stainless Steel 316L/1.4404

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 KF	FKM	12	10	3,9	8	5	2000044761
DN 16 KF	FKM	17	16	3,9	8	5	2000044762
DN 25 KF	FKM	26	25	3,9	8	5	2000044763
DN 40 KF	FKM	41	40	3,9	8	5	2000044764
DN 50 KF	FKM	52	50	3,9	8	5,33	2000044765

According to ISO 2861

ISO-KF Centering Ring, Plastic



- Material: Plastic
- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Dimensions



PTFE

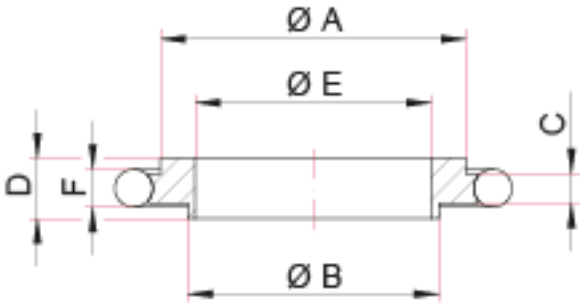
Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 KF	FKM	12	10	3,9	8	5	2000045338
DN 16 KF	FKM	17	16	3,9	8	5	2000045339
DN 25 KF	FKM	26	25	3,9	8	5	2000045340
DN 40 KF	FKM	41	40	3,9	8	5	2000045341
DN 50 KF	FKM	52	50	3,9	8	5,33	2000045342

ISO-KF Reducer Centering Ring



- Material: O-ring in various materials
- Temperature range: FKM: -15 to 150 °C (shortly up to 200 °C); NBR: -25 to 120 °C; CR: -5 to 120 °C

Dimensions



Aluminum EN AW-6061

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Nominal diameter reduced	Part number
DN 16 KF	FKM	17	12	3,9	8	10	5	DN 10 KF	2000049618
DN 25 KF	FKM	26	22	3,9	8	21	5	DN 20 KF	2000049619
DN 40 KF	FKM	41	34	3,9	8	32	5	DN 32 KF	2000049620
DN 16 KF	NBR	17	12	3,9	8	10	5	DN 10 KF	2000049435
DN 25 KF	NBR	26	22	3,9	8	21	5	DN 20 KF	2000049436
DN 40 KF	NBR	41	34	3,9	8	32	5	DN 32 KF	2000049437
DN 16 KF	CR	17	12	3,9	8	10	5	DN 10 KF	2000049058
DN 25 KF	CR	26	22	3,9	8	21	5	DN 20 KF	2000049059
DN 40 KF	CR	41	34	3,9	8	32	5	DN 32 KF	2000049060

According to ISO 2861

Stainless Steel 304/1.4301

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Nominal diameter reduced	Part number
DN 16 KF	FKM	17	12	3,9	8	10	5	DN 10 KF	2000047821
DN 25 KF	FKM	26	22	3,9	8	21	5	DN 20 KF	2000047822
DN 40 KF	FKM	41	34	3,9	8	32	5	DN 32 KF	2000047823

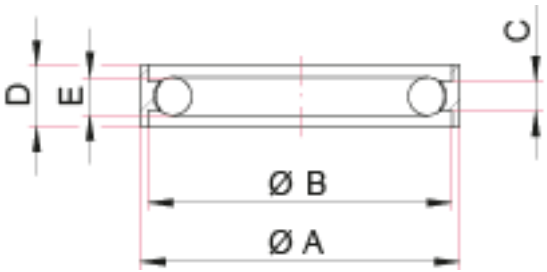
According to ISO 2861

ISO-KF Outer Centering Ring



- Available in aluminum, stainless steel or plastic

Dimensions



Aluminum EN AW-6061
- Temperature range: FKM: -15 to 150 °C (shortly up to 200 °C); EPDM: -50 to 130 °C

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 16 KF	EPDM	32,5	30	3,9	8	5	2000048880
DN 25 KF	EPDM	42	40	3,9	8	5	2000048881
DN 40 KF	EPDM	57,5	55	3,9	8	5	2000048882
DN 50 KF	EPDM	77,5	75	3,9	8	5,33	2000048883
DN 16 KF	FKM	32,5	30	3,9	8	5	2000049605
DN 25 KF	FKM	42	40	3,9	8	5	2000049606
DN 40 KF	FKM	57,5	55	3,9	8	5	2000049607
DN 50 KF	FKM	77,5	75	3,9	8	5,33	2000049608

Stainless Steel 304/1.4301
- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 16 KF	FKM	32,5	30	3,9	8	5	2000047802

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 25 KF	FKM	42	40	3,9	8	5	2000047803
DN 40 KF	FKM	57,5	55	3,9	8	5	2000047804
DN 50 KF	FKM	77,5	75	3,9	8	5,33	2000047805

Plastic PTFE

- Temperature range: -15 to 150 °C (shortly up to 200 °C)

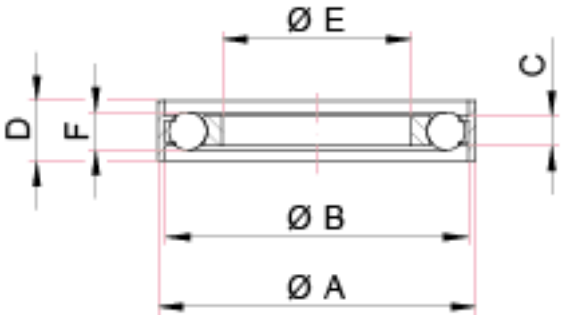
Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 16 KF	FKM	32,5	30	3,9	8	5	2000045334
DN 25 KF	FKM	42	40	3,9	8	5	2000045335
DN 40 KF	FKM	57,5	55	3,9	8	5	2000045336
DN 50 KF	FKM	77,5	75	3,9	8	5,33	2000045337

ISO-KF Outer Centering Ring with Inner Support Ring



- Inner ring material: Stainless steel
- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Dimensions



Aluminum EN AW-6061

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 16 KF	FKM	32,5	30	3,9	8	16	5	2000049601
DN 25 KF	FKM	42	40	3,9	8	25	5	2000049602
DN 40 KF	FKM	57,5	55	3,9	8	40	5	2000049603
DN 50 KF	FKM	77,5	75	3,9	8	50	5,33	2000049604

Stainless Steel 304/1.4301

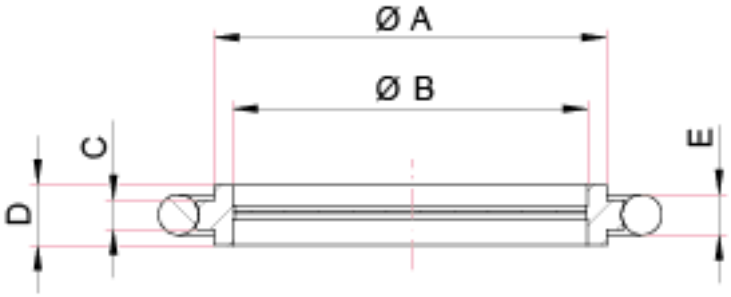
Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 16 KF	FKM	32,5	30	3,9	8	16	5	2000047798
DN 25 KF	FKM	42	40	3,9	8	25	5	2000047799
DN 40 KF	FKM	57,5	55	3,9	8	40	5	2000047800
DN 50 KF	FKM	75,5	75	3,9	8	50	5,33	2000047801

ISO-KF Centering Ring with Screen



- Material: Stainless Steel
- Wire thickness: Approximately 0.3 mm
- Mesh: Approximately 1 mm
- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Dimensions



Stainless Steel 304/1.4301

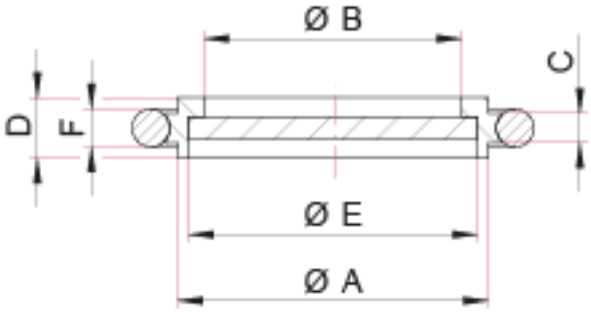
Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 10 KF	FKM	12	10	3,9	8	7	5	2000047809
DN 16 KF	FKM	17	16	3,9	8	13	5	2000047810
DN 25 KF	FKM	26	25	3,9	8	19	5	2000047811
DN 40 KF	FKM	41	40	3,9	8	34	5	2000047812
DN 50 KF	FKM	52	50	3,9	8	45	5,33	2000047813

ISO-KF Centering Ring with Sintered Metal Filter



- Material: Sintered bronze
- Mesh: Average pore diameter: Approximately 0.02 mm
- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Dimensions



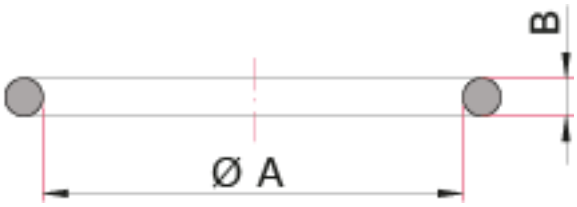
Stainless Steel 304/1.4301

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 10 KF	FKM	12	9	3,9	8	10	5	2000047824
DN 16 KF	FKM	17	13	3,9	8	14	5	2000047825
DN 25 KF	FKM	26	23	3,9	8	24	5	2000047826
DN 40 KF	FKM	41	38	3,9	8	39	5	2000047827
DN 50 KF	FKM	52	48	3,9	8	49	5,33	2000047828

ISO-KF O-Ring



Dimensions



FKM

- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Nominal diameter	A [mm]	B [mm]	Part number
DN 10 KF	15	5	2000050755
DN 16 KF	18	5	2000050757
DN 25 KF	28	5	2000050761
DN 40 KF	42	5	2000050765
DN 50 KF	53,34	5,33	2000050767

According to ISO 2861

NBR

- Temperature range: -25 to 120 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 10 KF	15	5	2000051573
DN 16 KF	18	5	2000051575
DN 25 KF	28	5	2000051579
DN 40 KF	42	5	2000051583
DN 50 KF	53,34	5,33	2000050656

According to ISO 2861

Silicone (VMQ)
- Temperature range: -55 to 200 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 10 KF	15	5	2000050866
DN 16 KF	18	5	2000050868
DN 25 KF	28	5	2000050870
DN 40 KF	42	5	2000050872
DN 50 KF	53,34	5,33	2000050874

According to ISO 2861

EPDM
- Temperature range: -50 to 130 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 10 KF	15	5	2000051031
DN 16 KF	18	5	2000051033
DN 25 KF	28	5	2000051035
DN 40 KF	42	42	2000051037
DN 50 KF	53,34	5,33	2000051039

According to ISO 2861

CR
- Temperature range: -5 to 120 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 KF	18	5	2000050377
DN 25 KF	28	5	2000050379
DN 40 KF	42	5	2000050381
DN 50 KF	53,34	5,33	2000050383

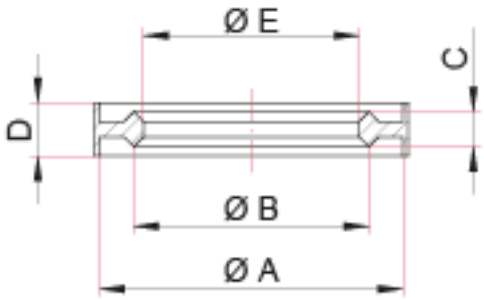
According to ISO 2861

ISO-KF Aluminum Edged Seal



- For stainless steel flanges
- No gas permeation
- Fastener: ISO-KF Clamp for Metal Seals
- For single use only
- Temperature range: -196 to 150 °C

Dimensions



Aluminum EN AW-6082/3.2315, Soft-annealed

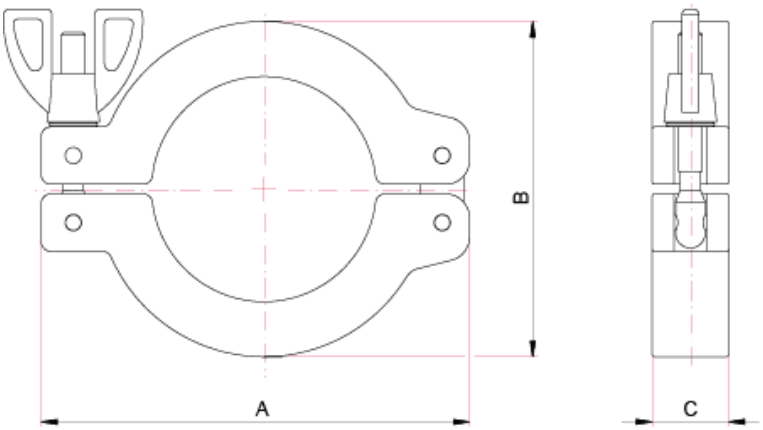
Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 / 16 KF	30	21	4,5	7	18,5	2000050184
DN 20 / 25 KF	40	31	4,5	7	28,5	2000050185
DN 32 / 40 KF	55	46	4,5	7	43,5	2000050186
DN 50 KF	75	66	4,5	7	63,5	2000050187

ISO-KF Clamp for Elastomer Seal



- Suitable for use with elastomer seals
- Torque: max. 2 Nm on wingnut
- Temperature range: -196 to 200 °C
- Over pressure max.: 1500 hPa

Dimensions



Aluminum ADC 12

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 / 16 KF	63	43	16	2000050052
DN 20 / 25 KF	72	54	16	2000050053
DN 32 / 40 KF	90	70	16	2000050054
DN 50 KF	113	92	22	2000050055

According to ISO 2861

Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 / 16 KF	62	45	17	2000048697
DN 20 / 25 KF	73	53	17	2000048698
DN 32 / 40 KF	90	68	17	2000048699
DN 50 KF	115	90	19	2000048700

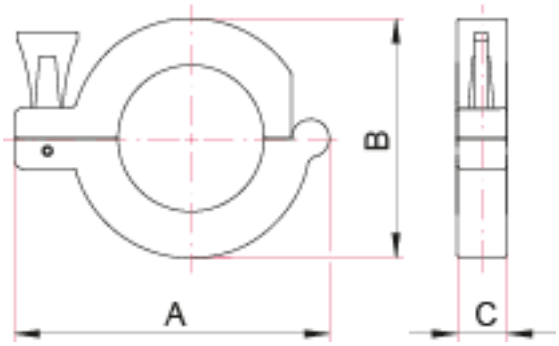
According to ISO 2861

ISO-KF Clamping Ring for Elastomer Seal, Plastic



- Particularly well suited for glass flanges
- Suitable for use with elastomer seals
- Torque: max. 2 Nm on wingnut
- Temperature range: -10 to 80 °C
- Over pressure max.: 500 hPa

Dimensions



Plastic

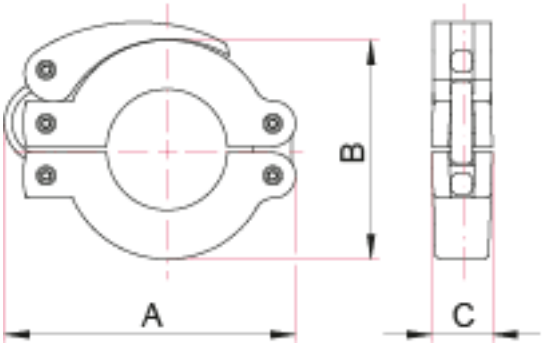
Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 / 16 KF	65	47	20	2000045268
DN 20 / 25 KF	79	59	20	2000045269
DN 32 / 40 KF	92	74	20	2000045270
DN 50 KF	123	95	23	2000045271

ISO-KF Quick-Release Clamp



- Suitable for use with elastomer seals
- Temperature range: -10 to 80 °C
- Over pressure max.: 500 hPa

Dimensions



Aluminum/Plastic

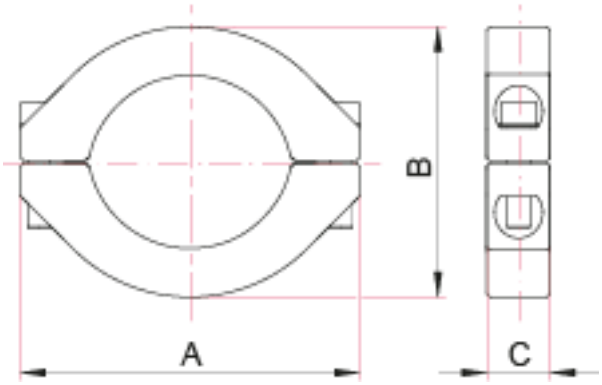
Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 / 16 KF	68	45	16	2000050056
DN 20 / 25 KF	80	55	16	2000050057
DN 32 / 40 KF	98	70	18	2000050058

ISO-KF Clamp for Metal Seals



- Suitable for use with elastomer and metal seals
- Bolts: Hexagon socket, A2-70 steel
- We recommend using a screw thread lubricant
- Temperature range: -196 to 300 °C
- Over pressure max.: 500 hPa

Dimensions



Stainless Steel 304/1.4301

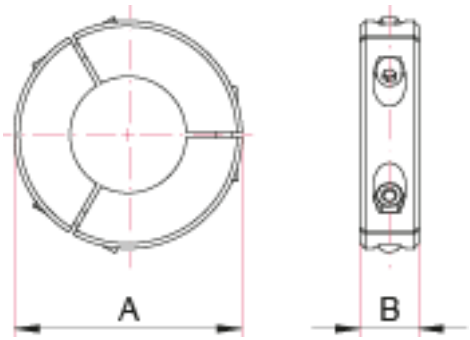
Nominal diameter	A [mm]	B [mm]	C [mm]	Bolt	Part number
DN 10 / 16 KF	55	47	18	M5 x 25	2000048692
DN 20 / 25 KF	66,5	57	18	M5 x 25	2000048694
DN 32 / 40 KF	82,5	72	18	M5 x 25	2000048695
DN 50 KF	122	96	21	M8 x 35	2000048696

ISO-KF Bolt Clamp (3-Part) for Metal Seals



- Suitable for use with metal and elastomer seals
- Bolts: Hexagon socket, A2-70 steel
- Temperature range: -196 to 200 °C
- Over pressure max.: 500 hPa

Dimensions



Aluminum

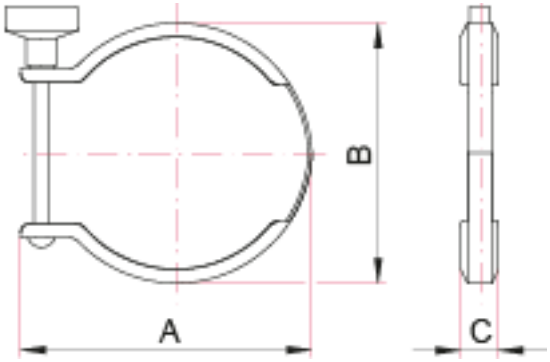
Nominal diameter	A [mm]	B [mm]	Bolt	Part number
DN 10 / 16 KF	48	18	M4 x 30	2000050044
DN 20 / 25 KF	70	19	M6 x 30	2000050045
DN 32 / 40 KF	85	23	M8 x 35	2000050046
DN 50 KF	112	28	M8 x 35	2000050047

ISO-KF Hingeless Clamp



- Suitable for use with elastomer seals
- Compact design
- Torque: max. 2 Nm on wingnut
- Temperature range: -10 to 125 °C
- Over pressure max.: 500 hPa

Dimensions



Stainless Steel 304/1.4301

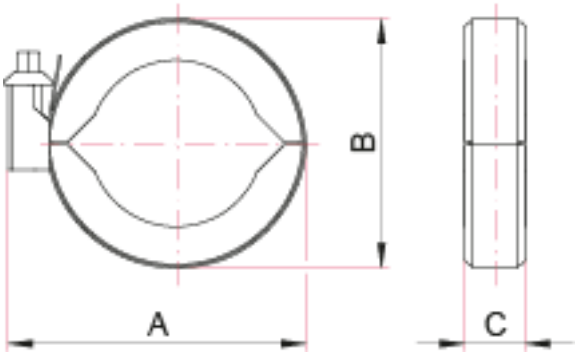
Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 / 16 KF	47	38	16	2000048687
DN 20 / 25 KF	54	49	16	2000048688
DN 32 / 40 KF	70	62	16	2000048689
DN 50 KF	90	84	16	2000048690

ISO-KF Clamping Ring for Elastomer Seals



- Suitable for use with elastomer seals
- Compact design
- Screw: Hexagon head; wrench width 7 mm
- Temperature range: 0 to 100 °C
- Over pressure max.: 500 hPa

Dimensions



Aluminum ADC 12/Steel

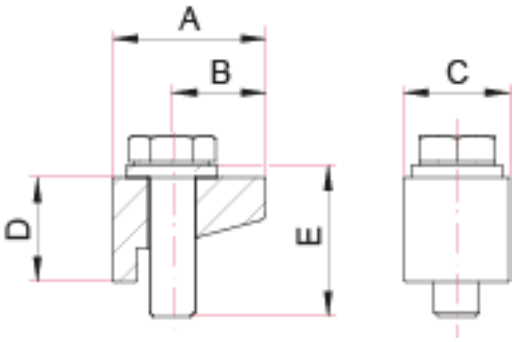
Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 / 16 KF	54	39	16	2000050041
DN 20 / 25 KF	63	48	16	2000050042
DN 32 / 40 KF	80	64	16	2000050043

ISO-KF Claw Clamp



- Suitable for use with elastomer seals
- For installing on a base plate with KF centering ring
- Holes: Needed number of tapped holes in base plate: 4x90° (Thread: M6, depth: min. 6 mm)
- Torque: Max. 8 Nm
- Bolt: Hexagon head, A2-70 steel, M6 x 20 mm
- Temperature range: -196 to 200 °C
- Over pressure max.: 500 hPa

Dimensions



Bore Holes in Base Plate

- Thread M6, depth minimum 6 mm

[DN]	Bolt Circle Ø Tapped Hole [mm]	Number of Tapped Holes	Core Hole for Centering [mm]	Sealing Surface to Ø [mm]	Recommended Torque [Nm]
10	45	4 x 90°	12,2	30	3
16	45	4 x 90°	17,2	30	3
20	55	4 x 90°	22,2	40	4
25	55	4 x 90°	26,2	40	4
32	71	4 x 90°	34,2	55	5
40	71	4 x 90°	41,2	55	5
50	91	4 x 90°	52,4	75	6

Aluminum EN AW-6061

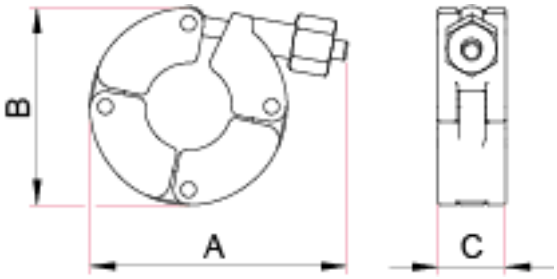
Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 - 50 KF	20,5	12,5	14	14	20	2000050040

ISO-KF Chain Clamp, Aluminum



- Suitable for use with elastomer and metallic seals
- Hand grip: Stainless steel
- Temperature range: -196 to 200 °C
- Over pressure max.: 500 hPa

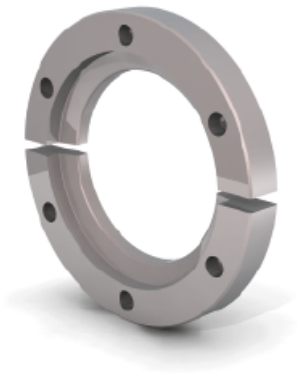
Dimensions



Aluminum/stainless steel

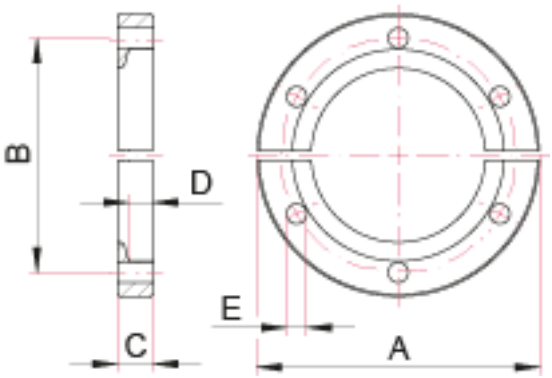
Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10-16 ISO-KF	71	52,5	18	2000026748
DN 20-25 ISO-KF	82	65	18	2000026749
DN 32-40 ISO-KF	98	79	18	2000026750
DN 50 ISO-KF	117	97,5	20	2000026751

ISO-KF Bulkhead Clamp



- Suitable for use with elastomer seals
- For mounting on a base plate with KF centering ring
- Holes: Number of tapped holes in base plate: DN 10-40: 6x60°; DN 50: 8x45°
  (Thread M5, depth: min. 10 mm)
- Kind of screw: Hexagon head, A2-70 steel, M5x20
- Temperature range: -196 to 200 °C
- Over pressure max.: 500 hPa

Dimensions



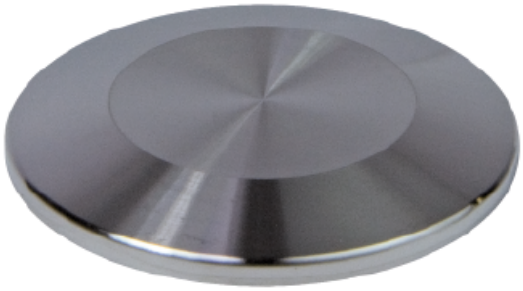
Bore Holes in Base Plate
- Thread M6, depth minimum 6 mm

Flange Size [DN]	Bolt Circle Ø Tapped Hole [mm]	Number of Tapped Holes [mm]	Core Hole for Centering [mm]	Sealing Surface to Ø [mm]
10	38,1	6 x 60°	12,2	30
16	38,1	6 x 60°	17,2	30
20	48,0	6 x 60°	22,2	40
25	48,0	6 x 60°	26,2	40
32	62,0	6 x 60°	34,2	55
40	62,0	6 x 60°	41,2	55
50	82,55	8 x 45°	52,4	75

Aluminum EN AW-6082/3.2315

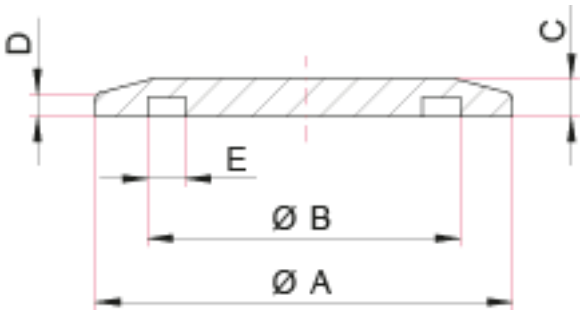
Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 / 16 KF	50,8	38,1	9,2	6,5	5,3	2000050059
DN 20 / 25 KF	60,3	48	9,9	6,6	5,3	2000050060
DN 32 / 40 KF	74,6	62	9,3	6,6	5,3	2000050061
DN 50 KF	95,2	82,55	10,3	6,5	5,3	2000050062

ISO-KF Blank Flange



- Available in stainless steel or aluminum

Dimensions



Aluminum EN AW-6082/3.2315
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure
- Temperature range: -196 to 200 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 KF	30	12,2	5	3	-	2000050067
DN 16 KF	30	17,2	5	3	-	2000050068
DN 25 KF	40	26,2	5	3	3,5	2000050069
DN 40 KF	55	41,2	5	3	5	2000050070
DN 50 KF	75	52,4	5	3	5	2000050071

Flanges according to ISO 2861

Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 KF	30	12,2	5	3	-	2000048728
DN 16 KF	30	17,2	5	3	-	2000048729
DN 25 KF	40	26,2	5	3	3,5	2000048731

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 40 KF	55	41,2	5	3	5	2000048733
DN 50 KF	75	52,4	5	3	5	2000048734

Flanges according to ISO 2861

Stainless Steel 316L/1.4404

- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 KF	30	12,2	5	3	-	2000044621
DN 16 KF	30	17,2	5	3	-	2000044622
DN 25 KF	40	26,2	5	3	3,5	2000044623
DN 40 KF	55	41,2	5	3	5	2000044624
DN 50 KF	75	52,4	5	3	5	2000044625

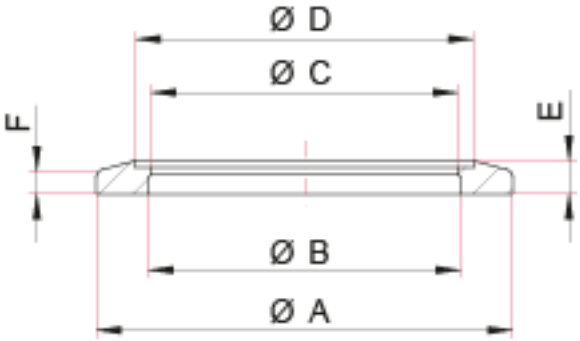
Flanges according to ISO 2861

ISO-KF Weld Ring Flange



- Various stainless steel grades available

Dimensions



Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal); 1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 10 KF	12.7 x 1.24	30	12,2	10,2	12,8	5	3	2000048703
DN 10 KF	14 x 2	30	12,2	10	14,15	5	3	2000048704
DN 16 KF	19.05 x 1.65	30	17,2	15,75	19,2	5	3	2000048707
DN 16 KF	20 x 2	30	17,2	16	20,2	5	3	2000048708
DN 25 KF	25.4 x 1.65	40	26,2	22,1	25,6	5	3	2000048711
DN 25 KF	28 x 2	40	26,2	24	28,2	5	3	2000048712
DN 40 KF	38 x 1.5	55	41,2	34,8	38,4	5	3	2000048716
DN 40 KF	44.5 x 2	55	41,2	40,5	44,7	5	3	2000048717
DN 50 KF	50.8 x 1.65	75	52,4	47,5	51	5	3	2000048720
DN 50 KF	57 x 3.2	75	52,4	50,6	57,2	5	3	2000048723

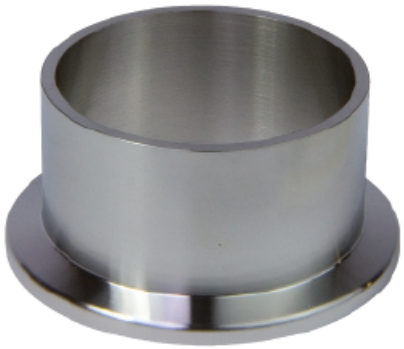
Flanges according to ISO 2861

Stainless Steel 316L/1.4404
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal); 1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 10 KF	14 x 2	30	12,2	10	14,15	5	3	2000045541
DN 16 KF	20 x 2	30	17,2	16	20,2	5	3	2000045542
DN 25 KF	28 x 2	40	26,2	24	28,2	5	3	2000044616
DN 40 KF	44.5 x 2	55	41,2	40,5	44,7	5	3	2000044618
DN 50 KF	57 x 3.2	75	52,4	50,6	57,2	5	3	2000044620

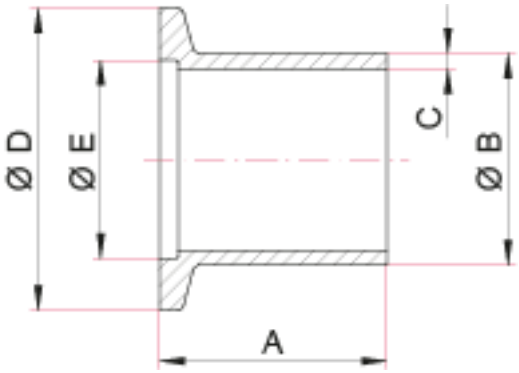
Flanges according to ISO 2861

ISO-KF Half Nipple



- Custom lengths on request
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 KF	14 x 2	30	14	2	30	12,2	2000048740
DN 10 KF	14 x 2	52	14	2	30	12,2	2000048741
DN 10 KF	14 x 2	70	14	2	30	12,2	2000048742
DN 16 KF	19.05 x 1.65	40	19,05	1,65	30	17,2	2000048744
DN 16 KF	20 x 2	30	20	2	30	17,2	2000048746
DN 16 KF	20 x 2	52	20	2	30	17,2	2000048748
DN 16 KF	20 x 2	70	20	2	30	17,2	2000048749
DN 25 KF	25.4 x 1.65	40	25,4	1,65	40	26,2	2000048754
DN 25 KF	28 x 2	30	28	2	40	26,2	2000048756
DN 25 KF	28 x 2	55	28	2	40	26,2	2000048758
DN 25 KF	28 x 2	70	28	2	40	26,2	2000048759

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 40 KF	38 x 1.5	40	38	1,5	55	41,2	2000048763
DN 40 KF	42.4 x 2	26	42,4	2	55	41,2	2000048764
DN 40 KF	44.5 x 2	30	44,5	2	55	41,2	2000048766
DN 40 KF	44.5 x 2	58	44,5	2	55	41,2	2000048770
DN 40 KF	44.5 x 2	70	44,5	2	55	41,2	2000048771
DN 50 KF	50.8 x 1.65	40	50,8	1,65	75	52,4	2000048773
DN 50 KF	54 x 2	26	54	2	75	52,4	2000048775
DN 50 KF	57 x 3.2	30	57	3,2	75	52,4	2000048778
DN 50 KF	57 x 3.2	58	57	3,2	75	52,4	2000048780
DN 50 KF	57 x 3.2	70	57	3,2	75	52,4	2000048781

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 10 KF	14 x 2	30	14	2	30	12,2	2000044626
DN 10 KF	14 x 2	70	14	2	30	12,2	2000044628
DN 16 KF	19.05 x 1.65	40	19,05	1,65	30	17,2	2000044630
DN 16 KF	20 x 2	30	20	2	30	17,2	2000044632
DN 16 KF	20 x 2	70	20	2	30	17,2	2000044635
DN 25 KF	25.4 x 1.65	40	25,4	1,65	40	26,2	2000044636
DN 25 KF	28 x 2	30	28	2	40	26,2	2000044638
DN 25 KF	28 x 2	70	28	2	40	26,2	2000044641
DN 40 KF	42.4 x 2	26	42,4	2	55	41,2	2000044645
DN 40 KF	44.5 x 2	30	44,5	2	55	41,2	2000044647
DN 40 KF	44.5 x 2	70	44,5	2	55	41,2	2000044650
DN 50 KF	54 x 2	26	54	2	75	52,4	2000044653
DN 50 KF	57 x 3.2	30	57	3,2	75	52,4	2000044656
DN 50 KF	57 x 3.2	70	57	3,2	75	52,4	2000044659

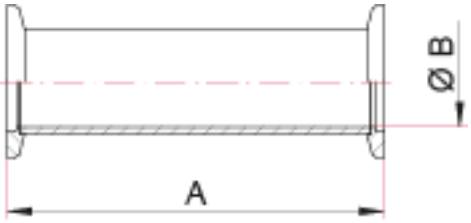
Flanges according to ISO 2861

ISO-KF Full Nipple



Custom lengths on request

Dimensions



Aluminium EN AW-6082/3.2315
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 KF	80	16	2000050141
DN 25 KF	100	24	2000050142
DN 40 KF	130	40	2000050143

Flanges according to ISO 2861

Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 KF	80	16	2000047938
DN 25 KF	100	24	2000047939
DN 40 KF	130	40	2000047940
DN 50 KF	140	50	2000047941

Flanges according to ISO 2861

Stainless Steel 316L/1.4404

- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 KF	80	16	2000044710
DN 25 KF	100	24	2000044711
DN 40 KF	130	40	2000044712
DN 50 KF	140	50	2000044713

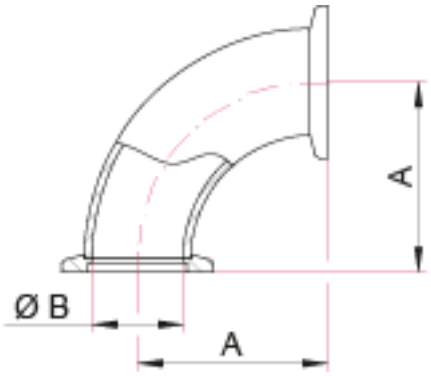
Flanges according to ISO 2861

ISO-KF Elbow, Radius, 90°



- Various stainless steel grades available

Dimensions



Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 10 KF	30	10	2000047895
DN 16 KF	40	16	2000047897
DN 25 KF	50	24	2000047899
DN 40 KF	65	40	2000047901
DN 50 KF	70	51	2000047903

Flanges according to ISO 2861

Stainless Steel 316L/1.4404
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 KF	40	16	2000044670

Nominal diameter	A [mm]	B [mm]	Part number
DN 25 KF	50	24	2000044672
DN 40 KF	65	40	2000044674
DN 50 KF	70	51	2000044676

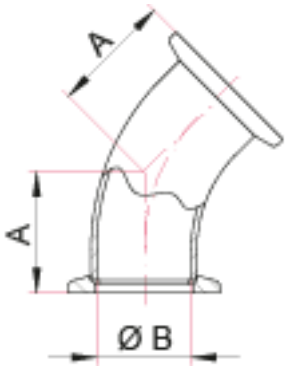
Flanges according to ISO 2861

ISO-KF Elbow, Radius, 45°



- ISO-KF Elbow, Radius, 45°

Dimensions



Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 10 KF	30	10	2000047894
DN 16 KF	25	16	2000047896
DN 25 KF	32	24	2000047898
DN 40 KF	40	40	2000047900
DN 50 KF	51	51	2000047902

Flanges according to ISO 2861

Stainless Steel 316L/1.4404
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 KF	26	16	2000044669
DN 25 KF	32	24	2000044671

Nominal diameter	A [mm]	B [mm]	Part number
DN 40 KF	40	40	2000044673
DN 50 KF	51	51	2000044675

Flanges according to ISO 2861

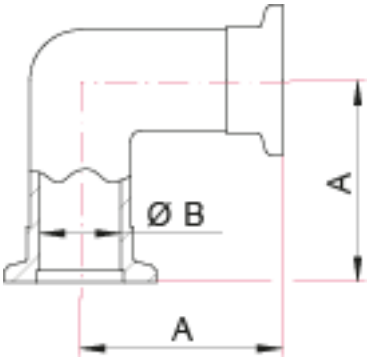
ISO-KF Elbow, 90°



- Aluminum
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Aluminum EN AW-6082/3.2315

Dimensions



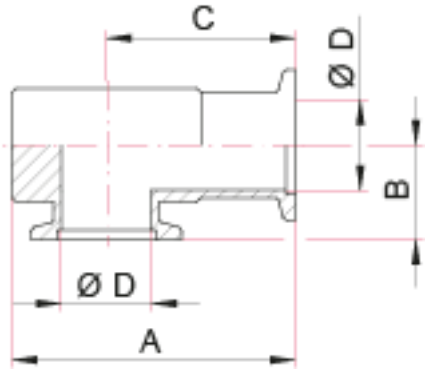
Nominal diameter	A [mm]	B [mm]	Part number
DN 10 KF	30	10	2000050093
DN 16 KF	25	16	2000050094
DN 25 KF	32	24	2000050095
DN 40 KF	40	40	2000050096

Flanges according to ISO 2861



Aluminum EN AW-2007/3.1645

Dimensions



Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 16 KF	58	20	40	16	2000050136
DN 25 KF	73	25	50	25	2000050138
DN 40 KF	95	35	65	40	2000050140

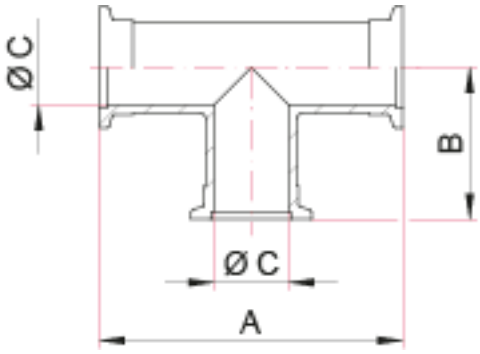
Flanges according to ISO 2861

ISO-KF Tee



Aluminum EN AW-6082/3.2315

Dimensions



- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

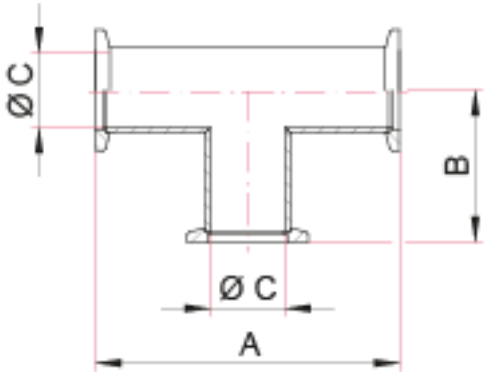
Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 KF	60	30	10	2000050121
DN 16 KF	80	40	16	2000050122
DN 25 KF	100	50	24	2000050124
DN 40 KF	130	65	40	2000050127

Flanges according to ISO 2861



Stainless Steel 304/1.4301

Dimensions



- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 KF	60	30	10	2000047932
DN 16 KF	80	40	16	2000047933
DN 25 KF	100	50	24	2000047934
DN 40 KF	130	65	40	2000047935
DN 50 KF	140	70	51	2000047936

Flanges according to ISO 2861

Stainless Steel 316L/1.4404

- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

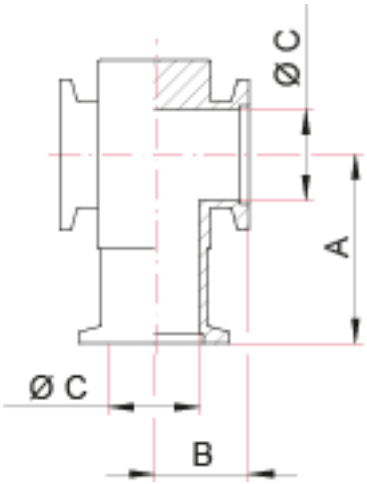
Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 KF	80	40	16	2000044705
DN 25 KF	100	50	24	2000044706
DN 40 KF	130	65	40	2000044707
DN 50 KF	140	70	50	2000044708

Flanges according to ISO 2861



Aluminum EN AW-2007/3.1645

Dimensions



- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 KF	40	20	16	2000050123
DN 25 KF	50	25	25	2000050126
DN 40 KF	65	35	40	2000050129

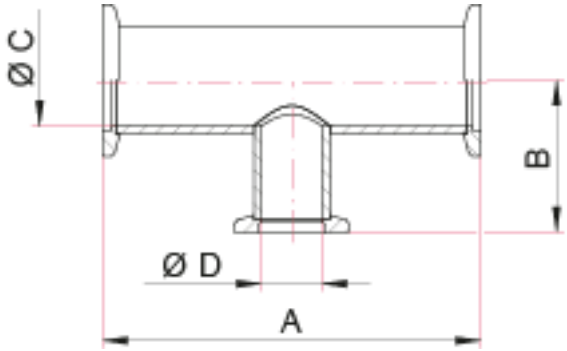
Flanges according to ISO 2861

ISO-KF Reducer Tee



Stainless Steel 304/1.4301

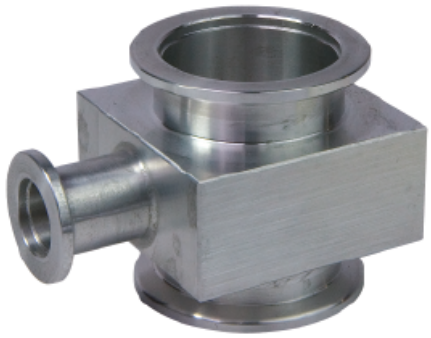
Dimensions



- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

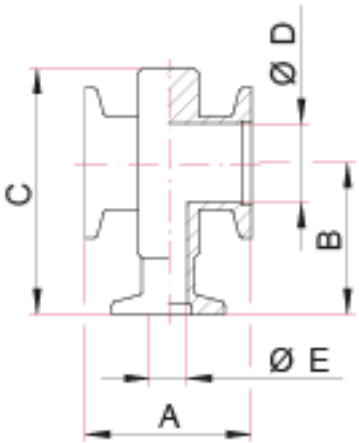
Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Nominal diameter reduced	Part number
DN 25 KF	100	40	24	16	DN 16 KF	2000047926
DN 40 KF	130	40	40	16	DN 16 KF	2000047927
DN 40 KF	130	50	40	24	DN 25 KF	2000047928
DN 50 KF	140	50	50	16	DN 16 KF	2000047929
DN 50 KF	140	65	50	24	DN 25 KF	2000047930
DN 50 KF	140	65	50	40	DN 40 KF	2000047931

Flanges according to ISO 2861



Aluminum EN AW-2007/3.1645

Dimensions



- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Nominal diameter reduced	Part number
DN 25 KF	44	40	62,5	25	DN 16 KF	2000050116
DN 40 KF	59	50	80	40	DN 16 KF	2000050118
DN 40 KF	59	50	80	40	DN 25 KF	2000050120

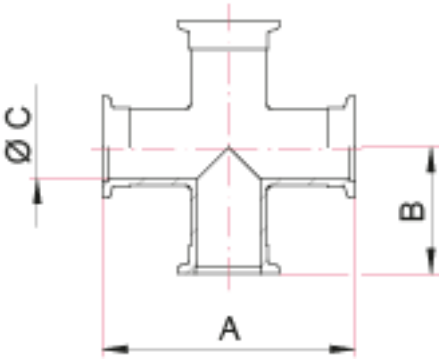
Flanges according to ISO 2861

ISO-KF 4-Way Cross



Aluminum EN AW-6082/3.2315

Dimensions



- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

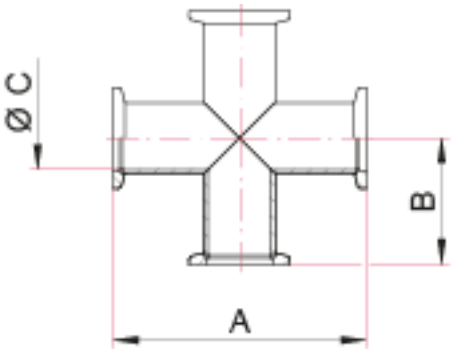
Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 KF	80	40	16	2000050085
DN 25 KF	100	50	24	2000050088
DN 40 KF	130	65	40	2000050091

Flanges according to ISO 2861



Stainless Steel 304/1.4301

Dimensions



- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressur
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 KF	60	30	10	2000047889
DN 16 KF	80	40	16	2000047890
DN 25 KF	100	50	24	2000047891
DN 40 KF	130	65	40	2000047892
DN 50 KF	140	70	51	2000047893

Flanges according to ISO 2861

Stainless Steel 316L/1.4404

- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 10 KF	60	30	10	2000044663
DN 16 KF	80	40	16	2000044664

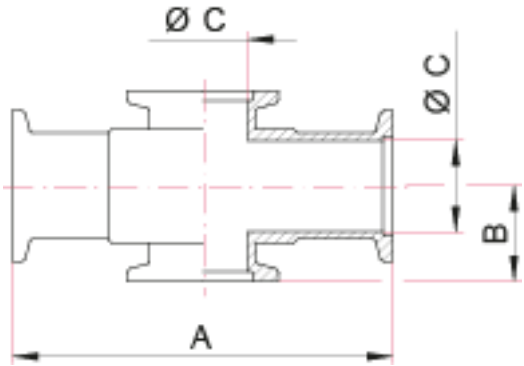
Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 25 KF	100	50	24	2000044665
DN 40 KF	130	65	40	2000044666
DN 50 KF	140	70	51	2000044667

Flanges according to ISO 2861



Aluminum EN AW-2007/3.1645

Dimensions



- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 KF	80	20	16	2000050087
DN 25 KF	100	25	25	2000050090
DN 40 KF	130	35	40	2000050092

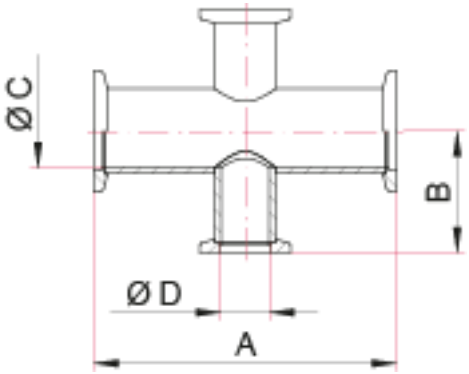
Flanges according to ISO 2861

ISO-KF Reducer Cross



Stainless Steel 304/1.4301

Dimensions



- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal); 1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

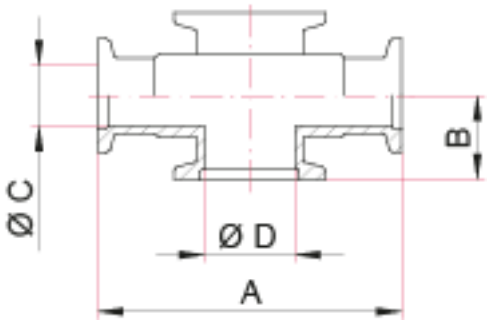
Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Nominal diameter reduced	Part number
DN 24 KF	100	40	24	16	DN 16 KF	2000047883
DN 40 KF	130	40	40	16	DN 16 KF	2000047884
DN 40 KF	130	50	40	24	DN 25 KF	2000047885
DN 50 KF	140	40	50	16	DN 16 KF	2000047886
DN 50 KF	140	50	50	24	DN 25 KF	2000047887
DN 50 KF	140	65	50	40	DN 40 KF	2000047888

Flanges according to ISO 2861



Aluminum EN AW-2007/3.1645

Dimensions

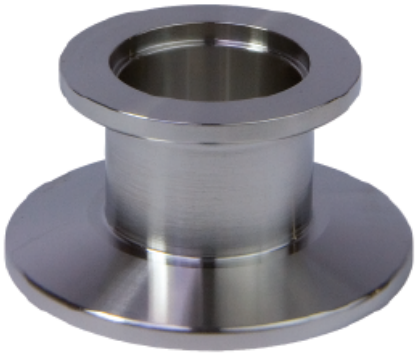


- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Nominal diameter reduced	Part number
DN 25 KF	80	22	16	25	DN 16 KF	2000050078
DN 40 KF	100	30	16	40	DN 16 KF	2000050080
DN 40 KF	100	30	25	40	DN 25 KF	2000050082

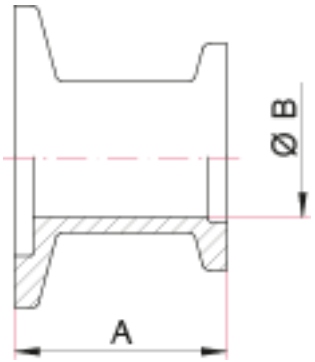
Flanges according to ISO 2861

ISO-KF Straight Reducer



- Available in stainless steel or aluminum

Dimensions



Aluminum EN AW-6082/3.2315
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 25 KF	40	10	DN 10 KF	2000050098
DN 25 KF	28	16	DN 16 KF	2000050099
DN 25 KF	40	16	DN 16 KF	2000050101
DN 40 KF	28	16	DN 16 KF	2000050103
DN 40 KF	40	16	DN 16 KF	2000050105
DN 40 KF	28	24	DN 25 KF	2000050106
DN 40 KF	40	25	DN 25 KF	2000050108
DN 50 KF	40	24	DN 25 KF	2000050111
DN 50 KF	40	40	DN 40 KF	2000050114

Flanges according to ISO 2861

Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 25 KF	28	16	DN 16 IKF	2000047906
DN 25 KF	40	16	DN 16 KF	2000047907
DN 40 KF	28	16	DN 16 KF	2000047910
DN 40 KF	40	16	DN 16 KF	2000047911
DN 40 KF	28	24	DN 25 KF	2000047912
DN 40 KF	40	24	DN 25 KF	2000047913
DN 50 KF	40	16	DN 16 KF	2000047915
DN 50 KF	28	24	DN 25 KF	2000047916
DN 50 KF	40	24	DN 25 KF	2000047917
DN 50 KF	28	40	DN 40 KF	2000047918
DN 50 KF	40	40	DN 40 KF	2000047919

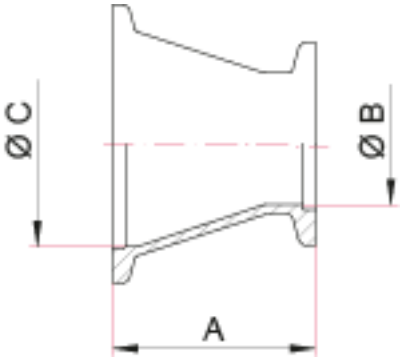
Flanges according to ISO 2861

ISO-KF Conical Reducer



- Available in stainless steel or aluminum

Dimensions



Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Nominal diameter reduced	Part number
DN 25 KF	40	16	24	DN 16 KF	2000047920
DN 40 KF	40	16	40	DN 16 KF	2000047921
DN 40 KF	40	24	40	DN 25 KF	2000047922
DN 50 KF	40	16	50	DN 16 KF	2000047923
DN 50 KF	40	24	50	DN 25 KF	2000047924
DN 50 KF	40	40	50	DN 40 KF	2000047925

Flanges according to ISO 2861

Stainless Steel 316L/1.4404
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Nominal diameter reduced	Part number
DN 25 KF	40	16	24	DN 16 KF	2000044683
DN 40 KF	40	16	40	DN 16 KF	2000044685
DN 40 KF	40	24	40	DN 25 KF	2000044687
DN 50 KF	40	24	50	DN 25 KF	2000044689
DN 50 KF	40	40	50	DN 40 KF	2000044691

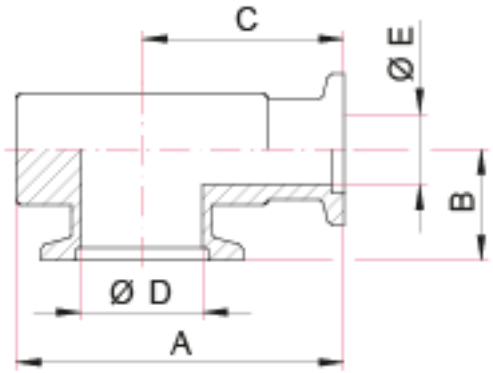
Flanges according to ISO 2861

ISO-KF Reducer Elbow



- Aluminum
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Dimensions

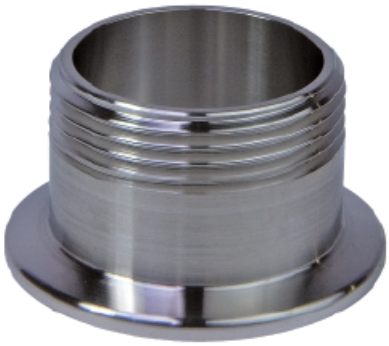


Aluminum EN AW-2007/3.1645

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Nominal diameter reduced	Part number
DN 25 KF	62	22	40	25	16	DN 16 KF	2000050131
DN 40 KF	72	30	50	40	16	DN 16 KF	2000050132
DN 40 KF	80	30	50	40	25	DN 25 KF	2000050134

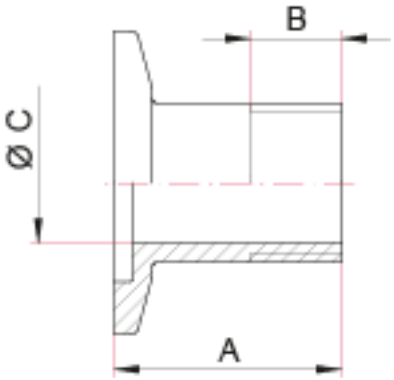
Flanges according to ISO 2861

ISO-KF Flange with Pipe Thread, w/o Seal, Male



- Materials: Stainless steel
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Thread	Part number
DN 10 KF	30	12	10	G3/8"	2000048584
DN 16 KF	30	9	9	G1/4"	2000048585
DN 16 KF	30	12	16	G1/2"	2000048586
DN 25 KF	30	12	16	G1/2"	2000048587
DN 25 KF	30	12	20	G3/4"	2000048588
DN 25 KF	30	12	24	G1"	2000048589
DN 40 KF	30	14	35	G1.25"	2000048592
DN 40 KF	30	12	41	G1.5"	2000048593
DN 50 KF	35	16	51	G2"	2000048594

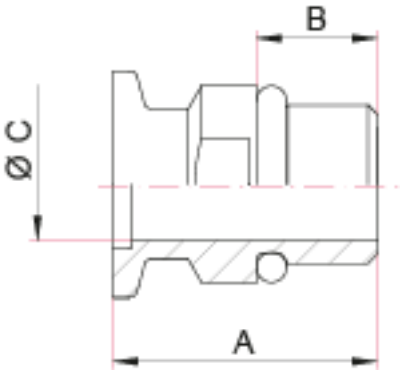
Flanges according to ISO 2861

ISO-KF Flange with Pipe Thread and FKM Seal, Male



- Material: Stainless steel
- Seal: FKM
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Wrench size [mm]	Thread	Part number
DN 10 KF	35	16	10	19	G3/8"	2000047793
DN 16 KF	35	16	15	23	G1/2"	2000047794
DN 25 KF	45	24	21	32	G3/4"	2000047795
DN 25 KF	45	24	24	34	G1"	2000047796
DN 40 KF	50	28	40	50	G1.5"	2000047797

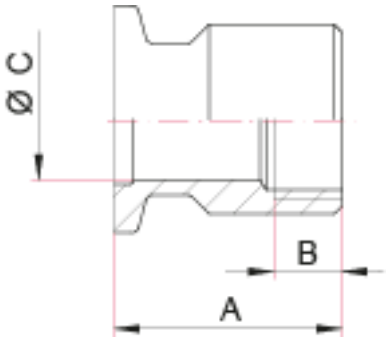
Flanges according to ISO 2861

ISO-KF Flange with Pipe Thread, w/o Seal, Female



- Material: Stainless steel
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Thread	Part number
DN 10 KF	30	15	10	G3/8"	2000048577
DN 16 KF	30	9	16	G1/2"	2000048578
DN 25 KF	30	12	24	G3/4"	2000048579
DN 40 KF	30	16	28	G1"	2000048580

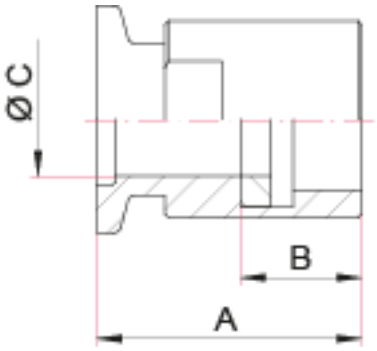
Flanges according to ISO 2861

ISO-KF Flange with Pipe Thread and FKM Seal, Female



- Material: Stainless steel
- Seal: FKM
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Wrench size [mm]	Thread	Part number
DN 10 KF	35	15	10	17	G3/8"	2000047789
DN 16 KF	35	16	15	21	G1/2"	2000047790
DN 25 KF	45	25	24	35	G1"	2000047791
DN 40 KF	50	26	40	46	G1.5"	2000047792

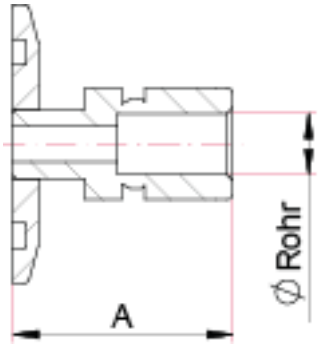
Flanges according to ISO 2861

ISO-KF Swagelok® Adapter



- Original Swagelok® fitting
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Materials: Stainless steel 304/1.4301
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301, Metric Sizes

Nominal diameter	A [mm]	Tube external diameter	Part number
DN 16 KF	40	6 mm	2000048635
DN 16 KF	41	8 mm	2000048636
DN 25 KF	38	6 mm	2000048647
DN 25 KF	39	8 mm	2000048648
DN 25 KF	41	10 mm	2000048642
DN 25 KF	43	12 mm	2000048644
DN 40 KF	38	6 mm	2000048657

Flanges according to ISO 2861

Stainless Steel 304/1.4301, Imperial Sizes

Nominal diameter	A [mm]	Tube external diameter	Part number
DN 16 KF	40	1/4"	2000048630

Nominal diameter	A [mm]	Tube external diameter	Part number
DN 16 KF	53	1/2"	2000048632
DN 25 KF	38	1/4"	2000048638
DN 25 KF	53	1/2"	2000048640
DN 40 KF	38	1/4"	2000048649

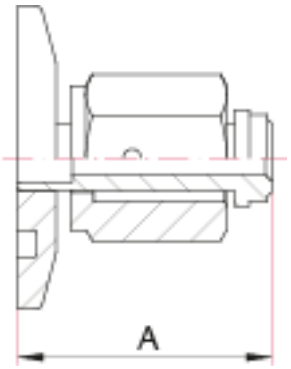
Flanges according to ISO 2861

ISO-KF VCR Adapter, Female



- Original Swagelok® VCR adapter
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Materials: Stainless steel 304/1.4301
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	VCR connection	Part number
DN 16 KF	36	1/4"	2000048665
DN 16 KF	41	1/2"	2000048666
DN 25 KF	33	1/4"	2000048668
DN 25 KF	37	1/2"	2000048669

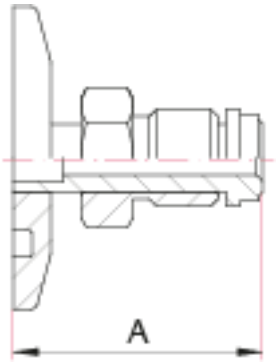
Flanges according to ISO 2861

ISO-KF VCR Adapter, Male



- Original Swagelok® VCR Adapter
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Materials: Stainless steel 304/1.4301
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	VCR connection	Part number
DN 16 KF	36	1/4"	2000048677
DN 16 KF	41	1/2"	2000048678
DN 25 KF	33	1/4"	2000048679
DN 25 KF	37	1/2"	2000048680
DN 40 KF	33	33	2000048683
DN 40 KF	37	1/2"	2000048684

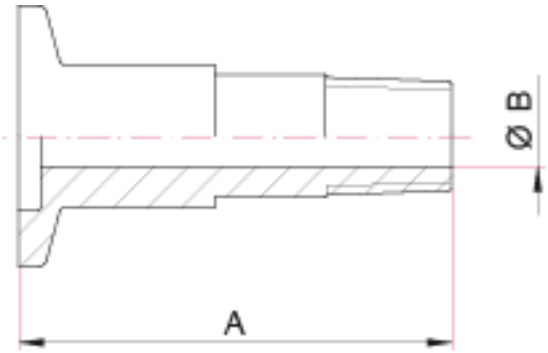
Flanges according to ISO 2861

ISO-KF Flange with NPT Thread, Male



- Material: Stainless steel
- Temperature range: -196 to 300 °C

Dimensions

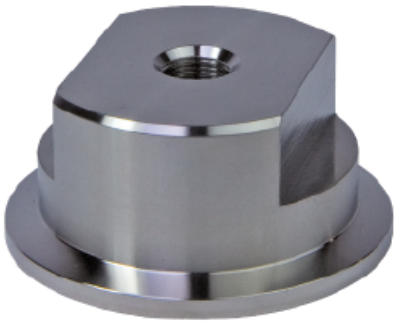


Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	Thread	Part number
DN 16 KF	50	7,1	NPT 1/4"	2000048602
DN 25 KF	50	7,1	NPT 1/4"	2000048604
DN 25 KF	75	11,9	NPT 1/2"	2000048605

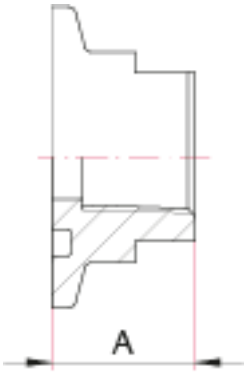
Flanges according to ISO 2861

ISO-KF Flange with NPT Thread, Female



- Material: Stainless steel
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	Thread	Part number
DN 16 KF	19	NPT 1/8"	2000048595
DN 16 KF	19	NPT 1/4"	2000048596
DN 25 KF	19	NPT 1/8"	2000048597
DN 25 KF	19	NPT 1/4"	2000048599

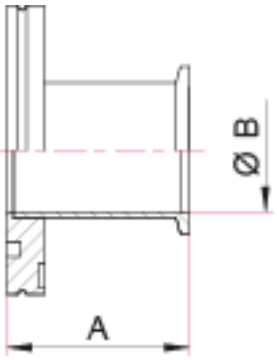
Flanges according to ISO 2861

ISO-K/KF Straight Adapter



- Other combinations and lengths on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	40	24	DN 25 ISO-KF	2000042623
DN 63 ISO-K	40	40,5	DN 40 ISO-KF	2000042625
DN 63 ISO-K	40	50,6	DN 50 ISO-KF	2000042627
DN 100 ISO-K	40	24	DN 25 ISO-KF	2000042633
DN 100 ISO-K	40	40,5	DN 40 ISO-KF	2000042636
DN 100 ISO-K	40	50,6	DN 50 ISO-KF	2000042638
DN 160 ISO-K	40	40,5	DN 40 ISO-KF	2000042642

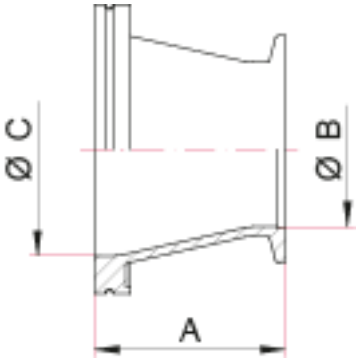
ISO-KF Flanges according to ISO 2861
ISO-K Flanges according to ISO 1609

ISO-K/KF Conical Adapter



- Available in stainless steel or aluminum

Dimensions



Aluminum EN AW-6082
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	40	40,5	70	DN 40 ISO-KF	2000042296
DN 63 ISO-K	45	50	70	DN 50 ISO-KF	2000042297

Flanges according to ISO 2861
ISO-K Flanges according to ISO 1609

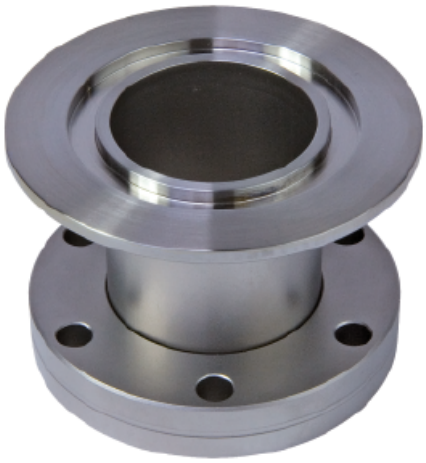
Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	63	24	70	DN 25 ISO-KF	2000042659
DN 63 ISO-K	63	40,5	70	DN 40 ISO-KF	2000042660

Nominal diameter	A [mm]	B [mm]	C [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	63	50	70	DN 50 ISO-KF	2000042661
DN 100 ISO-K	63	40,5	102	DN 40 ISO-KF	2000042665
DN 100 ISO-K	63	50	102	DN 50 ISO-KF	2000042666

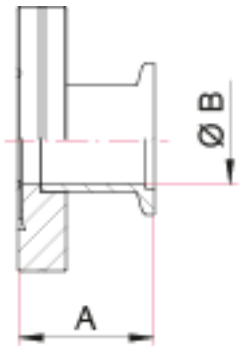
Flanges according to ISO 2861
- ISO-K Flanges according to ISO 1609

ISO-KF/CF Adapter



- Other nominal diameters and dimensions on request
- Pressure range: 1 · 10-8 hPa to ambient pressure (elastomer seal); 1 · 10-9 hPa to ambient pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301; CF Flange 304L

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 16 CF	36	16	DN 16 ISO-KF	2000041230
DN 16 CF	36	16	DN 25 ISO-KF	2000041231
DN 16 CF	36	16	DN 40 ISO-KF	2000041232
DN 40 CF	36	16	DN 16 ISO-KF	2000041238
DN 40 CF	36	24	DN 25 ISO-KF	2000041239
DN 40 CF	50	40,5	DN 40 ISO-KF	2000041240
DN 63 CF	50	40,5	DN 40 ISO-KF	2000041250
DN 100 CF	50	40,5	DN 40 ISO-KF	2000041260

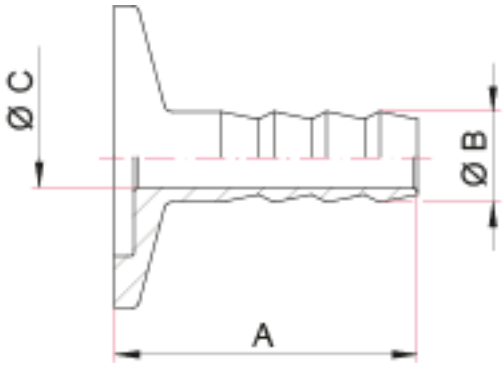
ISO-KF Flanges according to ISO 2861
CF Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

ISO-KF Hose Connector



- Fastener: Hose clamp (see accessories)
- Adapter for rubber hose

Dimensions



Aluminum EN AW-6082/3.2315

- Temperature range: -196 bis 150 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 KF	40	8	4	2000050026
DN 16 KF	40	12	7	2000050025
DN 25 KF	40	8	4	2000050028
DN 25 KF	40	12	7	2000050027
DN 40 KF	40	12	7	2000050029

Flanges according to ISO 2861

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 KF	40	8	4	2000048615
DN 16 KF	40	12	7	2000048614

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 25 KF	40	12	7	2000048616
DN 25 KF	40	16	12	2000048617
DN 25 KF	40	20	16	2000048618
DN 40 KF	40	12	7	2000048620

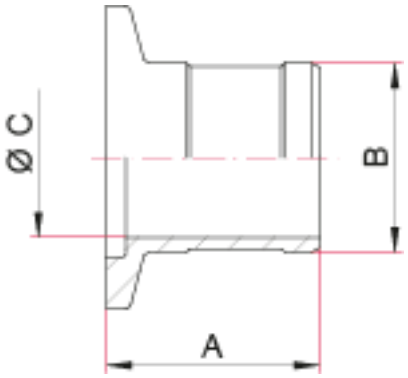
Flanges according to ISO 2861

ISO-KF Adapter for PVC Hose



- For connecting a PVC hose with embedded spring or a CR sleeve
- Fastener: Hose clamp (see accessories)

Dimensions



Aluminum

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 KF	28	16	12	2000050031
DN 25 KF	28	16	12	2000050032
DN 25 KF	40	25	21	2000050033
DN 40 KF	32	45	40	2000050034
DN 50 KF	60	50	45	2000050035
DN 10 KF	40	14	9	2000026972
DN 16 KF	40	20	15	2000026974
DN 25 KF	40	20	16	2000026975
DN 40 KF	40	26	22	2000026977
DN 40 KF	40	37	37	2000026978

Please check the hose inner diameter before ordering
Flanges according to ISO 2861

Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 KF	28	16	12	2000048624
DN 25 KF	28	25	21	2000048626
DN 40 KF	32	45	40	2000048627
DN 50 KF	60	50	45	2000048628

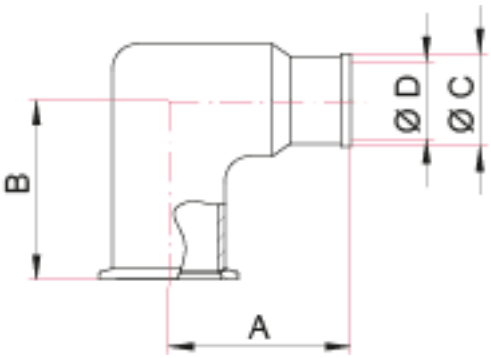
Please check the hose inner diameter before ordering
Flanges according to ISO 2861

ISO-KF 90° Elbow with Hose Adapter



- For connecting a PVC hose or a CR sleeve
- Fastener: Hose clamp (see accessories)

Dimensions



Aluminum EN AW-6061

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 16 KF	40	40	17	13	2000050036
DN 25 KF	50	50	26	22	2000050037
DN 40 KF	65	65	41	37	2000050038

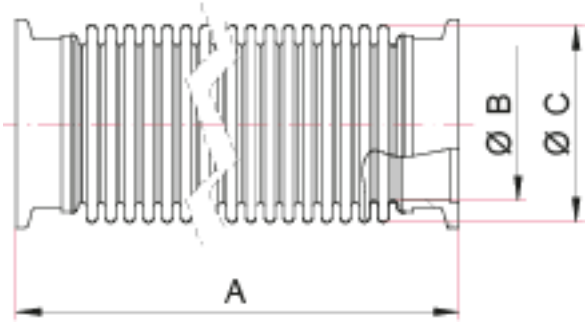
Please check the hose inner diameter before ordering
Flanges according to ISO 2861

ISO-KF Corrugated Hose, Flexible



- Flange connection length: 15 mm
- Custom lengths on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -1960 to 300 °C

Dimensions



Stainless Steel: Flange 304/1.4301; Bellows 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Bend radius, often movement [mm]	Part number
DN 10 KF	250	10	15,9	17	100	2000047997
DN 10 KF	500	10	15,9	17	100	2000047998
DN 10 KF	750	10	15,9	17	100	2000047999
DN 10 KF	1000	10	15,9	17	100	2000048000
DN 10 KF	1500	10	15,9	17	100	2000048001
DN 10 KF	2000	10	15,9	17	100	2000048002
DN 16 KF	250	16	23	26	140	2000048003
DN 16 KF	500	16	23	26	140	2000048004
DN 16 KF	750	16	23	26	140	2000048005
DN 16 KF	1000	16	23	26	140	2000048006
DN 16 KF	1500	16	23	26	140	2000048007
DN 16 KF	2000	16	23	26	140	2000048008
DN 25 KF	250	24	33	38	180	2000048009
DN 25 KF	500	24	33	38	180	2000048010

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Bend radius, often movement [mm]	Part number
DN 25 KF	750	24	33	38	180	2000048011
DN 25 KF	1000	24	33	38	180	2000048012
DN 25 KF	1500	24	33	38	180	2000048013
DN 25 KF	2000	24	33	38	180	2000048014
DN 40 KF	250	40	52	59	240	2000048015
DN 40 KF	500	40	52	59	240	2000048016
DN 40 KF	750	40	52	59	240	2000048017
DN 40 KF	1000	40	52	59	240	2000048018
DN 40 KF	1500	40	52	59	240	2000048019
DN 40 KF	2000	40	52	59	240	2000048020
DN 50 KF	250	50	63	72	280	2000048022
DN 50 KF	750	50	63	72	280	2000048024
DN 50 KF	1000	50	63	72	280	2000048025
DN 50 KF	1500	50	63	72	280	2000048026
DN 50 KF	2000	50	63	72	280	2000048027

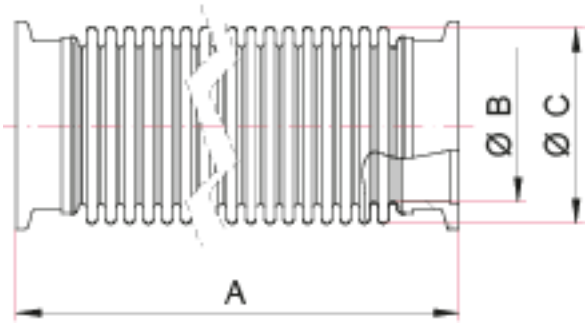
Please note that the hose shrinks under vacuum.
The minimum bending radii are applicable for a temperature of 20 °C.
Flanges according to ISO 2861

ISO-KF Corrugated Hose, Flexible, Annealed



- Flange connection length: 15 mm
- Stress relieved; low reset force when bent
- Custom lengths on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel: Flange 304/1.4301; Bellows 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Part number
DN 10 KF	250	10	16	17	2000047977
DN 10 KF	500	10	16	17	2000047978
DN 10 KF	750	10	16	17	2000047979
DN 10 KF	1000	10	16	17	2000047980
DN 16 KF	250	16	23	26	2000047981
DN 16 KF	500	16	23	26	2000047982
DN 16 KF	750	16	23	26	2000047983
DN 16 KF	1000	16	23	26	2000047984
DN 25 KF	250	24	33	38	2000047985
DN 25 KF	500	24	33	38	2000047986
DN 25 KF	750	24	33	38	2000047987
DN 25 KF	1000	24	33	38	2000047988

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Part number
DN 40 KF	250	40	52	59	2000047989
DN 40 KF	500	40	52	59	2000047990
DN 40 KF	750	40	52	59	2000047991
DN 40 KF	1000	40	52	59	2000047992
DN 50 KF	250	49,9	63	72	2000047993
DN 50 KF	500	49,9	63	72	2000047994
DN 50 KF	750	49,9	63	72	2000047995
DN 50 KF	1000	49,9	63	72	2000047996

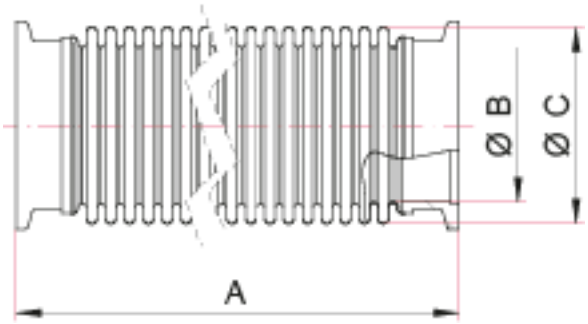
Please note that the hose shrinks under vacuum.
The minimum bending radius is applicable for a temperature of 20 °C.
Flanges according to ISO 2861

ISO-KF Corrugated Hose, Highly Flexible, Thin-wall



- Flange connection length: 15 mm
- Custom lengths on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel: Flange 304/1.4301; Bellows 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Bend radius, often movement [mm]	Part number
DN 16 KF	250	16	26	26	105	2000047953
DN 16 KF	500	16	26	26	105	2000047954
DN 16 KF	750	16	26	26	105	2000047955
DN 16 KF	1000	16	26	26	105	2000047956
DN 16 KF	1500	16	26	26	105	2000047957
DN 16 KF	2000	16	26	26	105	2000047958
DN 25 KF	250	24	37	38	135	2000047959
DN 25 KF	500	24	37	38	135	2000047960
DN 25 KF	750	24	37	38	135	2000047961
DN 25 KF	1000	24	37	38	135	2000047962
DN 25 KF	1500	24	37	38	135	2000047963
DN 25 KF	2000	24	37	38	135	2000047964

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Bend radius, often movement [mm]	Part number
DN 40 KF	250	40	56	59	180	2000047965
DN 40 KF	500	40	56	59	180	2000047966
DN 40 KF	750	40	56	59	180	2000047967
DN 40 KF	1000	40	56	59	180	2000047968
DN 40 KF	1500	40	56	59	180	2000047969
DN 40 KF	2000	40	56	59	180	2000047970
DN 50 KF	250	50	67	72	210	2000047971
DN 50 KF	500	50	67	72	210	2000047972
DN 50 KF	750	50	67	72	210	2000047973
DN 50 KF	1000	50	67	72	210	2000047974
DN 50 KF	1500	50	67	72	210	2000047975
DN 50 KF	2000	50	67	72	210	2000047976

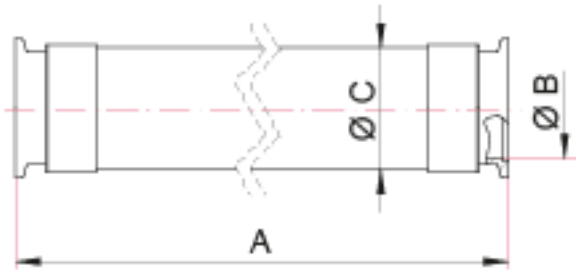
Please note that the hose shrinks under vacuum.
The minimum bending radii are applicable for a temperature of 20 °C.
Flanges according to ISO 2861

ISO-KF Corrugated Hose, Sheathed



- Custom lengths on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel: Flange and Braided Sheath 304/1.4301; Bellows 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Bend radius, often movement [mm]	Part number
DN 16 KF	250	15,9	24,9	44	140	2000048036
DN 16 KF	500	15,9	24,9	44	140	2000048037
DN 16 KF	750	15,9	24,9	44	140	2000048038
DN 16 KF	1000	15,9	24,9	44	140	2000048039
DN 25 KF	250	24	35,1	64	180	2000048040
DN 25 KF	500	24	35,1	64	180	2000048041
DN 25 KF	750	24	35,1	64	180	2000048042
DN 25 KF	1000	24	35,1	64	180	2000048043
DN 40 KF	250	40	54,7	98	240	2000048044
DN 40 KF	500	40	54,7	98	240	2000048045
DN 40 KF	750	40	54,7	98	240	2000048046
DN 40 KF	1000	40	54,7	98	240	2000048047
DN 50 KF	250	49,9	65,7	120	280	2000048048
DN 50 KF	500	49,9	65,7	120	280	2000048049

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Bend radius, often movement [mm]	Part number
DN 50 KF	750	49,9	65,7	120	280	2000048050
DN 50 KF	1000	49,9	65,7	120	280	2000048051

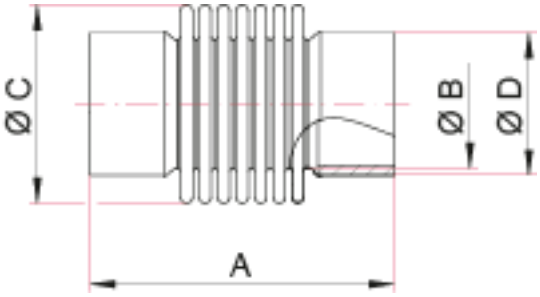
Please note that the hose shrinks under vacuum.
The minimum bending radii are applicable for a temperature of 20 °C.
Flanges according to ISO 2861

ISO-KF Spring Bellows with Weld Ends



- Flange connection length: 15 mm
- Weld end wall thickness: 2 mm
- Custom lengths on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Materials: Stainless steel 316L
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Axial stroke [mm]	Part number
DN 16 KF	90	16	26	20	±7	2000044715
DN 25 KF	120	24	39	28	±16	2000044717
DN 40 KF	120	40,5	58	44,5	±18	2000044719
DN 50 KF	120	50	69	54	±19.5	2000044721

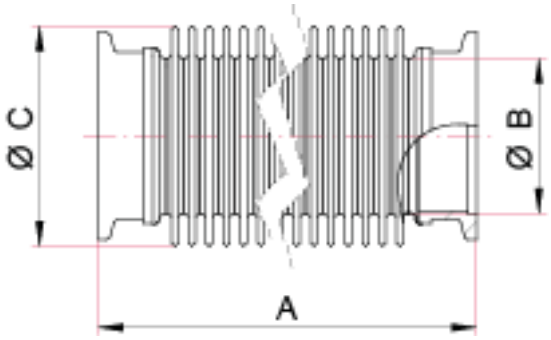
Please note that the spring bellows shrinks under vacuum.
The axial stroke is applicable for a temperature of 20 °C and 10000 load cycles.

ISO-KF Spring Bellows



- Flange connection length: 15 mm
- Custom lengths on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Materials: Flange: stainless steel 1.4301/304; bellows: stainless steel 316L
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel: Flange 304/1.4301; Bellows 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	Axial stroke [mm]	Part number
DN 16 KF	60	16	26	±3.5	2000044722
DN 16 KF	70	16	26	±5	2000044723
DN 16 KF	100	16	26	±8.5	2000044726
DN 16 KF	120	16	26	±11	2000044728
DN 25 KF	60	24	39	±5	2000044729
DN 25 KF	100	24	39	±12.5	2000044732
DN 25 KF	120	24	39	±16	2000044734
DN 40 KF	60	39	58	±5.5	2000044735
DN 40 KF	100	39	58	±14	2000044737
DN 40 KF	120	39	58	±18	2000044739
DN 50 KF	60	50	69	±6.5	2000044741
DN 50 KF	100	50	69	±15	2000044742
DN 50 KF	120	50	69	±19.5	2000044743

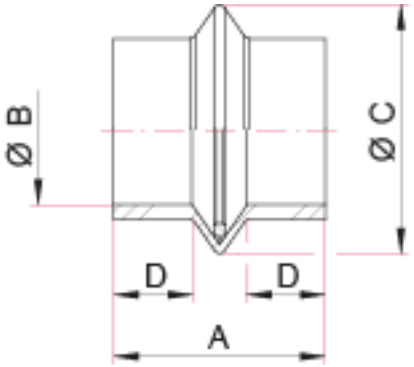
Please note that the spring bellows shrinks under vacuum.
The axial stroke is applicable for a temperature of 20 °C and 10000 load cycles.
Flanges according to ISO 2861

ISO-KF CR Sleeve



- Sleeve made from chloroprene rubber
- Connection: Adapter for PVC hose (see adapters) and hose clamp (see accessories)
- Pressure range: 1 · 10-5 hPa to ambient pressure
- Temperature range: -5 to 120 °C

Dimensions



Chloroprene Rubber (CR)

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 16 KF	44	17	44	12	2000045299
DN 25 KF	50	25	50	15	2000045300
DN 40 KF	56	41	68	18	2000045301

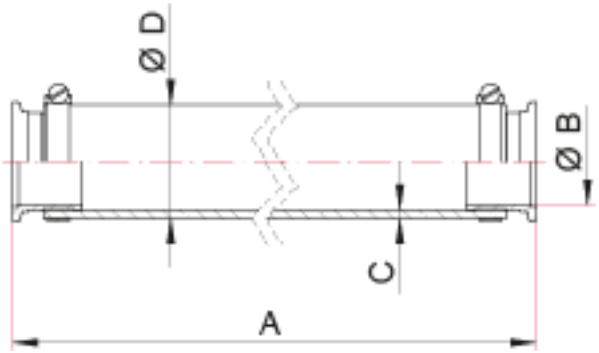
Please note that the sleeve shrinks under vacuum.

ISO-KF PVC Hose with Embedded Spring and Flanges



- Inner tube: PVC, transparent
- Casing: Steel coil
- Hose cover: PVC, transparent
- Smooth inner and outer walls
- Custom lengths on request
- Pressure range: 1 · 10-4 hPa to ambient pressure
- Temperature range: -10 to 60 °C

Dimensions



PVC with Stainless Steel Flange, 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Bend radius [mm]	Part number
DN 16 KF	500	12	3,1	22	30	2000051473
DN 16 KF	1000	12	3,1	22	30	2000051474
DN 25 KF	500	21	4	33	50	2000051476
DN 25 KF	1000	21	4	33	50	2000051477
DN 40 KF	500	40	4,9	55	90	2000051479
DN 40 KF	1000	40	4,9	55	90	2000051481
DN 50 KF	500	45	5,9	62	100	2000051482
DN 50 KF	1000	45	5,9	62	100	2000051483

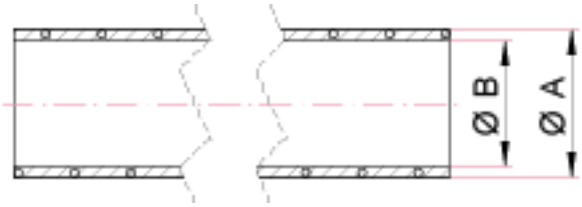
The minimum bending radius is applicable for a temperature of 20 °C.
Flanges according to ISO 2861

ISO-KF PVC Hose with Embedded Spring



- Inner tube material: PVC, transparent
- Casing: steel coil
- Hose cover material: PVC, transparent
- Smooth inner and outer walls
- Length: up to 50 m; min. order: 1 m; orders > 1 m calculated pro rata
- Connection: hose adapter and hose clamp
- Pressure range: 1 · 10-4 hPa to 500 hPa over pressure
- Temperature range: -10 to 60 °C

Dimensions

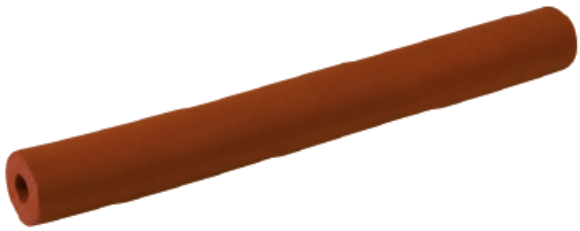


PVC

Inner diameter	A [mm]	B [mm]	Bend radius [mm]	Part number
16	22	16	30	2000051488
25	33	25	50	2000051489
45	55	45	90	2000051492
50	62	50	100	2000051494

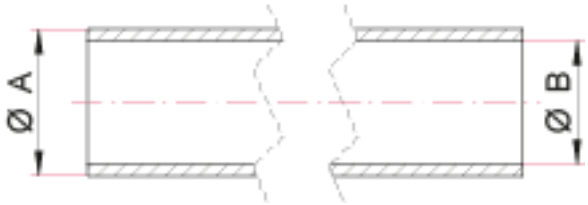
The minimum bending radius is applicable for a temperature of 20 °C.

ISO-KF Rubber Hose



- For vacuum applications
- Custom lengths on request; minimum order: 1 m; orders > 1 m calculated pro rata
- Pressure range: 1 · 10-4 hPa to ambient pressure
- Temperature range: -30 to 85 °C

Dimensions

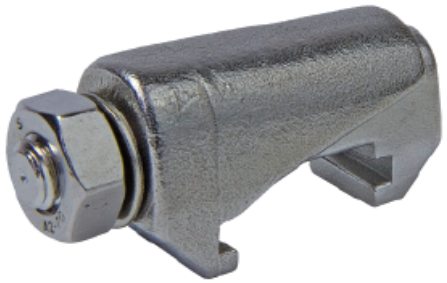


Rubber

Inner diameter [mm]	A [mm]	B [mm]	Part number
7	17	7	2000045302
10	25	10	2000045303
16	32	16	2000045304

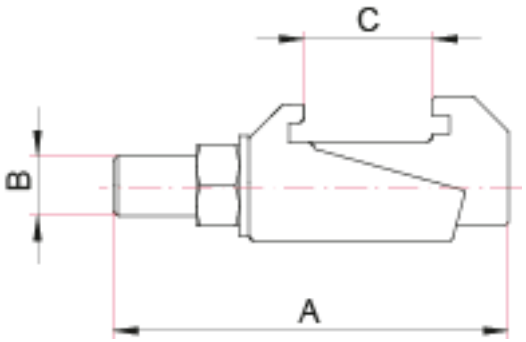
ISO-K / ISO-F

ISO-K Double Claw Clamp



- Suitable for use with metal and elastomer seals
- For stainless steel clamps we recommend using thread lubricant
- Torque: (for installation) DN 63-250: 12 to 16 Nm; DN 320-630: 20 to 26 Nm

Dimensions



Stainless Steel 316/1.4401

- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B	C [mm]	Part number
DN 63-250 ISO-K	61,5	M10	15 - 27	2000042461
DN 320-500 ISO-K	75	M12	27 - 33	2000042462
DN 630 ISO-K	85	M12	36 - 44	2000042463

Not to be used for the assembly of turbo pumps!
Use the fastening elements given in the corresponding operating instructions.

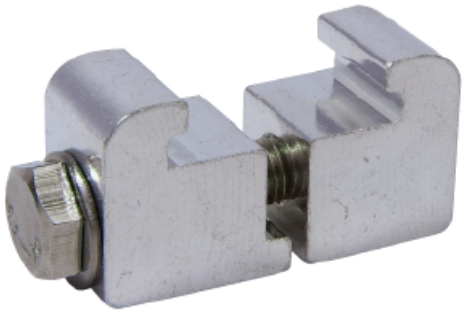
Zinc-plated Steel

- Temperature range: 0 to 200 °C

Nominal diameter	A [mm]	B	C [mm]	Part number
DN 63-250 ISO-K	61,5	M10	15 - 27	2000042028
DN 320-500 ISO-K	77	M12	27 - 33	2000042029
DN 630 ISO-K	86	M12	36 - 44	2000042030

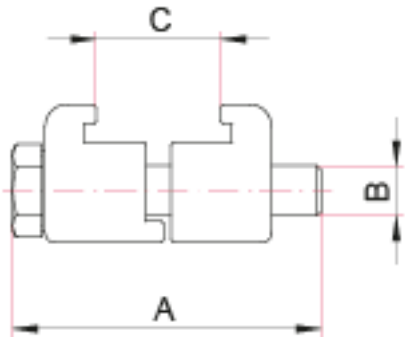
Not to be used for the assembly of turbo pumps!
Use the fastening elements given in the corresponding operating instructions

ISO-K Double Claw Clamp, Aluminum



- Suitable for use with elastomer seals
- Temperature range: -196 to 200 °C

Dimensions

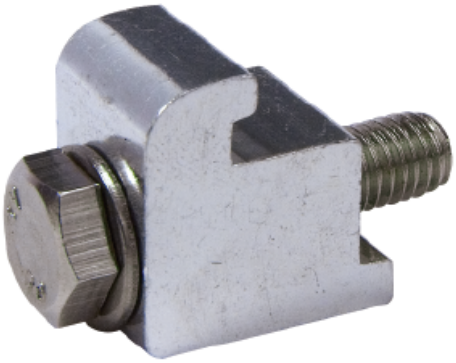


Aluminum EN AW-6061; Screw: Stainless Steel A2-70

Nominal diameter	A [mm]	B	C [mm]	Part number
DN 63-100 ISO-K	50	M8	24 - 27	2000043202
DN 160-250 ISO-K	52	M10	27 - 32	2000043203
DN 320-500 ISO-K	65	M12	32 - 38	2000043204

Not to be used for the assembly of turbo pumps!
Use the fastening elements given in the corresponding operating instructions

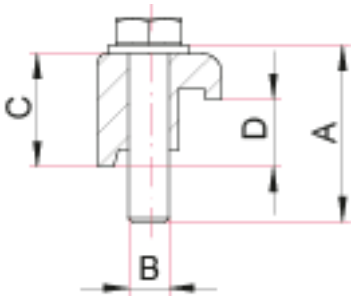
ISO-K Claw Clamp



- Zinc-plated and stainless steel versions: Suitable for use with metal and elastomer seals
- Aluminum version: Suitable for use with elastomer seals
- For installing an ISO-K flange on a base plate without O-ring groove
- For a base plate with O-ring groove please use single claw clamp for base plate with sealing groove (BPD)

Aluminum EN AW-6061; Screw: Stainless Steel A2-70

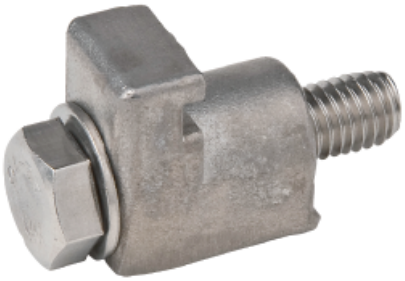
Dimensions



- Temperature range: -196 to 200 °C

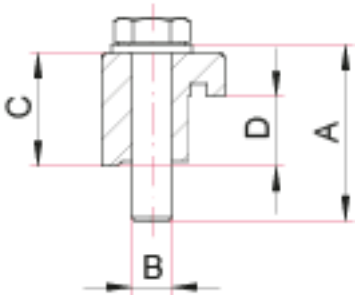
Nominal diameter	A [mm]	B	C [mm]	D [mm]	Part number
DN 63-100 ISO-K	35	M8	23	14	2000043205
DN 160-250 ISO-K	35	M10	23	14	2000043206
DN 320-500 ISO-K	50	M12	30	21	2000043207

Not to be used for the assembly of turbo pumps!
Use the fastening elements given in the corresponding operating instructions.



Stainless Steel 304/1.4301

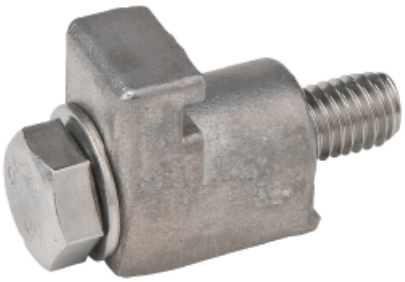
Dimensions



- Temperature range: -196 to 300 °C

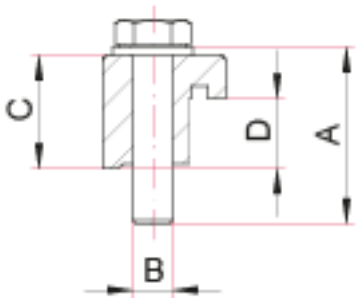
Nominal diameter	A [mm]	B	C [mm]	D [mm]	Part number
DN 63-100 ISO-K	35	M8	23	14	2000042464
DN 320-500 ISO-K	35	M10	23	14	2000042465
DN 320-500 ISO-K	50	M12	30	21	2000042466

Not to be used for the assembly of turbo pumps!
Use the fastening elements given in the corresponding operating instructions.



Zinc-plated Steel

Dimensions

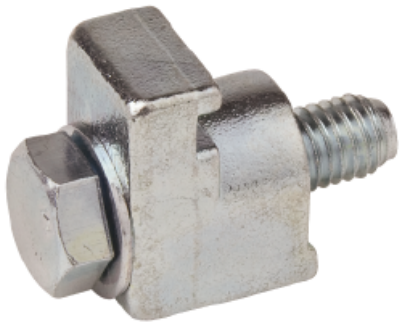


- Temperature range: 0 to 200 °C

Nominal diameter	A [mm]	B	C [mm]	D [mm]	Part number
DN 63-100 ISO-K	35	M8	23	14	2000042035
DN 160-250 ISO-K	35	M10	23	14	2000042036
DN 320-500 ISO-K	50	M12	30	20	2000042037
DN 630 ISO-K	60	M12	41,5	26	2000042038

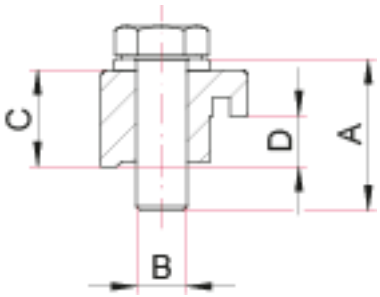
Not to be used for the assembly of turbo pumps!
Use the fastening elements given in the corresponding operating instructions.

ISO-K Single Claw Clamp for Base Plate with Sealing Groove



- Suitable for use with metal and elastomer seals
- For installing an ISO-K flange on a base plate with O-ring groove
- If there is no O-ring groove, please use the longer single claw clamps (BPR)
- Temperature range: 0 to 200 °C

Dimensions



Zinc-plated Steel

Nominal diameter	A [mm]	B	C [mm]	D [mm]	Part number
DN 63-100 ISO-K	30	M8	19	10,1	2000042031
DN 160-250 ISO-K	35	M10	19	10,1	2000042032
DN 320-500 ISO-K	45	M12	31	15,4	2000042033
DN 630 ISO-K	55	M12	36	20,4	2000042034

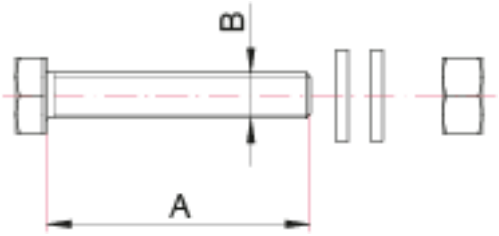
Not to be used for the assembly of turbo pumps!
Use the fastening elements given in the corresponding operating instructions.

ISO-F Screw Set



- For connecting two ISO-F flanges
- For connecting an ISO-F flange and an ISO-K/ISO-F bolt ring
- For connecting two ISO-K/ISO-F bolt rings
- Suitable for use with metal and elastomer seals
- Hexagon head screws, each with two washers and one nut

Dimensions



Zinc-plated Steel, property class 8.8

Nominal diameter	A [mm]	B	Package [Qty.]	Part number
DN 63-100 ISO-K/ISO-F	40	M8	8	2000040237
DN 160-250 ISO-K/ISO-F	50	M10	12	2000040238
DN 320-500 ISO-K/ISO-F	65	M12	16	2000040239
DN 630 ISO-K/ISO-F	70	M12	20	2000040240

Stainless Steel A2-70

Nominal diameter	A [mm]	B	Package [Qty.]	Part number
DN 63-100 ISO-K/ISO-F	40	M8	8	2000040162
DN 160-250 ISO-K/ISO-F	50	M10	12	2000040163
DN 320-500 ISO-K/ISO-F	65	M12	16	2000040164
DN 630 ISO-K/ISO-F	70	M12	20	2000040165

ISO-K Centering Ring with Outer Ring



- Aluminum outer ring
- Temperature range: FKM: -15 to 150 °C (shortly up to 200 °C); NBR: -25 to 120 °C; CR: -5 to 120 °C

Dimensions



Aluminum

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 63 ISO-K	NBR	70	68	3,9	8	5,33	2000042345
DN 80 ISO-K	NBR	83	81	3,9	8	5,33	2000042346
DN 100 ISO-K	NBR	102	100	3,9	8	5,33	2000042347
DN 160 ISO-K	NBR	153	151	3,9	8	5,33	2000042349
DN 200 ISO-K	NBR	213	211	3,9	8	5,33	2000042350
DN 250 ISO-K	NBR	261	259	3,9	8	5,33	2000042351
DN 320 ISO-K	NBR	318	313	5,6	14	7	2000042352
DN 400 ISO-K	NBR	400	395	5,6	14	7	2000042353
DN 500 ISO-K	NBR	501	496	5,6	14	7	2000042354
DN 630 ISO-K	NBR	651	646	5,6	14	7	2000042355
DN 63 ISO-K	CR	70	68	3,9	8	5,33	2000042433
DN 80 ISO-K	CR	83	81	3,9	8	5,33	2000042434
DN 100 ISO-K	CR	102	100	3,9	8	5,33	2000042435
DN 160 ISO-K	CR	153	151	3,9	8	5,33	2000042437

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
2000042438	CR	213	211	3,9	8	5,33	2000042438
DN 250 ISO-K	CR	261	259	3,9	8	5,33	2000042439
DN 320 ISO-K	CR	318	313	5,6	14	7	2000042440
DN 400 ISO-K	CR	400	395	5,6	14	7	2000042441
DN 500 ISO-K	CR	501	496	5,6	14	7	2000042442
DN 630 ISO-K	CR	651	646	5,6	14	7	2000042443
DN 63 ISO-K	FKM	70	68	3,9	8	5,33	2000042364
DN 80 ISO-K	FKM	83	81	3,9	8	5,33	2000042365
DN 100 ISO-K	FKM	102	100	3,9	8	5,33	2000042366
DN 160 ISO-K	FKM	153	151	3,9	8	5,33	2000042368
DN 200 ISO-K	FKM	213	211	3,9	8	5,33	2000042369
DN 250 ISO-K	FKM	261	259	3,9	8	5,33	2000042370
DN 320 ISO-K	FKM	318	313	5,6	14	7	2000042371
DN 400 ISO-K	FKM	400	395	5,6	14	7	2000042372
DN 500 ISO-K	FKM	501	496	5,6	14	7	2000042373
DN 630 ISO-K	FKM	651	646	5,6	14	7	2000042374

Stainless Steel 316Ti/1.4571 (DN 320: 304/1.4301) Outer Ring: Aluminum

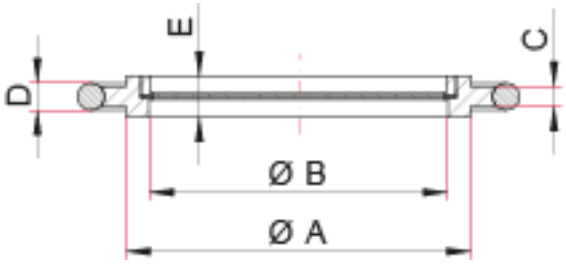
Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 63 ISO-K	FKM	70	68	3,9	8	5,33	2000041921
DN 80 ISO-K	FKM	83	81	3,9	8	5,33	2000041922
DN 100 ISO-K	FKM	102	100	3,9	8	5,33	2000041923
DN 160 ISO-K	FKM	153	151	3,9	8	5,33	2000041924
DN 200 ISO-K	FKM	213	211	3,9	8	5,33	2000041925
DN 250 ISO-K	FKM	261	259	3,9	8	5,33	2000041926
DN 320 ISO-K	FKM	318	313	5,6	14	7	2000041927

ISO-K Centering Ring with Screen



- Material: Stainless Steel
- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Dimensions



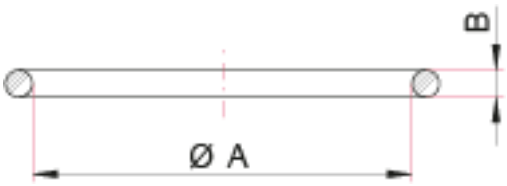
Stainless Steel 304/1.4301

Nominal diameter	O-ring material	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Mesh [mm]	Wire thickness [mm]	Part number
DN 63 ISO-K	FKM	70	60	3,9	5,33	8	0,5	0,2	2000041928
DN 80 ISO-K	FKM	83	73	3,9	5,33	8	0,6	0,2	2000041929
DN 100 ISO-K	FKM	102	92	3,9	5,33	8	0,8	0,2	2000041930
DN 160 ISO-K	FKM	153	143	3,9	5,33	8	1,2	0,2	2000041931

ISO-K O-Rings



Dimensions



FKM

- Temperature range: -15 to 150 °C (shortly up to 200 °C)

Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 63 ISO-K	76	5,33	5	2000042999
DN 80 ISO-K	88,27	5,33	5	2000043001
DN 100 ISO-K	107	5,33	5	2000043003
DN 160 ISO-K	158	5,33	5	2000043006
DN 200 ISO-K	209	5,33	5	2000043008
DN 250 ISO-K	253	5,33	5	2000043010
DN 320 ISO-K	317	7	1	2000043011
DN 400 ISO-K	405	7	1	2000043013
DN 500 ISO-K	507	7	1	2000043014
DN 630 ISO-K	659	7	1	2000043015

NBR

- Temperature range: -25 to 120 °C

Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 63 ISO-K	76	5,33	5	2000042980
DN 80 ISO-K	88,27	5,33	5	2000042982

Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 100 ISO-K	107	5,33	5	2000042984
DN 160 ISO-K	158	5,33	5	2000042987
DN 200 ISO-K	209	5,33	5	2000042989
DN 250 ISO-K	253	5,33	5	2000042991
DN 320 ISO-K	317	7	1	2000043011
DN 400 ISO-K	405	7	1	2000043013
DN 500 ISO-K	507	7	1	2000043014
DN 630 ISO-K	659	7	1	2000043015

EPDM

- Temperature range: -50 to 130 °C

Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 63 ISO-K	76	5,33	5	2000043076
DN 80 ISO-K	88,27	5,33	5	2000043078
DN 100 ISO-K	107	5,33	5	2000043080
DN 160 ISO-K	158	5,33	5	2000043083

Silicone

- Temperature range: -55 to 200 °C

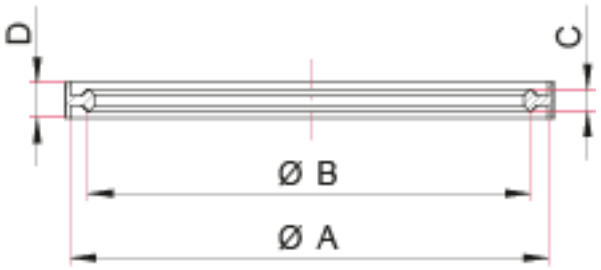
Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 63 ISO-K	76	5,33	5	2000043060
DN 80 ISO-K	88,27	5,33	5	2000043062
DN 100 ISO-K	107	5,33	5	2000043064
DN 160 ISO-K	158	5,33	5	2000043066
DN 200 ISO-K	209	5,33	5	2000043068
DN 250 ISO-K	253	5,33	5	2000043070

ISO-K Metal Seal, Aligned at Outer Diameter



- For stainless steel flanges
- No gas permeation
- For single use only
- Temperature range: -196 to 150 °C

Dimensions



Aluminum EN AW-6082

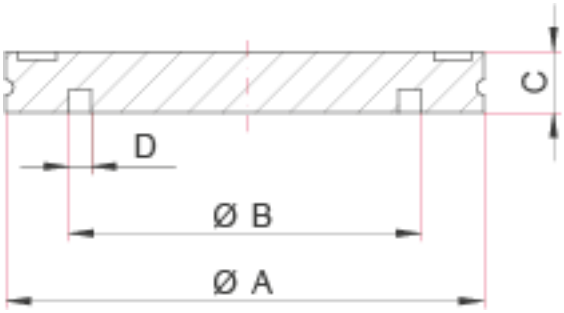
Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 63 ISO-K	95	88	4,5	7	2000042320
DN 80 ISO-K	110	103	4,5	7	2000042322
DN 100 ISO-K	130	123	4,5	7	2000042324
DN 160 ISO-K	180	173	4,5	7	2000042326
DN 200 ISO-K	240	233	4,5	7	2000042328
DN 250 ISO-K	290	283	4,5	7	2000042330

ISO-K Blank Flange



- Available in stainless steel or aluminum

Dimensions



Aluminum EN AW-6082
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure
- Temperature range: -196 bis 200 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 63 ISO-K	95	70	12	4,5	2000043212
DN 80 ISO-K	110	83	12	4,5	2000043213
DN 100 ISO-K	130	102	12	4,5	2000043214
DN 160 ISO-K	180	153	12	4,5	2000043215
DN 200 ISO-K	240	213	12	4,5	2000043216
DN 250 ISO-K	290	261	12	4,5	2000043217

Flanges according to ISO 1609

Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 63 ISO-K	95	70	12	4,5	2000042509
DN 80 ISO-K	110	83	12	4,5	2000042510
DN 100 ISO-K	130	102	12	4,5	2000042511

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 160 ISO-K	180	153	12	4,5	2000042512
DN 200 ISO-K	240	213	12	4,5	2000042513
DN 250 ISO-K	290	261	12	4,5	2000042514
DN 320 ISO-K	370	318	17	4,5	2000042515
DN 400 ISO-K	450	400	17	4,5	2000042516
DN 500 ISO-K	550	501	17	4,5	2000042517
DN 630 ISO-K	690	651	22	4,5	2000042518

Flanges according to ISO 1609

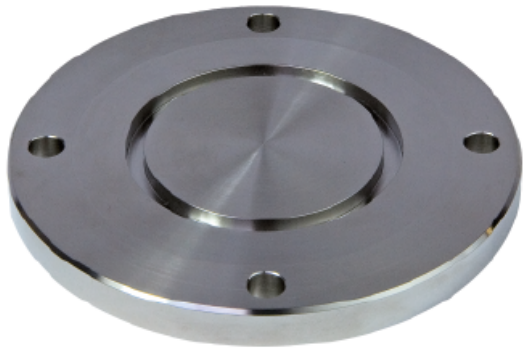
Stainless Steel 316L/1.4404

- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 63 ISO-K	95	70	12	4,5	2000042100
DN 80 ISO-K	110	83	12	4,5	2000042101
DN 100 ISO-K	130	102	12	4,5	2000042102
DN 160 ISO-K	180	153	12	4,5	2000042103
DN 200 ISO-K	240	213	12	4,5	2000042104
DN 250 ISO-K	290	261	12	4,5	2000042105
DN 320 ISO-K	370	318	17	4,5	2000042106

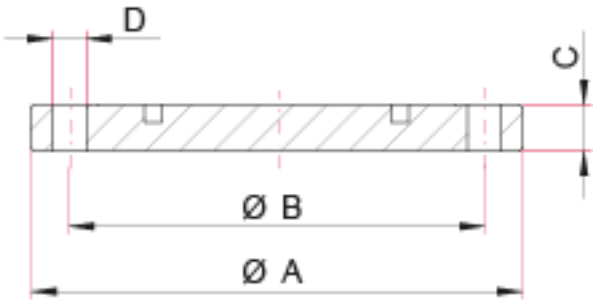
Flanges according to ISO 1609

ISO-F Blank Flange



- Other flange materials on request
- Other flange sizes on request
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 63 ISO-F	130	110	12	9	2000040186
DN 100 ISO-F	165	145	12	9	2000040188
DN 160 ISO-F	225	200	16	11	2000040189
DN 200 ISO-F	285	260	16	11	2000040190
DN 250 ISO-F	335	310	16	11	2000040191

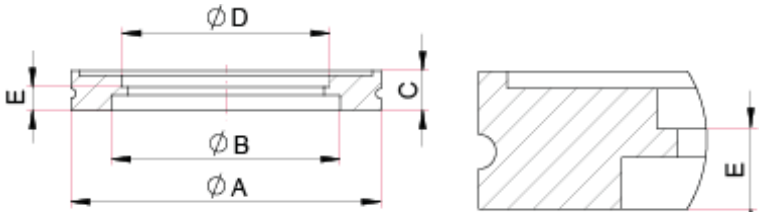
Flanges according to ISO 1609

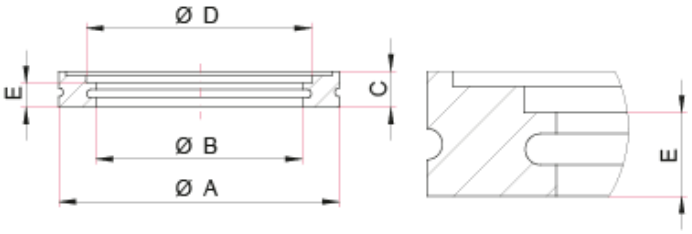
ISO-K Weld Ring Flange



- Other flange materials on request

Dimensions





Stainless Steel 304/1.4301

- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 63 ISO-K	63.5 x 1.65	95	70	12	63,8	6	2000042477
DN 63 ISO-K	70 x 2	95	70	12	70,3	6	2000042478
DN 63 ISO-K	76.1 x 3	95	70	12	76,4	6	2000042479
DN 63 ISO-K	76.1 x 3	95	70	12	76,4	8	2000042480
DN 80 ISO-K	76.1 x 3	110	83	12	76,4	6	2000042481
DN 80 ISO-K	88.9 x 3	110	83	12	89,2	6	2000042482
DN 100 ISO-K	101.6 x 2.1	130	102	12	101,9	6	2000042483
DN 100 ISO-K	104 x 2	130	102	12	104,3	6	2000042484

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 100 ISO-K	108 x 3	130	102	12	108,3	6	2000042485
DN 100 ISO-K	108 x 3	130	102	12	108,3	8	2000042486
DN 100 ISO-K	114.3 x 2	130	102	12	114,6	6	2000042487
DN 160 ISO-K	152.4 x 2.4	180	153	12	152,7	6	2000042488
DN 160 ISO-K	159 x 3	180	153	12	159,3	6	2000042490
DN 160 ISO-K	159 x 3	180	153	12	159,3	8	2000042491
DN 200 ISO-K	203.2 x 2.4	240	213	12	203,6	6	2000042492
DN 200 ISO-K	219 x 3	240	213	12	219,4	6	2000042493
DN 200 ISO-K	219 x 3	240	213	12	219,4	8	2000042494
DN 250 ISO-K	254 x 2	290	261	12	254,4	6	2000042495
DN 250 ISO-K	273 x 3	290	261	12	273,4	6	2000042497
DN 250 ISO-K	273 x 3	290	261	12	273,4	8	2000042498
DN 320 ISO-K	324 x 3	370	318	17	324,4	8	2000042500
DN 320 ISO-K	324 x 3	370	318	17	324,4	10	2000042501
DN 400 ISO-K	406 x 3	450	400	17	406,5	8	2000042502
DN 500 ISO-K	508 x 4	550	501	17	508,5	8	2000042504
DN 630 ISO-K	660 x 5	690	651	22	660,5	12	2000042507

Flanges according to ISO 1609

Stainless Steel 316L/1.4404

- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 63 ISO-K	63.5 x 1.65	95	70	12	63,8	6	2000042070
DN 63 ISO-K	70 x 2	95	70	12	70,3	6	2000042071
DN 63 ISO-K	76.1 x 3	95	70	12	76,4	6	2000042072
DN 63 ISO-K	76.1 x 3	95	70	12	76,4	8	2000042073
DN 80 ISO-K	76.1 x 3	110	83	12	76,4	6	2000042074
DN 80 ISO-K	88.9 x 3	110	83	12	89,2	6	2000042075
DN 100 ISO-K	101.6 x 2.1	130	102	12	101,9	6	2000042076
DN 100 ISO-K	104 x 2	130	102	12	104,3	6	2000042077
DN 100 ISO-K	108 x 3	130	102	12	108,3	6	2000042078
DN 100 ISO-K	108 x 3	130	102	12	108,3	8	2000042079
DN 100 ISO-K	114.3 x 2	130	102	12	114,6	6	2000042080

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 160 ISO-K	159 x 3	180	153	12	159,3	6	2000042081
DN 160 ISO-K	159 x 3	180	153	12	159,3	8	2000042082
DN 200 ISO-K	203.2 x 2.4	240	213	12	203,6	6	2000042083
DN 200 ISO-K	219 x 3	240	213	12	219,4	6	2000042084
DN 250 ISO-K	254 x 2	290	261	12	254,4	6	2000042086
DN 250 ISO-K	273 x 3	290	216	12	273,4	6	2000042088
DN 320 ISO-K	324 x 3	370	318	17	324,4	8	2000042091
DN 400 ISO-K	406 x 3	450	400	17	406,5	8	2000042093
DN 500 ISO-K	508 x 4	550	501	17	508,5	8	2000042095

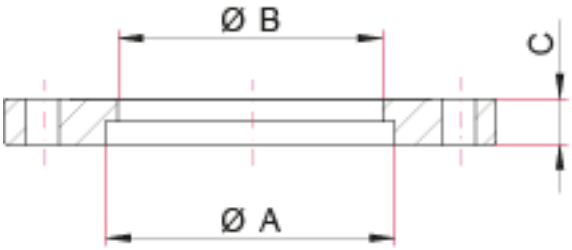
Flanges according to ISO 1609

ISO-F Weld Flange



- Other flange sizes or materials available upon request
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	Part number
DN 63 ISO-F	76.1 x 3	76,4	70	12	2000040166
DN 100 ISO-F	108 x 3	108,3	102	12	2000040170
DN 160 ISO-F	159 x 3	159,3	153	16	2000040172
DN 200 ISO-F	219 x 3	219,4	213	16	2000040174
DN 250 ISO-F	273 x 3	273,4	261	16	2000040176

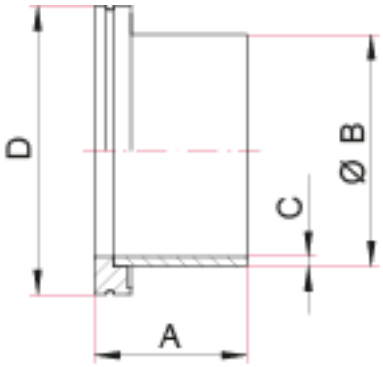
Flanges according to ISO 1609

ISO-K Half Nipple



- Custom lengths on request
- Pressure range: 1 · 10-8 hPa to 1500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 1500 hPa over pressure (metal seal)
- Materials: Flange: stainless steel 304/1.4301; tube: stainless steel 304/1.4301 or better
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	Part number
DN 63 ISO-K	63.5 x 1.65	100	63,5	1,65	2000042533
DN 63 ISO-K	76.1 x 3	100	76,1	3	2000042534
DN 80 ISO-K	76.1 x 3	100	76,1	3	2000042536
DN 80 ISO-K	88.9 x 3	100	88,9	3	2000042537
DN 100 ISO-K	101.6 x 2.1	100	101,6	2,1	2000042539
DN 100 ISO-K	108 x 3	100	108	3	2000042540
DN 160 ISO-K	152.4 x 2.4	100	152,4	2,4	2000042542
DN 160 ISO-K	159 x 3	100	159	3	2000042543
DN 200 ISO-K	219 x 3	100	219	3	2000042546
DN 250 ISO-K	254 x 2	100	254	2	2000042548
DN 250 ISO-K	273 x 3	100	273	3	2000042550

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	Part number
DN 320 ISO-K	324 x 3	100	324	3	2000042552
DN 400 ISO-K	406 x 3	100	406,4	3	2000042553

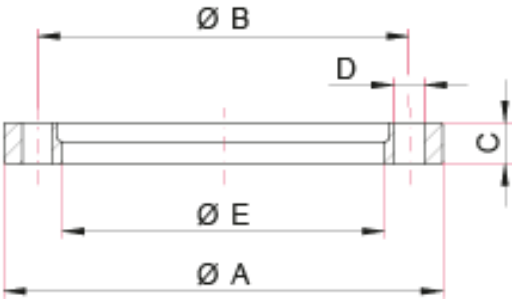
Flanges according to ISO 1609

ISO-K Rotatable Bolt Ring



- Circlip included
- Fixation: Set of screws

Dimensions



Note
The rotatable bolt ring lets you convert an ISO-K flange into a rotatable ISO-F flange.

Stainless Steel 304/1.4301
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 63 ISO-K	130	110	12	9	95,5	2000042526
DN 80 ISO-K	145	125	12	9	110,5	2000042527
DN 100 ISO-K	165	145	12	9	130,5	2000042528
DN 160 ISO-K	225	200	16	11	180,7	2000042529
DN 200 ISO-K	285	260	16	11	240,7	2000042530
DN 250 ISO-K	335	310	16	11	290,7	2000042531

Flanges according to ISO 1609

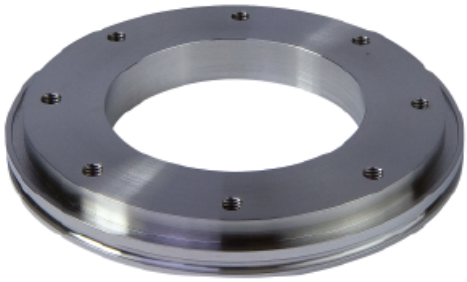
Nickel-plated Steel S235JR/1.0038
- Temperature range: 0 to 200 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 63 ISO-K	130	110	12	9	95,5	2000042052
DN 100 ISO-K	165	145	12	9	130,5	2000042053
DN 160 ISO-K	225	200	16	11	180,7	2000042054
DN 200 ISO-K	285	260	16	11	240,7	2000042055

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 250 ISO-K	335	310	16	11	290,7	2000042056
DN 320 ISO-K	425	395	20	13,5	370,8	2000042057

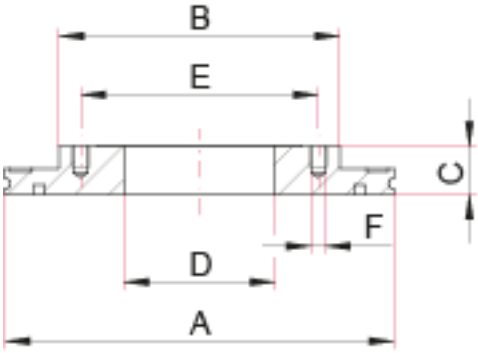
Flanges according to ISO 1609

ISO-K/ISO-F Adapter Flange



- Other flange sizes on request
- Reduced nominal width implemented with ISO-F blind hole threads
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions

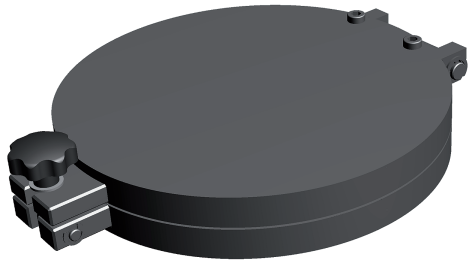


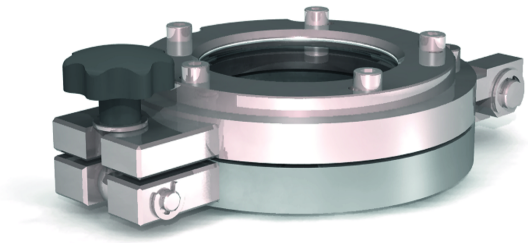
Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F	Nominal diameter reduced	Part number
DN 160 ISO-K	180	130	22	70	110	M8	DN 63 ISO-F	2000042521
DN 160 ISO-K	180	165	22	102	145	M8	DN 100 ISO-F	2000042522
DN 200 ISO-K	240	165	20	102	145	M8	DN 100 ISO-F	2000042523
DN 200 ISO-K	240	225	26	153	200	M10	DN 160 ISO-F	2000042524
DN 250 ISO-K	290	225	22	153	200	M10	DN 160 ISO-F	2000042525

Flanges according to ISO 1609

ISO-F Quick-Access-Door

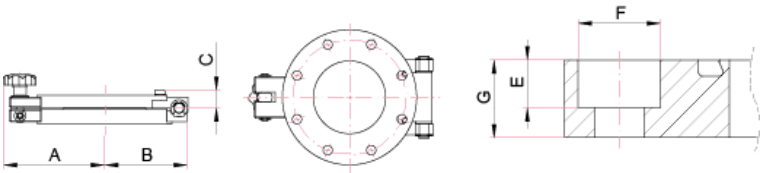




- Screw holes: Through-holes with counter-bore for cylinder head
- Can be installed using hexagon socket screws
- Bakeout temperature: up to 200 °C
- Seal: FKM
- Pressure range: 1 · 10-8 hPa to ambient pressure
- Temperature range: -15 to 150 °C

Stainless Steel 304/1.4301, without Sight Glass

Dimensions

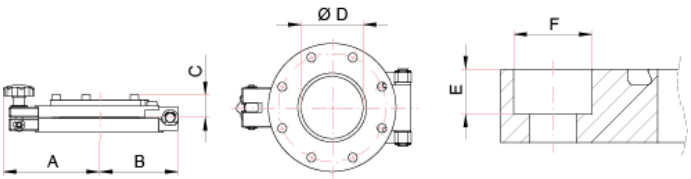


Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 63 ISO-F	98	80	16	-	10	16	2000040203
DN 100 ISO-F	116	99	16	-	10	16	2000040205
DN 160 ISO-F	147	130	20	-	12,5	20	2000040207
DN 200 ISO-F	177	160	20	-	12,5	20	2000040209

Stainless Steel 304/1.4301, with Sight Glass

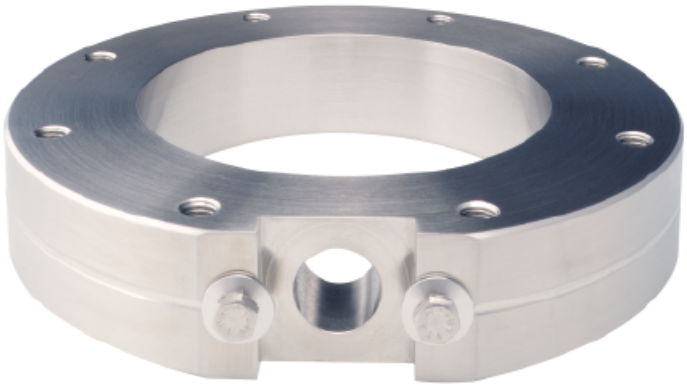
- Sight glass: Borosilicate glass

Dimensions



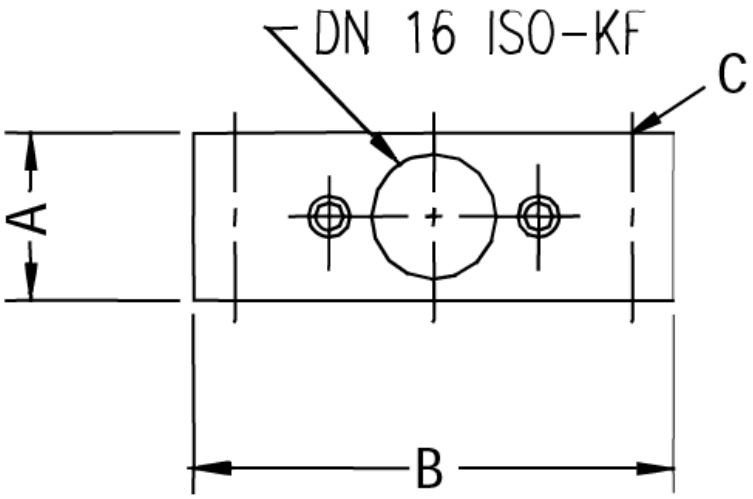
Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 63 ISO-F	98	80	23	63	10	16	2000040204
DN 100 ISO-F	116	99	27	95	10	16	2000040206
DN 160 ISO-F	147	130	31	145	12,5	20	2000040208
DN 200 ISO-F	177	160	31	145	12,5	20	2000040210

ISO-F Measurement Flange



- Suitable for application with elastomer seal
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 200 °C

Dimensions



Aluminum

Nominal diameter	A [mm]	B [mm]	C	Part number
DN 63 ISO-F	35	130	4 x M8	2000026180
DN 100 ISO-F	35	165	8 x M8	2000026181

ISO-K Flange Cap

- Made from plastic

Dimensions



Polyethelene (PE)

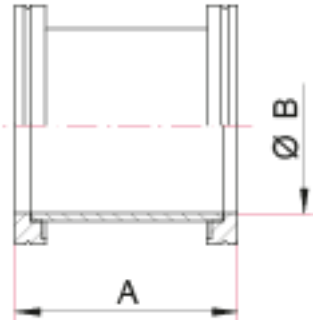
Nominal diameter	Package [Qty.]	Part number
DN 63 ISO-K	5	2000041994
DN 80 ISO-K	5	2000041996
DN 100 ISO-K	5	2000041998
DN 160 ISO-K	5	2000042000
DN 200 ISO-K	5	2000042002
DN 250 ISO-K	5	2000042004

ISO-K Full Nipple



- Other lengths and materials on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	Part number
DN 63 ISO-K	88	70	2000042732
DN 63 ISO-K	176	70	2000042733
DN 100 ISO-K	108	102	2000042736
DN 100 ISO-K	216	102	2000042737
DN 160 ISO-K	138	153	2000042738
DN 160 ISO-K	276	153	2000042739
DN 200 ISO-K	178	213	2000042740
DN 250 ISO-K	208	261	2000042742

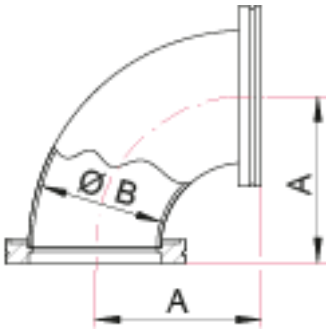
Flanges according to ISO 1609

ISO-K 90° Elbow, Radius



- Larger flange sizes on request

Dimensions



Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 63 ISO-K	88	66	2000042617
DN 100 ISO-K	108	100	2000042619
DN 160 ISO-K	232	150	2000042620

Flanges according to ISO 1609

Stainless Steel 316L/1.4404
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 350 °C

Nominal diameter	A [mm]	B [mm]	Part number
DN 63 ISO-K	88	66	2000042149
DN 100 ISO-K	108	100	2000042151

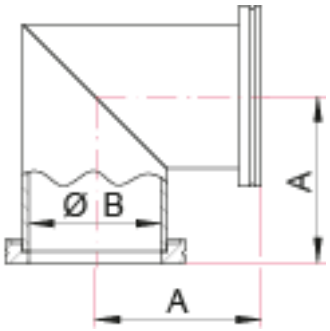
Flanges according to ISO 1609

ISO-K 90° Elbow, Mitered



- Larger flange sizes on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	Part number
DN 160 ISO-K	138	153	2000042727
DN 200 ISO-K	178	213	2000042729
DN 250 ISO-K	208	261	2000042731

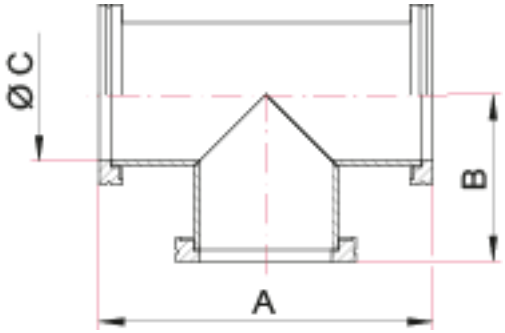
Flanges according to ISO 1609

ISO-K Tee



- Larger flange sizes on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 63 ISO-K	176	88	70	2000042718
DN 100 ISO-K	216	108	102	2000042719
DN 160 ISO-K	276	138	153	2000042720
DN 200 ISO-K	356	178	213	2000042721
DN 250 ISO-K	416	208	261	2000042722

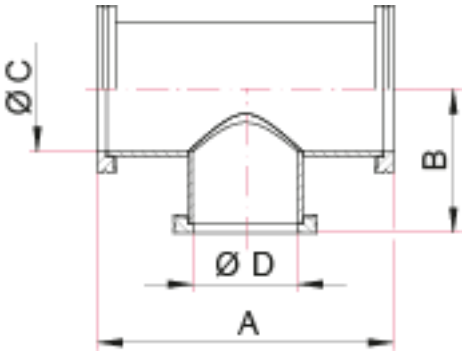
Flanges according to ISO 1609

ISO-K Reducer Tee



- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Nominal diameter reduced	Part number
DN 100 ISO-K	216	107	102	70	DN 63 ISO-K	2000042692
DN 160 ISO-K	276	130	153	70	DN 63 ISO-K	2000042698
DN 160 ISO-K	276	131	153	102	DN 100 ISO-K	2000042700

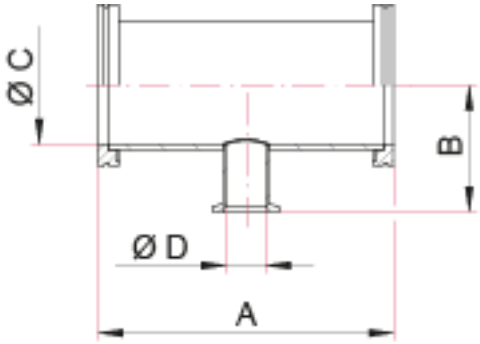
Flanges according to ISO 1609

ISO-K to ISO-KF Reducer Tee



- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	176	75	70	24	DN 25 ISO-KF	2000042680
DN 63 ISO-K	176	75	70	40,5	DN 40 ISO-KF	2000042681
DN 100 ISO-K	216	100	102	24	DN 25 ISO-KF	2000042689
DN 100 ISO-K	216	100	102	40,5	DN 40 ISO-KF	2000042690
DN 160 ISO-K	276	125	153	24	DN 25 ISO-KF	2000042695
DN 160 ISO-K	276	125	153	40,5	DN 40 ISO-KF	2000042696

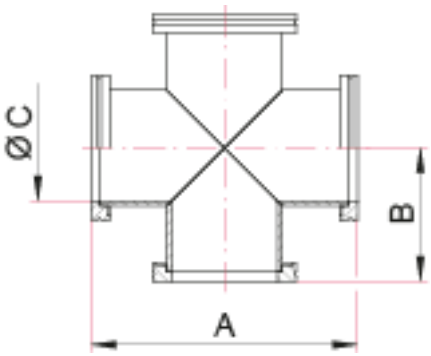
Flanges according to ISO 1609

ISO-K Cross



- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 63 ISO-K	176	88	66	2000042612
DN 100 ISO-K	216	108	100	2000042613
DN 160 ISO-K	276	138	153	2000042614
DN 200 ISO-K	356	178	213	2000042615
DN 250 ISO-K	416	208	261	2000042616

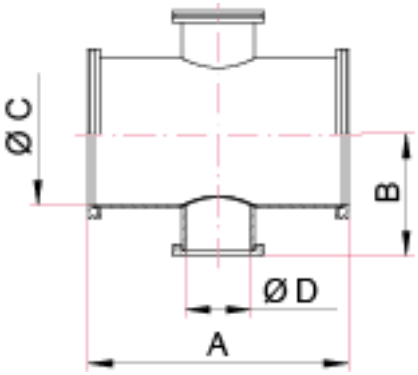
Flanges according to ISO 1609

ISO-K Reducer Cross



- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Nominal diameter reduced	Part number
DN 100 ISO-K	216	107	102	70	DN 63 ISO-K	2000042586
DN 160 ISO-K	276	130	153	70	DN 63 ISO-K	2000042592
DN 160 ISO-K	276	131	153	102	DN 100 ISO-K	2000042594

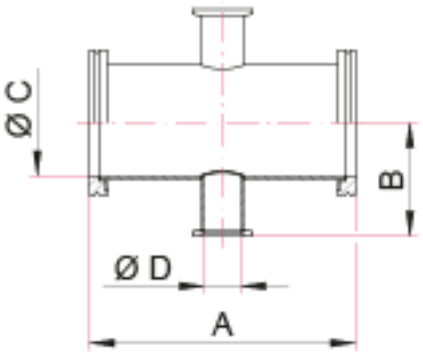
Flanges according to ISO 1609

ISO-K to ISO-KF Adapter Cross



- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	176	75	70	24	DN 25 ISO-KF	2000042574
DN 63 ISO-K	176	75	70	40,5	DN 40 ISO-KF	2000042575
DN 100 ISO-K	216	100	102	24	DN 25 ISO-KF	2000042583
DN 100 ISO-K	216	100	102	40,5	DN 40 ISO-KF	2000042584
DN 160 ISO-K	276	125	153	24	DN 25 ISO-KF	2000042589
DN 160 ISO-K	276	125	153	40,5	DN 40 ISO-KF	2000042590

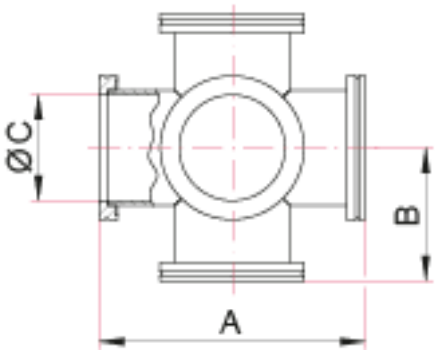
Flanges according to ISO 1609

ISO-K 6-Way Cross



- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 63 ISO-K	176	88	70	2000042558
DN 100 ISO-K	216	108	102	2000042559
DN 160 ISO-K	276	138	153	2000042560
DN 200 ISO-K	356	178	213	2000042561
DN 250 ISO-K	416	208	261	2000042562

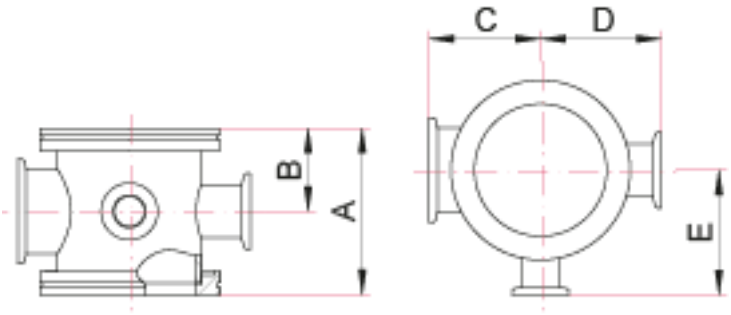
Flanges according to ISO 1609

ISO-K Instrument Cross



- Three ports: DN 16 KF, DN 25 KF and DN 40 KF
- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Part number
DN 63 ISO-K	88	44	59	64	66	2000042568
DN 100 ISO-K	100	50	77	80	82	2000042569
DN 160 ISO-K	100	50	107	105	107	2000042570

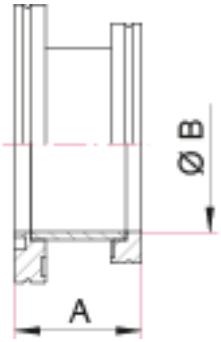
Flanges according to ISO 1609

ISO-K Reducer, Straight



- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 100 ISO-K	50	70	DN 63 ISO-K	2000042640
DN 160 ISO-K	50	70	DN 63 ISO-K	2000042645
DN 160 ISO-K	50	102	DN 100 ISO-K	2000042647
DN 200 ISO-K	50	102	DN 100 ISO-K	2000042651
2000042652	50	153	DN 160 ISO-K	2000042652
DN 250 ISO-K	50	153	DN 160 ISO-K	2000042657
DN 250 ISO-K	50	213	DN 200 ISO-K	2000042658

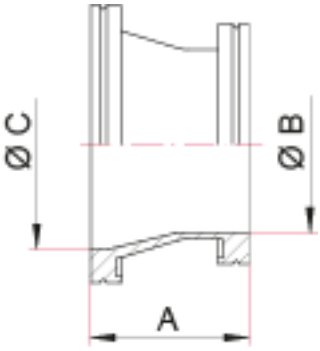
Flanges according to ISO 1609

ISO-K Conical Reducer



- Material: Stainless steel
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Nominal diameter reduced	Part number
DN 100 ISO-K	63	70	102	DN 63 ISO-K	2000042667
DN 160 ISO-K	63	70	153	DN 63 ISO-K	2000042669
DN 160 ISO-K	104	102	153	DN 100 ISO-K	2000042670

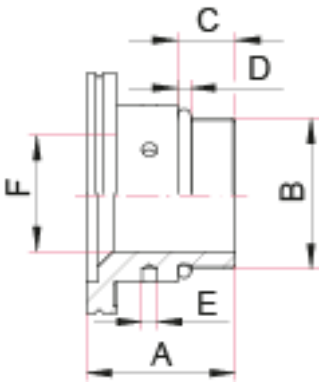
Flanges according to ISO 1609

ISO-K Flange with Pipe Thread and FPM Seal, Male



- FKM O-ring included
- Holes: (blind holes) for C-spanner wrench: 6 x Ø 6 mm
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -15 to 200 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 63 ISO-K	59	G2"	23	5	6	48	2000042452
DN 63 ISO-K	60	G3"	23	5	6	50	2000042453
DN 100 ISO-K	60	G3"	23	5	6	70	2000042454

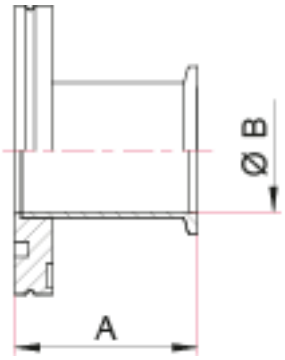
Flanges according to ISO 1609

ISO-K/KF Straight Adapter



- Other combinations and lengths on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	40	24	DN 25 ISO-KF	2000042623
DN 63 ISO-K	40	40,5	DN 40 ISO-KF	2000042625
DN 63 ISO-K	40	50,6	DN 50 ISO-KF	2000042627
DN 100 ISO-K	40	24	DN 25 ISO-KF	2000042633
DN 100 ISO-K	40	40,5	DN 40 ISO-KF	2000042636
DN 100 ISO-K	40	50,6	DN 50 ISO-KF	2000042638
DN 160 ISO-K	40	40,5	DN 40 ISO-KF	2000042642

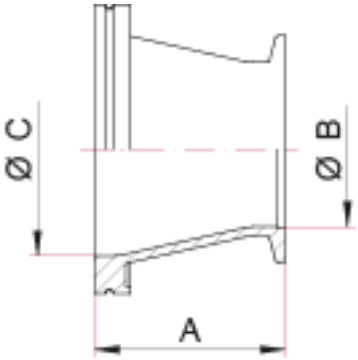
ISO-KF Flanges according to ISO 2861
ISO-K Flanges according to ISO 1609

ISO-K/KF Conical Adapter



- Available in stainless steel or aluminum

Dimensions



Aluminum EN AW-6082
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure
- Temperature range: -196 to 150 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	40	40,5	70	DN 40 ISO-KF	2000042296
DN 63 ISO-K	45	50	70	DN 50 ISO-KF	2000042297

Flanges according to ISO 2861
ISO-K Flanges according to ISO 1609

Stainless Steel 304/1.4301
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Nominal diameter	A [mm]	B [mm]	C [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	63	24	70	DN 25 ISO-KF	2000042659
DN 63 ISO-K	63	40,5	70	DN 40 ISO-KF	2000042660

Nominal diameter	A [mm]	B [mm]	C [mm]	Nominal diameter reduced	Part number
DN 63 ISO-K	63	50	70	DN 50 ISO-KF	2000042661
DN 100 ISO-K	63	40,5	102	DN 40 ISO-KF	2000042665
DN 100 ISO-K	63	50	102	DN 50 ISO-KF	2000042666

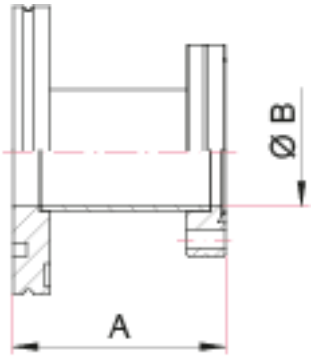
Flanges according to ISO 2861
- ISO-K Flanges according to ISO 1609

ISO-K/CF Adapter



- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions

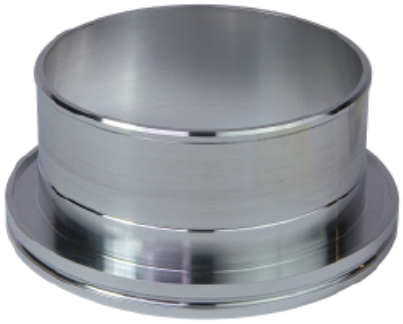


Stainless Steel 304/1.4301; CF Flange 304L

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 16 CF	60	16	DN 63 ISO-K	2000041234
DN 40 CF	70	37	DN 63 ISO-K	2000041242
DN 63 CF	90	66	DN 63 ISO-K	2000041252
DN 100 CF	90	102	DN 100 ISO-K	2000041264
DN 160 CF	100	153	DN 160 ISO-K	2000041271

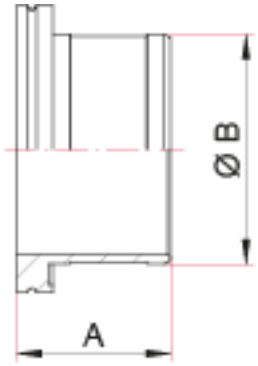
CF Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2
ISO-K Flanges according to ISO 1609

ISO-K Sleeve Coupling



- For connecting a CR sleeve
- Fastener: hose clamp (see accessories)

Dimensions



Aluminum EN AW-6082

Nominal diameter	A [mm]	B [mm]	Part number
DN 63 ISO-K	51	76	2000043221
DN 100 ISO-K	56	108	2000043222
DN 160 ISO-K	56	159	2000043223

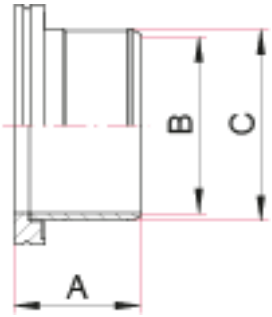
Flanges according to ISO 1609

ISO-K Hose Adapter



- For connecting a PVC hose with embedded spring (330SPM)
- Fastener: hose clamp (see accessories)

Dimensions



Stainless Steel 304/1.4301

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 63 ISO-K	50	70	76,1	2000042455
DN 100 ISO-K	50	95	101,6	2000042456

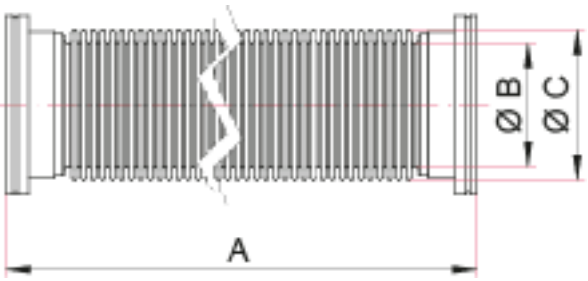
Flanges according to ISO 1609

ISO-K Corrugated Hose, Flexible



- Flange connection length: 30 mm
- Custom lengths on request
- Pressure min.: 1 · 10-8 hPa
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel: Flange 304/1.4301; Bellows 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Bend radius, often movement [mm]	Over pressure max. [hPa]	Part number
DN 63 ISO-K	250	65	80	90	330	500	2000041848
DN 63 ISO-K	500	65	80	90	330	500	2000041849
DN 63 ISO-K	750	65	80	90	330	500	2000041850
DN 63 ISO-K	1000	65	80	90	330	500	2000041851
DN 63 ISO-K	1500	65	80	90	330	500	2000041852
DN 100 ISO-K	250	100	119	131	530	300	2000041853
DN 100 ISO-K	500	100	119	131	530	300	2000041854
DN 100 ISO-K	750	100	119	131	530	300	2000041855
DN 100 ISO-K	1000	100	119	131	530	300	2000041856
DN 160 ISO-K	250	150	173	216	1050	100	2000041857
DN 160 ISO-K	500	150	173	216	1050	100	2000041858
DN 160 ISO-K	750	150	173	216	1050	100	2000041859
DN 160 ISO-K	1000	150	173	216	1050	100	2000041860

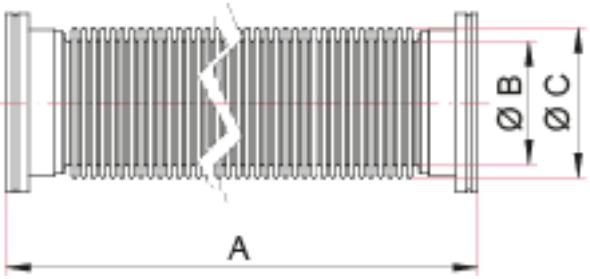
Please note that the hose shrinks under vacuum.
The minimum bending radii are applicable for a temperature of 20 °C.
Flanges according to ISO 1609

ISO-K Corrugated Hose, Flexible, Annealed



- Flange connection length: 30 mm
- Stress relieved; low reset force when bent
- Custom lengths on request
- Pressure min.: 1 · 10-8 hPa
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel: Flange 304/1.4301; Bellows 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Over pressure max. [hPa]	Part number
DN 63 ISO-K	250	65	80	90	500	2000041836
DN 63 ISO-K	500	65	80	90	500	2000041837
DN 63 ISO-K	750	65	80	90	500	2000041838
DN 63 ISO-K	1000	65	80	90	500	2000041839
DN 100 ISO-K	250	100	119	131	300	2000041840
DN 100 ISO-K	500	100	119	131	300	2000041841
DN 100 ISO-K	750	100	119	131	300	2000041842
DN 100 ISO-K	1000	100	119	131	300	2000041843
DN 160 ISO-K	250	150	173	216	100	2000041844
DN 160 ISO-K	500	150	173	216	100	2000041845
DN 160 ISO-K	750	150	173	216	100	2000041846
DN 160 ISO-K	1000	150	173	216	100	2000041847

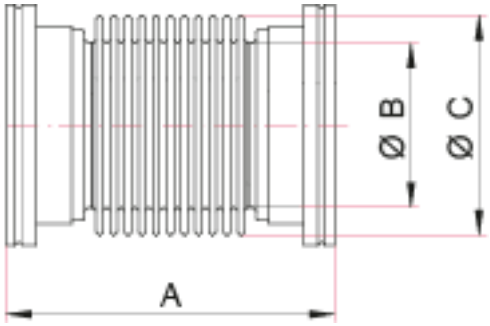
Please note that the hose shrinks under vacuum.
The minimum bending radius is applicable for a temperature of 20 °C.
Flanges according to ISO 1609

ISO-K Spring Bellows



- Flange connection length: 30 mm
- Custom lengths on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Materials: Stainless steel (flange: 304; bellows: DN 63 to DN 100 and DN 320: 316L;
  DN 160 to DN 250: 316Ti)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel

Nominal diameter	A [mm]	B [mm]	C [mm]	Axial stroke [mm]	Part number
DN 63 ISO-K	130	65	87	±16	2000042744
DN 63 ISO-K	150	65	87	±20	2000042746
DN 80 ISO-K	130	80	104	±11	2000042747
DN 80 ISO-K	150	80	104	±15	2000042748
DN 100 ISO-K	130	100	127	±17	2000042749
DN 100 ISO-K	150	100	127	±21	2000042750
DN 160 ISO-K	150	150	184	±14	2000042751
DN 160 ISO-K	220	150	184	±25	2000042752
DN 200 ISO-K	220	200	235	±25	2000042753
DN 250 ISO-K	220	250	285	±25	2000042754
DN 320 ISO-K	220	318	368	±25	2000042755

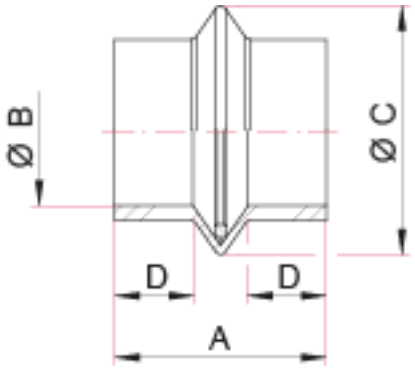
Please note that the spring bellows shrinks under vacuum.
The axial stroke is applicable for a temperature of 20 °C and 10000 load cycles.
Flanges according to ISO 1609

ISO-K CR Sleeve



- Sleeve made from chloroprene rubber
- Connection: sleeve coupling (see adapters) and hose clamp (see accessories)
- Pressure range: 1 · 10-5 hPa to ambient pressure
- Temperature range: -5 to 120 °C

Dimensions



Chloroprene Rubber (CR)

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 63 ISO-K	65	75	115	20	2000042006
DN 100 ISO-K	75	105	160	16	2000042007
DN 160 ISO-K	75	156	218	16	2000042008

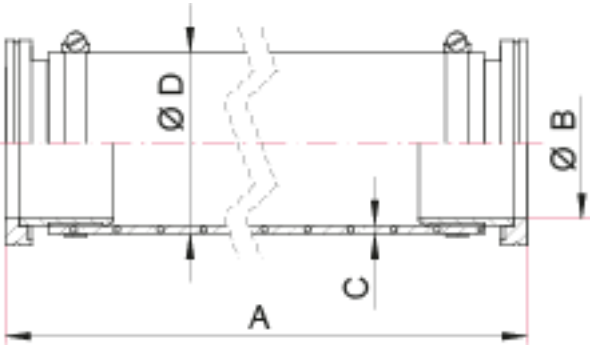
Please note that the sleeve shrinks under vacuum.

ISO-K PVC Hose with Embedded Spring and Flanges



- Inner tube material: PVC, transparent
- Casing: Steel coil
- Hose cover material: PVC, transparent
- Smooth inner and outer walls
- Custom lengths on request
- Pressure range: 1 · 10-4 hPa to ambient pressure
- Temperature range: -10 to 60 °C

Dimensions



PVC with Stainless Steel Flange 304/1.4301

Inner diameter [mm]	A [mm]	B [mm]	C [mm]	D[mm]	Bend radius [mm]	Part number
DN 63 ISO-K	500	70	7,5	90	150	2000042939
DN 63 ISO-K	1000	70	7,5	90	150	2000042940

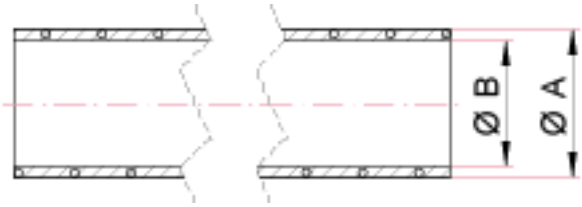
The minimum bending radius is applicable for a temperature of 20 °C.
Flanges according to ISO 1609

ISO-K PVC Hose with Embedded Spring



- Inner tube material: PVC, transparent
- Casing: Steel coil
- Hose cover material: PVC, transparent
- Smooth inner and outer walls
- Length: Up to 50 m; min. order: 1 m; orders > 1 m calculated pro rata
- Connection: Hose Adapter and Hose Clamp
- Pressure range: 1 · 10-4 hPa to 500 hPa over pressure
- Temperature range: -10 to 60 °C

Dimensions



PVC

Inner diameter [mm]	A [mm]	B [mm]	Bend radius [mm]	Part number
75	90	75	150	2000042009

The minimum bending radius is applicable for a temperature of 20 °C.


CF

CF Copper Gasket



- For single use only
- Pressure range: 1 · 10-13 hPa to ambient pressure
- Temperature range: -196 to 200 °C

Dimensions



OFHC Copper (Oxygen Free)

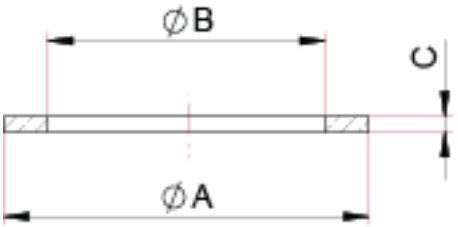
Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 16 CF	21,3	16	10	2000040049
DN 25 CF	32,8	25,5	10	2000040051
DN 40 CF	48,2	36,6	10	2000040057
DN 50 CF	61,6	50,8	10	2000040058
DN 63 CF	82,4	63,4	10	2000040063
DN 75 CF	91,4	76,3	10	2000040064
DN 100 CF	120,5	101,6	10	2000040069
DN 130 CF	141,4	127,1	5	2000040070
DN 160 CF	171,3	152,4	5	2000040074
DN 200 CF	222,1	203,3	5	2000040078
DN 250 CF	272,9	254	5	2000040082
DN 300 CF	313,2	300	5	2000040085
DN 350 CF	376,6	356,5	5	2000040087

CF Silver-plated Copper Gasket



- For single use only
- Pressure range: 1 · 10-13 hPa to ambient pressure
- Temperature range: -196 to 450 °C

Dimensions



OFHC Copper (Oxygen Free), Silver-plated

Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 16 CF	21,3	16	5	2000040048
DN 25 CF	32,8	25,5	5	2000040050
DN 40 CF	48,2	36,6	5	2000040056
DN 63 CF	82,4	63,4	5	2000040062
DN 100 CF	120,5	101,6	5	2000040067
DN 160 CF	171,3	152,4	5	2000040073
DN 200 CF	222,1	203,3	5	2000040077
DN 250 CF	DN 250 CF	254	5	2000040081

CF Vacuum-annealed Copper Gasket



- Particularly well suited for viewports
- For single use only
- Pressure range: 1 · 10-13 hPa to ambient pressure
- Temperature range: -196 to 200 °C

Dimensions



OFHC Copper (Oxygen Free), Vaccum-annealed

Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 16 CF	21,3	16	5	2000040046
DN 40 CF	48,2	36,6	5	2000040052
DN 63 CF	82,4	63,4	5	2000040060
DN 100 CF	120,5	101,6	5	2000040065
DN 160 CF	171,3	152,4	5	2000040071
DN 200 CF	222,1	203,3	5	2000040075
DN 250 CF	272,9	254	5	2000040079

CF Silver-plated, Vacuum-annealed Copper Gasket



- Particularly well suited for viewports
- For single use only
- Pressure range: 1 · 10-13 hPa to ambient pressure
- Temperature range: -196 to 450 °C

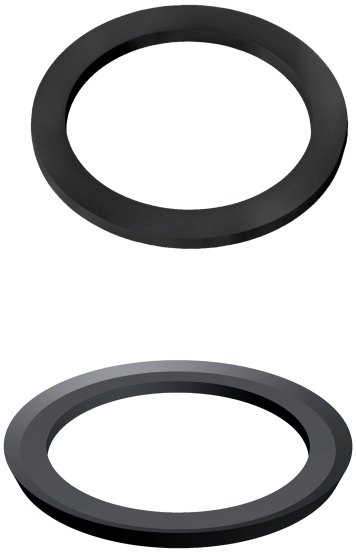
Dimensions



OFHC Copper (Oxygen Free), Silver-plated, Vacuum-annealed

Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 16 CF	21,3	16	5	2000040047
DN 40 CF	48,2	36,6	5	2000040055
DN 63 CF	82,4	63,4	5	2000040061
DN 100 CF	120,5	101,6	5	2000040066
DN 160 CF	171,3	152,4	5	2000040072
DN 200 CF	222,1	203,3	5	2000040076
DN 250 CF	272,9	254	5	2000040080

CF Elastomer Gasket FKM



- Reusable
- Version with centering lip: better fixation in flange for easier assembly;
  higher purity of materials for lower desorption
- Pressure range: 1 · 10-8 hPa to ambient pressure
- Temperature range: -15 to 150 °C (shortly up to 200 °C)

FKM Cut from Sheet Material

Dimensions



Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 16 CF	21,4	16	2	2000041452
DN 40 CF	48,2	37	2	2000041454
DN 63 CF	82,4	63	2	2000041456
DN 100 CF	120,5	109	2	2000041458
DN 160 CF	171,3	152	2	2000041460
DN 200 CF	222,1	203	2	2000041462
DN 250 CF	272,9	254	2	2000041464

FKM with Centering Lip; Heat-molded

Dimensions



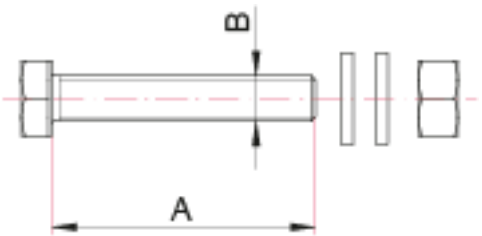
Nominal diameter	A [mm]	B [mm]	Package [Qty.]	Part number
DN 16 CF	21,4	16	1	2000041453
DN 40 CF	48,2	36	1	2000041455
DN 63 CF	82,4	71	1	2000041457
DN 100 CF	120,5	109	1	2000041459
DN 160 CF	171,3	158	1	2000041461
DN 200 CF	222,1	200	1	2000041463
DN 250 CF	272,9	254	1	2000041465

CF Hexagon Head Screw Set for Flanges with Through-holes



- For installing two flanges with through-holes
- Set includes the screws required for the specified flange size
- Includes two washers and one nut for each screw

Dimensions



Stainless Steel A2

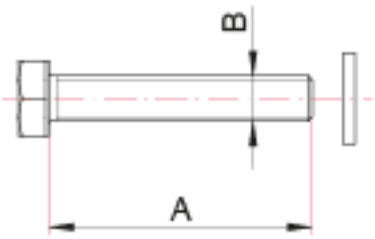
Nominal diameter	A [mm]	B	Number per set	Part number
DN 16 CF	20	M4	6	2000041527
DN 25 CF	35	M6	4	2000041529
DN 40 CF	35	M6	6	2000041531
DN 50 CF	45	M8	8	2000041533
DN 63 CF	45	M8	8	2000041535
DN 75 CF	45	M8	10	2000041537
DN 100 CF	50	M8	16	2000041539
DN 130 CF	55	M8	18	2000041541
DN 160 CF	55	M8	20	2000041543
DN 200 CF	60	M8	24	2000041546
DN 250 CF	65	M8	32	2000041549
DN 300 CF	70	M10	30	2000041551
DN 350 CF	70	M10	36	2000041552

CF Hexagon Head Screw Set for Flanges with Tapped Holes



- For installing a flange with through-holes on a flange with tapped-holes
- Ideal for installing gate valves
- Set includes the screws required for the specified flange size
- One screw and one washer

Dimensions



Stainless Steel A2-70

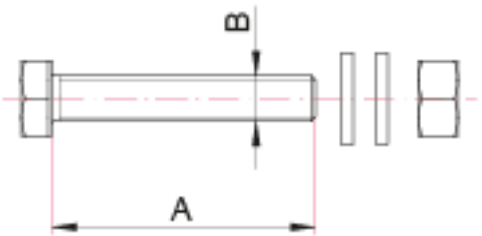
Nominal diameter	A [mm]	B	Number per set	Part number
DN 16 CF	14	M4	6	2000041526
DN 40 CF	20	M6	6	2000041530
DN 63 CF	30	M8	8	2000041534
DN 100 CF	30	M8	16	2000041538
DN 160 CF	35	M8	20	2000041542
DN 200 CF	35	M8	24	2000041545
DN 250 CF	35	M8	32	2000041548

CF Hexagon Head Screw Set for Spacer Flanges



- For installing a spacer between two standard flanges with through-holes
- Set includes the screws required for the specified flange size
- Includes two washers and one nut for each screw

Dimensions



Stainless Steel A2-70

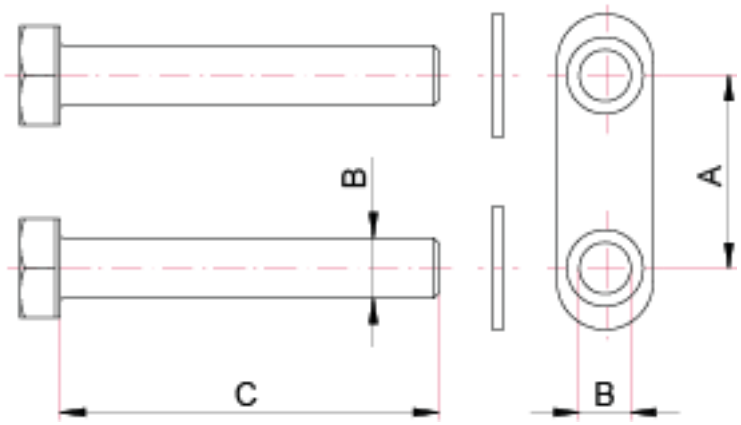
Nominal diameter	A [mm]	B	Number per set	Part number
DN 16 CF	30	M4	6	2000041528
DN 40 CF	50	M6	6	2000041532
DN 63 CF	65	M8	8	2000041536
DN 100 CF	70	M8	16	2000041540
DN 160 CF	80	M8	20	2000041544
DN 200 CF	90	M8	24	2000041547
DN 250 CF	90	M8	32	2000041550

CF Plate Nut Sets



- Set includes screws and washers for the specified flange size
- Easy assembly with only one wrench (no counter-tightening necessary)

Dimensions



Stainless Steel 304; Screws A2-70

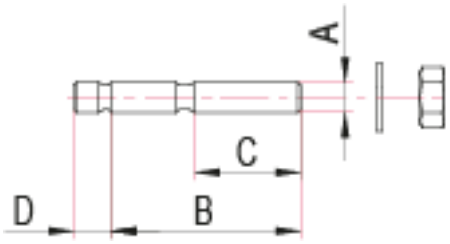
Nominal diameter	A [mm]	B	C [mm]	Number per set	Part number
DN 16 CF	13,5	M4	20	3	2000041515
DN 40 CF	29,3	M6	35	3	2000041516
DN 63 CF	35,2	M8	45	4	2000041517
DN 100 CF	25,4	M8	50	8	2000041518
DN 160 CF	28,3	M8	55	10	2000041519

CF Stud Screw Set with Hexagon Nut



- 10 sets per package
- Includes washer and one nut for each screw

Dimensions



Stainless Steel A2

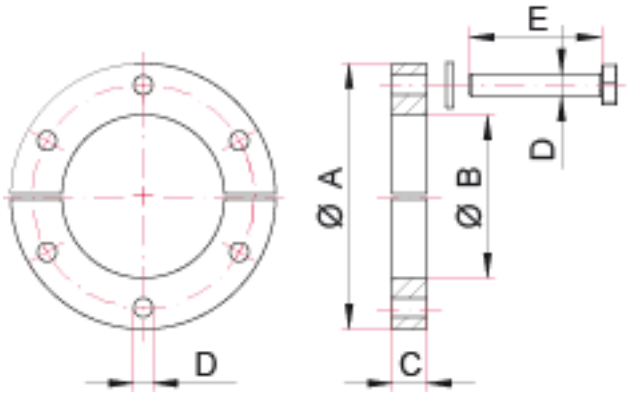
Nominal diameter	A [mm]	B	C [mm]	Number per set	Part number
DN 25-40 CF	M6	25	18	6	2000041554
DN 25-40 CF	M6	30	18	6	2000041555
DN 25-40 CF	M6	35	18	6	2000041556
DN 63-250 CF	M8	40	22	8	2000041557
DN 63-250 CF	M8	45	22	8	2000041558
DN 63-250 CF	M8	50	22	8	2000041559
DN 63-250 CF	M8	55	22	8	2000041560
DN 63-250 CF	M8	60	22	8	2000041561

CF Hexagon Head Screw Set with Horseshoe Nuts



- For installing two flanges with through-holes
- Easy assembly with only one wrench (no counter-tightening necessary)
- Set contains two horseshoe nut plates with screws and washers

Dimensions



Stainless Steel 304/1.4301; Screws A2-70

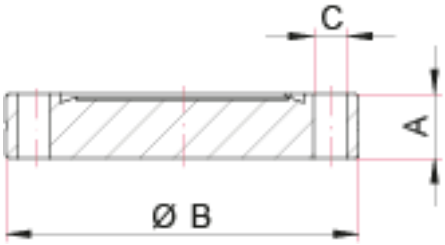
Nominal diameter	A [mm]	B [mm]	C [mm]	D	E [mm]	Part number
DN 16 CF	34	20	6	M4	20	2000041521
DN 40 CF	69,6	45	9	M6	35	2000041522
DN 63 CF	113,5	80	12	M8	45	2000041523
DN 100 CF	151,6	115	12	M8	50	2000041524
DN 160 CF	202,4	165	12	M8	55	2000041525

CF Blank Flange



- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 CF	7,75	34	4,4	2000041728
DN 25 CF	12	54	6,6	2000041731
DN 40 CF	12,7	69,9	6,6	2000041733
DN 50 CF	17,3	85,7	8,4	2000041736
DN 63 CF	17,5	113,5	8,4	2000041738
DN 75 CF	17,5	117,4	8,4	2000041741
DN 100 CF	19,8	152	8,4	2000041743
DN 130 CF	21,4	171,4	8,4	2000041746
DN 160 CF	22,2	202,4	8,4	2000041748
DN 200 CF	24,5	253,2	8,4	2000041751
DN 250 CF	26	304,8	8,4	2000041754
DN 300 CF	28,5	355,6	10,5	2000041757
DN 350 CF	28,5	419,1	10,5	2000041759

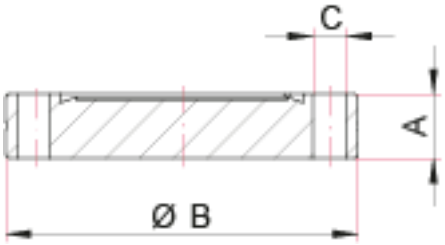
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Blank Flange, with Thread



- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions

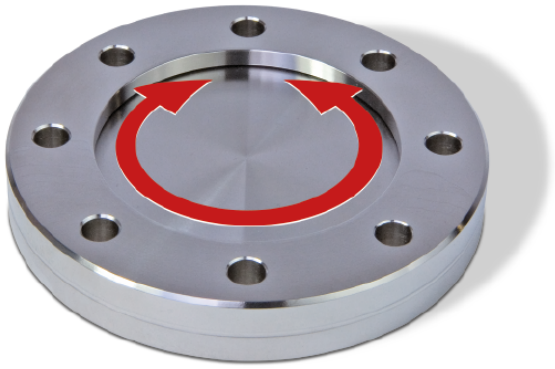


Stainless Steel 304L, with Metric Thread

Nominal diameter	A [mm]	B [mm]	C	Part number
DN 16 CF	7,75	34	M4	2000041729
DN 40 CF	12,7	69,9	M6	2000041734
DN 63 CF	17,5	113,5	M8	2000041739
DN 100 CF	19,8	152	M8	2000041744
DN 160 CF	22,2	202,4	M8	2000041749
DN 200 CF	24,5	253,2	M8	2000041752
DN 250 CF	26	304,8	M8	2000041755

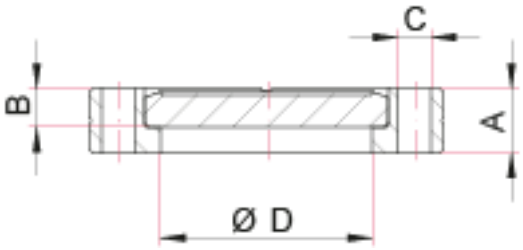
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Blank Flange, Rotatable



- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 16 CF	7,75	5,8	4,4	19,2	2000041695
DN 40 CF	12,7	7,6	6,6	42	2000041701
DN 63 CF	17,5	12,6	8,4	72	2000041707
DN 100 CF	19,8	14,4	8,4	109	2000041712
DN 160 CF	22,2	15,8	8,4	161	2000041718
DN 200 CF	24,5	15,8	8,4	207	2000041721
DN 250 CF	26	16,6	8,4	260	2000041724

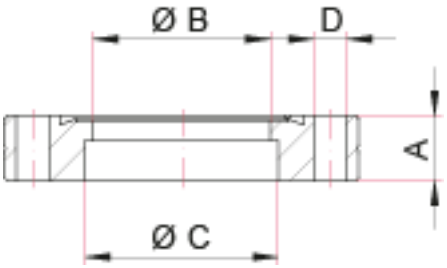
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Weld Flange



- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 16 CF	18 x 1	7,75	16	18,15	4,4	2000041629
DN 16 CF	19.05 x 1.65	7,75	15,75	19,2	4,4	2000041631
DN 25 CF	25.4 x 1.65	12	22,1	25,6	6,6	2000041637
DN 25 CF	28 x 2	12	24	28,2	6,6	2000041639
DN 40 CF	38 x 1.5	12,7	35	38,2	6,6	2000041647
DN 40 CF	40 x 1.5	12,7	37	40,2	6,6	2000041650
DN 40 CF	42.4 x 2	12,7	38,4	42,6	6,6	2000041652
DN 40 CF	44.5 x 2	12,7	40,5	44,7	6,6	2000041654
DN 50 CF	50.8 x 1.65	17,3	47,5	51,1	8,4	2000041657
DN 63 CF	63.5 x 1.65	17,5	60,2	63,8	8,4	2000041659
DN 63 CF	70 x 2	17,5	66	70,3	8,4	2000041661
DN 75 CF	76.1 x 2	17,5	72,1	76,4	8,4	2000041663
DN 100 CF	101.6 x 2.1	19,8	97,4	101,9	8,4	2000041665
DN 100 CF	104 x 2	19,8	100	104,3	8,4	2000041667
DN 100 CF	108 x 2	19,8	104	108,3	8,4	2000041669
DN 130 CF	127 x 1.65	21,4	123,7	127,3	8,4	2000041671
DN 160 CF	152.4 x 2.4	22,2	147,6	152,7	8,4	2000041673

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 160 CF	154 x 2	22,2	150	154,3	8,4	2000041675
DN 160 CF	159 x 2	22,2	155	159,3	8,4	2000041677
DN 200 CF	203.2 x 2.4	24,5	198,4	203,5	8,4	2000041679
DN 200 CF	204 x 2	24,5	200	204,3	8,4	2000041681
DN 200 CF	205 x 2.5	24,5	200	205,3	8,4	2000041683
DN 250 CF	254 x 2	26	250	254,3	8,4	2000041685
DN 250 CF	256 x 3	26	250	256,3	8,4	2000041688
DN 300 CF	306 x 3	28,5	300	306,3	10,5	2000041690
DN 350 CF	356 x 3	28,5	350	356,3	10,5	2000041692

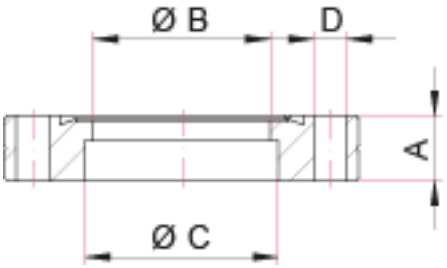
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Weld Flange, with Thread



- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L, with Metric Thread

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D	Part number
DN 16 CF	18 x 1	7,75	16	18,15	M4	2000041630
DN 25 CF	28 x 2	12	24	28,2	M6	2000041640
DN 40 CF	38 x 1.5	12,7	35	38,2	M6	2000041648
DN 40 CF	40 x 1.5	12,7	37	40,2	M6	2000041651
DN 40 CF	42.4 x 2	12,7	38,4	42,6	M6	2000041653
DN 40 CF	44.5 x 2	12,7	40,5	44,7	M6	2000041655
DN 63 CF	70 x 2	17,5	66	70,3	M8	2000041662
DN 100 CF	104 x 2	19,8	100	104,3	M8	2000041668
DN 100 CF	108 x 2	19,8	104	108,3	M8	2000041670
DN 160 CF	154 x 2	22,2	150	154,3	M8	2000041676
DN 160 CF	159 x 2	22,2	155	159,3	M8	2000041678
DN 200 CF	204 x 2	24,5	200	204,3	M8	2000041682
DN 200 CF	205 x 2.5	24,5	200	205,3	M8	2000041684
DN 250 CF	254 x 2	26	250	254,3	M8	2000041686
DN 250 CF	256 x 3	26	250	256,3	M8	2000041689
DN 300 CF	306 x 3	28,5	300	306,3	M10	2000041691

Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

Stainless Steel 304L, with Imperial (UN) Thread

DN 16 CF	19.05 x 1.65	7,75	15,75	19,2	8-32	2000041632
DN 25 CF	25.4 x 1.65	12	22,1	25,6	1/4-28	2000041638
DN 40 CF	38 x 1.5	12,7	35	38,2	1/4-28	2000041649
DN 40 CF	44.5 x 2	12,7	40,5	44,7	1/4-28	2000041656
DN 50 CF	50.8 x 1.65	17,3	47,5	51,1	5/16-24	2000041658
DN 63 CF	63.5 x 1.65	17,5	60,2	63,8	5/16-24	2000041660
DN 75 CF	76.1 x 2	17,5	72,1	76,4	5/16-24	2000041664
DN 100 CF	101.6 x 2.1	19,8	97,4	101,9	5/16-24	2000041666
DN 130 CF	127 x 1.65	21,4	123,7	127,3	5/16-24	2000041672
DN 160 CF	152.4 x 2.4	22,2	147,6	152,7	5/16-24	2000041674
DN 200 CF	203.2 x 2.4	24,5	198,4	203,5	5/16-24	2000041680
DN 250 CF	254 x 2	26	250	254,3	5/16-24	2000041687

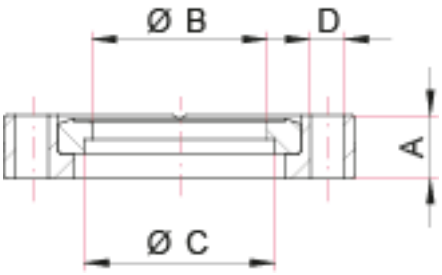
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Weld Flange, Rotatable



- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 16 CF	18 x 1	7,75	16	18,15	4,4	2000041563
DN 16 CF	19,05 x 1,65	7,75	15,75	19,2	4,4	2000041565
DN 25 CF	25.4 x 1.65	12	22,1	25,6	6,6	2000041568
DN 25 CF	28 x 2	12	24	28,2	6,6	2000041570
DN 40 CF	38 x 1.5	12,7	35	38,2	6,6	2000041572
DN 40 CF	40 x 1.5	12,7	37	40,2	6,6	2000041575
DN 40 CF	42.4 x 2	12,7	38,4	42,6	6,6	2000041577
DN 40 CF	44.5 x 2	12,7	40,5	44,7	6,6	2000041579
DN 50 CF	50.8 x 1.65	17,3	47,5	51,1	8,4	2000041582
DN 63 CF	63.5 x 1.65	17,5	60,2	63,8	8,4	2000041585
DN 63 CF	70 x 2	17,5	66	70,3	8,4	2000041588
DN 75 CF	76.1 x 2	17,5	72,1	76,4	8,4	2000041590
DN 100 CF	101.6 x 2.1	19,8	97,4	101,9	8,4	2000041593
DN 100 CF	104 x 2	19,8	100	104,3	8,4	2000041596
DN 100 CF	108 x 2	19,8	104	108,3	8,4	2000041598
DN 130 CF	127 x 1.65	21,4	123,7	127,3	8,4	2000041600

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 160 CF	152.4 x 2.4	22,2	147,6	152,7	8,4	2000041603
DN 160 CF	154 x 2	22,2	150	154,3	8,4	2000041606
DN 160 CF	159 x 2	22,2	155	159,3	8,4	2000041609
DN 200 CF	203.2 x 2.4	24,5	198,4	203,5	8,4	2000041611
DN 200 CF	204 x 2	24,5	200	204,3	8,4	2000041614
DN 200 CF	205 x 2.5	24,5	200	205,3	8,4	2000041616
DN 250 CF	254 x 2	26	250	254,3	8,4	2000041618
DN 250 CF	256 x 3	26	250	256,3	8,4	2000041621
DN 300 CF	306 x 3	28,5	300	306,3	10,5	2000041623
DN 350 CF	356 x 3	28,5	350	356,3	10,5	2000041625

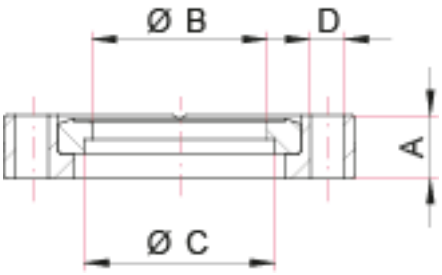
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2.

CF Weld Flange, Rotatable, with Thread



- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L, with Metric Thread

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D	Part number
DN 16 CF	18 x 1	7,75	16	18,15	M4	2000041564
DN 25 CF	28 x 2	12	24	28,2	M6	2000041571
DN 40 CF	38 x 1.5	12,7	35	38,2	M6	2000041573
DN 40 CF	40 x 1.5	12,7	37	40,2	M6	2000041576
DN 40 CF	42.4 x 2	12,7	38,4	42,6	M6	2000041578
DN 40 CF	44.5 x 2	12,7	40,5	44,7	M6	2000041580
DN 50 CF	50.8 x 1.65	17,3	47,5	51,1	M8	2000041583
DN 63 CF	70 x 2	17,5	66	70,3	M8	2000041589
DN 75 CF	76.1 x 2	17,5	72,1	76,4	M8	2000041591
DN 100 CF	104 x 2	19,8	100	104,3	M8	2000041597
DN 100 CF	108 x 2	19,8	104	108,3	M8	2000041599
DN 160 CF	154 x 2	22,2	150	154,3	M8	2000041607
DN 160 CF	159 x 2	22,2	155	159,3	M8	2000041610
DN 200 CF	204 x 2	24,5	200	204,3	M8	2000041615
DN 200 CF	205 x 2.5	24,5	200	205,3	M8	2000041617
DN 250 CF	254 x 2	26	250	254,3	M8	2000041619

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D	Part number
DN 250 CF	256 x 3	26	250	256,3	M8	2000041622
DN 300 CF	306 x 3	28,5	300	306,3	M10	2000041624

Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

Stainless Steel 304L, with Imperial (UN) Thread

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D	Part number
DN 16 CF	19.05 x 1.65	7,75	15,75	19,2	8-32	2000041567
DN 25 CF	25.4 x 1.65	12	22,1	25,6	1/4-28	2000041569
DN 40 CF	38 x 1.5	12,7	35	38,2	1/4-28	2000041574
DN 40 CF	44.5 x 2	12,7	40,5	44,7	1/4-28	2000041581
DN 50 CF	50.8 x 1.65	17,3	47,5	51,1	5/16-24	2000041584
DN 63 CF	63.5 x 1.65	17,5	60,2	63,8	5/16-24	2000041587
DN 75 CF	76.1 x 2	17,5	72,1	76,4	5/16-24	2000041592
DN 100 CF	101.6 x 2.1	19,8	97,4	101,9	5/16-24	2000041595
DN 130 CF	127 x 1.65	21,4	123,7	127,3	5/16-24	2000041602
DN 160 CF	152.4 x 2.4	22,2	147,6	152,7	5/16-24	2000041605
DN 200 CF	203.2 x 2.4	24,5	198,4	203,5	5/16-24	2000041613
DN 250 CF	254 x 2	26	250	254,3	5/16-24	2000041620

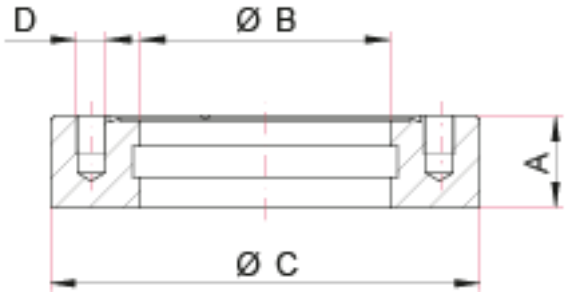
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Weld-On Flange



- Flange for welding to a flat panel or a round chamber/tube
- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L

Nominal diameter	A [mm]	B [mm]	C [mm]	D	Part number
DN 16 CF	16	16	34	M4	2000041795
DN 40 CF	24	37	69,9	M6	2000041796
DN 63 CF	24	66	113,5	M8	2000041797
DN 100 CF	24	102	152	M8	2000041798

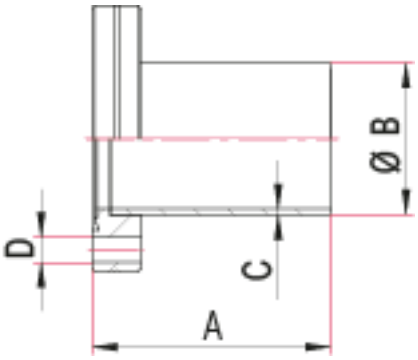
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Half Nipple



- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Other tube dimensions on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 16 CF	18 x 1	38	18	1	4,4	2000041817
DN 16 CF	19.05 x 1.65	38	19,05	1,65	4,4	2000041819
DN 25 CF	25.4 x 1.65	52	25,4	1,65	6,6	2000041821
DN 40 CF	38 x 1.5	63	38	1,5	6,6	2000041823
DN 40 CF	40 x 1.5	63	40	1,5	6,6	2000041827
DN 50 CF	50.8 x 1.65	82	50,8	1,65	8,4	2000041829
DN 63 CF	63.5 x 1.65	105	63,5	1,65	8,4	2000040902
DN 63 CF	70 x 2	105	70	2	8,4	2000040904
DN 75 CF	76.1 x 2	90	76,1	2	8,4	2000040906
DN 100 CF	101.6 x 2.1	135	101,6	2,1	8,4	2000040908
DN 100 CF	108 x 2	135	108	2	8,4	2000040910

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 160 CF	154 x 2	167	154	2	8,4	2000040915
DN 160 CF	159 x 2	167	159	2	8,4	2000040917

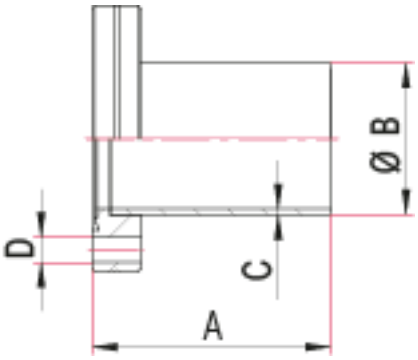
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Half Nipple, with Thread



- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Other tube dimensions on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions

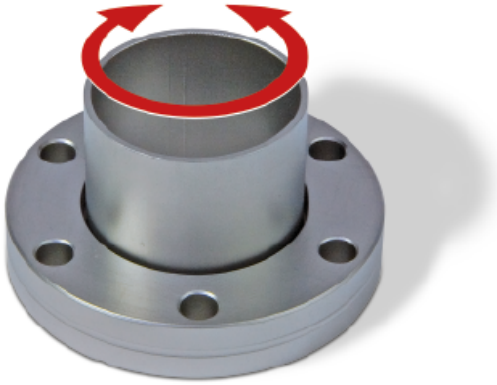


Stainless Steel, with Metric Thread

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D	Part number
DN 16 CF	18 x 1	38	18	1	M4	2000041818
DN 40 CF	40 x 1.5	63	40	1,5	M6	2000041828
DN 63 CF	70 x 2	105	70	2	M8	2000040905
DN 100 CF	108 x 2	135	108	2	M8	2000040911
DN 160 CF	159 x 2	167	159	2	M8	2000040918

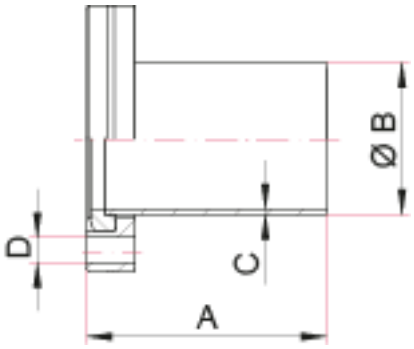
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Half Nipple, Rotatable



- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Other tube diameters on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions

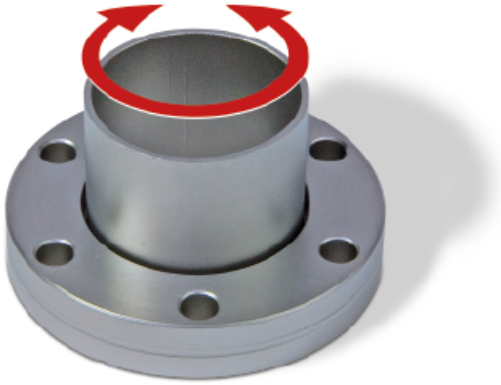


Stainless Steel

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 16 CF	18 x 1	38	18	1	4,4	2000040927
DN 16 CF	19.05 x 1.65	38	19,05	1,65	4,4	2000040931
DN 25 CF	25.4 x 1.65	52	25,4	1,65	6,6	2000040933
DN 40 CF	38 x 1.5	63	38	1,5	6,6	2000040937
DN 40 CF	40 x 1.5	63	40	1,5	6,6	2000040942
DN 50 CF	50.8 x 1.65	82	50,8	1,65	8,4	2000040947
DN 63 CF	63.5 x 1.65	105	63,5	1,65	8,4	2000040949
DN 63 CF	70 x 2	105	70	2	8,4	2000040951
DN 100 CF	101.6 x 2.1	135	101,6	2,1	8,4	2000040955
DN 100 CF	108 x 2	135	108	2	8,4	2000040959
DN 160 CF	154 x 2	167	154	2	8,4	2000040966
DN 160 CF	159 x 2	167	159	2	8,4	2000040967

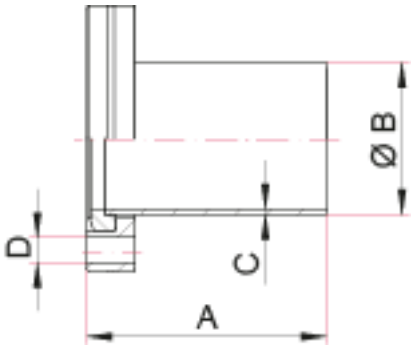
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Half Nipple, Rotatable, with Thread



- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Other tube diameters on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel, with Metric Thread

Nominal diameter	Tube dimension [mm]	A [mm]	B [mm]	C [mm]	D	Part number
DN 16 CF	18 x 1	38	18	1	M4	2000040928
DN 40 CF	38 x 1.5	63	38	1,5	M6	2000040938
DN 40 CF	40 x 1.5	38	40	1,5	M6	2000040941
DN 40 CF	40 x 1.5	63	40	1,5	M6	2000040943
DN 63 CF	70 x 2	105	70	2	M8	2000040952
DN 100 CF	108 x 2	135	108	2	M8	2000040960
DN 160 CF	159 x 2	167	159	2	M8	2000040968

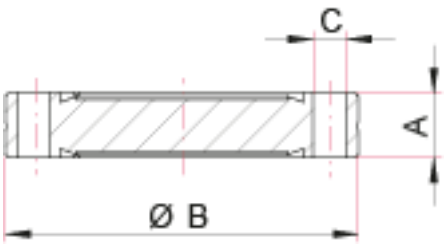
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Spacer Flange



- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L

Nominal diameter	A [mm]	B [mm]	C [mm]	Part number
DN 16 CF	7,75	34	4,4	2000041763
DN 40 CF	12,7	69,9	6,6	2000041764
DN 63 CF	17,5	113,5	8,4	2000041765
DN 100 CF	19,8	152	8,4	2000041766
DN 160 CF	22,2	202,4	8,4	2000041767

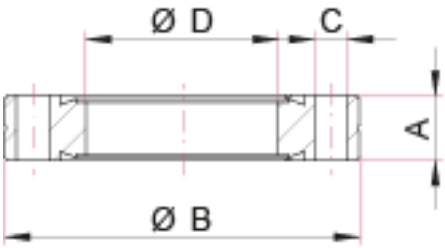
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Spacer Flange with Bore Holes



- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 16 CF	7,75	34	4,4	16	2000041770
DN 40 CF	12,7	69,9	6,6	37	2000041771
DN 63 CF	17,5	113,5	8,4	66	2000041772
DN 100 CF	19,8	152	8,4	102	2000041773
DN 160 CF	22,2	202,4	8,4	155	2000041774

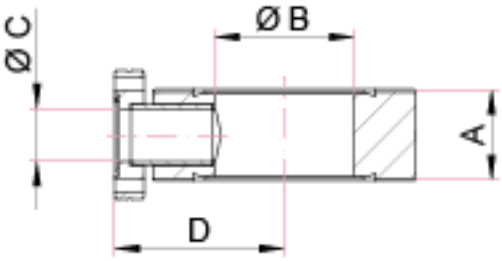
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Spacer Flange with Bore Holes and Port(s)



- Available with up to three DN 16 CF ports with M4 metric thread
- Tube surface: Glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304L

Nominal diameter	Number of ports	A [mm]	B [mm]	C [mm]	D [mm]	Part number
DN 40 CF	1	24	37	14	45	2000041777
DN 40 CF	2	24	37	14	45	2000041778
DN 40 CF	3	24	37	14	45	2000041779
DN 63 CF	1	24	66	14	67	2000041780
DN 63 CF	2	24	66	14	67	2000041781
DN 63 CF	3	24	66	14	67	2000041782
DN 100 CF	1	24	100	14	90	2000041783
DN 100 CF	2	24	100	14	90	2000041784
DN 100 CF	3	24	100	14	90	2000041785
DN 160 CF	1	24	150	14	115	2000041786
DN 160 CF	2	24	150	14	115	2000041787
DN 160 CF	3	24	150	14	115	2000041788

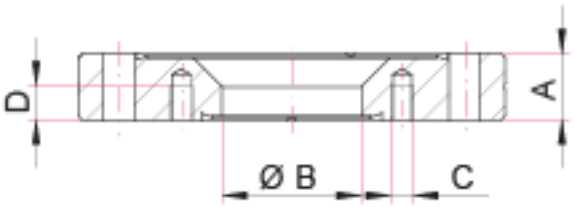
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Reducer Flange



- The reduced-size flange has blind tapped holes. Make sure the screws used for installation are in the correct length.
- Other flange materials on request
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions

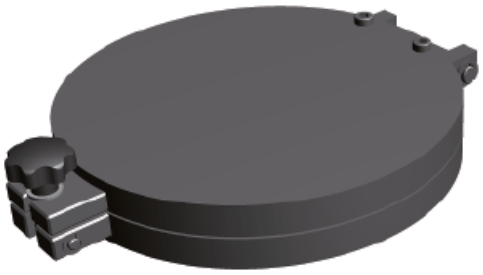


Stainless Steel 304L

Nominal diameter	A [mm]	B [mm]	C	D [mm]	Nominal diameter reduced	Part number
DN 40 CF	12,7	16	M4	6	DN 16 CF	2000041800
DN 63 CF	17,5	16	M4	6	DN 16 CF	2000041801
DN 63 CF	17,5	37	M6	9	DN 40 CF	2000041802
DN 100 CF	19,8	37	M6	9	DN 40 CF	2000041803
DN 100 CF	19,8	66	M8	13	DN 63 CF	2000041804
DN 160 CF	22,2	37	M6	9	DN 40 CF	2000041805
DN 160 CF	22,2	66	M8	13	DN 63 CF	2000041806
DN 160 CF	22,2	100	M8	13	DN 100 CF	2000041807
DN 200 CF	24,5	37	M6	9	DN 40 CF	2000041808
DN 200 CF	24,5	66	M8	13	DN 63 CF	2000041809
DN 200 CF	24,5	100	M8	13	DN 100 CF	2000041810
DN 200 CF	24,5	155	M8	13	DN 160 CF	2000041811
DN 250 CF	26	37	M6	9	DN 40 CF	2000041812
DN 250 CF	26	66	M8	13	DN 63 CF	2000041813
DN 250 CF	26	100	M8	13	DN 100 CF	2000041814
DN 250 CF	26	155	M8	13	DN 160 CF	2000041815
DN 250 CF	26	200	M8	13	DN 200 CF	2000041816

Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

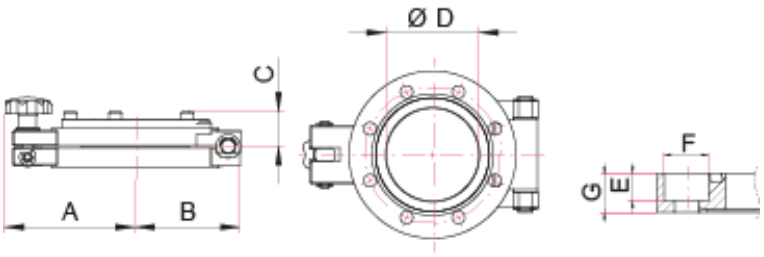
CF Quick-Access-Door



- Screw holes: Through-holes with counter-bore for cylinder head
- Can be installed using hexagon socket screws
- Bakeout temperature: up to 200 °C
- Seal: FKM
- Pressure range: 1 · 10-8 hPa to ambient pressure
- Temperature range: -15 to 150 °C

Stainless Steel, without Sight Glass

Dimensions

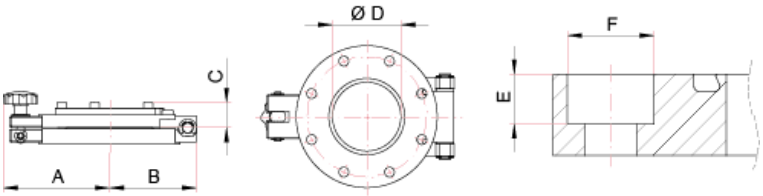


Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 63 CF	88	72	16	-	10	16	2000041010
DN 100 CF	108	93	16	-	10	16	2000041012
DN 160 CF	134	119	20	-	10	16	2000041015
DN 200 CF	160	145	20	-	10	16	2000041018
DN 250 CF	186	171	20	-	10	16	2000041020



Stainless Steel, with Sight Glass

Dimensions



- Sight glass: Borosilicate glass

Nominal diameter	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	Part number
DN 63 CF	88	72	23	63	10	16	2000041011
DN 100 CF	108	93	27	95	10	16	2000041014
DN 160 CF	134	119	31	145	10	16	2000041017
DN 200 CF	160	145	31	145	10	16	2000041019
DN 250 CF	186	171	31	145	10	16	2000041021

CF Flange Cap

- Made from plastic

Dimensions



Polyethylene (PE)

Nominal diameter	Package [Qty.]	Part number
DN 16 CF	10	2000040574
DN 40 CF	10	2000040577
DN 63 CF	10	2000040579
DN 100 CF	10	2000040581
DN 160 CF	5	2000040583
DN 200 CF	5	2000040585
DN 250 CF	5	2000040587

CF-Swagelok® Adapter



- For metric and imperial (inch) tube diameters
- Original Swagelok® adapter
- Other flanges sizes and pipe diameters on request
- Pressure range: 1 · 10-9 hPa to ambient pressure
- Materials: Stainless steel 304L (Flange)
- Temperature range: -196 to 300 °C

Dimensions

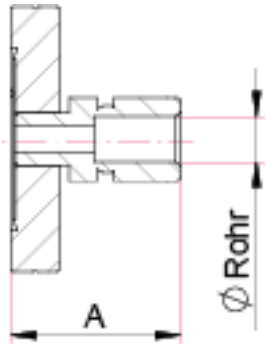


Bild bitte prüfen

Stainless Steel for Metric Tube Sizes

Nominal diameter	Tube external diameter	A [mm]	Part number
DN 16 CF	6 mm	39	2000041485
DN 16 CF	8 mm	40	2000041486
DN 40 CF	6 mm	39	2000041497
DN 40 CF	8 mm	40	2000041498
DN 40 CF	10 mm	42	2000041492
DN 40 CF	12 mm	45	2000041494

Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

Stainless Steel for Imperial (Inch) Tube Sizes

Nominal diameter	Tube external diameter	A [mm]	Part number
DN 16 CF	1/8"	32	2000041481
DN 16 CF	1/4"	39	2000041482

Nominal diameter	Tube external diameter	A [mm]	Part number
DN 40 CF	1/4"	41	2000041488
DN 40 CF	1/2"	50	2000041490

Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

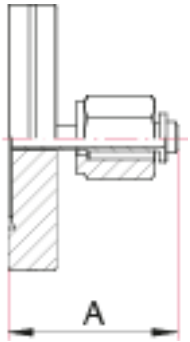
CF-VCR Adapter, Male and Female



- Original Swagelok® VCR-Adapter
- Other flange sizes and VCR adapters on request
- Tightness: < 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-11 hPa to ambient pressure
- Materials: Flange: Stainless steel 304L; VCR adapter: 316L/1.4404
- Temperature range: -196 to 300 °C

Female

Dimensions



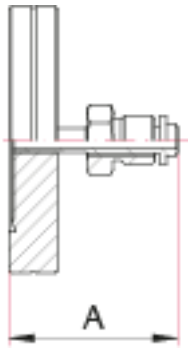
Nominal diameter	VCR connection	A [mm]	Part number
DN 16 CF	1/4"	44	2000041500
DN 16 CF	1/2"	47	2000041501
DN 40 CF	1/4"	44	2000041503
DN 40 CF	1/2"	47	2000041504

Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2



Male

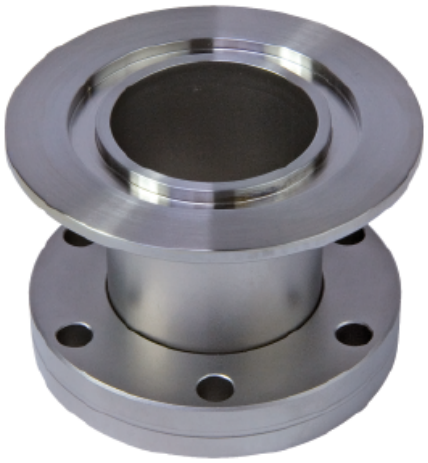
Dimensions



Nominal diameter	VCR connection	A [mm]	Part number
DN 16 CF	1/4"	44	2000041508
DN 16 CF	1/2"	47	2000041509
DN 40 CF	1/4"	44	2000041511
DN 40 CF	1/2"	47	2000041512

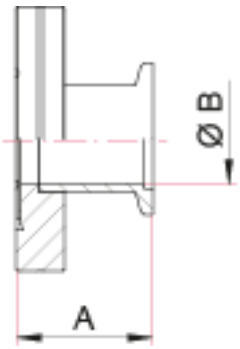
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

ISO-KF/CF Adapter



- Other nominal diameters and dimensions on request
- Pressure range: 1 · 10-8 hPa to ambient pressure (elastomer seal); 1 · 10-9 hPa to ambient pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301; CF Flange 304L

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 16 CF	36	16	DN 16 ISO-KF	2000041230
DN 16 CF	36	16	DN 25 ISO-KF	2000041231
DN 16 CF	36	16	DN 40 ISO-KF	2000041232
DN 40 CF	36	16	DN 16 ISO-KF	2000041238
DN 40 CF	36	24	DN 25 ISO-KF	2000041239
DN 40 CF	50	40,5	DN 40 ISO-KF	2000041240
DN 63 CF	50	40,5	DN 40 ISO-KF	2000041250
DN 100 CF	50	40,5	DN 40 ISO-KF	2000041260

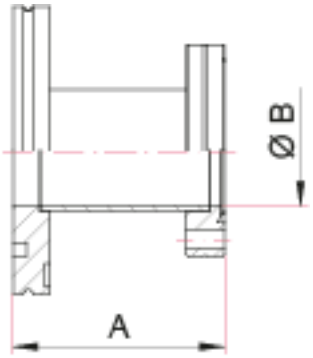
ISO-KF Flanges according to ISO 2861
CF Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

ISO-K/CF Adapter



- Other flange sizes and dimensions on request
- Pressure range: 1 · 10-8 hPa to 500 hPa over pressure (elastomer seal);
  1 · 10-9 hPa to 500 hPa over pressure (metal seal)
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel 304/1.4301; CF Flange 304L

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 16 CF	60	16	DN 63 ISO-K	2000041234
DN 40 CF	70	37	DN 63 ISO-K	2000041242
DN 63 CF	90	66	DN 63 ISO-K	2000041252
DN 100 CF	90	102	DN 100 ISO-K	2000041264
DN 160 CF	100	153	DN 160 ISO-K	2000041271

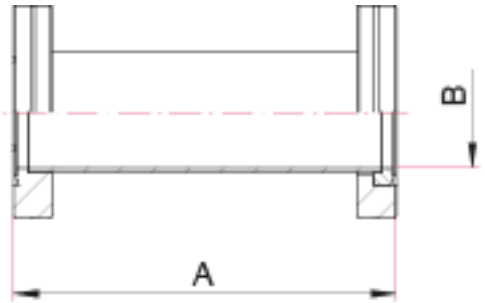
CF Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2
ISO-K Flanges according to ISO 1609

CF Full Nipple



- One end fixed; one end rotatable
- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube material on request
- Other lengths and tube dimensions on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 CF	76	16	2000041298
DN 40 CF	126	37	2000041300
DN 63 CF	210	66	2000041302
DN 100 CF	270	104	2000041304
DN 160 CF	334	155	2000041306

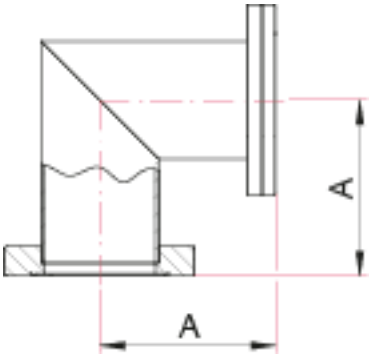
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF 90° Elbow



- One end fixed, one end rotatable
- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel

Nominal diameter	A [mm]	Part number
DN 16 CF	38	2000041286
DN 40 CF	63	2000041288
DN 63 CF	105	2000041290
DN 100 CF	135	2000041292
DN 160 CF	167	2000041294

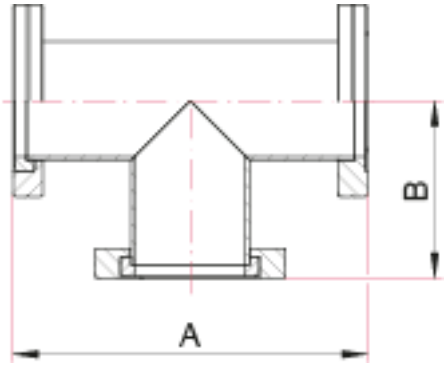
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Tee



- One rotatable flange per axis
- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 CF	76	38	2000041217
DN 40 CF	126	63	2000041220
DN 63 CF	210	105	2000041222
DN 100 CF	270	135	2000041224
DN 160 CF	334	167	2000041226

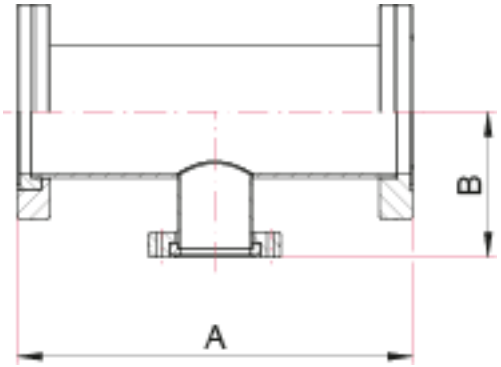
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Reducer Tee



- One rotatable flange per axis
- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 40 CF	126	60	DN 16 CF	2000041201
DN 63 CF	210	77	DN 40 CF	2000041202
DN 100 CF	270	95	DN 40 CF	2000041203
DN 100 CF	270	95	DN 63 CF	2000041204
DN 160 CF	334	120	DN 40 CF	2000041205
DN 160 CF	334	120	DN 63 CF	2000041206
DN 160 CF	334	120	DN 100 CF	2000041207

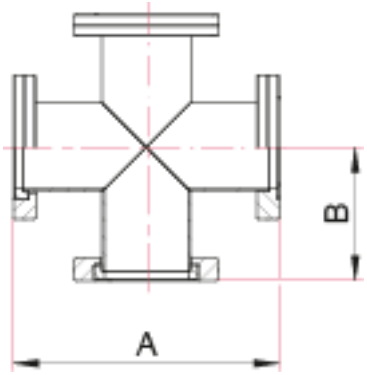
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF 4-Way Cross



- One rotatable flange per axis
- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions

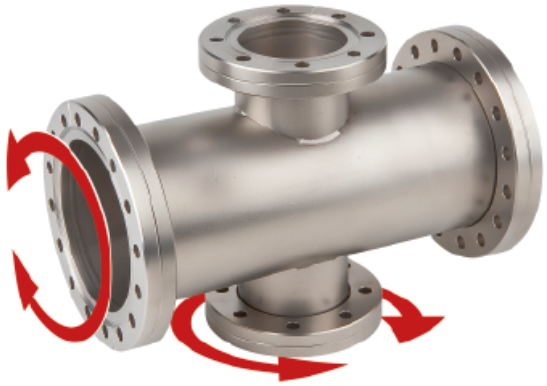


Stainless Steel

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 CF	76	38	2000041163
DN 40 CF	126	63	2000041165
DN 63 CF	210	105	2000041167
DN 100 CF	270	135	2000041169
DN 160 CF	334	167	2000041171

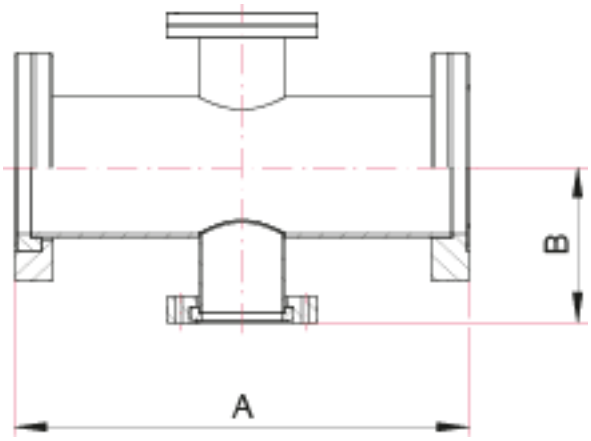
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF 4-Way Reducer Cross



- One rotatable flange per axis
- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions

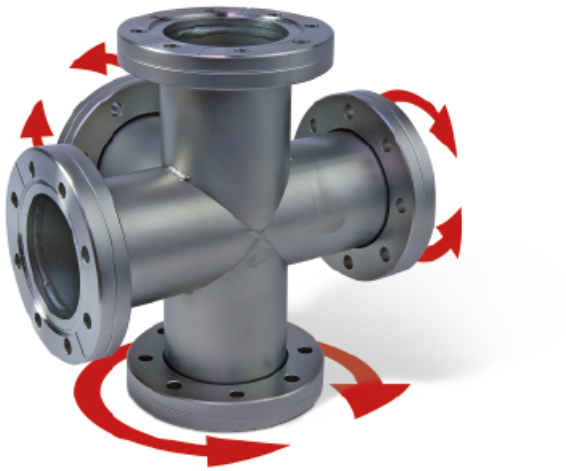


Stainless Steel

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 40 CF	126	60	DN 16 CF	2000041147
DN 63 CF	210	77	DN 40 CF	2000041148
DN 100 CF	270	95	DN 40 CF	2000041149
DN 100 CF	270	95	DN 63 CF	2000041150
DN 160 CF	334	120	DN 40 CF	2000041151
DN 160 CF	334	120	DN 63 CF	2000041152
DN 160 CF	334	120	DN 100 CF	2000041153

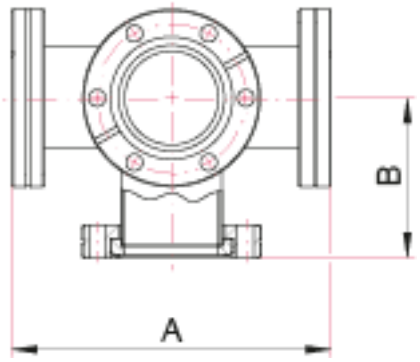
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF 5-Way Cross



- One rotatable flange per axis
- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube material on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 CF	76	38	2000041141
DN 40 CF	126	63	2000041142
DN 63 CF	210	105	2000041143
DN 100 CF	270	135	2000041144

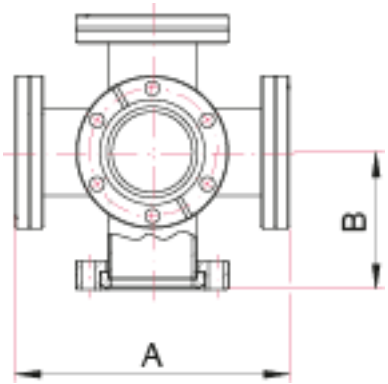
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF 6-Way Cross



- One rotatable flange per axis
- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions

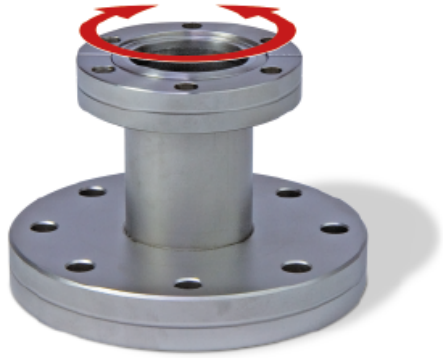


Stainless Steel

Nominal diameter	A [mm]	B [mm]	Part number
DN 16 CF	76	38	2000041135
DN 40 CF	126	63	2000041136
DN 63 CF	210	105	2000041137
DN 100 CF	270	135	2000041138
DN 160 CF	334	167	2000041139
DN 200 CF	406	203	2000041140

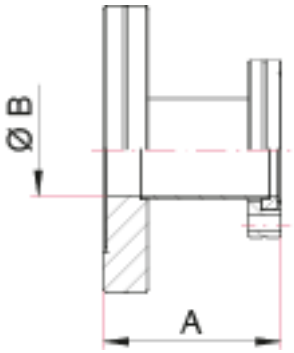
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Reducer Nipple, Straight



- Reduced flange size rotatable
- Tube surface: glass bead blasted (polished version on request)
- Other flange and tube materials on request
- Other lengths and tube dimensions on request
- Bakeout temperature: up to 450 °C
- Tightness: ≤ 1 · 10-11 Pa m3/s
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Flange: stainless steel 304L; tube: stainless steel 304L or better
- Temperature range: -196 to 300 °C

Dimensions

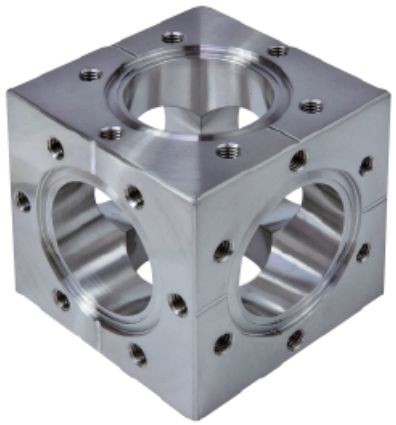


Stainless Steel

Nominal diameter	A [mm]	B [mm]	Nominal diameter reduced	Part number
DN 40 CF	70	16	DN 16 CF	2000041176
DN 63 CF	70	16	DN 16 CF	2000041178
DN 63 CF	70	37	DN 40 CF	2000041180
DN 100 CF	70	37	DN 40 CF	2000041182
DN 100 CF	70	66	DN 63 CF	2000041184
DN 160 CF	70	37	DN 40 CF	2000041186
DN 160 CF	127	66	DN 63 CF	2000041188
DN 160 CF	127	104	DN 100 CF	2000041190

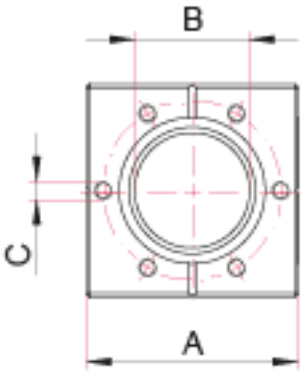
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

CF Cube



- Up to DN 100: manufactured from forged material
- DN 160: manufactured from welded plates
- Bakeout temperature: up to 450 °C
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Materials: Stainless steel 316L/1.4404
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel, with Thread

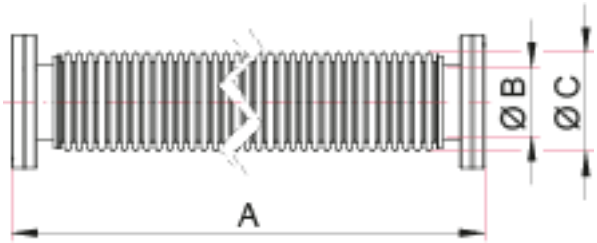
Nominal diameter	A [mm]	B [mm]	C	Thread depth [mm]	Part number
DN 16 CF	35	16	M4	5	2000040666
DN 40 CF	70,5	38	M6	8	2000040668
DN 63 CF	114	66	M8	8	2000040670
DN 100 CF	155	104	M8	8	2000040672
DN 160 CF	208	155	M8	8	2000040674

ISO-CF Corrugated Hose, Flexible



- One flange rotatable
- Other lenghts on request
- Pressure range: 1 · 10-9 hPa to ambient pressure
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel: Flange 304L; Bellows 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Bend radius, often movement [mm]	Part number
DN 16 CF	250	12	17	50	200	2000041315
DN 16 CF	500	12	17	50	200	2000041316
DN 16 CF	750	12	17	50	200	2000041317
DN 16 CF	1000	12	17	50	200	2000041318
DN 40 CF	250	37	52	130	250	2000041319
DN 40 CF	500	37	52	130	250	2000041320
DN 40 CF	750	37	52	130	250	2000041321
DN 40 CF	1000	37	52	130	250	2000041322
DN 63 CF	250	65	81	200	410	2000041323
DN 63 CF	500	65	81	200	410	2000041324
DN 63 CF	750	65	81	200	410	2000041325
DN 63 CF	1000	65	81	200	410	2000041326
DN 100 CF	250	100	119	230	560	2000041327
DN 100 CF	500	100	119	230	560	2000041328

Nominal diameter	A [mm]	B [mm]	C [mm]	Bend radius, unique movement [mm]	Bend radius, often movement [mm]	Part number
DN 100 CF	750	100	119	230	560	2000041329
DN 100 CF	1000	100	119	230	560	2000041330

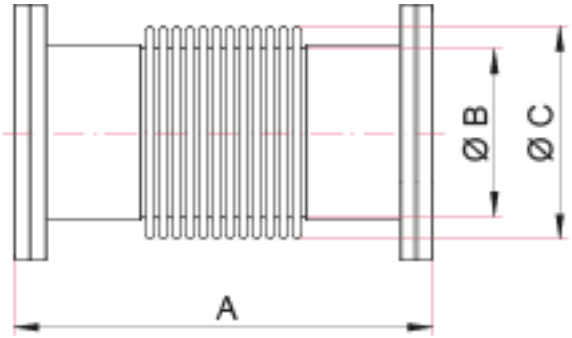
Please note that the hose shrinks under vacuum.
The minimum bending radii are applicable for a temperature of 20 °C.
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

ISO-CF Spring Bellows



- One flange rotatable
- Other lenghts on request
- Pressure range: 1 · 10-9 hPa to ambient pressure
- Materials: flange: stainless steel: 304L; bellows: stainless steel 316L
- Temperature range: -196 to 300 °C

Dimensions



Stainless Steel: Flange 304L; Bellows 316L

Nominal diameter	A [mm]	B [mm]	C [mm]	Axial stroke [mm]	Part number
DN 16 CF	110	15	26	±5	2000041310
DN 40 CF	160	37	59	±10	2000041311
DN 63 CF	250	66	87	±18	2000041312
DN 100 CF	250	100	128	±22	2000041313
DN 160 CF	270	155	184	±15	2000041314

Please note that the spring bellows shrinks under vacuum.
The axial stroke is applicable for a temperature of 20 °C and 10000 load cycles.
Flange sizes DN16 to DN250 according to ISO 3669 and compatible with ISO/TS 3669-2

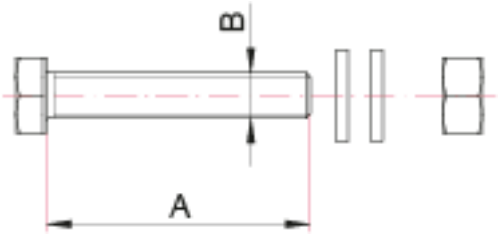
COF

COF Screw Set



- For the assembly of two flanges with through holes
- Set includes the screws required for the specified flange size
- Set includes two washers and one nut for each screw

Dimensions



Stainless Steel A2-70

Nominal diameter	A [mm]	B	Package [Qty.]	Part number
DN 450 COF	90	M16	36	2000040303
DN 500 COF	100	M16	36	2000040304
DN 600 COF	100	M16	40	2000040305
DN 800 COF	100	M16	52	2000040306

Stainless Steel A4-80

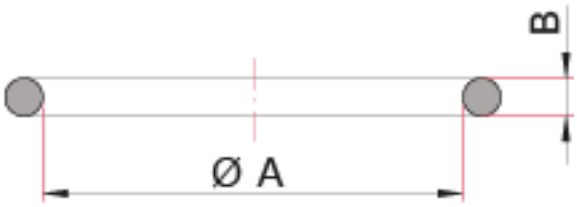
Nominal diameter	A [mm]	B	Package [Qty.]	Part number
DN 400 COF	75	M12	36	2000040349
DN 450 COF	90	M16	36	2000040350
DN 500 COF	100	M16	36	2000040351
DN 600 COF	100	M16	40	2000040352
DN 800 COF	100	M16	52	2000040353

COF Elastomer Seal



- For single use only
- Pressure range: 1 · 10-8 hPa to ambient pressure
- Temperature range: -15 to 150 °C

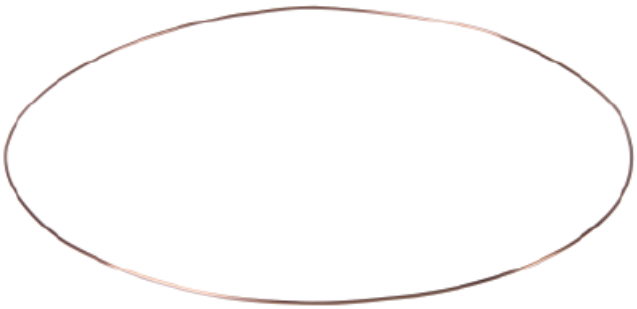
Dimensions



FKM

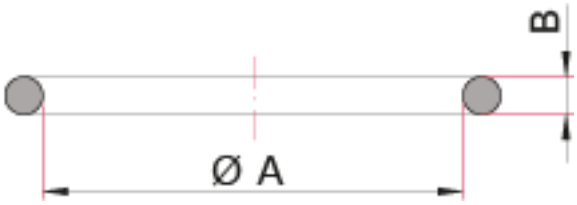
Nominal diameter	A [mm]	B [mm]	Part number
DN 400 COF	436	2,5	2000040297
DN 400 COF	491	2,5	2000040298
DN 500 COF	535	2,5	2000040299
DN 600 COF	635	2,5	2000040300
DN 800 COF	835	2,5	2000040301

COF Copper Wire Seal



- For single use only
- Pressure range: 1 · 10-12 hPa to ambient pressure
- Temperature range: -196 to 200 °C

Dimensions



OFHC Copper (Annealed)

Nominal diameter	A [mm]	B [mm]	Part number
DN 400 COF	435,8	2	2000040374
DN 450 COF	491,4	2	2000040375
DN 500 COF	535,4	2	2000040376
DN 600 COF	635,4	2	2000040377
DN 800 COF	835,4	2	2000040378

VALVES

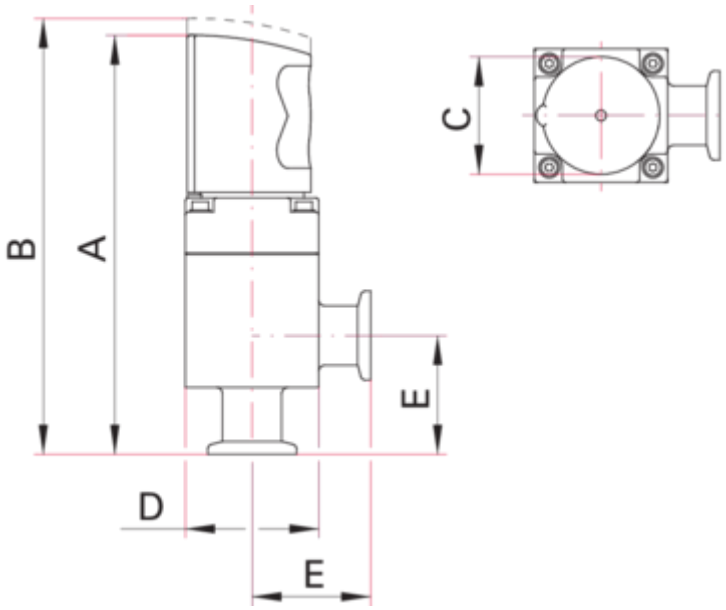
Angle valves, manual, DN 16 to 40 ISO-KF



- Quick opening by partly turning the rotary knob
- Bellows-sealed
- With visual indication of open and closed positions
- Service life: 10000 operating cycles

SA = Manually actuated, aluminum housing
SX = Manually actuated, stainless steel housing

Dimensions



	AVC 016 SA	AVC 025 SA	AVC 040 SA
A	141.3 mm	145.3 mm	186.2 mm
B	149.5 mm	155.7 mm	201.4 mm
C	39.6 mm	39.6 mm	50 mm
D	45 mm	54 mm	69 mm
E	40 mm	50 mm	65 mm

	AVC 016 SX	AVC 025 SX	AVC 040 SX
A	143.9 mm	148.9 mm	189.2 mm
B	152.1 mm	159.1 mm	204.4 mm
C	39.6 mm	39.6 mm	50 mm
D	45 mm	54 mm	69 mm
E	40 mm	50 mm	65 mm

Technical data	AVC 016 SA AVC 016 SX	AVC 025 SA AVC 025 SX	AVC 040 SA AVC 040 SX
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Actuator	Rotary knob	Rotary knob	Rotary knob
Bakeout temperature: actuator	50 °C	50 °C	50 °C
Operating pressure max.	2000 hPa (abs.)	2000 hPa (abs.)	1500 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	2000 hPa	2000 hPa	1500 hPa
Differential pressure in closing direction	4000 hPa	4000 hPa	2000 hPa
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Conductance for molecular flow	5 l/s	14 l/s	45 l/s
Service life	Aluminum	10000 cycles	10000 cycles

	AVC 016 SA	AVC 025 SA	AVC 040 SA
Bakeout temperature: housing	80 °C	80 °C	80 °C
Housing	Aluminum	Aluminum	Aluminum
Weight	0.31 kg	0.42 kg	0.85 kg
Part number	2000025603	2000025628	2000025652

	AVC 016 SX	AVC 025 SX	AVC 040 SX
Bakeout temperature: housing	150 °C	150 °C	150 °C
Housing	Stainless steel	Stainless steel	Stainless steel
Weight	0.34 kg	0.49 kg	0.96 kg
Part number	2000025604	2000025629	2000025653

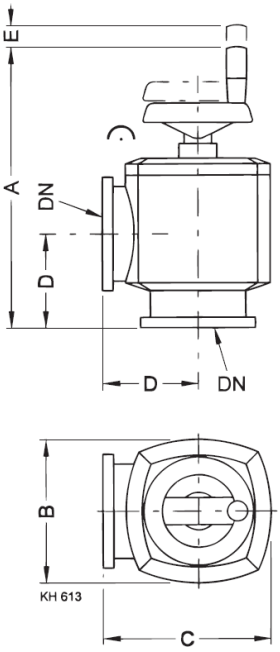
Angle valves, manual, DN 63 to 100 ISO-K



- Spindle drive with ergonomic handwheel for continuous opening
- Bellows-sealed
- With visual indication of open and closed positions
- Service life: 10000 operating cycles

SA = Manually actuated, aluminum housing
SX = Manually actuated, stainless steel housing

Dimensions



	EVB 063 SA	EVB 100 SA
A	266 mm	320 mm
B	124 mm	164 mm
C	150 mm	190 mm
D	88 mm	108 mm
E	20 mm	25 mm

	EVB 063 SX	EVB 100 SX
A	266 mm	320 mm
B	124 mm	164 mm
C	150 mm	190 mm
D	88 mm	108 mm
E	20 mm	25 mm

Technical data	EVB 063 SA EVB 063 SX	EVB 100 SA EVB 100 SX
Flange (out)	DN 63 ISO-K	DN 100 ISO-K
Flange (in)	DN 63 ISO-K	DN 100 ISO-K
Actuator	Spindle	Spindle
Bakeout temperature: actuator	60 °C	60 °C
Bakeout temperature: housing	150 °C	150 °C
Operating pressure max.	1500 hPa (abs.)	1500 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM
Differential pressure in opening direction	1500 hPa	1500 hPa
Differential pressure in closing direction	1500 hPa	1500 hPa
Feedthrough	Bellows, stainless steel	Bellows, stainless steel
Conductance for molecular flow	140 l/s	330 l/s
Can be opened to a pressure difference of	1500 hPa	1500 hPa
Service life	10000 cycles	10000 cycles

	EVB 063 SA	EVB 100 SA
Housing	Aluminum	Aluminum
Weight	3.6 kg	6.1 kg
Part number	2000042299	2000042300

	EVB 063 SX	EVB 100 SX
Housing	Stainless steel	Stainless steel
Weight	6.5 kg	11.1 kg
Part number	2000041864	2000041866

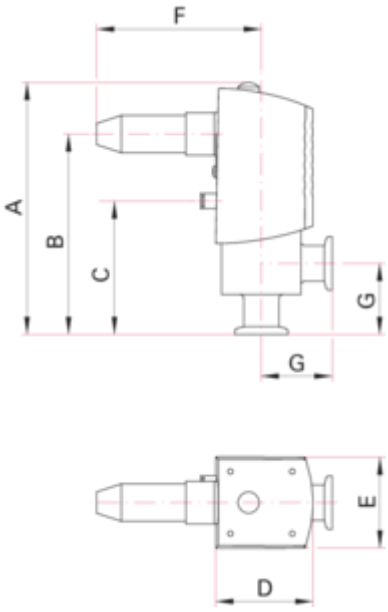
Angle valves, electropneumatic, with PI, with PV, DN 16 to 40 ISO-KF



- Bellows-sealed
- With visual position indicator
- Normally closed (n.c.)
- Service life: 10 million operating cycles

AVC = Angle valve with bellows feedthrough
PA = Electropneumatically actuated, aluminum housing
PX = Electropneumatically actuated, stainless steel housing
AC = Alternating current
DC = Direct current
PI = Position indicator
PV = Pilot valve

Dimensions



	AVC 016 PA	AVC 025 PA	AVC 040 PA
A	142 mm	146.9 mm	188.8 mm
B	112.9 mm	117.8 mm	159.7 mm
C	75.1 mm	79 mm	114.9 mm
D	55 mm	64.3 mm	81.3 mm
E	51.4 mm	60.1 mm	75.7 mm
F	93.2 mm	97.8 mm	105.3 mm
G	40 mm	50 mm	65 mm

Technical data	AVC 016 PA	AVC 025 PA	AVC 040 PA
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Bakeout temperature: actuator, pilot valve	50 °C	50 °C	50 °C
Bakeout temperature: housing	80 °C	80 °C	80 °C
Operating pressure max.	2000 hPa	2000 hPa	2000 hPa
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	2000 hPa	2000 hPa	2000 hPa
Differential pressure in closing direction	5000 hPa	5000 hPa	5000 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	4 cm^3	11 cm^3	35 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Housing	Aluminum	Aluminum	Aluminum
Weight	0.49 kg	0.68 kg	1.21 kg
Power pilot valve	2.5 W	2.5 W	2.5 W
Conductance for molecular flow	5 l/s	14 l/s	45 l/s
Opening time	100 ms	120 ms	260 ms
Closing time	100 ms	160 ms	540 ms
Service life	10000000 cycles	10000000 cycles	10000000 cycles
Electrical position indicator	Included	Included	Included
Electrical position indicator: Rating	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A
Control valve	Included	Included	Included

	AVC 016 PA	AVC 025 PA	AVC 040 PA
Supply	24 V AC	24 V AC	Included
Part number	2000025613	2000025638	2000025664
Supply	24 V DC	24 V DC	24 V DC
Part number	2000025616	2000025641	2000025666
Supply	100-115 V AC	100-115 V AC	100-115 V AC
Part number	2000025622	2000025646	2000025670
Supply	200-230 V AC	200-230 V AC	200-230 V AC
Part number	2000025624	2000025648	2000025672

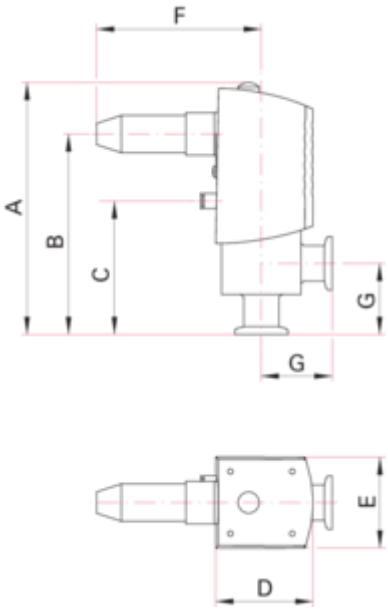
Angle valves, electropneumatic, with PI, with PV, DN 16 to 40 ISO-KF



- Bellows-sealed
- With visual position indicator
- Normally closed (n.c.)
- Service life: 10 million operating cycles

AVC = Angle valve with bellows feedthrough
PA = Electropneumatically actuated, aluminum housing
PX = Electropneumatically actuated, stainless steel housing
AC = Alternating current
DC = Direct current
PI = Position indicator
PV = Pilot valve

Dimensions



	AVC 016 PX	AVC 025 PX	AVC 040 PX
A	144.5 mm	150.3 mm	191.8 mm
B	115.4 mm	121.2 mm	162.7 mm
C	77.6 mm	82.5 mm	117.9 mm
D	55 mm	64.3 mm	81.3 mm
E	51.4 mm	60.1 mm	75.7 mm
F	93.2 mm	97.8 mm	105.3 mm
G	40 mm	50 mm	65 mm

Technical data	AVC 016 PX	AVC 025 PX	AVC 040 PX
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Bakeout temperature: actuator, pilot valve	50 °C	50 °C	50 °C
Bakeout temperature: housing	150 °C	150 °C	150 °C
Operating pressure max.	2000 hPa (abs.)	2000 hPa (abs.)	2000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	2000 hPa	2000 hPa	2000 hPa
Differential pressure in closing direction	5000 hPa	5000 hPa	5000 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	4 cm^3	11 cm^3	35 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Housing	Stainless steel	Stainless steel	Stainless steel
Weight	0.52 kg	0.75 kg	1.33 kg
Power pilot valve	4.8 / 3.6 VA	4.8/3.6 VA	4.8 / 3.6 VA
Conductance for molecular flow	5 l/s	14 l/s	45 l/s
Opening time	100 ms	120 ms	260 ms
Closing time	100 ms	160 ms	540 ms
Service life	10000000 cycles	10000000 cycles	10000000 cycles
Electrical position indicator	Included	Included	Included
Electrical position indicator: Rating	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A
Control valve	Included	Included	Included

	AVC 016 PX	AVC 025 PX	AVC 040 PX
Supply	24 V AC	24 V DC	24 V AC
Part number	2000025614	2000025639	2000025665
Supply	24 V DC	24 V DC	24 V DC
Part number	2000025620	2000025644	2000025668
Supply	100-115 V AC	100-115 V AC	100-115 V AC
Part number	2000025623	2000025647	2000025671
Supply	200-230 V AC	200-230 V AC	200-230 V AC
Part number	2000025625	2000025650	2000025673

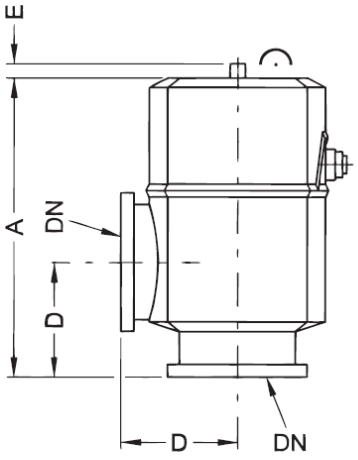
Angle valves, electropneumatic, with PI, with PV, DN 63 to 160 ISO-K

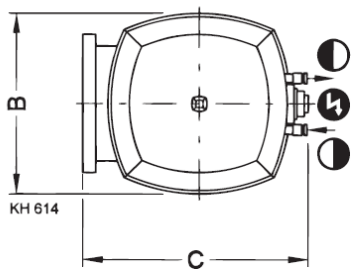


- Bellows-sealed
- With visual position indicator
- Normally closed (n.c.)
- Service life: 1.5 million operating cycles

EVB = Angle valve with bellows feedthrough
PA = Electropneumatically actuated, aluminum housing
PX = Electropneumatically actuated, stainless steel housing
AC = Alternating current
DC = Direct current
PI = Position indicator
PV = Pilot valve

Dimensions





	EVB 063 PA	EVB 100 PA	EVB 160 PA
A	250 mm	282 mm	366 mm
B	124 mm	164 mm	215 mm
C	168 mm	208 mm	264 mm
D	88 mm	108 mm	138 mm
E	14 mm	14 mm	14 mm

	EVB 063 PX	EVB 100 PX
A	250 mm	282 mm
B	124 mm	164 mm
C	168 mm	208 mm
D	88 mm	108 mm
E	14 mm	14 mm

Technical data	EVB 063 PA EVB 063 PX	EVB 100 PA EVB 100 PX	EVB 160 PA
Flange (out)	DN 63 ISO-K	DN 100 ISO-K	DN 160 ISO-K
Flange (in)	DN 63 ISO-K	DN 100 ISO-K	DN 160 ISO-K
Bakeout temperature: actuator, pilot valve	60 °C	60 °C	60 °C
Operating pressure max.	1500 hPa (abs.)	1500 hPa (abs.)	1500 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	1500 hPa	1500 hPa	1500 hPa
Differential pressure in closing direction	1500 hPa	1500 hPa	1500 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	75 cm^3	195 cm^3	570 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Housing	Aluminum	Aluminum	Aluminum
Power pilot valve	3.1/2.2 W	3.1/2.2 W	3.1/2.2 W
Conductance for molecular flow	140 l/s	330 l/s	800 l/s
Opening time	300 ms	400 ms	600 ms
Closing time	300 ms	400 ms	650 ms
Service life	1500000 cycles	1500000 cycles	1500000 cycles
Electrical position indicator	Included	Included	Included

Technical data	EVB 063 PA EVB 063 PX	EVB 100 PA EVB 100 PX	EVB 160 PA
Control valve	Included	Included	Included
Electrical position indicator: Rating	250 V AC / 0,125 A ; 50 V DC / 0,25 A	250 V AC / 0,125 A ; 50 V DC / 0,25 A	250 V AC / 0,125 A ; 50 V DC / 0,25 A

Technical data	EVB 063 PA	EVB 100 PA	EVB 160 PA
Bakeout temperature: housing	80 °C	80 °C	80 °C
Weight	4 kg	6.7 kg	11.4 kg

	EVB 063 PA	EVB 100 PA	EVB 160 PA
Supply	24 V AC	24 V AC	24 V AC
Part number	2000042303	2000042308	2000042314
Supply	24 V DC	24 V DC	24 V DC
Part number	2000042304	2000042309	2000042315
Supply	100-115 V AC	100-115 V AC	100-115 V AC
Part number	2000042305	2000042311	2000042317
Supply	200-240 V AC	200-240 V AC	200-240 V AC
Part number	2000042306	2000042312	2000042318

Technical data	EVB 063 PX	EVB 100 PX
Bakeout temperature: housing	150 °C	150 °C
Weight	6.8 kg	11.7 kg

	EVB 063 PX	EVB 100 PX
Supply	24 V AC	24 V AC
Part number	2000041871	2000041876
Supply	24 V DC	24 V DC
Part number	2000041872	2000041877
Supply	100-115 V AC	100-115 V AC
Part number	2000041873	2000041878
Supply	200-240 V AC	200-240 V AC
Part number	2000041874	2000041879

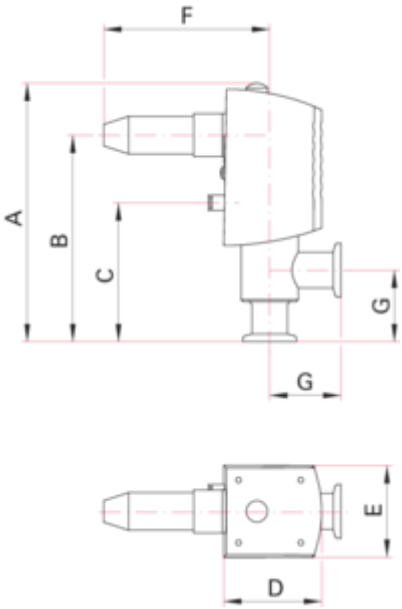
Angle valves, pneumatic, with PI, without PV, DN 16 to 40 ISO-KF



- Bellows-sealed
- With visual position indicator
- Normally closed (n.c.)
- Service life: 10 million operating cycles

AVC = Angle valve with bellows feedthrough
PA = Pneumatically actuated, aluminum housing
PI = Position indicator

Dimensions



	AVC 016 PA	AVC 025 PA	AVC 040 PA
A	142 mm	146,9 mm	199,8 mm
B	112.9 mm	117.8 mm	159.7 mm

	AVC 016 PA	AVC 025 PA	AVC 040 PA
C	75.1 mm	79 mm	114.9 mm
D	55 mm	64.3 mm	81.3 mm
E	51.4 mm	60,1 mm	75.7 mm
F	93.2 mm	97.8 mm	105.3 mm
G	40 mm	50 mm	65 mm

Technical data	AVC 016 PA	AVC 025 PA	AVC 040 PA
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Bakeout temperature: actuator, pilot valve	50 °C	50 °C	50 °C
Operating pressure max.	2000 hPa (abs.)	2000 hPa (abs.)	2000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	2000 hPa	2000 hPa	2000 hPa
Differential pressure in closing direction	5000 hPa	5000 hPa	5000 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	4 cm^3	11 cm^3	35 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Conductance for molecular flow	5 l/s	14 l/s	45 l/s
Opening time	100 ms	120 ms	260 ms
Closing time	100 ms	160 ms	540 ms
Service life	10000000 cycles	10000000 cycles	10000000 cycles
Electrical position indicator	Included	Included	Included
Electrical position indicator: Rating	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A

	AVC 016 PA	AVC 025 PA	AVC 040 PA
Bakeout temperature: housing	80 °C	80 °C	80 °C
Housing	Aluminum	Aluminum	Aluminum
Weight	0.49 kg	0.68 kg	1.21 kg
Part number	2000025611	0654228691	2000025661

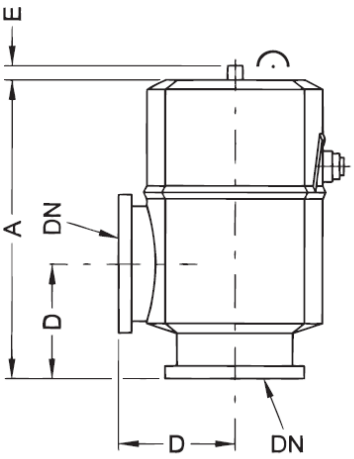
Angle valves, pneumatic, with PI, without PV, DN 63 to 160 ISO-K

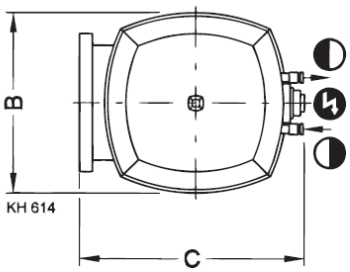


- Bellows-sealed
- With visual position indicator
- Normally closed (n.c.)
- Service life: 1.5 million operating cycles

EVB = Angle valve with bellows feedthrough
PA = Pneumatically actuated, aluminum housing
PX = Pneumatically actuated, stainless steel housing
PI = Position indicator

Dimensions





	EVB 063 PA	EVB 100 PA	EVB 160 PA
A	250 mm	282 mm	366 mm
B	124 mm	164 mm	215 mm
C	168 mm	208 mm	264 mm
D	88 mm	108 mm	138 mm
E	14 mm	14 mm	14 mm

	EVB 063 PX	EVB 100 PX
A	250 mm	282 mm
B	124 mm	164 mm
C	168 mm	208 mm
D	88 mm	108 mm
E	14 mm	14 mm

Technical dara	EVB 063 PA EVB 063 PX	EVB 100 PA EVB 100 PX	EVB 160 PA
Flange (out)	DN 63 ISO-K	DN 100 ISO-K	DN 160 ISO-K
Flange (in)	DN 63 ISO-K	DN 100 ISO-K	DN 160 ISO-K
Bakeout temperature: actuator, pilot valve	60 °C	60 °C	60 °C
Operating pressure max.	1500 hPa (abs.)	1500 hPa (abs.)	1500 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	1500 hPa	1500 hPa	1500 hPa
Differential pressure in closing direction	1500 hPa	1500 hPa	1500 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	75 cm^3	195 cm^3	570 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Conductance for molecular flow	140 l/s	330 l/s	800 l/s
Opening time	300 ms	400 ms	600 ms
Closing time	300 ms	400 ms	650 ms
Service life	1500000 cycles	1500000 cycles	1500000 cycles
Electrical position indicator	Included	Included	Included
Electrical position indicator: Rating	250 V AC / 0.125 A ; 50 V DC / 0.25 A	250 V AC / 0.125 A ; 50 V DC / 0.25 A	250 V AC / 0.125 A ; 50 V DC / 0.25 A

	EVB 063 PA	EVB 100 PA	EVB 160 PA
Bakeout temperature: housing	80 °C	80 °C	150 °C
Housing	Aluminum	Aluminum	Aluminum
Weight	4 kg	6.7 kg	11.4 kg
Part number	2000042302	2000042307	2000042313

	EVB 063 PX	EVB 100 PX
Bakeout temperature: housing	150 °C	150 °C
Housing	Stainless steel	Stainless steel
Weight	6.8 kg	11.7 kg
Part number	2000041870	2000041875

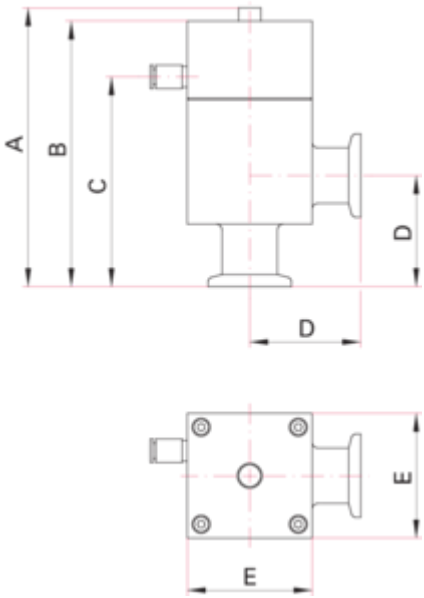
Angle valves, pneumatic, without PI, without PV, DN 16 to 40 ISO-KF



- Bellows-sealed
- With visual position indicator
- Normally closed (n.c.)
- Service life: 10 million operating cycles

AVC = Angle valve with bellows feedthrough
PA = Pneumatically actuated, aluminum housing

Dimensions



	AVC 016 PA	AVC 040 PA
A	100.5 mm	150.5 mm
B	95,7 mm	144.7 mm

	AVC 016 PA	AVC 040 PA
C	75.6 mm	116.6 mm
D	40 mm	65 mm
E	45 mm	69 mm

Technical data	AVC 016 PA	AVC 040 PA
Flange (out)	DN 16 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 40 ISO-KF
Bakeout temperature: actuator, pilot valve	120 °C	120 °C
Operating pressure max.	2000 hPa (abs.)	2000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM
Differential pressure in opening direction	2000 hPa	2000 hPa
Differential pressure in closing direction	5000 hPa	5000 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa
Compressed air volume	400 cm^3	35 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel
Conductance for molecular flow	5 l/s	45 l/s
Opening time	100 ms	260 ms
Closing time	100 ms	540 ms
Service life	10000000 cycles	10000000 cycles

	AVC 016 PA	AVC 040 PA
Bakeout temperature: housing	80 °C	80 °C
Housing	Aluminum	Aluminum
Weight	0.38 kg	1.17 kg
Part number	2000025608	2000025658

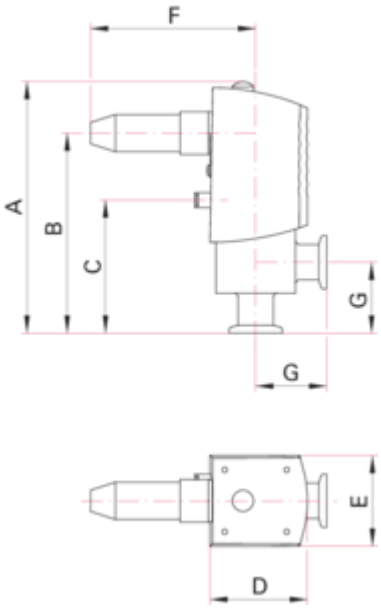
Angle valves, electropneumatic, with PI, with PV, n.o., DN 16 to 40 ISO-KF



- Bellows-sealed
- With visual position indicator
- Normally open (n.o.)
- Service life: 10 million operating cycles

AVC = Angle valve with bellows feedthrough
PA = Electropneumatically actuated, aluminum housing
PX = Electropneumatically actuated, stainless steel housing
DC = Direct current

Dimensions



	AVC 016 PA	AVC 025 PA	AVC 040 PA
A	142 mm	146.9 mm	188.8 mm
B	112.9 mm	117.8 mm	159.7 mm

	AVC 016 PA	AVC 025 PA	AVC 040 PA
C	75.1 mm	79 mm	114.9 mm
D	55 mm	64.3 mm	81.3 mm
E	51.4 mm	60.1 mm	75.7 mm
F	93.2 mm	97.8 mm	105.3 mm
G	40 mm	50 mm	65 mm

	AVC 016 PX	AVC 025 PX	AVC 040 PX
A	144.5 mm	150.3 mm	191.8 mm
B	115.4 mm	121.2 mm	162.7 mm
C	77.6 mm	82.5 mm	117.9 mm
D	55 mm	64.3 mm	81.3 mm
E	51.4 mm	60.1 mm	75.7 mm
F	93.2 mm	97.8 mm	105.3 mm
G	40 mm	50 mm	65 mm

Technical data	AVC 016 PA AVC 016 PX	AVC 025 PA AVC 025 PX	AVC 040 PA AVC 040 PX
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Bakeout temperature: actuator, pilot valve	50 °C	50 °C	50 °C
Operating pressure max.	2000 hPa (abs.)	2000 hPa (abs.)	2000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	2000 hPa	2000 hPa	2000 hPa
Differential pressure in closing direction	5000 hPa	5000 hPa	5000 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	4 cm^3	11 cm^3	35 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Power pilot valve	2.5 W	2.5 W	2.5 W
Conductance for molecular flow	5 l/s	14 l/s	45 l/s
Opening time	100 ms	120 ms	260 ms
Closing time	100 ms	160 ms	540 ms
Service life	10000000 cycles	10000000 cycles	10000000 cycles

Technical data	AVC 016 PA AVC 016 PX	AVC 025 PA AVC 025 PX	AVC 040 PA AVC 040 PX
Electrical position indicator	Included	Included	Included
Electrical position indicator: Rating	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A
Control valve	Included	Included	Included
Supply	24 V DC	24 V DC	24 V DC

	AVC 016 PA	AVC 025 PA	AVC 040 PA
Bakeout temperature: housing	80 °C	80 °C	80 °C
Housing	Aluminum	Aluminum	Aluminum
Weight	0.49 kg	0.68 kg	1.21 kg
Part number	2000025618	2000025643	2000025667

	AVC 016 PX	AVC 025 PX	AVC 040 PX
Bakeout temperature: housing	150 °C	150 °C	150 °C
Housing	Stainless steel	Stainless steel	Stainless steel
Weight	0.52 kg	0.75 kg	1.33 kg
Part number	2000025621	2000025645	2000025669

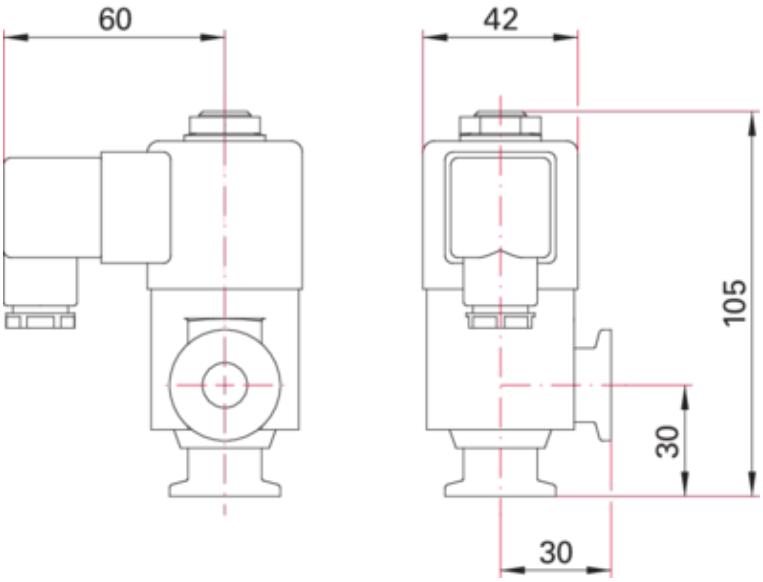
Angle valves, solenoid actuated, without PI, DN 10 ISO-KF



- Flange size DN 10 ISO-KF
- Housing material: Aluminum
- Solenoid actuated, without vacuum feedthrough
- Normally closed (n.c.)
- Service life: 1.5 million operating cycles

EVC = Angle valve without vacuum feedthrough
DC = Direct current

Dimensions



Technical data	EVC 110 M
Flange (out)	DN 10 ISO-KF
Flange (in)	DN 10 ISO-KF
Pickup/holding power	35/15 W
Bakeout temperature: actuator	80 °C
Bakeout temperature: housing	150 °C
Operating pressure max.	1000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3

Technical data	EVC 110 M
Seal	FKM
Differential pressure in opening direction	1000 hPa
Differential pressure in closing direction	1000 hPa
Housing	Aluminum
Weight	0.46 kg
Conductance for molecular flow	1 l/s
Can be opened to a pressure difference of	2000 hPa
Opening time	45 ms
Switching frequency	50 min^{-1}
Closing time	60 ms
Service life	1500000 cycles

Supply	Part number
24 V, 50/60 Hz	2000025599
24 V DC	2000025600
115 V, 50/60 Hz	2000025601
230 V, 50/60 Hz	2000025602

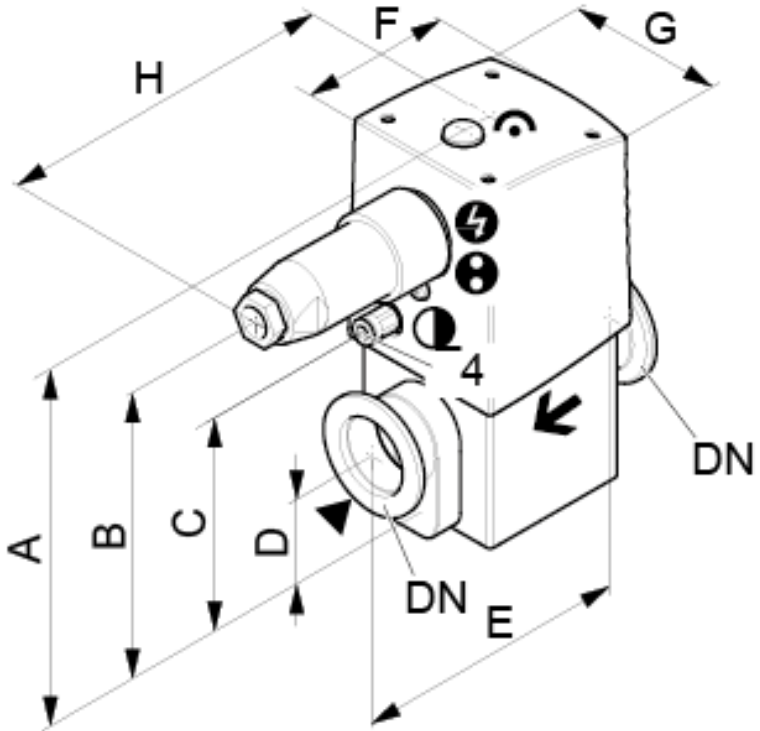
Inline-valves, electropneumatic, with PI, with PV, DN 16 to 40 ISO-KF



- Bellows-sealed
- With visual position indicator
- Normally closed (n.c.)
- With electrical position indicator
- Service life: 10 million operating cycles

DVC = Inline valve with bellows feedthrough
PX = Electropneumatically actuated, stainless steel housing
AC = Alternating current
DC = Direct current
PI = Position indicator
PV = Pilot valve

Dimensions



	DVC 016 PX	DVC 025 PX	DVC 040 PX
A	126.1 mm	133.6 mm	169.1 mm
B	97 mm	104.5 mm	140 mm
C	59.2 mm	65.7 mm	95.2 mm
D	20 mm	31.8 mm	40.8 mm
E	80 mm	100 mm	130 mm
F	55 mm	64.3 mm	81.3 mm
G	51.4 mm	60.1 mm	75.7 mm
H	93.2 mm	97.8 mm	105.3 mm

Technical data	DVC 016 PX	DVC 025 PX	DVC 040 PX
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Bakeout temperature: actuator, pilot valve	50 °C	50 °C	50 °C
Bakeout temperature: housing	150 °C	150 °C	150 °C
Operating pressure max.	2000 hPa (abs.)	2000 hPa (abs.)	2000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	2000 hPa	2000 hPa	2000 hPa
Differential pressure in closing direction	5000 hPa	5000 hPa	5000 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	4 cm^3	11 cm^3	35 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Housing	Stainless steel	Stainless steel	Stainless steel
Weight	0.89 kg	1.35 kg	2.2 kg
Conductance for molecular flow	2.5 l/s	7 l/s	20 l/s
Opening time	100 ms	120 ms	260 ms
Closing time	100 ms	160 ms	540 ms
Service life	10000000 cycles	10000000 cycles	10000000 cycles
Electrical position indicator	Included	Included	Included
Electrical position indicator: Rating	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A	250 V AC / 0.1 A ; 50 V DC / 0.25 A
Control valve	Included	Included	Included

	DVC 016 PX	DVC 025 PX	DVC 040 PX
Supply	24 V AC	24 V AC	24 V AC
Power pilot valve	4.8/3.6 W	4.8/3.6 W	4.8/3.6 W
Part number	2000025700	2000025711	2000025722
Supply	24 V DC	24 V DC	24 V DC
Power pilot valve	2.5 W	2.5 W	2.5 W
Part number	2000025702	2000025713	2000025724
Supply	100-115 V AC	100-115 V AC	100-115 V AC
Power pilot valve	4.8/3.6 W	4.8/3.6 W	4.8/3.6 W
Part number	2000025704	2000025715	2000025726
Supply	200-230 V AC	200-230 V AC	200-230 V AC
Power pilot valve	4.8/3.6 W	4.8/3.6 W	4.8/3.6 W
Part number	2000025706	2000025717	2000025728

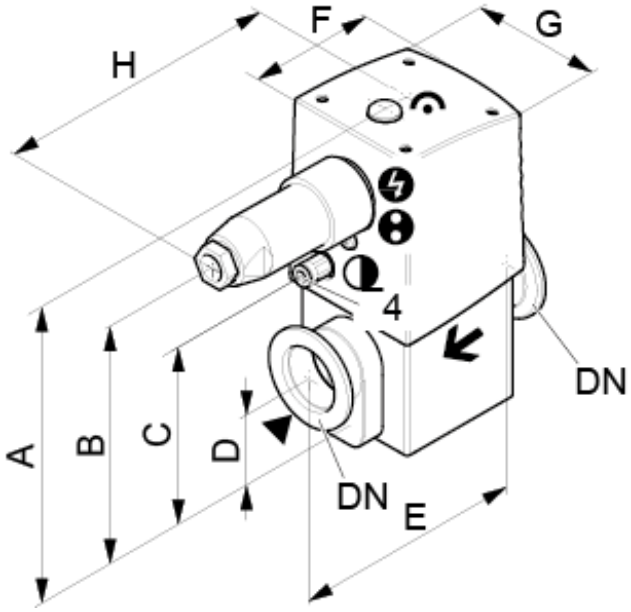
Inline-valves, pneumatic, with PI, without PV, DN 16 to 40 ISO-KF



- Bellows-sealed
- With visual position indicator
- Normally closed (n.c.)
- Service life: 10 million operating cycles

DVC = Inline valve with bellows feedthrough
PX = Pneumatically actuated, stainless steel housing

Dimensions



	DVC 016 PX	DVC 025 PX	DVC 040 PX
A	126.1 mm	133.6 mm	169.1 mm
B	97 mm	104.5 mm	140 mm
C	59.2 mm	65.7 mm	95.2 mm

	DVC 016 PX	DVC 025 PX	DVC 040 PX
D	20 mm	31.8 mm	40.8 mm
E	80 mm	100 mm	130 mm
F	55 mm	64.3 mm	81.3 mm
G	51.4 mm	60.1 mm	75.7 mm
H	93.2 mm	97.8 mm	105.3 mm

Technical data	DVC 016 PX	DVC 025 PX	DVC 040 PX
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Bakeout temperature: actuator, pilot valve	50 °C	50 °C	50 °C
Bakeout temperature: housing	150 °C	150 °C	150 °C
Operating pressure max.	2000 hPa (abs.)	2000 hPa (abs.)	2000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	2000 hPa	2000 hPa	2000 hPa
Differential pressure in closing direction	5000 hPa	5000 hPa	5000 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	4 cm^3	11 cm^3	35 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Housing	Stainless steel	Stainless steel	Stainless steel
Weight	0.89 kg	1.35 kg	2.2 kg
Conductance for molecular flow	2.5 l/s	7 l/s	20 l/s
Opening time	100 ms	120 ms	260 ms
Closing time	100 ms	160 ms	540 ms
Service life	10000000 cycles	10000000 cycles	10000000 cycles
Electrical position indicator	Included	Included	Included
Electrical position indicator: Rating	250 V AC / 0.1 A ; 50 V DC/ 0.25 A	250 V AC / 0.1 A ; 50 V DC/ 0.25 A	250 V AC / 0.1 A ; 50 V DC/ 0.25 A

Part number			
Inline valves	2000025698	2000025709	2000025720

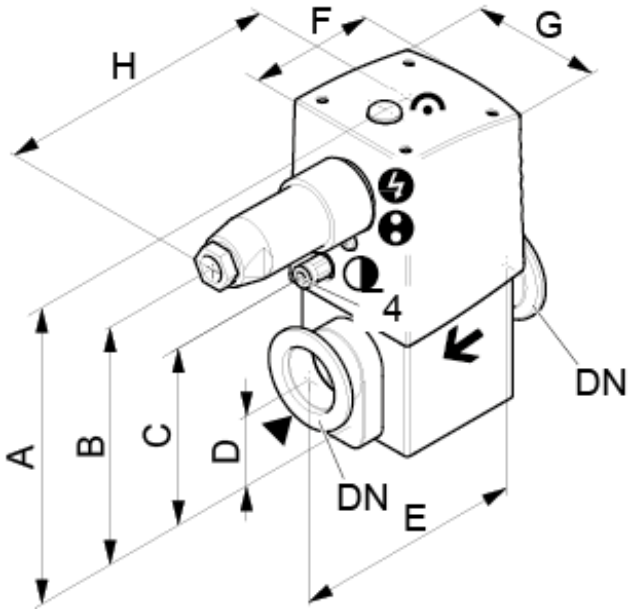
Inline-valves, electropneumatic with PI, with PV, n.o., DN 16 to 40 ISO-KF



- Bellows-sealed
- With visual position indicator
- Normally open (n.o.)
- Service life: 10 million operating cycles

DVC = Inline valve with bellows feedthrough
PX = Electropneumatically actuated, stainless steel housing

Dimensions



	DVC 016 PX	DVC 025 PX	DVC 040 PX
A	126.1 mm	133.6 mm	169.1 mm
B	97 mm	104.5 mm	140 mm
C	59.2 mm	65.7 mm	95.2 mm
D	20 mm	31.8 mm	40.8 mm

	DVC 016 PX	DVC 025 PX	DVC 040 PX
E	80 mm	100 mm	130 mm
F	55 mm	64.3 mm	81.3 mm
G	51.4 mm	60.1 mm	75.7 mm
H	93.2 mm	97.8 mm	105.3 mm

Technical data	DVC 016 PX	DVC 025 PX	DVC 040 PX
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Bakeout temperature: actuator, pilot valve	50 °C	50 °C	50 °C
Bakeout temperature: housing	150 °C	150 °C	150 °C
Operating pressure max.	2000 hPa (abs.)	2000 hPa (abs.)	2000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure in opening direction	2000 hPa	2000 hPa	2000 hPa
Differential pressure in closing direction	5000 hPa	5000 hPa	5000 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	4 cm^3	11 cm^3	35 cm^3
Feedthrough	Bellows, stainless steel	Bellows, stainless steel	Bellows, stainless steel
Housing	Stainless steel	Stainless steel	Stainless steel
Weight	0.89 kg	1.35 kg	2.2 kg
Power pilot valve	2.5 W	2.5 W	2.5 W
Conductance for molecular flow	2.5 l/s	7 l/s	20 l/s
Opening time	100 ms	120 ms	260 ms
Closing time	100 ms	160 ms	540 ms
Service life	10000000 cycles	10000000 cycles	10000000 cycles
Electrical position indicator	Included	Included	Included
Electrical position indicator: Rating	250 V AC / 0.1 A ; 50 V DC/ 0.25 A	250 V AC / 0.1 A ; 50 V DC/ 0.25 A	250 V AC / 0.1 A ; 50 V DC/ 0.25 A
Control valve	Included	Included	Included
Supply	24 V AC	24 V DC	24 V DC

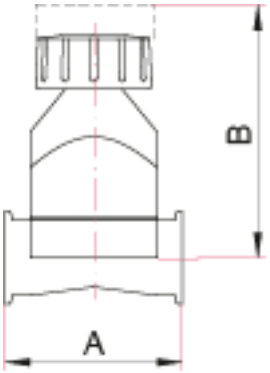
Part number			
Inline valves	2000025703	2000025714	2000025725

Diaphragm valves, manual



- Robust vacuum valve for venting, rough-metering and locking
- Service life: 100000 operating cycles
- The membrane seals the valve seat and the housing
- With visual indication of open and closed positions

Dimensions



	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
A	52 mm	80 mm	105 mm
B	66.5 mm	111 mm	132 mm

Technical Data	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Actuator	Spindle	Spindle	Spindle
Bakeout temperature: actuator	50 °C	50 °C	50 °C
Bakeout temperature: housing	100 °C	100 °C	100 °C
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-7}$
Seal: Valve plate	FKM	FKM	FKM
Pressure range	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$

Technical Data	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Housing	Aluminum	Aluminum	Aluminum
Conductance for molecular flow	2 l/s	5 l/s	17 l/s

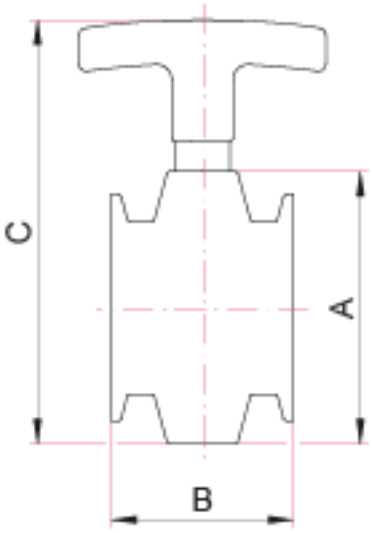
Part number			
Diaphragm valves	2000050162	2000050163	2000050164

Butterfly valves, manual, aluminum, DN 16 to 50 ISO-KF



- Swivel valve plate with FKM seal
- Service life: 3000 operating cycles
- Valve position indicated by T-handle
- Nearly free clearance in open position
- Double valve head seal made from FKM

Dimensions



	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
A	80 mm	80 mm	80 mm	90 mm
B	60 mm	60 mm	50 mm	60 mm
C	123 mm	123 mm	123 mm	140 mm

Technical Data	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
Flange (out)	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
Flange (in)	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3

Technical Data	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
Seal	FKM	FKM	FKM	FKM
Pressure range	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Housing	Aluminum	Aluminum	Aluminum	Aluminum
Temperature range	-15 to 130 °C	-15 to 130 °C	-15 to 130 °C	-15 to 130 °C

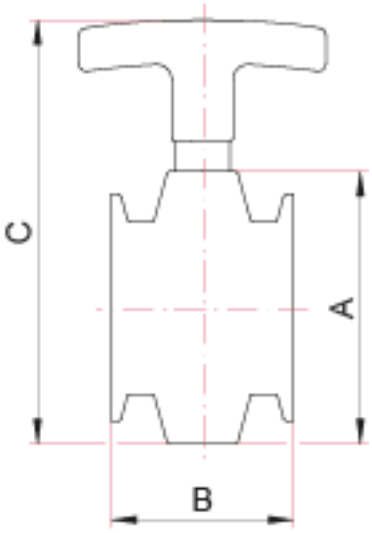
Part number				
Butterfly valves	2000050165	2000050166	2000050167	2000050168

Butterfly valves, manual, stainless steel, DN 16 to 50 ISO-KF



- Swivel valve plate with FKM seal
- Service life: 3000 operating cycles
- Valve position indicated by T-handle
- Nearly free clearance in open position
- Double valve head seal made from FKM

Dimensions



	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
A	80 mm	80 mm	80 mm	90 mm
B	60 mm	60 mm	60 mm	60 mm
C	123 mm	123 mm	123 mm	140 mm

Technical data	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
Flange (out)	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
Flange (in)	DN 40 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3

Technical data	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
Seal	FKM	FKM	FKM	FKM
Pressure range	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Housing	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Temperature range	-15 to 130 °C	-15 to 130 °C	-15 to 130 °C	-15 to 130 °C

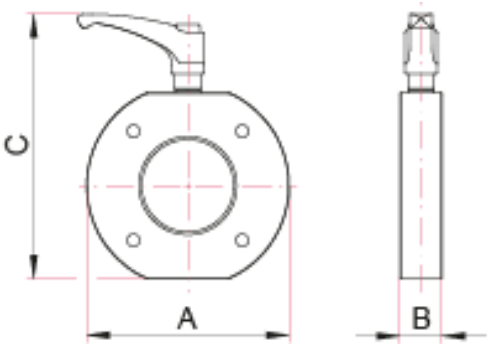
Part number	DN 16 ISO- KF	DN 25 ISO- KF	DN 40 ISO- KF	DN 50 ISO- KF
Butterfly valves	2000048098	2000048099	2000048100	2000048101

Butterfly valves, manual, aluminum, DN 63 ISO-F



- Swivel valve plate with FKM seal
- Service life: 3000 operating cycles
- Nearly free clearance in open position
- Valve position indicated by handle
- Double valve head seal made from FKM

Dimensions



	DN 63 ISO-F
A	145 mm
B	30 mm
C	190 mm

Technical data	DN 63 ISO-F
Flange (out)	DN 63 ISO-F
Flange (in)	DN 63 ISO-F
Tightness	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM
Pressure range	$1 \cdot 10^{-8}$
Housing	Aluminum
Scope of delivery	with set of M8 x 75 screws
Temperature range	-15 to 130 °C

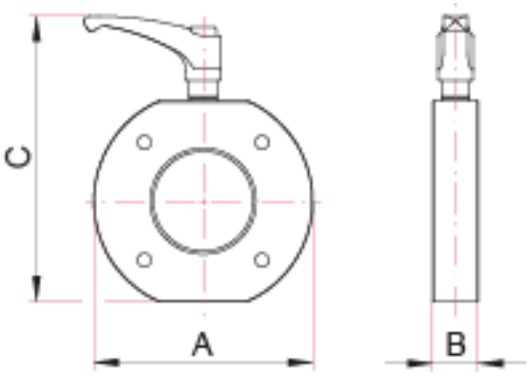
Part number	
Butterfly valves	2000040161

Butterfly valves, manual, stainless steel, DN 63 ISO-F



- Swivel valve plate with FKM seal
- Service life: 3000 operating cycles
- Nearly free clearance in open position
- Valve position indicated by handle
- Double valve head seal made from FKM

Dimensions



	DN 63 ISO-F
A	145 mm
B	30 mm
C	190 mm

Technical data	DN 63 ISO-F
Flange (out)	DN 63 ISO-F
Flange (in)	DN 63 ISO-F
Tightness	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM
Pressure range	$1 \cdot 10^{-8}$
Housing	Stainless steel
Temperature range	-15 to 130 °C

Part number	
Butterfly valves	2000040223

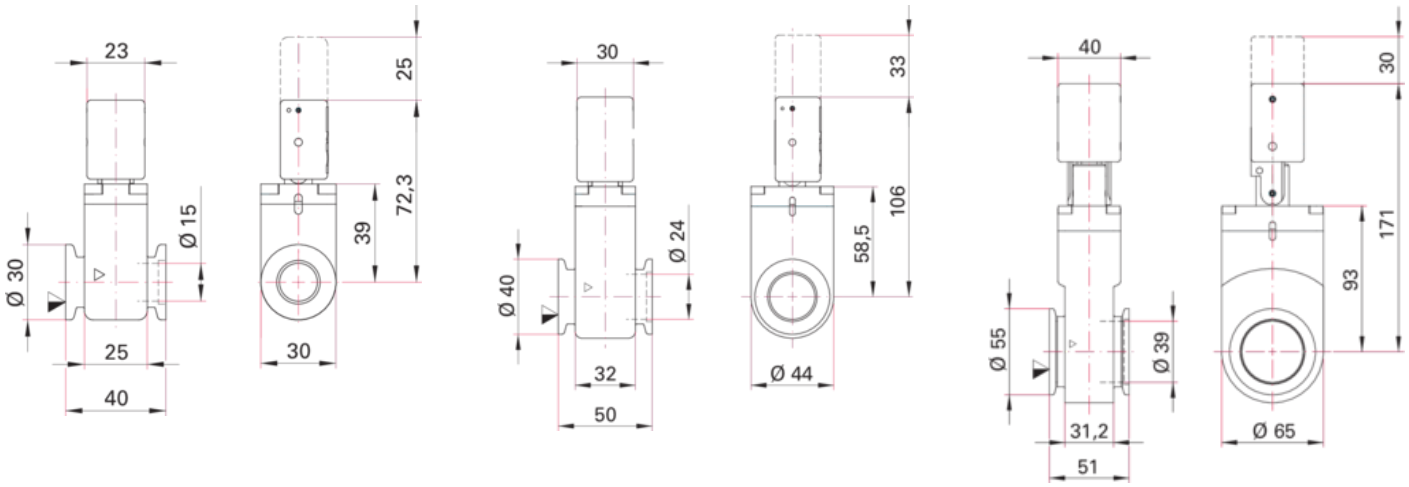
HV gate valve, manual, DN 16 to 40 ISO-KF



- High conductance due to free clearance
- Vulcanized valve disk seal
- Service life: 50000 operating cycles

SVV = Gate valve
HA = Manually actuated, aluminum housing

Dimensions



SVV 016 HA **SVV 025 HA** **SVV 040 HA**

Technical data	SVV 016 HA	SVV 025 HA	SVV 040 HA
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Actuator	Toggle lever	Toggle lever	Toggle lever
Bakeout temperature: actuator	80 °C	80 °C	80 °C
Bakeout temperature: housing	100 °C	100 °C	100 °C
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal: Housing	FKM	FKM	FKM
Seal: Valve seat	FKM	FKM	FKM

Technical data	SVV 016 HA	SVV 025 HA	SVV 040 HA
Differential pressure in opening direction	1000 hPa	1000 hPa	1000 hPa
Differential pressure in closing direction	1000 hPa	1000 hPa	1000 hPa
Pressure max.	2000 hPa	2000 hPa	2000 hPa
Pressure min.	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$
Feedthrough	Shaft feedthrough	Shaft feedthrough	Shaft feedthrough
Housing	Aluminum	Aluminum	Aluminum
Weight	0.4 kg	0.4 kg	0.7 kg
Conductance for molecular flow	10 l/s	34 l/s	140 l/s
Can be opened to a pressure difference of	30 hPa	30 hPa	30 hPa
Service life	50000 cycles	50000 cycles	50000 cycles
Valve plate	Stainless steel	Stainless steel	Stainless steel

Part number			
HV gate valves	2000025696	2000025707	2000025718

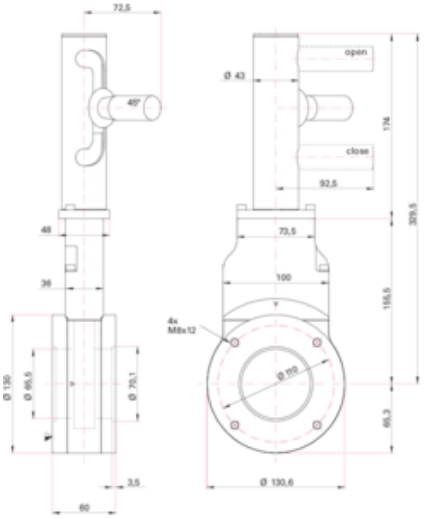
HV gate valve, manual, DN 63 to 160 ISO-F



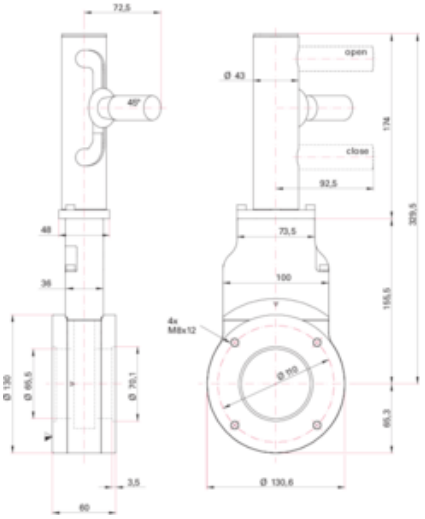
- High conductance due to free clearance
- Service life: up to 200000 operating cycles

SVV = Gate valve
HA = Manually actuated, aluminum housing

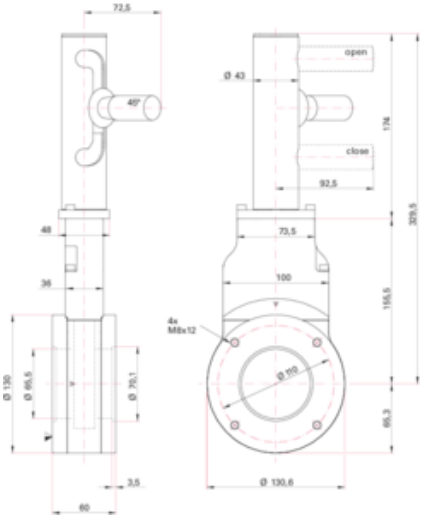
Dimensions



SVV 063 HA



SVV 100 HA



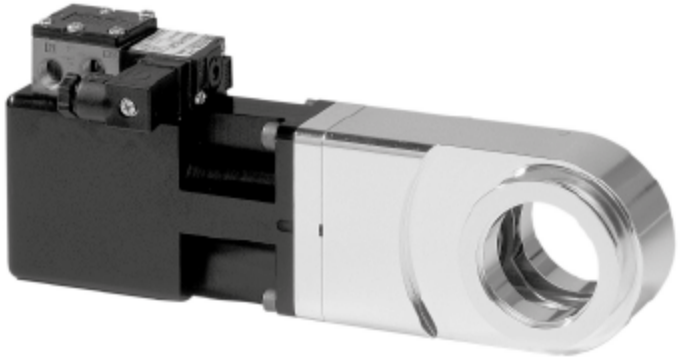
SVV 160 HA

Technical data	SVV 063 HA	SVV 100 HA	SVV 160 HA
Flange (out)	DN 63 ISO-F	DN 100 ISO-F	DN 160 ISO-F
Flange (in)	DN 63 ISO-F	DN 100 ISO-F	DN 160 ISO-F
Actuator	Connecting rod	Connecting rod	Connecting rod
Bakeout temperature: actuator	80 °C	80 °C	80 °C
Bakeout temperature: housing	120 °C	120 °C	120 °C
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal: Housing	FKM	FKM	FKM
Seal: Valve seat	FKM	FKM	FKM
Differential pressure in opening direction	1600 hPa	1600 hPa	1600 hPa
Differential pressure in closing direction	1600 hPa	1600 hPa	1600 hPa
Pressure max.	1600 hPa (abs.)	1600 hPa (abs.)	1600 hPa (abs.)
Pressure min.	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$
Feedthrough	Shaft feedthrough	Shaft feedthrough	Shaft feedthrough

Technical data	SVV 063 HA	SVV 100 HA	SVV 160 HA
Housing	Aluminum	Aluminum	Aluminum
Weight	3 kg	4.5 kg	9 kg
Conductance for molecular flow	550 l/s	2000 l/s	6000 l/s
Can be opened to a pressure difference of	30 hPa	30 hPa	30 hPa
Service life	200000 cycles	200000 cycles	100000 cycles
Valve plate	Stainless steel	Stainless steel	Stainless steel

Part number			
HV gate valves	2000025729	2000025736	2000025741

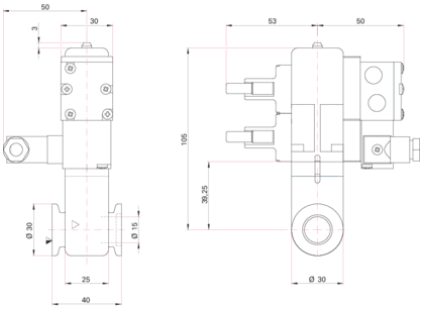
HV gate valve, electropneumatic, with PI, with PV, DN 16 to 40 ISO-KF



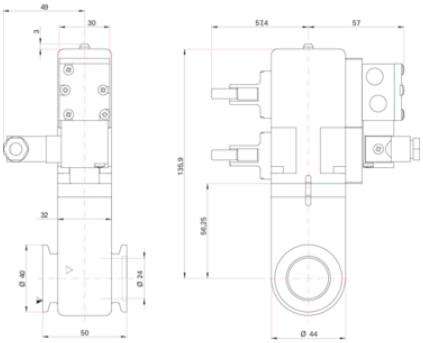
- High conductance due to free clearance
- Vulcanized valve disk seal
- With visible indication of open and closed positions
- Service life: 50000 operating cycles

SVV = Gate valve
PA =Electropneumatically actuated, aluminum housing
DC = Direct current
PI = Position indicator
PV = Pilot valve

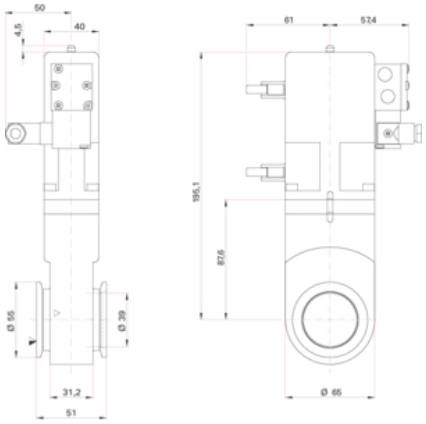
Dimensions



SVV 016 PA



SVV 025 PA



SVV 040 PA

Technical data	SVV 016 PA	SVV 025 PA	SVV 040 PA
Flange (out)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Actuator	Electropneumatic	Electropneumatic	Electropneumatic
Bakeout temperature: actuator	50 °C	50 °C	50 °C
Bakeout temperature: housing	100 °C	100 °C	100 °C
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal: Housing	FKM	FKM	FKM
Seal: Valve seat	FKM	FKM	FKM
Differential pressure in opening direction	1000 hPa	1000 hPa	1000 hPa
Differential pressure in closing direction	1000 hPa	1000 hPa	1000 hPa

Technical data	SVV 016 PA	SVV 025 PA	SVV 040 PA
Compressed air (overpressure) max.	7000 hPa	7000 hPa	7000 hPa
Compressed air (overpressure) min.	4500 hPa	4500 hPa	4500 hPa
Compressed air volume	10 cm^3	30 cm^3	70 cm^3
Pressure max.	1000 hPa (abs.)	1000 hPa (abs.)	1000 hPa (abs.)
Pressure min.	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$
Feedthrough	Shaft feedthrough	Shaft feedthrough	Shaft feedthrough
Housing	Aluminum	Aluminum	Aluminum
Weight	0.8 kg	0.8 kg	1.2 kg
Position feedback: Load capacity	50 V / 0.5 A / 10 W	50 V / 0.5 A / 10 W	50 V / 0.5 A / 10 W
Power consumption	24 V DC / 5.4 W	24 V DC / 5.4 W	24 V DC / 5.4 W
Conductance for molecular flow	10 l/s	34 l/s	140 l/s
Can be opened to a pressure difference of	30 hPa	30 hPa	30 hPa
Closing/opening time	0.8 s	1.1 s	1.2 s
Service life	50000 cycles	50000 cycles	50000 cycles
Valve plate	Stainless steel	Stainless steel	Stainless steel

	SVV 016 PA	SVV 025 PA	SVV 040 PA
Supply	24 V DC	24 V DC	24 V DC
Part number	2000025701	2000025712	2000025723
Supply	24 V, 50 Hz	24 V, 50 Hz	24 V, 50 Hz
Part number	2000025699	2000025710	2000025721
Supply	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz
Part number	2000025705	2000025716	2000025727

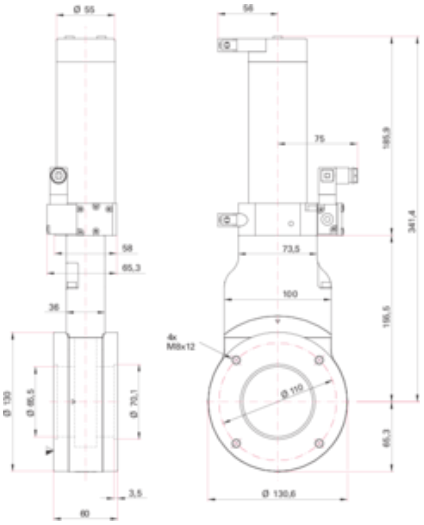
HV gate valve, electropneumatic, with PI, with PV, ISO-F Aluminum, DN 63 to 250 ISO-F



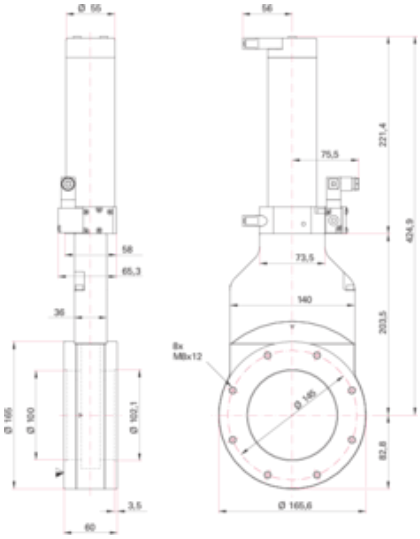
- High conductance due to free clearance
- With visual indication of open and closed positions
- Service life: up to 200000 operating cycles

SVV = Gate valve
PA = Electropneumatically actuated
DC = Direct current
PI = Position indicator
PV = Pilot valve

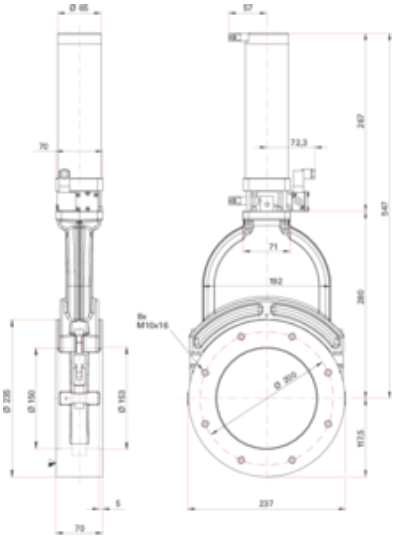
Dimensions



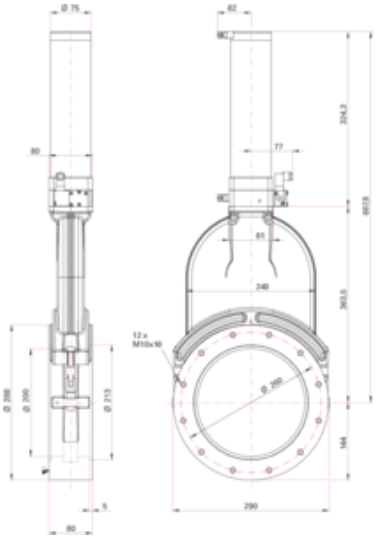
SVV 063 PA



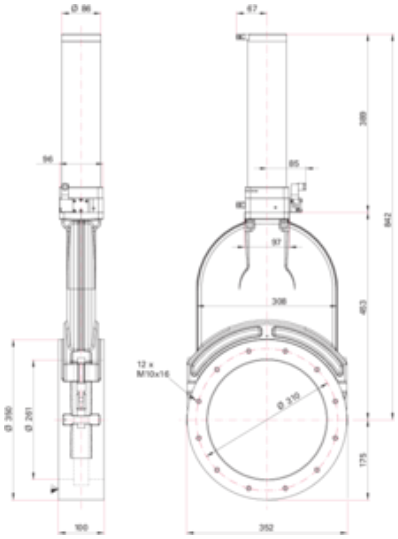
SVV 100 HA



SVV 160 PA



SVV 200 PA



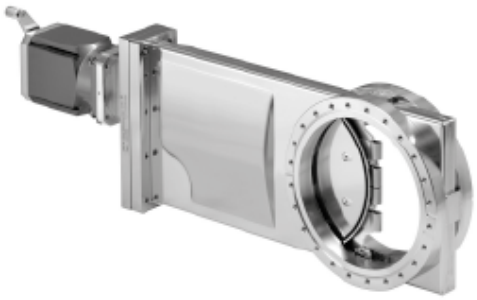
SVV 250 PA

Technical data	SVV 063 PA	SVV 100 PA	SVV 160 PA	SVV 200 PA	SVV 250 PA
Flange (out)	DN 63 ISO-F	DN 100 ISO-F	DN 160 ISO-F	DN 200 ISO-F	DN 250 ISO-F
Flange (in)	DN 63 ISO-F	DN 100 ISO-F	DN 160 ISO-F	DN 200 ISO-F	DN 250 ISO-F
Actuator	Electropneumatic	Electropneumatic	Electropneumatic	Electropneumatic	Electropneumatic
Bakeout temperature: actuator	50 °C	50 °C	50 °C	50 °C	50 °C
Bakeout temperature: housing	120 °C	120 °C	120 °C	120 °C	120 °C
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal: Housing	FKM	FKM	FKM	FKM	FKM
Seal: Valve seat	FKM	FKM	FKM	FKM	FKM

Technical data	SVV 063 PA	SVV 100 PA	SVV 160 PA	SVV 200 PA	SVV 250 PA
Differential pressure in opening direction	1600 hPa	1600 hPa	1600 hPa	1600 hPa	1200 hPa
Differential pressure in closing direction	1600 hPa	1600 hPa	1600 hPa	1600 hPa	1200 hPa
Compressed air (overpressure) max.	7000 hPa	7000 hPa	7000 hPa	7000 hPa	7000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa	4000 hPa	4000 hPa	4000 hPa
Compressed air volume	160 cm^3	220 cm^3	500 cm^3	9000 cm^3	1500 cm^3
Pressure max.	1600 hPa (abs.)	1600 hPa (abs.)	1600 hPa (abs.)	160 hPa (abs.)	1200 hPa (abs.)
Pressure min.	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$
Feedthrough	Shaft feedthrough	Shaft feedthrough	Shaft feedthrough	Shaft feedthrough	Shaft feedthrough
Housing	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Weight	3 kg	4.5 kg	9 kg	18 kg	25 kg
Position feedback: Load capacity	250 V AC / 2 A ; 50 V DC / 1.2 A	250 V AC / 2 A ; 50 V DC / 1.2 A	250 V AC / 2 A ; 50 V DC / 1.2 A	250 V AC / 2 A ; 50 V DC / 1.2 A	250 V AC / 2 A ; 50 V DC / 1.2 A
Power consumption	24 V DC / 5.4 W	24 V DC / 5.4 W	24 V DC / 5.4 W	24 V DC / 5.4 W	24 V DC / 5.4 W
Conductance for molecular flow	550 l/s	2000 l/s	6000 l/s	12000 l/s	22000 l/s
Can be opened to a pressure difference of	30 hPa	30 hPa	30 hPa	30 hPa	30 hPa
Closing/opening time	1.5 s	2 s	2 s	3 s	5 s
Service life	200000 cycles	200000 cycles	100000 cycles	100000 cycles	100000 cycles
Valve plate	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel

	SVV 063 PA	SVV 100 PA	SVV 160 PA	SVV 200 PA	SVV 250 PA
Supply	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Part number	2000025732	2000025739	2000025744	2000025749	2000025757
Supply	24 V, 50 Hz	24 V, 50 Hz	24 V, 50 Hz	24 V, 50 Hz	24 V, 50 Hz
Part number	2000025731	2000025738	2000025743	2000025747	2000025753
Supply	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz
Part number	2000025734	2000025740	2000025746	2000025751	2000025762

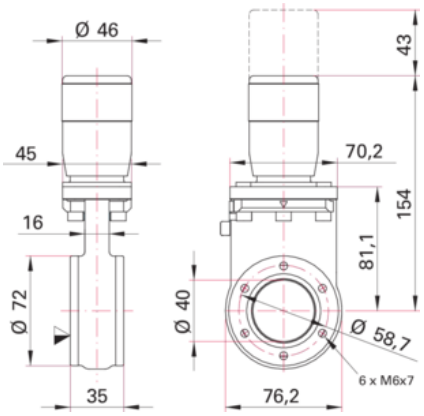
UHV gate valve, manual, DN 40 to 200 CF



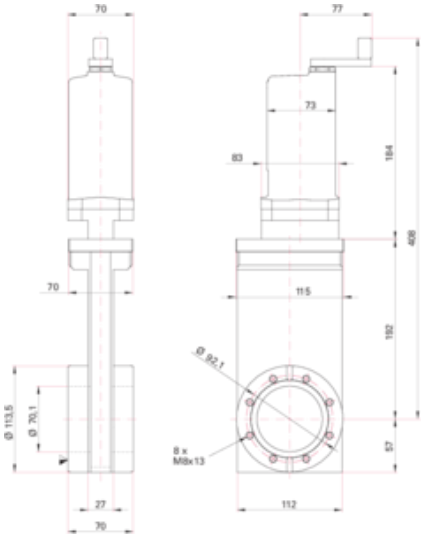
- Metal-sealed stainless steel housing
- Vulcanized, cavity-free valve disk seal
- Bellows-sealed
- Lubricant-free mechanics
- High conductance due to free clearance
- Service life: 50000 operating cycles

SVV = Gate valve
HF/HM = Manually actuated

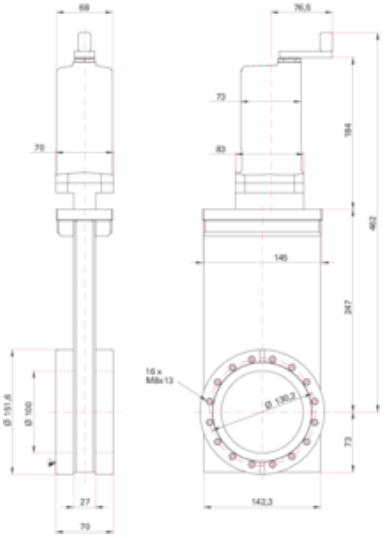
Dimensions



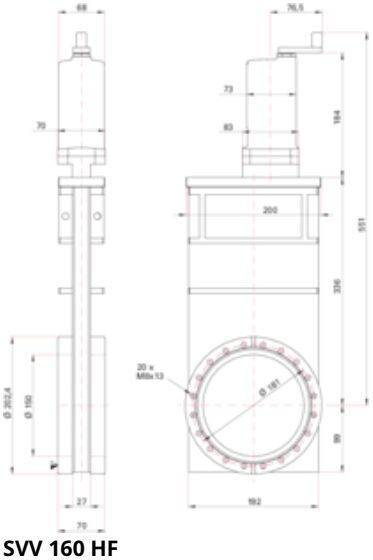
SVV 040 HM



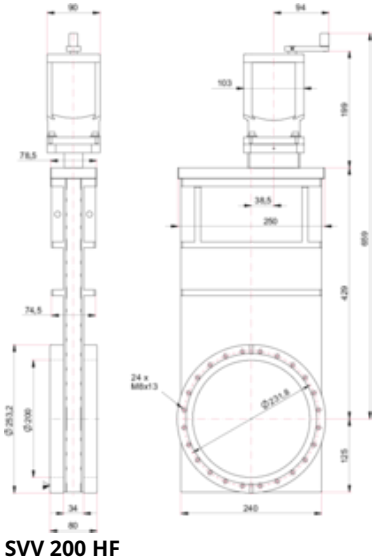
SVV 063 HF



SVV 100 HF



SVV 160 HF



SVV 200 HF

Technical data	SVV 040 HM	SVV 063 HF	SVV 100 HF
Flange (out)	DN 40 CF-F	DN 63 CF-F	DN 100 CF-F
Flange (in)	DN 40 CF-F	DN 63 CF-F	DN 100 CF-F
Actuator	Hand wheel	Hand wheel	Hand wheel
Bakeout temperature: Valve open, under vacuum	250 °C	250 °C	250 °C
Bakeout temperature: Valve closed	200 °C	200 °C	200 °C
Tightness: Housing	$5 \cdot 10^{-11}$ Pa m^3	$5 \cdot 10^{-11}$ Pa m^3	$5 \cdot 10^{-11}$ Pa m^3
Tightness: Valve seat	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal: Housing	Metal	Metal	Metal
Seal: Valve seat	FKM	FKM	FKM
Differential pressure in opening direction	2000 hPa	1600 hPa	1600 hPa
Differential pressure in closing direction	2000 hPa	1600 hPa	1600 hPa
Pressure max.	2000 hPa (abs.)	1600 hPa (abs.)	1600 hPa (abs.)
Pressure min.	$1 \cdot 10^{-10}$	$1 \cdot 10^{-10}$	$1 \cdot 10^{-10}$
Feedthrough	Bellows	Bellows	Bellows
Housing	Stainless steel	Stainless steel	Stainless steel
Weight	1.8 kg	9 kg	12 kg
Conductance for molecular flow	220 l/s	600 l/s	1700 l/s
Can be opened to a pressure difference of	30 hPa	30 hPa	30 hPa
Service life	50000 cycles	50000 cycles	50000 cycles
Valve plate	Stainless steel	Stainless steel	Stainless steel

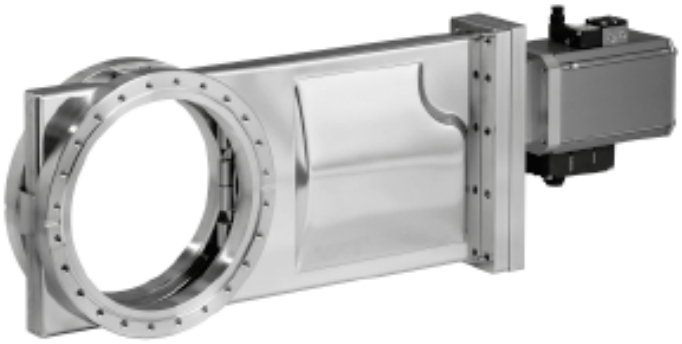
Part number			
UHV gate valves	2000025767	2000025771	2000025775

Technical data	SVV 160 HF	SVV 200 HF
Flange (out)	DN 160 CF-F	DN 200 CF-F
Flange (in)	DN 160 CF-F	DN 200 CF-F
Actuator	Hand wheel	Hand wheel
Bakeout temperature: Valve open, under vacuum	250 °C	250 °C
Bakeout temperature: Valve closed	200 °C	200 °C
Tightness: Housing	$5 \cdot 10^{-11}$ Pa m^3	$5 \cdot 10^{-11}$ Pa m^3
Tightness: Valve seat	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal: Housing	Metal	Metal
Seal: Valve seat	FKM	FKM
Differential pressure in opening direction	1600 hPa	1600 hPa

Technical data	SVV 160 HF	SVV 200 HF
Differential pressure in closing direction	1600 hPa	1600 hPa
Pressure max.	1600 hPa (abs.)	1600 hPa (abs.)
Pressure min.	$1 \cdot 10^{-10}$	$1 \cdot 10^{-10}$
Feedthrough	Bellows	Bellows
Housing	Stainless steel	Stainless steel
Weight	18 kg	24 kg
Conductance for molecular flow	6000 l/s	12000 l/s
Can be opened to a pressure difference of	30 hPa	30 hPa
Service life	50000 cycles	50000 cycles
Valve plate	Stainless steel	Stainless steel

Part number		
UHV gate valves	2000025781	2000025787

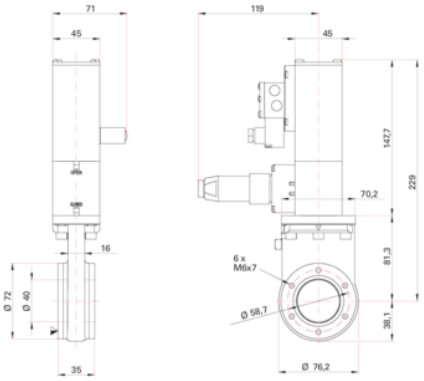
UHV gate valve, electropneumatic, with PI, with PV, DN 40 to 250 CF



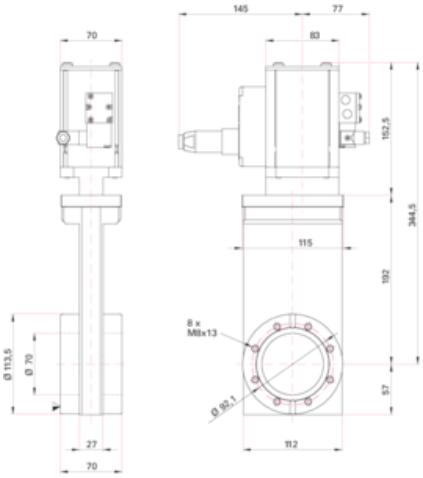
- Metal-sealed stainless steel housing
- Vulcanized, cavity-free valve disk seal (up to DN 200 CF)
- Bellows-sealed
- Lubricant-free mechanics
- Service life: 50000 operating cycles

SVV = Gate valve
PM/PF = Electropneumatically actuated
DC = Direct current

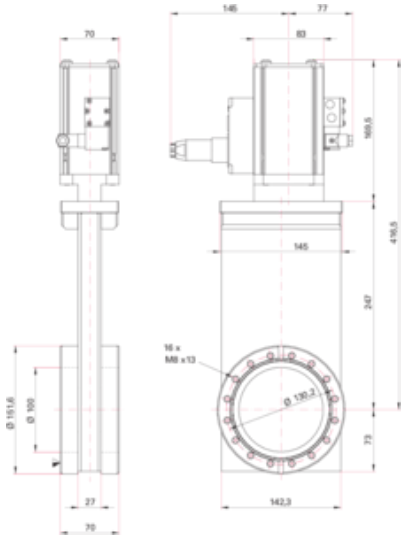
Dimensions



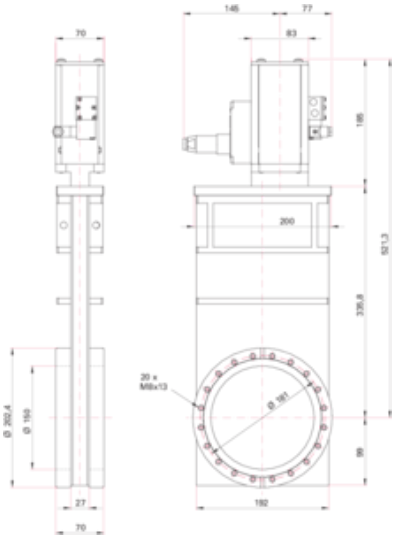
SVV 040 PM



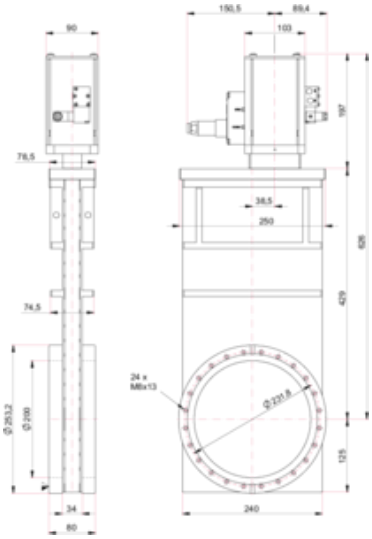
SVV 063 PF



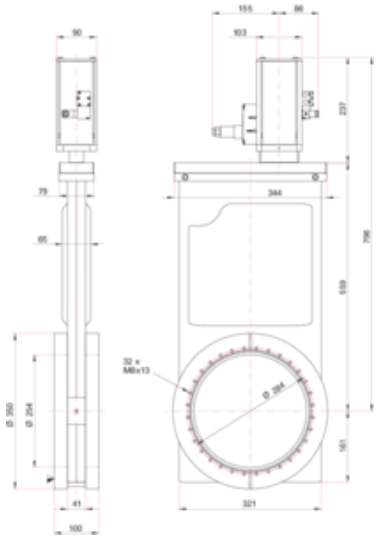
SVV 100 PF



SVV 160 PF



SVV 200 PF



SVV 250 PF

General technical data	
Actuator	Electropneumatic
Bakeout temperature: actuator	200 °C (position indicator 80 °C, pilot valve 50 °C)
Bakeout temperature: Valve open, under vacuum	250 °C
Bakeout temperature: Valve closed	200 °C
Tightness: Housing	$5 \cdot 10^{-11}$ Pa m^3
Tightness: Valve seat	$1 \cdot 10^{-10}$ Pa m^3
Seal: Housing	Metal
Seal: Valve seat	FKM
Compressed air (overpressure) max.	7000 hPa
Pressure min.	$1 \cdot 10^{-10}$
Feedthrough	Bellows
Housing	Stainless steel
Power consumption	24 V DC / 5.4 W
Can be opened to a pressure difference of	30 hPa
Service life	50000 cycles
Valve plate	Stainless steel

Technical data	SVV 040 PM	SVV 063 PF	SVV 100 PF
Flange (out)	DN 40 CF-F	DN 63 CF-F	DN 100 CF-F
Flange (in)	DN 40 CF-F	DN 63 CF-F	DN 100 CF-F
Compressed air (overpressure) min.	5000 hPa	4000 hPa	4000 hPa
Compressed air volume	60 cm^3	80 cm^3	110 cm^3
Pressure max.	2000 hPa	1600 hPa	1600 hPa
Weight	1.8 kg	9 kg	12 kg
Position feedback: Load capacity	250 V AC / 5 A ; 50 V DC / 3 A	250 V AC / 2 A ; 50 V DC / 1.2 A	250 V AC / 2 A ; 50 V DC / 1.2 A
Conductance for molecular flow	220 l/s	600 l/s	1700 l/s
Closing/opening time	0.7 s	1 s	1.2 s

	SVV 040 PM	SVV 063 PF	SVV 100 PF
Supply	24 V DC	24 V DC	24 V DC
Part number	2000025769	2000025773	2000025777
Supply	24 V, 50 Hz	24 V, 50 Hz	24 V, 50 Hz
Part number	2000025768	2000025772	2000025776

	SVV 040 PM	SVV 063 PF	SVV 100 PF
Supply	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz
Part number	2000025770	2000025774	2000025780

Technical data	SVV 160 PF	SVV 200 PF	SVV 250 PF
Flange (out)	DN 160 CF-F	DN 200 CF-F	DN 250 CF-F
Flange (in)	DN 160 CF-F	DN 200 CF-F	DN 250 CF-F
Compressed air (overpressure) min.	4000 hPa	4000 hPa	5000 hPa
Compressed air volume	140 cm^3	250 cm^3	350 cm^3
Pressure max.	1600 hPa	1600 hPa	1200 hPa
Weight	18 kg	24 kg	42 kg
Position feedback: Load capacity	250 V AC / 2 A ; 50 V DC / 1.2 A	250 V AC / 2 A ; 50 V DC / 1.2 A	250 V AC / 2 A ; 50 V DC / 1.2 A
Conductance for molecular flow	6000 l/s	12000 l/s	26000 l/s
Closing/opening time	1.5 s	2 s	4 s

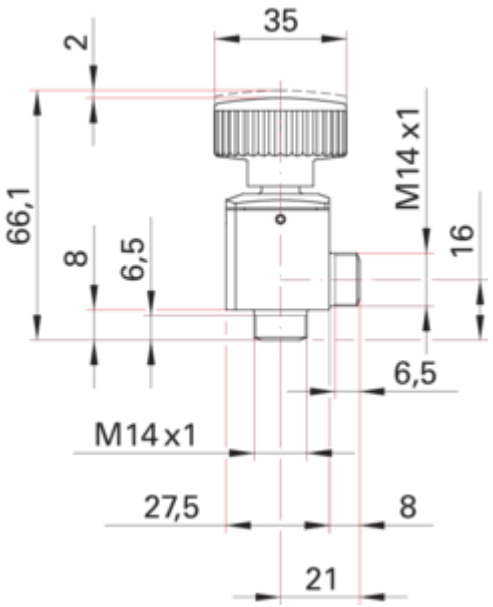
	SVV 160 PF	SVV 200 PF	SVV 250 PF
Supply	24 V DC	24 V DC	24 V DC
Part number	2000025783	2000025790	2000025791
Supply	24 V, 50 Hz	24 V, 50 Hz	24 V, 50 Hz
Part number	2000025782	2000025788	2000025789
Supply	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz
Part number	2000025786	2000025793	2000025794

Mini angle valves, manual, DN 5



- Two connections required as accessories
- Bellows-sealed
- Service life: 1.5 million operating cycles

Dimensions



Technical data	EVI 005 S
Flange (out)	DN 5 mm M14x1
Flange (in)	DN 5 mm M14x1
Bakeout temperature: actuator	70 °C
Bakeout temperature: housing	150 °C
Operating pressure max.	4000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM
Differential pressure in opening direction	4000 hPa
Differential pressure in closing direction	4000 hPa
Feedthrough	Bellows, stainless steel
Housing	Stainless steel
Weight	150 g
Conductance for laminar flow	4 l/s

Technical data	EVI 005 S
Conductance for molecular flow	0.4 l/s
Can be opened to a pressure difference of	4000 hPa
Service life	1500000 cycles
Ambient temperature	5-70 °C
Valve plate	Stainless steel

Part number	
Mini angle valves	2000025797

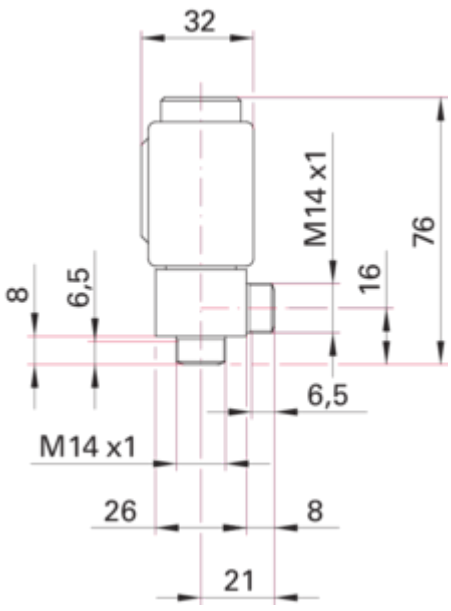
Accessories	
Connection, for ¼" tube O.D.	2000007615
Connection, for 6 mm tube O.D.	2000007616
Connection, DN 10 ISO-KF	2000007614

Mini angle valves, solenoid actuated, without position indicator (PI), DN 5



- Two connections required as accessories
- Normally closed (n.c.)
- Service life: 2 million operating cycles

Dimensions



Technical data	EVI 005 M
Flange (out)	DN 5 mm M14x1
Flange (in)	DN 5 mm M14x1
Actuator	Solenoid actuated

Technical data	EVI 005 M
Version	Normally closed (n.c.)
Bakeout temperature: actuator	120 °C
Bakeout temperature: housing	150 °C
Operating pressure max.	1500 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM
Differential pressure in opening direction	1500 hPa
Differential pressure in closing direction	5000 hPa
Housing	Stainless steel
Weight	300 g
Conductance for laminar flow	3 l/s
Conductance for molecular flow	0.3 l/s
Can be opened to a pressure difference of	1000 hPa
Switching frequency	300 min^{-1}
Closing/opening time	7/30 ms
Protection acc. to DIN 40050	IP 65
Service life	2000000 cycles
Ambient temperature	5-40 °C
Supply	24 V DC
Supply: Power consumption max.	10 W

Part number	
Mini angle valves	2000025798

Accessories	
Connection, for ¼" tube O.D.	2000007615
Connection, for 6 mm tube O.D.	2000007616
Connection, DN 10 ISO-KF	2000007614

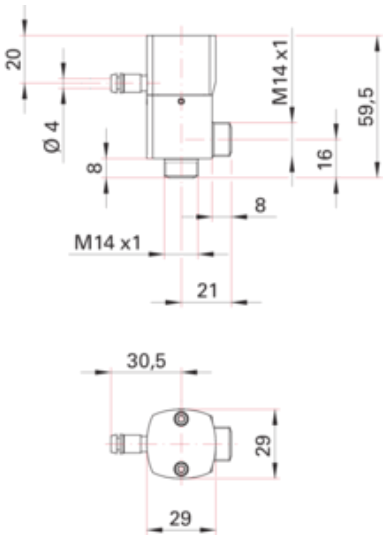
Mini angle valves, pneumatic and electropneumatic, without position indicator (PI), DN 5



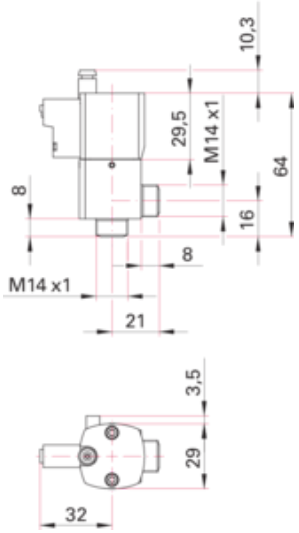
EVI = Mini angle valve with bellows feedthrough

- Bellows-sealed
- Normally closed (n.c.)
- Two connections required as accessories
- Service life: 1.5 million operating cycles
- Variants:
  EVI 005 P = pneumatic (without pilot valve);
  EVI 105 P = electropneumatic (with pilot valve)

Dimensions



EVI 005 P, Mini angle valve, without control valve



EVI 105 P, Mini angle valve, with control valve

Technical data	EVI 005 P	EVI 105 P
Flange (out)	DN 5 mm M14x1	DN 5 mm M14x1
Flange (in)	DN 5 mm M14x1	DN 5 mm M14x1
Bakeout temperature: actuator	80 °C	80 °C
Bakeout temperature: housing	150 °C	150 °C
Operating pressure max.	4000 hPa (abs.)	4000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM
Differential pressure in opening direction	3000 hPa	3000 hPa
Differential pressure in closing direction	3000 hPa	3000 hPa
Compressed air (overpressure) max.	8000 hPa	8000 hPa
Compressed air (overpressure) min.	4000 hPa	4000 hPa
Feedthrough	Bellows, stainless steel	Bellows, stainless steel
Housing	Stainless steel	Stainless steel
Weight	200 g	200 g
Conductance for laminar flow	4 l/s	4 l/s
Conductance for molecular flow	0.4 l/s	0.4 l/s
Can be opened to a pressure difference of	3000 hPa	3000 hPa
Switching frequency	150 min^{-1}	150 min^{-1}
Closing/opening time	35/35 ms	35/35 ms
Protection acc. to DIN 40050	IP 65	IP 65
Service life	1500000 cycles	1500000 cycles
Control valve	-	Included
Ambient temperature	5-80 °C	5-40 °C
Supply	-	24 V DC
Supply: Power consumption max.	-	1 W

Part number		
Mini angle valves	2000025804	2000025806

Accessories		
Connection, for ¼" tube O.D.	2000007615	2000007615
Connection, for 6 mm tube O.D.	2000007616	2000007616
Connection, DN 10 ISO-KF	2000007614	2000007614

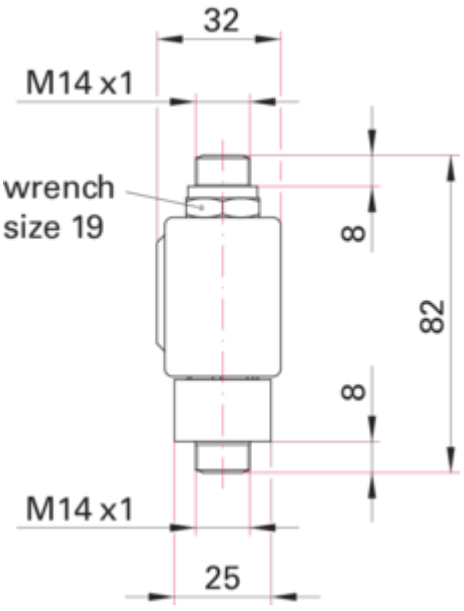
Mini-Inline-Valve, solenoid actuated, without position indicator (PI), n.c. and n.o., DN 5



DVI = Mini inline valve with bellows feedthrough
M = Solenoid actuated

- Two connections required as accessories
- Service life: 2 million operating cycles
- Variants:
  DVI 005 M = normally closed (n.c.);
  DVI 205 M = normally open (n.o.)

Dimensions



Technical data	DVI 005 M	DVI 205 M
Flange (out)	DN 5 mm M14x1	DN 5 mm M14x1
Flange (in)	DN 5 mm M14x1	DN 5 mm M14x1
Actuator	Solenoid actuated	Solenoid actuated
Version	Normally closed	Normally open
Bakeout temperature: actuator	120 °C	120 °C
Bakeout temperature: housing	150 °C	150 °C
Operating pressure max.	1000 hPa (abs.)	2000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM	FKM
Differential pressure in opening direction	1500 hPa	2000 hPa
Differential pressure in closing direction	5000 hPa	4000 hPa
Housing	Stainless steel	Stainless steel
Weight	300 g	300 g
Conductance for laminar flow	2 l/s	2 l/s
Conductance for molecular flow	0.2 l/s	0.2 l/s
Can be opened to a pressure difference of	1000 hPa	4000 hPa
Switching frequency	300 min^{-1}	300 min^{-1}
Closing/opening time	7/30 ms	30/10 ms
Protection acc. to DIN 40050	IP 65	IP 65
Service life	2000000 cycles	2000000 cycles
Ambient temperature	5-40 °C	5-40 °C
Supply	24 V DC	24 V DC
Supply: Power consumption max.	10 W	10 W

Part number		
Mini inline valves	2000025799	2000025800

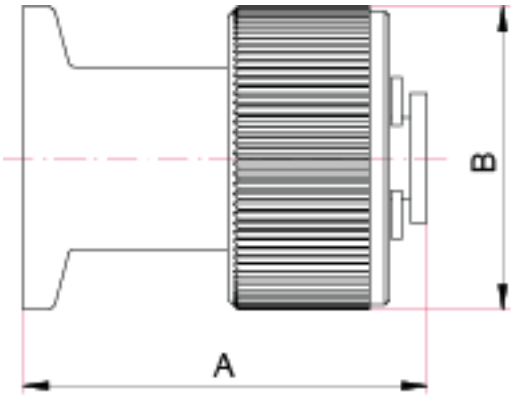
Accessories		
Connection, for ¼" tube O.D.	2000007615	2000007615
Connection, for 6 mm tube O.D.	2000007616	2000007616
Connection, DN 10 ISO-KF	2000007614	2000007614

Venting valve, manual, DN 10 ISO-KF



- Manually operated screw cap for venting with ambient air

Dimensions



	Venting valve, manually actuated, stainless steel	Venting valve, manually actuated, brass, nickel-plated
A	40 mm	40 mm
B	30 mm	30 mm

Technical data	Venting valve, manually actuated, stainless steel	Venting valve, manually actuated, brass, nickel-plated
Flange (in)	DN 10 ISO-KF	DN 10 ISO-KF
Tightness	$1 \cdot 10^{-10}$ Pa m^3	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM (valve seal)	FKM (valve seal)

Technical data	Venting valve, manually actuated, stainless steel	Venting valve, manually actuated, brass, nickel-plated
Pressure range	$1 \cdot 10^{-8}$	$1 \cdot 10^{-8}$
Materials	Stainless steel	Brass, nickel-plated
Temperature range	-30 to 130 °C	-30 to 130 °C

Flanges according to ISO 2861

Part number		
Venting valves	2000048059	2000045473

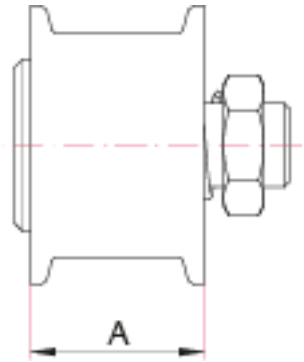
Accessories		
Reducer Centering Ring, Stainless Steel 304/ 1.4301, DN 10/16 ISO-KF	2000047821	2000047821

Pressure relief valves, DN 16 and 40 ISO-KF



- Protects vacuum systems from over pressures
- Housing material: Stainless steel
- Response pressure: 1200 to 1500 hPa (abs.)
- 120VUS016 and 120VUS040 with modifiable differential pressure to app. +/- 100 hPa

Dimensions



Technical data	VA 016 X	Pressure Relief Valve, DN 16 ISO-KF	Pressure Relief Valve, DN 40 KF
Flange (out)	G 1/8"	DN 16 ISO-KF	DN 40 ISO-KF
Flange (in)	DN 16 ISO-KF	DN 16 ISO-KF	DN 40 ISO-KF
Tightness	$1 \cdot 10^{-9}$ Pa m^3	$1 \cdot 10^{-9}$ Pa m^3	$1 \cdot 10^{-9}$ Pa m^3
Seal	FKM	FKM	FKM
Differential pressure	not modifiable	modifiable to app. +/- 100 hPa	modifiable to app. +/- 100 hPa
Pressure range	$1 \cdot 10^{-8}$	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$
Flow rate max.	6 l/min		
Housing	Stainless steel	Stainless steel	Stainless steel
Can be opened to a pressure difference of	200 to 500 hPa	app. 400 hPa	app. 200 hPa
Temperature range	0 to 50 °C	5 to 60 °C	5 to 60 °C

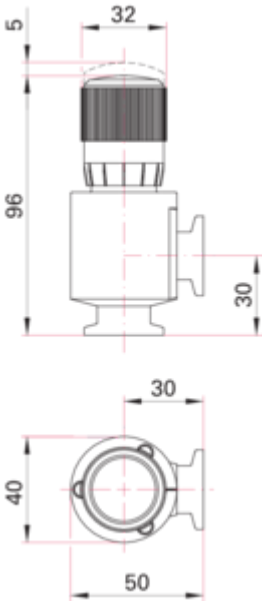
Part number			
Pressure relief valves	2000025824	2000048104	2000048105

Coarse gas dosing valve, manual, DN 10 ISO-KF



- For slow, manual venting
- Service life: 200000 operating cycles

Dimensions



Technical data	EVD 010 H
Flange (in)	DN 10 ISO-KF
Flange (out)	DN 10 ISO-KF
Bakeout temperature	100 °C

Technical data	EVD 010 H
Operating pressure max.	3000 hPa (abs.)
Operating pressure min.	$1 \cdot 10^{-7}$
Tightness	$1 \cdot 10^{-9}$ Pa m^3
Seal	FKM
Gas flow max. controllable	1.7 · 103 hPa l/s
Gas flow min. controllable	40 hPa l/s
Housing	Aluminum
Weight	0.2 kg
Can be opened to a pressure difference of	3000 hPa

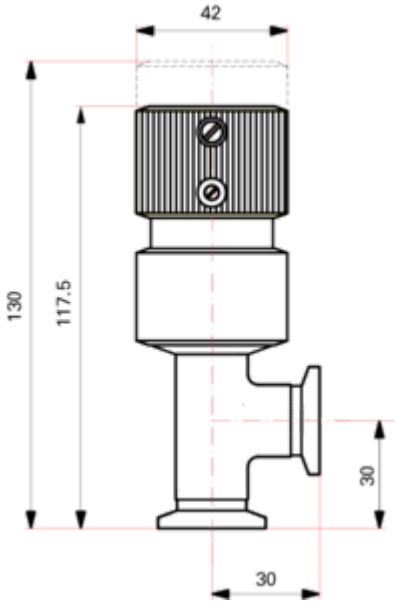
Part number	
Gas dosing valves	2000025821

Gas dosing valve with separate shut-off valve, manual, DN 16 ISO-KF



- Closable without changing the gas flow setting
- Optimum characteristic
- Digital position display
- Excellent reproducibility
- Extremely small dead volume
- Very broad regulating range

Dimensions



Technical data	EVN 116
Flange (out)	DN 16 ISO-KF
Flange (in)	DN 16 ISO-KF
Bakeout temperature: flanges	150 °C
Tightness	$1 \cdot 10^{-10}$ Pa m^3
Seal	FKM
Differential pressure	2500 hPa
Dosing sleeve	Fluorplastomer
Gas flow max. controllable	1000 hPa l/s
Gas flow min. controllable	$5 \cdot 10^{-6}$
Housing/needle/filter	Stainless steel

Technical data	EVN 116
Weight	0.4 kg
Temperature: Operating	80 °C
Dead volume	0.032 cm^3

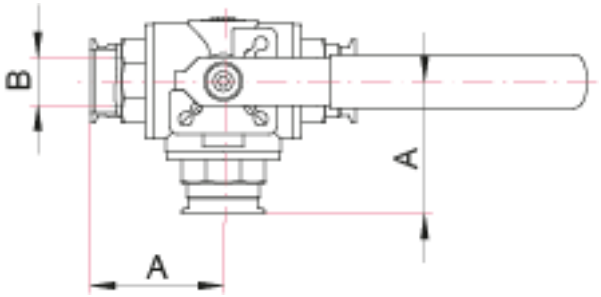
Part number	
Gas dosing valves	2000025825

Ball valve, 3-way, manual, DN 16 to 40 ISO-KF



- Ball made from stainless steel (1.4401) with a T- or L-shaped through hole
- Ball valve with large-scale free clearance
- Not overlap-free

Dimensions



	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
A	60 mm	75 mm	87.5 mm
B	11 mm	20 mm	32 mm

Technical data	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Actuator	90° turning of handle	90° turning of handle	90° turning of handle
Tightness	< $1 \cdot 10^{-7}$ Pa m^3	< $1 \cdot 10^{-7}$ Pa m^3	< $1 \cdot 10^{-7}$ Pa m^3
Seal	Ball: PTFE (reinforced with fiberglass); Stem: PTFE/FKM	Ball: PTFE (reinforced with fiberglass); Stem: PTFE/FKM	Ball: PTFE (reinforced with fiberglass); Stem: PTFE/FKM
Pressure range	$1 \cdot 10^{-5}$	$1 \cdot 10^{-5}$	$1 \cdot 10^{-5}$
Flange	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301
Housing	Stainless steel 1.4408	Stainless steel 1.4408	Stainless steel 1.4408
Nominal diameter	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF

Technical data	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Service life	20000 Cycles	20000 Cycles	20000 Cycles
Temperature range	-20 to 80 °C media temperature	-20 to 80 °C media temperature	-20 to 80 °C media temperature

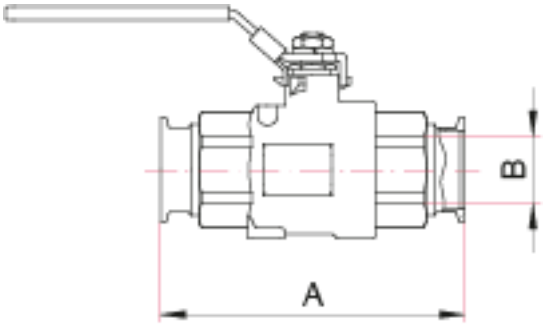
Part number	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Ball valves	2000048072	2000048078	2000048083
Ball valves	2000048075	2000048081	2000048085

Ball valve, manual, stainless steel, DN 10 to 40 ISO-KF



- Ball valve with large-scale free clearance
- Ball made from stainless steel (1.4401)

Dimensions



	DN 10 ISO-KF	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
A	100 mm	110 mm	130 mm	160 mm
B	10 mm	15 mm	24 mm	36 mm

Technical data	DN 10 ISO-KF	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Actuator	90° turning of handle	90° turning of handle	90° turning of handle	90° turning of handle
Tightness	< $1 \cdot 10^{-7}$ Pa m^3	< $1 \cdot 10^{-7}$ Pa m^3	< $1 \cdot 10^{-7}$ Pa m^3	< $1 \cdot 10^{-7}$ Pa m^3
Seal	PTFE (glass fiber reinforced)	PTFE (glass fiber reinforced)	PTFE (glass fiber reinforced)	PTFE (glass fiber reinforced)
Pressure range	$1 \cdot 10^{-5}$	$1 \cdot 10^{-5}$	$1 \cdot 10^{-5}$	$1 \cdot 10^{-5}$
Flange	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301
Housing	Stainless steel 1.4408	Stainless steel 1.4408	Stainless steel 1.4408	Stainless steel 1.4408
Nominal diameter	DN 10 ISO-KF	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF

Technical data	DN 10 ISO-KF	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Service life	20000 Cycles	20000 Cycles	20000 Cycles	20000 Cycles
Temperature range	-20 to 80 °C media temperature	-20 to 80 °C media temperature	-20 to 80 °C media temperature	-20 to 80 °C media temperature

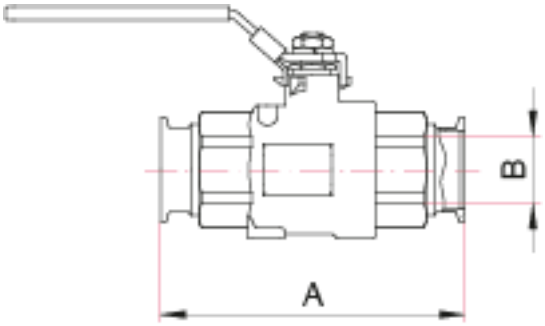
Part number				
Ball valves	2000048088	2000048089	2000048091	2000048093

Ball valve, manual, brass, nickel-plated, DN 10 to 40 ISO-KF



- Ball valve with large-scale free clearance
- Ball made from brass, hard-chrome plated

Dimensions



	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
A	90 mm	110 mm	135 mm
B	15 mm	24 mm	40 mm

Technical data	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Actuator	90° turning of handle	90° turning of handle	90° turning of handle
Tightness	< $1 \cdot 10^{-7}$ Pa m^3	< $1 \cdot 10^{-7}$ Pa m^3	< $1 \cdot 10^{-7}$ Pa m^3
Seal	Ball: PTFE; Stem: FKM/ NBR	Ball: PTFE; Stem: FKM/ NBR	Ball: PTFE; Stem: FKM/ NBR
Pressure range	$1 \cdot 10^{-5}$	$1 \cdot 10^{-5}$	$1 \cdot 10^{-5}$
Flange	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301
Housing	Brass, nickel plated	Brass, nickel plated	Brass, nickel plated
Nominal diameter	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF

Technical data	DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Service life	20000 Cycles	20000 Cycles	20000 Cycles
Temperature range	-20 to 80 °C media temperature	-20 to 80 °C media temperature	-20 to 80 °C media temperature

Part number			
Ball valves	2000045488	2000045490	2000045492

Service and Spare Parts. Always at Hand.



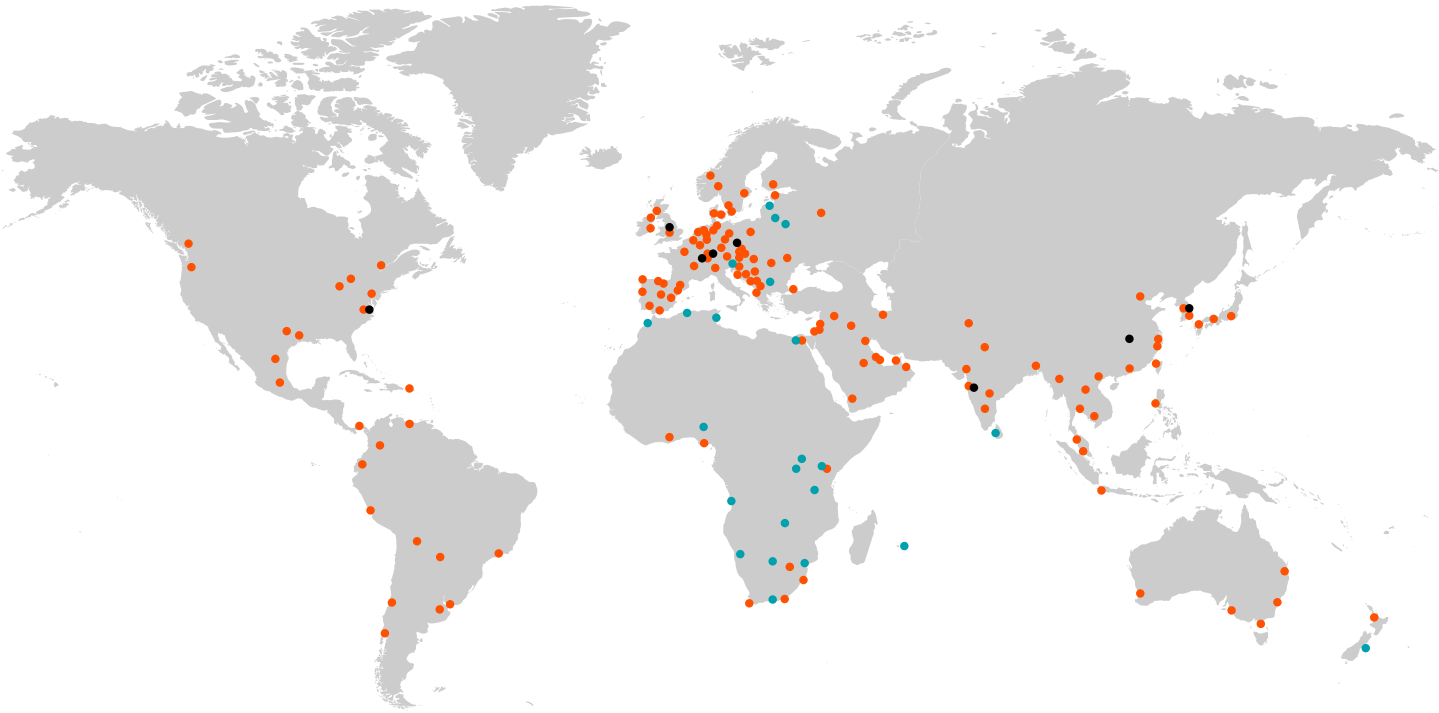
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Technical data is subject to change. | 20/08/2024 | V3