



Product Catalog

Vacuum Components

ISO-KF

ISO-K/ISO-F

CF SYSTEMS



Anadolu

VACUUM TECHNOLOGIES

Our customers are our business partners. By working with them to create value and mutual benefits, we aim to become a leader in the vacuum and fitting components sector.

We are looking forward to starting our partnership through this Anadolu Vacuum product catalog.

Get in touch today.

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ISO-KF

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Future of Vacuum Components



Let's grow together!

Anadolu Vacuum continues to grow with its 50 employees, 1600 m² work space, CNC lathe, CNC milling machines and up-to-date technologies, international collaborations and strong references.

Who We Are

Anadolu Vacuum products are created with 50 years of craftsmanship, experience in the trade, machining experience, family tradition and artisanship. This special collection of products has been developed and tested since 2009.

Anadolu Vacuum meets customer needs with modern production techniques, quality and product improvement practices. By meeting engineering and quality material needs, and customer requests in an economical way that is also in conformity with international quality standards, we aim to provide our valuable customers with solutions in the vacuum and semiconductor industries. The products you will see in these pages have been developed with the aim of providing cost effective, highly durable, easy to use quality materials and good customer service/customer support. Which has been established after extensively researching internationally sold products.

In additions to its products, Anadolu Vacuum is also a practical, fast and reliable solution partner that meets its customers expectations by finding solutions tailored to its customers specific requests, by being able to work on an order-based manner and by answering its customers needs and requests as quickly as possible.



What We Do

We are thrilled to introduce you to Anadolu Vacuum, a company that constantly improves itself through customer surveys, international collaborations, ever-improving production experience, high quality production lines, highly trained professionals and impeccable customer service principles. We design products for vacuum and semiconductor industry. Anadolu Vacuum products are special selection of 304 or 316 Stainless Steel and Aluminium EN AW 6082 vacuum and fitting components flanges, seals, O-rings and clamps. Our vacuum and fitting components can be customized for your specific needs.



Get maximum efficiency!

We guarantee you that you will get maximum efficiency when original Anadolu Vacuum products are used with the correct assembly.



FUTURE OF VACUUM COMPONENTS



ISO-KF



ISO-K/ISO-F



CF

Our Systems

ISO-KF

The Small flange or KF standard (DIN 28403, ISO 2861) is the standard connection for vacuum pipes up to the nominal diameter of DN50 used in low and high vacuum. KF flanges utilize an Aluminium clamp with a single wing nut allowing frequent assembly and disassembly without the need for any tools. Trapped centering rings and NW clamps or clamp chains are offered for special applications.

ISO-K/ISO-F

ISO KF vacuum systems employ components with metric interface dimensions which have been defined by the International Standards Organisation (ISO 1609). This ensures a high degree of compatibility between components obtained from different sources.

The bolt type flanges are assembled by using a set of bolts to fix the position of the mating flanges, whereas the claw clamp flanges use double claw clamps to hold two flanges together. In addition, the use of the claw clamps means that mating flanges can be connected together in any orientation. A wide range of adaptors for connection to CF or KF flanges can be found in the adaptor section.

CF

The generation of ultra high vacuum (UHV) makes great demands on the material and connections. Therefore the CF standard was created in the UHV technology (ISO 3669). CF components compress a copper gasket between two stainless steel flanges to create a vacuum tight seal in ultra high vacuum. The CF flange system is more commonly used within the vacuum industry and as such has a much larger standard product offering. For transition from UHV to HV, Anadolu Vacuum also offers a complete range of adaptors for CF flange to KF or ISO flange. Please refer to the adaptor section.

Future of Vacuum Components

Anadolu Vacuum products are created with 50 years of craftsmanship, experience in the trade, machining experience, family tradition and artisanship. This special collection of products has been developed and tested since 2009.

Let's grow together!

Anadolu Vacuum continues to grow with its 50 employees, 1600 m2 work space, CNC lathe, CNC milling machines and up-to-date technologies, international collaborations and strong references.



WHY Anadolu Vacuum?

- Highest quality and durability
- Most economical! Highest benefit-cost ratio in the market
- Ability to produce for all needs and in any amount
- Tested and approved products
- High reliability
- Long product life
- Fastest production and delivery at all times
- Highly trained and solution-focused personnel
- Constant after-sales customer support
- Unconditional warranty policies for all products

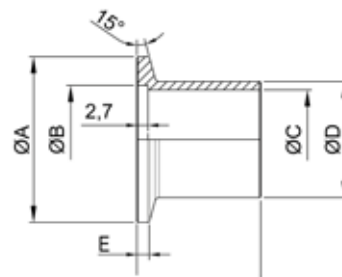
ISO-KF SYSTEM

ISO-KF vacuum components are directly compatible with all ISO-KF, NW or QF vacuum flange hardware connections.

The standard sizes offered are NW10, NW16, NW20, NW25, NW32, NW40 and NW 50.

Most components are offered in stainless steel. However, for adapters vacuum grade aluminium alloys are sometimes preferred. The standard KF vacuum component is generally used to connect vacuum instruments and can be found on vacuum coating systems, electron microscopes, vacuum ovens, vacuum pumps, vacuum equipment, vacuum gauges etc.

Major Dimensions of ISO-KF Components



Size (DN)	KF10	KF16	KF20	KF25	KF32	KF40	KF50
Outside Dimension A (mm)	30	30	40	40	55	55	75
Outside Dimension A (inch)	1,18	1,18	1,57	1,57	2,17	2,17	2,95
Centering ring nose B (mm)	12,2	17,2	22,2	26,2	34,2	41,2	52,2
Typical inside dimension C (mm)	10	16	20	24	34	40,5	50
Typical outside dimension D (mm)	14	20	25	28	38	44,5	57
Dimension E (mm)	3	3	3	3	3	3	3

Please consider the following in planning and designing your vacuum system:

-The pressures indicated below in connection with the product descriptions are absolute pressures, at an ambient pressure of 1000 mbar.

-The minimum achievable ultimate pressure in the entire system will depend upon numerous factors, especially upon the pump system, the desorption rates of the interior surfaces and the pump-down time. The minimum pressures indicated in connection with the product descriptions are based upon experience, showing what can be achieved in a well designed vacuum system. They could be higher or lower in individual cases. If elastomer seals are being employed, it will be necessary to take their gas permeability (permeation) into consideration. It will be a function of the material, temperature and type of gas in question. You will find typical ultimate pressures for elastomers in the chapter entitled "Materials."

-The highest and lowest permissible temperatures in the entire system will be governed by the lowest high temperature and highest low temperature of the components involved.

-The flange connections and components have been developed in order to achieve vacuum-tight connections. They can only assume mechanical loads to a limited extent. In designing a vacuum system, it will therefore be necessary to review whether it will be necessary for static or dynamic loads to be assumed by additional elements, e.g. holders.

Components Elements Properties

Material number (AISI No.)	Material abbreviation	Cr(%)	Ni(%)	Mo (%)	C (%)	Si (%)	Mn (%)	P (%)	S (%)	Other additives / Comments
1.4301 (304)	X5CrNi 18 10	15-20	8-19	*	0,1	1	2	0,05	0,015	* MO permissible
1.4303 (305)	X4CrNi 18 12	15-20	8-19	*	0,1	1	2	0,05	0,015	* MO permissible
1.4305 (303)	X8CrNiS 18 9	16-19	5-10	max. 0.7	0,12	1	6,5	0,2	0.15-0.35	Cu, sulphur can be substituted with selenium
1.4306 (304L)	X2CrNi 19 11	18-20	10-12	-	0,03	1	2	0,045	0,015	
1.4307 (304L)	X2CrNi 18 9	17.5-19.5	8-10.5	-	0,03	1	2	0,045	0,015	
1.4310 (301)	X10CrNi 18 10	16-18	6-9.5	max. 0.8	0.05-0.15	2	2	0,045	0,015	
1.4401 (316)	X5CrNiMo 17-12-2	16-18.5	10-15	2-3	0,08	1	2	0,045	0,03	
1.4404 (316L)	X2CrNiMo 17-13-2	16-18.5	10-13	2-2.5	0,03	1	2	0,045	0,015	
1.4429 (316LN)	X2CrNiMo 17-13-3	16.5-18.5	11-14	2.5-3	0,03	1	2	0,045	0,015	
1.4435 (316L)	X2CrNiMo 18-14-3	17-19	12.5-15	2.5-3	0,03	1	2	0,045	0,015	
1.4541 (321)	X6CrNiTi 18-10	17-19	9-12	-	0,08	1	2	0,045	0,015	Mo permissible, must contain Ti or Nb or Ta for stability
1.4571 (316Ti)	X6CrNiMoTi 17 12 2	16.5-18	10.5-13.5	2-2.5	0,08	1	2	0,045	0,015	

Materials

Table of Properties High-Grade Steels

Material number (AISI No.)	0.2% yield point at 20 °C in N/mm2	0.2% yield point at 300 °C in N/mm2	Tensile strength in N/mm2	Coefficient of linear expansion in $10^{-6} K^{-1}$ bet. 20 °C and 300 °C	Max. operation temperature of air	Structure	Magnetability
1.4301 (304)	210-250	110	520-720	17	300	Austenitic steel with small ferrite content	possible
1.4306 (304L)	220-250	100	520-670	17	350	Austenitic steel with small ferrite content	possible
1,431	220-240	100	520-670	17	350	Austenitic steel with small ferrite content	possible
1.4401 (316)	220-250	128	530-680	17	300	Austenitic steel with small ferrite content	less possible
1.4404 (316L)	220-260	118	530-680	17	400	Austenitic steel with small ferrite content	less possible
1.4429 (316LN)	280-310	155	580-770	17	400	Austenitic steel	not possible
1.4435 (316L)	220-260	118	540-700	17	400	Austenitic steel	not possible
1.4541 (321)	200-250	135	520-710	17	400	Austenitic steel with small ferrite content	possible
1.4571 (316Ti)	220-260	145	540-690	18	400	Austenitic steel with small ferrite content	possible

Materials

Properties of Elastomer Materials

Designation	Base Elastomer	Customary Trade Name	Temperature Range [°C]	Properties ^{*3 *4}
FKM, FPM	Fluoro rubber	Viton®	-15 to 200	> Extremely resistant to petroleum-based oils, aliphatic and aromatic hydrocarbons as well as chlorinated hydrocarbons, concentrated and diluted acids and weak bases > Outstanding temperature resistance > High mechanical values > Superb aging resistance > Typically achievable ultimate pressure: 10⁻⁷ mbar
NBR	Acrylonitrile butadiene rubber, nitrile rubber	Perbunan®	-25 to 120	> Resistant to petroleum-based oils, hydraulic oils, lubricants, gasoline as well as other aliphatic hydrocarbons, diluted acids and bases > High wear resistance and stability > Very good helium-tightness > Typically achievable ultimate pressure: 10⁻⁶ mbar
EPDM	Ethylene propylene rubber	Dutral®	-50 to 130	> High resistance to hot water and steam > Very good resistance to aging and ozone > Good temperature stability > Very good resistance to oxidizing agents > No resistance to aliphatic and aromatic hydrocarbons and petroleum products > Typically achievable ultimate pressure: 10⁻⁶ mbar
VMQ	Silicon rubber	Silopren® Silikon	-55 to 200	> Superb temperature resistance, however not in the case of hot water or steam > Typically achievable ultimate pressure: 10⁻⁵ mbar
CR	Chloroprene Rubber	Neopren®	-40°C up to +100°C	> Low friction and low 'stick-slip' effect > Far better elasticity than solid PTFE > Common within pharmaceutical and processing industries

**3 Information relating to resistance should be used only as a guideline, as it is provided solely for the purpose of general information. Although this information is intended to simplify selection of the elastomer, it can by no means be deemed to represent a warranty, as it cannot readily be applied to real-world operating conditions. Service life might have to be determined on the basis of trial and error.*

**4 The indicated ultimate pressures are based upon experience showing what can be achieved in a well designed vacuum system. They could be higher or lower in individual cases.*

Materials

Metallic seals

Metallic seals require high contact pressures. They are plastically deformed when assembled and can therefore be used only once. Their hardness has to be lower than that of the flanges, thus allowing them to adapt to the microstructure and produce a metallic ultra high vacuum-tight connection.

Aluminium

Aluminium seals with Aluminium edged seal rings are employed for ISO-KF and ISO-K flanges. What are used are soft-annealable Aluminium-silicon alloys that require a contact pressure of around 100 N/mm². The differing thermal expansion will limit the maximum permissible working temperature in connection with the combination of Aluminium seal and stainless steel flanges to around 150°C. Following exposure to excess temperatures, the sealing effect will often deteriorate after cool-down.

Copper

Copper has around the same thermal expansion as austenitic stainless steel. Copper seals are used as gaskets (CF flanges) or wire seals (COF flanges). The copper must be of low-oxygen design, i.e. OF (Oxygen Free) or OFHC (Oxygen Free High Conductivity) must be employed. The presence of oxygen will lead to what is called “hydrogen disease”; i.e. when heat treated, the hydrogen will react with oxygen and the water that is thus produced will burst the structure.

Copper seals require a contact pressure of at least 200 N/mm². Their maximum permissible working temperature in air is 200°C; silver coating increases this to a maximum of 450°C. Soft-annealed copper seals require less contact pressure. They should be used in connection with viewports, in particular, in order to keep assembly related stresses as low as possible.

Materials

Description of individual high-grade steel types

1.4301 (304):

Suitable for vacuum applications. Austenitic stainless steel. Very high cold formability. Easily weldable. High corrosion resistance.

1.4305 (303):

Lower corrosion resistance than 1.4301. Easy to machine. Not weldable.

1.4306 1.4307 (304L):

Suitable for vacuum applications. Low-carbon variant of 1.4301 with similar properties. Easily weldable.

1.4401 (316):

Suitable for vacuum applications. Very high cold formability. Easily weldable. Due to molybdenum additive, more resistant than 1.4301 to non-oxidising acids and chlorine substance.

1.4404 (316L):

Suitable for vacuum applications. Significantly less carbon than 1.4401 but with similar properties. Easily weldable.

1.4429 (304LN):

Suitable for vacuum applications. Higher strength than 1.4435.

1.4435 (316LMo):

Suitable for vacuum applications. Similar properties to 1.4404. The increased content of molybdenum makes 1.4435 more resistant to non-oxidising acids.

1.4541 (321):

Suitable for vacuum applications. Similar properties to 1.4301 but not polishable. Titan-stabilised, which makes it highly weldable in all dimensions without being susceptible to intergranular corrosion.

1.4571 (316Ti):

Suitable for vacuum applications. Similar properties to 1.4401. Titan-stabilised, which makes it highly weldable in all dimensions without being susceptible to intergranular corrosion.

1.4429 (316LN-ESR):

Suitable for vacuum applications. Very high homogeneity including purity combined with a high hardness level. Very low magnetic permeability. Other properties correspond to 1.4429.

Sealing materials

Elastomer seals are permeable to gas and also emit gases. The gas permeability, or permeation, depends on the material, the type of gas and ambient conditions – mainly the temperature. After an adequate evacuation time, the outward gas stream decreases considerably, which means that a relatively constant permeation gas stream materialises.

Storage conditions of elastomer seals:

To ensure that their properties are retained as long as possible, we recommend the following ambient conditions during storage:

- an area with little temperature variation
- an area where the temperature is between 10-25 °C
- O-rings should be stored in lightproof boxes

Metal seals made of aluminium:

High purity, which in turn allows to be used combination with Aluminium as well as stainless steel flanges. Temperature range: -196 °C to 150 °C. One time use only.

ISO-KF Components & Connection Types

KF components are used in low, medium and high vacuum systems. KF flanges are a sexless design, made from stainless steel or Aluminium. The seal is a elastomeric O-ring placed in a centering ring (inner centered), which aligns the flanges and holds the O-ring in position. These components are manufactured at Anadolu Vacuum in accordance with DIN 28403 and ISO 2861 in sizes NW10 to NW50 and are compatible with components from other well-known brand. The name KF (for Klein Flansche) was acknowledged by ISO, DIN, and Pneurop standards organizations. It is also called QF, NW and occasionally DN.

Each flange has a chamfered back-surface and is compatible by a circumferential clamp tightened by wing-nut, thumbscrew, bolt, or over-center lever (Fig. 1). All welded parts have been leak-tested using helium and are leak-proof up to 10^{-9} mbarl/s. The KF connection include on two symmetric flanges with a centering ring (inner centered), with O-ring seal and a clamping ring (Fig. 1). The essential contact pressure for the seal is composed via the conical fixing surfaces at the KF flange and clamping ring. Besides collar half shells can be used rather than a clamping ring. For the montage of KF components on base plates, claws are used (Fig. 2).

KF components are appropriate for a pressure of 2.5 bar (1.5 bar abundant pressure) and pressure of up to 10^{-9} mbar. At a max. pressure of up to 4 bar (3 bar abundant pressure), an outer ring in together with a clamping ring must be set upped.

Please consider the product information given on the product pages.



(Fig. 1)



(Fig. 2)

ISO-KF Flanges

This part consists of ISO-KF Flanges.
Check out this section for products NW10-NW50

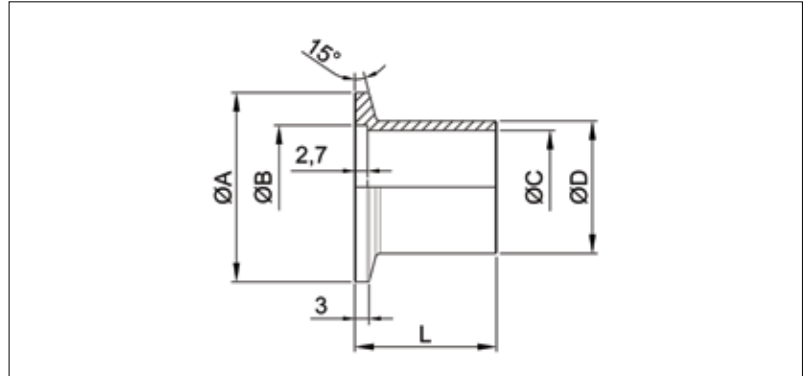


ISO-KF Short Half Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal)
- Custom lengths available upon request

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No
10	14X2	30	12.2	10	14	10	VA.01.01.01.010.001
16	20X2	30	17.2	16	20	10	VA.01.01.01.010.004
20	25X2	40	22,2	20	25	10	VA.01.01.01.010.007
25	28X2	40	26.2	24	28	10	VA.01.01.01.010.010
32	38X2	55	34,2	34	38	10	VA.01.01.01.010.013
40	44.5X2	55	41.2	40,5	44.5	10	VA.01.01.01.010.016
50	57X3,2	75	52.2	50	57	10	VA.01.01.01.010.019
10	14X2	30	12.2	10	14	20	VA.01.01.01.010.002
16	20X2	30	17.2	16	20	20	VA.01.01.01.010.005
20	25X2	40	22,2	20	25	20	VA.01.01.01.010.008
25	28X2	40	26.2	24	28	20	VA.01.01.01.010.011
32	38X2	55	34,2	34	38	20	VA.01.01.01.010.014
40	44.5X2	55	41.2	40,5	44.5	20	VA.01.01.01.010.017
50	57X3,2	75	52.2	50	57	20	VA.01.01.01.010.020
10	14X2	30	12.2	10	14	30	VA.01.01.01.010.003
16	20X2	30	17.2	16	20	30	VA.01.01.01.010.006
20	25X2	40	22,2	20	25	30	VA.01.01.01.010.009
25	28X2	40	26.2	24	28	30	VA.01.01.01.010.012
32	38X2	55	34,2	34	38	30	VA.01.01.01.010.015
40	44.5X2	55	41.2	40,5	44.5	30	VA.01.01.01.010.018
50	57X3,2	75	52.2	50	57	30	VA.01.01.01.010.021

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No
10	14X2	30	12.2	10	14	10	VA.01.01.02.004.001
16	20X2	30	17.2	16	20	10	VA.01.01.02.004.004
20	25X2	40	22,2	20	25	10	VA.01.01.02.004.007
25	28X2	40	26.2	24	28	10	VA.01.01.02.004.010
32	38X2	55	34,2	34	38	10	VA.01.01.02.004.013
40	44.5X2	55	41.2	40,5	44.5	10	VA.01.01.02.004.016
50	57X3,2	75	52.2	50	57	10	VA.01.01.02.004.019
10	14X2	30	12.2	10	14	20	VA.01.01.02.004.002
16	20X2	30	17.2	16	20	20	VA.01.01.02.004.005
20	25X2	40	22,2	20	25	20	VA.01.01.02.004.008
25	28X2	40	26.2	24	28	20	VA.01.01.02.004.011
32	38X2	55	34,2	34	38	20	VA.01.01.02.004.014
40	44.5X2	55	41.2	40,5	44.5	20	VA.01.01.02.004.017
50	57X3,2	75	52.2	50	57	20	VA.01.01.02.004.020
10	14X2	30	12.2	10	14	30	VA.01.01.02.004.003
16	20X2	30	17.2	16	20	30	VA.01.01.02.004.006
20	25X2	40	22,2	20	25	30	VA.01.01.02.004.009
25	28X2	40	26.2	24	28	30	VA.01.01.02.004.012
32	38X2	55	34,2	34	38	30	VA.01.01.02.004.015
40	44.5X2	55	41.2	40,5	44.5	30	VA.01.01.02.004.018
50	57X3,2	75	52.2	50	57	30	VA.01.01.02.004.021

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

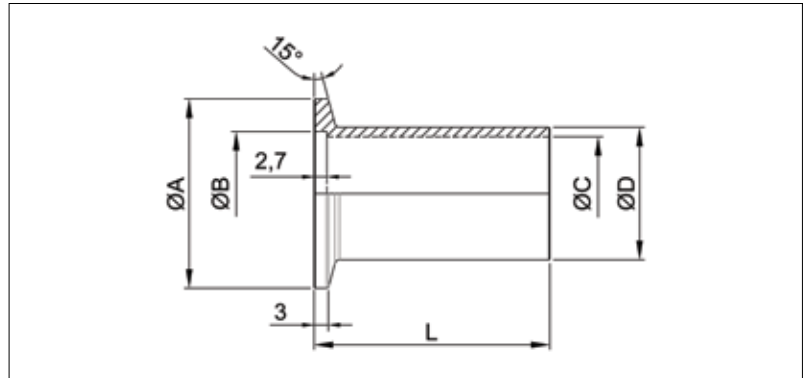
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No
10	14X2	30	12.2	10	14	10	VA.01.01.02.006.001
16	20X2	30	17.2	16	20	10	VA.01.01.02.006.004
20	25X2	40	22,2	20	25	10	VA.01.01.02.006.007
25	28X2	40	26.2	24	28	10	VA.01.01.02.006.010
32	38X2	55	34,2	34	38	10	VA.01.01.02.006.013
40	44.5X2	55	41.2	40,5	44.5	10	VA.01.01.02.006.016
50	57X3,2	75	52.2	50	57	10	VA.01.01.02.006.019
10	14X2	30	12.2	10	14	20	VA.01.01.02.006.002
16	20X2	30	17.2	16	20	20	VA.01.01.02.006.005
20	25X2	40	22,2	20	25	20	VA.01.01.02.006.008
25	28X2	40	26.2	24	28	20	VA.01.01.02.006.011
32	38X2	55	34,2	34	38	20	VA.01.01.02.006.014
40	44.5X2	55	41.2	40,5	44.5	20	VA.01.01.02.006.017
50	57X3,2	75	52.2	50	57	20	VA.01.01.02.006.020
10	14X2	30	12.2	10	14	30	VA.01.01.02.006.003
16	20X2	30	17.2	16	20	30	VA.01.01.02.006.006
20	25X2	40	22,2	20	25	30	VA.01.01.02.006.009
25	28X2	40	26.2	24	28	30	VA.01.01.02.006.012
32	38X2	55	34,2	34	38	30	VA.01.01.02.006.015
40	44.5X2	55	41.2	40,5	44.5	30	VA.01.01.02.006.018
50	57X3,2	75	52.2	50	57	30	VA.01.01.02.006.021

ISO-KF Long Half Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal)
- Custom lengths available upon request

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No.
10	14X2	30	12.2	10	14	40	VA.01.02.01.010.001
16	20X2	30	17.2	16	20	40	VA.01.02.01.010.004
20	25X2	40	22,2	20	25	40	VA.01.02.01.010.007
25	28X2	40	26.2	24	28	40	VA.01.02.01.010.010
32	38X2	55	34,2	34	38	40	VA.01.02.01.010.013
40	44.5X2	55	41.2	40,5	44.5	40	VA.01.02.01.010.016
50	57X3,2	75	52.2	50	57	40	VA.01.02.01.010.019
10	14X2	30	12.2	10	14	50	VA.01.02.01.010.002
16	20X2	30	17.2	16	20	50	VA.01.02.01.010.005
20	25X2	40	22,2	20	25	50	VA.01.02.01.010.008
25	28X2	40	26.2	24	28	50	VA.01.02.01.010.011
32	38X2	55	34,2	34	38	50	VA.01.02.01.010.014
40	44.5X2	55	41.2	40,5	44.5	50	VA.01.02.01.010.017
50	57X3,2	75	52.2	50	57	50	VA.01.02.01.010.020
10	14X2	30	12.2	10	14	60	VA.01.02.01.010.003
16	20X2	30	17.2	16	20	60	VA.01.02.01.010.006
20	25X2	40	22,2	20	25	60	VA.01.02.01.010.009
25	28X2	40	26.2	24	28	60	VA.01.02.01.010.012
32	38X2	55	34,2	34	38	60	VA.01.02.01.010.015
40	44.5X2	55	41.2	40,5	44.5	60	VA.01.02.01.010.018
50	57X3,2	75	52.2	50	57	60	VA.01.02.01.010.021

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No.
10	14X2	30	12.2	10	14	40	VA.01.02.02.004.001
16	20X2	30	17.2	16	20	40	VA.01.02.02.004.004
20	25X2	40	22,2	20	25	40	VA.01.02.02.004.007
25	28X2	40	26.2	24	28	40	VA.01.02.02.004.010
32	38X2	55	34,2	34	38	40	VA.01.02.02.004.013
40	44.5X2	55	41.2	40,5	44.5	40	VA.01.02.02.004.016
50	57X3,2	75	52.2	50	57	40	VA.01.02.02.004.019
10	14X2	30	12.2	10	14	50	VA.01.02.02.004.002
16	20X2	30	17.2	16	20	50	VA.01.02.02.004.005
20	25X2	40	22,2	20	25	50	VA.01.02.02.004.008
25	28X2	40	26.2	24	28	50	VA.01.02.02.004.011
32	38X2	55	34,2	34	38	50	VA.01.02.02.004.014
40	44.5X2	55	41.2	40,5	44.5	50	VA.01.02.02.004.017
50	57X3,2	75	52.2	50	57	50	VA.01.02.02.004.020
10	14X2	30	12.2	10	14	60	VA.01.02.02.004.003
16	20X2	30	17.2	16	20	60	VA.01.02.02.004.006
20	25X2	40	22,2	20	25	60	VA.01.02.02.004.009
25	28X2	40	26.2	24	28	60	VA.01.02.02.004.012
32	38X2	55	34,2	34	38	60	VA.01.02.02.004.015
40	44.5X2	55	41.2	40,5	44.5	60	VA.01.02.02.004.018
50	57X3,2	75	52.2	50	57	60	VA.01.02.02.004.021

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

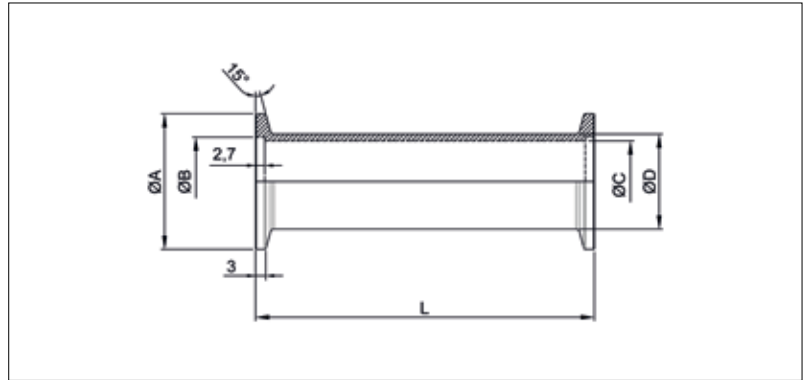
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No.
10	14X2	30	12.2	10	14	40	VA.01.02.02.006.001
16	20X2	30	17.2	16	20	40	VA.01.02.02.006.004
20	25X2	40	22,2	20	25	40	VA.01.02.02.006.007
25	28X2	40	26.2	24	28	40	VA.01.02.02.006.010
32	38X2	55	34,2	34	38	40	VA.01.02.02.006.013
40	44.5X2	55	41.2	40,5	44.5	40	VA.01.02.02.006.016
50	57X3,2	75	52.2	50	57	40	VA.01.02.02.006.019
10	14X2	30	12.2	10	14	50	VA.01.02.02.006.002
16	20X2	30	17.2	16	20	50	VA.01.02.02.006.005
20	25X2	40	22,2	20	25	50	VA.01.02.02.006.008
25	28X2	40	26.2	24	28	50	VA.01.02.02.006.011
32	38X2	55	34,2	34	38	50	VA.01.02.02.006.014
40	44.5X2	55	41.2	40,5	44.5	50	VA.01.02.02.006.017
50	57X3,2	75	52.2	50	57	50	VA.01.02.02.006.020
10	14X2	30	12.2	10	14	60	VA.01.02.02.006.003
16	20X2	30	17.2	16	20	60	VA.01.02.02.006.006
20	25X2	40	22,2	20	25	60	VA.01.02.02.006.009
25	28X2	40	26.2	24	28	60	VA.01.02.02.006.012
32	38X2	55	34,2	34	38	60	VA.01.02.02.006.015
40	44.5X2	55	41.2	40,5	44.5	60	VA.01.02.02.006.018
50	57X3,2	75	52.2	50	57	60	VA.01.02.02.006.021

ISO-KF Full Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal)
- Custom lengths available upon request

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No.
10	30	12.2	10	14	60	VA.01.03.01.010.001
16	30	17.2	16	20	80	VA.01.03.01.010.002
20	40	22,2	20	25	100	VA.01.03.01.010.003
25	40	26.2	24	28	100	VA.01.03.01.010.004
32	55	34,2	34	38	130	VA.01.03.01.010.005
40	55	41.2	40,5	44.5	130	VA.01.03.01.010.006
50	75	52.2	50	57	140	VA.01.03.01.010.007

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No.
10	30	12.2	10	14	60	VA.01.03.02.004.001
16	30	17.2	16	20	80	VA.01.03.02.004.002
20	40	22,2	20	25	100	VA.01.03.02.004.003
25	40	26.2	24	28	100	VA.01.03.02.004.004
32	55	34,2	34	38	130	VA.01.03.02.004.005
40	55	41.2	40,5	44.5	130	VA.01.03.02.004.006
50	75	52.2	50	57	140	VA.01.03.02.004.007

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

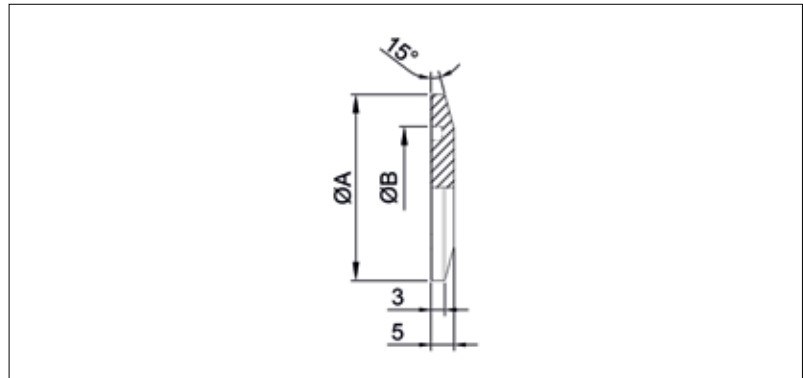
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No.
10	30	12.2	10	14	60	VA.01.03.02.006.001
16	30	17.2	16	20	80	VA.01.03.02.006.002
20	40	22,2	20	25	100	VA.01.03.02.006.003
25	40	26.2	24	28	100	VA.01.03.02.006.004
32	55	34,2	34	38	130	VA.01.03.02.006.005
40	55	41.2	40,5	44.5	130	VA.01.03.02.006.006
50	75	52.2	50	57	140	VA.01.03.02.006.007

ISO-KF Blanking Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal just for 304 & 316L)

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	Order No.
10	30	12.2	VA.01.04.01.010.001
16	30	17.2	VA.01.04.01.010.002
20	40	22,2	VA.01.04.01.010.003
25	40	26.2	VA.01.04.01.010.004
32	55	34,2	VA.01.04.01.010.005
40	55	41.2	VA.01.04.01.010.006
50	75	52.2	VA.01.04.01.010.007

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	Order No.
10	30	12.2	VA.01.04.02.004.001
16	30	17.2	VA.01.04.02.004.002
20	40	22,2	VA.01.04.02.004.003
25	40	26.2	VA.01.04.02.004.004
32	55	34,2	VA.01.04.02.004.005
40	55	41.2	VA.01.04.02.004.006
50	75	52.2	VA.01.04.02.004.007

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

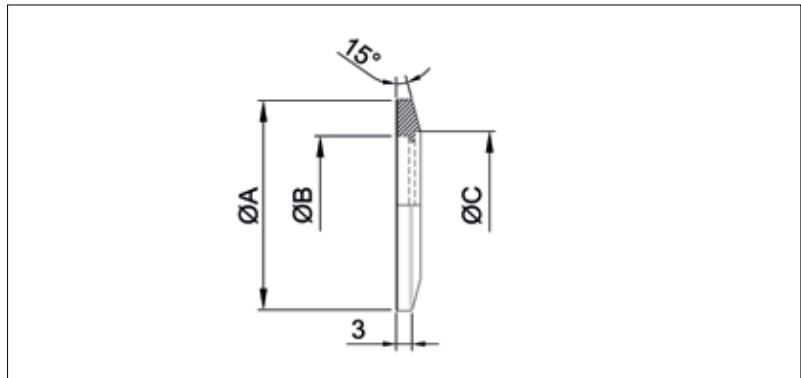
Size (DN)	A (mm)	B (mm)	Order No.
10	30	12.2	VA.01.04.02.006.001
16	30	17.2	VA.01.04.02.006.002
20	40	22,2	VA.01.04.02.006.003
25	40	26.2	VA.01.04.02.006.004
32	55	34,2	VA.01.04.02.006.005
40	55	41.2	VA.01.04.02.006.006
50	75	52.2	VA.01.04.02.006.007

ISO-KF Weld Ring Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	Order No.
10	14X2	30	12.2	14	VA.01.05.02.004.001
16	20X2	30	17.2	20	VA.01.05.02.004.002
20	25X2	40	22,2	25	VA.01.05.02.004.003
25	28X2	40	26.2	28	VA.01.05.02.004.004
32	38X2	55	34,2	38	VA.01.05.02.004.005
40	44.5X2	55	41.2	44,5	VA.01.05.02.004.006
50	57X3,2	75	52.2	57	VA.01.05.02.004.007

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

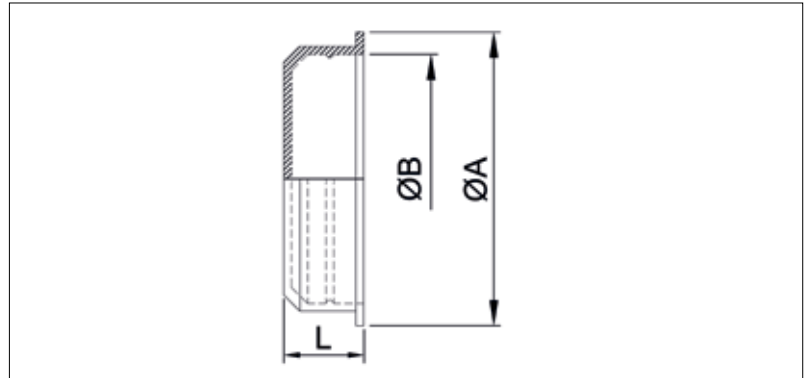
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	Order No.
10	14X2	30	12.2	14	VA.01.05.02.006.001
16	20X2	30	17.2	20	VA.01.05.02.006.002
20	25X2	40	22,2	25	VA.01.05.02.006.003
25	28X2	40	26.2	28	VA.01.05.02.006.004
32	38X2	55	34,2	38	VA.01.05.02.006.005
40	44.5X2	55	41.2	44,5	VA.01.05.02.006.006
50	57X3,2	75	52.2	57	VA.01.05.02.006.007

ISO-KF Flange Caps (Plastics)

- Made from plastic.
- Polyethylene (PE)



Dimensions



Plastic

Size (DN)	A (mm)	B (mm)	L (mm)	Order No.
10/16	30	37	11.5	VA.01.06.13.007.001
20/25	40	47	11.5	VA.01.06.13.007.002
32/40	55	62	11.5	VA.01.06.13.007.003
50	75	82	11.5	VA.01.06.13.007.004

ISO-KF Seals

This part consists of KF Seals.
Check out this section for products NW10-NW50.

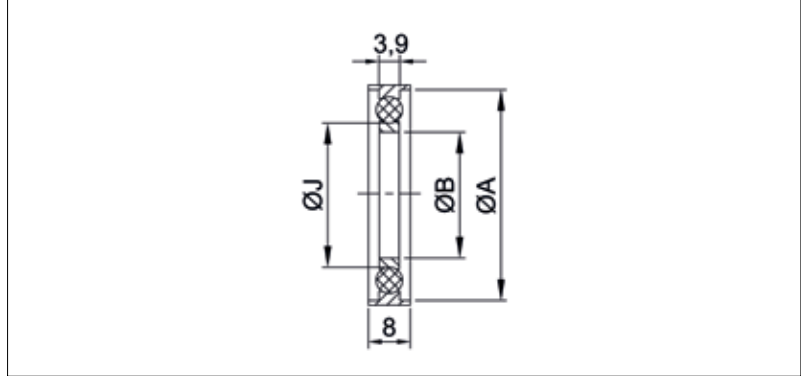


ISO-KF Seals Outer Centered



- Various types of O-ring seals are available.
- Inner ring material: Stainless steel
- Consider O-ring temperature ranges (See Properties of Elastomer Materials Table on Page 14)

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No.
10/16	30	16	18	FKM	VA.02.01.01.010.001
20/25	40	24	28	FKM	VA.02.01.01.010.002
32/40	55	40	42	FKM	VA.02.01.01.010.003
50	75	50	55	FKM	VA.02.01.01.010.004
10/16	30	16	18	CR	VA.02.01.01.010.005
20/25	40	24	28	CR	VA.02.01.01.010.006
32/40	55	40	42	CR	VA.02.01.01.010.007
50	75	50	55	CR	VA.02.01.01.010.008
10/16	30	16	18	NBR	VA.02.01.01.010.009
20/25	40	24	28	NBR	VA.02.01.01.010.010
32/40	55	40	42	NBR	VA.02.01.01.010.011
50	75	50	55	NBR	VA.02.01.01.010.012
10/16	30	16	18	EPDM	VA.02.01.01.010.013
20/25	40	24	28	EPDM	VA.02.01.01.010.014
32/40	55	40	42	EPDM	VA.02.01.01.010.015
50	75	50	55	EPDM	VA.02.01.01.010.016
10/16	40	24	28	VMQ (SILICON)	VA.02.01.01.010.021
20/25	40	24	28	VMQ (SILICON)	VA.02.01.01.010.022
32/40	55	40	42	VMQ (SILICON)	VA.02.01.01.010.023
50	75	50	55	VMQ (SILICON)	VA.02.01.01.010.024

PTFE (inner and centering ring)

- Temperature Range: -15 to 150 C°

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No.
10/16	30	16	18	FKM	VA.02.01.13.005.001
20/25	40	24	28	FKM	VA.02.01.13.005.002
32/40	55	40	42	FKM	VA.02.01.13.005.003
50	75	50	55	FKM	VA.02.01.13.005.004

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No.
10/16	30	16	18	FKM	VA.02.01.02.004.001
20/25	40	24	28	FKM	VA.02.01.02.004.002
32/40	55	40	42	FKM	VA.02.01.02.004.003
50	75	50	55	FKM	VA.02.01.02.004.004
10/16	30	16	18	CR	VA.02.01.02.004.005
20/25	40	24	28	CR	VA.02.01.02.004.006
32/40	55	40	42	CR	VA.02.01.02.004.007
50	75	50	55	CR	VA.02.01.02.004.008
10/16	30	16	18	NBR	VA.02.01.02.004.009
20/25	40	24	28	NBR	VA.02.01.02.004.010
32/40	55	40	42	NBR	VA.02.01.02.004.011
50	75	50	55	NBR	VA.02.01.02.004.012
10/16	30	16	18	EPDM	VA.02.01.02.004.013
20/25	40	24	28	EPDM	VA.02.01.02.004.014
32/40	55	40	42	EPDM	VA.02.01.02.004.015
50	75	50	55	EPDM	VA.02.01.02.004.016
10/16	30	16	18	VMQ(SILICON)	VA.02.01.02.004.021
20/25	40	24	28	VMQ(SILICON)	VA.02.01.02.004.022
32/40	55	40	42	VMQ(SILICON)	VA.02.01.02.004.023
50	75	50	55	VMQ(SILICON)	VA.02.01.02.004.024

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

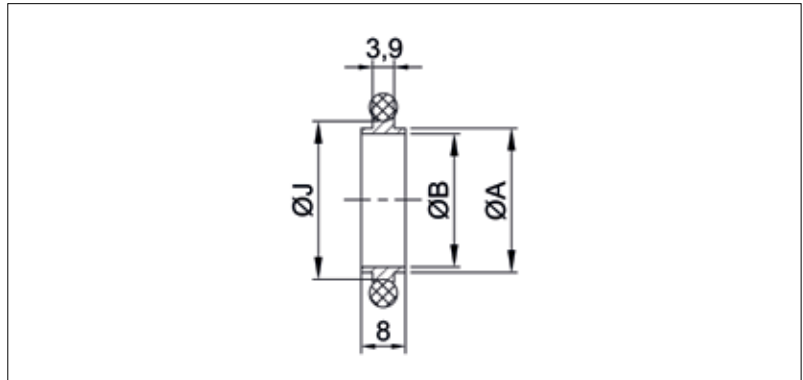
Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10/16	30	16	18	FKM	VA.02.01.02.006.001
20/25	40	24	28	FKM	VA.02.01.02.006.002
32/40	55	40	42	FKM	VA.02.01.02.006.003
50	75	50	55	FKM	VA.02.01.02.006.004
10/16	30	16	18	CR	VA.02.01.02.006.005
20/25	40	24	28	CR	VA.02.01.02.006.006
32/40	55	40	42	CR	VA.02.01.02.006.007
50	75	50	55	CR	VA.02.01.02.006.008
10/16	30	16	18	NBR	VA.02.01.02.006.009
20/25	40	24	28	NBR	VA.02.01.02.006.010
32/40	55	40	42	NBR	VA.02.01.02.006.011
50	75	50	55	NBR	VA.02.01.02.006.012
10/16	30	16	18	EPDM	VA.02.01.02.006.013
20/25	40	24	28	EPDM	VA.02.01.02.006.014
32/40	55	40	42	EPDM	VA.02.01.02.006.015
50	75	50	55	EPDM	VA.02.01.02.006.016
10/16	30	16	18	VMQ(SILICON)	VA.02.01.02.006.021
20/25	40	24	28	VMQ(SILICON)	VA.02.01.02.006.022
32/40	55	40	42	VMQ(SILICON)	VA.02.01.02.006.023
50	75	50	55	VMQ(SILICON)	VA.02.01.02.006.024

ISO-KF Seal Inner Centered



- Various types of O-ring seals are available.
- Consider O-ring temperature ranges (See Properties of Elastomer Materials Table on Page 14)

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No.
10	12	10	15	FKM	VA.02.02.01.010.001
16	17	16	18	FKM	VA.02.02.01.010.002
20	22	20	24	FKM	VA.02.02.01.010.003
25	26	24	28	FKM	VA.02.02.01.010.004
32	34	32	35	FKM	VA.02.02.01.010.005
40	41	40	42	FKM	VA.02.02.01.010.006
50	52	50	55	FKM	VA.02.02.01.010.007
10	12	10	15	CR	VA.02.02.01.010.008
16	17	16	18	CR	VA.02.02.01.010.009
20	22	20	25	CR	VA.02.02.01.010.010
25	26	24	28	CR	VA.02.02.01.010.011
32	34	32	35	CR	VA.02.02.01.010.012
40	41	40	42	CR	VA.02.02.01.010.013
50	52	50	55	CR	VA.02.02.01.010.014
10	12	10	15	NBR	VA.02.02.01.010.015
16	17	16	18	NBR	VA.02.02.01.010.016
20	22	20	25	NBR	VA.02.02.01.010.017
25	26	24	28	NBR	VA.02.02.01.010.018
32	34	32	35	NBR	VA.02.02.01.010.019
40	41	40	42	NBR	VA.02.02.01.010.020
50	52	50	55	NBR	VA.02.02.01.010.021

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No.
10	12	10	15	EPDM	VA.02.02.01.010.022
16	17	16	18	EPDM	VA.02.02.01.010.023
20	22	20	24	EPDM	VA.02.02.01.010.024
25	26	24	28	EPDM	VA.02.02.01.010.025
32	34	32	35	EPDM	VA.02.02.01.010.026
40	41	40	42	EPDM	VA.02.02.01.010.027
50	52	50	55	EPDM	VA.02.02.01.010.028
10	12	10	15	VMQ(SILICON)	VA.02.02.01.010.036
16	17	16	18	VMQ(SILICON)	VA.02.02.01.010.037
20	22	20	25	VMQ(SILICON)	VA.02.02.01.010.038
25	26	24	28	VMQ(SILICON)	VA.02.02.01.010.039
32	34	32	35	VMQ(SILICON)	VA.02.02.01.010.040
40	41	40	42	VMQ(SILICON)	VA.02.02.01.010.041
50	52	50	55	VMQ(SILICON)	VA.02.02.01.010.042

PTFE (inner and centering ring)

- Temperature Range: -15 to 150 C°

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No.
10	12	10	15	FKM	VA.02.02.13.005.001
16	17	16	18	FKM	VA.02.02.13.005.002
20	22	20	24	FKM	VA.02.02.13.005.003
25	26	24	28	FKM	VA.02.02.13.005.004
32	34	32	35	FKM	VA.02.02.13.005.005
40	41	40	42	FKM	VA.02.02.13.005.006
50	52	50	55	FKM	VA.02.02.13.005.007

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10	12	10	15	FKM	VA.02.02.02.004.001
16	17	16	18	FKM	VA.02.02.02.004.002
20	22	20	24	FKM	VA.02.02.02.004.003
25	26	24	28	FKM	VA.02.02.02.004.004
32	34	32	35	FKM	VA.02.02.02.004.005
40	41	40	42	FKM	VA.02.02.02.004.006
50	52	50	55	FKM	VA.02.02.02.004.007
10	12	10	15	CR	VA.02.02.02.004.008
16	17	16	18	CR	VA.02.02.02.004.009
20	22	20	25	CR	VA.02.02.02.004.010
25	26	24	28	CR	VA.02.02.02.004.011
32	34	32	35	CR	VA.02.02.02.004.012
40	41	40	42	CR	VA.02.02.02.004.013
50	52	50	55	CR	VA.02.02.02.004.014
10	12	10	15	NBR	VA.02.02.02.004.015
16	17	16	18	NBR	VA.02.02.02.004.016
20	22	20	24	NBR	VA.02.02.02.004.017
25	26	24	28	NBR	VA.02.02.02.004.018
32	34	32	35	NBR	VA.02.02.02.004.019
40	41	40	42	NBR	VA.02.02.02.004.020
50	52	50	55	NBR	VA.02.02.02.004.021
10	12	10	15	EPDM	VA.02.02.02.004.022
16	17	16	18	EPDM	VA.02.02.02.004.023
20	22	20	24	EPDM	VA.02.02.02.004.024
25	26	24	28	EPDM	VA.02.02.02.004.025
32	34	32	35	EPDM	VA.02.02.02.004.026
40	41	40	42	EPDM	VA.02.02.02.004.027
50	52	50	55	EPDM	VA.02.02.02.004.028
10	12	10	15	VMQ(SILICON)	VA.02.02.02.004.036
16	17	16	18	VMQ(SILICON)	VA.02.02.02.004.037
20	22	20	24	VMQ(SILICON)	VA.02.02.02.004.038
25	26	24	28	VMQ(SILICON)	VA.02.02.02.004.039
32	34	32	35	VMQ(SILICON)	VA.02.02.02.004.040
40	41	40	42	VMQ(SILICON)	VA.02.02.02.004.041
50	52	50	55	VMQ(SILICON)	VA.02.02.02.004.042

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

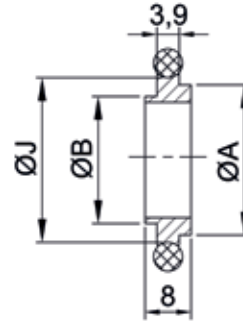
Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10	12	10	15	FKM	VA.02.02.02.006.001
16	17	16	18	FKM	VA.02.02.02.006.002
20	22	20	24	FKM	VA.02.02.02.006.003
25	26	24	28	FKM	VA.02.02.02.006.004
32	34	32	35	FKM	VA.02.02.02.006.005
40	41	40	42	FKM	VA.02.02.02.006.006
50	52	50	55	FKM	VA.02.02.02.006.007
10	12	10	15	CR	VA.02.02.02.006.008
16	17	16	18	CR	VA.02.02.02.006.009
20	22	20	25	CR	VA.02.02.02.006.010
25	26	24	28	CR	VA.02.02.02.006.011
32	34	32	35	CR	VA.02.02.02.006.012
40	41	40	42	CR	VA.02.02.02.006.013
50	52	50	55	CR	VA.02.02.02.006.014
10	12	10	15	NBR	VA.02.02.02.006.015
16	17	16	18	NBR	VA.02.02.02.006.016
20	22	20	24	NBR	VA.02.02.02.006.017
25	26	24	28	NBR	VA.02.02.02.006.018
32	34	32	35	NBR	VA.02.02.02.006.019
40	41	40	42	NBR	VA.02.02.02.006.020
50	52	50	55	NBR	VA.02.02.02.006.021
10	12	10	15	EPDM	VA.02.02.02.006.022
16	17	16	18	EPDM	VA.02.02.02.006.023
20	22	20	24	EPDM	VA.02.02.02.006.024
25	26	24	28	EPDM	VA.02.02.02.006.025
32	34	32	35	EPDM	VA.02.02.02.006.026
40	41	40	42	EPDM	VA.02.02.02.006.027
50	52	50	55	EPDM	VA.02.02.02.006.028
10	12	10	15	VMQ(SILICON)	VA.02.02.02.006.036
16	17	16	18	VMQ(SILICON)	VA.02.02.02.006.037
20	22	20	24	VMQ(SILICON)	VA.02.02.02.006.038
25	26	24	28	VMQ(SILICON)	VA.02.02.02.006.039
32	34	32	35	VMQ(SILICON)	VA.02.02.02.006.040
40	41	40	42	VMQ(SILICON)	VA.02.02.02.006.041
50	52	50	55	VMQ(SILICON)	VA.02.02.02.006.042

ISO-KF Seal Reducer Inner Centering



- Various types of O-ring seals are available.
- Consider O-ring temperature ranges.
- Consider O-ring temperature ranges (See Properties of Elastomer Materials Table on Page 14)

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10/16	17	12	18	FKM	VA.02.03.01.010.001
20/25	26	22	28	FKM	VA.02.03.01.010.002
32/40	41	34	42	FKM	VA.02.03.01.010.003
10/16	17	12	18	CR	VA.02.03.01.010.004
20/25	26	22	28	CR	VA.02.03.01.010.005
32/40	41	34	42	CR	VA.02.03.01.010.006
10/16	17	12	18	NBR	VA.02.03.01.010.007
20/25	26	22	28	NBR	VA.02.03.01.010.008
32/40	41	34	42	NBR	VA.02.03.01.010.009
10/16	17	12	18	EPDM	VA.02.03.01.010.010
20/25	26	22	28	EPDM	VA.02.03.01.010.011
32/40	41	34	43	EPDM	VA.02.03.01.010.012
10/16	17	12	18	VMQ(SILICON)	VA.02.03.01.010.016
20/25	26	22	28	VMQ(SILICON)	VA.02.03.01.010.017
32/40	41	34	42	VMQ(SILICON)	VA.02.03.01.010.018

PTFE

- Temperature Range: -15 to 150 C°

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10/16	17	12	18	FKM	VA.02.03.13.005.001
20/25	26	22	28	FKM	VA.02.03.13.005.002
32/40	41	34	43	FKM	VA.02.03.13.005.003

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10/16	17	12	18	FKM	VA.02.03.02.004.001
20/25	26	22	28	FKM	VA.02.03.02.004.002
32/40	41	34	42	FKM	VA.02.03.02.004.003
10/16	17	12	18	CR	VA.02.03.02.004.004
20/25	26	22	28	CR	VA.02.03.02.004.005
32/40	41	34	42	CR	VA.02.03.02.004.006
10/16	17	12	18	NBR	VA.02.03.02.004.007
20/25	26	22	28	NBR	VA.02.03.02.004.008
32/40	41	34	42	NBR	VA.02.03.02.004.009
10/16	17	12	18	EPDM	VA.02.03.02.004.010
20/25	26	22	28	EPDM	VA.02.03.02.004.011
32/40	41	34	42	EPDM	VA.02.03.02.004.012
10/16	17	12	18	VMQ(SILICON)	VA.02.03.02.004.016
20/25	26	22	28	VMQ(SILICON)	VA.02.03.02.004.017
32/40	41	34	43	VMQ(SILICON)	VA.02.03.02.004.018

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

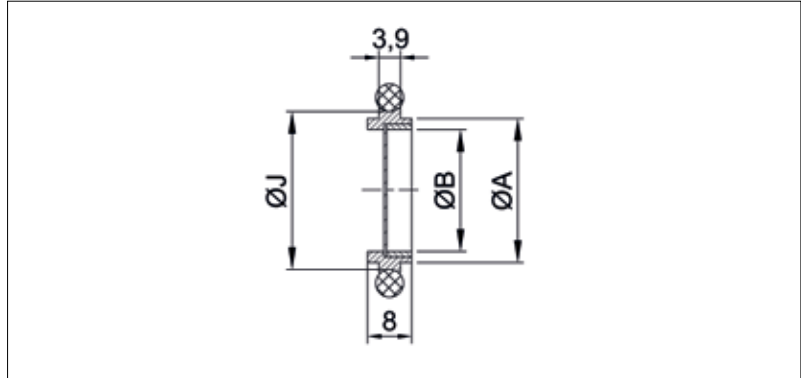
Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10/16	17	12	18	FKM	VA.02.03.02.006.001
20/25	26	22	28	FKM	VA.02.03.02.006.002
32/40	41	34	42	FKM	VA.02.03.02.006.003
10/16	17	12	18	CR	VA.02.03.02.006.004
20/25	26	22	28	CR	VA.02.03.02.006.005
32/40	41	34	42	CR	VA.02.03.02.006.006
10/16	17	12	18	NBR	VA.02.03.02.006.007
20/25	26	22	28	NBR	VA.02.03.02.006.008
32/40	41	34	42	NBR	VA.02.03.02.006.009
10/16	17	12	18	EPDM	VA.02.03.02.006.010
20/25	26	22	28	EPDM	VA.02.03.02.006.011
32/40	41	34	42	EPDM	VA.02.03.02.006.012
10/16	17	12	18	VMQ(SILICON)	VA.02.03.02.006.016
20/25	26	22	28	VMQ(SILICON)	VA.02.03.02.006.017
32/40	41	34	43	VMQ(SILICON)	VA.02.03.02.006.018

ISO-KF Seal Inner Centered with Mesh Screen



- Various types of O-ring seals are available.
- Filter Material: Stainless Steel
- Wire thickness: Approximately 0.3 mm
- Mesh: Approximately 1 mm
- Consider O-ring temperature ranges (See Properties of Elastomer Materials Table on Page 14)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10	12	8	15	FKM	VA.02.04.02.004.001
16	17	14	18	FKM	VA.02.04.02.004.002
20	22	18	24	FKM	VA.02.04.02.004.003
25	26	22	28	FKM	VA.02.04.02.004.004
32	34	30	35	FKM	VA.02.04.02.004.005
40	41	38	42	FKM	VA.02.04.02.004.006
50	52	48	55	FKM	VA.02.04.02.004.007
10	12	8	15	CR	VA.02.04.02.004.008
16	17	14	18	CR	VA.02.04.02.004.009
20	22	18	24	CR	VA.02.04.02.004.010
25	26	22	28	CR	VA.02.04.02.004.011
32	34	30	35	CR	VA.02.04.02.004.012
40	41	38	42	CR	VA.02.04.02.004.013
50	52	48	55	CR	VA.02.04.02.004.014
10	12	8	15	NBR	VA.02.04.02.004.015
16	17	14	18	NBR	VA.02.04.02.004.016
20	22	18	24	NBR	VA.02.04.02.004.017
25	26	22	28	NBR	VA.02.04.02.004.018
32	34	30	35	NBR	VA.02.04.02.004.019
40	41	38	42	NBR	VA.02.04.02.004.020
50	52	48	55	NBR	VA.02.04.02.004.021
10	12	8	15	EPDM	VA.02.04.02.004.022
16	17	14	18	EPDM	VA.02.04.02.004.023
20	22	18	24	EPDM	VA.02.04.02.004.024
25	26	22	28	EPDM	VA.02.04.02.004.025
32	34	30	35	EPDM	VA.02.04.02.004.026
40	41	38	42	EPDM	VA.02.04.02.004.027
50	52	48	55	EPDM	VA.02.04.02.004.028

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10	12	8	15	VMQ(SILICON)	VA.02.04.02.004.036
16	17	14	18	VMQ(SILICON)	VA.02.04.02.004.037
20	22	18	24	VMQ(SILICON)	VA.02.04.02.004.038
25	26	22	28	VMQ(SILICON)	VA.02.04.02.004.039
32	34	30	35	VMQ(SILICON)	VA.02.04.02.004.040
40	41	38	42	VMQ(SILICON)	VA.02.04.02.004.041
50	52	48	55	VMQ(SILICON)	VA.02.04.02.004.042

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

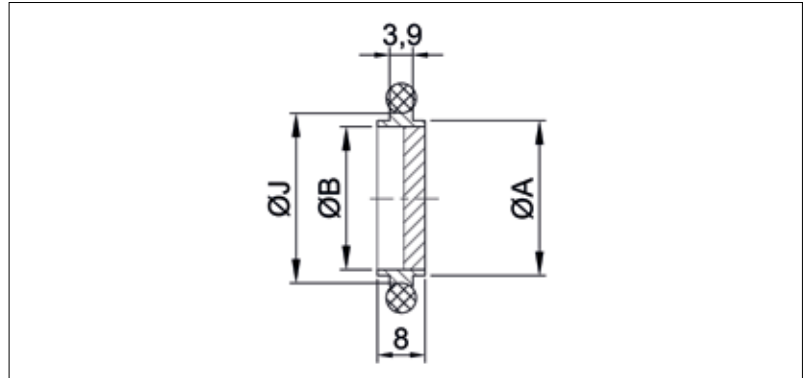
Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10	12	8	15	FKM	VA.02.04.02.006.001
16	17	14	18	FKM	VA.02.04.02.006.002
20	22	18	24	FKM	VA.02.04.02.006.003
25	26	22	28	FKM	VA.02.04.02.006.004
32	34	30	35	FKM	VA.02.04.02.006.005
40	41	38	42	FKM	VA.02.04.02.006.006
50	52	48	55	FKM	VA.02.04.02.006.007
10	12	8	15	CR	VA.02.04.02.006.008
16	17	14	18	CR	VA.02.04.02.006.009
20	22	18	24	CR	VA.02.04.02.006.010
25	26	22	28	CR	VA.02.04.02.006.011
32	34	30	35	CR	VA.02.04.02.006.012
40	41	38	42	CR	VA.02.04.02.006.013
50	52	48	55	CR	VA.02.04.02.006.014
10	12	8	15	NBR	VA.02.04.02.006.015
16	17	14	18	NBR	VA.02.04.02.006.016
20	22	18	24	NBR	VA.02.04.02.006.017
25	26	22	28	NBR	VA.02.04.02.006.018
32	34	30	35	NBR	VA.02.04.02.006.019
40	41	38	42	NBR	VA.02.04.02.006.020
50	52	48	55	NBR	VA.02.04.02.006.021
10	12	8	15	EPDM	VA.02.04.02.006.022
16	17	14	18	EPDM	VA.02.04.02.006.023
20	22	18	24	EPDM	VA.02.04.02.006.024
25	26	22	28	EPDM	VA.02.04.02.006.025
32	34	30	35	EPDM	VA.02.04.02.006.026
40	41	38	42	EPDM	VA.02.04.02.006.027
50	52	48	55	EPDM	VA.02.04.02.006.028
10	12	8	15	VMQ(SILICON)	VA.02.04.02.006.036
16	17	14	18	VMQ(SILICON)	VA.02.04.02.006.037
20	22	18	24	VMQ(SILICON)	VA.02.04.02.006.038
25	26	22	28	VMQ(SILICON)	VA.02.04.02.006.039
32	34	30	35	VMQ(SILICON)	VA.02.04.02.006.040
40	41	38	42	VMQ(SILICON)	VA.02.04.02.006.041
50	52	48	55	VMQ(SILICON)	VA.02.04.02.006.042

ISO-KF Seal Inner Centered With Sintered Metal Filter



- Various types of O-ring seals are available
- Material: Sintered Bronze
- Pore size approximately 0.02 mm
- Consider O-ring temperature ranges (See Properties of Elastomer Materials Table on Page 14)

Dimensions



Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10	12	8	15	FKM	VA.02.05.02.004.001
16	17	14	18	FKM	VA.02.05.02.004.002
20	22	18	24	FKM	VA.02.05.02.004.003
25	26	22	28	FKM	VA.02.05.02.004.004
32	34	30	35	FKM	VA.02.05.02.004.005
40	41	38	42	FKM	VA.02.05.02.004.006
50	52	48	55	FKM	VA.02.05.02.004.007
10	12	8	15	CR	VA.02.05.02.004.008
16	17	14	18	CR	VA.02.05.02.004.009
20	22	18	24	CR	VA.02.05.02.004.010
25	26	22	28	CR	VA.02.05.02.004.011
32	34	30	35	CR	VA.02.05.02.004.012
40	41	38	42	CR	VA.02.05.02.004.013
50	52	48	55	CR	VA.02.05.02.004.014
10	12	8	15	NBR	VA.02.05.02.004.015
16	17	14	18	NBR	VA.02.05.02.004.016
20	22	18	24	NBR	VA.02.05.02.004.017
25	26	22	28	NBR	VA.02.05.02.004.018
32	34	30	35	NBR	VA.02.05.02.004.019
40	41	38	42	NBR	VA.02.05.02.004.020
50	52	48	55	NBR	VA.02.05.02.004.021
10	12	8	15	EPDM	VA.02.05.02.004.022
16	17	14	18	EPDM	VA.02.05.02.004.023
20	22	18	24	EPDM	VA.02.05.02.004.024
25	26	22	28	EPDM	VA.02.05.02.004.025
32	34	30	35	EPDM	VA.02.05.02.004.026
40	41	38	42	EPDM	VA.02.05.02.004.027
50	52	48	55	EPDM	VA.02.05.02.004.028

Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10	12	8	15	VMQ(SILICON)	VA.02.05.02.004.036
16	17	14	18	VMQ(SILICON)	VA.02.05.02.004.037
20	22	18	24	VMQ(SILICON)	VA.02.05.02.004.038
25	26	22	28	VMQ(SILICON)	VA.02.05.02.004.039
32	34	30	35	VMQ(SILICON)	VA.02.05.02.004.040
40	41	38	42	VMQ(SILICON)	VA.02.05.02.004.041
50	52	48	55	VMQ(SILICON)	VA.02.05.02.004.042

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

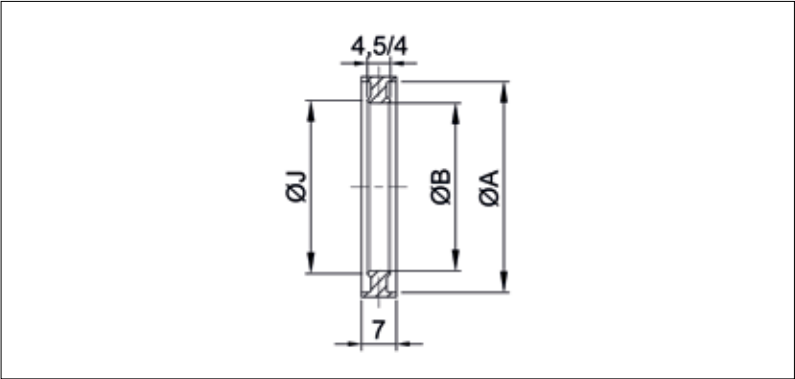
Size (DN)	A (mm)	B (mm)	J (mm)	O-ring	Order No
10	12	8	15	FKM	VA.02.05.02.006.001
16	17	14	18	FKM	VA.02.05.02.006.002
20	22	18	24	FKM	VA.02.05.02.006.003
25	26	22	28	FKM	VA.02.05.02.006.004
32	34	30	35	FKM	VA.02.05.02.006.005
40	41	38	42	FKM	VA.02.05.02.006.006
50	52	48	55	FKM	VA.02.05.02.006.007
10	12	8	15	CR	VA.02.05.02.006.008
16	17	14	18	CR	VA.02.05.02.006.009
20	22	18	24	CR	VA.02.05.02.006.010
25	26	22	28	CR	VA.02.05.02.006.011
32	34	30	35	CR	VA.02.05.02.006.012
40	41	38	42	CR	VA.02.05.02.006.013
50	52	48	55	CR	VA.02.05.02.006.014
10	12	8	15	NBR	VA.02.05.02.006.015
16	17	14	18	NBR	VA.02.05.02.006.016
20	22	18	24	NBR	VA.02.05.02.006.017
25	26	22	28	NBR	VA.02.05.02.006.018
32	34	30	35	NBR	VA.02.05.02.006.019
40	41	38	42	NBR	VA.02.05.02.006.020
50	52	48	55	NBR	VA.02.05.02.006.021
10	12	8	15	EPDM	VA.02.05.02.006.022
16	17	14	18	EPDM	VA.02.05.02.006.023
20	22	18	24	EPDM	VA.02.05.02.006.024
25	26	22	28	EPDM	VA.02.05.02.006.025
32	34	30	35	EPDM	VA.02.05.02.006.026
40	41	38	42	EPDM	VA.02.05.02.006.027
50	52	48	55	EPDM	VA.02.05.02.006.028
10	12	8	15	VMQ(SILICON)	VA.02.05.02.006.036
16	17	14	18	VMQ(SILICON)	VA.02.05.02.006.037
20	22	18	24	VMQ(SILICON)	VA.02.05.02.006.038
25	26	22	28	VMQ(SILICON)	VA.02.05.02.006.039
32	34	30	35	VMQ(SILICON)	VA.02.05.02.006.040
40	41	38	42	VMQ(SILICON)	VA.02.05.02.006.041
50	52	48	55	VMQ(SILICON)	VA.02.05.02.006.042

ISO-KF Alu Edge Seal Outer Centered



- No gas permeation
- Cryo, radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-KF Clamp for metal seals
- For single use only

Dimensions



Aluminium EN AW-1050

- Temperature Range: -196 to 150 C°

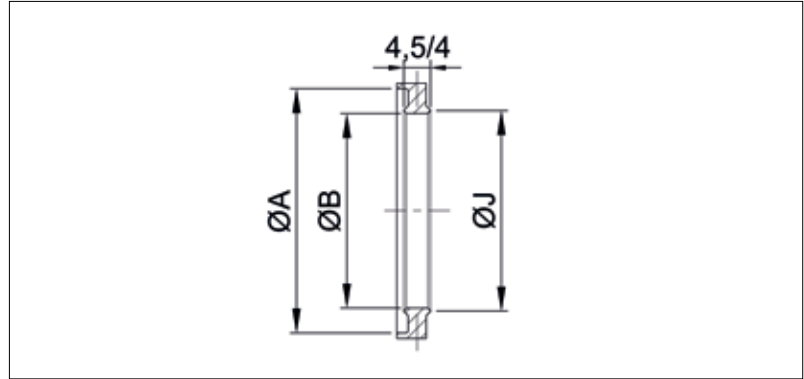
Size (DN)	A (mm)	B (mm)	J (mm)	Order No
10/16	30	20	23	VA.02.06.01.001.001
20/25	40	32	33	VA.02.06.01.001.002
32/40	55	45	48	VA.02.06.01.001.003
50	75	65	68	VA.02.06.01.001.004

ISO-KF Alu Edge Seal One-Side Outer Centered



- No gas permeation
- Cryo, radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-KF Clamp for metal seals
- For single use only

Dimensions



Aluminium EN AW-1050

- Temperature Range: -196 to 150 C°

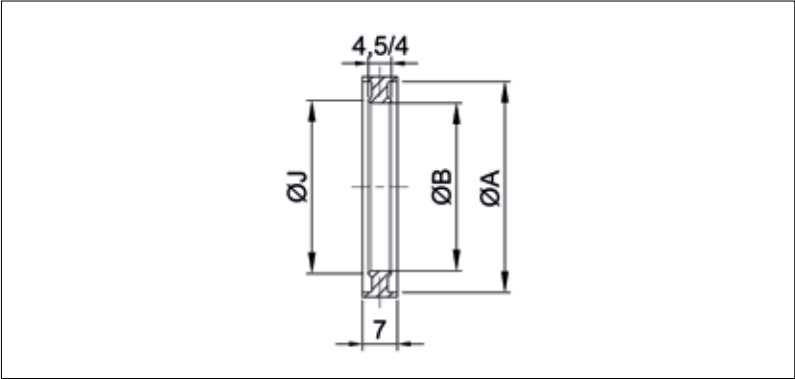
Size (DN)	A (mm)	B (mm)	J (mm)	Order No
10/16	30	20	23	VA.02.07.01.001.001
20/25	40	32	33	VA.02.07.01.001.002
32/40	55	45	48	VA.02.07.01.001.003
50	75	65	68	VA.02.07.01.001.004

ISO-KF Copper Edge Seal Outer Centered



- No gas permeation
- Cryo, radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-KF Clamp for metal seals
- For single use only

Dimensions



Copper

- Temperature Range: -196 to 200 C°

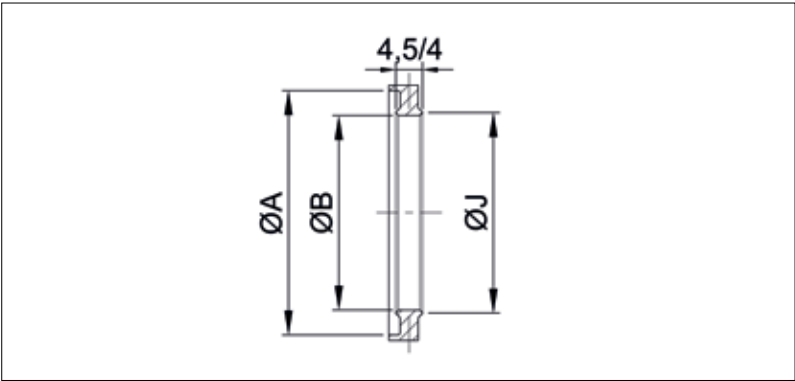
Size (DN)	A (mm)	B (mm)	J (mm)	Order No
10/16	30	20	23	VA.02.06.04.001.001
20/25	40	32	33	VA.02.06.04.001.002
32/40	55	45	48	VA.02.06.04.001.003
50	75	65	68	VA.02.06.04.001.004

ISO-KF Copper Edge Seal One-Side Outer Centered



- No gas permeation
- Cryo, radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-KF Clamp for metal seals
- For single use only

Dimensions



Copper

- Temperature Range: -196 to 200 C°

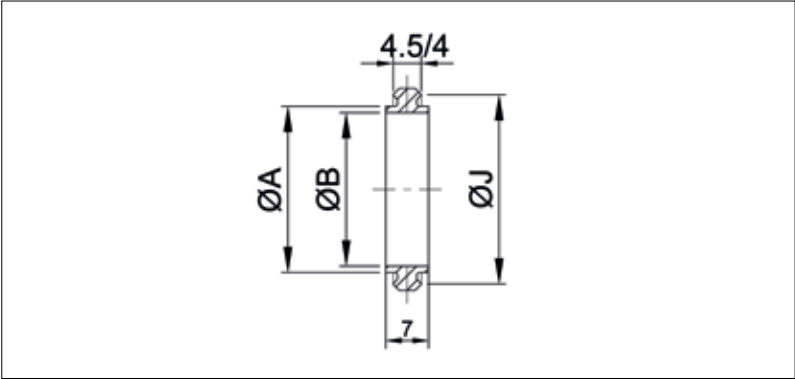
Size (DN)	A (mm)	B (mm)	J (mm)	Order No
10/16	30	20	23	VA.02.07.04.001.001
20/25	40	32	33	VA.02.07.04.001.002
32/40	55	45	48	VA.02.07.04.001.003
50	75	65	68	VA.02.07.04.001.004

ISO-KF Alu Edge Seal Inner Centered



- No gas permeation
- Cryo, radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-KF Clamp for metal seals
- For single use only

Dimensions



Aluminium EN AW-1050

- Temperature Range: -196 to 150 C°

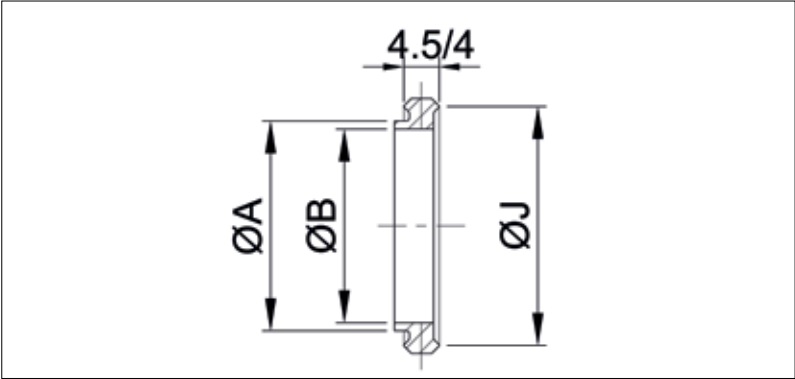
Size (DN)	A (mm)	B (mm)	J (mm)	Order No
10	12	10	18	VA.02.08.01.001.001
16	17	15	21	VA.02.08.01.001.002
20	22	20	27	VA.02.08.01.001.003
25	26	24	30	VA.02.08.01.001.004
32	34	32	38	VA.02.08.01.001.005
40	41	39	47	VA.02.08.01.001.006
50	52	50	59	VA.02.08.01.001.007

ISO-KF Alu Edge Seal One-Side Inner Centered



- No gas permeation
- Cryo, radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-KF Clamp for metal seals
- For single use only

Dimensions



Aluminium EN AW-1050

- Temperature Range: -196 to 150 C°

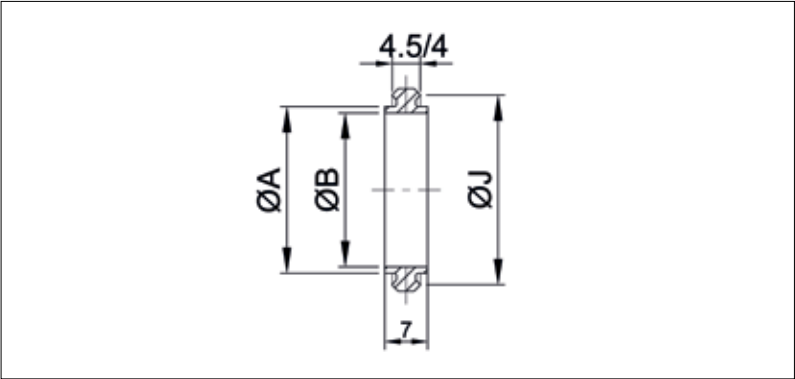
Size (DN)	A (mm)	B (mm)	J (mm)	Order No
10	12	10	18	VA.02.09.01.001.001
16	17	15	21	VA.02.09.01.001.002
20	22	20	27	VA.02.09.01.001.003
25	26	24	30	VA.02.09.01.001.004
32	34	32	38	VA.02.09.01.001.005
40	41	39	47	VA.02.09.01.001.006
50	52	50	59	VA.02.09.01.001.007

ISO-KF Copper Edge Seal Inner Centered



- No gas permeation
- Cryo, radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-KF Clamp for metal seals
- For single use only

Dimensions



Copper

- Temperature Range: -196 to 200 C°

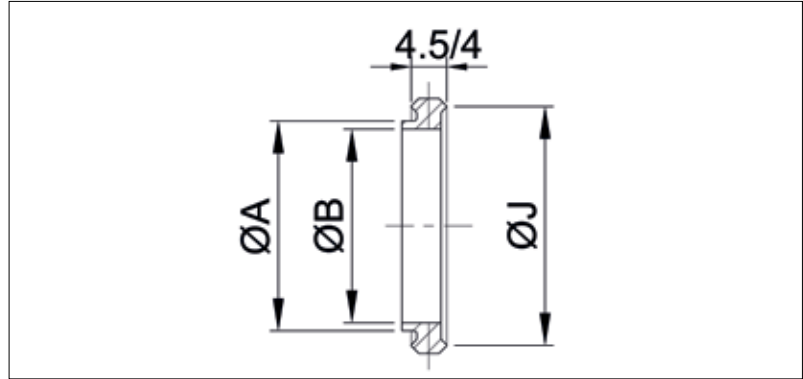
Size (DN)	A (mm)	B (mm)	J (mm)	Order No
10	12	10	18	VA.02.08.04.001.001
16	17	15	21	VA.02.08.04.001.002
20	22	20	27	VA.02.08.04.001.003
25	26	24	30	VA.02.08.04.001.004
32	34	32	38	VA.02.08.04.001.005
40	41	39	47	VA.02.08.04.001.006
50	52	50	59	VA.02.08.04.001.007

ISO-KF Copper Edge Seal One-Side Inner Centered



- No gas permeation
- Cryo, radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-KF Clamp for metal seals
- For single use only

Dimensions



Copper

- Temperature Range: -196 to 200 C°

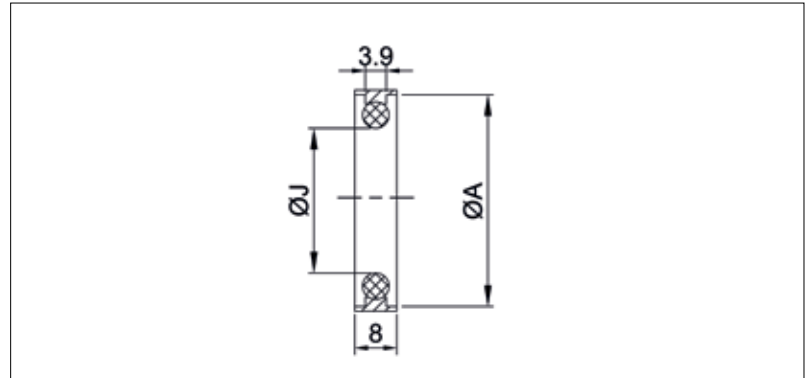
Size (DN)	A (mm)	B (mm)	J (mm)	Order No
10	12	10	18	VA.02.09.04.001.001
16	17	15	21	VA.02.09.04.001.002
20	22	20	27	VA.02.09.04.001.003
25	26	24	30	VA.02.09.04.001.004
32	34	32	38	VA.02.09.04.001.005
40	41	39	47	VA.02.09.04.001.006
50	52	50	59	VA.02.09.04.001.007

ISO-KF Seal Outer Centering Without Support



- Consider O-ring temperature ranges (See Properties of Elastomer Materials Table on Page 14)
- Various types of O-ring seals are available.

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	J (mm)	O-ring	Order No
10/16	30	23	FKM	VA.02.16.01.010.001
20/25	40	33	FKM	VA.02.16.01.010.002
32/40	55	48	FKM	VA.02.16.01.010.003
50	75	59	FKM	VA.02.16.01.010.004
10/16	30	23	CR	VA.02.16.01.010.005
20/25	40	33	CR	VA.02.16.01.010.006
32/40	55	48	CR	VA.02.16.01.010.007
50	75	59	CR	VA.02.16.01.010.008
10/16	30	23	NBR	VA.02.16.01.010.009
20/25	40	33	NBR	VA.02.16.01.010.010
32/40	55	48	NBR	VA.02.16.01.010.011
50	75	59	NBR	VA.02.16.01.010.012
10/16	30	23	EPDM	VA.02.16.01.010.013
20/25	40	33	EPDM	VA.02.16.01.010.014
32/40	55	48	EPDM	VA.02.16.01.010.015
50	75	59	EPDM	VA.02.16.01.010.016
10/16	30	23	VMQ(SILICON)	VA.02.16.01.010.021
20/25	40	33	VMQ(SILICON)	VA.02.16.01.010.022
32/40	55	48	VMQ(SILICON)	VA.02.16.01.010.023
50	75	59	VMQ(SILICON)	VA.02.16.01.010.024

PTFE

- Temperature Range: -15 to 150 C°

Size (DN)	A (mm)	J (mm)	O-ring	Order No
10/16	30	23	FKM	VA.02.16.13.005.001
20/25	40	33	FKM	VA.02.16.13.005.002
32/40	55	48	FKM	VA.02.16.13.005.003
50	75	59	FKM	VA.02.16.13.005.004

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	J (mm)	O-ring	Order No
10/16	30	23	FKM	VA.02.16.02.004.001
20/25	40	33	FKM	VA.02.16.02.004.002
32/40	55	48	FKM	VA.02.16.02.004.003
50	75	59	FKM	VA.02.16.02.004.004
10/16	30	23	CR	VA.02.16.02.004.005
20/25	40	33	CR	VA.02.16.02.004.006
32/40	55	48	CR	VA.02.16.02.004.007
50	75	59	CR	VA.02.16.02.004.008
10/16	30	23	NBR	VA.02.16.02.004.009
20/25	40	33	NBR	VA.02.16.02.004.010
32/40	55	48	NBR	VA.02.16.02.004.011
50	75	59	NBR	VA.02.16.02.004.012
10/16	30	23	EPDM	VA.02.16.02.004.013
20/25	40	33	EPDM	VA.02.16.02.004.014
32/40	55	48	EPDM	VA.02.16.02.004.015
50	75	59	EPDM	VA.02.16.02.004.016
10/16	30	23	VMQ(SILICON)	VA.02.16.02.004.021
20/25	40	33	VMQ(SILICON)	VA.02.16.02.004.022
32/40	55	48	VMQ(SILICON)	VA.02.16.02.004.023
50	75	59	VMQ(SILICON)	VA.02.16.02.004.024

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

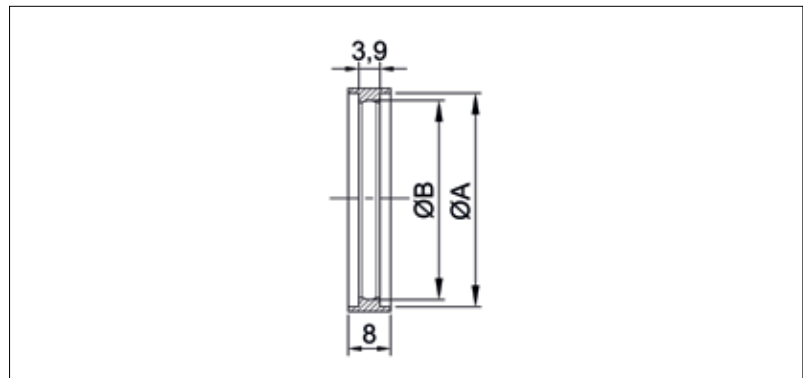
Size (DN)	A (mm)	J (mm)	O-ring	Order No
10/16	30	23	FKM	VA.02.16.02.006.001
20/25	40	33	FKM	VA.02.16.02.006.002
32/40	55	48	FKM	VA.02.16.02.006.003
50	75	59	FKM	VA.02.16.02.006.004
10/16	30	23	CR	VA.02.16.02.006.005
20/25	40	33	CR	VA.02.16.02.006.006
32/40	55	48	CR	VA.02.16.02.006.007
50	75	59	CR	VA.02.16.02.006.008
10/16	30	23	NBR	VA.02.16.02.006.009
20/25	40	33	NBR	VA.02.16.02.006.010
32/40	55	48	NBR	VA.02.16.02.006.011
50	75	59	NBR	VA.02.16.02.006.012
10/16	30	23	EPDM	VA.02.16.02.006.013
20/25	40	33	EPDM	VA.02.16.02.006.014
32/40	55	48	EPDM	VA.02.16.02.006.015
50	75	59	EPDM	VA.02.16.02.006.016
10/16	30	23	VMQ(SILICON)	VA.02.16.02.006.021
20/25	40	33	VMQ(SILICON)	VA.02.16.02.006.022
32/40	55	48	VMQ(SILICON)	VA.02.16.02.006.023
50	75	59	VMQ(SILICON)	VA.02.16.02.006.024

ISO-KF Outer Centering Outer Ring

- Various types of O-ring seals are available.



Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 °C

Size (DN)	A (mm)	B (mm)	Order No
10/16	30	28	VA.02.10.01.010.001
20/25	40	38	VA.02.10.01.010.002
32/40	55	53	VA.02.10.01.010.003
50	75	64	VA.02.10.01.010.004

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	Order No
10/16	30	28	VA.02.10.02.004.001
20/25	40	38	VA.02.10.02.004.002
32/40	55	53	VA.02.10.02.004.003
50	75	64	VA.02.10.02.004.004

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	Order No
10/16	30	28	VA.02.10.02.006.001
20/25	40	38	VA.02.10.02.006.002
32/40	55	53	VA.02.10.02.006.003
50	75	64	VA.02.10.02.006.004

PTFE

- Temperature Range: -15 to 150 °C

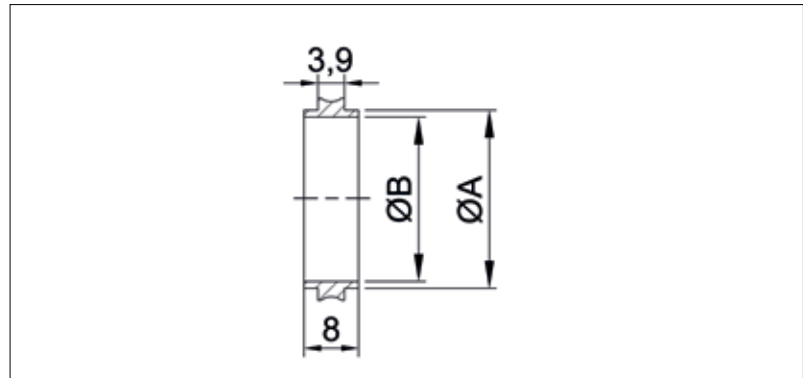
Size (DN)	A (mm)	B (mm)	Order No
10/16	30	28	VA.02.10.13.005.001
20/25	40	38	VA.02.10.13.005.002
32/40	55	53	VA.02.10.13.005.003
50	75	64	VA.02.10.13.005.004

ISO-KF Inner Centered Inner Ring

- Various types of O-ring seals are available.



Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	Order No
10	12	10	VA.02.12.01.010.001
16	17	16	VA.02.12.01.010.002
20	22	20	VA.02.12.01.010.003
25	26	24	VA.02.12.01.010.004
32	34	32	VA.02.12.01.010.005
40	41	40	VA.02.12.01.010.006
50	52	50	VA.02.12.01.010.007

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	Order No
10	12	10	VA.02.12.02.004.001
16	17	16	VA.02.12.02.004.002
20	22	20	VA.02.12.02.004.003
25	26	24	VA.02.12.02.004.004
32	34	32	VA.02.12.02.004.005
40	41	40	VA.02.12.02.004.006
50	52	50	VA.02.12.02.004.007

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

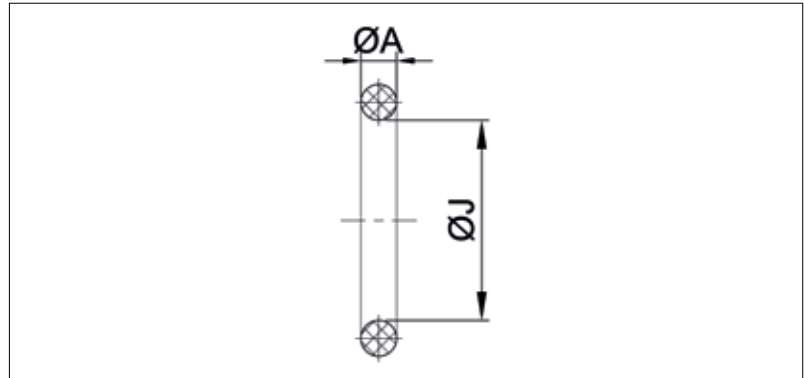
Size (DN)	A (mm)	B (mm)	Order No
10	12	10	VA.02.12.02.006.001
16	17	16	VA.02.12.02.006.002
20	22	20	VA.02.12.02.006.003
25	26	24	VA.02.12.02.006.004
32	34	32	VA.02.12.02.006.005
40	41	40	VA.02.12.02.006.006
50	52	50	VA.02.12.02.006.007

ISO-KF O-ring

- Various types of O-ring seals are available.



Dimensions



FKM

- Temperature range: -15 to 200 °C

Size (DN)	J (mm)	ØA(mm)	Order No
10	15	5	VE.07.01.13.001.001
16	18	5	VE.07.01.13.001.002
20	24	5	VE.07.01.13.001.003
25	28	5	VE.07.01.13.001.004
32	35	5	VE.07.01.13.001.005
40	42	5	VE.07.01.13.001.006
50	55	5	VE.07.01.13.001.007

CR

- Temperature range: -40 to 100 °C

Size (DN)	J (mm)	ØA(mm)	Order No
10	15	5	VE.07.01.13.002.001
16	18	5	VE.07.01.13.002.002
20	24	5	VE.07.01.13.002.003
25	28	5	VE.07.01.13.002.004
32	35	5	VE.07.01.13.002.005
40	42	5	VE.07.01.13.002.006
50	55	5	VE.07.01.13.002.007

NBR

- Temperature range: -25 to 120 °C

Size (DN)	J (mm)	ØA(mm)	Order No
10	15	5	VE.07.01.13.003.001
16	18	5	VE.07.01.13.003.002
20	24	5	VE.07.01.13.003.003
25	28	5	VE.07.01.13.003.004
32	35	5	VE.07.01.13.003.005
40	42	5	VE.07.01.13.003.006
50	55	5	VE.07.01.13.003.007

EPDM

- Temperature range: -25 to 120 °C

Size (DN)	J (mm)	ØA(mm)	Order No (EPDM)
10	15	5	VE.07.01.13.004.001
16	18	5	VE.07.01.13.004.002
20	24	5	VE.07.01.13.004.003
25	28	5	VE.07.01.13.004.004
32	35	5	VE.07.01.13.004.005
40	42	5	VE.07.01.13.004.006
50	55	5	VE.07.01.13.004.007

VMQ SILICON

- Temperature range: -25 to 120 °C

Size (DN)	J (mm)	ØA(mm)	Order No
10	15	5	VE.07.01.13.006.001
16	18	5	VE.07.01.13.006.002
20	24	5	VE.07.01.13.006.003
25	28	5	VE.07.01.13.006.004
32	35	5	VE.07.01.13.006.005
40	42	5	VE.07.01.13.006.006
50	55	5	VE.07.01.13.006.007

ISO-KF Clamps

This part consists of KF Clamps.
Check out this section for products NW10-NW50.

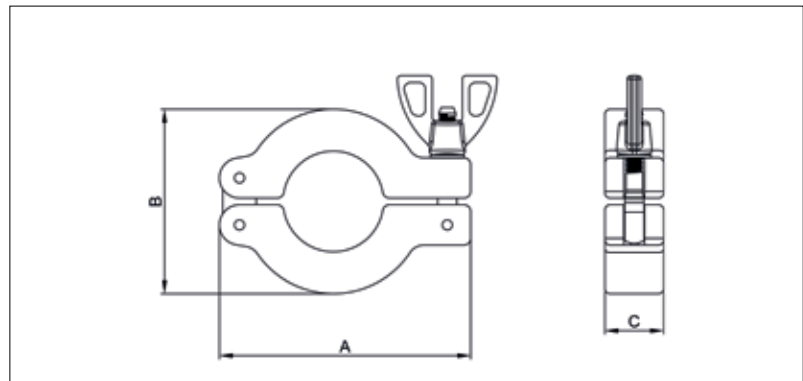


ISO-KF Wingnut CNC Machined Clamp



- Nominal diameters 10 to 50 mm
 - For High Vacuum (HV) Applications
 - For inner and outer center rings
 - Hinged, two-part device
 - Cnc machined clamp
 - For extra rigid strength and durable
 - Quick assembly and removal.
 - Stainless steel bolt and wingnut
- Pressure Range Elastomer seal: 10^{-7} mbar to 1.5 bar

Dimensions



Aluminium EN AW-6082/T-6 (Uncoated - For general use)

- Temperature Range: -196 to 150 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10/16	65	45	17,5	VA.03.01.01.010.001
20/25	75	55	17,5	VA.03.01.01.010.002
32/40	95	72	17,5	VA.03.01.01.010.003
50	115	95	22	VA.03.01.01.010.004

Natural Anodized

- For frequently opened and closed connections
- Low surface friction
- High corrosion resistance
- High wear resistance
- Dielectric property

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10/16	65	45	17,5	VA.03.01.01.010.005
20/25	75	55	17,5	VA.03.01.01.010.006
32/40	95	72	17,5	VA.03.01.01.010.007
50	115	95	22	VA.03.01.01.010.008

PTFE Plated

- Used with aluminium KF vacuum equipment
- Low surface friction
- High corrosion resistance
- Non stick
- Advanced release feature
- High resistance to chemicals
- Dielectric property

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10/16	65	45	17,5	VA.03.01.01.010.009
20/25	75	55	17,5	VA.03.01.01.010.010
32/40	95	72	17,5	VA.03.01.01.010.011
50	115	95	22	VA.03.01.01.010.012

Nickel Plated

- High corrosion resistance
- High wear resistance
- View of a glossy surface

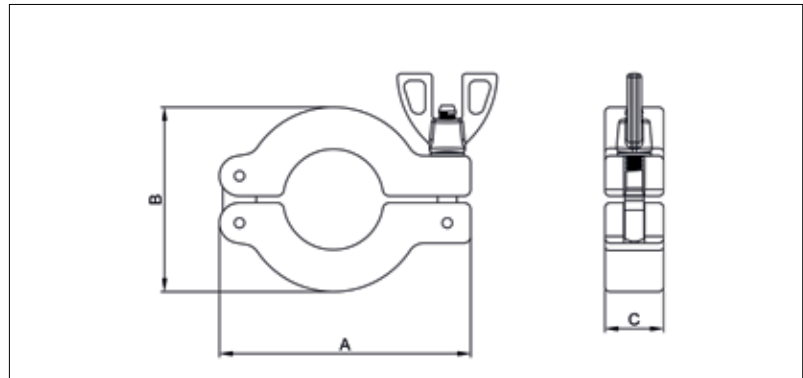
Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10/16	65	45	17,5	VA.03.01.01.010.013
20/25	75	55	17,5	VA.03.01.01.010.014
32/40	95	72	17,5	VA.03.01.01.010.015
50	115	95	22	VA.03.01.01.010.016

ISO-KF Wingnut Casting AL Clamp



- For High Vacuum (HV) Applications
- For inner and outer center rings
- Die casting aluminium clamp
- Hinged, two-part device
- Quick assembly and removal
- Stainless steel bolt and wingnut
- Temperature Range Aluminium: -196 to 150 °C
- Pressure Range Elastomer seal: 10^{-7} mbar to 1.5 bar

Dimensions



Uncoated

Aluminium EN AC-47100

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10/16	62	45	17	VA.03.04.08.001.001
20/25	72	55	17	VA.03.04.08.001.002
32/40	92	70	17	VA.03.04.08.001.003
50	112	90	22	VA.03.04.08.001.004

ISO-KF Wingnut Casting SS Clamp



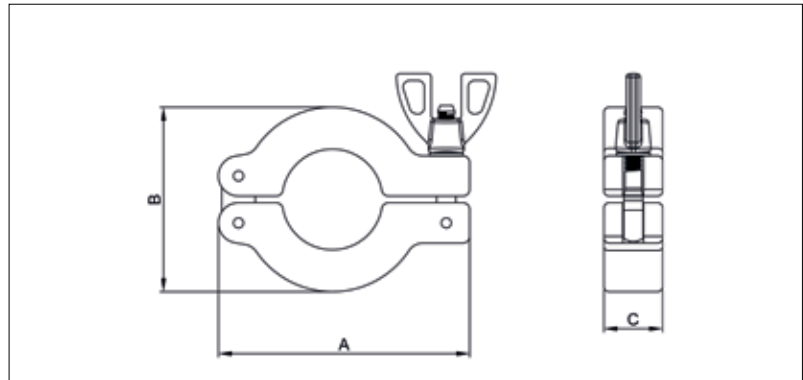
- For High Vacuum (HV) Applications
- For inner and outer center rings
- Die casting stainless steel clamp
- Hinged, two-part device
- Quick assembly and removal
- Stainless steel bolt and wing nut
- Material

Stainless Steel (AISI 304/1.4301, AISI 316L/1.4404)

Pressure Range Elastomer seal: 10^{-7} mbar to 2.5 bar

Metal seal: 10^{-9} mbar to 2.5 bar

Dimensions



Stainless Steel 304/1.4301

SS304/1.4301: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10/16	60	42	16	VA.03.04.02.004.001
20/25	70	50	16	VA.03.04.02.004.002
32/40	90	66,5	16	VA.03.04.02.004.003
50	115	90	19	VA.03.04.02.004.004

Stainless Steel 316L/1.4404

SS316L/1.4404: -196 to 350 °C

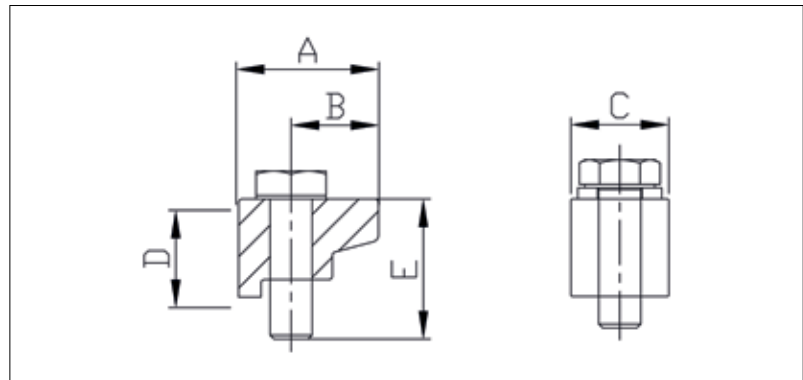
Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10/16	60	42	16	VA.03.04.02.006.001
20/25	70	50	16	VA.03.04.02.006.002
32/40	90	66,5	16	VA.03.04.02.006.003
50	115	90	19	VA.03.04.02.006.004

ISO-KF Claw (Wall) Clamp



- Suitable for use with elastomer seals
- For installing on a base plate with KF centering ring
- Aluminium body, stainless steel bolt.
- Cast steel
- Short and long versions available
- Spring loaded lock-washers, single Claw Clamp for bolting KF flanges to bulkheads
- Can be used instead of bulkhead clamps
- Wide range optimised for many applications
- Holes: Needed number of tapped holes in base plate: 4x90° (Thread: M6, depth: min. 6 mm)
- Material
Aluminium (EN AW-6082 T6)
Bolt: A2-70 stainless steel (Hexagon Head, M6 x 20 mm)
- Pressure Range
Elastomer seal: 10^{-7} mbar to 2.5 bar
Torque max 8 Nm

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 200 C°

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Order No
10/50	20	12,5	14	14	20	VA.03.06.08.001.001

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Order No
10/50	20	12,5	14	14	20	VA.03.06.02.004.001

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

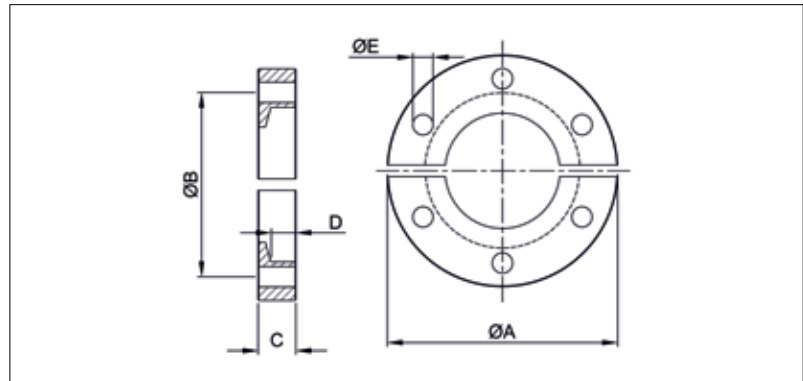
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Order No
10/50	20	12,5	14	14	20	VA.03.06.02.006.001

ISO-KF Bulkhead Clamp



- For installing on a base plate with KF centering ring
- Holes: Needed number of tapped holes in base plate: 4x90° (Thread: M5, depth: min. 6 mm)
- Provides simple and secure baseplate connection
- Stainless Steel bolts and washers included
- Suitable for use with elastomer seals
- For mounting on a base plate with KF centered ring
- Material Aluminium (EN AW-6082 T6) Bolt: A2-70 stainless steel DIN933 (Hexagon Head, M5 x 20 mm, Silver Plated)
- Pressure Range Elastomer seal: 10^{-7} mbar to 2.5 bar

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Order No
10/16	50,8	38,1	9,2	6,5	5,3	VA.03.07.01.010.001
20/25	60,3	48	9,9	6,6	5,3	VA.03.07.01.010.002
32/40	74,6	62	9,3	6,6	5,3	VA.03.07.01.010.003
50	94,9	82,6	10,4	6,5	5,3	VA.03.07.01.010.004

ISO-KF Chain Clamp



- Quick opening and closing of clamp
- Suitable for use with elastomer and metallic seals
- Hand grip: Stainless steel
- Especially for UHV applications
- Cryo applications
- Aluminium

Links constructed of pressure die-cast Aluminium alloy

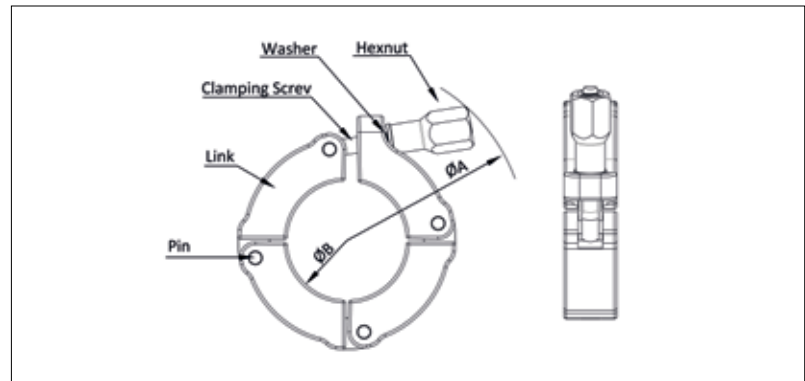
Over pressure max.: 500 mbar

- Stainless Steel

Food and Beverage applications

Pressure range: $1 \cdot 10^{-11}$ hPa to 300 bar over pressure (metal seal)

Dimensions



Aluminium EN AC-4710

- Temperature Range: -196 to 200 °C

Size (DN)	A (mm)	B (mm)	Torque (Nm) (Alu)	Torque (Nm) (Copper)	Torque (Nm)(Nickel)	Links	Order No
10/16	95	21	2	3.5	6	3	VA.03.08.08.001.001
20/25	120	30	2.5	5	8	4	VA.03.08.08.001.002
32/40	135	45	3	6	10	4	VA.03.08.08.001.003
50	150	60	4,5	8.5	12	5	VA.03.08.08.001.004

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	Torque (Nm) (Alu)	Torque (Nm) (Copper)	Torque (Nm) (Nickel)	Links	Order No
10/16	95	21	2	3.5	6	3	VA.03.08.02.004.001
20/25	120	30	2.5	5	8	4	VA.03.08.02.004.002
32/40	135	45	3	6	10	4	VA.03.08.02.004.003
50	150	60	4,5	8.5	12	5	VA.03.08.02.004.004

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

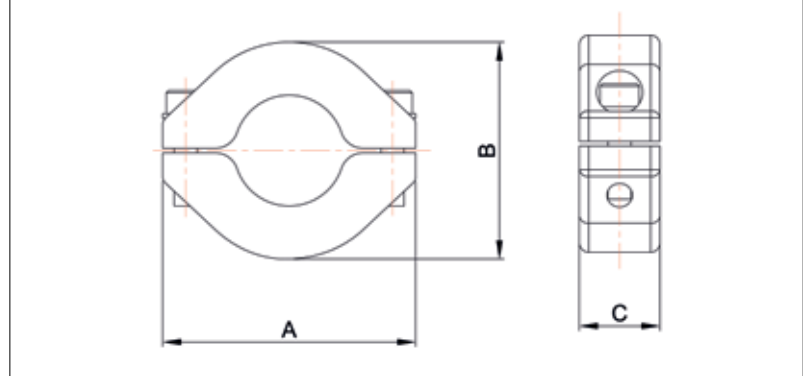
Size (DN)	A (mm)	B (mm)	Torque (Nm) (Alu)	Torque (Nm) (Copper)	Torque (Nm) (Nickel)	Links	Order No
10/16	95	21	2	3.5	6	3	VA.03.08.02.006.001
20/25	120	30	2.5	5	8	4	VA.03.08.02.006.002
32/40	135	45	3	6	10	4	VA.03.08.02.006.003
50	150	60	4,5	8.5	12	5	VA.03.08.02.006.004

ISO-KF Bolt Clamp (2-Part)



- Suitable for use with elastomer and metal seals
- Bolts: Hexagon socket, A2-70 steel
- Recommended using a screw thread lubricant
- Over pressure max.: 500 mbar

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Bolt	Order No
10/16	55	47	18	M5 x 25	VA.03.09.02.004.001
20/25	66	57	18	M5 x 25	VA.03.09.02.004.002
32/40	82	72	18	M5 x 25	VA.03.09.02.004.003
50	122	96	21	M5 x 25	VA.03.09.02.004.004

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Bolt	Order No
10/16	55	47	18	M5 x 25	VA.03.09.02.006.001
20/25	66	57	18	M5 x 25	VA.03.09.02.006.002
32/40	82	72	18	M5 x 25	VA.03.09.02.006.003
50	122	96	21	M5 x 25	VA.03.09.02.006.004

ISO-KF Fittings

This part consists of KF Fittings.
Check out this section for products NW10-NW50.



ISO-KF Straight Reducer



- Aluminium EN AW-6082 T6/3.2315

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure

- Stainless Steel 304/1.4301

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

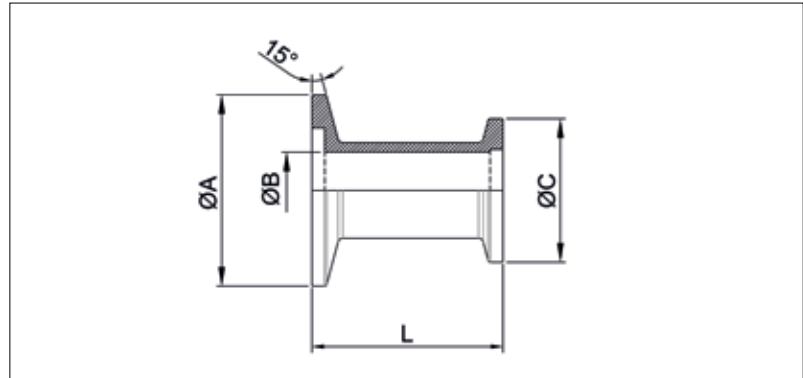
$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

- Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	L	Order No
25	10	40	10	30	28	VA.04.01.01.010.001
25	10	40	10	30	30	VA.04.01.01.010.002
25	10	40	10	30	40	VA.04.01.01.010.003
25	16	40	16	30	28	VA.04.01.01.010.004
25	16	40	16	30	30	VA.04.01.01.010.005
25	16	40	16	30	40	VA.04.01.01.010.006
40	10	55	10	30	28	VA.04.01.01.010.007
40	10	55	10	30	30	VA.04.01.01.010.008
40	10	55	10	30	40	VA.04.01.01.010.009
40	16	55	16	30	28	VA.04.01.01.010.010
40	16	55	16	30	30	VA.04.01.01.010.011
40	16	55	16	30	40	VA.04.01.01.010.012
40	25	55	24	40	28	VA.04.01.01.010.013
40	25	55	24	40	30	VA.04.01.01.010.014
40	25	55	24	40	40	VA.04.01.01.010.015
50	16	75	16	30	28	VA.04.01.01.010.019
50	16	75	16	30	30	VA.04.01.01.010.020
50	16	75	16	30	40	VA.04.01.01.010.021
50	25	75	24	40	28	VA.04.01.01.010.022
50	25	75	24	40	30	VA.04.01.01.010.023
50	25	75	24	40	40	VA.04.01.01.010.024
50	40	75	40	55	28	VA.04.01.01.010.025
50	40	75	40	55	30	VA.04.01.01.010.026
50	40	75	40	55	40	VA.04.01.01.010.027

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	L	Order No
25	10	40	10	30	28	VA.04.01.02.004.001
25	10	40	10	30	30	VA.04.01.02.004.002
25	10	40	10	30	40	VA.04.01.02.004.003
25	16	40	16	30	28	VA.04.01.02.004.004
25	16	40	16	30	30	VA.04.01.02.004.005
25	16	40	16	30	40	VA.04.01.02.004.006
40	10	55	10	30	28	VA.04.01.02.004.007
40	10	55	10	30	30	VA.04.01.02.004.008
40	10	55	10	30	40	VA.04.01.02.004.009
40	16	55	16	30	28	VA.04.01.02.004.010
40	16	55	16	30	30	VA.04.01.02.004.011
40	16	55	16	30	40	VA.04.01.02.004.012
40	25	55	24	40	28	VA.04.01.02.004.013
40	25	55	24	40	30	VA.04.01.02.004.014
40	25	55	24	40	40	VA.04.01.02.004.015
50	16	75	16	30	28	VA.04.01.02.004.019
50	16	75	16	30	30	VA.04.01.02.004.020
50	16	75	16	30	40	VA.04.01.02.004.021
50	25	75	24	40	28	VA.04.01.02.004.022
50	25	75	24	40	30	VA.04.01.02.004.023
50	25	75	24	40	40	VA.04.01.02.004.024
50	40	75	40	55	28	VA.04.01.02.004.025
50	40	75	40	55	30	VA.04.01.02.004.026
50	40	75	40	55	40	VA.04.01.02.004.027

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	L	Order No
25	10	40	10	30	28	VA.04.01.02.006.001
25	10	40	10	30	30	VA.04.01.02.006.002
25	10	40	10	30	40	VA.04.01.02.006.003
25	16	40	16	30	28	VA.04.01.02.006.004
25	16	40	16	30	30	VA.04.01.02.006.005
25	16	40	16	30	40	VA.04.01.02.006.006
40	10	55	10	30	28	VA.04.01.02.006.007
40	10	55	10	30	30	VA.04.01.02.006.008
40	10	55	10	30	40	VA.04.01.02.006.009
40	16	55	16	30	28	VA.04.01.02.006.010
40	16	55	16	30	30	VA.04.01.02.006.011
40	16	55	16	30	40	VA.04.01.02.006.012
40	25	55	24	40	28	VA.04.01.02.006.013
40	25	55	24	40	30	VA.04.01.02.006.014
40	25	55	24	40	40	VA.04.01.02.006.015
50	16	75	16	30	28	VA.04.01.02.006.019
50	16	75	16	30	30	VA.04.01.02.006.020
50	16	75	16	30	40	VA.04.01.02.006.021
50	25	75	24	40	28	VA.04.01.02.006.022
50	25	75	24	40	30	VA.04.01.02.006.023
50	25	75	24	40	40	VA.04.01.02.006.024
50	40	75	40	55	28	VA.04.01.02.006.025
50	40	75	40	55	30	VA.04.01.02.006.026
50	40	75	40	55	40	VA.04.01.02.006.027

ISO-KF Conical Reducer



- Stainless Steel 304/1.4301

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

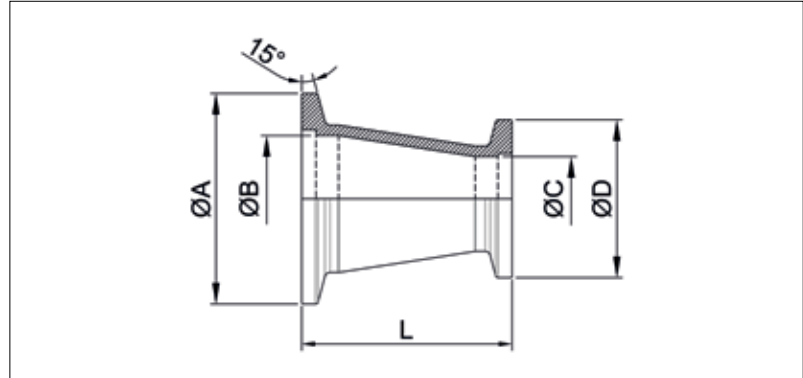
$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

- Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No
25	16	40	24	16	30	28	VA.04.02.02.004.003
25	16	40	24	16	30	40	VA.04.02.02.004.004
40	16	55	24	16	30	28	VA.04.02.02.004.007
40	16	55	24	16	30	40	VA.04.02.02.004.008
40	25	55	40	24	40	28	VA.04.02.02.004.009
40	25	55	40	24	40	40	VA.04.02.02.004.010
50	16	75	50	16	30	40	VA.04.02.02.004.014
50	25	75	50	24	40	28	VA.04.02.02.004.015
50	25	75	50	24	28	40	VA.04.02.02.004.016
50	40	75	50	40	55	28	VA.04.02.02.004.017
50	40	75	50	40	55	40	VA.04.02.02.004.018

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No
25	16	40	24	16	30	28	VA.04.02.02.006.003
25	16	40	24	16	30	40	VA.04.02.02.006.004
40	16	55	24	16	30	28	VA.04.02.02.006.007
40	16	55	24	16	30	40	VA.04.02.02.006.008
40	25	55	40	24	40	28	VA.04.02.02.006.009
40	25	55	40	24	40	40	VA.04.02.02.006.010
50	16	75	50	16	30	40	VA.04.02.02.006.014
50	25	75	50	24	40	28	VA.04.02.02.006.015
50	25	75	50	24	28	40	VA.04.02.02.006.016
50	40	75	50	40	55	28	VA.04.02.02.006.017
50	40	75	50	40	55	40	VA.04.02.02.006.018

ISO-KF Tee



- Stainless Steel 304/1.4301

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

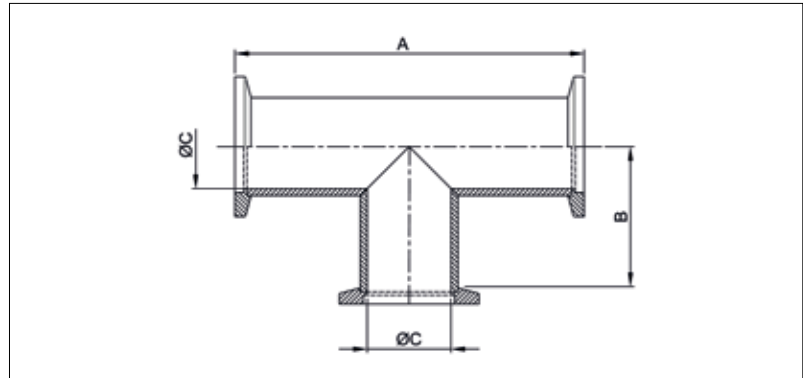
$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

- Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 1,5 bar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 1,5 bar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10	60	30	10	VA.04.03.02.004.001
16	80	40	16	VA.04.03.02.004.002
25	100	50	24	VA.04.03.02.004.003
40	130	65	40,5	VA.04.03.02.004.004
50	140	70	50	VA.04.03.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

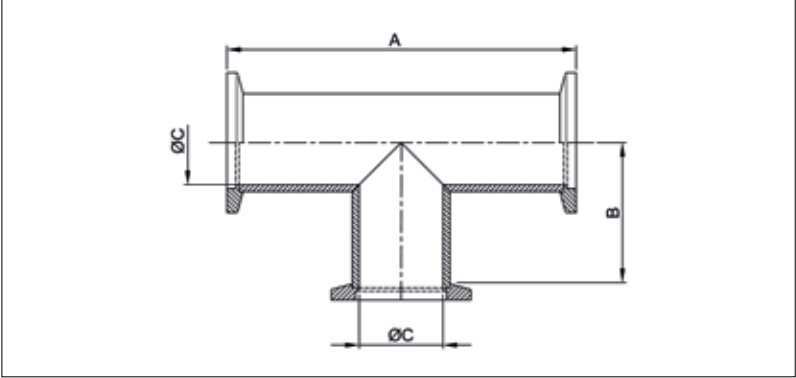
Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10	60	30	10	VA.04.03.02.006.001
16	80	40	16	VA.04.03.02.006.002
25	100	50	24	VA.04.03.02.006.003
40	130	65	40,5	VA.04.03.02.006.004
50	140	70	50	VA.04.03.02.006.005

ISO-KF Tee (Forging)



- Aluminium EN AW-6082/3.2315
- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10	60	30	10	VA.04.04.01.010.001
16	80	40	16	VA.04.04.01.010.002
25	100	50	24	VA.04.04.01.010.003
40	130	65	40,5	VA.04.04.01.010.004

ISO-KF Reducer Tee



- Stainless Steel 304/1.4301

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

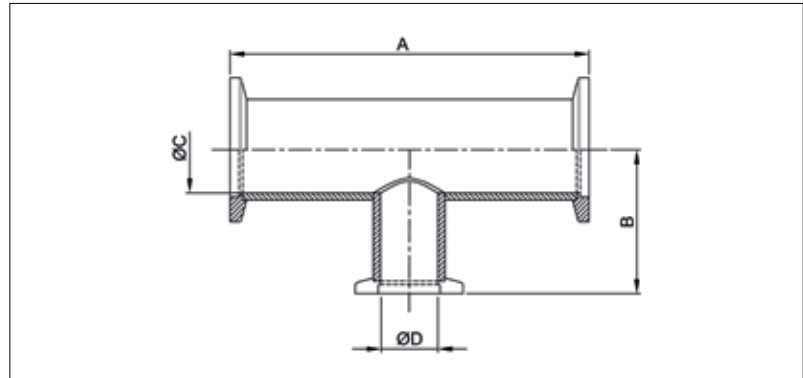
$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

- Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 1,5 bar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 1,5 bar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Reducer Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
25	16	100	40	24	16	VA.04.06.02.004.001
40	16	130	40	40,5	16	VA.04.06.02.004.002
40	25	130	50	40,5	24	VA.04.06.02.004.003
50	16	140	50	50	16	VA.04.06.02.004.004
50	25	140	65	50	24	VA.04.06.02.004.005
50	40	140	65	50	40	VA.04.06.02.004.006

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	Reducer Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
25	16	100	40	24	16	VA.04.06.02.006.001
40	16	130	40	40,5	16	VA.04.06.02.006.002
40	25	130	50	40,5	24	VA.04.06.02.006.003
50	16	140	50	50	16	VA.04.06.02.006.004
50	25	140	65	50	24	VA.04.06.02.006.005
50	40	140	65	50	40	VA.04.06.02.006.006

ISO-KF 90 Radius Elbow



- Stainless Steel 304/1.4301

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

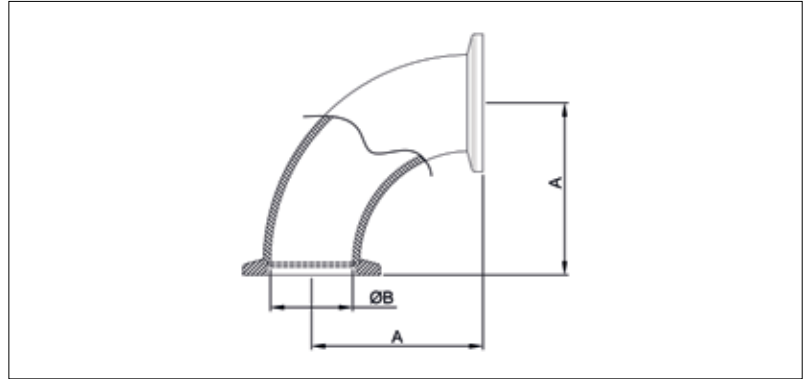
$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

- Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	Order No
10	23,5	10	VA.04.08.02.004.001
16	41,5	16	VA.04.08.02.004.002
25	40,5	24	VA.04.08.02.004.003
40	63,5	40,5	VA.04.08.02.004.004
50	78,5	50	VA.04.08.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	Order No
10	23,5	10	VA.04.08.02.006.001
16	41,5	16	VA.04.08.02.006.002
25	40,5	24	VA.04.08.02.006.003
40	63,5	40,5	VA.04.08.02.006.004
50	70	50	VA.04.08.02.006.005

ISO-KF 45 Radius Elbow



- Stainless Steel 304/1.4301

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

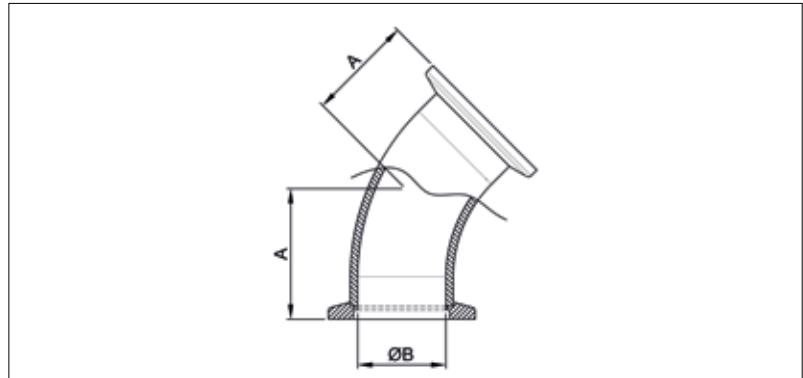
$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

- Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	Order No
10	30	10	VA.04.09.02.004.001
16	25	16	VA.04.09.02.004.002
25	32	24	VA.04.09.02.004.003
40	40	40,5	VA.04.09.02.004.004
50	50	50	VA.04.09.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

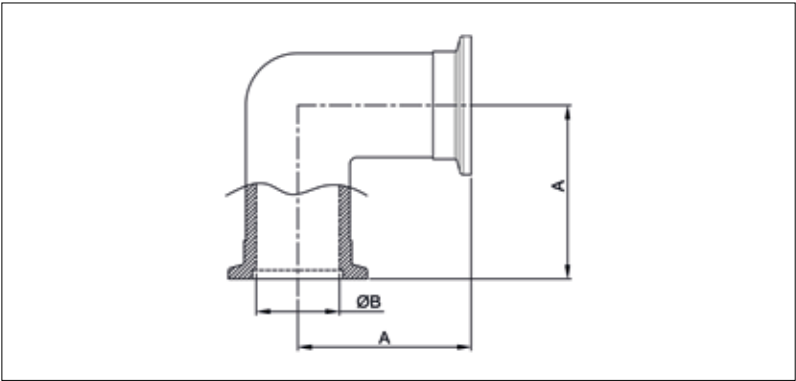
Size (DN)	A (mm)	B (mm)	Order No
10	30	10	VA.04.09.02.006.001
16	25	16	VA.04.09.02.006.002
25	32	24	VA.04.09.02.006.003
40	40	40,5	VA.04.09.02.006.004
50	50	50	VA.04.09.02.006.005

ISO-KF 90 Elbow (Forging)

Aluminium EN AW-6082 T6/3.2315
Pressure range: 1 · 10⁻⁸ mbar to 500 mbar over pressure



Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	Order No
10	30	10	VA.04.10.01.010.001
16	40	16	VA.04.10.01.010.002
25	50	24	VA.04.10.01.010.003
40	65	40,5	VA.04.10.01.010.004

ISO KF 4 Way Cross



- Stainless Steel 304/1.4301

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

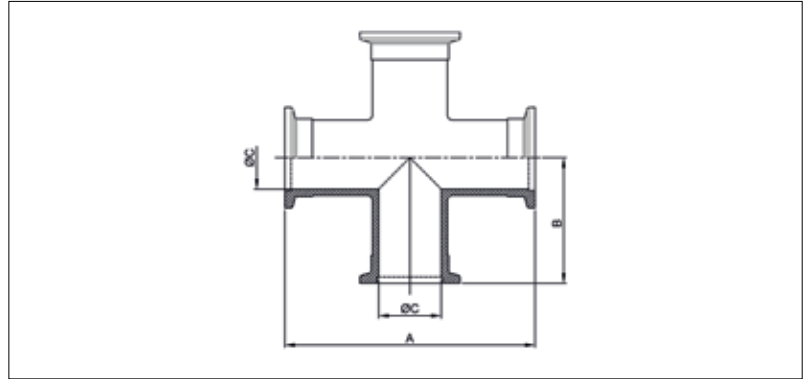
$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

- Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10	60	30	10	VA.04.13.02.004.001
16	80	40	16	VA.04.13.02.004.002
25	100	50	24	VA.04.13.02.004.003
40	130	65	40,5	VA.04.13.02.004.004
50	140	70	50	VA.04.13.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
10	60	30	10	VA.04.13.02.006.001
16	80	40	16	VA.04.13.02.006.002
25	100	50	24	VA.04.13.02.006.003
40	130	65	40,5	VA.04.13.02.006.004
50	140	70	50	VA.04.13.02.006.005

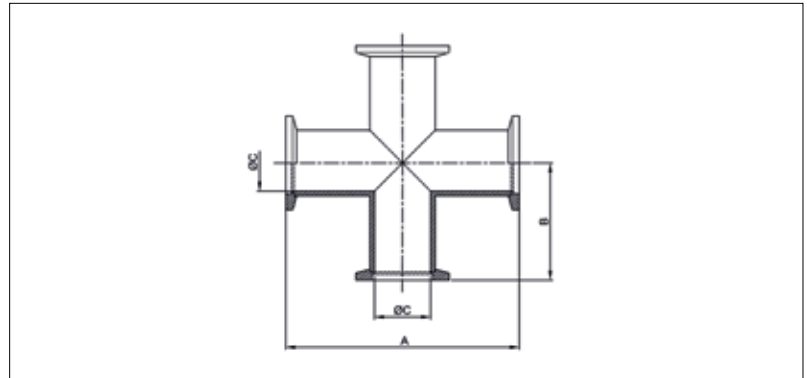
ISO KF 4 Way Cross (Forging)



- Aluminium EN AW-6082/3.2315

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure

Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
16	80	40	16	VA.04.14.01.010.001
25	100	50	24	VA.04.14.01.010.002
40	130	65	40,5	VA.04.14.01.010.003

ISO-KF Reducer Cross



- Stainless Steel 304/1.4301

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

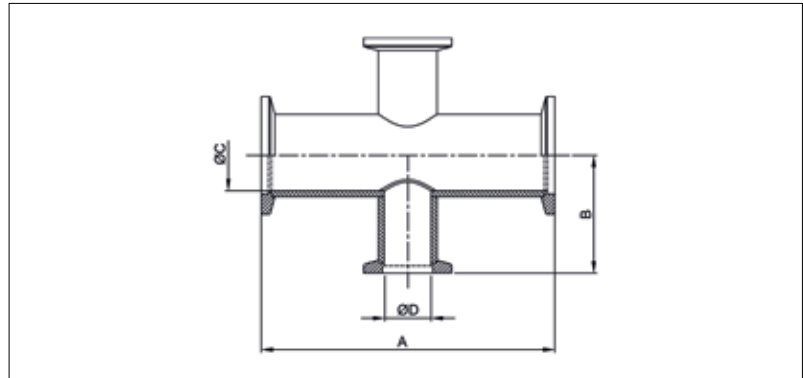
$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

- Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Size Reducer (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
25	16	100	40	24	16	VA.04.16.02.004.001
40	16	130	40	40,5	16	VA.04.16.02.004.002
40	25	130	50	40,5	24	VA.04.16.02.004.003
50	16	140	40	50	16	VA.04.16.02.004.004
50	25	140	50	50	24	VA.04.16.02.004.005
50	40	140	65	50	40	VA.04.16.02.004.006

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	Size Reducer (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
25	16	100	40	24	16	VA.04.16.02.006.001
40	16	130	40	40,5	16	VA.04.16.02.006.002
40	25	130	50	40,5	24	VA.04.16.02.006.003
50	16	140	40	50	16	VA.04.16.02.006.004
50	25	140	50	50	24	VA.04.16.02.006.005
50	40	140	65	50	40	VA.04.16.02.006.006

ISO-KF Adapters

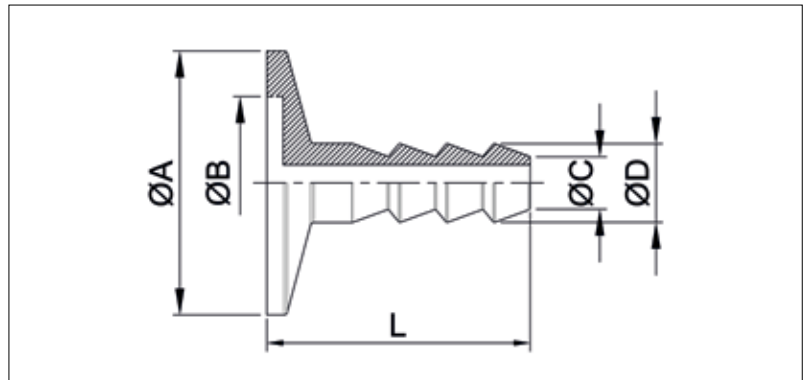
This part consists of KF Adapters.
Check out this section for products NW10-NW50



ISO KF Hose Nozzle



Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No
10	30	12,2	4	8	40	VA.05.01.01.010.001
10	30	12,2	7	12	40	VA.05.01.01.010.002
16	30	17,2	4	8	40	VA.05.01.01.010.003
16	30	17,2	7	12	40	VA.05.01.01.010.004
25	40	26,2	4	8	40	VA.05.01.01.010.005
25	40	26,2	7	12	40	VA.05.01.01.010.006
25	40	26,2	12	16	40	VA.05.01.01.010.007
40	55	41,2	4	8	40	VA.05.01.01.010.008
40	55	41,2	7	12	40	VA.05.01.01.010.009
40	55	41,2	12	16	40	VA.05.01.01.010.010
40	55	41,2	16	20	40	VA.05.01.01.010.011
50	75	52,2	4	8	40	VA.05.01.01.010.012
50	75	52,2	7	12	40	VA.05.01.01.010.013
50	75	52,2	12	16	40	VA.05.01.01.010.014
50	75	52,2	16	20	40	VA.05.01.01.010.015
50	75	52,2	20	25	40	VA.05.01.01.010.016

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No
10	30	12,2	4	8	40	VA.05.01.02.004.001
10	30	12,2	7	12	40	VA.05.01.02.004.002
16	30	17,2	4	8	40	VA.05.01.02.004.003
16	30	17,2	7	12	40	VA.05.01.02.004.004
25	40	26,2	4	8	40	VA.05.01.02.004.005
25	40	26,2	7	12	40	VA.05.01.02.004.006
25	40	26,2	12	16	40	VA.05.01.02.004.007
40	55	41,2	4	8	40	VA.05.01.02.004.008
40	55	41,2	7	12	40	VA.05.01.02.004.009
40	55	41,2	12	16	40	VA.05.01.02.004.010
40	55	41,2	16	20	40	VA.05.01.02.004.011
50	75	52,2	4	8	40	VA.05.01.02.004.012
50	75	52,2	7	12	40	VA.05.01.02.004.013
50	75	52,2	12	16	40	VA.05.01.02.004.014
50	75	52,2	16	20	40	VA.05.01.02.004.015
50	75	52,2	20	25	40	VA.05.01.02.004.016

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

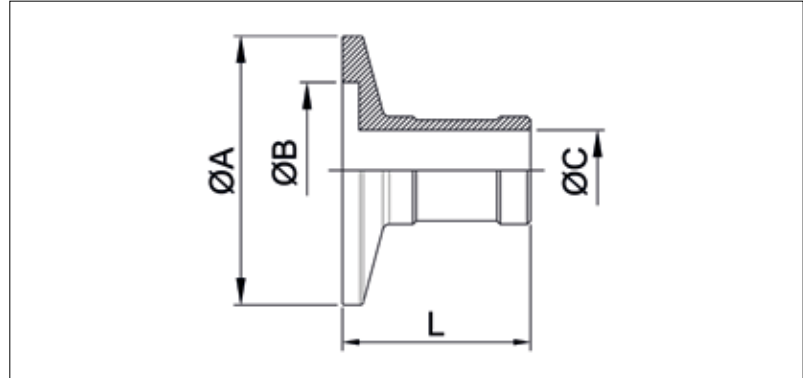
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)	Order No
10	30	12,2	4	8	40	VA.05.01.02.006.001
10	30	12,2	7	12	40	VA.05.01.02.006.002
16	30	17,2	4	8	40	VA.05.01.02.006.003
16	30	17,2	7	12	40	VA.05.01.02.006.004
25	40	26,2	4	8	40	VA.05.01.02.006.005
25	40	26,2	7	12	40	VA.05.01.02.006.006
25	40	26,2	12	16	40	VA.05.01.02.006.007
40	55	41,2	4	8	40	VA.05.01.02.006.008
40	55	41,2	7	12	40	VA.05.01.02.006.009
40	55	41,2	12	16	40	VA.05.01.02.006.010
40	55	41,2	16	20	40	VA.05.01.02.006.011
50	75	52,2	4	8	40	VA.05.01.02.006.012
50	75	52,2	7	12	40	VA.05.01.02.006.013
50	75	52,2	12	16	40	VA.05.01.02.006.014
50	75	52,2	16	20	40	VA.05.01.02.006.015
50	75	52,2	20	25	40	VA.05.01.02.006.016

ISO-KF Adapter for Pvc Hose



- Material: Aluminium EN AW 6082 and Stainless Steel 304/1.4301, Stainless Steel 316L/1.4404
- For connecting a PVC hose with embedded spring or a CR sleeve

Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	C (mm)	L (mm)	Order No
10	30	12,2	9	28	VA.05.02.01.010.001
16	30	17,2	12	28	VA.05.02.01.010.002
16	30	17,2	15	40	VA.05.02.01.010.003
25	40	26,2	12	28	VA.05.02.01.010.004
25	40	26,2	21	40	VA.05.02.01.010.005
25	40	26,2	16	40	VA.05.02.01.010.006
40	55	41,2	40	40	VA.05.02.01.010.007
40	55	41,2	22	40	VA.05.02.01.010.008
40	55	41,2	37	40	VA.05.02.01.010.009
50	75	52,2	45	40	VA.05.02.01.010.010

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	L (mm)	Order No
10	30	12,2	9	28	VA.05.02.02.004.001
16	30	17,2	12	28	VA.05.02.02.004.002
16	30	17,2	15	40	VA.05.02.02.004.003
25	40	26,2	12	28	VA.05.02.02.004.004
25	40	26,2	21	40	VA.05.02.02.004.005
25	40	26,2	16	40	VA.05.02.02.004.006
40	55	41,2	40	40	VA.05.02.02.004.007
40	55	41,2	22	40	VA.05.02.02.004.008
40	55	41,2	37	40	VA.05.02.02.004.009
50	75	52,2	45	40	VA.05.02.02.004.010

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C (mm)	L (mm)	Order No
10	30	12,2	9	28	VA.05.02.02.006.001
16	30	17,2	12	28	VA.05.02.02.006.002
16	30	17,2	15	40	VA.05.02.02.006.003
25	40	26,2	12	28	VA.05.02.02.006.004
25	40	26,2	21	40	VA.05.02.02.006.005
25	40	26,2	16	40	VA.05.02.02.006.006
40	55	41,2	40	40	VA.05.02.02.006.007
40	55	41,2	22	40	VA.05.02.02.006.008
40	55	41,2	37	40	VA.05.02.02.006.009
50	75	52,2	45	40	VA.05.02.02.006.010

ISO-KF Flange With Pipe Thread Male

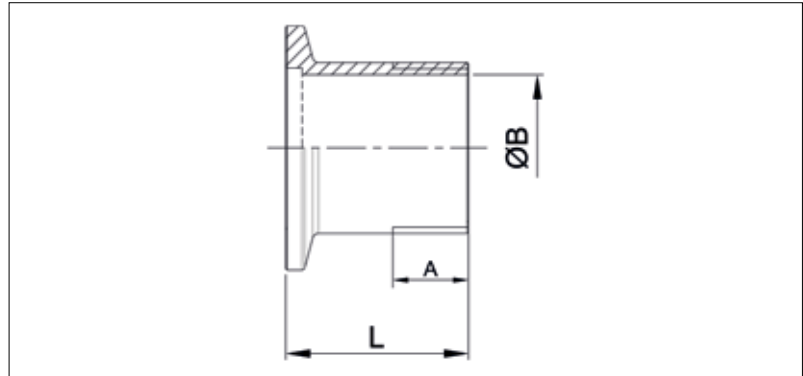


• Material:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	L (mm)	Thread	Order No
10	12	10	30	G3/8	VA.05.03.02.004.001
16	9	9	30	G1/4	VA.05.03.02.004.002
16	12	16	30	G1/2	VA.05.03.02.004.003
25	12	16	30	G1/2	VA.05.03.02.004.004
25	12	20	30	G3/4	VA.05.03.02.004.005
25	12	24	30	G1	VA.05.03.02.004.006
40	14	35	30	G1.25	VA.05.03.02.004.007
40	12	41	30	G1.5	VA.05.03.02.004.008
50	16	51	30	G2	VA.05.03.02.004.009

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	L (mm)	Thread	Order No
10	12	10	30	G3/8	VA.05.03.02.006.001
16	9	9	30	G1/4	VA.05.03.02.006.002
16	12	16	30	G1/2	VA.05.03.02.006.003
25	12	16	30	G1/2	VA.05.03.02.006.004
25	12	20	30	G3/4	VA.05.03.02.006.005
25	12	24	30	G1	VA.05.03.02.006.006
40	14	35	30	G1.25	VA.05.03.02.006.007
40	12	41	30	G1.5	VA.05.03.02.006.008
50	16	51	30	G2	VA.05.03.02.006.009

ISO-KF Flange with Pipe Thread Male and FKM Seal



- Pipe Material:

Stainless Steel 304/1.4301

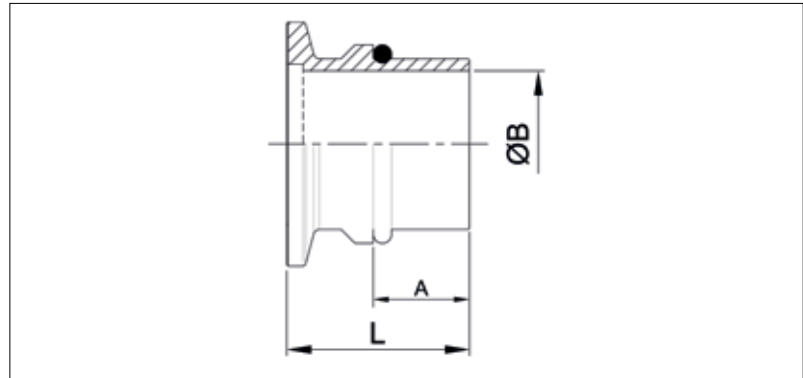
Stainless Steel 316L/1.4404

- O Ring Material: FKM

Temperature range: -15 to 150 °C (Consider O-ring temperature ranges.)

Pressure range: 10⁻⁸ hPa - 500 hPa

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	L (mm)	Thread	Order No
10	16	10	35	G3/8	VA.05.04.02.004.001
16	16	15	35	G1/2	VA.05.04.02.004.002
25	24	21	45	G3/4	VA.05.04.02.004.003
25	24	24	45	G1	VA.05.04.02.004.004
40	28	40	50	G1.5	VA.05.04.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	L (mm)	Thread	Order No
10	16	10	35	G3/8	VA.05.04.02.006.001
16	16	15	35	G1/2	VA.05.04.02.006.002
25	24	21	45	G3/4	VA.05.04.02.006.003
25	24	24	45	G1	VA.05.04.02.006.004
40	28	40	50	G1.5	VA.05.04.02.006.005

ISO-KF Flange With Pipe Thread Female



- Material:

Stainless Steel 304/1.4301

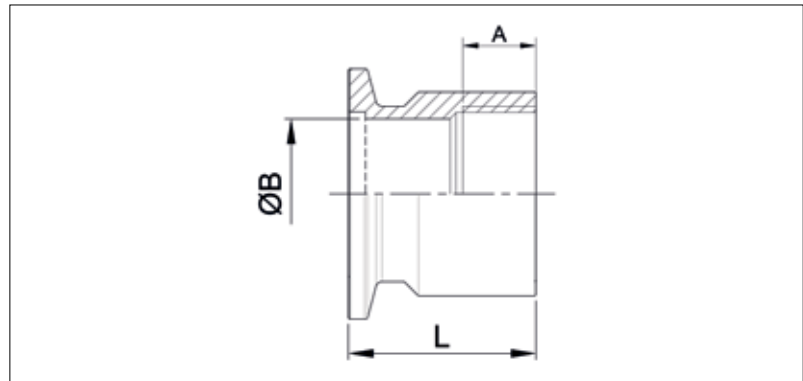
Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar

- O Ring Material: FKM

Temperature range: -15 to 150 °C (Consider O-ring temperature ranges.)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	L (mm)	Thread	Order No
10	15	10	30	G3/8	VA.05.05.02.004.001
16	9	16	30	G1/2	VA.05.05.02.004.002
25	12	24	30	G3/4	VA.05.05.02.004.003
40	16	28	30	G1	VA.05.05.02.004.004

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	L (mm)	Thread	Order No
10	15	10	30	G3/8	VA.05.05.02.006.001
16	9	16	30	G1/2	VA.05.05.02.006.002
25	12	24	30	G3/4	VA.05.05.02.006.003
40	16	28	30	G1	VA.05.05.02.006.004

ISO-KF Flange with Pipe Thread Female and FKM Seal



- Material:

Stainless Steel 304/1.4301

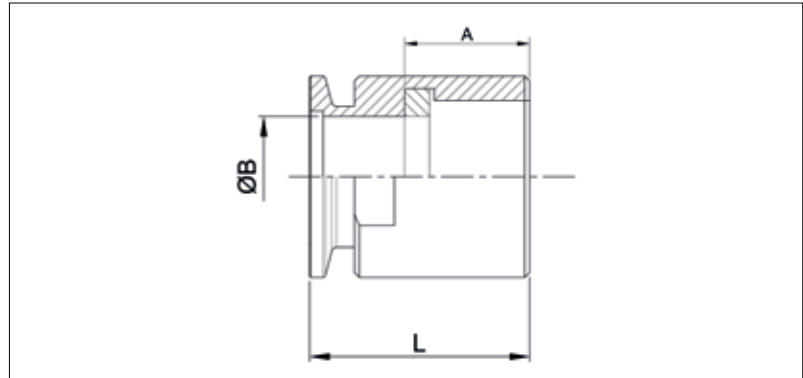
Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar

- O Ring Material: FKM

Temperature range: -15 to 150 °C (Consider O-ring temperature ranges.)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	L (mm)	Thread	Order No
10	15	10	35	G3/8	VA.05.06.02.004.001
16	16	15	35	G1/2	VA.05.06.02.004.002
25	25	24	45	G1	VA.05.06.02.004.003
40	26	40	50	G1.5	VA.05.06.02.004.004

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	L (mm)	Thread	Order No
10	15	10	35	G3/8	VA.05.06.02.006.001
16	16	15	35	G1/2	VA.05.06.02.006.002
25	25	24	45	G1	VA.05.06.02.006.003
40	26	40	50	G1.5	VA.05.06.02.006.004

ISO-KF Flange With NPT Thread Male

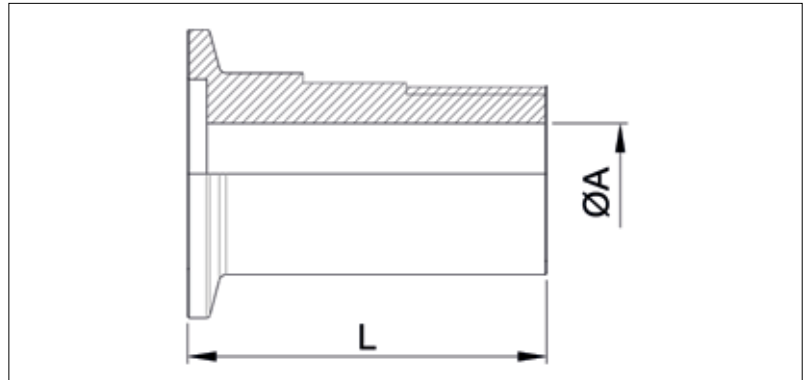


- Material:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	L (mm)	Thread	Order No
16	7.1	50	NPT 1/4	VA.05.07.02.004.001
25	7.1	50	NPT 1/4	VA.05.07.02.004.002
25	11.9	75	NPT 1/2	VA.05.07.02.004.003

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	L (mm)	Thread	Order No
16	7.1	50	NPT 1/4	VA.05.07.02.006.001
25	7.1	50	NPT 1/4	VA.05.07.02.006.002
25	11.9	75	NPT 1/2	VA.05.07.02.006.003

ISO-KF Flange With NPT Thread Female



- Material:

Stainless Steel 304/1.4301

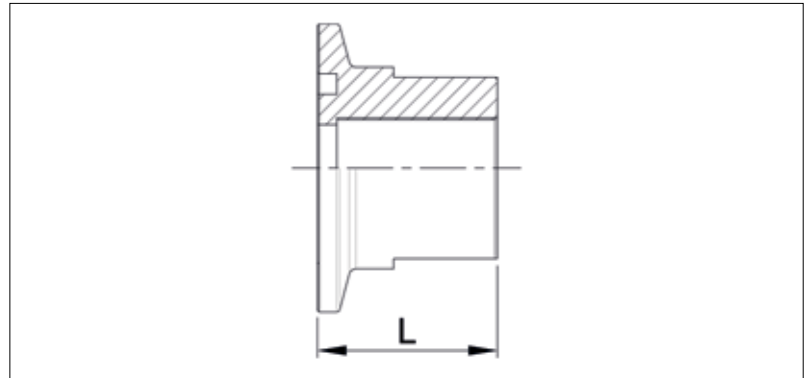
Stainless Steel 316L/1.4404

Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar

- O-ring Material: FKM

Temperature range: -15 to 150 °C (Consider O-ring temperature ranges.)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	L (mm)	Thread	Order No
16	20	NPT 1/8	VA.05.08.02.004.001
16	20	NPT 1/4	VA.05.08.02.004.002
25	20	NPT 1/8	VA.05.08.02.004.003
25	20	NPT 1/4	VA.05.08.02.004.004

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

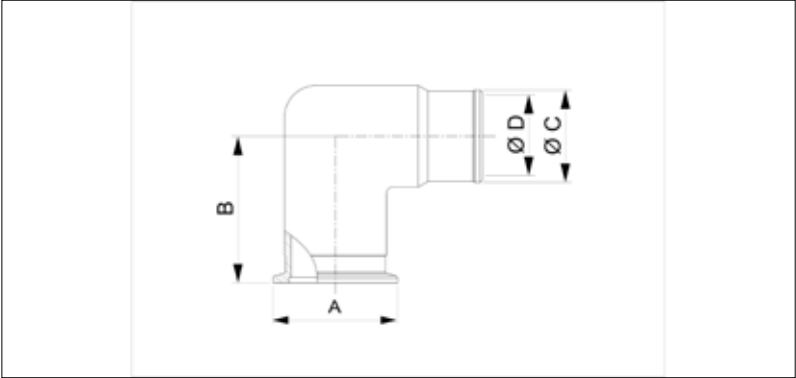
Size (DN)	L (mm)	Thread	Order No
16	20	NPT 1/8	VA.05.08.02.006.001
16	20	NPT 1/4	VA.05.08.02.006.002
25	20	NPT 1/8	VA.05.08.02.006.003
25	20	NPT 1/4	VA.05.08.02.006.004

ISO-KF 90 Elbow with Hose Adapter



- Material:
Aluminium EN AW-6082 T6/3.2315
For connecting a PVC hose or a CR sleeve

Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	40	40	17	13	VA.05.09.01.010.001
25	50	50	26	22	VA.05.09.01.010.002
40	65	65	41	37	VA.05.09.01.010.003

ISO-KF to CF Adapter



- Flange Materials:

Stainless Steel 304/1.4301

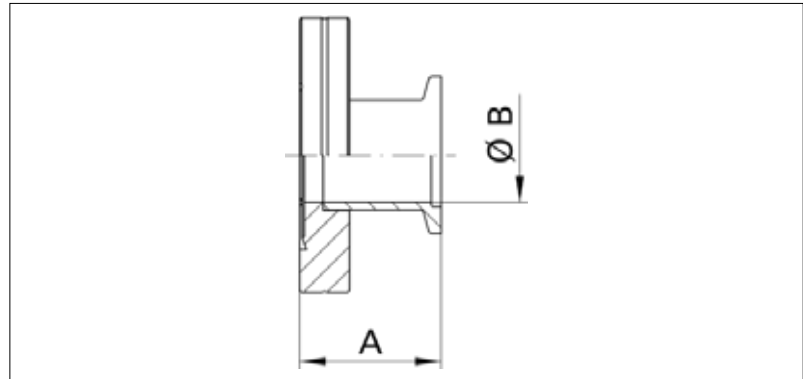
Stainless Steel 316L/1.4404

- Other nominal diameters and dimensions on request

- Pressure range: $1 \cdot 10^{-8}$ mbar to ambient pressure (elastomer seal);

$1 \cdot 10^{-9}$ mbar to ambient pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN-CF)	Nominal diameter reduced (DN-KF)	A (mm)	B (mm)	Order No
16	16	36	16	VA.05.10.02.004.001
16	25	36	16	VA.05.10.02.004.002
16	40	36	16	VA.05.10.02.004.003
40	16	36	16	VA.05.10.02.004.004
40	25	36	24	VA.05.10.02.004.005
40	40	50	40.5	VA.05.10.02.004.006
63	40	50	40.5	VA.05.10.02.004.007
100	40	50	40.5	VA.05.10.02.004.008

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN-CF)	Nominal diameter reduced (DN-KF)	A (mm)	B (mm)	Order No
16	16	36	16	VA.05.10.02.006.001
16	25	36	16	VA.05.10.02.006.002
16	40	36	16	VA.05.10.02.006.003
40	16	36	16	VA.05.10.02.006.004
40	25	36	24	VA.05.10.02.006.005
40	40	50	40.5	VA.05.10.02.006.006
63	40	50	40.5	VA.05.10.02.006.007
100	40	50	40.5	VA.05.10.02.006.008

ISO-KF Hoses

This part consists of KF Hoses.
Check out this section for products NW10-NW50



ISO-KF Flexible Hose

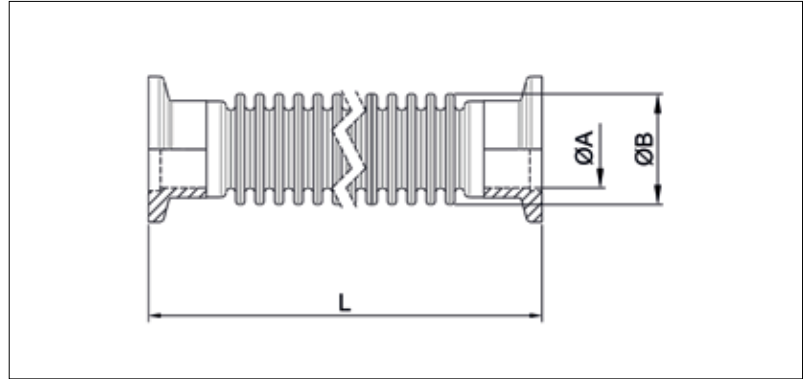


- Flange connection length: 15 mm
- Custom lengths on request
- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar
- Materials:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	L (mm)	A (mm)	B (mm)	Bending radius, one-time movement [mm]	Bending radius, frequent movement [mm]	Order No
10	250	10	16	17	100	VA.06.01.02.004.001
10	500	10	16	17	100	VA.06.01.02.004.002
10	750	10	16	17	100	VA.06.01.02.004.003
10	1000	10	16	17	100	VA.06.01.02.004.004
16	250	16	23	26	140	VA.06.01.02.004.006
16	500	16	23	26	140	VA.06.01.02.004.007
16	750	16	23	26	140	VA.06.01.02.004.008
16	1000	16	23	26	140	VA.06.01.02.004.009
25	250	24	33	38	180	VA.06.01.02.004.011
25	500	24	33	38	180	VA.06.01.02.004.012
25	750	24	33	38	180	VA.06.01.02.004.013
25	1000	24	33	38	180	VA.06.01.02.004.014
40	250	40,5	52	59	240	VA.06.01.02.004.016
40	500	40,5	52	59	240	VA.06.01.02.004.017
40	750	40,5	52	59	240	VA.06.01.02.004.018
40	1000	40,5	52	59	240	VA.06.01.02.004.019
50	250	50	63	72	280	VA.06.01.02.004.021
50	500	50	63	72	280	VA.06.01.02.004.022
50	750	50	63	72	280	VA.06.01.02.004.023
50	1000	50	63	72	280	VA.06.01.02.004.024

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

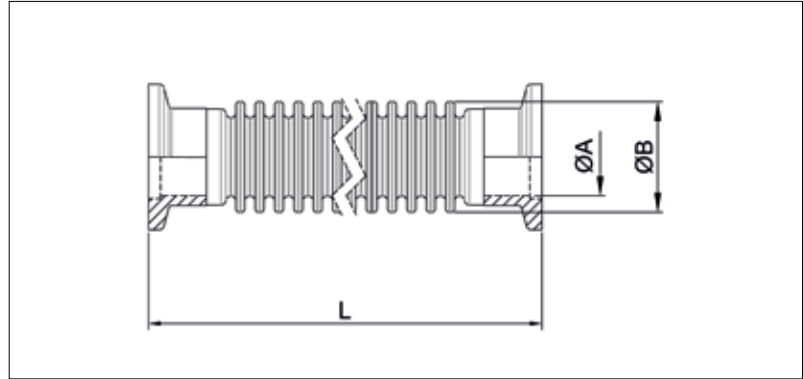
Size (DN)	L (mm)	A (mm)	B (mm)	Order No
10	250	10	16	VA.06.01.02.006.001
10	500	10	16	VA.06.01.02.006.002
10	750	10	16	VA.06.01.02.006.003
10	1000	10	16	VA.06.01.02.006.004
16	250	16	23	VA.06.01.02.006.006
16	500	16	23	VA.06.01.02.006.007
16	750	16	23	VA.06.01.02.006.008
16	1000	16	23	VA.06.01.02.006.009
25	250	24	33	VA.06.01.02.006.011
25	500	24	33	VA.06.01.02.006.012
25	750	24	33	VA.06.01.02.006.013
25	1000	24	33	VA.06.01.02.006.014
40	250	40,5	52	VA.06.01.02.006.016
40	500	40,5	52	VA.06.01.02.006.017
40	750	40,5	52	VA.06.01.02.006.018
40	1000	40,5	52	VA.06.01.02.006.019
50	250	50	63	VA.06.01.02.006.021
50	500	50	63	VA.06.01.02.006.022
50	750	50	63	VA.06.01.02.006.023
50	1000	50	63	VA.06.01.02.006.024

ISO-KF Flexible Hose Thin Wall



- Flange connection length: 15 mm
- Custom lengths on request
- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar
- Materials:
Stainless Steel 304/1.4301
Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	L (mm)	A (mm)	B (mm)	Bend radius, unique movement (mm)	Bend radius, often movement (mm)	Order No
16	250	16	26	26	105	VA.06.02.02.004.001
16	500	16	26	26	105	VA.06.02.02.004.002
16	750	16	26	26	105	VA.06.02.02.004.003
16	1000	16	26	26	105	VA.06.02.02.004.004
25	250	24	37	38	135	VA.06.02.02.004.005
25	500	24	37	38	135	VA.06.02.02.004.006
25	750	24	37	38	135	VA.06.02.02.004.007
25	1000	24	37	38	135	VA.06.02.02.004.008
40	250	40,5	56	59	180	VA.06.02.02.004.009
40	500	40,5	56	59	180	VA.06.02.02.004.010
40	750	40,5	56	59	180	VA.06.02.02.004.011
40	1000	40,5	56	59	180	VA.06.02.02.004.012
50	250	50	67	72	210	VA.06.02.02.004.013
50	500	50	67	72	210	VA.06.02.02.004.014
50	750	50	67	72	210	VA.06.02.02.004.015
50	1000	50	67	72	210	VA.06.02.02.004.016

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

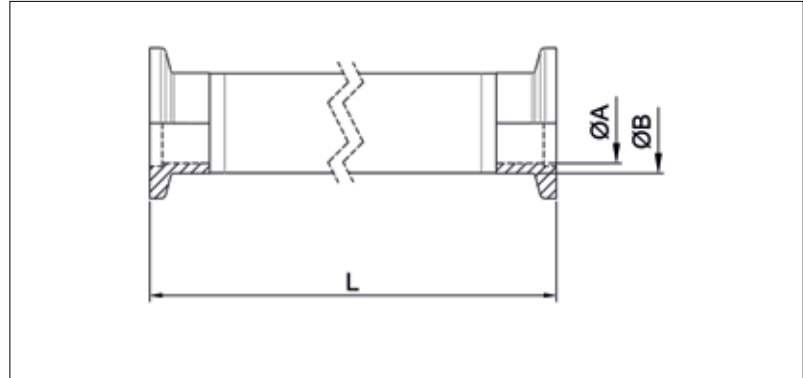
Size (DN)	L (mm)	A (mm)	B (mm)	Bend radius, unique movement (mm)	Bend radius, often movement (mm)	Order No
16	250	16	26	26	105	VA.06.02.02.006.001
16	500	16	26	26	105	VA.06.02.02.006.002
16	750	16	26	26	105	VA.06.02.02.006.003
16	1000	16	26	26	105	VA.06.02.02.006.004
25	250	24	37	38	135	VA.06.02.02.006.005
25	500	24	37	38	135	VA.06.02.02.006.006
25	750	24	37	38	135	VA.06.02.02.006.007
25	1000	24	37	38	135	VA.06.02.02.006.008
40	250	40,5	56	59	180	VA.06.02.02.006.009
40	500	40,5	56	59	180	VA.06.02.02.006.010
40	750	40,5	56	59	180	VA.06.02.02.006.011
40	1000	40,5	56	59	180	VA.06.02.02.006.012
50	250	50	67	72	210	VA.06.02.02.006.013
50	500	50	67	72	210	VA.06.02.02.006.014
50	750	50	67	72	210	VA.06.02.02.006.015
50	1000	50	67	72	210	VA.06.02.02.006.016

ISO-KF Flexible Hose, Sheathed



- Custom lengths on request
- Pressure range: $1 \cdot 10^{-8}$ mbar to 500
- Materials:
Stainless Steel 304/1.4301
Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	L (mm)	A (mm)	B (mm)	Bend radius, unique movement (mm)	Bend radius, often movement (mm)	Order No
16	250	15.9	24.9	44	140	VA.06.03.02.004.001
16	500	15.9	24.9	44	140	VA.06.03.02.004.002
16	750	15.9	24.9	44	140	VA.06.03.02.004.003
16	1000	15.9	24.9	44	140	VA.06.03.02.004.004
25	250	24	35.1	64	180	VA.06.03.02.004.005
25	500	24	35.1	64	180	VA.06.03.02.004.006
25	750	24	35.1	64	180	VA.06.03.02.004.007
25	1000	24	35.1	64	180	VA.06.03.02.004.008
40	250	40,5	54.7	98	240	VA.06.03.02.004.009
40	500	40,5	54.7	98	240	VA.06.03.02.004.010
40	750	40,5	54.7	98	240	VA.06.03.02.004.011
40	1000	40,5	54.7	98	240	VA.06.03.02.004.012
50	250	49.9	65.7	120	280	VA.06.03.02.004.013
50	500	49.9	65.7	120	280	VA.06.03.02.004.014
50	750	49.9	65.7	120	280	VA.06.03.02.004.015
50	1000	49.9	65.7	120	280	VA.06.03.02.004.016

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	L (mm)	A (mm)	B (mm)	Bend radius, unique movement (mm)	Bend radius, often movement (mm)	Order No
16	250	15.9	24.9	44	140	VA.06.03.02.006.001
16	500	15.9	24.9	44	140	VA.06.03.02.006.002
16	750	15.9	24.9	44	140	VA.06.03.02.006.003
16	1000	15.9	24.9	44	140	VA.06.03.02.006.004
25	250	24	35.1	64	180	VA.06.03.02.006.005
25	500	24	35.1	64	180	VA.06.03.02.006.006
25	750	24	35.1	64	180	VA.06.03.02.006.007
25	1000	24	35.1	64	180	VA.06.03.02.006.008
40	250	40,5	54.7	98	240	VA.06.03.02.006.009
40	500	40,5	54.7	98	240	VA.06.03.02.006.010
40	750	40,5	54.7	98	240	VA.06.03.02.006.011
40	1000	40,5	54.7	98	240	VA.06.03.02.006.012
50	250	49.9	65.7	120	280	VA.06.03.02.006.013
50	500	49.9	65.7	120	280	VA.06.03.02.006.014
50	750	49.9	65.7	120	280	VA.06.03.02.006.015
50	1000	49.9	65.7	120	280	VA.06.03.02.006.016

ISO-KF PVC Hose and Flanges

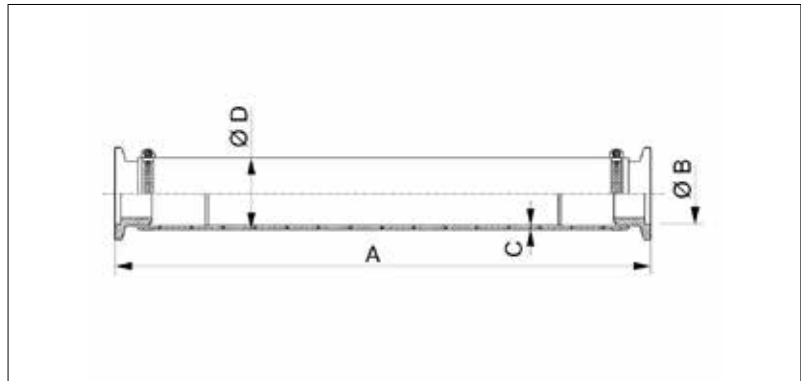


- Inner Tube: PVC, transparent
- Hose cover: PVC, transparent
- Casing: Steel coil
- Smooth inner and outer walls
- Custom lengths on request
- Pressure range: $1 \cdot 10^{-4}$ mbar to ambient pressure
- Temperature range: -5 to 40 °C (Consider PVC temperature range.)
- Flange materials:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Bend radius [mm]	Order No
16	500	12	3.1	22	50	VA.06.04.02.004.001
16	1000	12	3.1	22	50	VA.06.04.02.004.002
25	500	21	4	33	85	VA.06.04.02.004.003
25	1000	21	4	33	85	VA.06.04.02.004.004
40	500	40,5	4,9	55	145	VA.06.04.02.004.005
40	1000	40,5	4.9	55	145	VA.06.04.02.004.006
50	500	45	5	61	195	VA.06.04.02.004.007
50	1000	45	5	61	195	VA.06.04.02.004.008

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

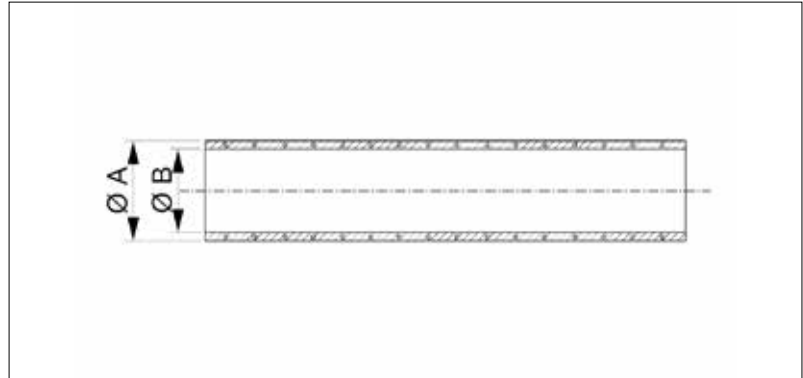
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Bend radius [mm]	Order No
16	500	12	3.1	22	50	VA.06.04.02.006.001
16	1000	12	3.1	22	50	VA.06.04.02.006.002
25	500	21	4	33	85	VA.06.04.02.006.003
25	1000	21	4	33	85	VA.06.04.02.006.004
40	500	40,5	4,9	55	145	VA.06.04.02.006.005
40	1000	40,5	4.9	55	145	VA.06.04.02.006.006
50	500	45	5	61	195	VA.06.04.02.006.007
50	1000	45	5	61	195	VA.06.04.02.006.008

ISO-KF PVC Hose with Embedded Spring



- Inner Tube: PVC, transparent
- Hose cover: PVC, transparent
- Casing: Steel coil
- Smooth inner and outer walls
- Custom lengths on request
- Pressure range: $1 \cdot 10^{-4}$ mbar to ambient pressure
- Temperature range: -5 to 40 °C
- Connection: with hose adapter and hose clamp

Dimensions



PVC

A (mm)	B (mm)	Bend radius (mm)	Order No
22	16	50	VA.06.05.13.008.001
16	10	30	VA.06.05.13.008.002
19.2	13	40	VA.06.05.13.008.003
26	19	60	VA.06.05.13.008.004
33	25	85	VA.06.05.13.008.005
55	45	145	VA.06.05.13.008.006
48.8	40	200	VA.06.05.13.008.007
61	51	195	VA.06.05.13.008.008

ISO-K / ISO-F SYSTEM

This part consists of ISO-K/ ISO-Systesm.
Check out this section for products NW 63 - 630

ISO-K & ISO-F Components

Anadolu Vacuum ISO Flange components are manufactured on the strength of DIN 28404 and ISO 1609. ISO flanges (also called Large ISO) have a sexless design and are made from stainless or Aluminium. All components produced by Anadolu Vacuum are 100% leak-tested and have leak rates better than 10^{-9} mbarl/s.

Standard sizes are NW 63 to 320. Nominal widths of up to 630 can be manufactured upon request. ISO-K clamping flange components are appropriate for building up high-vacuum connection from 10^{-9} mbar to 1.5 bar. Montage is via screw clamps, claws or a collar flange with snap ring and screws. The clamps, claws or screws must be fixed with so that the flanges butt against the centering ring. This requires a remarkable increment in torque. Sealing takes place according to the particular necessities via elastomer seals or an aluminium ring. In this case metal seals, the increased contact forces mean that accordingly more screw clamps are required. A collar flange supply a problem-free progress to ISO-F. The progress to KF components and also CF components is effectively conceivable using ISO-K/KF or ISO-K/CF adapter pieces.

Please consider the product information given on the product pages.



ISO-K / ISO-F Flanges

This part consists of ISO-K / ISO-F Flanges.
Check out this section for products NW 63 - 630

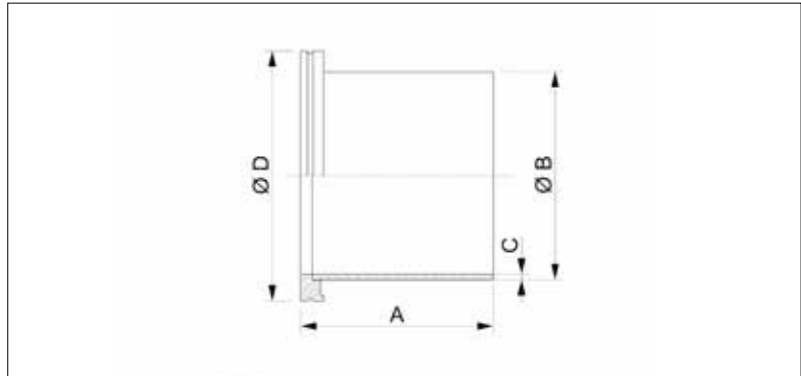


ISO-K Half Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal)
- Custom lengths available upon request

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Material: Flange: stainless steel 304/1.4301; tube: stainless steel 304/1.4301 or better

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	63,5x1,65	100	63.5	1.65	95	VB.01.01.02.004.001
63	76,1x3	100	76.1	3	95	VB.01.01.02.004.002
80	76,1x3	100	76.1	3	110	VB.01.01.02.004.003
80	88,9x3	100	88.9	3	110	VB.01.01.02.004.004
100	101,6x2,1	100	101.6	2.1	130	VB.01.01.02.004.005
100	108x3	100	108	3	130	VB.01.01.02.004.006
160	152,4x2,4	100	152.4	2.4	180	VB.01.01.02.004.007
160	159x3	100	159	3	180	VB.01.01.02.004.008
200	203,2x2,4	100	203.2	2.4	240	VB.01.01.02.004.009
200	219x3	100	219	3	240	VB.01.01.02.004.010
250	254x2	100	254	2	290	VB.01.01.02.004.011
250	273x3	100	273	3	290	VB.01.01.02.004.012
320	324x3	100	324	3	370	VB.01.01.02.004.013
400	406.4x3	100	406.4	3	450	VB.01.01.02.004.014
500	508x4	100	508	4	550	VB.01.01.02.004.015
630	660x5	100	660	5	690	VB.01.01.02.004.016

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Material: Flange: stainless steel 316L/1.4404; tube: stainless steel 316L/1.4404 or better

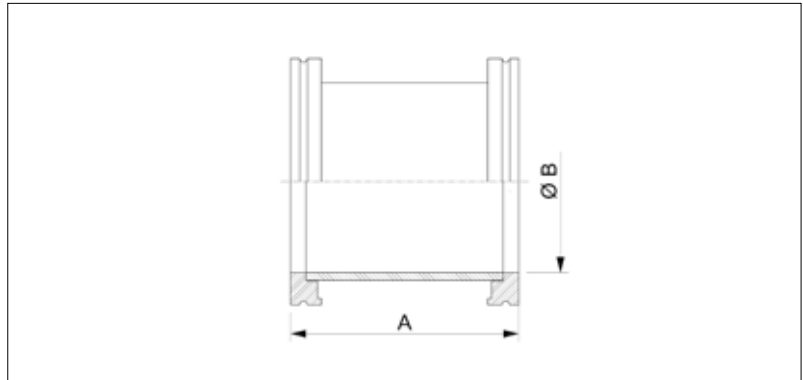
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	63,5x1,65	100	63.5	1.65	95	VB.01.01.02.006.001
63	76,1x3	100	76.1	3	95	VB.01.01.02.006.002
80	76,1x3	100	76.1	3	110	VB.01.01.02.006.003
80	88,9x3	100	88.9	3	110	VB.01.01.02.006.004
100	101,6x2,1	100	101.6	2.1	130	VB.01.01.02.006.005
100	108x3	100	108	3	130	VB.01.01.02.006.006
160	152,4x2,4	100	152.4	2.4	180	VB.01.01.02.006.007
160	159x3	100	159	3	180	VB.01.01.02.006.008
200	203,2x2,4	100	203.2	2.4	240	VB.01.01.02.006.009
200	219x3	100	219	3	240	VB.01.01.02.006.010
250	254x2	100	254	2	290	VB.01.01.02.006.011
250	273x3	100	273	3	290	VB.01.01.02.006.012
320	324x3	100	324	3	370	VB.01.01.02.006.013
400	406.4x3	100	406.4	3	450	VB.01.01.02.006.014
500	508x4	100	508	4	550	VB.01.01.02.006.015
630	660x5	100	660	5	690	VB.01.01.02.006.016

ISO-K Full Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal)
- Custom lengths available upon request

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	Order No
63	88	70	VB.01.02.02.004.001
63	176	70	VB.01.02.02.004.002
100	108	102	VB.01.02.02.004.003
100	216	102	VB.01.02.02.004.004
160	138	153	VB.01.02.02.004.005
160	276	153	VB.01.02.02.004.006
200	178	213	VB.01.02.02.004.007
250	208	261	VB.01.02.02.004.008

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

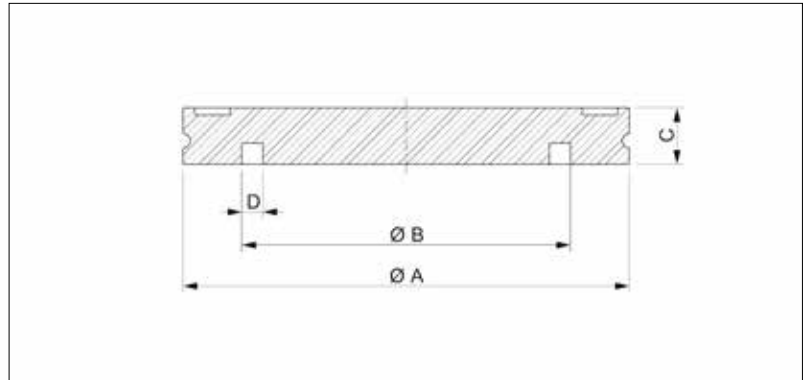
Size (DN)	A (mm)	B (mm)	Order No
63	88	70	VB.01.02.02.006.001
63	176	70	VB.01.02.02.006.002
100	108	102	VB.01.02.02.006.003
100	216	102	VB.01.02.02.006.004
160	138	153	VB.01.02.02.006.005
160	276	153	VB.01.02.02.006.006
200	178	213	VB.01.02.02.006.007
250	208	261	VB.01.02.02.006.008

ISO-K Blanking Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal)
- Custom lengths available upon request

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	95	70	12	4.5	VB.01.03.02.004.001
80	110	83	12	4.5	VB.01.03.02.004.002
100	130	102	12	4.5	VB.01.03.02.004.003
160	180	153	12	4.5	VB.01.03.02.004.004
200	240	213	12	4.5	VB.01.03.02.004.005
250	290	261	12	4.5	VB.01.03.02.004.006
320	370	318	17	4.5	VB.01.03.02.004.007
400	450	400	17	4.5	VB.01.03.02.004.008
500	550	501	17	4.5	VB.01.03.02.004.009
630	690	651	22	4.5	VB.01.03.02.004.010

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

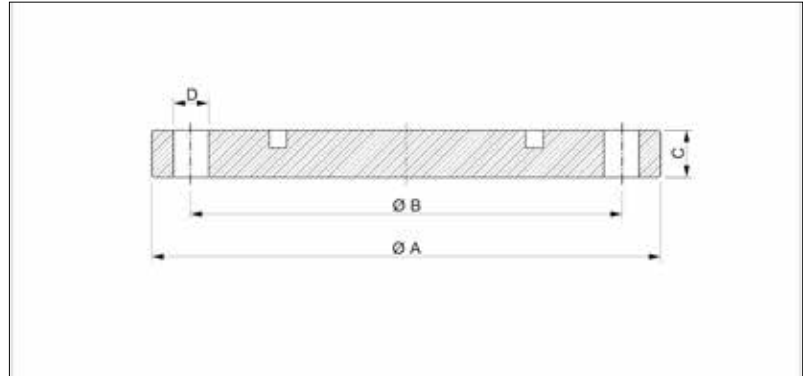
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	95	70	12	4.5	VB.01.03.02.006.001
80	110	83	12	4.5	VB.01.03.02.006.002
100	130	102	12	4.5	VB.01.03.02.006.003
160	180	153	12	4.5	VB.01.03.02.006.004
200	240	213	12	4.5	VB.01.03.02.006.005
250	290	261	12	4.5	VB.01.03.02.006.006
320	370	318	17	4.5	VB.01.03.02.006.007
400	450	400	17	4.5	VB.01.03.02.006.008
500	550	501	17	4.5	VB.01.03.02.006.009
630	690	651	22	4.5	VB.01.03.02.006.010

ISO-F Blanking Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	130	110	12	9	VC.01.01.02.004.001
100	165	145	12	9	VC.01.01.02.004.002
160	225	200	16	11	VC.01.01.02.004.003
200	285	260	16	11	VC.01.01.02.004.004
250	335	310	16	11	VC.01.01.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

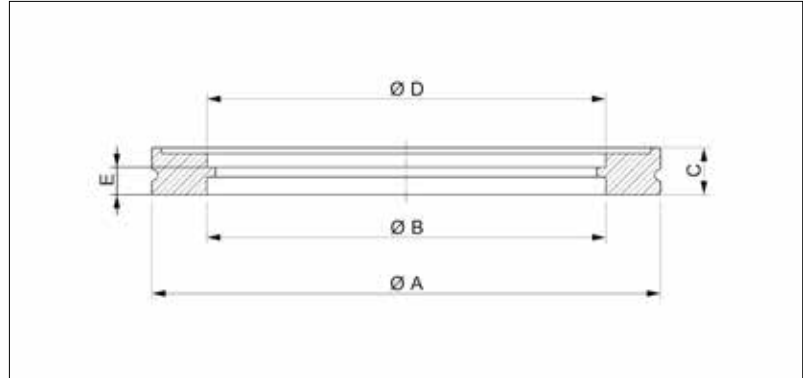
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	130	110	12	9	VC.01.01.02.006.001
100	165	145	12	9	VC.01.01.02.006.002
160	225	200	16	11	VC.01.01.02.006.003
200	285	260	16	11	VC.01.01.02.006.004
250	335	310	16	11	VC.01.01.02.006.005

ISO-K Weld Ring Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar over pressure (elastomer seal);
 $1 \cdot 10^{-9}$ mbar to 1.5 bar over pressure (metal seal)
- Materials:
Stainless Steel 304/1.4301
Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Order No
63	63,5x1,65	95	70	12	63.8	6	VB.01.04.02.004.001
63	76,1x3	95	70	12	70.3	6	VB.01.04.02.004.002
63	76,1x3	95	70	12	76.4	6	VB.01.04.02.004.003
63	76,1x3	95	70	12	76.4	8	VB.01.04.02.004.004
80	76,1x3	110	83	12	76.4	6	VB.01.04.02.004.005
80	88,9x3	110	83	12	89.2	6	VB.01.04.02.004.006
100	101,6x2,1	130	102	12	101.9	6	VB.01.04.02.004.007
100	104x2	130	102	12	104.3	6	VB.01.04.02.004.008
100	108x3	130	102	12	108.3	6	VB.01.04.02.004.009
100	108x3	130	102	12	108.3	8	VB.01.04.02.004.010
100	114,3x2	130	102	12	114.6	6	VB.01.04.02.004.011
160	152,4x2,4	180	153	12	152.7	6	VB.01.04.02.004.012
160	159x3	180	153	12	159.3	6	VB.01.04.02.004.013
160	159x3	180	153	12	159.3	8	VB.01.04.02.004.014
200	203,2x2,4	240	213	12	203.6	6	VB.01.04.02.004.015
200	219x3	240	213	12	219.4	6	VB.01.04.02.004.016
200	219x3	240	213	12	219.4	8	VB.01.04.02.004.017
250	254x2	290	261	12	254.4	6	VB.01.04.02.004.018
250	273x3	290	261	12	273.4	6	VB.01.04.02.004.019
250	273x3	290	261	12	273.4	8	VB.01.04.02.004.020
320	324x3	370	318	17	324.4	8	VB.01.04.02.004.021
320	324x3	370	318	17	324.4	10	VB.01.04.02.004.022
400	406x3	450	400	17	406.5	8	VB.01.04.02.004.023
500	508x4	550	501	17	508.5	8	VB.01.04.02.004.024
630	660x5	690	651	22	660.5	12	VB.01.04.02.004.025

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

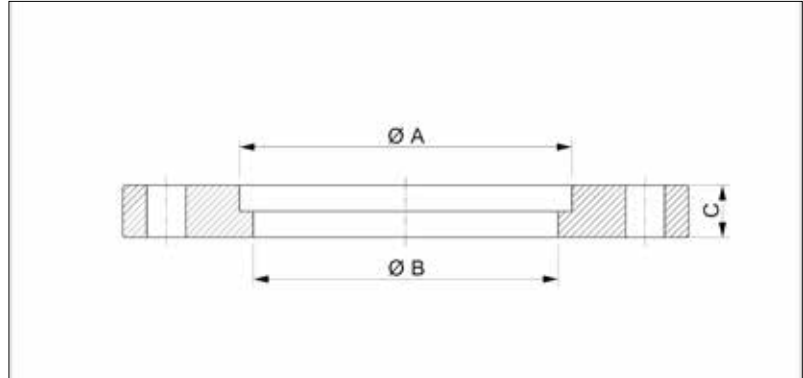
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Order No
63	63,5x1,65	95	70	12	63.8	6	VB.01.04.02.006.001
63	76,1x3	95	70	12	70.3	6	VB.01.04.02.006.002
63	76,1x3	95	70	12	76.4	6	VB.01.04.02.006.003
63	76,1x3	95	70	12	76.4	8	VB.01.04.02.006.004
80	76,1x3	110	83	12	76.4	6	VB.01.04.02.006.005
80	88,9x3	110	83	12	89.2	6	VB.01.04.02.006.006
100	101,6x2,1	130	102	12	101.9	6	VB.01.04.02.006.007
100	104x2	130	102	12	104.3	6	VB.01.04.02.006.008
100	108x3	130	102	12	108.3	6	VB.01.04.02.006.009
100	108x3	130	102	12	108.3	8	VB.01.04.02.006.010
100	114,3x2	130	102	12	114.6	6	VB.01.04.02.006.011
160	152,4x2,4	180	153	12	152.7	6	VB.01.04.02.006.012
160	159x3	180	153	12	159.3	6	VB.01.04.02.006.013
160	159x3	180	153	12	159.3	8	VB.01.04.02.006.014
200	203,2x2,4	240	213	12	203.6	6	VB.01.04.02.006.015
200	219x3	240	213	12	219.4	6	VB.01.04.02.006.016
200	219x3	240	213	12	219.4	8	VB.01.04.02.006.017
250	254x2	290	261	12	254.4	6	VB.01.04.02.006.018
250	273x3	290	261	12	273.4	6	VB.01.04.02.006.019
250	273x3	290	261	12	273.4	8	VB.01.04.02.006.020
320	324x3	370	318	17	324.4	8	VB.01.04.02.006.021
320	324x3	370	318	17	324.4	10	VB.01.04.02.006.022
400	406x3	450	400	17	406.5	8	VB.01.04.02.006.023
500	508x4	550	501	17	508.5	8	VB.01.04.02.006.024
630	660x5	690	651	22	660.5	12	VB.01.04.02.006.025

ISO-F Weld Ring Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 1.5 bar (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 1.5 bar (metal seal)
- Materials:
Stainless Steel 304/1.4301
Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	Order No
63	76,1x3	76.4	70	12	VC.01.02.02.004.001
100	108x3	108.3	102	12	VC.01.02.02.004.002
160	159x3	159.3	153	16	VC.01.02.02.004.003
200	219x3	219.4	213	16	VC.01.02.02.004.004
250	273x3	273.4	261	16	VC.01.02.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

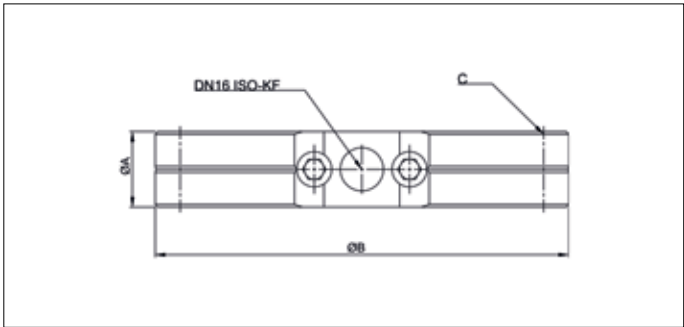
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	Order No
63	76,1x3	76.4	70	12	VC.01.02.02.006.001
100	108x3	108.3	102	12	VC.01.02.02.006.002
160	159x3	159.3	153	16	VC.01.02.02.006.003
200	219x3	219.4	213	16	VC.01.02.02.006.004
250	273x3	273.4	261	16	VC.01.02.02.006.005

ISO-F Measurement Flange



- Suitable for application with elastomer seal
- Pressure range: 1 · 10⁻⁸ mbar to 1.5 bar
- Materials:
Stainless Steel 304/1.4301
Stainless Steel 316L/1.4404
- Temperature range: Consider O-ring temperature ranges

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
63	35	130	4 x M8	VC.01.05.01.010.001
100	35	165	8 x M8	VC.01.05.01.010.003

ISO-K Rotatable Bolt Ring



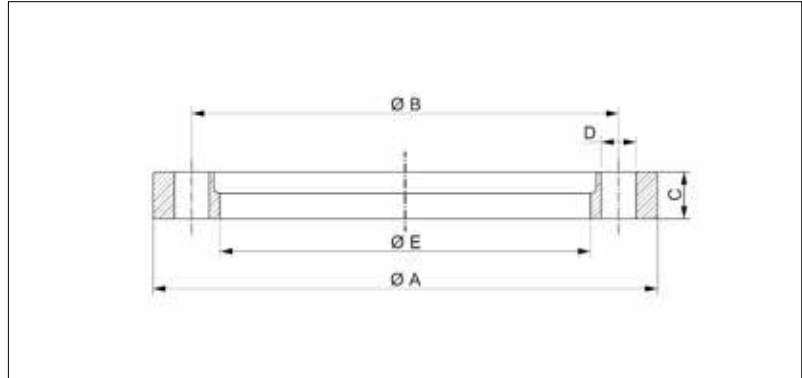
- Circlip included
- Fixation: Set of screws
- Materials:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

- With this product you can convert an ISO-K flange into a Rotatable ISO-F flange

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Order No
63	130	110	12	9	95.5	VB.01.05.02.004.001
80	145	125	12	9	110.5	VB.01.05.02.004.002
100	165	145	12	9	130.5	VB.01.05.02.004.003
160	225	200	16	11	180.7	VB.01.05.02.004.004
200	285	260	16	11	240.7	VB.01.05.02.004.005
250	335	310	16	11	290.7	VB.01.05.02.004.006

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

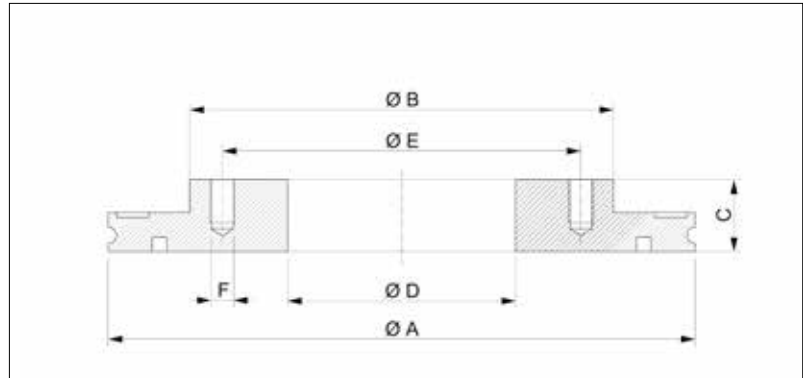
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Order No
63	130	110	12	9	95.5	VB.01.05.02.006.001
80	145	125	12	9	110.5	VB.01.05.02.006.002
100	165	145	12	9	130.5	VB.01.05.02.006.003
160	225	200	16	11	180.7	VB.01.05.02.006.004
200	285	260	16	11	240.7	VB.01.05.02.006.005
250	335	310	16	11	290.7	VB.01.05.02.006.006

ISO-K to ISO-F Adapter Flange



- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)
- Materials:
Stainless Steel 304/1.4301
Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Nominal diameter reduced	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	Order No
160	63	180	130	22	70	110	M8	VB.01.06.02.004.001
160	100	180	165	22	102	145	M8	VB.01.06.02.004.002
200	100	240	165	20	102	145	M8	VB.01.06.02.004.003
200	160	240	225	26	153	200	M10	VB.01.06.02.004.004
250	160	290	225	22	153	200	M10	VB.01.06.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	Nominal diameter reduced	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	Order No
160	63	180	130	22	70	110	M8	VB.01.06.02.006.001
160	100	180	165	22	102	145	M8	VB.01.06.02.006.002
200	100	240	165	20	102	145	M8	VB.01.06.02.006.003
200	160	240	225	26	153	200	M10	VB.01.06.02.006.004
250	160	290	225	22	153	200	M10	VB.01.06.02.006.005

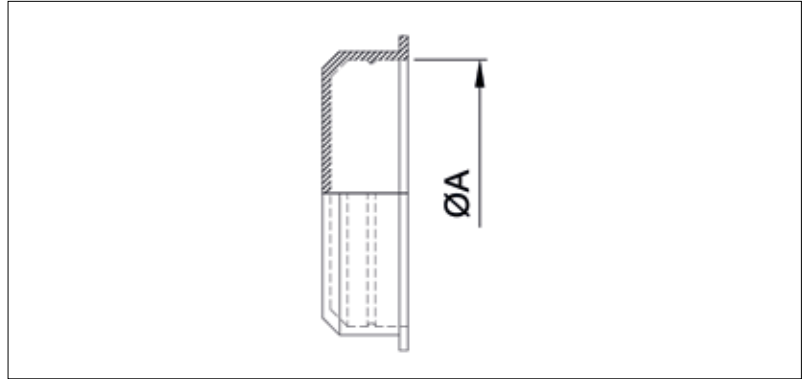
ISO-K Flange Caps

Made from plastic

Polyethelene (PE)



Dimensions



Polietilen

Size (DN)	A (mm)	Package (Qty.)	Order No
63	95	5	VB.01.07.13.007.001
80	110	5	VB.01.07.13.007.002
100	130	5	VB.01.07.13.007.003
160	180	5	VB.01.07.13.007.004
200	240	5	VB.01.07.13.007.005
250	290	5	VB.01.07.13.007.006

ISO-K / ISO-F Seals

This part consists of ISO K/F Seals.
Check out this section for products NW 63 - 630

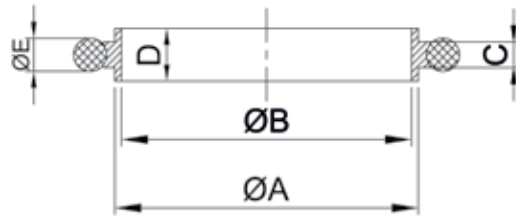


ISO-K Seal Inner Centered



- Consider O-ring temperature ranges (See Properties of Elastomer Materials Table on Page 14)
- Various types of O-ring seals are available
- Inner ring materials:
Aluminium EN AW-6082 T6
Stainless Steel 304/1.4301
Stainless Steel 316/1.4404

Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	O-ring material	Order No
63	70	68	3.9	8	5.33	FKM	VB.02.01.01.010.001
80	83	81	3.9	8	5.33	FKM	VB.02.01.01.010.002
100	102	100	3.9	8	5.33	FKM	VB.02.01.01.010.003
160	153	151	3.9	8	5.33	FKM	VB.02.01.01.010.004
200	213	211	3.9	8	5.33	FKM	VB.02.01.01.010.005
250	261	259	3.9	8	5.33	FKM	VB.02.01.01.010.006
63	70	68	3.9	8	5.33	CR	VB.02.01.01.010.011
80	83	81	3.9	8	5.33	CR	VB.02.01.01.010.012
100	102	100	3.9	8	5.33	CR	VB.02.01.01.010.013
160	153	151	3.9	8	5.33	CR	VB.02.01.01.010.014
200	213	211	3.9	8	5.33	CR	VB.02.01.01.010.015
250	261	259	3.9	8	5.33	CR	VB.02.01.01.010.016
63	70	68	3.9	8	5.33	NBR	VB.02.01.01.010.021
80	83	81	3.9	8	5.33	NBR	VB.02.01.01.010.022
100	102	100	3.9	8	5.33	NBR	VB.02.01.01.010.023
160	153	151	3.9	8	5.33	NBR	VB.02.01.01.010.024
200	213	211	3.9	8	5.33	NBR	VB.02.01.01.010.025
250	261	259	3.9	8	5.33	NBR	VB.02.01.01.010.026
63	70	68	3.9	8	5.33	EPDM	VB.02.01.01.010.031
80	83	81	3.9	8	5.33	EPDM	VB.02.01.01.010.032
100	102	100	3.9	8	5.33	EPDM	VB.02.01.01.010.033
160	153	151	3.9	8	5.33	EPDM	VB.02.01.01.010.034
200	213	211	3.9	8	5.33	EPDM	VB.02.01.01.010.035
250	261	259	3.9	8	5.33	EPDM	VB.02.01.01.010.036

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	O-ring material	Order No
63	70	68	3.9	8	5.33	VMQ(SILICON)	VB.02.01.01.010.051
80	83	81	3.9	8	5.33	VMQ(SILICON)	VB.02.01.01.010.052
100	102	100	3.9	8	5.33	VMQ(SILICON)	VB.02.01.01.010.053
160	153	151	3.9	8	5.33	VMQ(SILICON)	VB.02.01.01.010.054
200	213	211	3.9	8	5.33	VMQ(SILICON)	VB.02.01.01.010.055
250	261	259	3.9	8	5.33	VMQ(SILICON)	VB.02.01.01.010.056

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	O-ring material	Order No
63	70	68	3.9	8	5.33	FKM	VB.02.01.02.004.001
80	83	81	3.9	8	5.33	FKM	VB.02.01.02.004.002
100	102	100	3.9	8	5.33	FKM	VB.02.01.02.004.003
160	153	151	3.9	8	5.33	FKM	VB.02.01.02.004.004
200	213	211	3.9	8	5.33	FKM	VB.02.01.02.004.005
250	261	259	3.9	8	5.33	FKM	VB.02.01.02.004.006
63	70	68	3.9	8	5.33	CR	VB.02.01.02.004.011
80	83	81	3.9	8	5.33	CR	VB.02.01.02.004.012
100	102	100	3.9	8	5.33	CR	VB.02.01.02.004.013
160	153	151	3.9	8	5.33	CR	VB.02.01.02.004.014
200	213	211	3.9	8	5.33	CR	VB.02.01.02.004.015
250	261	259	3.9	8	5.33	CR	VB.02.01.02.004.016
63	70	68	3.9	8	5.33	NBR	VB.02.01.02.004.021
80	83	81	3.9	8	5.33	NBR	VB.02.01.02.004.022
100	102	100	3.9	8	5.33	NBR	VB.02.01.02.004.023
160	153	151	3.9	8	5.33	NBR	VB.02.01.02.004.024
200	213	211	3.9	8	5.33	NBR	VB.02.01.02.004.025
250	261	259	3.9	8	5.33	NBR	VB.02.01.02.004.026
63	70	68	3.9	8	5.33	EPDM	VB.02.01.02.004.031
80	83	81	3.9	8	5.33	EPDM	VB.02.01.02.004.032
100	102	100	3.9	8	5.33	EPDM	VB.02.01.02.004.033
160	153	151	3.9	8	5.33	EPDM	VB.02.01.02.004.034
200	213	211	3.9	8	5.33	EPDM	VB.02.01.02.004.035
250	261	259	3.9	8	5.33	EPDM	VB.02.01.02.004.036
63	70	68	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.004.051
80	83	81	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.004.052
100	102	100	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.004.053
160	153	151	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.004.054
200	213	211	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.004.055
250	261	259	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.004.056

Stainless Steel 316L/1.4404

• Temperature range: -196 to 350 °C

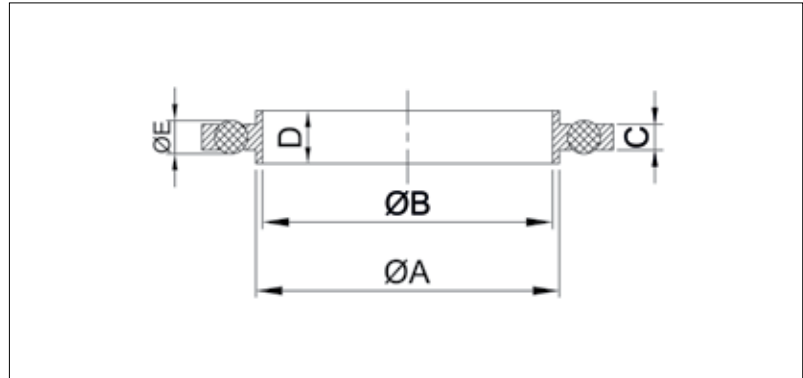
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	O-ring material	Order No
63	70	68	3.9	8	5.33	FKM	VB.02.01.02.006.001
80	83	81	3.9	8	5.33	FKM	VB.02.01.02.006.002
100	102	100	3.9	8	5.33	FKM	VB.02.01.02.006.003
160	153	151	3.9	8	5.33	FKM	VB.02.01.02.006.004
200	213	211	3.9	8	5.33	FKM	VB.02.01.02.006.005
250	261	259	3.9	8	5.33	FKM	VB.02.01.02.006.006
63	70	68	3.9	8	5.33	CR	VB.02.01.02.006.011
80	83	81	3.9	8	5.33	CR	VB.02.01.02.006.012
100	102	100	3.9	8	5.33	CR	VB.02.01.02.006.013
160	153	151	3.9	8	5.33	CR	VB.02.01.02.006.014
200	213	211	3.9	8	5.33	CR	VB.02.01.02.006.015
250	261	259	3.9	8	5.33	CR	VB.02.01.02.006.016
63	70	68	3.9	8	5.33	NBR	VB.02.01.02.006.021
80	83	81	3.9	8	5.33	NBR	VB.02.01.02.006.022
100	102	100	3.9	8	5.33	NBR	VB.02.01.02.006.023
160	153	151	3.9	8	5.33	NBR	VB.02.01.02.006.024
200	213	211	3.9	8	5.33	NBR	VB.02.01.02.006.025
250	261	259	3.9	8	5.33	NBR	VB.02.01.02.006.026
63	70	68	3.9	8	5.33	EPDM	VB.02.01.02.006.031
80	83	81	3.9	8	5.33	EPDM	VB.02.01.02.006.032
100	102	100	3.9	8	5.33	EPDM	VB.02.01.02.006.033
160	153	151	3.9	8	5.33	EPDM	VB.02.01.02.006.034
200	213	211	3.9	8	5.33	EPDM	VB.02.01.02.006.035
250	261	259	3.9	8	5.33	EPDM	VB.02.01.02.006.036
63	70	68	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.006.051
80	83	81	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.006.052
100	102	100	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.006.053
160	153	151	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.006.054
200	213	211	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.006.055
250	261	259	3.9	8	5.33	VMQ(SILICON)	VB.02.01.02.006.056

ISO-K Seal Inner Centered With Support



- Consider O-ring temperature ranges (See Properties of Elastomer Materials Table on Page 14)
- Various types of O-ring seals are available
- Inner ring materials:
Aluminium EN AW-6082 T6
Stainless Steel 304/1.4301
Stainless Steel 316/1.4404

Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	O-ring material	Order No
63	70	68	3.9	8	5.33	FKM	VB.02.02.01.010.001
80	83	81	3.9	8	5.33	FKM	VB.02.02.01.010.002
100	102	100	3.9	8	5.33	FKM	VB.02.02.01.010.003
160	153	151	3.9	8	5.33	FKM	VB.02.02.01.010.004
200	213	211	3.9	8	5.33	FKM	VB.02.02.01.010.005
250	261	259	3.9	8	5.33	FKM	VB.02.02.01.010.006
63	70	68	3.9	8	5.33	CR	VB.02.02.01.010.011
80	83	81	3.9	8	5.33	CR	VB.02.02.01.010.012
100	102	100	3.9	8	5.33	CR	VB.02.02.01.010.013
160	153	151	3.9	8	5.33	CR	VB.02.02.01.010.014
200	213	211	3.9	8	5.33	CR	VB.02.02.01.010.015
250	261	259	3.9	8	5.33	CR	VB.02.02.01.010.016
63	70	68	3.9	8	5.33	NBR	VB.02.02.01.010.021
80	83	81	3.9	8	5.33	NBR	VB.02.02.01.010.022
100	102	100	3.9	8	5.33	NBR	VB.02.02.01.010.023
160	153	151	3.9	8	5.33	NBR	VB.02.02.01.010.024
200	213	211	3.9	8	5.33	NBR	VB.02.02.01.010.025
250	261	259	3.9	8	5.33	NBR	VB.02.02.01.010.026
63	70	68	3.9	8	5.33	EPDM	VB.02.02.01.010.031
80	83	81	3.9	8	5.33	EPDM	VB.02.02.01.010.032
100	102	100	3.9	8	5.33	EPDM	VB.02.02.01.010.033
160	153	151	3.9	8	5.33	EPDM	VB.02.02.01.010.034
200	213	211	3.9	8	5.33	EPDM	VB.02.02.01.010.035
250	261	259	3.9	8	5.33	EPDM	VB.02.02.01.010.036

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	O-ring material	Order No
63	70	68	3.9	8	5.33	VMQ(SILICON)	VB.02.02.01.010.051
80	83	81	3.9	8	5.33	VMQ(SILICON)	VB.02.02.01.010.052
100	102	100	3.9	8	5.33	VMQ(SILICON)	VB.02.02.01.010.053
160	153	151	3.9	8	5.33	VMQ(SILICON)	VB.02.02.01.010.054
200	213	211	3.9	8	5.33	VMQ(SILICON)	VB.02.02.01.010.055
250	261	259	3.9	8	5.33	VMQ(SILICON)	VB.02.02.01.010.056

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	O-ring material	Order No
63	70	68	3.9	8	5.33	FKM	VB.02.02.02.004.001
80	83	81	3.9	8	5.33	FKM	VB.02.02.02.004.002
100	102	100	3.9	8	5.33	FKM	VB.02.02.02.004.003
160	153	151	3.9	8	5.33	FKM	VB.02.02.02.004.004
200	213	211	3.9	8	5.33	FKM	VB.02.02.02.004.005
250	261	259	3.9	8	5.33	FKM	VB.02.02.02.004.006
63	70	68	3.9	8	5.33	CR	VB.02.02.02.004.011
80	83	81	3.9	8	5.33	CR	VB.02.02.02.004.012
100	102	100	3.9	8	5.33	CR	VB.02.02.02.004.013
160	153	151	3.9	8	5.33	CR	VB.02.02.02.004.014
200	213	211	3.9	8	5.33	CR	VB.02.02.02.004.015
250	261	259	3.9	8	5.33	CR	VB.02.02.02.004.016
63	70	68	3.9	8	5.33	NBR	VB.02.02.02.004.021
80	83	81	3.9	8	5.33	NBR	VB.02.02.02.004.022
100	102	100	3.9	8	5.33	NBR	VB.02.02.02.004.023
160	153	151	3.9	8	5.33	NBR	VB.02.02.02.004.024
200	213	211	3.9	8	5.33	NBR	VB.02.02.02.004.025
250	261	259	3.9	8	5.33	NBR	VB.02.02.02.004.026
63	70	68	3.9	8	5.33	EPDM	VB.02.02.02.004.031
80	83	81	3.9	8	5.33	EPDM	VB.02.02.02.004.032
100	102	100	3.9	8	5.33	EPDM	VB.02.02.02.004.033
160	153	151	3.9	8	5.33	EPDM	VB.02.02.02.004.034
200	213	211	3.9	8	5.33	EPDM	VB.02.02.02.004.035
250	261	259	3.9	8	5.33	EPDM	VB.02.02.02.004.036
63	70	68	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.004.051
80	83	81	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.004.052
100	102	100	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.004.053
160	153	151	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.004.054
200	213	211	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.004.055
250	261	259	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.004.056

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

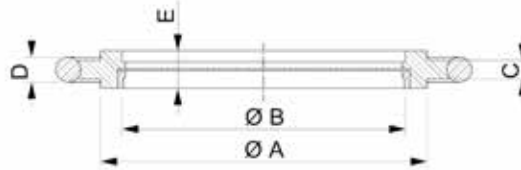
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	O-ring material	Order No
63	70	68	3.9	8	5.33	FKM	VB.02.02.02.006.001
80	83	81	3.9	8	5.33	FKM	VB.02.02.02.006.002
100	102	100	3.9	8	5.33	FKM	VB.02.02.02.006.003
160	153	151	3.9	8	5.33	FKM	VB.02.02.02.006.004
200	213	211	3.9	8	5.33	FKM	VB.02.02.02.006.005
250	261	259	3.9	8	5.33	FKM	VB.02.02.02.006.006
63	70	68	3.9	8	5.33	CR	VB.02.02.02.006.011
80	83	81	3.9	8	5.33	CR	VB.02.02.02.006.012
100	102	100	3.9	8	5.33	CR	VB.02.02.02.006.013
160	153	151	3.9	8	5.33	CR	VB.02.02.02.006.014
200	213	211	3.9	8	5.33	CR	VB.02.02.02.006.015
250	261	259	3.9	8	5.33	CR	VB.02.02.02.006.016
63	70	68	3.9	8	5.33	NBR	VB.02.02.02.006.021
80	83	81	3.9	8	5.33	NBR	VB.02.02.02.006.022
100	102	100	3.9	8	5.33	NBR	VB.02.02.02.006.023
160	153	151	3.9	8	5.33	NBR	VB.02.02.02.006.024
200	213	211	3.9	8	5.33	NBR	VB.02.02.02.006.025
250	261	259	3.9	8	5.33	NBR	VB.02.02.02.006.026
63	70	68	3.9	8	5.33	EPDM	VB.02.02.02.006.031
80	83	81	3.9	8	5.33	EPDM	VB.02.02.02.006.032
100	102	100	3.9	8	5.33	EPDM	VB.02.02.02.006.033
160	153	151	3.9	8	5.33	EPDM	VB.02.02.02.006.034
200	213	211	3.9	8	5.33	EPDM	VB.02.02.02.006.035
250	261	259	3.9	8	5.33	EPDM	VB.02.02.02.006.036
63	70	68	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.006.051
80	83	81	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.006.052
100	102	100	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.006.053
160	153	151	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.006.054
200	213	211	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.006.055
250	261	259	3.9	8	5.33	VMQ(SILICON)	VB.02.02.02.006.056

ISO-K Seal Inner Centered With Mesh Screen



- Wire thickness: Approximately 0.3 mm
- Mesh: Approximately 1 mm
- Consider O-ring temperature ranges (See Properties of Elastomer Materials Table on Page 14)
- Various types of O-ring are available
- Seal Materials:
Aluminium EN AW-6082 T6
Stainless Steel 304/1.4301
Stainless Steel 316/1.4404

Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Mesh (mm)	Wire thickness (mm)	O-ring material	Order No
63	70	60	3.9	5.33	8	0.5	0.2	FKM	VB.02.03.01.010.001
80	83	73	3.9	5.33	8	0.6	0.2	FKM	VB.02.03.01.010.002
100	102	92	3.9	5.33	8	0.8	0.2	FKM	VB.02.03.01.010.003
160	153	143	3.9	5.33	8	1.2	0.2	FKM	VB.02.03.01.010.004
63	70	60	3.9	5.33	8	0.5	0.2	CR	VB.02.03.01.010.011
80	83	73	3.9	5.33	8	0.6	0.2	CR	VB.02.03.01.010.012
100	102	92	3.9	5.33	8	0.8	0.2	CR	VB.02.03.01.010.013
160	153	143	3.9	5.33	8	1.2	0.2	CR	VB.02.03.01.010.014
63	70	60	3.9	5.33	8	0.5	0.2	NBR	VB.02.03.01.010.021
80	83	73	3.9	5.33	8	0.6	0.2	NBR	VB.02.03.01.010.022
100	102	92	3.9	5.33	8	0.8	0.2	NBR	VB.02.03.01.010.023
160	153	143	3.9	5.33	8	1.2	0.2	NBR	VB.02.03.01.010.024
63	70	60	3.9	5.33	8	0.5	0.2	EPDM	VB.02.03.01.010.031
80	83	73	3.9	5.33	8	0.6	0.2	EPDM	VB.02.03.01.010.032
100	102	92	3.9	5.33	8	0.8	0.2	EPDM	VB.02.03.01.010.033
160	153	143	3.9	5.33	8	1.2	0.2	EPDM	VB.02.03.01.010.034
63	70	60	3.9	5.33	8	0.5	0.2	VMQ(SILICON)	VB.02.03.01.010.051
80	83	73	3.9	5.33	8	0.6	0.2	VMQ(SILICON)	VB.02.03.01.010.052
100	102	92	3.9	5.33	8	0.8	0.2	VMQ(SILICON)	VB.02.03.01.010.053
160	153	143	3.9	5.33	8	1.2	0.2	VMQ(SILICON)	VB.02.03.01.010.054

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Mesh (mm)	Wire thickness (mm)	O-ring material	Order No
63	70	60	3.9	5.33	8	0.5	0.2	FKM	VB.02.03.02.004.001
80	83	73	3.9	5.33	8	0.6	0.2	FKM	VB.02.03.02.004.002
100	102	92	3.9	5.33	8	0.8	0.2	FKM	VB.02.03.02.004.003
160	153	143	3.9	5.33	8	1.2	0.2	FKM	VB.02.03.02.004.004
63	70	60	3.9	5.33	8	0.5	0.2	CR	VB.02.03.02.004.011
80	83	73	3.9	5.33	8	0.6	0.2	CR	VB.02.03.02.004.012
100	102	92	3.9	5.33	8	0.8	0.2	CR	VB.02.03.02.004.013
160	153	143	3.9	5.33	8	1.2	0.2	CR	VB.02.03.02.004.014
63	70	60	3.9	5.33	8	0.5	0.2	NBR	VB.02.03.02.004.021
80	83	73	3.9	5.33	8	0.6	0.2	NBR	VB.02.03.02.004.022
100	102	92	3.9	5.33	8	0.8	0.2	NBR	VB.02.03.02.004.023
160	153	143	3.9	5.33	8	1.2	0.2	NBR	VB.02.03.02.004.024
63	70	60	3.9	5.33	8	0.5	0.2	EPDM	VB.02.03.02.004.031
80	83	73	3.9	5.33	8	0.6	0.2	EPDM	VB.02.03.02.004.032
100	102	92	3.9	5.33	8	0.8	0.2	EPDM	VB.02.03.02.004.033
160	153	143	3.9	5.33	8	1.2	0.2	EPDM	VB.02.03.02.004.034
63	70	60	3.9	5.33	8	0.5	0.2	VMQ(SILICON)	VB.02.03.02.004.051
80	83	73	3.9	5.33	8	0.6	0.2	VMQ(SILICON)	VB.02.03.02.004.052
100	102	92	3.9	5.33	8	0.8	0.2	VMQ(SILICON)	VB.02.03.02.004.053
160	153	143	3.9	5.33	8	1.2	0.2	VMQ(SILICON)	VB.02.03.02.004.054

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

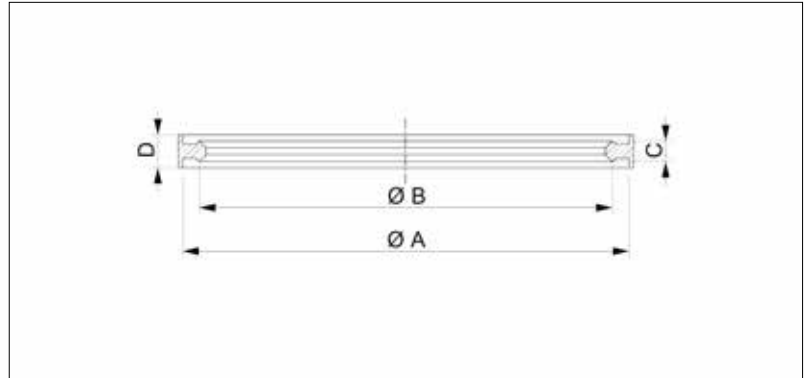
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Mesh (mm)	Wire thickness (mm)	O-ring material	Order No
63	70	60	3.9	5.33	8	0.5	0.2	FKM	VB.02.03.02.006.001
80	83	73	3.9	5.33	8	0.6	0.2	FKM	VB.02.03.02.006.002
100	102	92	3.9	5.33	8	0.8	0.2	FKM	VB.02.03.02.006.003
160	153	143	3.9	5.33	8	1.2	0.2	FKM	VB.02.03.02.006.004
63	70	60	3.9	5.33	8	0.5	0.2	CR	VB.02.03.02.006.011
80	83	73	3.9	5.33	8	0.6	0.2	CR	VB.02.03.02.006.012
100	102	92	3.9	5.33	8	0.8	0.2	CR	VB.02.03.02.006.013
160	153	143	3.9	5.33	8	1.2	0.2	CR	VB.02.03.02.006.014
63	70	60	3.9	5.33	8	0.5	0.2	NBR	VB.02.03.02.006.021
80	83	73	3.9	5.33	8	0.6	0.2	NBR	VB.02.03.02.006.022
100	102	92	3.9	5.33	8	0.8	0.2	NBR	VB.02.03.02.006.023
160	153	143	3.9	5.33	8	1.2	0.2	NBR	VB.02.03.02.006.024
63	70	60	3.9	5.33	8	0.5	0.2	EPDM	VB.02.03.02.006.031
80	83	73	3.9	5.33	8	0.6	0.2	EPDM	VB.02.03.02.006.032
100	102	92	3.9	5.33	8	0.8	0.2	EPDM	VB.02.03.02.006.033
160	153	143	3.9	5.33	8	1.2	0.2	EPDM	VB.02.03.02.006.034
63	70	60	3.9	5.33	8	0.5	0.2	VMQ(SILICON)	VB.02.03.02.006.051
80	83	73	3.9	5.33	8	0.6	0.2	VMQ(SILICON)	VB.02.03.02.006.052
100	102	92	3.9	5.33	8	0.8	0.2	VMQ(SILICON)	VB.02.03.02.006.053
160	153	143	3.9	5.33	8	1.2	0.2	VMQ(SILICON)	VB.02.03.02.006.054

ISO-K Edge Seal Outer Centered



- No gas permeation
- Cryo, Radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-K Claw Clamp for Metal Seals
- For single use only
- Material: Aluminium EN AW-1050

Dimensions



Aluminium EN AW-1050

- Temperature Range: -196 to 150 C°

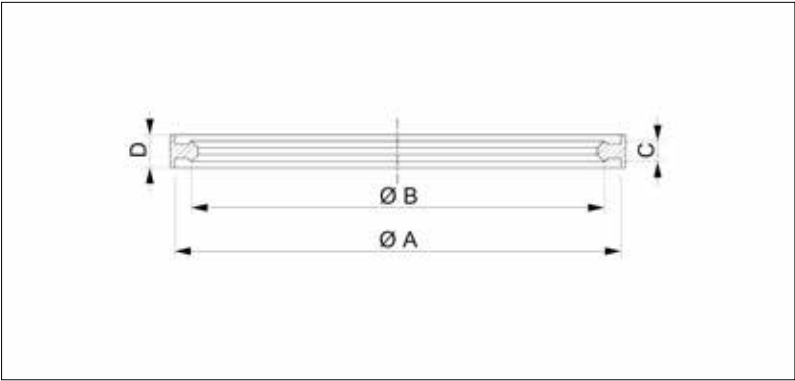
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	95	88	4.5	7	VB.02.04.01.001.001
80	110	103	4.5	7	VB.02.04.01.001.002
100	130	123	4.5	7	VB.02.04.01.001.003
160	180	173	4.5	7	VB.02.04.01.001.004
200	240	233	4.5	7	VB.02.04.01.001.005
250	290	283	4.5	7	VB.02.04.01.001.006

ISO-K Copper Edge Seal Outer Centered



- No gas permeation
- Cryo, Radiation tolerant and nuclear application
- Clean room application compatible
- For stainless steel flanges
- Fastener: ISO-K Claw Clamp for Metal Seals
- For single use only
- Material: Copper

Dimensions



Copper

- Temperature Range: -196 to 200 C°

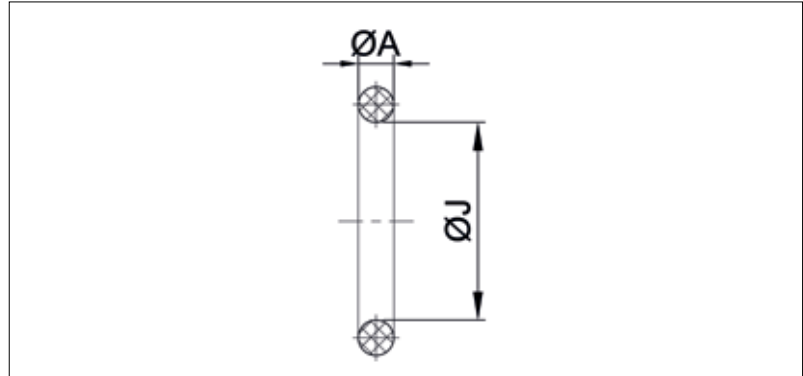
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	95	88	4.5	7	VB.02.04.04.001.001
80	110	103	4.5	7	VB.02.04.04.001.002
100	130	123	4.5	7	VB.02.04.04.001.003
160	180	173	4.5	7	VB.02.04.04.001.004
200	240	233	4.5	7	VB.02.04.04.001.005
250	290	283	4.5	7	VB.02.04.04.001.006

ISO-K/F O-ring

- Various types of O-ring seals are available.



Dimensions



FKM

- Temperature range: -196 to 350 °C

Size (DN)	J (mm)	ØA(mm)	Order No
63	76	5,33	VE.07.02.13.001.001
80	88,27	5,33	VE.07.02.13.001.002
100	107	5,33	VE.07.02.13.001.003
160	158	5,3	VE.07.02.13.001.004
200	209	5,33	VE.07.02.13.001.005
250	253	5,33	VE.07.02.13.001.006
320	317	7	VE.07.03.13.001.001
400	405	7	VE.07.03.13.001.002
500	507	7	VE.07.03.13.001.003
630	659	7	VE.07.03.13.001.004

CR

- Temperature range: -196 to 350 °C

Size (DN)	J (mm)	ØA(mm)	Order No
63	76	5,33	VE.07.02.13.002.001
80	88,27	5,33	VE.07.02.13.002.002
100	107	5,33	VE.07.02.13.002.003
160	158	5,3	VE.07.02.13.002.004
200	209	5,33	VE.07.02.13.002.005
250	253	5,33	VE.07.02.13.002.006
320	317	7	VE.07.03.13.002.001
400	405	7	VE.07.03.13.002.002
500	507	7	VE.07.03.13.002.003
630	659	7	VE.07.03.13.002.004

NBR

- Temperature range: -25 to 120 °C

Size (DN)	J (mm)	ØA(mm)	Order No
63	76	5,33	VE.07.02.13.003.001
80	88,27	5,33	VE.07.02.13.003.002
100	107	5,33	VE.07.02.13.003.003
160	158	5,3	VE.07.02.13.003.004
200	209	5,33	VE.07.02.13.003.005
250	253	5,33	VE.07.02.13.003.006
320	317	7	VE.07.03.13.003.001
400	405	7	VE.07.03.13.003.002
500	507	7	VE.07.03.13.003.003
630	659	7	VE.07.03.13.003.004

EPDM

- Temperature range: -25 to 120 °C

Size (DN)	J (mm)	ØA(mm)	Order No
63	76	5,33	VE.07.02.13.004.001
80	88,27	5,33	VE.07.02.13.004.002
100	107	5,33	VE.07.02.13.004.003
160	158	5,3	VE.07.02.13.004.004
200	209	5,33	VE.07.02.13.004.005
250	253	5,33	VE.07.02.13.004.006
320	317	7	VE.07.03.13.004.001
400	405	7	VE.07.03.13.004.002
500	507	7	VE.07.03.13.004.003
630	659	7	VE.07.03.13.004.004

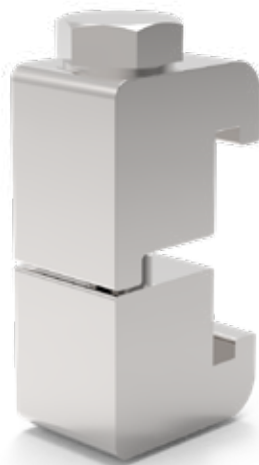
VMQ SILICON

- Temperature range: -25 to 120 °C

Size (DN)	J (mm)	ØA(mm)	Order No
63	76	5,33	VE.07.02.13.006.001
80	88,27	5,33	VE.07.02.13.006.002
100	107	5,33	VE.07.02.13.006.003
160	158	5,3	VE.07.02.13.006.004
200	209	5,33	VE.07.02.13.006.005
250	253	5,33	VE.07.02.13.006.006
320	317	7	VE.07.03.13.006.001
400	405	7	VE.07.03.13.006.002
500	507	7	VE.07.03.13.006.003
630	659	7	VE.07.03.13.006.004

ISO-K / ISO-F Clamps

This part consists of ISO K/F Clamps.
Check out this section for products NW 63 - 630

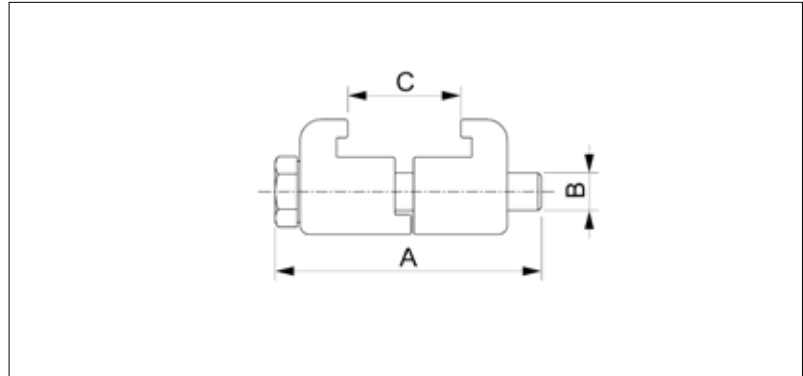


ISO-K Double Claw Clamp



- Suitable for use with elastomer seals
- Bolt: A2-70 stainless steel
- Do not use in turbo pump assembly
- Torque (max)
DN63-250: 16 Nm, DN320-630: 26 Nm
- Pressure Range: Elastomer seal: 10^{-7} mbar to 2.5 bar

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 200 C°

Size (DN)	A (mm)	B	C (mm)	Order No
63-100	50	M8	24 mm- 27 mm	VB.03.01.01.010.001
160-250	52	M10	27 mm- 32 mm	VB.03.01.01.010.003
320-500	65	M12	32 mm- 38 mm	VB.03.01.01.010.004

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B	C (mm)	Order No
63-250	61.5	M10	15 mm- 27 mm	VB.03.01.02.004.002
320-500	75	M12	27 mm- 33 mm	VB.03.01.02.004.004
630	85	M12	36 mm- 44 mm	VB.03.01.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

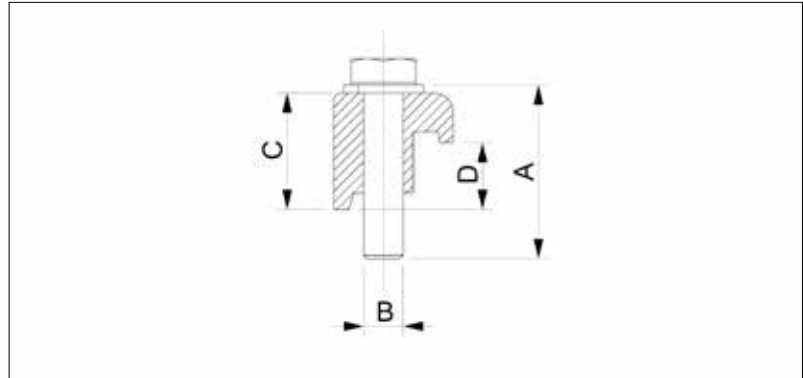
Size (DN)	A (mm)	B	C (mm)	Order No
63-250	61.5	M10	15 mm- 27 mm	VB.03.01.02.006.002
320-500	75	M12	27 mm- 33 mm	VB.03.01.02.006.004
630	85	M12	36 mm- 44 mm	VB.03.01.02.006.005

ISO-K Claw Clamp



- Suitable for use with elastomer seals and metal seals
- Aluminum version: Suitable for use with elastomer seals
- For installing on a base plate with ISO-K centering ring
- Bolt: A2-70 stainless steel
- Do not use in turbo pump assembly
- Torque (max)
DN63-250: 16 Nm, DN320-630: 26 Nm
- Pressure Range: Elastomer seal: 10^{-7} mbar to 2.5 bar

Dimensions



Aluminium EN AW-6082/3.2315

- Temperature Range: -196 to 200 C°

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63-100	35	M8	23	14	VB.03.02.01.010.001
160-250	35	M10	23	14	VB.03.02.01.010.003
320-500	50	M12	30	21	VB.03.02.01.010.004

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63-100	35	M8	23	14	VB.03.02.02.004.001
160-250	35	M10	23	14	VB.03.02.02.004.003
320-500	50	M12	30	21	VB.03.02.02.004.004

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

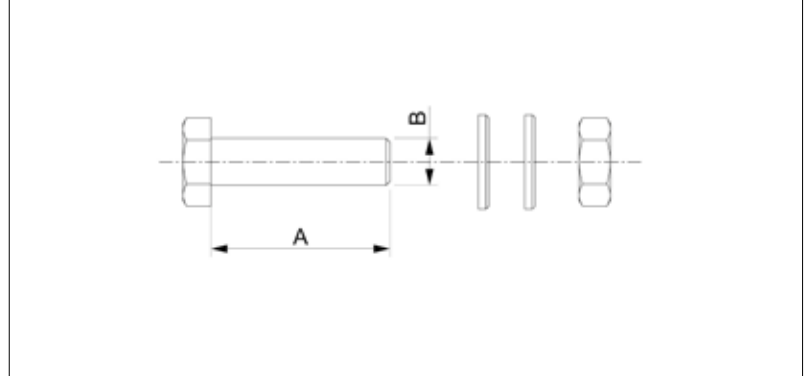
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63-100	35	M8	23	14	VB.03.02.02.006.001
160-250	35	M10	23	14	VB.03.02.02.006.003
320-500	50	M12	30	21	VB.03.02.02.006.004

ISO-F Screw Set



- Suitable for use with metal and elastomer seals
- Package include: One hexagon bolt, two washers and one nut
- These bolt packages fit ISO-F flanges for tapped ISO-F flanges: Include bolts and washers.

Dimensions



Stainless Steel A2-70

Size (DN)	A (mm)	B (mm)	Package (Qty.)	Order No
63-100	40	M8	8	VC.03.01.02.014.001
160-250	50	M10	12	VC.03.01.02.014.002
320-500	65	M12	16	VC.03.01.02.014.003
630	70	M12	20	VC.03.01.02.014.004

Zinc-plated Steel

Property Class 8.8

Size (DN)	A (mm)	B (mm)	Package (Qty.)	Order No
63-100	40	M8	8	VC.03.01.05.005.001
160-250	50	M10	12	VC.03.01.05.005.002
320-500	65	M12	16	VC.03.01.05.005.003
630	70	M12	20	VC.03.01.05.005.004

ISO-K / ISO-F Fittings

This part consists of K/F Clamps.
Check out this section for products NW 63-630



ISO-K Straight Reducer



• Materials:

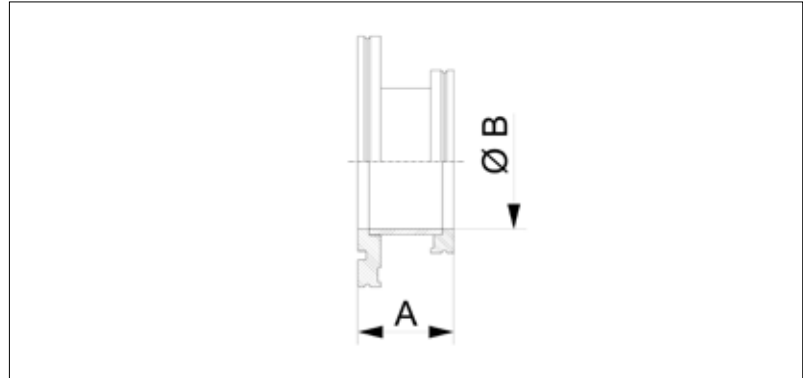
Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

• Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

• Temperature range: -196 to 300 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	Order No
100	63	50	70	VB.04.01.02.004.001
160	63	50	70	VB.04.01.02.004.002
160	100	50	102	VB.04.01.02.004.003
200	100	50	102	VB.04.01.02.004.004
200	160	50	153	VB.04.01.02.004.005
250	160	50	153	VB.04.01.02.004.006
250	200	50	213	VB.04.01.02.004.007

Stainless Steel 316L/1.4404

• Temperature range: -196 to 350 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	Order No
100	63	50	70	VB.04.01.02.006.001
160	63	50	70	VB.04.01.02.006.002
160	100	50	102	VB.04.01.02.006.003
200	100	50	102	VB.04.01.02.006.004
200	160	50	153	VB.04.01.02.006.005
250	160	50	153	VB.04.01.02.006.006
250	200	50	213	VB.04.01.02.006.007

ISO-K Conical Reducer



• Materials:

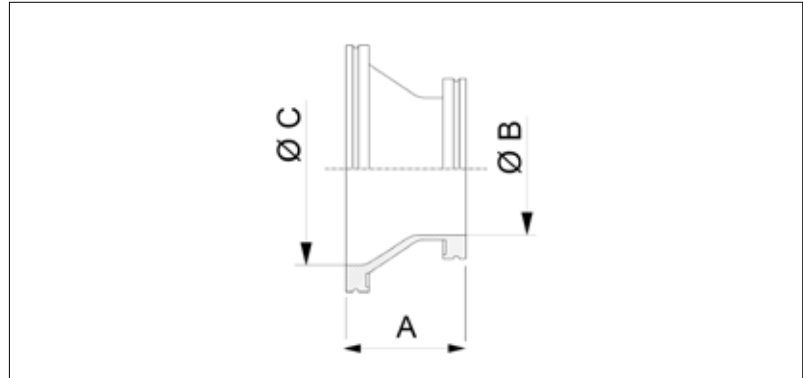
Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

• Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

• Temperature range: -196 to 300 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C(mm)	Order No
100	63	63	70	102	VB.04.02.02.004.001
160	63	63	70	153	VB.04.02.02.004.002
160	100	104	102	153	VB.04.02.02.004.003

Stainless Steel 316L/1.4404

• Temperature range: -196 to 350 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C(mm)	Order No
100	63	63	70	102	VB.04.02.02.006.001
160	63	63	70	153	VB.04.02.02.006.002
160	100	104	102	153	VB.04.02.02.006.003

ISO-K Tee



- Materials:

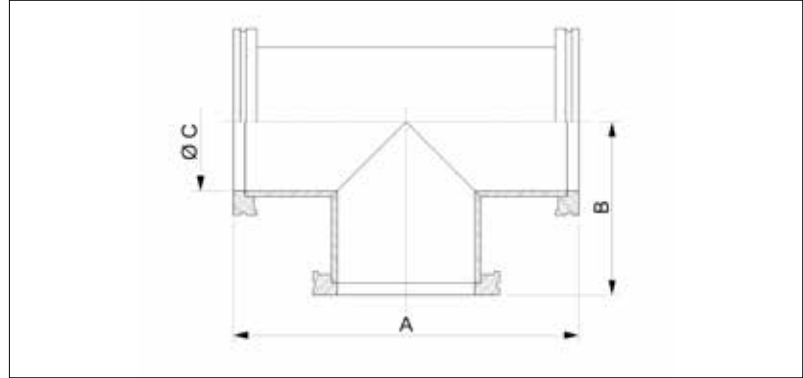
Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	C(mm)	Order No
63	176	88	70	VB.04.03.02.004.001
100	216	108	102	VB.04.03.02.004.002
160	276	138	153	VB.04.03.02.004.003
200	356	178	213	VB.04.03.02.004.004
250	416	208	261	VB.04.03.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	A (mm)	B (mm)	C(mm)	Order No
63	176	88	70	VB.04.03.02.006.001
100	216	108	102	VB.04.03.02.006.002
160	276	138	153	VB.04.03.02.006.003
200	356	178	213	VB.04.03.02.006.004
250	416	208	261	VB.04.03.02.006.005

ISO-K Reducer Tee



- Materials:

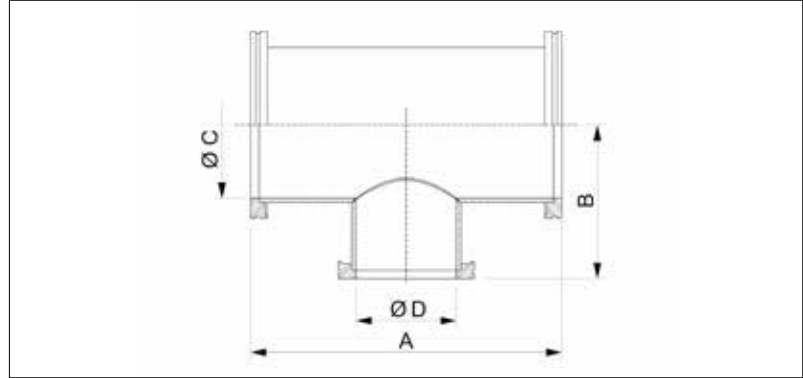
Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

- $1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
100	63	216	107	102	70	VB.04.04.02.004.001
160	63	276	130	153	70	VB.04.04.02.004.002
160	100	276	131	153	102	VB.04.04.02.004.003

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
100	63	216	107	102	70	VB.04.04.02.006.001
160	63	276	130	153	70	VB.04.04.02.006.002
160	100	276	131	153	102	VB.04.04.02.006.003

ISO-K to KF Reducer Tee



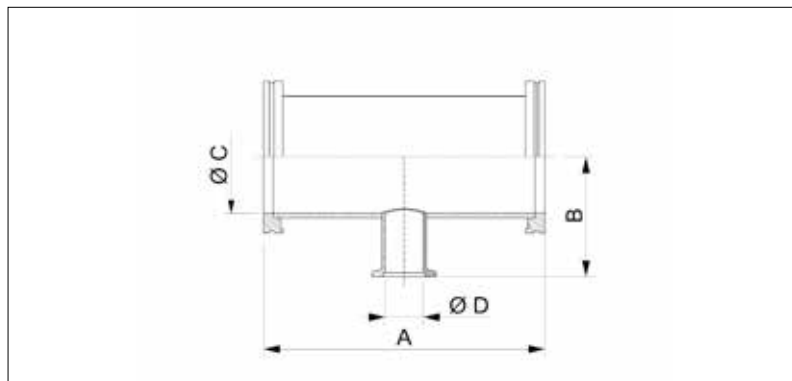
- Materials:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	25	176	75	70	24	VB.04.05.02.004.001
63	40	176	75	70	40.5	VB.04.05.02.004.002
100	25	216	100	102	24	VB.04.05.02.004.003
100	40	216	100	102	40.5	VB.04.05.02.004.004
160	25	276	125	153	24	VB.04.05.02.004.005
160	40	276	125	153	40.5	VB.04.05.02.004.006

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	25	176	75	70	24	VB.04.05.02.006.001
63	40	176	75	70	40.5	VB.04.05.02.006.002
100	25	216	100	102	24	VB.04.05.02.006.003
100	40	216	100	102	40.5	VB.04.05.02.006.004
160	25	276	125	153	24	VB.04.05.02.006.005
160	40	276	125	153	40.5	VB.04.05.02.006.006

ISO-K Elbow Radius 90



- Materials:

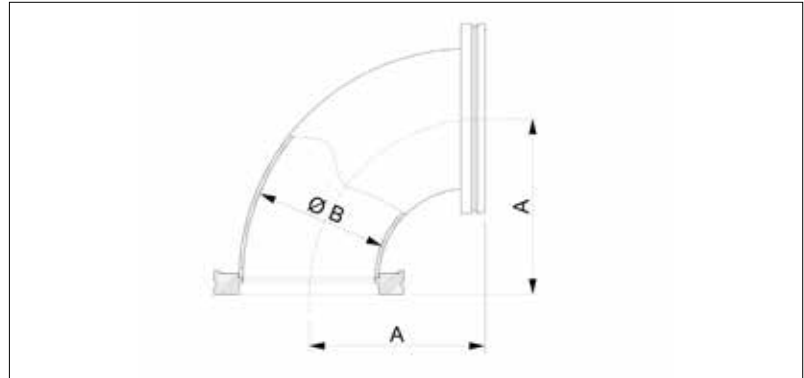
Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

- $1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	Order No
63	101	66	VB.04.06.02.004.001
100	108	100	VB.04.06.02.004.002
160	232	150	VB.04.06.02.004.003

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	A (mm)	B (mm)	Order No
63	101	66	VB.04.06.02.006.001
100	108	100	VB.04.06.02.006.002
160	232	150	VB.04.06.02.006.003

ISO-K Elbow 90



- Materials:

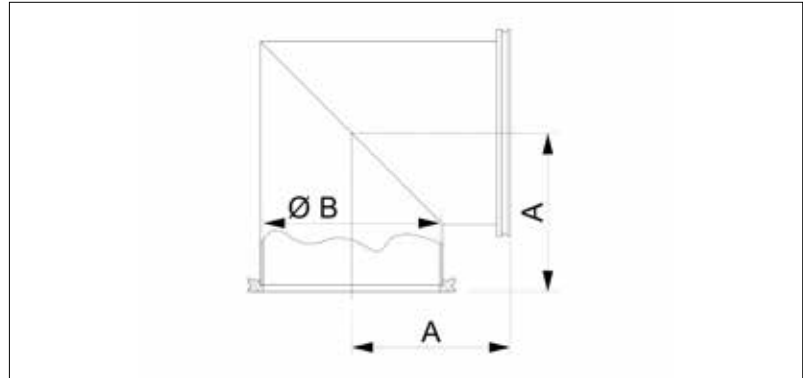
Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

- $1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	Order No
160	138	153	VB.04.07.02.004.001
200	178	213	VB.04.07.02.004.002
250	208	261	VB.04.07.02.004.003

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	A (mm)	B (mm)	Order No
160	138	153	VB.04.07.02.006.001
200	178	213	VB.04.07.02.006.002
250	208	261	VB.04.07.02.006.003

ISO-K 4 Way Cross



- Materials:

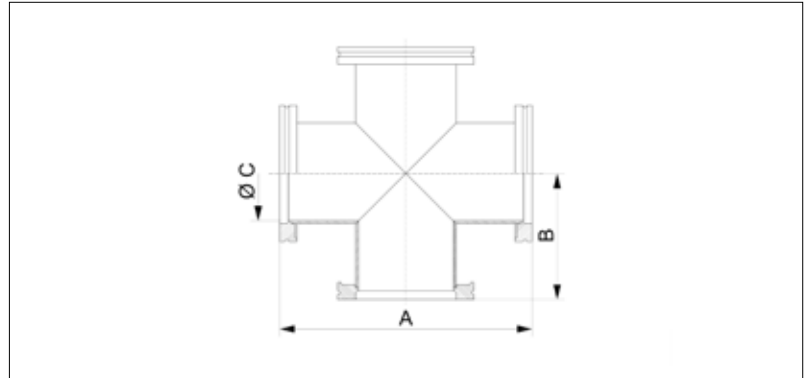
Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

- $1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	Order No
63	176	88	66	VB.04.08.02.004.001
100	216	108	100	VB.04.08.02.004.002
160	276	138	153	VB.04.08.02.004.003
200	356	178	213	VB.04.08.02.004.004
250	416	208	261	VB.04.08.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	Order No
63	176	88	66	VB.04.08.02.006.001
100	216	108	100	VB.04.08.02.006.002
160	276	138	153	VB.04.08.02.006.003
200	356	178	213	VB.04.08.02.006.004
250	416	208	261	VB.04.08.02.006.005

ISO-K Reducer Cross



- Materials:

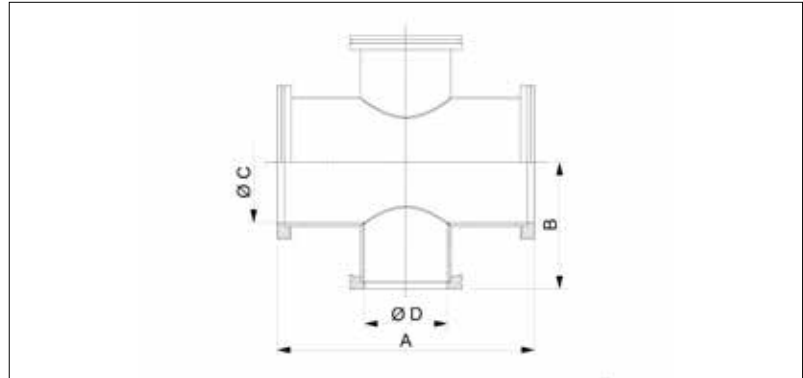
Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	Nominal diameter reduced	A (mm)	B (mm)	C (mm)	D (mm)	Order No
100	63	216	107	102	70	VB.04.09.02.004.001
160	63	276	130	153	70	VB.04.09.02.004.002
160	100	276	130	153	102	VB.04.09.02.004.003

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	Nominal diameter reduced	A (mm)	B (mm)	C (mm)	D (mm)	Order No
100	63	216	107	102	70	VB.04.09.02.006.001
160	63	276	130	153	70	VB.04.09.02.006.002
160	100	276	130	153	102	VB.04.09.02.006.003

ISO-K to KF Adapter Cross



- Materials:

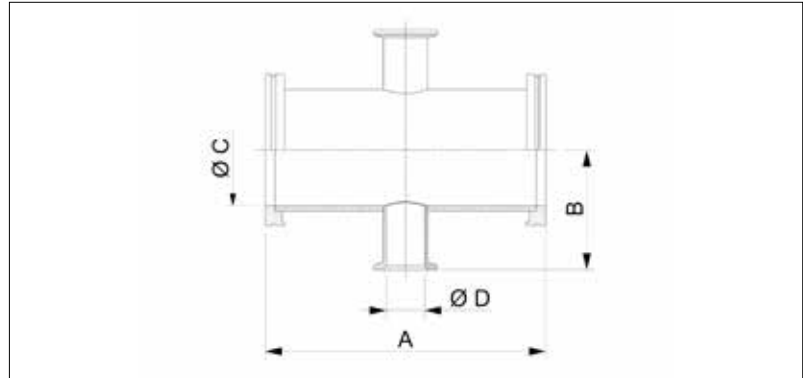
Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar over pressure (elastomer seal)

$1 \cdot 10^{-9}$ mbar to 500 mbar over pressure (metal seal)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	25	176	75	70	24	VB.04.10.02.004.001
63	40	176	75	70	40.5	VB.04.10.02.004.002
100	25	216	100	102	24	VB.04.10.02.004.003
100	40	216	100	102	40.5	VB.04.10.02.004.004
160	25	276	125	153	24	VB.04.10.02.004.005
160	40	276	125	153	40.5	VB.04.10.02.004.006

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
63	25	176	75	70	24	VB.04.10.02.006.001
63	40	176	75	70	40.5	VB.04.10.02.006.002
100	25	216	100	102	24	VB.04.10.02.006.003
100	40	216	100	102	40.5	VB.04.10.02.006.004
160	25	276	125	153	24	VB.04.10.02.006.005
160	40	276	125	153	40.5	VB.04.10.02.006.006

ISO-K / ISO-F Adapters

This part consists of Large KF Adapters.
Check out this section for products NW 63-630

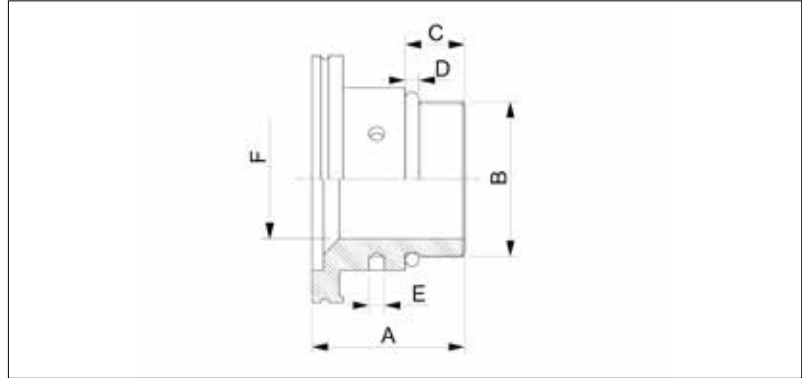


ISO-K Flange With Pipe Thread and FKM Seal, Male



- O-ring Material: FKM
- Temperature range: -15 to 150 °C (Consider O-ring temperature ranges.)

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Order No
63	59	G2"	23	5	6	48	VB.05.01.02.004.001
63	60	G3"	23	5	6	50	VB.05.01.02.004.002
100	60	G3"	23	5	6	70	VB.05.01.02.004.003

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

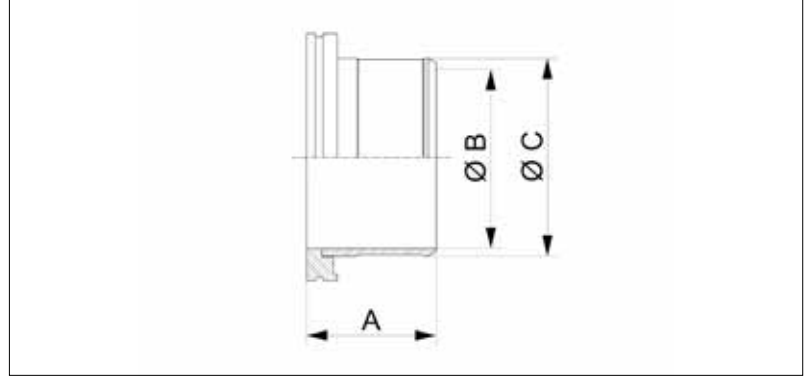
Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Order No
63	59	G2"	23	5	6	48	VB.05.01.02.006.001
63	60	G3"	23	5	6	50	VB.05.01.02.006.002
100	60	G3"	23	5	6	70	VB.05.01.02.006.003

ISO-K Hose Adapter



- Materials:
Stainless Steel 304/1.4301
Stainless Steel 316L/1.4404
- For connecting a PVC hose or a CR sleeve

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	Order No
63	50	70	76,1	VB.05.02.02.004.001
100	50	95	101,6	VB.05.02.02.004.002

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	Order No
63	50	70	76,1	VB.05.02.02.006.001
100	50	95	101,6	VB.05.02.02.006.002

ISO-K Sleeve Adapter

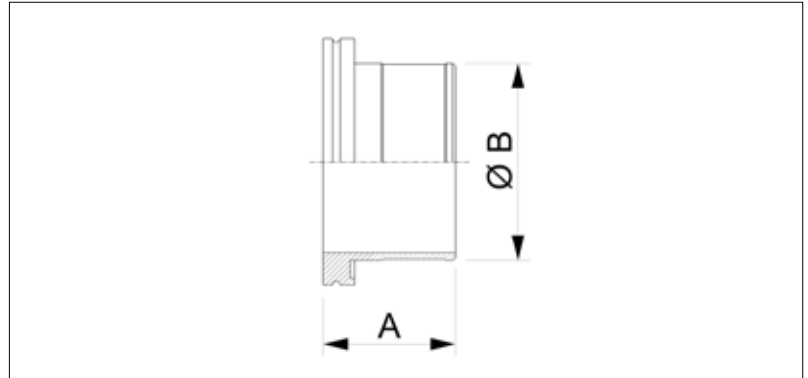


- Material

Aluminium EN AW-6082 T6

For connecting a CR sleeve

Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 C°

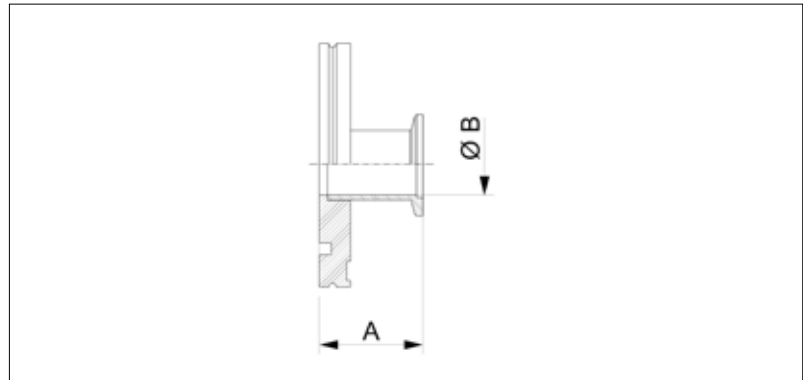
Flange Size (DN)	A (mm)	B (mm)	Order No
63	51	76	VB.05.03.01.010.001
100	56	108	VB.05.03.01.010.002
160	56	159	VB.05.03.01.010.003

ISO-K to KF Straight Adapter



- Other nominal diameters and dimensions on request
- Pressure range: $1 \cdot 10^{-8}$ mbar to ambient pressure (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to ambient pressure (metal seal)
- Materials:
Stainless Steel 304/1.4301
Stainless Steel 316/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	Order No
63	25	40	24	VB.05.04.02.004.001
63	40	40	40.5	VB.05.04.02.004.002
63	50	40	50.6	VB.05.04.02.004.003
100	25	40	24	VB.05.04.02.004.004
100	40	40	40.5	VB.05.04.02.004.005
100	50	40	50.6	VB.05.04.02.004.006
160	40	40	40.5	VB.05.04.02.004.007

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

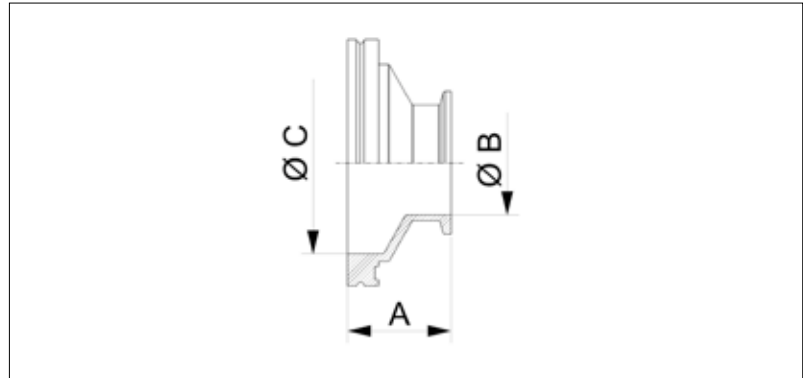
Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	Order No
63	25	40	24	VB.05.04.02.006.001
63	40	40	40.5	VB.05.04.02.006.002
63	50	40	50.6	VB.05.04.02.006.003
100	25	40	24	VB.05.04.02.006.004
100	40	40	40.5	VB.05.04.02.006.005
100	50	40	50.6	VB.05.04.02.006.006
160	40	40	40.5	VB.05.04.02.006.007

ISO-K to KF Conical Adapter



- Other nominal diameters and dimensions on request
- Pressure range: $1 \cdot 10^{-8}$ mbar to ambient pressure (elastomer seal)
 $1 \cdot 10^{-9}$ mbar to ambient pressure (metal seal)
- Elastomer seals are available for EN AW-6082 T6/3.2315

Dimensions



Aluminium EN AW-6082 T6/3.2315

- Temperature Range: -196 to 150 °C

ISO-K Flange Size (DN)	ISO-KF Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	Order No
63	25	63	24	70	VB.05.05.01.010.001
63	40	63	40.5	70	VB.05.05.01.010.002
63	50	63	50	70	VB.05.05.01.010.003
100	40	63	40.5	102	VB.05.05.01.010.004
100	50	63	50	102	VB.05.05.01.010.005

Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

ISO-K Flange Size (DN)	ISO-KF Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	Order No
63	25	63	24	70	VB.05.05.02.004.001
63	40	63	40.5	70	VB.05.05.02.004.002
63	50	63	50	70	VB.05.05.02.004.003
100	40	63	40.5	102	VB.05.05.02.004.004
100	50	63	50	102	VB.05.05.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

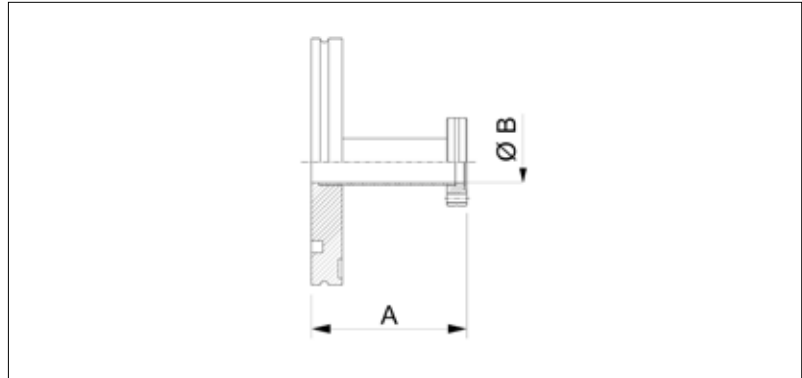
ISO-K Flange Size (DN)	ISO-KF Reducer Flange Size (DN)	A (mm)	B (mm)	C (mm)	Order No
63	25	63	24	70	VB.05.05.02.006.001
63	40	63	40.5	70	VB.05.05.02.006.002
63	50	63	50	70	VB.05.05.02.006.003
100	40	63	40.5	102	VB.05.05.02.006.004
100	50	63	50	102	VB.05.05.02.006.005

ISO-K to CF Adapter



- Other nominal diameters and dimensions on request
- Pressure range: $1 \cdot 10^{-8}$ mbar to ambient pressure (elastomer seal);
 $1 \cdot 10^{-9}$ mbar to ambient pressure (metal seal)
- Materials:
Stainless Steel 304/1.4301
Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

CF Reducer Flang Size (DN)	ISO-K Flange Size (DN)	A (mm)	B (mm)	Order No
63	16	60	16	VB.05.06.02.004.001
63	40	70	37	VB.05.06.02.004.002
63	63	90	66	VB.05.06.02.004.003
100	100	90	102	VB.05.06.02.004.004
160	160	100	153	VB.05.06.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

CF Reducer Flang Size (DN)	ISO-K Flange Size (DN)	A (mm)	B (mm)	Order No
63	16	60	16	VB.05.06.02.006.001
63	40	70	37	VB.05.06.02.006.002
63	63	90	66	VB.05.06.02.006.003
100	100	90	102	VB.05.06.02.006.004
160	160	100	153	VB.05.06.02.006.005

ISO-K / ISO-F Hoses

This part consists of ISO-K/F Hoses.
Check out this section for products NW 63-630



ISO-K Flexible Hose

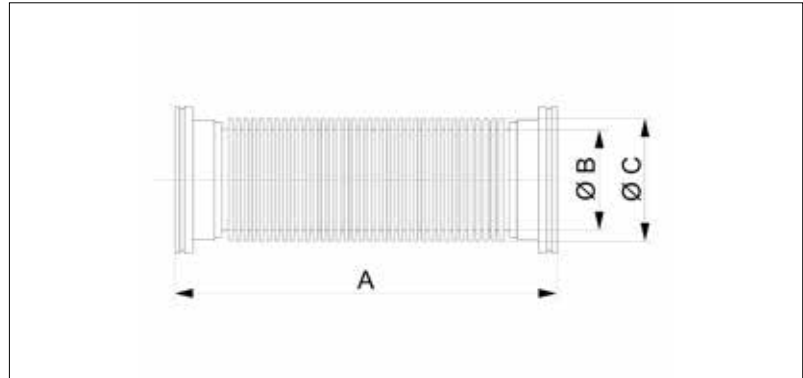


- Flange connection length: 30 mm
- Custom lengths on request
- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar
- Materials:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	Bend radius, unique movement (mm)	Over pressure max. (hPa)	Order No
63	250	65	80	90	500	VB.06.01.02.004.001
63	500	65	80	90	500	VB.06.01.02.004.002
63	750	65	80	90	500	VB.06.01.02.004.003
63	1000	65	80	90	500	VB.06.01.02.004.004
100	250	100	119	131	300	VB.06.01.02.004.005
100	500	100	119	131	300	VB.06.01.02.004.006
100	750	100	119	131	300	VB.06.01.02.004.007
100	1000	100	119	131	300	VB.06.01.02.004.008
160	250	150	173	216	100	VB.06.01.02.004.009
160	500	150	173	216	100	VB.06.01.02.004.010
160	750	150	173	216	100	VB.06.01.02.004.011
160	1000	150	173	216	100	VB.06.01.02.004.012

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	Bend radius, unique movement (mm)	Over pressure max. (hPa)	Order No
63	250	65	80	90	500	VB.06.01.02.006.001
63	500	65	80	90	500	VB.06.01.02.006.002
63	750	65	80	90	500	VB.06.01.02.006.003
63	1000	65	80	90	500	VB.06.01.02.006.004
100	250	100	119	131	300	VB.06.01.02.006.005
100	500	100	119	131	300	VB.06.01.02.006.006
100	750	100	119	131	300	VB.06.01.02.006.007
100	1000	100	119	131	300	VB.06.01.02.006.008
160	250	150	173	216	100	VB.06.01.02.006.009
160	500	150	173	216	100	VB.06.01.02.006.010
160	750	150	173	216	100	VB.06.01.02.006.011
160	1000	150	173	216	100	VB.06.01.02.006.012

ISO-K Flexible Hose, Annealed

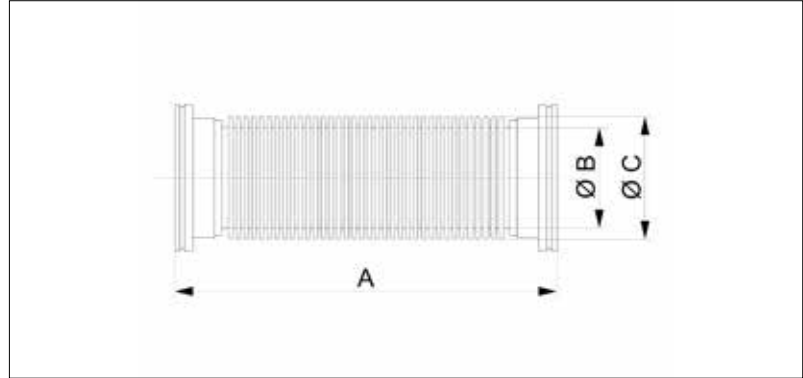


- Lightly-stressed hose (low reset force at the time of bending)
- Flange connection length: 30 mm (Custom lengths on request)
- Pressure range: $1 \cdot 10^{-8}$ mbar to 500 mbar
- Materials:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	Bend radius, unique movement (mm)	Over pressure max. (hPa)	Order No
63	250	65	80	90	500	VB.06.02.02.004.001
63	500	65	80	90	500	VB.06.02.02.004.002
63	750	65	80	90	500	VB.06.02.02.004.003
63	1000	65	80	90	500	VB.06.02.02.004.004
100	250	100	119	131	300	VB.06.02.02.004.005
100	500	100	119	131	300	VB.06.02.02.004.006
100	750	100	119	131	300	VB.06.02.02.004.007
100	1000	100	119	131	300	VB.06.02.02.004.008
160	250	150	173	216	100	VB.06.02.02.004.009
160	500	150	173	216	100	VB.06.02.02.004.010
160	750	150	173	216	100	VB.06.02.02.004.011
160	1000	150	173	216	100	VB.06.02.02.004.012

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

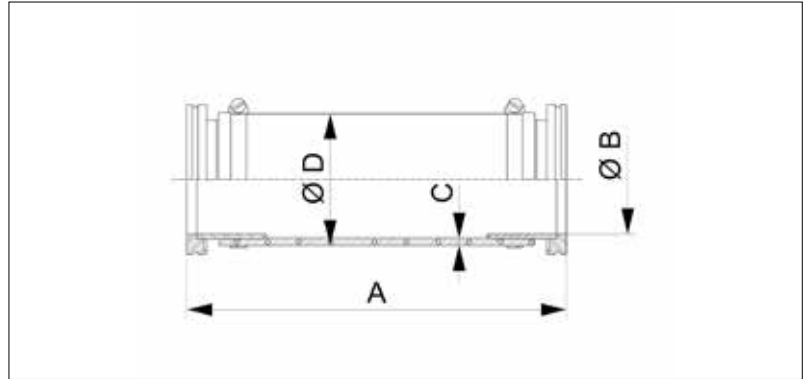
Flange Size (DN)	A (mm)	B (mm)	C (mm)	Bend radius, unique movement (mm)	Over pressure max. (hPa)	Order No
63	250	65	80	90	500	VB.06.02.02.006.001
63	500	65	80	90	500	VB.06.02.02.006.002
63	750	65	80	90	500	VB.06.02.02.006.003
63	1000	65	80	90	500	VB.06.02.02.006.004
100	250	100	119	131	300	VB.06.02.02.006.005
100	500	100	119	131	300	VB.06.02.02.006.006
100	750	100	119	131	300	VB.06.02.02.006.007
100	1000	100	119	131	300	VB.06.02.02.006.008
160	250	150	173	216	100	VB.06.02.02.006.009
160	500	150	173	216	100	VB.06.02.02.006.010
160	750	150	173	216	100	VB.06.02.02.006.011
160	1000	150	173	216	100	VB.06.02.02.006.012

ISO-K PVC Hose and Flanges



- Inner tube: PVC
- Hose cover: PVC, Transparent
- Casing: Steel coil
- Smooth inner and outer walls
- Custom lengths on request
- Pressure range: $1 \cdot 10^{-4}$ mbar to ambient pressure
- Temperature range: -10 to 60 °C (Consider PVC temperature range.)
- Flange materials:
Stainless Steel 304/1.4301
Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Bend radius (mm)	Order No
63	500	70	7.5	90	150	VB.06.03.02.004.001
63	1000	70	7.5	90	150	VB.06.03.02.004.002
100	500	95	8.5	117	200	VB.06.03.02.004.003
100	1000	95	8.5	117	200	VB.06.03.02.004.004

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

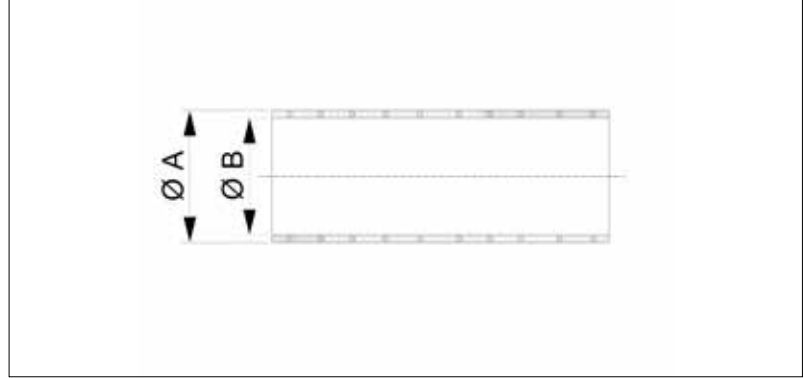
Flange Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Bend radius (mm)	Order No
63	500	70	7.5	90	150	VB.06.03.02.006.001
63	1000	70	7.5	90	150	VB.06.03.02.006.002
100	500	95	8.5	117	200	VB.06.03.02.006.003
100	1000	95	8.5	117	200	VB.06.03.02.006.004

ISO-K PVC Hose With Embedded Spring



- Tube: PVC
- Hose cover: PVC
- Casing: Steel coil
- Smooth walls
- Custom lengths on request
- Pressure range: $1 \cdot 10^{-4}$ mbar to ambient pressure
- Temperature range: -5 to 40 °C

Dimensions



PVC

Inner Diameter (mm)	A (mm)	B (mm)	Bend radius (mm)	Order No
75	90	75	150	VB.06.04.13.008.001
100	117	100	200	VB.06.04.13.008.002

CF SYSTEM

This part consists of CF System.
Check out this section for products **NW16-NW350**

CF Components

Anadolu Vacuum CF components are manufactured according to ISO 3669. The CF flange (originally called ConFlat) is a sexless design where both flanges are identical. Typical flange materials are stainless steel types 304, 316L, 316LN ESR. All components are 100% leak-tested and have leak rates better than 10^{-10} mbarl/s. Standard sizes are NW 16 to 250. Other sizes can be produced on request. The ultra high vacuum range (UHV) assigns the pressure range $<10^{-8}$ mbar. To reach and keep up this low pressure range, a very low out-gassing rate is required in the vacuum system. Please consider the product information given on the product pages.

The CF components is sealed off by the cutting edge profile in the flange and a copper sealing washer. The copper sealing washer is embedded in the flange groove and, simultaneously, centres couple of flanges. While bolting the flanges, the cutting edges of the flanges for sealing are pressed deeply into the soft sealing washer, whereby the metal “flows away” radially and is pressed on the outside against the flange groove and limited. Even in the case of material deformation, this guarantees leak-tightness.

The flanges of the CF connections are designed according to ISO 3669. They are compatible with the Con-Flat flanges of other well-known brand. The standard material used is steels type 304. For the most widely recognized flanges and components, higher quality high-grade steels type 316L can also be used. The material number for the component can be found in the respective catalogue sections (“Components Elements Properties”). Because of the bake-out capacity necessary to UHV technology, sealing of the CF flanges is by means of a flat seal made of oxygen-free (OFHC) copper. The contact pressure is composed by diametrical tightening of the screws. The copper seal can only be used once. When baking out CF connections, ensure that heating up and cooling is achieved uniformly and sort of slowly.



CF Flanges

This part consists of CF Flanges.

Check out this section for products NW16-NW350

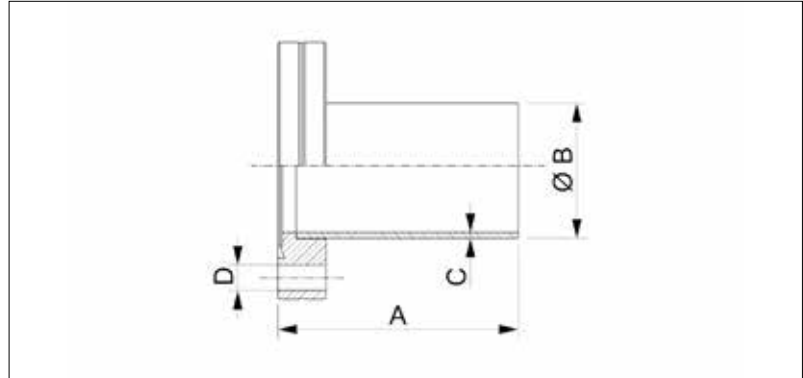


CF Half Flange



- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	18x1	38	18	1	4.4	VD.01.01.02.004.001
16	19,05x1,65	38	19.05	1.65	4.4	VD.01.01.02.004.002
25	25,4x1,65	52	25.4	1.65	6.6	VD.01.01.02.004.003
40	38x1,5	63	38	1.5	6.6	VD.01.01.02.004.004
40	40x1,5	63	40	1.5	6.6	VD.01.01.02.004.006
50	50,8x1,65	82	50.8	1.65	8.4	VD.01.01.02.004.007
63	63,5x1,65	105	63.5	1.65	8.4	VD.01.01.02.004.008
63	70x2	105	70	2	8.4	VD.01.01.02.004.009
75	76,1x2	90	76.1	2	8.4	VD.01.01.02.004.010
100	101,6x2,1	135	101.6	2.1	8.4	VD.01.01.02.004.011
100	108x2	135	108	2	8.4	VD.01.01.02.004.012
160	154x2	167	154	2	8.4	VD.01.01.02.004.013
160	159x2	167	159	2	8.4	VD.01.01.02.004.014

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

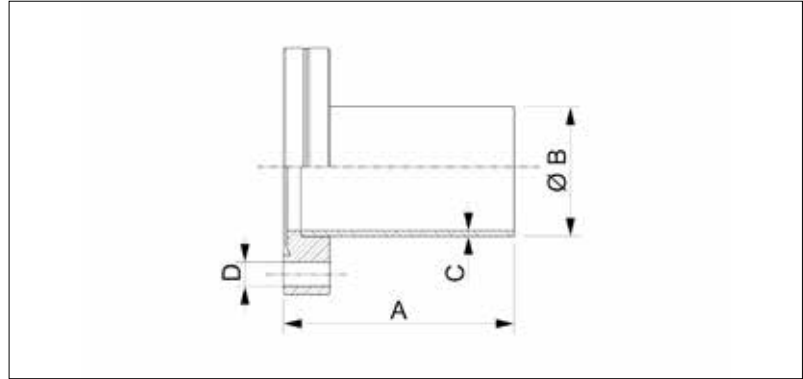
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	18x1	38	18	1	4/4	VD.01.01.02.006.001
16	19,05x1,65	38	19.05	1.65	4/4	VD.01.01.02.006.002
25	25,4x1,65	52	25.4	1.65	6/6	VD.01.01.02.006.003
40	38x1,5	63	38	1.5	6/6	VD.01.01.02.006.004
40	40x1,5	63	40	1.5	6/6	VD.01.01.02.006.006
50	50,8x1,65	82	50.8	1.65	8/4	VD.01.01.02.006.007
63	63,5x1,65	105	63.5	1.65	8/4	VD.01.01.02.006.008
63	70x2	105	70	2	8/4	VD.01.01.02.006.009
75	76,1x2	90	76.1	2	8/4	VD.01.01.02.006.010
100	101,6x2,1	135	101.6	2.1	8/4	VD.01.01.02.006.011
100	108x2	135	108	2	8/4	VD.01.01.02.006.012
160	154x2	167	154	2	8/4	VD.01.01.02.006.013
160	159x2	167	159	2	8.4	VD.01.01.02.006.014

CF Half Flange with Thread



- Flange with threaded holes
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	38	18	1	M4	VD.01.02.02.004.001
40	40x1,5	63	40	1.5	M6	VD.01.02.02.004.006
63	70x2	105	70	2	M8	VD.01.02.02.004.009
100	108x2	135	108	2	M8	VD.01.02.02.004.012
160	159x2	167	159	2	M8	VD.01.02.02.004.014

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

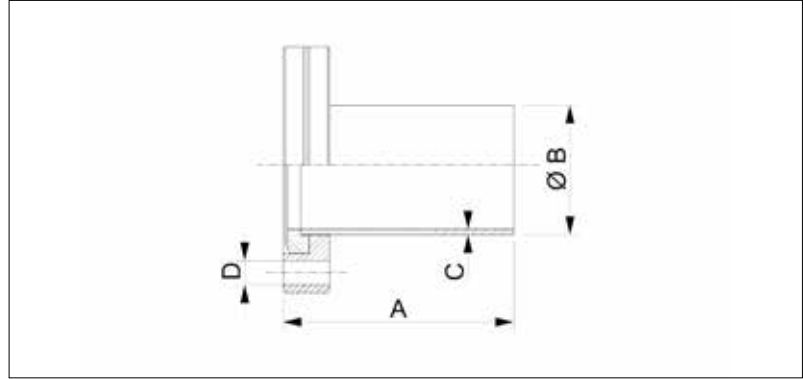
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	38	18	1	M4	VD.01.02.02.006.001
40	40x1,5	63	40	1.5	M6	VD.01.02.02.006.006
63	70x2	105	70	2	M8	VD.01.02.02.006.009
100	108x2	135	108	2	M8	VD.01.02.02.006.012
160	159x2	167	159	2	M8	VD.01.02.02.006.014

CF Half Flange, Rotatable



- Feature a rotatable flange
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	18x1	38	18	1	4.4	VD.01.03.02.004.001
16	19,05x1,65	38	19.05	1.65	4.4	VD.01.03.02.004.002
25	25,4x1,65	52	25.4	1.65	6.6	VD.01.03.02.004.003
40	38x1,5	63	38	1.5	6.6	VD.01.03.02.004.004
40	40x1,5	63	40	1.5	8.4	VD.01.03.02.004.006
50	50,8x1,65	82	50.8	1.65	8.4	VD.01.03.02.004.007
63	63,5x1,65	105	63.5	1.65	8.4	VD.01.03.02.004.008
63	70x2	105	70	2	8.4	VD.01.03.02.004.009
75	76,1x2	90	76.1	2	8.4	VD.01.03.02.004.010
100	101,6x2,1	135	101.6	2.1	8.4	VD.01.03.02.004.011
100	108x2	135	108	2	8.4	VD.01.03.02.004.012
160	154x2	167	154	2	8.4	VD.01.03.02.004.013
160	159x2	167	159	2	8.4	VD.01.03.02.004.014

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

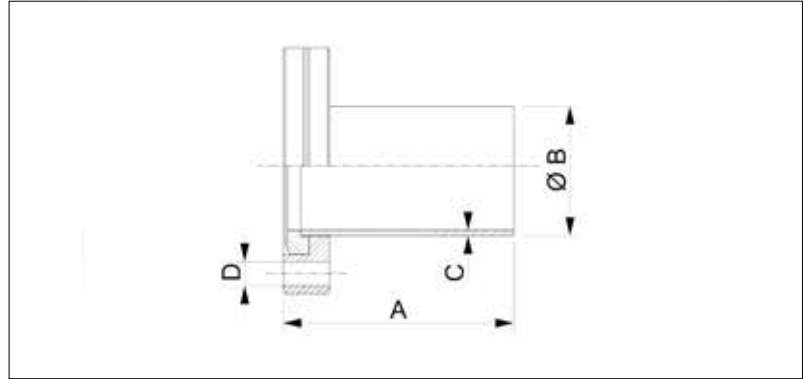
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	18x1	38	18	1	4.4	VD.01.03.02.006.001
16	19,05x1,65	38	19.05	1.65	4.4	VD.01.03.02.006.002
25	25,4x1,65	52	25.4	1.65	6.6	VD.01.03.02.006.003
40	38x1,5	63	38	1.5	6.6	VD.01.03.02.006.004
40	40x1,5	63	40	1.5	8.4	VD.01.03.02.006.006
50	50,8x1,65	82	50.8	1.65	8.4	VD.01.03.02.006.007
63	63,5x1,65	105	63.5	1.65	8.4	VD.01.03.02.006.008
63	70x2	105	70	2	8.4	VD.01.03.02.006.009
75	76,1x2	90	76.1	2	8.4	VD.01.03.02.006.010
100	101,6x2,1	135	101.6	2.1	8.4	VD.01.03.02.006.011
100	108x2	135	108	2	8.4	VD.01.03.02.006.012
160	154x2	167	154	2	8.4	VD.01.03.02.006.013
160	159x2	167	159	2	8.4	VD.01.03.02.006.014

CF Half Flange, Rotatable with Thread



- Feature a rotatable flange with threaded holes
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	38	18	1	M4	VD.01.04.02.004.001
40	38x1,5	63	38	1.5	M6	VD.01.04.02.004.004
40	40x1,5	38	40	1.5	M6	VD.01.04.02.004.005
40	40x1,5	63	40	1.5	M6	VD.01.04.02.004.006
63	70x2	105	70	2	M8	VD.01.04.02.004.009
100	108x2	135	108	2	M8	VD.01.04.02.004.012
160	159x2	167	159	2	M8	VD.01.04.02.004.014

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

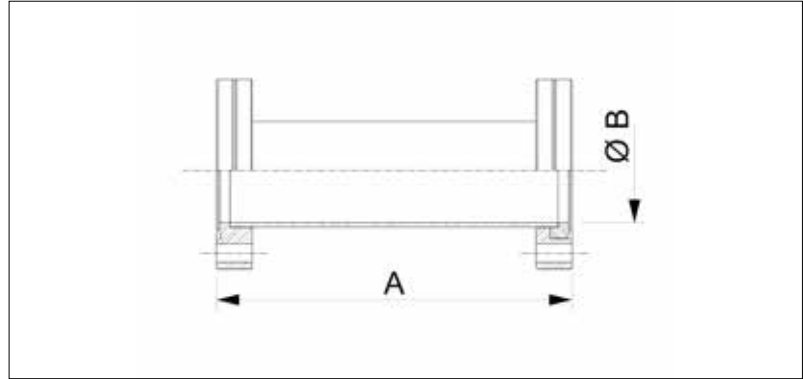
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	38	18	1	M4	VD.01.04.02.004.001
40	38x1,5	63	38	1.5	M6	VD.01.04.02.004.004
40	40x1,5	38	40	1.5	M6	VD.01.04.02.004.005
40	40x1,5	63	40	1.5	M6	VD.01.04.02.004.006
63	70x2	105	70	2	M8	VD.01.04.02.004.009
100	108x2	135	108	2	M8	VD.01.04.02.004.012
160	159x2	167	159	2	M8	VD.01.04.02.004.014

CF Full Flange



- One fixed and one rotatable flanges
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	Order No
16	18x1	76	16	VD.01.05.02.004.001
40	40x1,5	126	37	VD.01.05.02.004.002
63	70x2	210	66	VD.01.05.02.004.003
100	108x2	270	104	VD.01.05.02.004.004
160	159x2	334	155	VD.01.05.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	Order No
16	18x1	76	16	VD.01.05.02.006.001
40	40x1,5	126	37	VD.01.05.02.006.002
63	70x2	210	66	VD.01.05.02.006.003
100	108x2	270	104	VD.01.05.02.006.004
160	159x2	334	155	VD.01.05.02.006.005

CF Blanking Flange



- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Bake out range is up to 450°C
- Materials:

Stainless Steel 304/1.4301

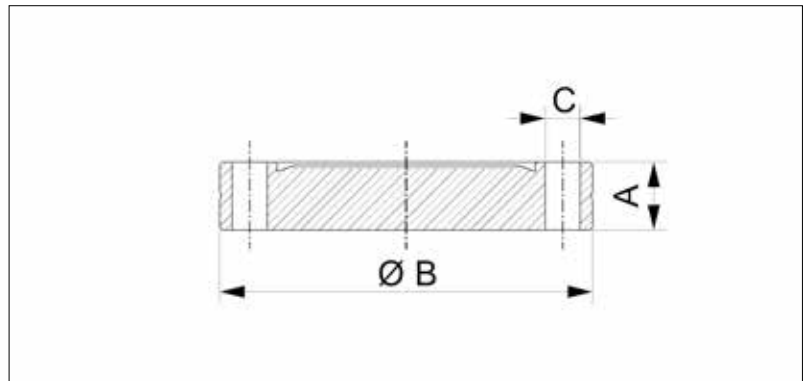
Stainless Steel 316L/1.4404

Stainless Steel 316LN ESR/1.4429

Stainless Steel 316LN ESR/1.4429 ESU features

- Ideal for constantly dismantled chamber ports
- Electro-slag Remelt (ESR) to improve grain homogeneity and remove gross macro segregation
- Lower magnetic permeability for applications sensitive to magnetic materials ($\mu \leq 1.005$ vs. 1.03 for 304L SS)
- Low desorption
- Bakeable under vacuum up to 1050 °C
- Pressure range: $1 \cdot 10^{-13}$ mbar to ambient pressure

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
16	7.5	34	4.4	VD.01.06.02.004.001
25	12	54	6.6	VD.01.06.02.004.002
40	13	69.9	6.6	VD.01.06.02.004.003
50	16.5	85.7	8.4	VD.01.06.02.004.004
63	17.5	113.5	8.5	VD.01.06.02.004.005
75	18	117.4	8.6	VD.01.06.02.004.006
100	20	152	8.7	VD.01.06.02.004.007
125	21.5	171.4	8.8	VD.01.06.02.004.008
160	21.5	202.4	8.9	VD.01.06.02.004.009
200	24.5	253.2	8.10	VD.01.06.02.004.010
250	24.5	304.8	8.11	VD.01.06.02.004.011
300	28.5	355.6	8.12	VD.01.06.02.004.012
350	28.5	419.1	8.13	VD.01.06.02.004.013

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
16	7.5	34	4.4	VD.01.06.02.006.001
25	12	54	6.6	VD.01.06.02.006.002
40	13	69.9	6.6	VD.01.06.02.006.003
50	16.5	85.7	8.4	VD.01.06.02.006.004
63	17.5	113.5	8.5	VD.01.06.02.006.005
75	18	117.4	8.6	VD.01.06.02.006.006
100	20	152	8.7	VD.01.06.02.006.007
125	21.5	171.4	8.8	VD.01.06.02.006.008
160	21.5	202.4	8.9	VD.01.06.02.006.009
200	24.5	253.2	8.10	VD.01.06.02.006.010
250	24.5	304.8	8.11	VD.01.06.02.006.011
300	28.5	355.6	8.12	VD.01.06.02.006.012
350	28.5	419.1	8.13	VD.01.06.02.006.013

Stainless Steel 316LN ESR/1.4429 ESU

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
16	7.5	34	4.4	VD.01.06.02.007.001
25	12	54	6.6	VD.01.06.02.007.002
40	13	69.9	6.6	VD.01.06.02.007.003
50	16.5	85.7	8.4	VD.01.06.02.007.004
63	17.5	113.5	8.5	VD.01.06.02.007.005
75	18	117.4	8.6	VD.01.06.02.007.006
100	20	152	8.7	VD.01.06.02.007.007
125	21.5	171.4	8.8	VD.01.06.02.007.008
160	21.5	202.4	8.9	VD.01.06.02.007.009
200	24.5	253.2	8.10	VD.01.06.02.007.010
250	24.5	304.8	8.11	VD.01.06.02.007.011
300	28.5	355.6	8.12	VD.01.06.02.007.012
350	28.5	419.1	8.13	VD.01.06.02.007.013

CF Blanking Flange with Thread



- Flange with threaded holes
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Bake out range is up to 450°C
- Materials:

Stainless Steel 304/1.4301

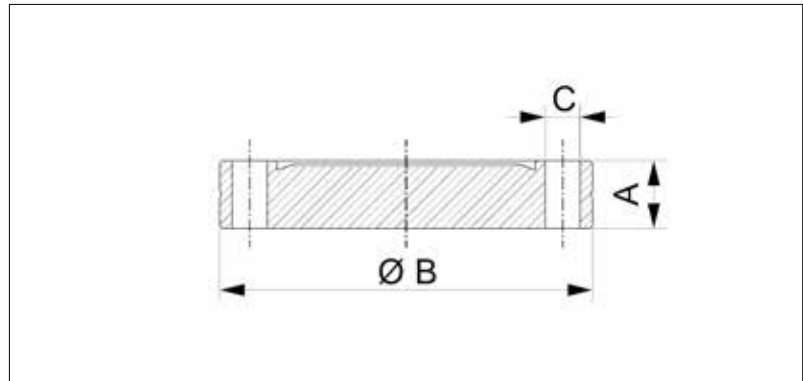
Stainless Steel 316L/1.4404

Stainless Steel 316LN ESR/1.4429

Stainless Steel 316LN ESR/1.4429 ESU features

- Ideal for constantly dismantled chamber ports
- Electro-slag Remelt (ESR) to improve grain homogeneity and remove gross macro segregation
- Lower magnetic permeability for applications sensitive to magnetic materials ($\mu \leq 1.005$ vs. 1.03 for 304L SS)
- Low desorption
- Bakeable under vacuum up to 1050 °C
- Pressure range: $1 \cdot 10^{-13}$ mbar to ambient pressure

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C	Order No
16	7.5	34	M4	VD.01.07.02.004.001
40	13	69.9	M6	VD.01.07.02.004.003
63	17.5	113.5	M8	VD.01.07.02.004.005
100	20	152	M8	VD.01.07.02.004.007
160	21.5	202.4	M8	VD.01.07.02.004.009
200	24.5	253.2	M8	VD.01.07.02.004.010
250	24.5	304.8	M8	VD.01.07.02.004.011

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C	Order No
16	7.5	34	M4	VD.01.07.02.006.001
40	13	69.9	M6	VD.01.07.02.006.003
63	17.5	113.5	M8	VD.01.07.02.006.005
100	20	152	M8	VD.01.07.02.006.007
160	21.5	202.4	M8	VD.01.07.02.006.009
200	24.5	253.2	M8	VD.01.07.02.006.010
250	24.5	304.8	M8	VD.01.07.02.006.011

Stainless Steel 316LN ESR/1.4429 ESU

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C	Order No
16	7.5	34	M4	VD.01.07.02.007.001
40	13	69.9	M6	VD.01.07.02.007.003
63	17.5	113.5	M8	VD.01.07.02.007.005
100	20	152	M8	VD.01.07.02.007.007
160	21.5	202.4	M8	VD.01.07.02.007.009
200	24.5	253.2	M8	VD.01.07.02.007.010
250	24.5	304.8	M8	VD.01.07.02.007.011

CF Blanking Flange, Rotatable



- Feature a rotatable flange
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Bake out range is up to 450°C
- Materials:

Stainless Steel 304/1.4301

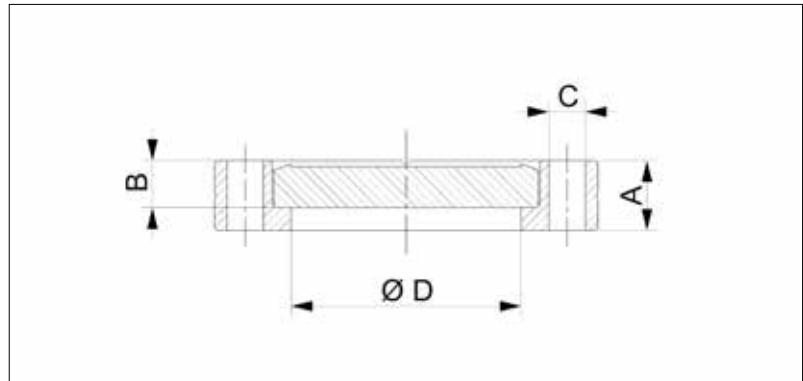
Stainless Steel 316L/1.4404

Stainless Steel 316LN ESR/1.4429

Stainless Steel 316LN ESR/1.4429 ESU features

- Ideal for constantly dismantled chamber ports
- Electro-slag Remelt (ESR) to improve grain homogeneity and remove gross macro segregation
- Lower magnetic permeability for applications sensitive to magnetic materials ($\mu \leq 1.005$ vs. 1.03 for 304L SS)
- Low desorption
- Bakeable under vacuum up to 1050 °C
- Pressure range: $1 \cdot 10^{-13}$ mbar to ambient pressure

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	7.5	5.8	4.4	19.2	VD.01.08.02.004.001
40	13	7.6	6.6	42	VD.01.08.02.004.003
63	17.5	12.6	8.4	72	VD.01.08.02.004.005
100	20	14.4	8.4	109	VD.01.08.02.004.007
160	21.5	15.8	8.4	161	VD.01.08.02.004.009
200	24.5	15.8	8.4	207	VD.01.08.02.004.010
250	24.5	16.6	8.4	260	VD.01.08.02.004.011

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

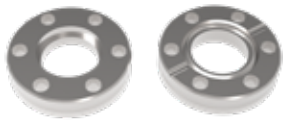
Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	7.5	5.8	4.4	19.2	VD.01.08.02.006.001
40	13	7.6	6.6	42	VD.01.08.02.006.003
63	17.5	12.6	8.4	72	VD.01.08.02.006.005
100	20	14.4	8.4	109	VD.01.08.02.006.007
160	21.5	15.8	8.4	161	VD.01.08.02.006.009
200	24.5	15.8	8.4	207	VD.01.08.02.006.010
250	24.5	16.6	8.4	260	VD.01.08.02.006.011

Stainless Steel 316LN ESR/1.4429 ESU

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	7.5	5.8	4.4	19.2	VD.01.08.02.007.001
40	13	7.6	6.6	42	VD.01.08.02.007.003
63	17.5	12.6	8.4	72	VD.01.08.02.007.005
100	20	14.4	8.4	109	VD.01.08.02.007.007
160	21.5	15.8	8.4	161	VD.01.08.02.007.009
200	24.5	15.8	8.4	207	VD.01.08.02.007.010
250	24.5	16.6	8.4	260	VD.01.08.02.007.011

CF Weld Flange



- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Bake out range is up to 450°C
- Materials:

Stainless Steel 304/1.4301

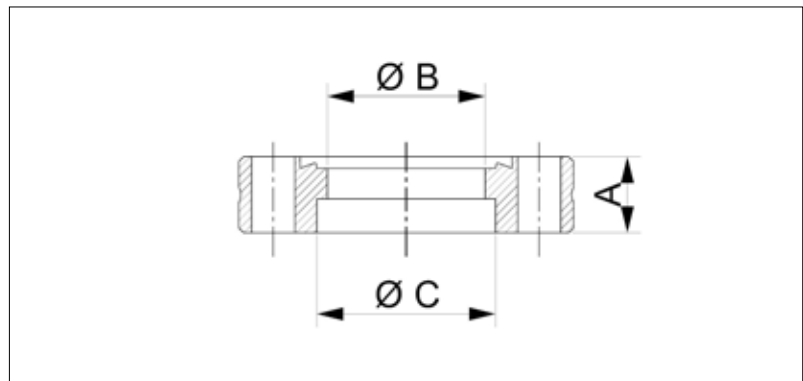
Stainless Steel 316L/1.4404

Stainless Steel 316LN ESR/1.4429

Stainless Steel 316LN ESR/1.4429 ESU features

- Ideal for constantly dismantled chamber ports
- Electro-slag Remelt (ESR) to improve grain homogeneity and remove gross macro segregation
- Lower magnetic permeability for applications sensitive to magnetic materials ($\mu \leq 1.005$ vs. 1.03 for 304L SS)
- Low desorption
- Bakeable under vacuum up to 1050 °C
- Pressure range: $1 \cdot 10^{-13}$ mbar to ambient pressure

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	Order No
16	18x1	7.5	16	18.15	VD.01.09.02.004.001
16	19,05x1,65	7.5	15.75	19.2	VD.01.09.02.004.002
25	25,4x1,65	12	22.1	25.6	VD.01.09.02.004.003
25	28x2	12	24	28.2	VD.01.09.02.004.004
40	38x1,5	13	35	38.2	VD.01.09.02.004.005
40	40x1,5	13	37	40.2	VD.01.09.02.004.006
40	42,4x2	13	38.4	42.6	VD.01.09.02.004.007
40	44,5x2	13	40.5	44.7	VD.01.09.02.004.008
50	50,8x1,65	16.5	47.5	51.1	VD.01.09.02.004.009
63	63,5x1,65	17.5	60.2	63.8	VD.01.09.02.004.010
63	70x2	17.5	66	70.3	VD.01.09.02.004.011
75	76,1x2	18	72.1	76.4	VD.01.09.02.004.012
100	101,6x2,1	20	97.4	101.9	VD.01.09.02.004.013
100	104x2	20	100	104.3	VD.01.09.02.004.014
100	108x2	20	104	108.3	VD.01.09.02.004.015

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	Order No
125	127x1,65	21.5	123.7	127.3	VD.01.09.02.004.016
160	152,4x2	21.5	147.6	152.7	VD.01.09.02.004.017
160	154x2	21.5	150	154.3	VD.01.09.02.004.018
160	159x2	21.5	155	159.3	VD.01.09.02.004.019
200	203,2x2,4	24.5	198.4	203.5	VD.01.09.02.004.020
200	204x2	24.5	200	204.3	VD.01.09.02.004.021
200	205x2,5	24.5	200	205.3	VD.01.09.02.004.022
250	254x2	24.5	250	254.3	VD.01.09.02.004.023
250	256x3	24.5	250	256.3	VD.01.09.02.004.024
300	306x3	28.5	300	306.3	VD.01.09.02.004.025
350	356x3	28.5	350	356.3	VD.01.09.02.004.026

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

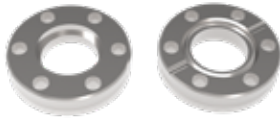
Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	Order No
16	18x1	7.5	16	18.15	VD.01.09.02.006.001
16	19,05x1,65	7.5	15.75	19.2	VD.01.09.02.006.002
25	25,4x1,65	12	22.1	25.6	VD.01.09.02.006.003
25	28x2	12	24	28.2	VD.01.09.02.006.004
40	38x1,5	13	35	38.2	VD.01.09.02.006.005
40	40x1,5	13	37	40.2	VD.01.09.02.006.006
40	42,4x2	13	38.4	42.6	VD.01.09.02.006.007
40	44,5x2	13	40.5	44.7	VD.01.09.02.006.008
50	50,8x1,65	16.5	47.5	51.1	VD.01.09.02.006.009
63	63,5x1,65	17.5	60.2	63.8	VD.01.09.02.006.010
63	70x2	17.5	66	70.3	VD.01.09.02.006.011
75	76,1x2	18	72.1	76.4	VD.01.09.02.006.012
100	101,6x2,1	20	97.4	101.9	VD.01.09.02.006.013
100	104x2	20	100	104.3	VD.01.09.02.006.014
100	108x2	20	104	108.3	VD.01.09.02.006.015
125	127x1,65	21.5	123.7	127.3	VD.01.09.02.006.016
160	152,4x2	21.5	147.6	152.7	VD.01.09.02.006.017
160	154x2	21.5	150	154.3	VD.01.09.02.006.018
160	159x2	21.5	155	159.3	VD.01.09.02.006.019
200	203,2x2,4	24.5	198.4	203.5	VD.01.09.02.006.020
200	204x2	24.5	200	204.3	VD.01.09.02.006.021
200	205x2,5	24.5	200	205.3	VD.01.09.02.006.022
250	254x2	24.5	250	254.3	VD.01.09.02.006.023
250	256x3	24.5	250	256.3	VD.01.09.02.006.024
300	306x3	28.5	300	306.3	VD.01.09.02.006.025
350	356x3	28.5	350	356.3	VD.01.09.02.006.026

Stainless Steel 316LN ESR/1.4 429 ESU

- Temperature range: -196 to 350 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	Order No
16	18x1	7.5	16	18.15	VD.01.09.02.007.001
16	19,05x1,65	7.5	15.75	19.2	VD.01.09.02.007.002
25	25,4x1,65	12	22.1	25.6	VD.01.09.02.007.003
25	28x2	12	24	28.2	VD.01.09.02.007.004
40	38x1,5	13	35	38.2	VD.01.09.02.007.005
40	40x1,5	13	37	40.2	VD.01.09.02.007.006
40	42,4x2	13	38.4	42.6	VD.01.09.02.007.007
40	44,5x2	13	40.5	44.7	VD.01.09.02.007.008
50	50,8x1,65	16.5	47.5	51.1	VD.01.09.02.007.009
63	63,5x1,65	17.5	60.2	63.8	VD.01.09.02.007.010
63	70x2	17.5	66	70.3	VD.01.09.02.007.011
75	76,1x2	18	72.1	76.4	VD.01.09.02.007.012
100	101,6x2,1	20	97.4	101.9	VD.01.09.02.007.013
100	104x2	20	100	104.3	VD.01.09.02.007.014
100	108x2	20	104	108.3	VD.01.09.02.007.015
125	127x1,65	21.5	123.7	127.3	VD.01.09.02.007.016
160	152,4x2	21.5	147.6	152.7	VD.01.09.02.007.017
160	154x2	21.5	150	154.3	VD.01.09.02.007.018
160	159x2	21.5	155	159.3	VD.01.09.02.007.019
200	203,2x2,4	24.5	198.4	203.5	VD.01.09.02.007.020
200	204x2	24.5	200	204.3	VD.01.09.02.007.021
200	205x2,5	24.5	200	205.3	VD.01.09.02.007.022
250	254x2	24.5	250	254.3	VD.01.09.02.007.023
250	256x3	24.5	250	256.3	VD.01.09.02.007.024
300	306x3	28.5	300	306.3	VD.01.09.02.007.025
350	356x3	28.5	350	356.3	VD.01.09.02.007.026

CF Weld Flange with Thread



- Pressure range: 1 · 10⁻¹² mbar to ambient pressure
- Custom lengths available upon request
- Bake out range is up to 450°C
- Materials:

Stainless Steel 304/1.4301

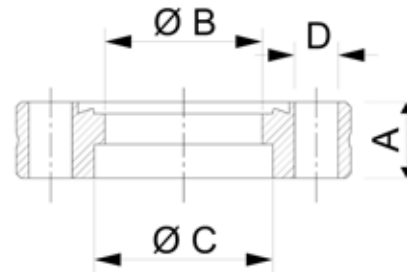
Stainless Steel 316L/1.4404

Stainless Steel 316LN ESR/1.4429

Stainless Steel 316LN ESR/1.4429 ESU features

- Ideal for constantly dismantled chamber ports
- Electro-slag Remelt (ESR) to improve grain homogeneity and remove gross macro segregation
- Lower magnetic permeability for applications sensitive to magnetic materials ($\mu \leq 1.005$ vs. 1.03 for 304L SS)
- Pressure range: 1 · 10⁻¹³ mbar to ambient pressure

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	7.5	16	18.15	M4	VD.01.10.02.004.001
25	28x2	12	24	28.2	M6	VD.01.10.02.004.004
40	38x1,5	13	35	38.2	M6	VD.01.10.02.004.005
40	40x1,5	13	37	40.2	M6	VD.01.10.02.004.006
40	42,4x2	13	38.4	42.6	M6	VD.01.10.02.004.007
40	44,5x2	13	40.5	44.7	M6	VD.01.10.02.004.008
63	70x2	17.5	66	70.3	M8	VD.01.10.02.004.011
100	104x2	20	100	104.3	M8	VD.01.10.02.004.014
100	108x2	20	104	108.3	M8	VD.01.10.02.004.015
160	154x2	21.5	150	154.3	M8	VD.01.10.02.004.018
160	159x2	21.5	155	159.3	M8	VD.01.10.02.004.019
200	204x2	24.5	200	204.3	M8	VD.01.10.02.004.021
200	205x2,5	24.5	200	205.3	M8	VD.01.10.02.004.022
250	254x2	24.5	250	254.3	M8	VD.01.10.02.004.023
250	256x3	24.5	250	256.3	M8	VD.01.10.02.004.024
300	306x3	28.5	300	306.3	M10	VD.01.10.02.004.025

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	7.5	16	18.15	M4	VD.01.10.02.006.001
25	28x2	12	24	28.2	M6	VD.01.10.02.006.004
40	38x1,5	13	35	38.2	M6	VD.01.10.02.006.005
40	40x1,5	13	37	40.2	M6	VD.01.10.02.006.006
40	42,4x2	13	38.4	42.6	M6	VD.01.10.02.006.007
40	44,5x2	13	40.5	44.7	M6	VD.01.10.02.006.008
63	70x2	17.5	66	70.3	M8	VD.01.10.02.006.011
100	104x2	20	100	104.3	M8	VD.01.10.02.006.014
100	108x2	20	104	108.3	M8	VD.01.10.02.006.015
160	154x2	21.5	150	154.3	M8	VD.01.10.02.006.018
160	159x2	21.5	155	159.3	M8	VD.01.10.02.006.019
200	204x2	24.5	200	204.3	M8	VD.01.10.02.006.021
200	205x2,5	24.5	200	205.3	M8	VD.01.10.02.006.022
250	254x2	24.5	250	254.3	M8	VD.01.10.02.006.023
250	256x3	24.5	250	256.3	M8	VD.01.10.02.006.024
300	306x3	28.5	300	306.3	M10	VD.01.10.02.006.025

Stainless Steel 316LN ESR/1.4429 ESU

- Temperature range: -196 to 350 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	7.5	16	18.15	M4	VD.01.10.02.007.001
25	28x2	12	24	28.2	M6	VD.01.10.02.007.004
40	38x1,5	13	35	38.2	M6	VD.01.10.02.007.005
40	40x1,5	13	37	40.2	M6	VD.01.10.02.007.006
40	42,4x2	13	38.4	42.6	M6	VD.01.10.02.007.007
40	44,5x2	13	40.5	44.7	M6	VD.01.10.02.007.008
63	70x2	17.5	66	70.3	M8	VD.01.10.02.007.011
100	104x2	20	100	104.3	M8	VD.01.10.02.007.014
100	108x2	20	104	108.3	M8	VD.01.10.02.007.015
160	154x2	21.5	150	154.3	M8	VD.01.10.02.007.018
160	159x2	21.5	155	159.3	M8	VD.01.10.02.007.019
200	204x2	24.5	200	204.3	M8	VD.01.10.02.007.021
200	205x2,5	24.5	200	205.3	M8	VD.01.10.02.007.022
250	254x2	24.5	250	254.3	M8	VD.01.10.02.007.023
250	256x3	24.5	250	256.3	M8	VD.01.10.02.007.024
300	306x3	28.5	300	306.3	M10	VD.01.10.02.007.025

CF Weld Flange, Rotatable



- Feature a rotatable flange
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Bake out range is up to 450°C
- Materials:

Stainless Steel 304/1.4301

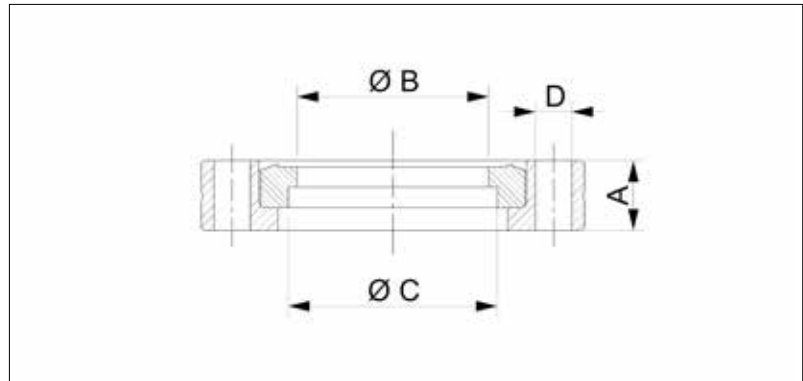
Stainless Steel 316L/1.4404

Stainless Steel 316LN ESR/1.4429

Stainless Steel 316LN ESR/1.4429 ESU features

- Ideal for constantly dismantled chamber ports
- Electro-slag Remelt (ESR) to improve grain homogeneity and remove gross macro segregation
- Lower magnetic permeability for applications sensitive to magnetic materials ($\mu \leq 1.005$ vs. 1.03 for 304L SS)
- Low desorption
- Bakeable under vacuum up to 1050 °C
- Pressure range: $1 \cdot 10^{-13}$ mbar to ambient pressure

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	7.5	16	18.15	4.4	VD.01.11.02.004.001
16	19,05x1,65	7.5	15.75	19.2	4.4	VD.01.11.02.004.002
25	25,4x1,65	12	22.1	25.6	6.6	VD.01.11.02.004.003
25	28x2	12	24	28.2	6.6	VD.01.11.02.004.004
40	38x1,5	13	35	38.2	6.6	VD.01.11.02.004.005
40	40x1,5	13	37	40.2	6.6	VD.01.11.02.004.006
40	42,4x2	13	38.4	42.6	6.6	VD.01.11.02.004.007
40	44,5x2	13	40.5	44.7	6.6	VD.01.11.02.004.008
50	50,8x1,65	16.5	47.5	51.1	8.4	VD.01.11.02.004.009
63	63,5x1,65	17.5	60.2	63.8	8.4	VD.01.11.02.004.010
63	70x2	17.5	66	70.3	8.4	VD.01.11.02.004.011

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
75	76,1x2	18	72.1	76.4	8.4	VD.01.11.02.004.012
100	101,6x2,1	20	97.4	101.9	8.4	VD.01.11.02.004.013
100	104x2	20	100	104.3	8.4	VD.01.11.02.004.014
100	108x2	20	104	108.3	8.4	VD.01.11.02.004.015
125	127x1,65	21.5	123.7	127.3	8.4	VD.01.11.02.004.016
160	152,4x2	21.5	147.6	152.7	8.4	VD.01.11.02.004.017
160	154x2	21.5	150	154.3	8.4	VD.01.11.02.004.018
160	159x2	21.5	155	159.3	8.4	VD.01.11.02.004.019
200	203,2x2,4	24.5	198.4	203.5	8.4	VD.01.11.02.004.020
200	204x2	24.5	200	204.3	8.4	VD.01.11.02.004.021
200	205x2,5	24.5	200	205.3	8.4	VD.01.11.02.004.022
250	254x2	24.5	250	254.3	8.4	VD.01.11.02.004.023
250	256x3	24.5	250	256.3	8.4	VD.01.11.02.004.024
300	306x3	28.5	300	306.3	10.5	VD.01.11.02.004.025
350	356x3	28.5	350	356.3	10.5	VD.01.11.02.004.026

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	7.5	16	18.15	4.4	VD.01.11.02.006.001
16	19,05x1,65	7.5	15.75	19.2	4.4	VD.01.11.02.006.002
25	25,4x1,65	12	22.1	25.6	6.6	VD.01.11.02.006.003
25	28x2	12	24	28.2	6.6	VD.01.11.02.006.004
40	38x1,5	13	35	38.2	6.6	VD.01.11.02.006.005
40	40x1,5	13	37	40.2	6.6	VD.01.11.02.006.006
40	42,4x2	13	38.4	42.6	6.6	VD.01.11.02.006.007
40	44,5x2	13	40.5	44.7	6.6	VD.01.11.02.006.008
50	50,8x1,65	16.5	47.5	51.1	8.4	VD.01.11.02.006.009
63	63,5x1,65	17.5	60.2	63.8	8.4	VD.01.11.02.006.010
63	70x2	17.5	66	70.3	8.4	VD.01.11.02.006.011
75	76,1x2	18	72.1	76.4	8.4	VD.01.11.02.006.012
100	101,6x2,1	20	97.4	101.9	8.4	VD.01.11.02.006.013
100	104x2	20	100	104.3	8.4	VD.01.11.02.006.014
100	108x2	20	104	108.3	8.4	VD.01.11.02.006.015
125	127x1,65	21.5	123.7	127.3	8.4	VD.01.11.02.006.016
160	152,4x2	21.5	147.6	152.7	8.4	VD.01.11.02.006.017
160	154x2	21.5	150	154.3	8.4	VD.01.11.02.006.018
160	159x2	24.5	155	159.3	8.4	VD.01.11.02.006.019
200	203,2x2,4	24.5	198.4	203.5	8.4	VD.01.11.02.006.020
200	204x2	24.5	200	204.3	8.4	VD.01.11.02.006.021
200	205x2,5	24.5	200	205.3	8.4	VD.01.11.02.006.022
250	254x2	24.5	250	254.3	8.4	VD.01.11.02.006.023
250	256x3	24.5	250	256.3	8.4	VD.01.11.02.006.024
300	306x3	28.5	300	306.3	10.5	VD.01.11.02.006.025
350	356x3	28.5	350	356.3	10.5	VD.01.11.02.006.026

Stainless Steel 316LN ESR/1.4 429 ESU

• Temperature range: -196 to 350 °C

Size (DN)	Tube Dimension (mm)	A (mm)	B (mm)	C (mm)	D	Order No
16	18x1	7.5	16	18.15	4.4	VD.01.11.02.007.001
16	19,05x1,65	7.5	15.75	19.2	4.4	VD.01.11.02.007.002
25	25,4x1,65	12	22.1	25.6	6.6	VD.01.11.02.007.003
25	28x2	12	24	28.2	6.6	VD.01.11.02.007.004
40	38x1,5	13	35	38.2	6.6	VD.01.11.02.007.005
40	40x1,5	13	37	40.2	6.6	VD.01.11.02.007.006
40	42,4x2	13	38.4	42.6	6.6	VD.01.11.02.007.007
40	44,5x2	13	40.5	44.7	6.6	VD.01.11.02.007.008
50	50,8x1,65	16.5	47.5	51.1	8.4	VD.01.11.02.007.009
63	63,5x1,65	17.5	60.2	63.8	8.4	VD.01.11.02.007.010
63	70x2	17.5	66	70.3	8.4	VD.01.11.02.007.011
75	76,1x2	18	72.1	76.4	8.4	VD.01.11.02.007.012
100	101,6x2,1	20	97.4	101.9	8.4	VD.01.11.02.007.013
100	104x2	20	100	104.3	8.4	VD.01.11.02.007.014
100	108x2	20	104	108.3	8.4	VD.01.11.02.007.015
125	127x1,65	21.5	123.7	127.3	8.4	VD.01.11.02.007.016
160	152,4x2	21.5	147.6	152.7	8.4	VD.01.11.02.007.017
160	154x2	21.5	150	154.3	8.4	VD.01.11.02.007.018
160	159x2	24.5	155	159.3	8.4	VD.01.11.02.007.019
200	203,2x2,4	24.5	198.4	203.5	8.4	VD.01.11.02.007.020
200	204x2	24.5	200	204.3	8.4	VD.01.11.02.007.021
200	205x2,5	24.5	200	205.3	8.4	VD.01.11.02.007.022
250	254x2	24.5	250	254.3	8.4	VD.01.11.02.007.023
250	256x3	24.5	250	256.3	8.4	VD.01.11.02.007.024
300	306x3	28.5	300	306.3	10.5	VD.01.11.02.007.025
350	356x3	28.5	350	356.3	10.5	VD.01.11.02.007.026

CF Spacer Flange

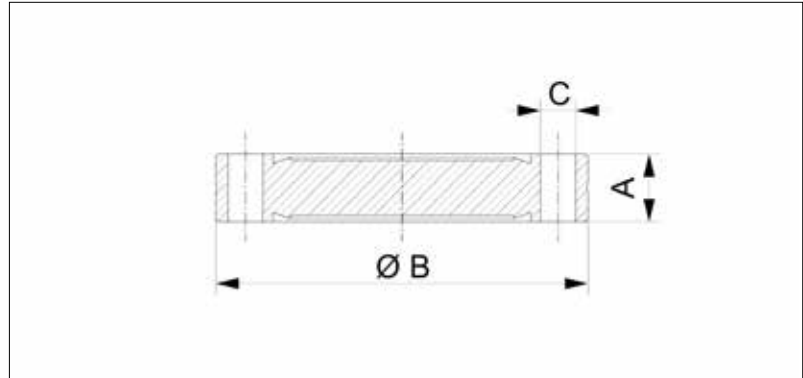


- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Bake out range is up to 450°C
- Materials:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
16	7.5	34	4.4	VD.01.12.02.004.001
40	13	69.9	6.6	VD.01.12.02.004.003
63	17.5	113.5	8.4	VD.01.12.02.004.005
100	20	152	8.4	VD.01.12.02.004.007
160	21.5	202.4	8.4	VD.01.12.02.004.009

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
16	7.5	34	4.4	VD.01.12.02.006.001
40	13	69.9	6.6	VD.01.12.02.006.003
63	17.5	113.5	8.4	VD.01.12.02.006.005
100	20	152	8.4	VD.01.12.02.006.007
160	21.5	202.4	8.4	VD.01.12.02.006.009

CF Spacer Flange with Bore Holes

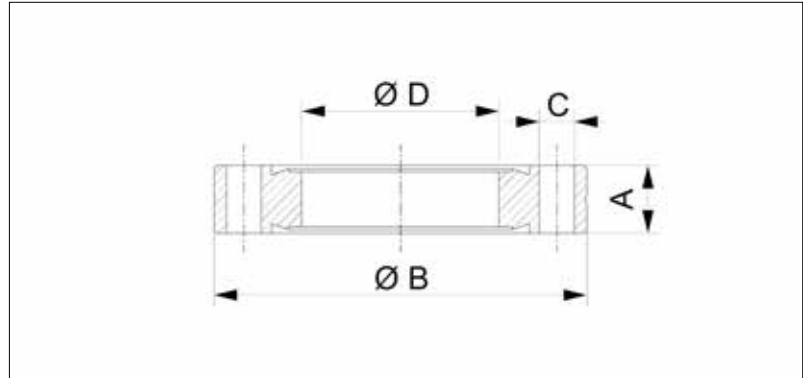


- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Bake out range is up to 500°C
- Materials:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	7.5	34	4.4	16	VD.01.13.02.004.001
40	13	69.9	6.6	37	VD.01.13.02.004.003
63	17.5	113.5	8.4	66	VD.01.13.02.004.005
100	20	152	8.4	102	VD.01.13.02.004.007
160	21.5	202.4	8.4	155	VD.01.13.02.004.009

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	A (mm)	B (mm)	C (mm)	D (mm)	Order No
16	7.5	34	4.4	16	VD.01.13.02.006.001
40	13	69.9	6.6	37	VD.01.13.02.006.003
63	17.5	113.5	8.4	66	VD.01.13.02.006.005
100	20	152	8.4	102	VD.01.13.02.006.007
160	21.5	202.4	8.4	155	VD.01.13.02.006.009

CF Reducer Flange



- The reduced-size flange has blind tapped holes. Please ensure the screws used for assembly are in the right length.
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Bake out range is up to 450°C
- Materials:

Stainless Steel 304/1.4301

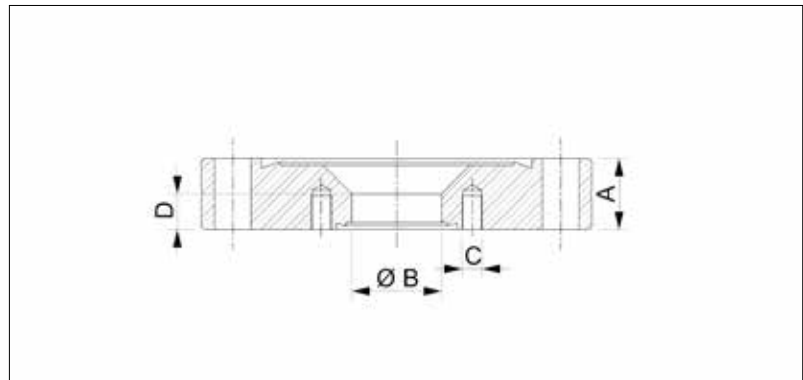
Stainless Steel 316L/1.4404

Stainless Steel 316LN ESR/1.4429

Stainless Steel 316LN ESR/1.4429 ESU features

- Ideal for constantly dismantled chamber ports
- Electro-slag Remelt (ESR) to improve grain homogeneity and remove gross macro segregation
- Lower magnetic permeability for applications sensitive to magnetic materials ($\mu \leq 1.005$ vs. 1.03 for 304L SS)
- Low desorption
- Bakeable under vacuum up to 1050 °C
- Pressure range: $1 \cdot 10^{-13}$ mbar to ambient pressure

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C	D (mm)	Order No
40	16	13	16	M4	6	VD.01.14.02.004.001
63	16	17.5	16	M4	6	VD.01.14.02.004.002
63	40	17.5	37	M6	9	VD.01.14.02.004.003
100	40	20	37	M6	9	VD.01.14.02.004.004
100	63	20	66	M8	13	VD.01.14.02.004.005
160	40	21.5	37	M6	9	VD.01.14.02.004.006
160	63	21.5	66	M8	13	VD.01.14.02.004.007
160	100	21.5	100	M8	13	VD.01.14.02.004.008
200	40	24.5	37	M6	9	VD.01.14.02.004.009
200	63	24.5	66	M8	13	VD.01.14.02.004.010
200	100	24.5	100	M8	13	VD.01.14.02.004.011
200	160	24.5	155	M8	13	VD.01.14.02.004.012
250	40	24.5	37	M6	9	VD.01.14.02.004.013
250	63	24.5	66	M8	13	VD.01.14.02.004.014
250	100	24.5	100	M8	13	VD.01.14.02.004.015
250	160	24.5	155	M8	13	VD.01.14.02.004.016
250	200	24.5	200	M8	13	VD.01.14.02.004.017

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C

Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C	D (mm)	Order No
40	16	13	16	M4	6	VD.01.14.02.006.001
63	16	17.5	16	M4	6	VD.01.14.02.006.002
63	40	17.5	37	M6	9	VD.01.14.02.006.003
100	40	20	37	M6	9	VD.01.14.02.006.004
100	63	20	66	M8	13	VD.01.14.02.006.005
160	40	21.5	37	M6	9	VD.01.14.02.006.006
160	63	21.5	66	M8	13	VD.01.14.02.006.007
160	100	21.5	100	M8	13	VD.01.14.02.006.008
200	40	24.5	37	M6	9	VD.01.14.02.006.009
200	63	24.5	66	M8	13	VD.01.14.02.006.010
200	100	24.5	100	M8	13	VD.01.14.02.006.011
200	160	24.5	155	M8	13	VD.01.14.02.006.012
250	40	24.5	37	M6	9	VD.01.14.02.006.013
250	63	24.5	66	M8	13	VD.01.14.02.006.014
250	100	24.5	100	M8	13	VD.01.14.02.006.015
250	160	24.5	155	M8	13	VD.01.14.02.006.016
250	200	24.5	200	M8	13	VD.01.14.02.006.017

Stainless Steel 316LN ESR/1.4429 ESU

- Temperature range: -196 to 350 °C

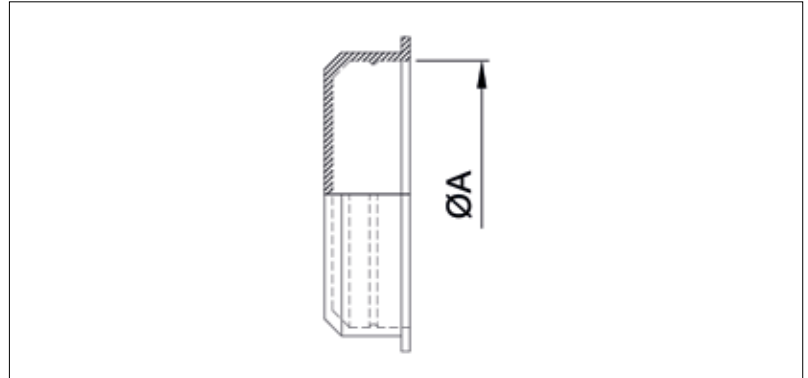
Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	C	D (mm)	Order No
40	16	13	16	M4	6	VD.01.14.02.007.001
63	16	17.5	16	M4	6	VD.01.14.02.007.002
63	40	17.5	37	M6	9	VD.01.14.02.007.003
100	40	20	37	M6	9	VD.01.14.02.007.004
100	63	20	66	M8	13	VD.01.14.02.007.005
160	40	21.5	37	M6	9	VD.01.14.02.007.007
160	63	21.5	66	M8	13	VD.01.14.02.007.007
160	100	21.5	100	M8	13	VD.01.14.02.007.008
200	40	24.5	37	M6	9	VD.01.14.02.007.009
200	63	24.5	66	M8	13	VD.01.14.02.007.010
200	100	24.5	100	M8	13	VD.01.14.02.007.011
200	160	24.5	155	M8	13	VD.01.14.02.007.012
250	40	24.5	37	M6	9	VD.01.14.02.007.013
250	63	24.5	66	M8	13	VD.01.14.02.007.014
250	100	24.5	100	M8	13	VD.01.14.02.007.015
250	160	24.5	155	M8	13	VD.01.14.02.007.016
250	200	24.5	200	M8	13	VD.01.14.02.007.017

CF Flange Caps



Made from plastic
Polyethylene (PE)

Dimensions



Polyethylene (PE)

Size (DN)	A (mm)	Package (Qty.)	Order No
10	25	5	VD.01.15.13.007.001
16	33,8	5	VD.01.15.13.007.002
25	54	5	VD.01.15.13.007.003
40	69,9	5	VD.01.15.13.007.004
50	85,7	5	VD.01.15.13.007.005
63	114,3	5	VD.01.15.13.007.006
75	117,4	5	VD.01.15.13.007.007
100	152,4	5	VD.01.15.13.007.008
125	171,5	5	VD.01.15.13.007.009
160	203,2	5	VD.01.15.13.007.010
200	254	5	VD.01.15.13.007.011
250	304	5	VD.01.15.13.007.012

CF Seals

This part consists of CF Seals.

Check out this section for products NW16-NW350

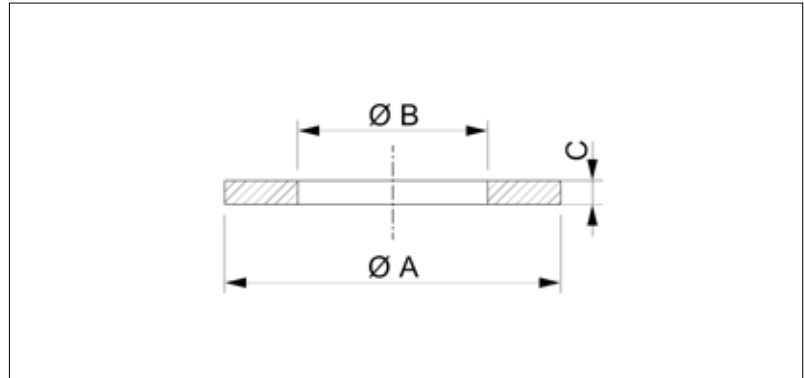


CF Elastomer Gasket



- With a flat cross-section
- Convenient and reusable in non-critical, non-UHV applications
- Especially in applications requiring recurrent reassembly
- Temperature range: -15 to 150 °C
- Pressure range: $1 \cdot 10^{-8}$ hPa to ambient pressure

Dimensions



FKM

- Temperature range: -15 to 200 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
16	21.4	16	3	VD.02.01.13.001.001
40	48.2	37	3	VD.02.01.13.001.002
63	82.4	63	3	VD.02.01.13.001.003
100	120.5	102	3	VD.02.01.13.001.004
160	171.3	152	3	VD.02.01.13.001.005
200	222.1	203	3	VD.02.01.13.001.006
250	272.9	254	3	VD.02.01.13.001.007

CF Metal Gasket

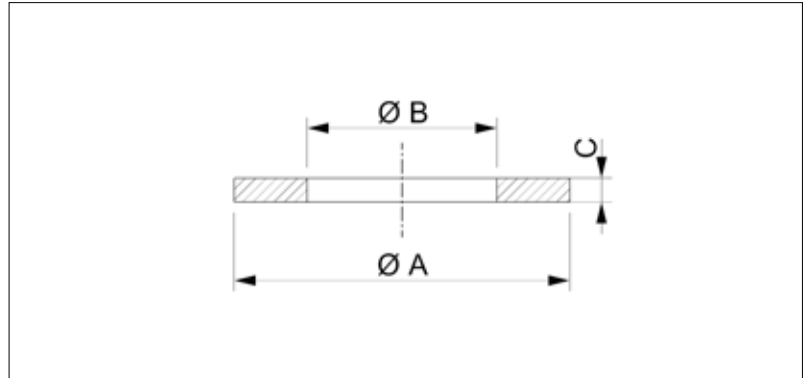


- Especially well-suited for viewports
- For single use only
- Pressure range: $1 \cdot 10^{-13}$ mbar to ambient pressure
- Materials

OFHC Copper (Oxygen-free copper Alloy 101/C10100)

Silver-Plated OFHC Copper

Dimensions



OFHC Copper (Oxygen-free)

- Temperature range: -196 to 200 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
16	21.3	16	2	VD.02.02.04.001.001
25	32.8	25.5	2	VD.02.02.04.001.002
40	48.2	36.6	2	VD.02.02.04.001.003
50	61.6	50.8	2	VD.02.02.04.001.004
63	82.4	63.4	2	VD.02.02.04.001.005
75	91.4	76.3	2	VD.02.02.04.001.006
100	120.5	101.6	2	VD.02.02.04.001.007
125	141.4	127.1	2	VD.02.02.04.001.008
160	171.3	152.4	2	VD.02.02.04.001.009
200	222.1	203.3	2	VD.02.02.04.001.010
250	272.9	254	2	VD.02.02.04.001.011
300	313.2	300	2	VD.02.02.04.001.012
350	376.6	356.5	2	VD.02.02.04.001.013

Silver-Plated OFHC Copper

- Temperature range: -196 to 450 °C

Size (DN)	A (mm)	B (mm)	C (mm)	Order No
16	21.3	16	2	VD.02.02.04.001.014
25	32.8	25.5	2	VD.02.02.04.001.015
40	48.2	36.6	2	VD.02.02.04.001.016
63	82.4	63.4	2	VD.02.02.04.001.018
100	120.5	101.6	2	VD.02.02.04.001.020
160	171.3	152.4	2	VD.02.02.04.001.022
200	222.1	203.3	2	VD.02.02.04.001.023
250	272.9	254	2	VD.02.02.04.001.024

CF Fittings

This part consists of CF Fittings.
Check out this section for products NW16-NW350

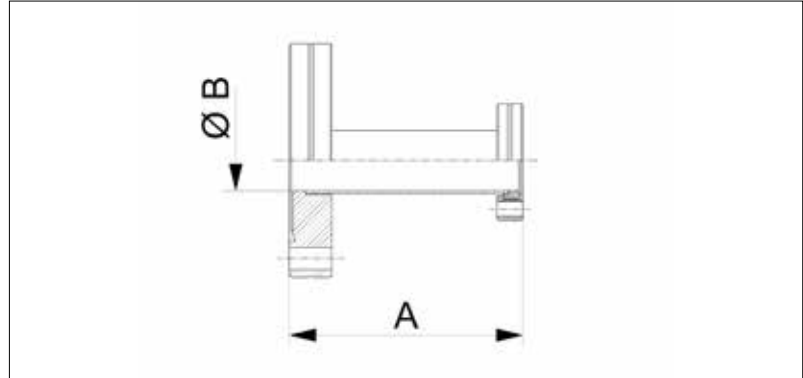


CF Straight Reducer



- Feature a rotatable flange (reduced flange)
- Other nominal diamters and dimensions on request
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Flange Size (DN)	Reducer Flange Size (DN)	Tube Dimensions (mm)	A (mm)	B (mm)	Order No
40	16	18x1	70	16	VD.04.01.02.004.001
63	16	18x1	70	16	VD.04.01.02.004.002
63	40	40x1,5	70	37	VD.04.01.02.004.003
100	40	40x1,5	70	37	VD.04.01.02.004.004
100	63	70x2	70	66	VD.04.01.02.004.005
160	40	40x1,5	70	37	VD.04.01.02.004.006
160	63	70x2	127	66	VD.04.01.02.004.007
160	100	108x2	127	104	VD.04.01.02.004.008

Stainless Steel 316L/1.4404

- Temperature range: -196 to 300 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

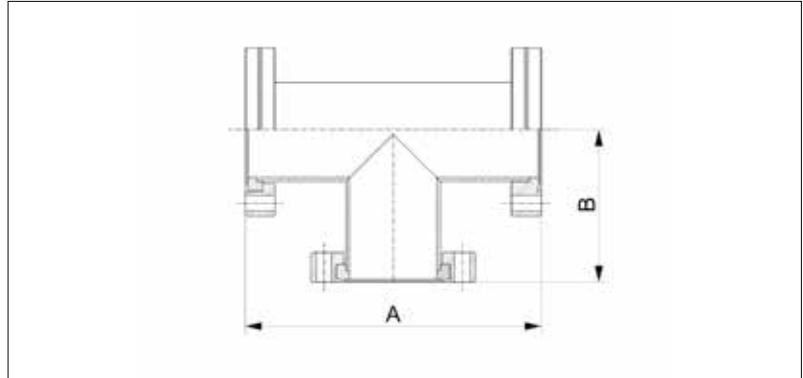
Flange Size (DN)	Reducer Flange Size (DN)	Tube Dimensions (mm)	A (mm)	B (mm)	Order No
40	16	18x1	70	16	VD.04.01.02.006.001
63	16	18x1	70	16	VD.04.01.02.006.002
63	40	40x1,5	70	37	VD.04.01.02.006.003
100	40	40x1,5	70	37	VD.04.01.02.006.004
100	63	70x2	70	66	VD.04.01.02.006.005
160	40	40x1,5	70	37	VD.04.01.02.006.006
160	63	70x2	127	66	VD.04.01.02.006.007
160	100	108x2	127	104	VD.04.01.02.006.008

CF Tee



- One fixed and two rotatable (one on each axis) flanges
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Flange Size (DN)	A (mm)	B (mm)	Order No
16	76	38	VD.04.02.02.004.001
40	126	63	VD.04.02.02.004.002
63	210	105	VD.04.02.02.004.003
100	270	135	VD.04.02.02.004.004
160	334	167	VD.04.02.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

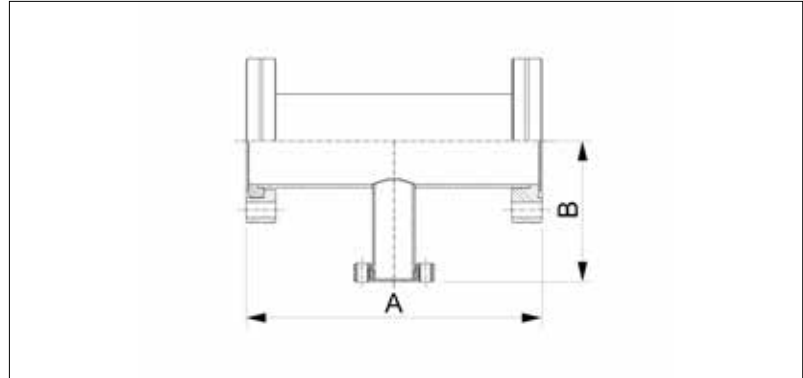
Flange Size (DN)	A (mm)	B (mm)	Order No
16	76	38	VD.04.02.02.006.001
40	126	63	VD.04.02.02.006.002
63	210	105	VD.04.02.02.006.003
100	270	135	VD.04.02.02.006.004
160	334	167	VD.04.02.02.006.005

CF Reducer Tee



- One fixed and two rotatable (one on each axis) flanges
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	Order No
40	16	126	60	VD.04.03.02.004.001
63	40	210	77	VD.04.03.02.004.002
100	40	270	95	VD.04.03.02.004.003
100	63	270	95	VD.04.03.02.004.004
160	40	334	120	VD.04.03.02.004.005
160	63	334	120	VD.04.03.02.004.006
160	100	334	120	VD.04.03.02.004.007

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

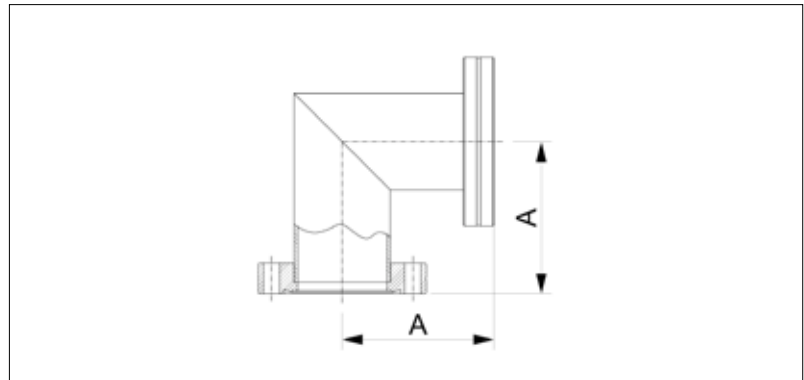
Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	Order No
40	16	126	60	VD.04.03.02.006.001
63	40	210	77	VD.04.03.02.006.002
100	40	270	95	VD.04.03.02.006.003
100	63	270	95	VD.04.03.02.006.004
160	40	334	120	VD.04.03.02.006.005
160	63	334	120	VD.04.03.02.006.006
160	100	334	120	VD.04.03.02.006.007

CF Elbow, 90



- One end fixed and one end rotatable flanges
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Flange Size (DN)	A (mm)	Order No
16	38	VD.04.04.02.004.001
40	63	VD.04.04.02.004.002
63	105	VD.04.04.02.004.003
100	135	VD.04.04.02.004.004
160	167	VD.04.04.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

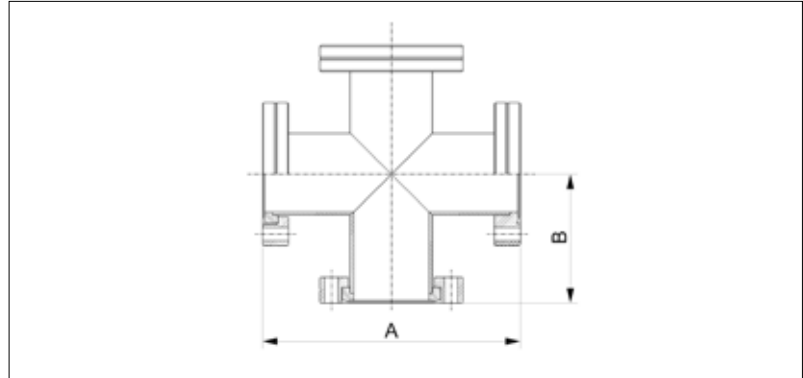
Flange Size (DN)	A (mm)	Order No
16	38	VD.04.04.02.006.001
40	63	VD.04.04.02.006.002
63	105	VD.04.04.02.006.003
100	135	VD.04.04.02.006.004
160	167	VD.04.04.02.006.005

CF 4 Way Cross



- One rotatable flange per axis
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Flange Size (DN)	A (mm)	B (mm)	Order No
16	76	38	VD.04.05.02.004.001
40	126	63	VD.04.05.02.004.002
63	210	105	VD.04.05.02.004.003
100	270	135	VD.04.05.02.004.004
160	334	167	VD.04.05.02.004.005

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

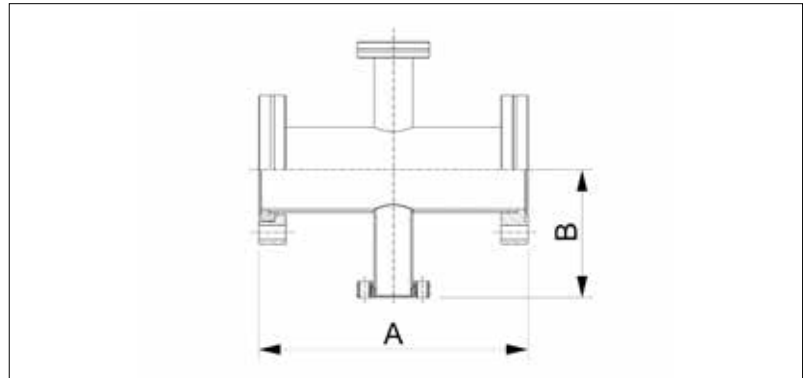
Flange Size (DN)	A (mm)	B (mm)	Order No
16	76	38	VD.04.05.02.006.001
40	126	63	VD.04.05.02.006.002
63	210	105	VD.04.05.02.006.003
100	270	135	VD.04.05.02.006.004
160	334	167	VD.04.05.02.006.005

CF 4 Way Reducer Cross



- One rotatable flange per axis
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	Order No
40	16	126	60	VD.04.06.02.004.001
63	40	210	77	VD.04.06.02.004.002
100	40	270	95	VD.04.06.02.004.003
100	63	270	95	VD.04.06.02.004.004
160	40	334	120	VD.04.06.02.004.005
160	63	334	120	VD.04.06.02.004.006
160	100	334	120	VD.04.06.02.004.007

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

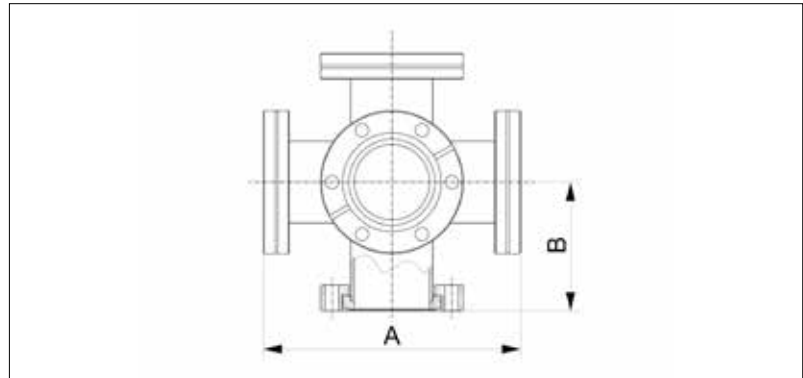
Flange Size (DN)	Reducer Flange Size (DN)	A (mm)	B (mm)	Order No
40	16	126	60	VD.04.06.02.006.001
63	40	210	77	VD.04.06.02.006.002
100	40	270	95	VD.04.06.02.006.003
100	63	270	95	VD.04.06.02.006.004
160	40	334	120	VD.04.06.02.006.005
160	63	334	120	VD.04.06.02.006.006
160	100	334	120	VD.04.06.02.006.007

CF 5 Way Cross



- One rotatable flange per axis
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Flange Size (DN)	A (mm)	B (mm)	Order No
16	76	38	VD.04.07.02.004.001
40	126	63	VD.04.07.02.004.002
63	210	105	VD.04.07.02.004.003
100	270	135	VD.04.07.02.004.004

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

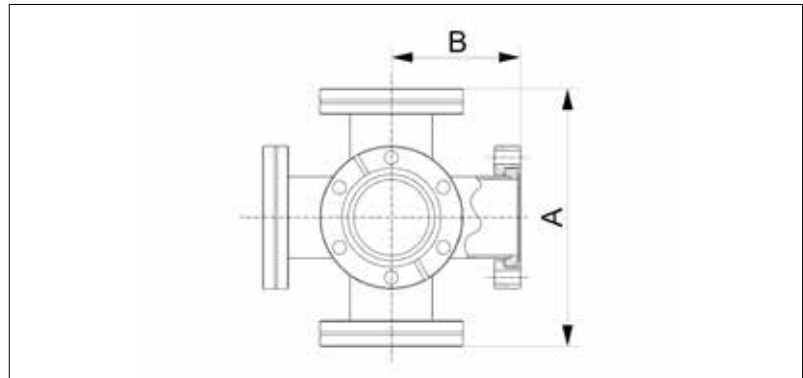
Flange Size (DN)	A (mm)	B (mm)	Order No
16	76	38	VD.04.07.02.006.001
40	126	63	VD.04.07.02.006.002
63	210	105	VD.04.07.02.006.003
100	270	135	VD.04.07.02.006.004

CF 6 Way Cross



- One rotatable flange per axis
- Pressure range: $1 \cdot 10^{-12}$ mbar to ambient pressure
- Custom lengths available upon request
- Tube surface: Glass bead blasted (polished version on request)
- Tightness: $\leq 1 \cdot 10^{-10}$ mbar l/s
- Bake out range is up to 450°C

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C
- Flange material: SS304 / 1.4301
- Tube material: SS304 / 1.4301

Flange Size (DN)	A (mm)	B (mm)	Order No
16	76	38	VD.04.08.02.004.001
40	126	63	VD.04.08.02.004.002
63	210	105	VD.04.08.02.004.003
100	270	135	VD.04.08.02.004.004
160	334	167	VD.04.08.02.004.005
200	406	203	VD.04.08.02.004.006

Stainless Steel 316L/1.4404

- Temperature range: -196 to 350 °C
- Flange material: SS316L / 1.4404
- Tube material: SS316L / 1.4404

Flange Size (DN)	A (mm)	B (mm)	Order No
16	76	38	VD.04.08.02.006.001
40	126	63	VD.04.08.02.006.002
63	210	105	VD.04.08.02.006.003
100	270	135	VD.04.08.02.006.004
160	334	167	VD.04.08.02.006.005
200	406	203	VD.04.08.02.006.006

CF Hoses

This part consists of ISO CF Hose.
Check out this section for products NW16-NW350



CF Flexible Hose

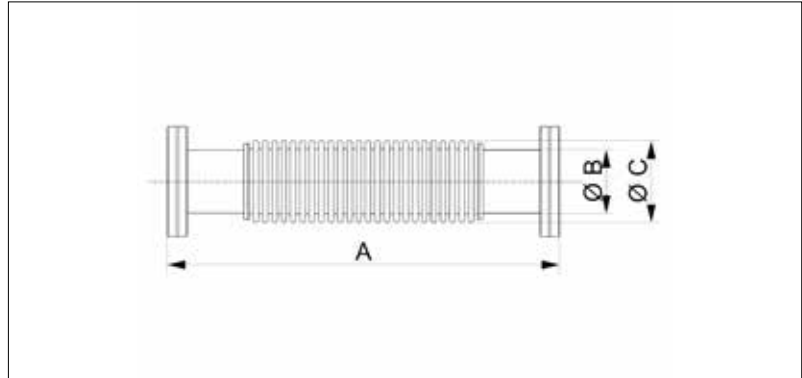


- Custom lengths on request
- One flange rotatable
- Pressure range: $1 \cdot 10^{-9}$ mbar to ambient pressure
- Materials:

Stainless Steel 304/1.4301

Stainless Steel 316L/1.4404

Dimensions



Stainless Steel 304/1.4301

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	Bend radius, unique movement (mm)	Bend radius, often unique movement (mm)	Order No
16	250	12	17	50	200	VD.06.01.02.004.001
16	500	12	17	50	200	VD.06.01.02.004.002
16	750	12	17	50	200	VD.06.01.02.004.003
16	1000	12	17	50	200	VD.06.01.02.004.004
40	250	37	52	130	250	VD.06.01.02.004.005
40	500	37	52	130	250	VD.06.01.02.004.006
40	750	37	52	130	250	VD.06.01.02.004.007
40	1000	37	52	130	250	VD.06.01.02.004.008
63	250	65	81	200	410	VD.06.01.02.004.009
63	500	65	81	200	410	VD.06.01.02.004.010
63	750	65	81	200	410	VD.06.01.02.004.011
63	1000	65	81	200	410	VD.06.01.02.004.012
100	250	100	119	230	560	VD.06.01.02.004.013
100	500	100	119	230	560	VD.06.01.02.004.014
100	750	100	119	230	560	VD.06.01.02.004.015
100	1000	100	119	230	560	VD.06.01.02.004.016

Stainless Steel 316L/1.4404

- Temperature range: -196 to 300 °C

Flange Size (DN)	A (mm)	B (mm)	C (mm)	Bend radius, unique movement (mm)	Bend radius, often unique movement (mm)	Order No
16	250	12	17	50	200	VD.06.01.02.006.001
16	500	12	17	50	200	VD.06.01.02.006.002
16	750	12	17	50	200	VD.06.01.02.006.003
16	1000	12	17	50	200	VD.06.01.02.006.004
40	250	37	52	130	250	VD.06.01.02.006.005
40	500	37	52	130	250	VD.06.01.02.006.006
40	750	37	52	130	250	VD.06.01.02.006.007
40	1000	37	52	130	250	VD.06.01.02.006.008
63	250	65	81	200	410	VD.06.01.02.006.009
63	500	65	81	200	410	VD.06.01.02.006.010
63	750	65	81	200	410	VD.06.01.02.006.011
63	1000	65	81	200	410	VD.06.01.02.006.012
100	250	100	119	230	560	VD.06.01.02.006.013
100	500	100	119	230	560	VD.06.01.02.006.014
100	750	100	119	230	560	VD.06.01.02.006.015
100	1000	100	119	230	560	VD.06.01.02.006.016



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