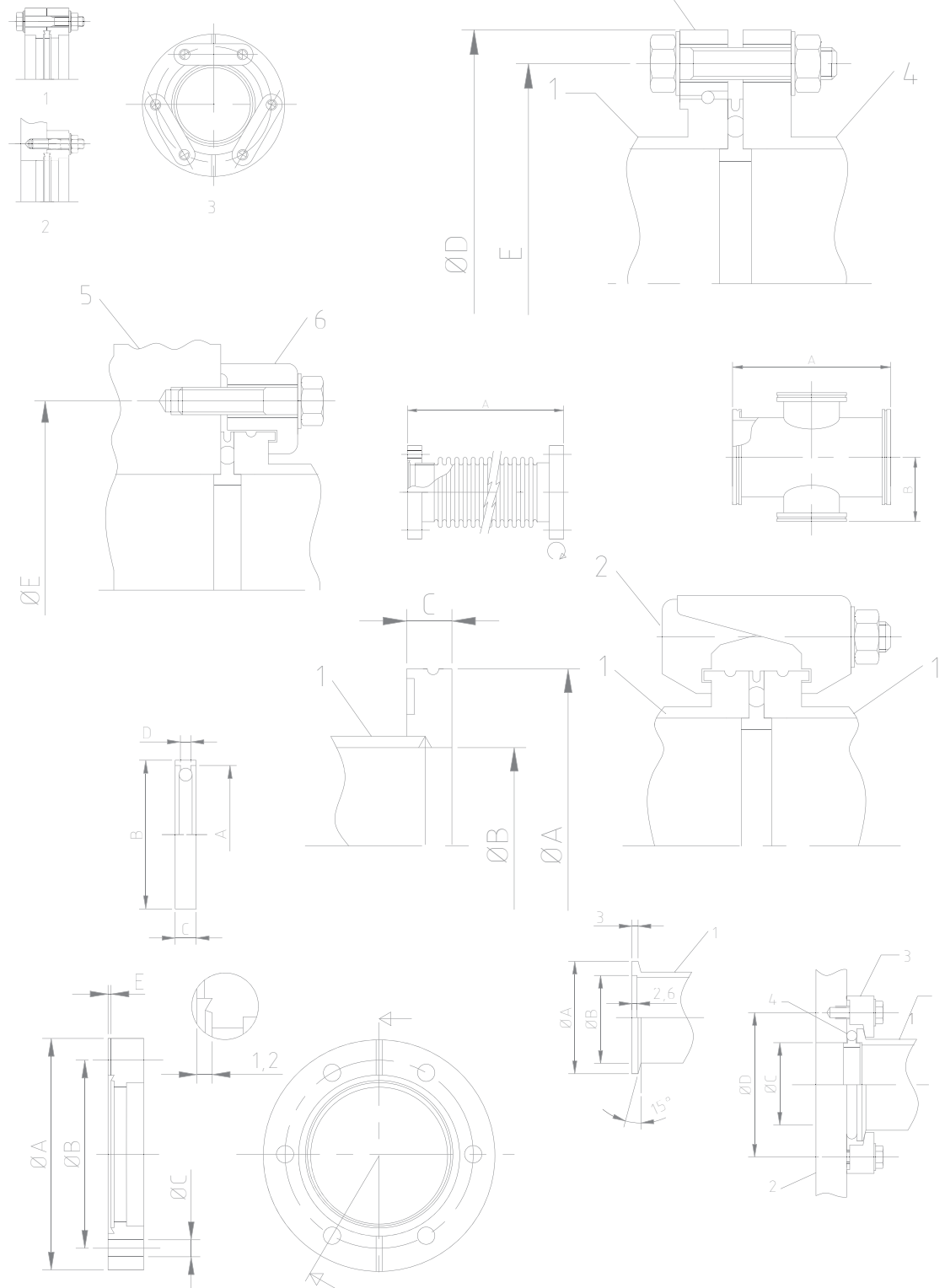


Valid from April 2022

Flange Fittings



KF FLANGE SYSTEM

KF is a simple, flexible "O"ring vacuum flange system available up to 50 mm. It is also well known as NW system.

The KF or NW system is defined by Pneurop 6606 (1981), ISO 1609 (1986) and DIN 28403.

All Cinquepascal components are interchangeable with all assemblies made in complain to above standard; all welded assembly is helium leak checked and can be certified to have a leak rate of less than $1 \cdot 10^{-9}$ mbar^l/s.

An assembly consists of two identical sexless, 360° rotatable, smooth-faced flanges, a quick acting enclosing rim-clamp and a center ring which support an elastomer "O"ring to align the flanges and prevent the "O"ring from collapsing. The quick acting clamp compresses the self-centering, sealing ring between the two flanges.

The KF sealing mechanism works from atmosphere to the low 10^{-7} mbar, within the

temperature range -20°C. to 200°C. depending on the construction and "O"ring material. Lower pressure (10^{-8} mbar) can be reached in systems where Viton "O"rings are baked to 180°C.

Stainless steel flanged components are used for high temperature and corrosion conditions and aluminium or brass for more general applications.

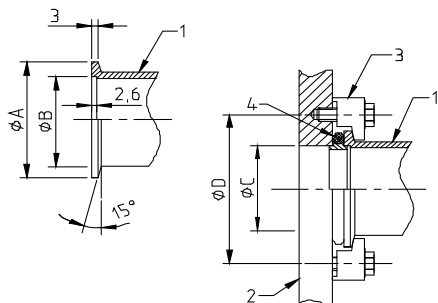
Clamps are made from polymeric materials, cast aluminium, machined aluminium, and stainless steel, with two or three hinged segments and a variety of closing mechanism including thumbscrews, over-center levers, threaded rods or nuts, or set screw. The most popular are either of the first two since no tools are required.

The common elastomer "O"ring used in KF flanges are, depending on temperature and the composition of the gas: Buna-N, fluorocarbon (as Viton A), and silicone rubber. Chemraz or Kalrez having the best high temperature performances can also be used but are very expensive.

Typical Operating Temperature

(extreme conditions)

Buna-N	-20°C. to +80°C.	-40°C. to +120°C.
Viton A	-20°C. to +180°C.	-40°C. to +200°C.
Silicon	-30°C. to +200°C.	-40°C. to +300°C.



- 1 Small flange port
- 2 Housing panel with thread
- 3 Claw grip
- 4 Center ring

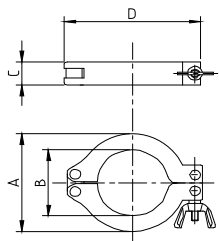
	A	B	C	D	Number of claw grips
DN 10 KF	30	12,2	12,2	45	4
DN 16 KF	30	17,2	17,2	45	4
DN 20 KF	40	22,2	22,2	55	4
DN 25 KF	40	26,2	26,2	55	4
DN 32 KF	55	34,2	34,2	71	4
DN 40 KF	55	41,2	41,2	71	4
DN 50 KF	75	52,4	52,2	91	4

Small flange components to DIN 28043 or Pneurop 6606 standard

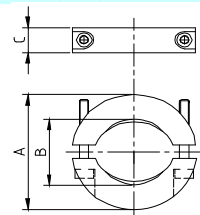
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Connecting elements

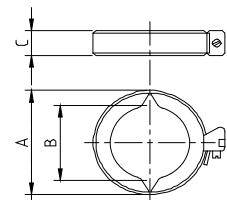
Clamping ring	Al							
		DN 10-16 KF	43	22	16	62	5P-A01-016	3,80
		DN 20-25 KF	55	32	16	72	5P-A01-025	4,40
		DN 32-40 KF	70	47	16	90	5P-A01-040	5,40
		DN 50 KF	95	63	25	123	5P-A01-050	8,80
		HINGED CLAMP DN32-40 KF ALUM	70	47	16	90	5P-A01-140	40,40



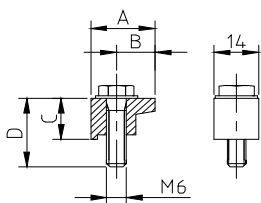
Clamping ring for metal seal	SS							
		DN 10-16 KF	54	22	18		5P-A02-016	70,40
		DN 20-25 KF	64	32	18		5P-A02-025	79,20
		DN 32-40 KF	82	47	18		5P-A02-040	88,00
		DN 50 KF	112	62	18		5P-A02-050	110,00



Isolated clamping ring	Zelamit							
		DN 10-16 KF	54	22	18		5P-A03-016	13,20
		DN 20-25 KF	64	32	18		5P-A03-025	15,40
		DN 32-40 KF	82	47	18		5P-A03-040	19,80
		DN 50 KF	112	62	18		5P-A03-050	30,80



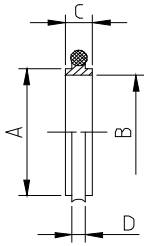
Claw grip	SS							
		DN 10-50 KF	20	12	14	20	5P-A04-000	17,60



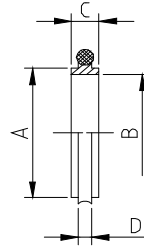
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Seals

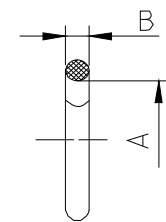
Centering ring	SS-Viton	DN 10 KF	12	10	8	3,9	5P-A05-010	3,60
		DN 16 KF	17	16	8	3,9	5P-A05-016	3,60
		DN 25 KF	26	25	8	3,9	5P-A05-025	4,80
		DN 40 KF	41	40	8	3,9	5P-A05-040	6,30
		DN 50 KF	52	50	8	3,9	5P-A05-050	8,20
	SS-NBR	DN 10 KF	12	10	8	3,9	5P-A05-110	3,20
		DN 16 KF	17	16	8	3,9	5P-A05-116	3,20
		DN 25 KF	26	25	8	3,9	5P-A05-125	4,40
		DN 40 KF	41	40	8	3,9	5P-A05-140	5,80
		DN 50 KF	52	50	8	3,9	5P-A05-150	7,80
	Al-Viton	DN 10 KF	12	10	8	3,9	5P-A05-210	3,20
		DN 16 KF	17	16	8	3,9	5P-A05-216	3,20
		DN 25 KF	26	25	8	3,9	5P-A05-225	4,40
		DN 40 KF	41	40	8	3,9	5P-A05-240	5,80
		DN 50 KF	52	50	8	3,9	5P-A05-250	7,80



Centering ring	Al-NBR	DN 10 KF	12	10	8	3,9	5P-A05-310	3,00
		DN 16 KF	17	16	8	3,9	5P-A05-316	3,00
		DN 25 KF	26	25	8	3,9	5P-A05-325	4,20
		DN 40 KF	41	40	8	3,9	5P-A05-340	5,60
		DN 50 KF	52	50	8	3,9	5P-A05-350	7,50
	Teflon-Viton	DN 10 KF	12	10	8	3,9	5P-A05-410	7,20
		DN 16 KF	17	16	8	3,9	5P-A05-416	7,20
		DN 25 KF	26	25	8	3,9	5P-A05-425	9,60
		DN 40 KF	41	40	8	3,9	5P-A05-440	12,00
		DN 50 KF	52	50	8	3,9	5P-A05-450	16,80
	Teflon-NBR	DN 10 KF	12	10	8	3,9	5P-A05-510	7,00
		DN 16 KF	17	16	8	3,9	5P-A05-516	7,00
		DN 25 KF	26	25	8	3,9	5P-A05-525	9,50
		DN 40 KF	41	40	8	3,9	5P-A05-540	11,80
		DN 50 KF	52	50	8	3,9	5P-A05-550	16,60

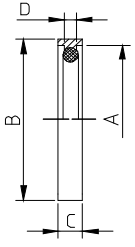


O-Ring	Viton	DN 10 KF	15	5			5P-A06-010	4,40
		DN 16 KF	18	5			5P-A06-016	4,40
		DN 25 KF	28	5			5P-A06-025	6,60
		DN 40 KF	42	5			5P-A06-040	7,80
		DN 50 KF	52	5			5P-A06-050	11,00
	NBR	DN 10 KF	15	5			5P-A06-110	2,90
		DN 16 KF	18	5			5P-A06-116	2,90
		DN 25 KF	28	5			5P-A06-125	4,00
		DN 40 KF	42	5			5P-A06-140	5,40
		DN 50 KF	52	5			5P-A06-150	6,60

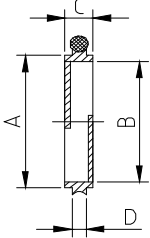


DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

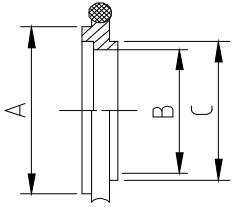
External centering ring	Al-Viton	DN 10-16 KF	30	32	7	3,9	5P-A07-016	5,80
		DN 20-25 KF	40	42	7	3,9	5P-A07-025	6,80
		DN 32-40 KF	55	57	7	3,9	5P-A07-040	8,20
		DN 50 KF	75	77	7	3,9	5P-A07-050	12,00



Centering ring with optical baffle	SS-Viton	DN 16 KF	17	16	8	3,9	5P-A08-016	6,80
		DN 25 KF	26	25	8	3,9	5P-A08-025	8,20
		DN 40 KF	41	40	8	3,9	5P-A08-040	12,00



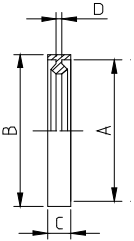
Reducing centering ring	SS-Viton	DN 10-16 KF	17	10	12		5P-A09-016	5,40
		DN 20-25 KF	26	21	22		5P-A09-025	7,20
		DN 32-40 KF	41	32	34		5P-A09-040	9,60



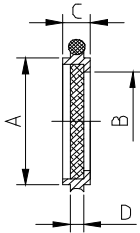
SS-NBR

DN 10-16 KF	17	10	12			5P-A09-116	4,80
DN 20-25 KF	26	21	22			5P-A09-125	6,80
DN 32-40 KF	41	32	34			5P-A09-140	9,20

Metal seal	Al	DN 10-16 KF	30	32	7	2	5P-A10-016	7,80
		DN 20-25 KF	40	42	7	2	5P-A10-025	9,20
		DN 32-40 KF	55	57	7	2	5P-A10-040	10,60
		DN 50 KF	75	77	7	2	5P-A10-050	14,40



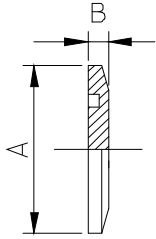
Centering ring with sintered metal filter	SS-Viton	DN 16 KF	17	14	8	3,9	5P-A11-016	12,00
		DN 25 KF	26	23	8	3,9	5P-A11-025	14,40
		DN 40 KF	41	38	8	3,9	5P-A11-040	16,80



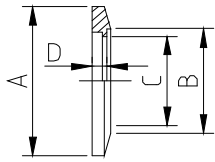
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Flanges

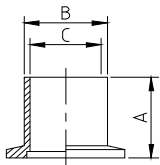
Blanking flange	SS	DN 10 KF	30	5			5P-A12-010	4,60
	DN 16 KF	30	5			5P-A12-016	4,60	
DN 25 KF	40	5			5P-A12-025	5,10		
DN 40 KF	55	5			5P-A12-040	6,50		
DN 50 KF	75	5			5P-A12-050	9,20		
AI	DN 10 KF	30	5			5P-A12-110	4,20	
	DN 16 KF	30	5			5P-A12-116	4,20	
	DN 25 KF	40	5			5P-A12-125	4,60	
	DN 40 KF	55	5			5P-A12-140	5,40	
	DN 50 KF	75	5			5P-A12-150	7,90	



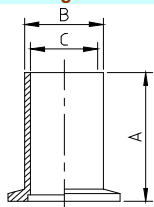
Weld flange	SS	DN 10 KF	30	14	10	3,5	5P-A13-010	5,10
	DN 16 KF	30	20	16	3,5	5P-A13-016	5,10	
	DN 25 KF	40	28	24	3,5	5P-A13-025	6,50	
	DN 40 KF	55	45	41	3,5	5P-A13-040	7,40	
	DN 50 KF	75	57	50	3,5	5P-A13-050	11,60	



Short weld flange	SS	DN 10 KF	30	14	10		5P-A14-010	9,20
	DN 16 KF	30	20	16		5P-A14-016	9,20	
	DN 25 KF	30	28	24		5P-A14-025	11,60	
	DN 40 KF	30	45	41		5P-A14-040	18,40	
	DN 50 KF	30	57	50		5P-A14-050	27,60	



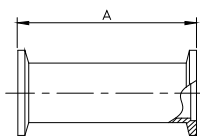
Long weld flange	SS	DN 10 KF	70	14	10		5P-A15-010	16,20
	DN 16 KF	70	20	16		5P-A15-016	13,80	
	DN 25 KF	70	28	24		5P-A15-025	18,40	
	DN 40 KF	70	45	41		5P-A15-040	23,00	
	DN 50 KF	70	57	50		5P-A15-050	36,80	



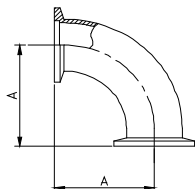
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Pipe Components

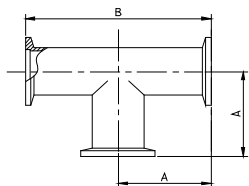
Intermediate piece	SS	DN 10 KF	60				5P-A16-010	30,40
		DN 16 KF	80				5P-A16-016	28,20
		DN 25 KF	100				5P-A16-025	36,00
		DN 40 KF	130				5P-A16-040	50,60
		DN 50 KF	140				5P-A16-050	59,80



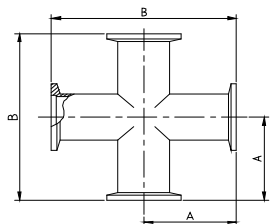
Elbow 90°	SS	DN 10 KF	30				5P-A17-010	36,00
		DN 16 KF	40				5P-A17-016	38,40
		DN 25 KF	50				5P-A17-025	43,20
		DN 40 KF	65				5P-A17-040	48,00
		DN 50 KF	70				5P-A17-050	57,60



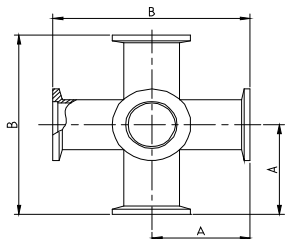
T-piece	SS	DN 10 KF	30	60			5P-A18-010	48,00
		DN 16 KF	40	80			5P-A18-016	48,00
		DN 25 KF	50	100			5P-A18-025	62,40
		DN 40 KF	65	130			5P-A18-040	72,00
		DN 50 KF	70	140			5P-A18-050	86,40



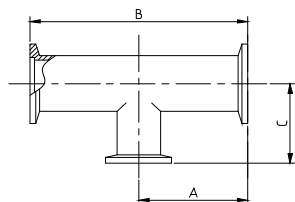
Cross-piece	SS	DN 10 KF	30	60			5P-A19-010	62,40
		DN 16 KF	40	80			5P-A19-016	69,60
		DN 25 KF	50	100			5P-A19-025	86,40
		DN 40 KF	65	130			5P-A19-040	105,60
		DN 50 KF	70	140			5P-A19-050	120,00



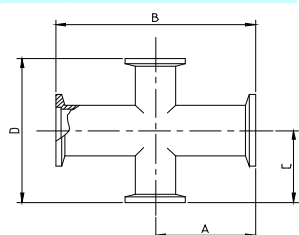
Double cross-piece	SS	DN 10 KF	30	60			5P-A20-010	154,70
		DN 16 KF	40	80			5P-A20-016	154,70
		DN 25 KF	50	100			5P-A20-025	202,70
		DN 40 KF	65	130			5P-A20-040	240,00
		DN 50 KF	70	140			5P-A20-050	288,00



Reducing T-piece	SS	DN 25-16 KF	50	100	40		5P-A21-125	67,20
		DN 40-16 KF	65	130	40		5P-A21-140	76,80
		DN 40-25 KF	65	130	50		5P-A21-240	76,80
		DN50-25 KF	70	140	50		5P-A21-250	96,00
		DN 50-40 KF	70	140	65		5P-A21-450	110,40



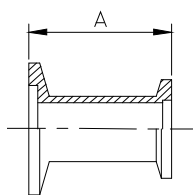
Reducing cross-piece	SS	DN 25-16 KF	50	100	40	80	5P-A22-125	96,00
		DN 40-16 KF	65	130	40	80	5P-A22-140	120,00
		DN 40-25 KF	65	130	50	100	5P-A22-240	120,00
		DN50-25 KF	70	140	50	100	5P-A22-250	144,00
		DN 50-40 KF	70	140	65	130	5P-A22-450	164,00



DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

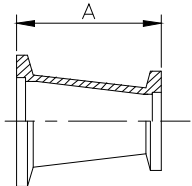
Adapters

Reducing-piece



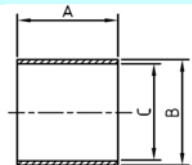
MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
SS	DN 25-16 KF	28				5P-A23-125	18,40
	DN 40-16 KF	28				5P-A23-140	23,00
	DN 40-25 KF	28				5P-A23-240	25,40
	DN 50-16 KF	28				5P-A23-150	34,60
	DN 50-25 KF	28				5P-A23-250	36,80
	DN 50-40 KF	28				5P-A23-450	39,20

Conical reducing-piece



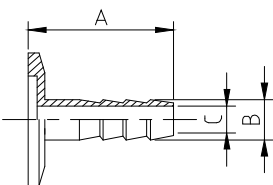
MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
SS	DN 25-16 KF	40				5P-A24-125	23,00
	DN 40-16 KF	40				5P-A24-140	27,60
	DN 40-25 KF	40				5P-A24-240	30,00
	DN50-25KF	40				5P-A24-250	46,00
	DN50-40KF	40				5P-A24-450	55,20

Tube



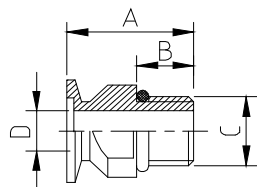
MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
SS	14x2	1000	14	10		5P-A25-010	13,80
	20x2	1000	20	16		5P-A25-016	17,30
	28x2	1000	28	24		5P-A25-025	20,80
	45x2	1000	45	41		5P-A25-040	28,80
	57x3	1000	57	51		5P-A25-050	38,00
	20x2 (DN16)	1000	20	16		5P-A29-016	17,40

Hose Nipple



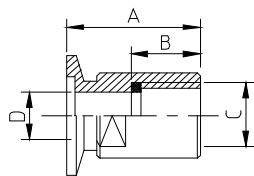
MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
SS	DN 10 KF	40	12	8		5P-A34-010	13,80
	DN 16 KF	40	12	8		5P-A34-016	13,80
	DN 25 KF	40	12	8		5P-A34-025	16,20
	DN 40 KF	40	12	8		5P-A34-040	18,40

Screw-in flange



MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
SS-Viton	DN 10 KF-G 3/8"	35	15	G 3/8"	10	5P-A35-010	26,40
	DN16 KF-G 3/8"	35	15	G 3/8"	16	5P-A35-013	26,40
	DN 16 KF-G1/2"	35	16	G 1/2"	16	5P-A35-016	26,40
	DN25 KF-G 3/8"					5P-A35-022	38,40
	DN25 KF-G 3/4"					5P-A35-024	28,80
	DN 25 KF-G 1"	45	24	G 1"	24	5P-A35-025	28,80
	DN40 KF-G 1"					5P-A35-038	36,00
	DN 40 KF-G 1 1/2"	50	28	G 1 1/2"	40	5P-A35-040	36,00

Screw-on flange



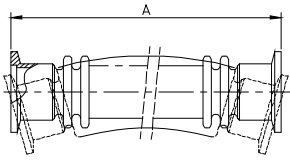
MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
SS-Viton	DN 10 KF-G 3/8"	35	15	G 3/8"	10	5P-A36-010	31,20
	DN 10 KF-G 1/4"					5P-A36-015	31,20
	DN 16 KF-G1/2"	35	16	G 1/2"	16	5P-A36-016	31,20
	DN25 KF-G 3/8"					5P-A36-022	28,80
	.DN25 KF-G 1/2"					5P-A36-023	38,40
	DN25 KF-G 3/4"					5P-A36-024	38,40
	DN 25 KF-G 1"	45	24	G 1"	24	5P-A36-025	38,40
	DN 40 KF-G 1 1/2"	50	28	G 1 1/2"	40	5P-A36-040	48,00

DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Bellows

Extra Flexible metal hose

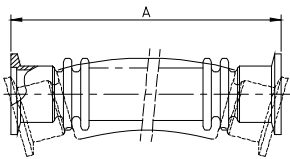
SS



DN 10 KF	250					5P-A37-010	57,60
DN 16 KF	250					5P-A37-016	55,20
DN 25 KF	250					5P-A37-025	61,00
DN 40 KF	250					5P-A37-040	76,80
DN 50 KF	250					5P-A37-050	96,00
DN 10 KF	500					5P-A37-110	70,60
DN 16 KF	500					5P-A37-116	67,20
DN 25 KF	500					5P-A37-125	76,80
DN 40 KF	500					5P-A37-140	96,00
DN 50 KF	500					5P-A37-150	122,00
DN 10 KF	750					5P-A37-210	84,00
DN 16 KF	750					5P-A37-216	81,60
DN 25 KF	750					5P-A37-225	96,00
DN 40 KF	750					5P-A37-240	120,00
DN 50 KF	750					5P-A37-250	149,40
DN 10 KF	1000					5P-A37-310	98,00
DN 16 KF	1000					5P-A37-316	99,40
DN 25 KF	1000					5P-A37-325	115,20
DN 40 KF	1000					5P-A37-340	146,70
DN 50 KF	1000					5P-A37-350	178,70

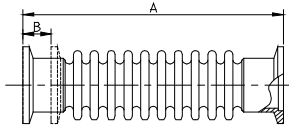
Flexible metal hose

SS

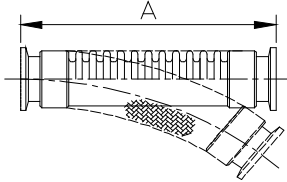


DN 10 KF	250					5P-A38-010	52,80
DN 16 KF	250					5P-A38-016	48,00
DN 25 KF	250					5P-A38-025	57,60
DN 40 KF	250					5P-A38-040	72,00
DN 50 KF	250					5P-A38-050	120,00
DN 10 KF	500					5P-A38-110	62,40
DN 16 KF	500					5P-A38-116	60,00
DN 25 KF	500					5P-A38-125	67,20
DN 40 KF	500					5P-A38-140	84,00
DN 50 KF	500					5P-A38-150	129,60
DN 10 KF	750					5P-A38-210	72,00
DN 16 KF	750					5P-A38-216	72,00
DN 25 KF	750					5P-A38-225	79,20
DN 40 KF	750					5P-A38-240	96,00
DN 50 KF	750					5P-A38-250	140,00
DN 10 KF	1000					5P-A38-310	81,60
DN 16 KF	1000					5P-A38-316	84,00
DN 25 KF	1000					5P-A38-325	91,20
DN 40 KF	1000					5P-A38-340	108,00
DN 50 KF	1000					5P-A38-350	149,40
DN 10 KF	1500					5P-A38-410	120,00
DN 16 KF	1500					5P-A38-416	126,00
DN 25 KF	1500					5P-A38-425	137,40
DN 40 KF	1500					5P-A38-440	216,00
DN 16 KF	2000					5P-A38-516	168,00
DN 25 KF	2000					5P-A38-525	182,70
DN 40 KF	2000					5P-A38-540	216,00
DN 50 KF	2000					5P-A38-550	260,00
DN 40 KF	2500					5P-A38-640	360,00
DN 25 KF	3000					5P-A38-725	274,70
DN 40 KF	3000					5P-A38-740	432,00

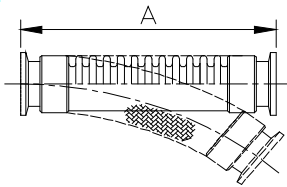
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
Bellow	SS	DN 10 KF	90	15			5P-A39-010	72,00
		DN 16 KF	120	22			5P-A39-016	72,00
		DN 25 KF	120	22			5P-A39-025	79,20
		DN 40 KF	120	22			5P-A39-040	96,00
		DN 50 KF	120	22			5P-A39-050	108,00



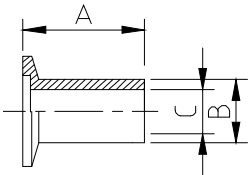
Braided flexible metal hose	SS	DN 16 KF	250				5P-A40-015	120,00
		DN 40 KF	250				5P-A40-004	204,00
		DN 16 KF	500				5P-A40-016	127,20
		DN 25 KF	500				5P-A40-025	158,70
		DN 40 KF	500				5P-A40-040	212,00
		DN 16 KF	1000				5P-A40-116	146,70
		DN 25 KF	1000				5P-A40-125	182,70
		DN 40 KF	1000				5P-A40-140	242,70



Braided extra flexible metal hose	SS	DN 16 KF	500				5P-A40-516	158,70
		DN 25 KF	500				5P-A40-525	192,00
		DN 40 KF	500				5P-A40-540	260,00
		DN 16 KF	1000				5P-A40-616	196,00
		DN 25 KF	1000				5P-A40-625	240,00
		DN 40 KF	1000				5P-A40-640	312,00



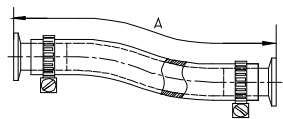
Flange for PVC hose	Al	DN 16 KF	30	18	15		5P-A41-016	9,60
		DN 25 KF	30	27	24		5P-A41-025	12,00
		DN 40 KF	30	43	39		5P-A41-040	19,20
		DN 50 KF					5P-A41-050	31,20



PVC hose with steel spiral	DN 16 KF	16	22,4				5P-A42-016	12,00
	DN 25 KF	25	33				5P-A42-025	15,60
	DN 40 KF	40	50				5P-A42-040	24,00
	DN 50 KF						5P-A42-050	31,20



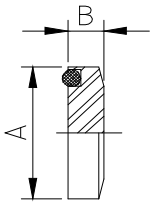
PVC hose complete	Al-PVC	DN 16 KF	500				5P-A43-016	31,20
		DN 25 KF	500				5P-A43-025	38,40
		DN 40 KF	500				5P-A43-040	62,40
		DN 50 KF	500				5P-A43-050	96,00
		DN 16 KF	1000				5P-A43-116	36,00
		DN 25 KF	1000				5P-A43-125	48,00
		DN 40 KF	1000				5P-A43-140	74,40
		DN 50 KF	1000				5P-A43-150	110,40



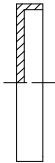
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Miscellaneous & Adaptors

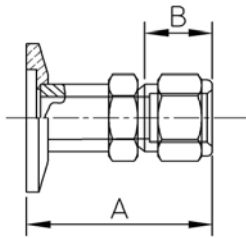
Viewport	Plexiglass							
		DN 16 KF	30	10			5P-A44-016	19,20
		DN 25 KF	40	10			5P-A44-025	24,00
		DN 40 KF	55	10			5P-A44-040	31,20
		DN 50 KF					5P-A44-050	43,20



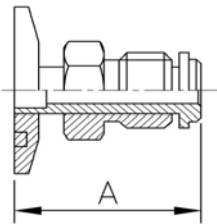
Protective cover	Plastic							
		DN 10-16 KF	10pcs				5P-A45-016	2,40
		DN 20-25 KF	10pcs				5P-A45-025	3,60
		DN 32-40 KF	10pcs				5P-A45-040	4,80
		DN 50 KF	10pcs				5P-A45-050	6,00



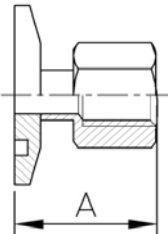
Adaptator Piece KF-SW	316L							
		DN16 KF-SW 6	37	17,2			5P-A46-016	72,00
		DN25 KF-G 3/8"					5P-A46-022	24,00
		DN25 KF-SW 6	45	17,2			5P-A46-025	81,60
		DN40 KF-SW 6	47	17,2			5P-A46-040	88,80
		DN16 KF-SW 1/8"	37	15,3			5P-A46-115	72,00
		DN16 KF-SW 1/4"	37	17,2			5P-A46-116	72,00
		DN25 KF-SW 1/8"	45	15,3			5P-A46-124	81,60
		DN25 KF-SW 1/4"	45	17,2			5P-A46-125	81,60
		DN40 KF-SW 1/4"	45	17,2			5P-A46-140	88,80
		DN25 KF-SW 12	47	23			5P-A46-225	96,00
		DN40 KF-SW 12	47	23			5P-A46-240	112,80
		DN25 KF-SW 1/2"	47	23			5P-A46-325	96,00
		DN40 KF-SW 1/2"	47	23			5P-A46-340	112,80



Adaptor KF-VCR male	316L							
		DN16 KF-VCR 1/4"	36				5P-A47-016	96,00
		DN25 KF-VCR 1/4"	33				5P-A47-025	105,60
		DN40 KF-VCR 1/4"	33				5P-A47-040	112,80
		DN25 KF-VCR 1/2"	37				5P-A47-125	120,00
		DN40 KF-VCR 1/2"	33				5P-A47-140	129,60
		DN 25 KF-VCR 3/4"	41				5P-A47-225	131,20
		DN40 KF-VCR 3/4"	41				5P-A47-240	144,00
		DN 25 KF-VCR 1"	45				5P-A47-325	145,60
		DN40 KF-VCR 1"	45				5P-A47-340	161,40



Adaptor KF-VCR female	316L							
		DN16 KF-VCR 1/4"					5P-A48-016	105,60



ISO FLANGE SYSTEM

The ISO flange, defined by ISO 1609 (1986) and DIN 28404, has the same principle as the NW flange with two basic type of smooth-faced sexless flanges, an "O"ring, a center ring and several fastening methods. Some of them are showed below.

Manufacturers of ISO components machine flanges with interface dimensions in complain to the standards and they are interchangeable. Fittings and adapters, however, have not international standards and they dimension change with manufacturers. All 5Pascal components dimensions are shown in this catalogue. All welded assembly is helium leak checked and can be certified to have a leak rate of less than 1×10^{-9} mbar·l/s.

The ISO sealing mechanism are totally reliable in vacuum system from atmosphere to 10^{-6} mbar

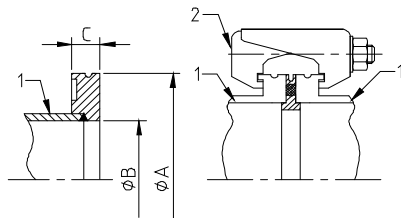
without baking and down to the 10^{-8} range, with Viton "O"ring baked up to 180°C.

In this system the clamping mechanism is either bolts through holes in flanges (ISO-F styles) or a number of individual clamps that are spaced around and hook over, the outer edge of the mating flanges (ISO-K) styles.

ISO-K flanges, sexless, infinitely rotatable, self-centering, are usually less expensive and better suited to restricted space with less clearance than is needed for the ISO-F.

ISO-F flanges, sexless, self-centering, are stronger and are preferred when vacuum piping is used as a structural element of the system. ISO-K flanges can be converted to an infinitely rotatable ISO-F by adding a bolt ring and a wire snap ring (rotatable kit).

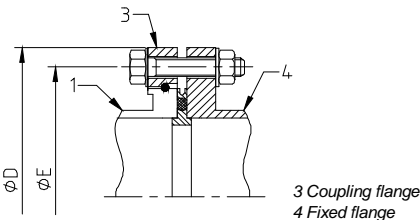
Clamp flange component to DIN 28404 or Pneurop 6606 standard



1 Clamp Flange
2 Clamps

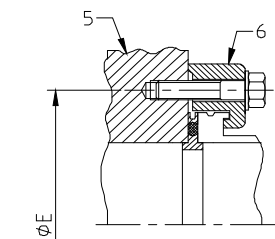
	A	B	C	Number clamps
DN 63 ISO	95	70	12	4
DN 100 ISO	130	102	12	4
DN 160 ISO	180	153	12	4
DN 200 ISO	240	213	12	6
DIN 250 ISO	290	261	12	6
DN 320 ISO	370	318	17	8
DN 400 ISO	450	400	17	8
DN 500 ISO *	550	501	17	12
DN 630 ISO *	690	651	22	12

* without groove for retaining ring



3 Coupling flange
4 Fixed flange

	D	E	Number Screws of holes
DN 63 ISO	130	110	4 M8x40
DN 100 ISO	165	145	8 M8x40
DN 160 ISO	225	200	8 M10x50
DN 200 ISO	285	260	12 M10x50
DIN 250 ISO	335	310	12 M10x50
DN 320 ISO	425	395	12 M12x60
DN 400 ISO	510	480	16 M12x60
DN 500 ISO *	610	580	16 M12x60
DN 630 ISO °	750	720	20 M12x70



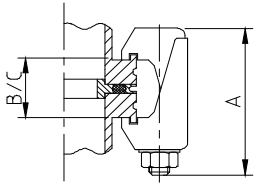
5 Base Plate
6 Claw grip

	E	Screws	Number of claw grips
DN 63 ISO	110	M8x35	4
DN 100 ISO	145	M8x35	8
DN 160 ISO	200	M10x40	8
DN 200 ISO	260	M10x40	12
DIN 250 ISO	310	M10x40	12
DN 320 ISO	395	M12x50	12
DN 400 ISO	480	M12x50	16
DN 500 ISO *	580	M12x50	16
DN 630 ISO °	720	M12x55	20

DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

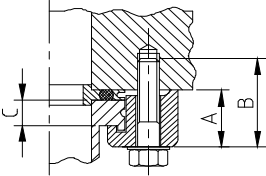
Connecting elements

Claw clamp	Steel, zinc plated	DN 63-250 ISO	60	27	17		5P-B01-025	5,40
		DN320-500 ISO	75	39	27		5P-B01-050	9,80
		DN 630 ISO	85	46	30		5P-B01-063	11,50



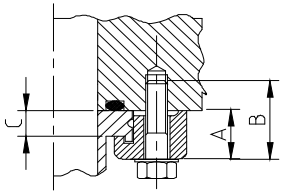
SS	DN320-500 ISO	60	27	17		5P-B01-125	9,80
	DN320-630 ISO	75	39	27		5P-B01-150	13,20

Claw grip for use with centering ring	Steel, zinc plated	DN 63-100 ISO	22,5	35	10		5P-B02-010	3,00
		DN 160-250 ISO	23	35	10		5P-B02-025	3,60
		DN320-500 ISO	36,5	50	15		5P-B02-050	9,40



SS	DN 630 ISO	41,5	55	20		5P-B02-063	10,70
	DN 63-100 ISO	22,5	35	10		5P-B02-110	6,00
	DN 160-250 ISO	23	35	10		5P-B02-125	7,80
	DN320-500 ISO	36,5	50	15		5P-B02-150	11,60

Claw grip for use with sealing groove	Steel, zinc plated	DN 63-100 ISO	18,6	30	10		5P-B03-010	4,60
		DN 160-250 ISO	19,1	35	10		5P-B03-025	5,80
		DN320-500 ISO	30,9	45	15		5P-B03-050	8,20

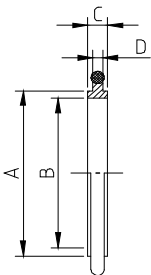


SS	DN 63-100 ISO	18,6	30	10		5P-B03-110	7,80
	DN 160-250 ISO	19,1	35	10		5P-B03-125	10,20
	DN320-500 ISO	30,9	45	15		5P-B03-150	14,40
	DN 630 ISO	36,5	55	20		5P-B03-163	16,80

Seals

Centering ring	SS-Viton	DN 63 ISO	70	67	8	3,9	5P-B04-006	19,20
		DN80 ISO	83	81	8	3,9	5P-B04-008	26,40
		DN 100 ISO	102	99	8	3,9	5P-B04-010	28,80

VITONd.5***	DN160 ISO	153	150	8	3,9	5P-B04-015	38,40
	DN 160 ISO	153	150	8	3,9	5P-B04-016	38,40
	DN 200 ISO	213	210	8	3,9	5P-B04-020	78,40
	DN 250 ISO	261	258	8	3,9	5P-B04-025	86,40
	DN 320 ISO	318	315	14	5,6	5P-B04-032	101,20
	DN 400 ISO	400	397	14	5,6	5P-B04-040	128,80
	DN 500 ISO	501	498	14	5,6	5P-B04-050	150,70
	DN 630 ISO	651	648	14	5,6	5P-B04-063	230,70
	DN800 ISO					5P-B04-080	422,70
	DN1000 ISO					5P-B04-099	537,40



SS-NBR	DN 63 ISO	70	67	8	3,9	5P-B04-106	17,80
	DN 100 ISO	102	99	8	3,9	5P-B04-110	27,40
	DN 160 ISO	153	150	8	3,9	5P-B04-116	36,00
	DN 200 ISO	213	210	8	3,9	5P-B04-120	70,20
	DN 250 ISO	261	258	8	3,9	5P-B04-125	82,20

DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

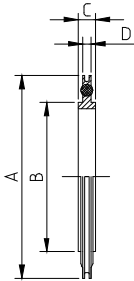
(...Centering ring)

Al-Viton	DN 63 ISO	70	67	8	3,9	5P-B04-206	16,80	
	DN 100 ISO	102	99	8	3,9	5P-B04-210	19,20	
	VITONd.5***	DN 160 ISO	153	150	8	3,9	5P-B04-215	23,10
	DN 160 ISO	153	150	8	3,9	5P-B04-216	23,10	
	DN 200 ISO	213	210	8	3,9	5P-B04-220	33,60	
	DN 250 ISO	261	258	8	3,9	5P-B04-225	59,10	
	DN 320 ISO	318	315	14	5,6	5P-B04-232	87,90	
	DN 400 ISO	400	397	14	5,6	5P-B04-240	115,00	
	DN 500 ISO	501	498	14	5,6	5P-B04-250	142,70	
DN 630 ISO	651	648	14	5,6	5P-B04-263	217,40		

Al-NBR	DN 63 ISO	70	67	8	3,9	5P-B04-306	14,40
	DN 100 ISO	102	99	8	3,9	5P-B04-310	17,80
	DN 160 ISO	153	150	8	3,9	5P-B04-316	20,20
	DN 200 ISO	213	210	8	3,9	5P-B04-320	28,80
	DN 250 ISO	261	258	8	3,9	5P-B04-325	53,80
	DN 400 ISO	400	397	14	5,6	5P-B04-340	96,00

Centering ring with aluminium outer ring

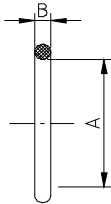
SS-Viton	DN 63 ISO	95	70	8	3,9	5P-B05-006	26,40
	DN 100 ISO	128	102	8	3,9	5P-B05-010	36,00
	DN 160 ISO	179	153	8	3,9	5P-B05-016	43,20
	DN 200 ISO	238	213	8	3,9	5P-B05-020	100,80
	DN 250 ISO	286	261	8	3,9	5P-B05-025	120,00
DN 320 ISO					5P-B05-032	152,00	



Al-Viton	DN 63 ISO	95	70	8	3,9	5P-B05-106	24,00
	DN 100 ISO	128	102	8	3,9	5P-B05-110	28,80
	DN 160 ISO	179	153	8	3,9	5P-B05-116	33,60
	DN 200 ISO	238	213	8	3,9	5P-B05-120	67,20
	DN 250 ISO	286	261	8	3,9	5P-B05-125	100,80

O-Ring

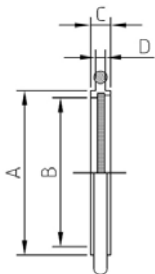
Viton	DN 63 ISO	76	5,3			5P-B06-006	13,80
	DN 100 ISO	107	5,3			5P-B06-010	17,60
	DN 160 ISO	158	5,3			5P-B06-016	27,60
	DN 200 ISO	209	5,3			5P-B06-020	41,50
	DN 250 ISO	253	5,3			5P-B06-025	55,20
	DN 320 ISO	330	7			5P-B06-032	73,60
	DN 400 ISO	405	7			5P-B06-040	115,00
	DN 500 ISO	507	7			5P-B06-050	138,70
	DN 630 ISO	659	7			5P-B06-063	184,00



NBR	DN 63 ISO	76	5,3			5P-B06-106	2,80
	DN 100 ISO	107	5,3			5P-B06-110	2,80
	DN 160 ISO	158	5,3			5P-B06-116	5,60
	DN 200 ISO	209	5,3			5P-B06-120	8,40
	DN 250 ISO	253	5,3			5P-B06-125	11,10

Centering ring and screen

SS-Viton	DN 63 ISO	70	67	8	3,9	5P-B07-006	52,80
	DN 100 ISO	102	99	8	3,9	5P-B07-010	76,80
	DN160 ISO	153	150	8	3,9	5P-B07-016	103,20
	DN 200 ISO	213	210	8	3,9	5P-B07-020	200,00
DN 250 ISO	261	258	8	3,9	5P-B07-025	230,70	

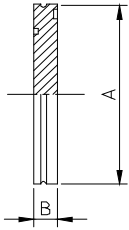


DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Flanges

Blanking flange

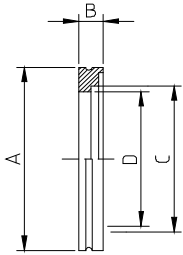
SS



DN 63 ISO-K	95	12					5P-B12-006	36,80
DN 100 ISO-K	130	12					5P-B12-010	48,40
DN 160 ISO-K	180	12					5P-B12-016	80,60
DN 200 ISO-K	240	12					5P-B12-020	150,70
DN 250 ISO-K	290	12					5P-B12-025	184,00
DN 320 ISO-K	370	17					5P-B12-032	426,70
DN 400 ISO-K	450	17					5P-B12-040	552,00
DN 500 ISO-K	550	17					5P-B12-050	736,00
DN 630 ISO-K	690	22					5P-B12-063	1.288,00

Welding flange

SS



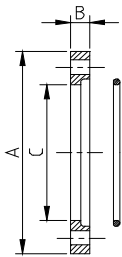
pipe d.104x2

pipe d.154x2

DN 63 ISO-K	95	12	76,5	70			5P-B13-006	30,00
DN 80ISO-K							5P-B13-008	41,40
DN 100 ISO-K	130	12	108,5	102			5P-B13-009	41,40
DN 100 ISO-K	130	12	108,5	102			5P-B13-010	41,40
DN 160 ISO-K	180	12	159,5	153			5P-B13-015	69,00
DN 160 ISO-K	180	12	159,5	153			5P-B13-016	69,00
DN 200 ISO-K	240	12	219,5	213			5P-B13-020	115,00
DN 250 ISO-K	290	12	267,5	261			5P-B13-025	157,40
DN 320 ISO-K	370	17	324,5	318			5P-B13-032	345,40
DN 400 ISO-K	450	17	407	400			5P-B13-040	442,70
DN 500 ISO-K	550	17	509	501			5P-B13-050	598,70
DN 630 ISO-K	690	22	661	651			5P-B13-063	828,00

Collar flange with retaining ring

Steel,nickel
plated

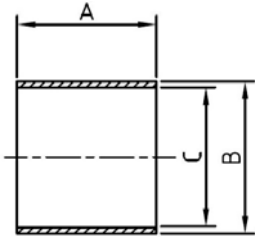


DN 63 ISO-F	130	12	95,5				5P-B14-006	39,20
DN 100 ISO-F	165	12	130,5				5P-B14-010	57,60
DN 160 ISO-F	225	16	180,7				5P-B14-016	103,60
DN 200 ISO-F	285	16	240,7				5P-B14-020	138,70
DN 250 ISO-F	335	16	290,7				5P-B14-025	173,40
DN 320 ISO-F	425	20	370,8				5P-B14-032	230,70
DN 400 ISO-F	510	20	451				5P-B14-040	345,40
DN 500 ISO-F	610	20	551				5P-B14-050	518,70
DN 630 ISO-F	750	24	691				5P-B14-063	828,00

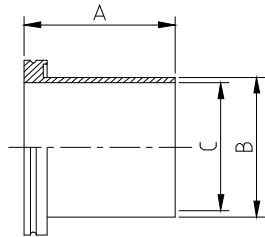
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Pipe Components

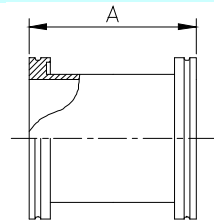
Tube	SS							
		76 x 3 (DN63 ISO-K)	1000	76	70		5P-B29-006	64,40
		108 x 3 (DN100 ISO-K)	1000	108	102		5P-B29-010	103,60
		159 x 3 (DN160 ISO-K)	1000	159	153		5P-B29-016	148,00
		219 x 3 (DN200 ISO-K)	1000	219	213		5P-B29-020	161,40
		267 x 3 (DN250 ISO-K)	1000	267	261		5P-B29-025	230,70
		324 x 3 (DN320 ISO-K)	1000	324	318		5P-B29-032	276,00



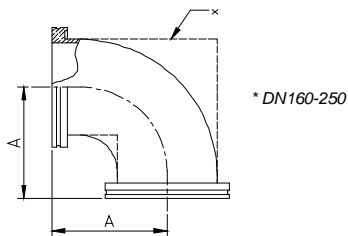
Flange with pipe	SS							
		DN 63 ISO-K	100	76	70		5P-B15-006	57,60
		DN 100 ISO-K	100	108	102		5P-B15-010	82,80
		DN 160 ISO-K	100	159	153		5P-B15-016	115,00
		DN 200 ISO-K	100	219	213		5P-B15-020	184,00
		DN 250 ISO-K	100	267	261		5P-B15-025	230,70
		DN 320 ISO-K	100	324	318		5P-B15-032	452,00
		DN 400 ISO-K	100	408	400		5P-B15-040	576,00
		DN 500 ISO-K	100	508	500		5P-B15-050	736,00
		DN 630 ISO-K	100	660	650		5P-B15-063	1.058,70



Intermediate piece	SS							
		DN 63 ISO-K	100				5P-B16-006	96,60
		DN 100 ISO-K	100				5P-B16-010	138,70
		DN 160 ISO-K	100				5P-B16-016	208,00
		DN 200 ISO-K	100				5P-B16-020	300,00
		DN 250 ISO-K	100				5P-B16-025	386,70
		DN 320 ISO-K	100				5P-B16-032	805,40
		DN 400 ISO-K	100				5P-B16-040	1.034,70
		DN 500 ISO-K	100				5P-B16-050	1.333,40
		DN 600 ISO-K	100				5P-B16-063	1.932,00

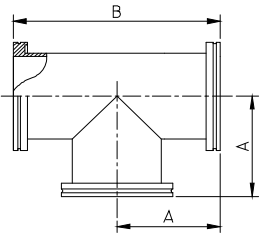


Elbow 90°	SS							
		DN 63 ISO-K	88				5P-B17-006	110,40
		DN 100 ISO-K	108				5P-B17-010	173,40
		DN 160 ISO-K	138				5P-B17-016	368,00
		DN 200 ISO-K	178				5P-B17-020	484,00
		DN 250 ISO-K	208				5P-B17-025	644,00

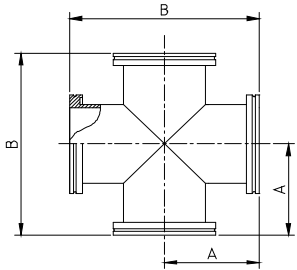


DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

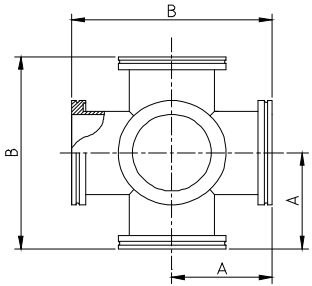
T-piece	SS	DN 63 ISO-K	88	176			5P-B18-006	184,00
		DN 100 ISO-K	108	216			5P-B18-010	230,70
		DN 160 ISO-K	138	276			5P-B18-016	484,00
		DN 200 ISO-K	178	356			5P-B18-020	690,70
		DN 250 ISO-K	208	416			5P-B18-025	920,00



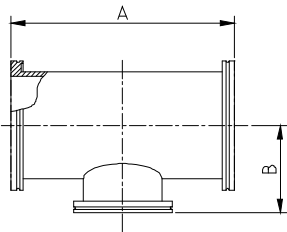
Cross-piece	SS	DN 63 ISO-K	88	176			5P-B19-006	265,40
		DN 100 ISO-K	108	216			5P-B19-010	368,00
		DN 160 ISO-K	138	276			5P-B19-016	668,00
		DN 200 ISO-K	178	356			5P-B19-020	874,70
		DN 250 ISO-K	208	416			5P-B19-025	1.265,40



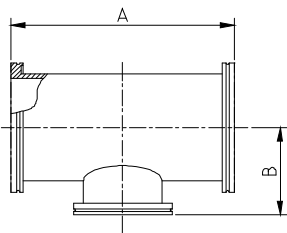
Double cross-piece	SS	DN 63 ISO-K	88	176			5P-B20-006	414,70
		DN 100 ISO-K	108	216			5P-B20-010	552,00
		DN 160 ISO-K	138	276			5P-B20-016	989,40
		DN 200 ISO-K	178	356			5P-B20-020	1.380,00
		DN 250 ISO-K	208	416			5P-B20-025	1.840,00



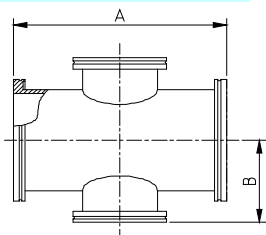
Reducing T-piece	SS	DN63 ISO-K/25 KF SS	176	75			5P-B27-062	161,40
		DN63 ISO-K/40 KF SS	176	75			5P-B27-064	184,00
		DN100 ISO-K/16 KF SS	176	75			5P-B27-101	212,00
		DN100 ISO-K/25 KF SS	216	100			5P-B27-102	212,00
		DN100 ISO-K/40 KF SS	216	100			5P-B27-104	230,70
		DN160 ISO-K/25 KF SS	215	125			5P-B27-162	300,00
		DN160 ISO-K/40 KF SS	215	126			5P-B27-164	332,00



Reducing T-piece	SS	DN100-63 ISO-K	216	100			5P-B21-010	253,40
		DN 160-63 ISO-K	276	130			5P-B21-015	368,00
		DN 160-100 ISO-K	276	130			5P-B21-016	460,00
		DN 200-63 ISO-K	356	168			5P-B21-018	552,00
		DN 200-100 ISO-K	356	168			5P-B21-019	621,40
		DN 200-160 ISO-K	356	168			5P-B21-020	690,70
		DN 250-100 ISO-K	416	192			5P-B21-022	690,70
		DN 250-160 ISO-K	416	192			5P-B21-023	893,40
		DN 250-160 ISO-K	416	192			5P-B21-024	828,00
		DN 250-200 ISO-K	416	195			5P-B21-025	920,00



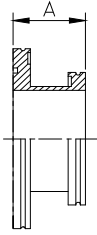
Reducing cross-piece	SS	DN 100-63 ISO-K	216	100			5P-B22-010	506,70
		DN 160-100 ISO-K	276	130			5P-B22-016	598,70
		DN 200-160 ISO-K	356	168			5P-B22-020	805,40
		DN 250-200 ISO-K	416	195			5P-B22-025	1.284,00



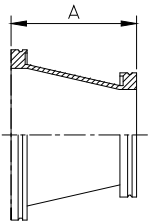
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Adapters

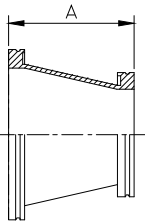
Reducing-piece ISO-K / ISO-K	SS							
		DN 100-63 ISO-K	50				5P-B23-010	110,40
		DN160-100 ISO-K	50				5P-B23-015	148,00
		DN 160-100 ISO-K	50				5P-B23-016	161,40
		DN200-63 ISO-K	50				5P-B23-018	217,40
		DN200-100 ISO-K	50				5P-B23-019	230,70
		DN 200-160 ISO-K	50				5P-B23-020	276,00
		DN 250-63 ISO-K	50				5P-B23-022	265,40
		DN250-100 ISO-K	50				5P-B23-023	281,40
		DN250-160 ISO-K	50				5P-B23-024	310,70
		DN 250-200 ISO-K	50				5P-B23-025	368,00



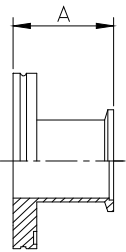
Conical reducing-piece	SS							
		DN63 ISO-K/25 KF	100				5P-B26-062	60,80
		DN63 ISO-K/40 KF	100				5P-B26-064	80,60
		DN63 ISO-K/50 KF	100				5P-B26-065	93,90
		DN 100 ISO-K / 25 KF	100				5P-B26-102	87,40
		DN 100 ISO-K / 40 KF	100				5P-B26-104	96,60
		DN100 ISO-K/50 KF	100				5P-B26-105	115,00
		DN 160 ISO-K / 25 KF	100				5P-B26-162	161,00
		DN 160 ISO-K / 40 KF	100				5P-B26-164	173,40



Conical reducing-piece	SS							
		DN 100-63 ISO-K	100				5P-B24-010	138,70
		DN160-63 ISO-K	120				5P-B24-015	193,40
		DN 160-100 ISO-K	120				5P-B24-016	230,70
		DN200-63 ISO-K	140				5P-B24-018	276,00
		DN200-100 ISO-K	140				5P-B24-019	304,00
		DN 200-160 ISO-K	140				5P-B24-020	368,00
		DN250-63 ISO-K	160				5P-B24-022	336,00
		DN250-100 ISO-K	160				5P-B24-023	360,00
		DN250-160 ISO-K	160				5P-B24-024	345,40
		DN 250-200 ISO-K	160				5P-B24-025	460,00



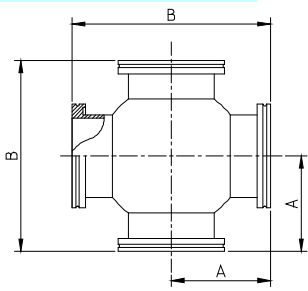
Adaptor piece ISO-K / KF	SS							
		DN 63 ISO-K / 25 KF	40				5P-B25-062	50,60
		DN 63 ISO-K / 40 KF	40				5P-B25-064	64,40
		DN63 ISO-K/50 KF	40				5P-B25-065	78,20
		DN100 ISO-K/25	40				5P-B25-102	69,00
		DN 100 ISO-K / 40 KF	40				5P-B25-104	78,20
		DN 100 ISO-K / 50 KF	40				5P-B25-105	92,00
		DN160 ISO-K/25 KF	40				5P-B25-162	128,80
		DN 160 ISO-K / 40 KF	40				5P-B25-164	138,70
		DN160 ISO-K/50 KF SS	50				5P-B25-165	157,40
		DN200 ISO-K/25 KF	50				5P-B25-202	208,00
		DN200 ISO-K/40 KF	50				5P-B25-204	221,40
		DN200 ISO-K/50 KF	50				5P-B25-205	234,70
		DN250 ISO-K/25 KF	50				5P-B25-252	244,00
		DN250 ISO-K/40 KF	50				5P-B25-254	281,40
		DN250 ISO-K/50 KF	50				5P-B25-255	300,00



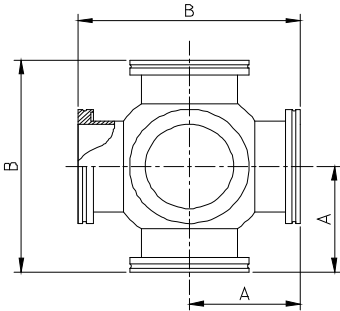
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Spherical cross-piece

Spherical cross-piece	SS	DN 63 ISO-K	88	176			5P-B30-006	322,70
		DN 100 ISO-K	108	216			5P-B30-010	437,40
		DN 160 ISO-K	138	276			5P-B30-016	736,00
		DN 200 ISO-K	178	356			5P-B30-020	1.034,70
		DN 250 ISO-K	208	416			5P-B30-025	1.380,00

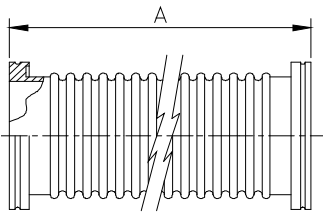


Spherical double cross-piece	SS	DN 63 ISO-K	88	176			5P-B31-006	460,00
		DN 100 ISO-K	108	216			5P-B31-010	644,00
		DN 160 ISO-K	138	276			5P-B31-016	1.034,70
		DN 200 ISO-K	178	356			5P-B31-020	1.449,40
		DN 250 ISO-K	208	416			5P-B31-025	2.070,70

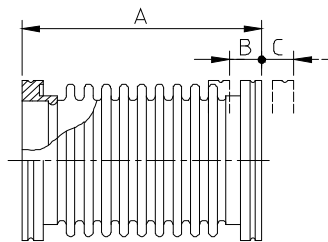


Bellows

Flexible metal hose	SS	DN 63 ISO-K	250				5P-B38-006	164,00
		DN 100 ISO-K	250				5P-B38-010	202,70
		DN 160 ISO-K	250				5P-B38-016	353,40
		DN 63 ISO-K	500				5P-B38-106	188,00
		DN 100 ISO-K	500				5P-B38-110	240,00
		DN 160 ISO-K	500				5P-B38-116	376,00
		DN 63 ISO-K	750				5P-B38-206	212,00
		DN 100 ISO-K	750				5P-B38-210	264,00
		DN 160 ISO-K	750				5P-B38-216	396,00
		DN 63 ISO-K	1000				5P-B38-306	250,70
		DN 100 ISO-K	1000				5P-B38-310	300,00
		DN 160 ISO-K	1000				5P-B38-316	420,00



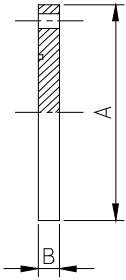
Bellow	SS	DN 63 ISO-K	130	14	7	90	5P-B39-006	204,00
		DN 100 ISO-K	130	14	7	128	5P-B39-010	252,00
		DN 160 ISO-K	150	16	8	175	5P-B39-016	456,00
		DN160 ISO-K	150	16	8	175	5P-B39-016.0	456,00
		DN 200 ISO-K	230	20	10	235	5P-B39-020	696,00
		DN 250 ISO-K	250	20	10	285	5P-B39-025	1.080,00
		DN320 ISO-K	300				5P-B39-032	1.440,00
		DN400 ISO-K	300				5P-B39-040	1.840,00



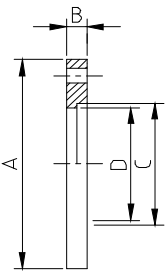
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Flanges ISO F

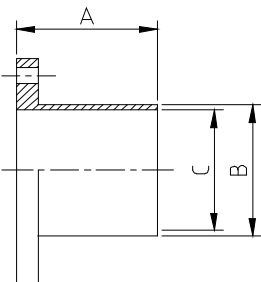
Blanking flange	SS	DN 63 ISO-F	130	12			5P-B40-006	87,40
		DN 100 ISO-F	165	12			5P-B40-010	124,20
		DN 160 ISO-F	225	16			5P-B40-016	184,00
		DN 200 ISO-F	285	16			5P-B40-020	253,40
		DN 250 ISO-F	335	16			5P-B40-025	345,40
		DN 320 ISO-F	425	20			5P-B40-032	506,70
		DN 400 ISO-F	510	20			5P-B40-040	644,00
		DN 500 ISO-F	610	20			5P-B40-050	874,70
		DN 630 ISO-F	750	24			5P-B40-063	1.265,40



Welding flange	SS	DN 63 ISO-F	130	12	76,5	70	5P-B41-006	80,60
		DN 100 ISO-F	165	12	108,5	102	5P-B41-010	115,00
		DN 160 ISO-F	225	16	159,5	153	5P-B41-016	173,40
		DN 200 ISO-F	285	16	219,5	213	5P-B41-020	230,70
		DN 250 ISO-F	335	16	267,5	261	5P-B41-025	300,00
		DN 320 ISO-F	425	20	324,5	318	5P-B41-032	460,00
		DN 400 ISO-F	510	20	407	400	5P-B41-040	598,70
		DN 500 ISO-F	610	20	509	501	5P-B41-050	805,40
		DN 630 ISO-F	750	24	661	651	5P-B41-063	1.196,00

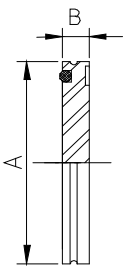


Flange with pipe	SS	DN 63 ISO-F	100	76	70		5P-B42-006	103,60
		DN 100 ISO-F	100	108	102		5P-B42-010	150,70
		DN 160 ISO-F	100	159	153		5P-B42-016	226,70
		DN 200 ISO-F	100	219	213		5P-B42-020	294,70
		DN 250 ISO-F	100	267	261		5P-B42-025	377,40
		DN 320 ISO-F	100	324	318		5P-B42-032	552,00
		DN 400 ISO-F	100	408	400		5P-B42-040	713,40
		DN 500 ISO-F	100	508	500		5P-B42-050	944,00
		DN 630 ISO-F	100	660	650		5P-B42-063	1.333,40

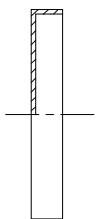


Miscellaneous

Viewport	Plexiglass	DN 63 ISO-K	95	15			5P-B44-006	48,40
		DN 100 ISO-K	130	15			5P-B44-010	73,60
		DN 160 ISO-K	180	20			5P-B44-016	110,40



Protective cover	Plastic	DN 63 ISO-K					5P-B45-006	11,60
		DN 100 ISO-K					5P-B45-010	16,20
		DN 160 ISO-K					5P-B45-016	2,10
		DN 200 ISO-K					5P-B45-020	2,80
		DN 250 ISO-K					5P-B45-025	8,00



UHV CONFLAT® FLANGE FITTINGS

The CF sealing mechanism works from atmosphere to the lowest measurable pressures, within the temperature range -196°C. to 450°C. CF sealing mechanism is especially suited to condition requiring ultra-high vacuum, very clean environments, high temperatures or the containment of toxic, corrosive or radioactive gasses.

The seal is made by bolting tighter two identical flanges, witch contains a knife-edge, with a flat metal ring gasket between the knife-edge (see the picture). The knife-edge is forced into the metal ring (usually copper). The knife edge press annular grooves in each side of the softer gasket material capable of withstanding high pressures or temperatures, fills the voids and defects in the knife edges producing an extremely reliable.

There are rotatable and fixed flanges. Rotatable flange is made from two pieces with the knife-edge part and external bolt holes being separate. Once the knife-edge part is welded in position it is easy to change the orientation of the bolt holes relative to the axis of the port.

This flange is used where alignment of a component to a chamber or to another component need to be set up accurately before the flange mounting bolts are tightened. Fixed flange is a single piece machined item with the bolt hole orientation fixed into position once they are welded.

Conflat® and equivalent flange names

While American manufacturers identify CF flanges using inch, the Europeans identify them with variety of conventions that can generate unpleasant misunderstand. They are many descriptions used to describe the same flange size as the flange OD in mm, the ID, in mm, of counterbore that accepts the tube for welding or the ID, in mm, of the largest clear bore.

Thus, the metric equivalent of a bored 2^{3/4}" OD CFflange could be called: CF70 indicating a 70 mm flange OD DN40CF indicating a 40 mm OD connecting tube or NW38CF indicating a 38,1 mm clear bore and 41,1 mm counterbore and CF2^{3/4}" is equivalent to FC70, DN40CF, NW38CF.

CF FLANGE NAME EQUIVALENT

				OD (mm)	OD(in)	
DN16CF	CF34	NW16CF	FC34	CF1 ^{1/2} "	34.00	1.33
DN40CF	CF70	NW40CF	FC70	CF2 ^{3/4} "	70.00	2.73
DN63CF	CF114	NW63CF	FC114	CF4 ^{1/2} "	114.00	4.47
DN100CF	CF150	NW100CF	FC150	CF6"	152.00	5.97
DN160CF	CF200	NW160CF	FC200	CF8"	202.00	7.97
DN200CF	CF250	NW200CF	FC250	CF10"	253.00	9.97
DN250CF	CF300	NW250CF	FC300	CF12"	306.00	13.25

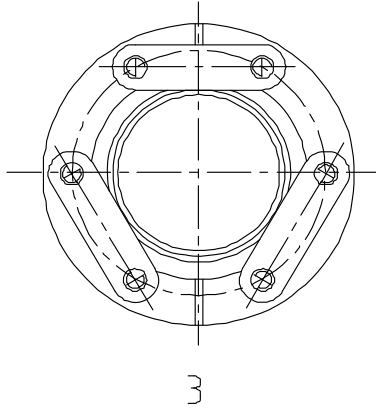
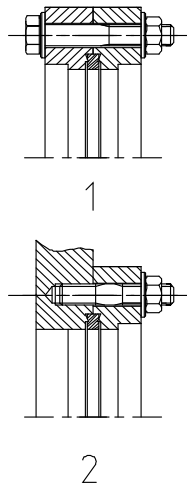
Materials:

Our range of CF components is manufactured from selected high cleanliness AISI 316 stainless steel that offers optimum performances at an affordable cost. AISI 316 NL stainless steel is also available on request for applications where harder material at higher bakeout temperature and lower magnetic permeability are required.

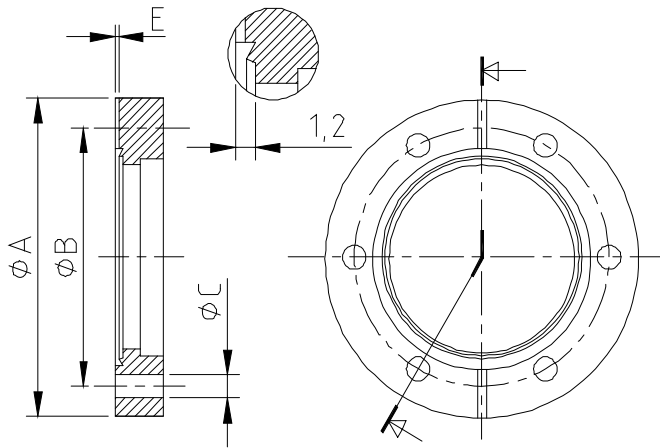
There are many types of CF gaskets.

The most common is the high purity scratch, oxygen free, 1/4 hard copper gasket.copper gasket	For general applications
Silver plated copper gasket	Protect against flaking oxide production caused by frequent high temperature bakeout
Fully annealed copper gasket	Is used to minimize strain during bolt tightening
aluminium gaskets	Is used with aluminium knite-edge flange or with S.S. CF flange non submitted to high temperature bakeout
Viton gasket	Re-usable elastomeric gasket used in non-UHV, non-bakeable applications
Gold-plated copper; silver diffused copper; zirconium-copper alloy; wire of nickel, gold, lead, indium.	Gaskets made for special application

UHV CONFLAT® FLANGE FITTINGS



- 1 Connection with screws
- 2 Connection with stud screws
- 3 Connection with DUO nuts

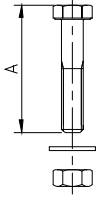


Nominal Diameter	A	O.D.	B	C	N. of Holes	Number of screws	Number of stud screws	Number of DUO nuts
DN 16 CF	34	1 1/3"	27	4,3	6	6xM4	6xM4	3xM4
DN 40 CF	69,5	2 3/4"	58,7	6,6	6	6xM6	6xM6	3xM6
DN 63 CF	113,5	4 1/2"	92,2	8,4	8	8xM8	8xM8	
DN 100 CF	152	6"	130,3	8,4	16	16xM8	16xM8	
DN 160 CF	202,5	8"	181	8,4	20	20xM8	20xM8	
DN 200 CF	253	10"	231,8	8,4	24	24xM8	24xM8	
DN 250 CF	306	12"	284	8,4	32	32xM8	32xM8	

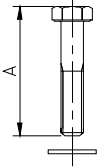
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Connecting elements

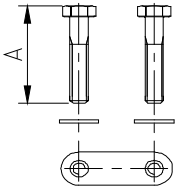
Set of hexagonal bolts	SS	DN 16 CF	20	M4		25	5P-C01-001	9,20
		DN 40 CF	35	M6		25	5P-C01-004	11,60
		DN 63 CF	45	M8		25	5P-C01-006	13,80
		DN 100 CF	50	M8		25	5P-C01-010	16,20
		DN 160 CF	55	M8		25	5P-C01-016	18,40
	<i>D= delivered</i>	DN 200 CF	60	M8		25	5P-C01-020	20,80
	<i>quantity</i>	DN 250 CF	65	M8		25	5P-C01-025	23,00



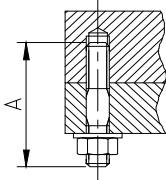
Set of hexagonal bolts for TAPPED hole	SS	DN 16 CF	16	M4		25	5P-C02-001	9,20
		DN 40 CF	25	M6		25	5P-C02-004	11,60
		DN 63 CF	30	M8		25	5P-C02-006	13,80
		DN 100 CF	35	M8		25	5P-C02-010	16,20
		DN 160 CF	40	M8		25	5P-C02-016	18,40
	<i>D= delivered</i>	DN 200 CF	45	M8		25	5P-C02-020	20,80
	<i>quantity</i>	DN 250 CF	50	M8		25	5P-C02-025	23,00



Set of hexagonal bolts with DUO nuts	SS	DN 16 CF	20	M4		6+3	5P-C03-001	7,00
		DN 40 CF	35	M6		6+3	5P-C03-004	9,20
		DN 63 CF	40	M8		8+4	5P-C03-006	16,70
		DN 100 CF	45	M8		16+8	5P-C03-010	23,40
		DN 160 CF	50	M8		20+10	5P-C03-016	30,00
		DN 200 CF	55	M8		24+12	5P-C03-020	34,60
	<i>D= delivered</i>	DN 250 CF	60	M8		32+16	5P-C03-025	46,00
	<i>quantity</i>							



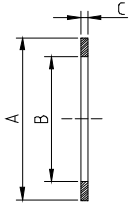
Set of stud screws	SS	DN 16 CF	20	M4		25	5P-C04-001	16,20
		DN 40 CF	35	M6		25	5P-C04-004	18,40
		DN 63 CF	45	M8		25	5P-C04-006	27,60
		DN 100 CF	50	M8		25	5P-C04-010	30,00
		DN 160 CF	55	M8		25	5P-C04-016	32,20
		DN 200 CF	60	M8		25	5P-C04-020	34,60
	<i>D= delivered</i>	DN 250 CF	65	M8		25	5P-C04-025	36,80
	<i>quantity</i>							



DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Seals

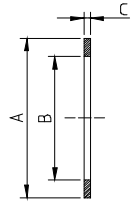
Copper gaskets



*D= delivered
quantity*

DN 16 CF	21	16	2	10	5P-C05-001	8,00
DN 40 CF	48	37	2	10	5P-C05-004	20,00
DN40 CF ID 38,7	48	38,7	2	10	5P-C05-005	20,00
DN 63 CF	82	63	2	10	5P-C05-006	40,00
DN 100 CF	120	101	2	10	5P-C05-010	56,00
DN 160 CF	171	152	2	10	5P-C05-016	77,40
DN 200 CF	222	203	2	10	5P-C05-020	106,70
DN 250 CF	273	258	2	5	5P-C05-025	180,00

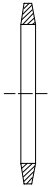
Silver plated copper gaskets



*D= delivered
quantity*

DN 16 CF	21	16	2	5	5P-C05-201	6,70
DN 40 CF	48	37	37	5	5P-C05-204	13,40
DN 63 CF	82	63	2	5	5P-C05-206	29,40
DN 100 CF	120	101	2	5	5P-C05-210	41,40
DN 160 CF	171	152	2	5	5P-C05-216	60,00
DN 200 CF	222	203	2	5	5P-C05-220	81,40
DN 250 CF	273	258	2	5	5P-C05-225	360,00

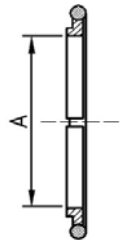
Viton gaskets



*D= delivered
quantity*

DN 16 CF				5	5P-C05-501	45,40
DN 40 CF				5	5P-C05-504	82,70
DN 63 CF				1	5P-C05-506	73,40
DN 100 CF				1	5P-C05-510	73,40
DN 160 CF				1	5P-C05-516	84,00
DN 200 CF				1	5P-C05-520	101,40
DN 250 CF				1	5P-C05-525	132,00

CF center Ring - Viton

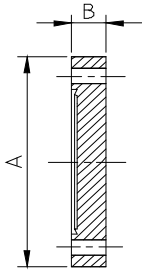


DN 63 CF				1	5P-C06-006	29,80
DN 100 CF				1	5P-C06-010	43,90
DN 160 CF				1	5P-C06-016	61,20
DN 200 CF				1	5P-C06-020	78,40

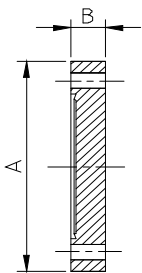
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Flanges

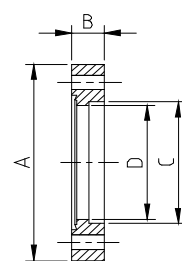
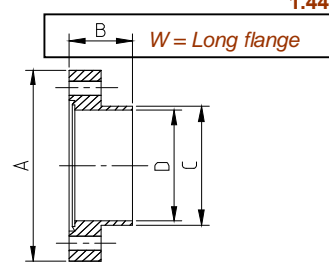
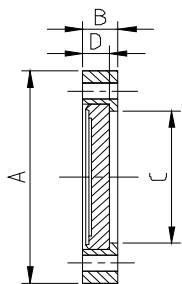
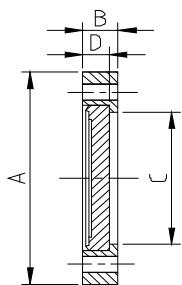
Blanking flange	AISI 316 L	DN 16 CF	34	7,3			5P-C08-001	13,00
	1.4404	DN 40 CF	69,5	12,7			5P-C08-004	20,80
	DN 63 CF	113,5	17,5			5P-C08-006	64,40	
	DN 100 CF	152	20			5P-C08-010	99,00	
	DN 160 CF	202,5	22			5P-C08-016	166,70	
	DN 200 CF	253	24,5			5P-C08-020	276,00	
	DN 250 CF	306	26			5P-C08-025	552,00	
	AISI 304L	DN 16 CF	34	7,3			5P-C08-101	12,00
	1.4307	DN 40 CF	69,5	12,7			5P-C08-104	18,40
	DN 63 CF	113,5	17,5			5P-C08-106	59,80	
	DN 100 CF	152	20			5P-C08-110	92,00	
	DN 160 CF	202,5	22			5P-C08-116	148,00	
	DN 200 CF	253	24,5			5P-C08-120	249,40	
	DN 250 CF	306	26			5P-C08-125	497,40	
	AISI 316 LN	DN 16 CF	34	7,3			5P-C08-201	26,40
	ESR-FORG	DN 40 CF	69,5	12,7			5P-C08-204	38,40
	1.4429	DN 63 CF	113,5	17,5			5P-C08-206	127,20
	DN 100 CF	152	20			5P-C08-210	200,00	
	DN 160 CF	202,5	22			5P-C08-216	398,70	
	DN 200 CF	253	24,5			5P-C08-220	701,40	
	DN 250 CF	306	26			5P-C08-225	1.028,00	



Blanking flange with tapped holes	AISI 316 L	DN 16 CF	34	7,3			5P-C08-501	19,80
	1.4404	DN 40 CF	69,5	12,7			5P-C08-504	27,60
	DN 63 CF	113,5	17,5			5P-C08-506	78,20	
	DN 100 CF	152	20			5P-C08-510	128,80	
	DN 160 CF	202,5	22			5P-C08-516	202,70	
	DN 200 CF	253	24,5			5P-C08-520	313,40	
	DN 250 CF	306	26			5P-C08-525	621,40	
	AISI 316 LN	DN 16 CF	34	7,3			5P-C08-701	31,20
	ESR-FORG	DN 40 CF	69,5	12,7			5P-C08-704	38,40
	1.4429	DN 63 CF	113,5	17,5			5P-C08-706	142,70
	DN 100 CF	152	20			5P-C08-710	226,70	
	DN 160 CF	202,5	22			5P-C08-716	404,00	
	DN 200 CF	253	24,5			5P-C08-720	644,00	
	DN 250 CF	306	26			5P-C08-725	1.032,00	



DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
Blanking flange rotatable	AISI 316 L 1.4404	DN 16 CF	34	7,3	19,4	5,8	5P-C09-001	18,00
		DN 40 CF	69,5	12,7	40,5	7,6	5P-C09-004	26,80
		DN 63 CF	113,5	19	70,5	12,6	5P-C09-006	89,80
		DN 100 CF	152	21,5	109	14,3	5P-C09-010	157,40
		DN 160 CF	202,5	24	160	15,8	5P-C09-016	268,00
		DN 200 CF	253	24,5	207	17,1	5P-C09-020	418,70
		DN 250 CF	306	26	257	18	5P-C09-025	773,40
	AISI 316 LN ESR-FORG 1.4429	DN 16 CF	34	7,3	19,4	5,8	5P-C09-201	28,80
		DN 40 CF	69,5	12,7	40,5	7,6	5P-C09-204	43,20
		DN 63 CF	113,5	19	70,5	12,6	5P-C09-206	164,00
		DN 100 CF	152	21,5	109	14,3	5P-C09-210	250,70
		DN 160 CF	202,5	24	160	15,8	5P-C09-216	576,00
		DN 200 CF	253	24,5	207	17,1	5P-C09-220	624,00
		DN 250 CF	306	26	257	18	5P-C09-225	1.032,00
Blanking flange rotatable with tapped holes	AISI 316 L 1.4404	DN 16 CF	34	7,3	19,4	5,8	5P-C09-501	23,00
		DN 40 CF	69,5	12,7	40,5	7,6	5P-C09-504	30,00
		DN 63 CF	113,5	19	70,5	12,6	5P-C09-506	94,40
		DN 100 CF	152	21,5	109	14,3	5P-C09-510	184,00
		DN 160 CF	202,5	24	160	15,8	5P-C09-516	300,00
		DN 200 CF	253	24,5	207	17,1	5P-C09-520	460,00
		DN 250 CF	306	26	257	18	5P-C09-525	837,40
	AISI 316 LN ESR-FORG 1.4429	DN 16 CF	34	7,3	19,4	5,8	5P-C09-701	36,00
		DN 40 CF	69,5	12,7	40,5	7,6	5P-C09-704	50,40
		DN 63 CF	113,5	19	70,5	12,6	5P-C09-706	176,00
		DN 100 CF	152	21,5	109	14,3	5P-C09-710	284,00
		DN 160 CF	202,5	24	160	15,8	5P-C09-716	456,00
		DN 200 CF	253	24,5	207	17,1	5P-C09-720	686,70
		DN 250 CF	306	26	257	18	5P-C09-725	1.128,00
Welding flange	AISI 316 L 1.4404	DN 16 CF	34	14,2	19,2	16	5P-C10-001W	16,20
		DN 16 CF	34	14,2	18,2	16	5P-C10-001W1	16,20
		DN 16 CF	34	7,3	19,2	16	5P-C10-001	13,00
		DN 40 CF	69,5	12,7	40,2	37	5P-C10-004	20,80
		DN 63 CF	113,5	17,5	70,2	64	5P-C10-006	64,40
		DN100 CF(104x2)	152	20	104	100	5P-C10-009	99,00
		DN 100 CF	152	20	108,5	102	5P-C10-010	99,00
		DN 160 CF	202,5	22	159,5	153	5P-C10-016	166,70
		DN 200 CF	253	24,5	206,5	200	5P-C10-020	276,00
		DN 250 CF	306	26	256,5	250	5P-C10-025	626,70
	AISI 316 LN ESR-FORG 1.4429	DN 16 CF	34	14,2	19,2	16	5P-C10-201W	28,80
		DN 16 CF	34	7,3	19,2	16	5P-C10-201	24,00
		DN40 CF (38x1,5)	69,5	12,7	38	35	5P-C10-203	31,20
		DN 40 CF	69,5	12,7	40,2	37	5P-C10-204	31,20
		DN63 CF (63,5x1,65)	113,5	17,5	63,5	60,2	5P-C10-205	127,20
		DN 63 CF	113,5	17,5	70,2	64	5P-C10-206	127,20
		DN100 CF (104x2)	152	20	104	100	5P-C10-209	164,00
		DN 100 CF	152	20	108,5	102	5P-C10-210	164,00
		DN 160 CF	202,5	22	159,5	153	5P-C10-216	336,00
DN 200 CF	253	24,5	206,5	200	5P-C10-220	586,70		

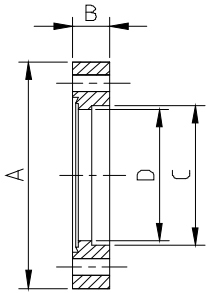


DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Welding flange with tapped holes

AISI 316 L
1.4404

DN 16 CF	34	7,3	19,2	16	5P-C10-501	19,80
DN 40 CF	69,5	12,7	40,2	37	5P-C10-504	27,60
DN 63 CF	113,5	17,5	70,2	64	5P-C10-506	78,20
DN 100 CF	152	20	108,5	102	5P-C10-510	128,80
DN 160 CF	202,5	22	159,5	153	5P-C10-516	202,70
DN 200 CF	253	24,5	206,5	200	5P-C10-520	313,40
DN 250 CF	306	26	256,5	250	5P-C10-525	621,40



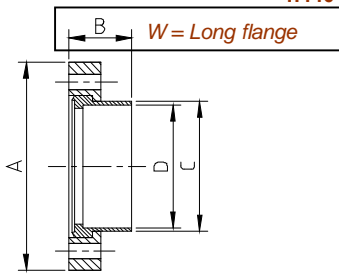
AISI 316 LN
ESR-FORG
1.4429

DN 16 CF	34	7,3	19,2	16	5P-C10-701	31,20
DN 40 CF	69,5	12,7	40,2	37	5P-C10-704	38,40
DN 63 CF	113,5	17,5	70,2	64	5P-C10-706	142,70
DN 100 CF	152	20	108,5	102	5P-C10-710	202,70
DN 160 CF	202,5	22	159,5	153	5P-C10-716	326,70
DN 200 CF	253	24,5	206,5	200	5P-C10-720	500,00
DN 250 CF	306	26	256,5	250	5P-C10-725	864,00

Welding flange rotatable

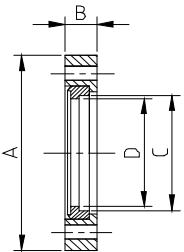
AISI 316 L
1.4404

DN 16 CF	34	14,2	19,2	16	5P-C11-001W	23,00
DN 16 CF	34	7,3	19,2	16	5P-C11-001	18,00
DN 40 CF	69,5	12,7	40,2	37	5P-C11-004	26,80
DN 63 CF	113,5	19	70,2	64	5P-C11-006	89,80
DN100 CF(104 X 2)	152	21,5	104	100	5P-C11-009	157,40
DN 100 CF	152	21,5	108,5	102	5P-C11-010	157,40
DN 160 CF	202,5	24	159,5	153	5P-C11-016	268,00
DN 200 CF	253	24,5	206,5	200	5P-C11-020	418,70
DN 250 CF	306	26	256,5	250	5P-C11-025	773,40



AISI 316 LN
ESR-FORG
1.4429

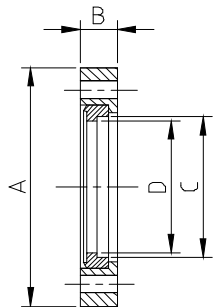
DN 16 CF	34	14,2	19,2	16	5P-C11-201W	33,60
DN 16 CF	34	7,3	19,2	16	5P-C11-201	28,80
DN40 CF (38x1,5)	69,5	12,7	38	35	5P-C11-203	43,20
DN 40 CF	69,5	12,7	40,2	37	5P-C11-204	43,20
DN63 CF (64,5)	113,5	19	64,5		5P-C11-205	164,00
DN 63 CF	113,5	19	70,2	64	5P-C11-206	164,00
DN100 CF (104x2)	152	21,5	104	100	5P-C11-209	240,00
DN 100 CF	152	21,5	108,5	102	5P-C11-210	240,00
DN 160 CF	202,5	24	159,5	153	5P-C11-216	518,70
DN 200 CF	253	24,5	206,5	200	5P-C11-220	980,00
DN 250 CF	306	26	256,5	250	5P-C11-225	1.032,00



Welding flange rotatable with tapped holes

AISI 316 L
1.4404

DN 16 CF	34	7,3	19,2	16	5P-C11-501	23,00
DN 40 CF	69,5	12,7	40,2	37	5P-C11-504	30,00
DN 63 CF	113,5	19	70,2	64	5P-C11-506	94,40
DN 100 CF	152	21,5	108,5	102	5P-C11-510	184,00
DN 160 CF	202,5	24	159,5	153	5P-C11-516	300,00
DN 200 CF	253	24,5	206,5	200	5P-C11-520	460,00
DN 250 CF	306	26	256,5	250	5P-C11-525	837,40

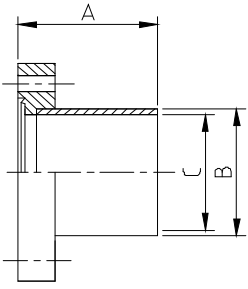


AISI 316 LN
ESR-FORG
1.4429

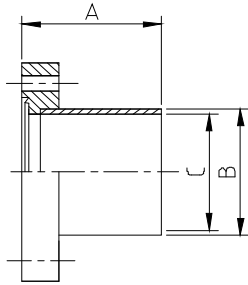
DN 16 CF	34	7,3	19,2	16	5P-C11-701	36,00
DN 40 CF	69,5	12,7	40,2	37	5P-C11-704	50,40
DN 63 CF	113,5	19	70,2	64	5P-C11-706	176,00
DN 100 CF	152	21,5	108,5	102	5P-C11-710	284,00
DN 160 CF	202,5	24	159,5	153	5P-C11-716	456,00
DN 200 CF	253	24,5	206,5	200	5P-C11-720	686,70
DN 250 CF	306	26	256,5	250	5P-C11-725	1.128,00

DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

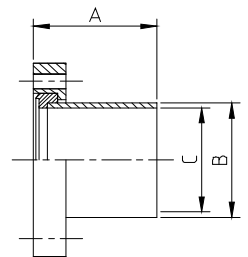
DESCRIPTION	AISI 316 L	NOM. DIAMETER	A	B	C	D	CODE	PRICE
	1.4404							
Flange with pipe		DN 16 CF	38	19	16		5P-C12-001	26,80
		DN 40 CF	63	40	37		5P-C12-004	39,20
		DN 63 CF	105	70	64		5P-C12-006	98,00
		DN 100 CF	135	108	102		5P-C12-010	150,70
		DN 160 CF	167	159	153		5P-C12-016	234,70
		DN 200 CF	203	206	200		5P-C12-020	392,00
		DN 250 CF					5P-C12-025	700,00
	AISI 316 LN	DN 16 CF	38	19	16		5P-C12-201	50,40
	ESR-FORG	DN 40 CF	63	40	37		5P-C12-204	64,80
	1.4429	DN 63 CF	105	70	64		5P-C12-206	180,00
	DN 100 CF	135	108	102		5P-C12-210	240,00	
	DN 160 CF	167	159	153		5P-C12-216	384,00	
	DN 200 CF	203	206	200		5P-C12-220	600,00	



DESCRIPTION	AISI 316 L	NOM. DIAMETER	A	B	C	D	CODE	PRICE
	1.4404							
Flange with pipe tapped holes		DN16 CF	38	19	16		5P-C12-501	34,60
		DN40 CF	63	40	37		5P-C12-504	46,00
		DN63 CF	105	70	64		5P-C12-506	112,80
		DN100 CF	135	108	102		5P-C12-510	184,00
		DN160 CF	167	159	153		5P-C12-516	271,40
		DN200 CF	203	206	200		5P-C12-520	437,40
		DN250 CF					5P-C12-525	760,00



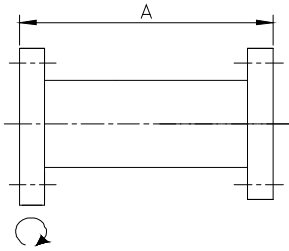
DESCRIPTION	AISI 316 L	NOM. DIAMETER	A	B	C	D	CODE	PRICE
	1.4404							
Rotatable flange with pipe		DN 16 CF	38	19	16		5P-C13-001	31,80
		DN 40 CF	63	40	37		5P-C13-004	45,20
		DN 63 CF	105	70	64		5P-C13-006	125,60
		DN 100 CF	135	108	102		5P-C13-010	221,40
		DN 160 CF	167	159	153		5P-C13-016	350,70
		DN 200 CF	203	206	200		5P-C13-020	548,00
	AISI 316 LN	DN 16 CF	38	19	16		5P-C13-201	55,20
ESR-FORG	DN 40 CF	63	40	37		5P-C13-204	79,20	
1.4429	DN 63 CF	105	70	64		5P-C13-206	221,40	
	DN 100 CF	135	108	102		5P-C13-210	326,70	
	DN 160 CF	167	159	153		5P-C13-216	528,00	
	DN 200 CF	203	206	200		5P-C13-220	816,00	
	AISI 316 LN	DN 16 CF	38	19	16		5P-C13-501	31,80
ESR-FORG	DN 40 CF	63	40	37		5P-C13-504	45,20	
1.4429	DN 63 CF	105	70	64		5P-C13-506	125,60	
	DN 100 CF	135	108	102		5P-C13-510	220,80	
	DN 160 CF	167	159	153		5P-C13-516	349,60	



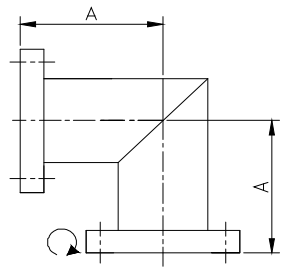
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Pipe components & adapters

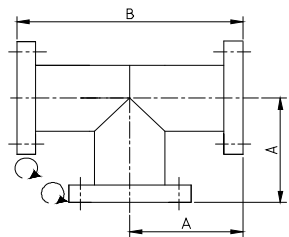
Intermediate piece	AISI 316 L	DN 16 CF	76				5P-C16-001	55,20
	1.4404	DN 40 CF	126				5P-C16-004	78,20
	DN 63 CF	210				5P-C16-006	208,00	
	DN 100 CF	270				5P-C16-010	326,70	
	DN 160 CF	334				5P-C16-016	506,70	
	DN 200 CF	406				5P-C16-020	805,40	
	AISI 316 LN	DN 16 CF	76				5P-C16-201	100,80
	ESR-FORG	DN 40 CF	126				5P-C16-204	144,00
	1.4429	DN 63 CF	210				5P-C16-206	384,00
		DN 100 CF	270				5P-C16-210	576,00
		DN 160 CF	334				5P-C16-216	768,00
		DN 200 CF	406				5P-C16-220	1.320,00



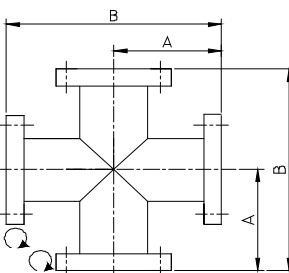
Elbow 90°	AISI 316 L	DN 16 CF	38				5P-C17-001	69,00
	1.4404	DN 40 CF	63				5P-C17-004	96,60
	DN 63 CF	105				5P-C17-006	258,70	
	DN 100 CF	135				5P-C17-010	414,70	
	DN 160 CF	167				5P-C17-016	633,40	
	DN 200 CF	203				5P-C17-020	1.012,00	
	AISI 316 LN	DN 16 CF	38				5P-C17-201	129,60
	ESR-FORG	DN 40 CF	63				5P-C17-204	185,40
	1.4429	DN 63 CF	105				5P-C17-206	480,00
		DN 100 CF	135				5P-C17-210	634,70
		DN 160 CF	167				5P-C17-216	960,00
		DN 200 CF	203				5P-C17-220	1.632,00



T-piece	AISI 316 L	DN 16 CF	38	76			5P-C18-001	103,60
	1.4404	DN 40 CF	63	126			5P-C18-004	145,40
	DN 63 CF	105	210			5P-C18-006	386,70	
	DN 100 CF	135	270			5P-C18-010	621,40	
	DN 160 CF	167	334			5P-C18-016	944,00	
	DN 200 CF	203	406			5P-C18-020	1.518,70	
	AISI 316 LN	DN 16 CF	38	76			5P-C18-201	194,70
	ESR-FORG	DN 40 CF	63	126			5P-C18-204	276,00
	1.4429	DN 63 CF	105	210			5P-C18-206	692,00
		DN 100 CF	135	270			5P-C18-210	864,00
		DN 160 CF	167	334			5P-C18-216	1.440,00
		DN 200 CF	203	406			5P-C18-220	2.160,00

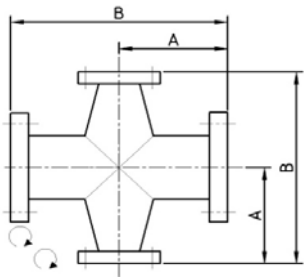


Cross-piece	AISI 316 L	DN 16 CF	38	76			5P-C19-001	145,40
	1.4404	DN 40 CF	63	126			5P-C19-004	196,00
	DN 63 CF	105	210			5P-C19-006	497,40	
	DN 100 CF	135	270			5P-C19-010	805,40	
	DN 160 CF	167	334			5P-C19-016	1.242,70	
	DN 200 CF	203	406			5P-C19-020	1.978,70	
	AISI 316 LN	DN 16 CF	38	76			5P-C19-201	269,40
	ESR-FORG	DN 40 CF	63	126			5P-C19-204	374,70
	1.4429	DN 63 CF	105	210			5P-C19-206	900,00
		DN 100 CF	135	270			5P-C19-210	1.152,00
		DN 160 CF	167	334			5P-C19-216	1.872,00
		DN 200 CF	203	406			5P-C19-220	2.880,00

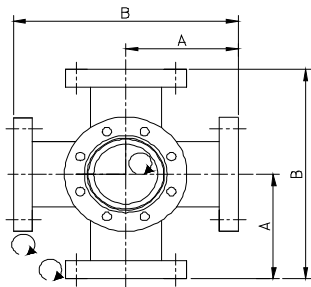


DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Conical red. Piec	AISI 316 L	DN100-40 CF					5P-C28-009	244,00
	1.4404							

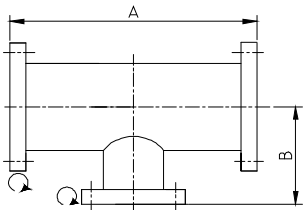


Double cross-piece	AISI 316 L	DN 16 CF	38	76			5P-C20-001	217,40
	1.4404	DN 40 CF	63	126			5P-C20-004	294,70
		DN 63 CF	105	210			5P-C20-006	745,40
		DN 100 CF	135	270			5P-C20-010	1.214,70
		DN 160 CF	167	334			5P-C20-016	1.840,00
		DN 200 CF	203	406			5P-C20-020	2.966,70



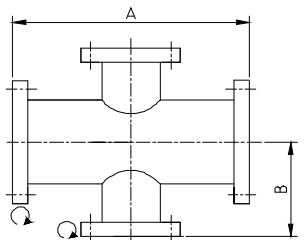
AISI 316 LN ESR-FORG 1.4429	DN 16 CF	38	76			5P-C20-201	404,00
	DN 40 CF	63	126			5P-C20-204	562,70
	DN 63 CF	105	210			5P-C20-206	1.344,00
	DN 100 CF	135	270			5P-C20-210	1.728,00
	DN 160 CF	167	334			5P-C20-216	2.808,00
	DN 200 CF	203	406			5P-C20-220	4.320,00

Reducing T-piece	AISI 316 L	DN 40-16 CF	126	50			5P-C21-004	133,40
	1.4404	DN 63-40 CF	210	75			5P-C21-006	288,00
		DN 100-63 CF	270	100			5P-C21-010	538,70
		DN 160-100 CF	334	125			5P-C21-016	805,40
		DN 200-160 CF	406	150			5P-C21-020	1.297,40



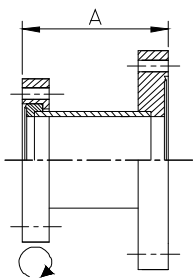
AISI 316 LN ESR-FORG 1.4429	DN 40-16 CF	126	50			5P-C21-504	250,70
	DN 63-40 CF	210	75			5P-C21-506	528,00
	DN 100-63 CF	270	100			5P-C21-510	840,00
	DN 160-100 CF	334	125			5P-C21-516	1.248,00
	DN 200-160 CF	406	150			5P-C21-520	1.872,00

Reducing cross-piece	AISI 316 L	DN 40-16 CF	126	100			5P-C22-004	166,70
	1.4404	DN 63-40 CF	210	150			5P-C22-006	317,40
		DN100-38 CF	270	200			5P-C22-009	476,00
		DN 100-63 CF	270	200			5P-C22-010	633,40
		DN 160-100 CF	334	250			5P-C22-016	966,70
		DN 200-160 CF	406	300			5P-C22-020	1.529,40

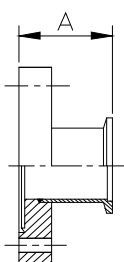


AISI 316 LN ESR-FORG 1.4429	DN 40-16 CF	126	100			5P-C22-204	312,00
	DN 63-40 CF	210	150			5P-C22-206	600,00
	DN 100-63 CF	270	200			5P-C22-210	1.056,00
	DN 160-100 CF	334	250			5P-C22-216	1.512,00
	DN 200-160 CF	406	300			5P-C22-220	2.400,00

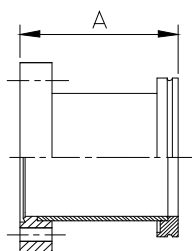
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
Reducing piece CF / CF	AISI 316 L	DN 40-16 CF	45				5P-C23-004	81,60
		DN63-16 CF	75				5P-C23-005	117,60
	1.4404	DN 63-40 CF	75				5P-C23-006	148,00
		N100-40 CF					5P-C23-009	202,70
			DN 100-63 CF	95			5P-C23-010	258,70
			DN160-40 CF	105			5P-C23-014	317,40
			DN 160-100 CF	105			5P-C23-016	418,70
			DN 200-160 CF	115			5P-C23-020	653,40
	AISI 316 LN	DN 40-16 CF	45				5P-C23-204	112,80
		DN63-16 CF	75				5P-C23-205	182,70
	ESR-FORG	DN 63-40 CF	75				5P-C23-206	252,00
		1.4429	DN 100-63 CF	95				5P-C23-210
	DN 160-100 CF		105				5P-C23-216	744,00
	DN 200-160 CF		115				5P-C23-220	1.200,00



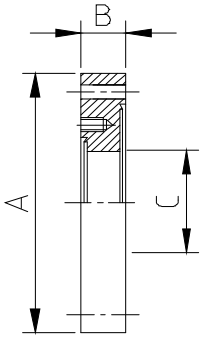
Adaptor piece CF / KF	AISI 316 L	DN 16 CF-16 KF	36				5P-C24-011	33,60
		DN 16 CF-25 KF	36				5P-C24-012	36,00
	1.4404	DN 16 CF-40 KF	36				5P-C24-014	41,00
		DN 40 CF-16 KF	36				5P-C24-041	50,60
			DN 40 CF-25 KF	36			5P-C24-042	50,60
			DN 40 CF-40 KF	50			5P-C24-044	57,60
			DN 63 CF-16 KF	50			5P-C24-061	110,40
			DN63 CF-25 KF	50			5P-C24-062	110,40
			DN 63 CF-40 KF	50			5P-C24-064	118,70
			DN100 CF-25 KF	50			5P-C24-101	164,00
			DN100 CF-40 KF	50			5P-C24-102	164,00
			DN 100 CF-40 KF	50			5P-C24-104	168,00
			DN160 CF-40 KF	50			5P-C24-164	234,70



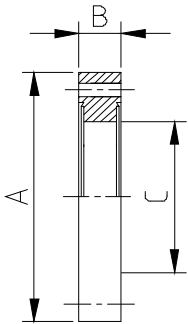
Adaptor piece CF / ISO-K	AISI 316 L	DN 63 CF-63 ISO-K	90				5P-C25-006	193,40
		DN100 CF-63 ISO-K	90				5P-C25-009	230,70
	1.4404	DN 100 CF-100 ISO-K	90				5P-C25-010	278,70
		DN100 CF-160 ISO-K	90				5P-C25-011	345,40
		DN 160 CF-160 ISO-K	90				5P-C25-016	414,70
		DN 200 CF-200 ISO-K	90				5P-C25-020	598,70



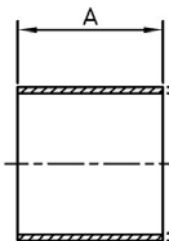
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE	
Reducing flange CF / CF	AISI 316 L 1.4404	DN 40-16 CF	69,5	12,7	16		5P-C26-021	41,90	
		DN63-16 CF	113,5	17,5	37		5P-C26-031	103,60	
		DN 63-40 CF	113,5	17,5	37		5P-C26-032	100,40	
		DN100-16 CF	152	20	37		5P-C26-041	131,20	
		DN 100-40 CF	152	20	37		5P-C26-042	131,20	
		DN 100-63 CF	152	20	64		5P-C26-043	154,70	
		DN160-16 CF	202,5	24	37		5P-C26-051	212,00	
		DN 160-040 CF	202,5	24	37		5P-C26-052	212,00	
		DN 160-063 CF	202,5	24	64		5P-C26-053	230,70	
		DN 160-100 CF	202,5	24	102		5P-C26-054	244,00	
		DN200-40 CF	253	24	64		5P-C26-062	276,00	
		DN 200-063 CF	253	24	64		5P-C26-063	341,40	
		DN 200-100 CF	253	24	102		5P-C26-064	360,00	
		DN 200-160 CF	253	24	153		5P-C26-065	377,40	
		DN250-100 CF	305	25	102		5P-C26-074	713,40	
		DN250-160 CF	305	25	153		5P-C26-075	736,00	
		DN250-200 CF	305	25	102		5P-C26-076	760,00	
		AISI 316 LN ESR-FORG 1.4429	DN 40-16 CF	69,5	12,7	16		5P-C26-221	81,60
			DN 63-40 CF	113,5	17,5	37		5P-C26-232	216,00
			DN 100-40 CF	152	20	37		5P-C26-242	312,00
DN 100-63 CF	152		20	64		5P-C26-243	336,00		
DN 160-040 CF	202,5		24	37		5P-C26-252	504,00		
DN 160-063 CF	202,5		24	64		5P-C26-253	552,00		
DN 160-100 CF	202,5		24	102		5P-C26-254	600,00		
DN 200-063 CF	253		24	64		5P-C26-263	744,00		
DN 200-100 CF	253		24	102		5P-C26-264	792,00		
DN 200-160 CF	253		24	153		5P-C26-265	840,00		



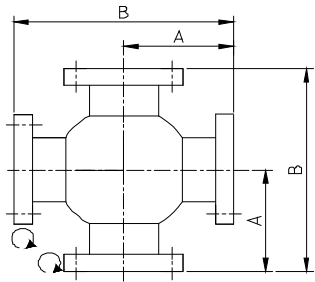
Double-sided flange	AISI 316 L 1.4404	DN 16 CF	34	7,3	16		5P-C27-001	31,40	
		DN 40 CF	69,5	12,7	37		5P-C27-004	43,80	
		DN 63 CF	113,5	17,5	64		5P-C27-006	105,00	
		DN 100 CF	152	20	102		5P-C27-010	161,40	
		DN 160 CF	202,5	22	153		5P-C27-016	228,00	
		DN 200 CF	253	24,5	200		5P-C27-020	345,40	
		AISI 316 LN ESR-FORG 1.4429	DN 16 CF	34	7,3	16		5P-C27-201	50,40
			DN 40 CF	69,5	12,7	37		5P-C27-204	96,00
			DN 63 CF	113,5	17,5	64		5P-C27-206	192,00
			DN 100 CF	152	20	102		5P-C27-210	288,00
DN 160 CF	202,5		22	153		5P-C27-216	456,00		
DN 200 CF	253	24,5	200		5P-C27-220	720,00			



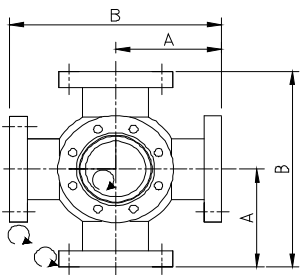
Tube	AISI 316 L 1.4404	19,05 x 1,65 (DN16 CF)	1000				5P-C29-001	17,30
		40 x 1,5 (DN 40 CF)	1000				5P-C29-004	28,80
		63,5 x 2 (DN 63 CF)	1000				5P-C29-005	57,60
		. 70 x 3 (DN63 CF)	1000				5P-C29-006	57,60
		. 104 x 2 (DN100 CF)	1000				5P-C29-009	99,00
		. 108 x 3 (DN100 CF)	1000				5P-C29-010	99,00
		. 154 x 2 (DN150 CF)	1000				5P-C29-015	138,00
		. 159 x 3 (DN160 CF)	1000				5P-C29-016	138,00
		. 206 x 3 (DN200 CF)	1000				5P-C29-020	201,40
		. 256 x 3 (DN250 CF)	1000				5P-C29-025	276,00



DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
Spherical cross-piece	AISI 316 L 1.4404	DN 40 CF	63	126			5P-C30-004	242,70
		DN 63 CF	105	210			5P-C30-006	552,00
		DN 100 CF	135	270			5P-C30-010	920,00
		DN 160 CF	167	334			5P-C30-016	1.449,40
		DN 200 CF	203	406			5P-C30-020	2.300,00
	AISI 316 LN ESR-FORG 1.4429	DN 40 CF	63	126			5P-C30-204	432,00
		DN 63 CF	105	210			5P-C30-206	946,70
		DN 100 CF	135	270			5P-C30-210	1.301,40
		DN 160 CF	167	334			5P-C30-216	2.054,70
		DN 200 CF	203	406			5P-C30-220	3.240,00



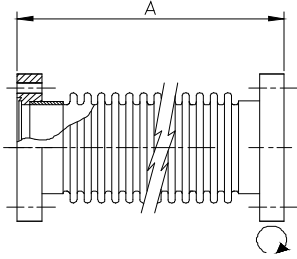
Spherical double cross-piece	AISI 316 L 1.4404	DN 40 CF	63	126			5P-C31-004	360,00
		DN 63 CF	105	210			5P-C31-006	852,00
		DN 100 CF	135	270			5P-C31-010	1.380,00
		DN 160 CF	167	334			5P-C31-016	2.253,40
		DN 200 CF	203	406			5P-C31-020	3.588,00
	AISI 316 LN ESR-FORG 1.4429	DN 40 CF	63	126			5P-C31-204	646,70
		DN 63 CF	105	210			5P-C31-206	1.538,70
		DN 100 CF	135	270			5P-C31-210	2.036,00
		DN 160 CF	167	334			5P-C31-216	3.249,40
		DN 200 CF	203	406			5P-C31-220	5.040,00



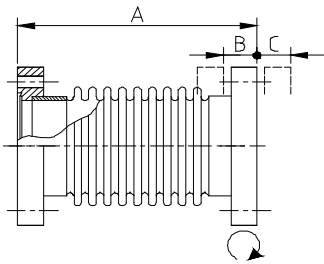
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Bellows

Flexible metal hose	AISI 316 L	DN 16 CF	250				5P-C38-001	100,80
		1.4404	DN 40 CF	250				5P-C38-004
		DN 63 CF	250				5P-C38-006	298,70
		DN 16 CF	500				5P-C38-101	112,80
		DN 40 CF	500				5P-C38-104	158,70
		DN 63 CF	500				5P-C38-106	332,00
		DN 16 CF	750				5P-C38-201	124,80
		DN 40 CF	750				5P-C38-204	180,00
		DN 63 CF	750				5P-C38-206	356,00
		DN 16 CF	1000				5P-C38-301	149,40
		DN 40 CF	1000				5P-C38-304	209,40
		DN 63 CF	1000				5P-C38-306	398,70



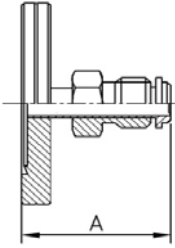
Bellow	AISI 316 L	DN 16 CF	110	14	7		5P-C39-001	112,80
		1.4404	DN 40 CF	160	16	8		5P-C39-004
		DN 63 CF	250	20	10		5P-C39-006	336,00
		DN 100 CF	250	20	10		5P-C39-010	540,00
		DN 160 CF	270	20	10		5P-C39-016	816,00
		DN 200 CF	300	24	12		5P-C39-020	1.344,00
	AISI 316 LN	DN 16 CF	110	14	7		5P-C39-201	149,40
	ESR-FORG	DN 40 CF	160	16	8		5P-C39-204	224,00
	1.4429	DN 63 CF	250	20	10		5P-C39-206	568,80
		DN 100 CF	250	20	10		5P-C39-210	662,70
		DN 160 CF	270	20	10		5P-C39-216	1.268,00
		DN 200 CF	300	24	12		5P-C39-220	1.920,00



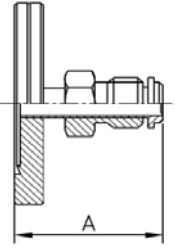
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
-------------	------	---------------	---	---	---	---	------	-------

Adaptor

Adaptator Piece CF-SW	AISI 316 L	DN16 CF-SW 6	34				5P-C46-001	81,60
		DN40 CF-SW 6	37				5P-C46-004	105,60
		DN16 CF-SW 1/4"	34				5P-C46-101	81,60
		DN40 CF-SW 1/4"	37				5P-C46-104	105,60
		DN40 CF-SW 12	39				5P-C46-204	129,60
		DN40 CF-SW 1/2"	39				5P-C46-304	129,60

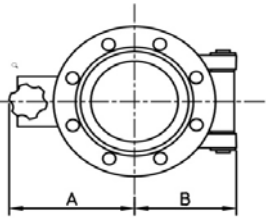


Adaptor Piece CF-VCR male	SS	DN16 CF-VCR 1/4"	34				5P-C47-001	112,80
		DN40 CF-VCR 1/4"	34				5P-C47-004	129,60
		DN40 CF-VCR 1/2"	39				5P-C47-104	144,00
		DN40 CF-VCR 3/4"	39				5P-C47-204	161,40
		DN40 CF-VCR 1"	39				5P-C47-304	178,70



Miscellaneous

Quick access door	SS	DN 40 CF	88	72			5P-C50-004	336,00
		DN 63 CF	88	72			5P-C50-006	480,00
		DN 100 CF	108	93			5P-C50-010	560,00
		DN 160 CF	134	119			5P-C50-016	696,00
		DN 200 CF	160	145			5P-C50-020	960,00



Protective cover	Plastic	DN 16 CF				10	5P-C45-001	2
		DN 40 CF				10	5P-C45-004	6,00
		DN 63 CF				10	5P-C45-006	12,00
		DN 100 CF				10	5P-C45-010	19,20
		DN 160 CF				1	5P-C45-016	3,40
		DN 200 CF				1	5P-C45-020	5,10

