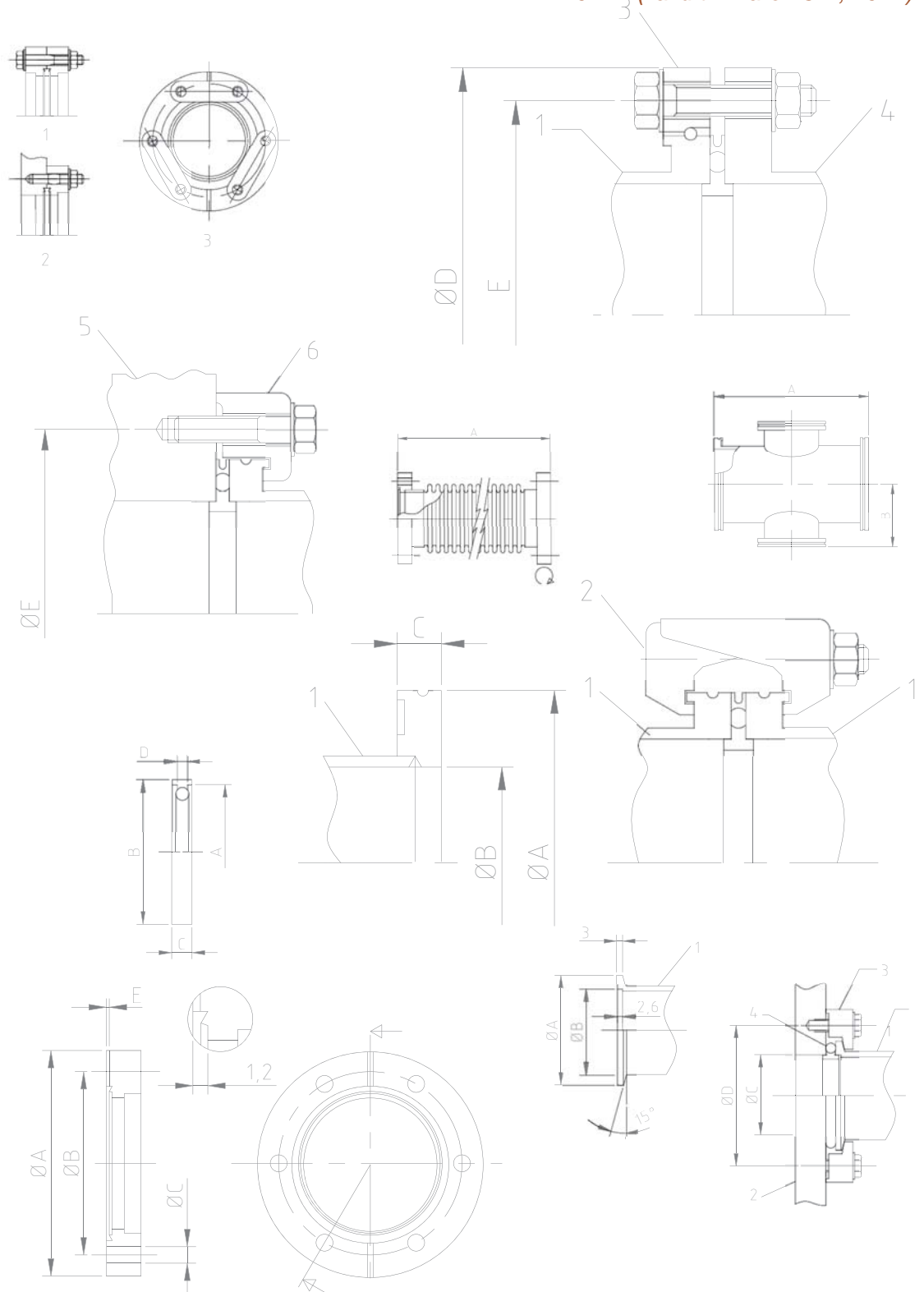


N. 2011.1 (valid till March 31st, 2011)

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 \cdot 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.

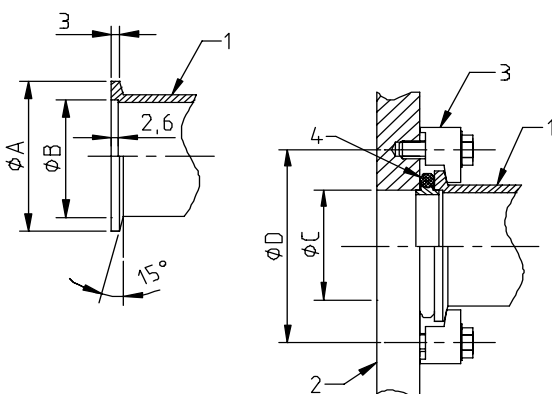
Clamps are made from polymeric materials, cast aluminium, machined aluminium, and stainless steel, with two or three hinged segments and a variety of closing mechanism including thumbscrews, over-center levers, threaded rods or nuts, or set screw. The most popular are either of the first two since no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



	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

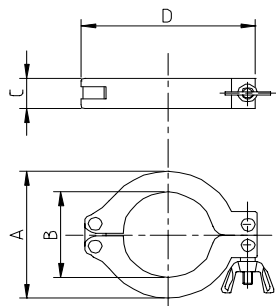
- 1 Small flange port
- 2 Housing panel with thread
- 3 Claw grip
- 4 Center ring

Small flange components to DIN 28043 or Pneurop 6606 standard

DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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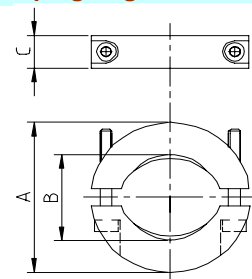
Connecting elements

Clamping ring **Al**



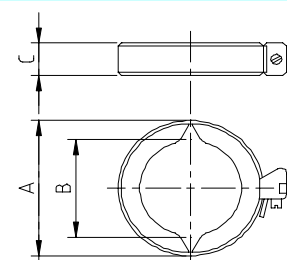
DN 10-16 KF	43	22	16	62	5P-A01-016	3,40
DN 20-25 KF	55	32	16	72	5P-A01-025	4,00
DN 32-40 KF	70	47	16	90	5P-A01-040	4,80
DN 50 KF	95	63	25	123	5P-A01-050	8,00

Clamping ring for metal seal **SS**



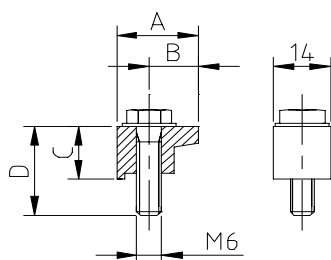
DN 10-16 KF	54	22	18		5P-A02-016	54,00
DN 20-25 KF	64	32	18		5P-A02-025	64,00
DN 32-40 KF	82	47	18		5P-A02-040	68,00
DN 50 KF	112	62	18		5P-A02-050	88,00

Isolated clamping ring **Zelamit**



DN 10-16 KF	54	22	18		5P-A03-016	12,00
DN 20-25 KF	64	32	18		5P-A03-025	14,00
DN 32-40 KF	82	47	18		5P-A03-040	18,00
DN 50 KF	112	62	18		5P-A03-050	28,00

Claw grip **SS**

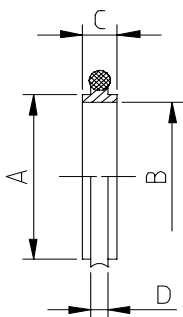


DN 10-50 KF	20	12	14	20	5P-A04-000	16,00
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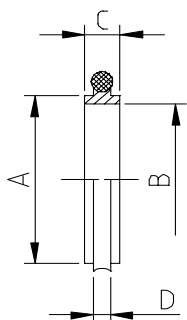
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Seals

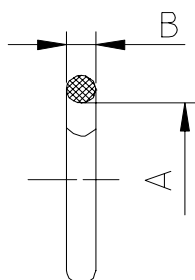
Centering ring	SS-Viton	DN 10 KF	12	10	8	3,9	5P-A05-010	3,00
		DN 16 KF	17	16	8	3,9	5P-A05-016	3,00
		DN 25 KF	26	25	8	3,9	5P-A05-025	4,00
		DN 40 KF	41	40	8	3,9	5P-A05-040	5,20
		DN 50 KF	52	50	8	3,9	5P-A05-050	6,80
	SS-NBR	DN 10 KF	12	10	8	3,9	5P-A05-110	2,60
		DN 16 KF	17	16	8	3,9	5P-A05-116	2,60
		DN 25 KF	26	25	8	3,9	5P-A05-125	3,60
		DN 40 KF	41	40	8	3,9	5P-A05-140	4,80
		DN 50 KF	52	50	8	3,9	5P-A05-150	6,40
	Al-Viton	DN 10 KF	12	10	8	3,9	5P-A05-210	2,60
		DN 16 KF	17	16	8	3,9	5P-A05-216	2,60
		DN 25 KF	26	25	8	3,9	5P-A05-225	3,60
		DN 40 KF	41	40	8	3,9	5P-A05-240	4,80
		DN 50 KF	52	50	8	3,9	5P-A05-250	6,40



Centering ring	Al-NBR	DN 10 KF	12	10	8	3,9	5P-A05-310	2,40
		DN 16 KF	17	16	8	3,9	5P-A05-316	2,40
		DN 25 KF	26	25	8	3,9	5P-A05-325	3,40
		DN 40 KF	41	40	8	3,9	5P-A05-340	4,60
		DN 50 KF	52	50	8	3,9	5P-A05-350	6,20
	Teflon-Viton	DN 10 KF	12	10	8	3,9	5P-A05-410	6,00
		DN 16 KF	17	16	8	3,9	5P-A05-416	6,00
		DN 25 KF	26	25	8	3,9	5P-A05-425	8,00
		DN 40 KF	41	40	8	3,9	5P-A05-440	10,00
		DN 50 KF	52	50	8	3,9	5P-A05-450	14,00
	Teflon-NBR	DN 10 KF	12	10	8	3,9	5P-A05-510	5,80
		DN 16 KF	17	16	8	3,9	5P-A05-516	5,80
		DN 25 KF	26	25	8	3,9	5P-A05-525	7,80
		DN 40 KF	41	40	8	3,9	5P-A05-540	9,80
		DN 50 KF	52	50	8	3,9	5P-A05-550	13,80

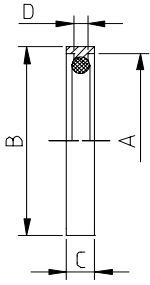


O-ring	Viton	DN 10 KF	15	5			5P-A06-010	4,00
		DN 16 KF	18	5			5P-A06-016	4,00
		DN 25 KF	28	5			5P-A06-025	6,00
		DN 40 KF	42	5			5P-A06-040	7,00
		DN 50 KF	52	5			5P-A06-050	10,00
	NBR	DN 10 KF	15	5			5P-A06-110	2,60
		DN 16 KF	18	5			5P-A06-116	2,60
		DN 25 KF	28	5			5P-A06-125	3,60
		DN 40 KF	42	5			5P-A06-140	4,80
		DN 50 KF	52	5			5P-A06-150	6,00

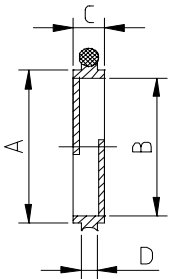


DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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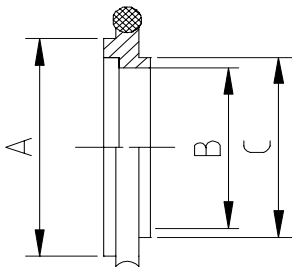
External centering ring	Al-Viton	DN 10-16 KF	30	32	7	3,9	5P-A07-016	4,80
		DN 20-25 KF	40	42	7	3,9	5P-A07-025	5,60
		DN 32-40 KF	55	57	7	3,9	5P-A07-040	6,80
		DN 50 KF	75	77	7	3,9	5P-A07-050	10,00



Centering ring with optical baffle	SS-Viton	DN 16 KF	17	16	8	3,9	5P-A08-016	5,60
		DN 25 KF	26	25	8	3,9	5P-A08-025	6,80
		DN 40 KF	41	40	8	3,9	5P-A08-040	10,00

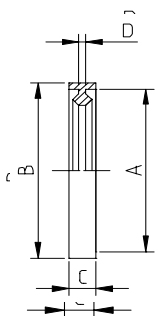


Reducing centering ring	SS-Viton	DN 10-16 KF	17	10	12		5P-A09-016	4,40
		DN 20-25 KF	26	21	22		5P-A09-025	6,00
		DN 32-40 KF	41	32	34		5P-A09-040	8,00

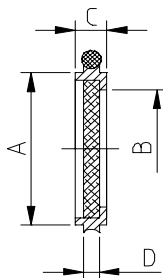


SS-NBR	DN 10-16 KF	17	10	12		5P-A09-116	4,00
	DN 20-25 KF	26	21	22		5P-A09-125	5,60
	DN 32-40 KF	41	32	34		5P-A09-140	7,60

Metal seal	Al	DN 10-16 KF	30	32	7	2	5P-A10-016	6,40
		DN 20-25 KF	40	42	7	2	5P-A10-025	7,60
		DN 32-40 KF	55	57	7	2	5P-A10-040	8,80
		DN 50 KF	75	77	7	2	5P-A10-050	12,00



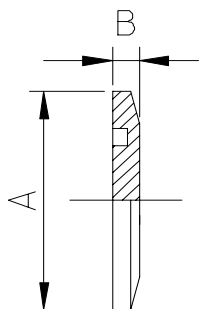
Centering ring with sintered metal filter	SS-Viton	DN 16 KF	17	14	8	3,9	5P-A11-016	10,00
		DN 25 KF	26	23	8	3,9	5P-A11-025	12,00
		DN 40 KF	41	38	8	3,9	5P-A11-040	14,00



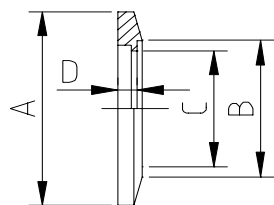
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Flanges

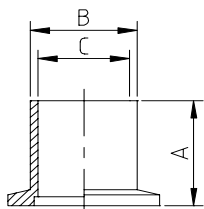
Blanking flange	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 10 KF	30	5			5P-A12-010	4,00
		DN 16 KF	30	5			5P-A12-016	4,00
		DN 25 KF	40	5			5P-A12-025	4,40
		DN 40 KF	55	5			5P-A12-040	5,60
		DN 50 KF	75	5			5P-A12-050	8,00
	Al	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 10 KF	30	5			5P-A12-110	3,60
		DN 16 KF	30	5			5P-A12-116	3,60
		DN 25 KF	40	5			5P-A12-125	4,00
		DN 40 KF	55	5			5P-A12-140	4,60
		DN 50 KF	75	5			5P-A12-150	6,80



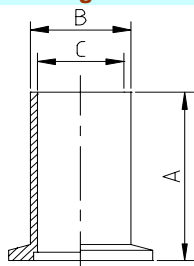
Weld flange	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 10 KF	30	14	10	3,5	5P-A13-010	4,40
		DN 16 KF	30	20	16	3,5	5P-A13-016	4,40
		DN 25 KF	40	28	24	3,5	5P-A13-025	5,60
		DN 40 KF	55	45	41	3,5	5P-A13-040	6,40
		DN 50 KF	75	57	50	3,5	5P-A13-050	10,00



Short weld flange	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 10 KF	30	14	10		5P-A14-010	8,00
		DN 16 KF	30	20	16		5P-A14-016	8,00
		DN 25 KF	30	28	24		5P-A14-025	10,00
		DN 40 KF	30	45	41		5P-A14-040	16,00
		DN 50 KF	30	57	50		5P-A14-050	24,00



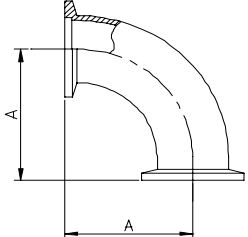
Long weld flange	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 10 KF	70	14	10		5P-A15-010	14,00
		DN 16 KF	70	20	16		5P-A15-016	12,00
		DN 25 KF	70	28	24		5P-A15-025	16,00
		DN 40 KF	70	45	41		5P-A15-040	20,00
		DN 50 KF	70	57	50		5P-A15-050	32,00

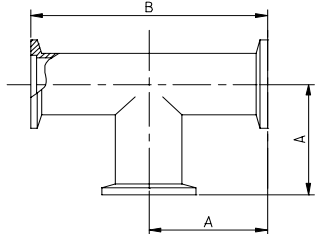


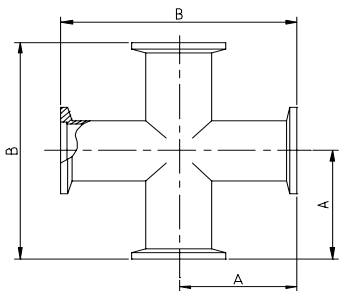
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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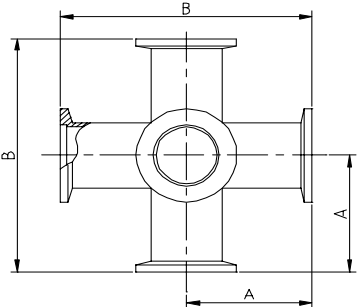
Pipe Components

Intermediate piece	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
	DN 10 KF	60					5P-A16-010	26,40
	DN 16 KF	80					5P-A16-016	24,40
	DN 25 KF	100					5P-A16-025	31,20
	DN 40 KF	130					5P-A16-040	44,00
	DN 50 KF	140					5P-A16-050	52,00

Elbow 90°	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
	DN 10 KF	30					5P-A17-010	30,00
	DN 16 KF	40					5P-A17-016	32,00
	DN 25 KF	50					5P-A17-025	36,00
	DN 40 KF	65					5P-A17-040	40,00
	DN 50 KF	70					5P-A17-050	48,00

T-piece	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
	DN 10 KF	30	60				5P-A18-010	40,00
	DN 16 KF	40	80				5P-A18-016	40,00
	DN 25 KF	50	100				5P-A18-025	52,00
	DN 40 KF	65	130				5P-A18-040	60,00
	DN 50 KF	70	140				5P-A18-050	72,00

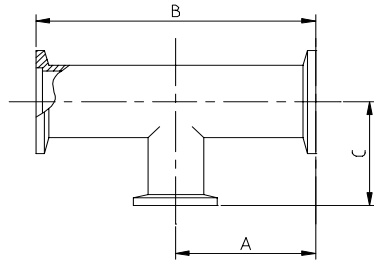
Cross piece	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
	DN 10 KF	30	60				5P-A19-010	52,00
	DN 16 KF	40	80				5P-A19-016	58,00
	DN 25 KF	50	100				5P-A19-025	72,00
	DN 40 KF	65	130				5P-A19-040	88,00
	DN 50 KF	70	140				5P-A19-050	100,00

Double cross piece	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
	DN 10 KF	30	60				5P-A20-010	128,00
	DN 16 KF	40	80				5P-A20-016	128,00
	DN 25 KF	50	100				5P-A20-025	168,00
	DN 40 KF	65	130				5P-A20-040	200,00
	DN 50 KF	70	140				5P-A20-050	240,00

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

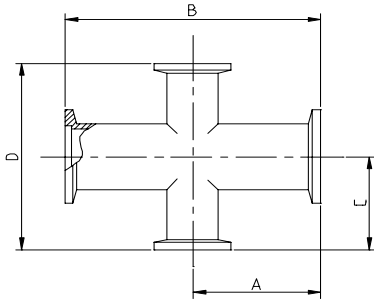
SS



DN 25-16 KF	50	100	40		5P-A21-125	56,00
DN 40-16 KF	65	130	40		5P-A21-140	64,00
DN 40-25 KF	65	130	50		5P-A21-240	64,00
DN 50-25 KF	70	140	50		5P-A21-250	80,00
DN 50-40 KF	70	140	65		5P-A21-450	92,00

Reducing cross piece

SS

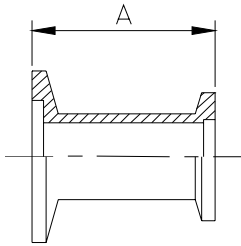


DN 25-16 KF	50	100	40	80	5P-A22-125	80,00
DN 40-16 KF	65	130	40	80	5P-A22-140	100,00
DN 40-25 KF	65	130	50	100	5P-A22-240	100,00
DN 50-25 KF	70	140	50	100	5P-A22-250	120,00
DN 50-40 KF	70	140	65	130	5P-A22-450	136,00

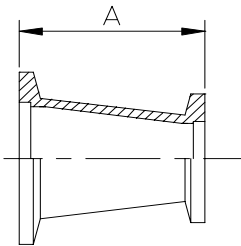
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Adapters

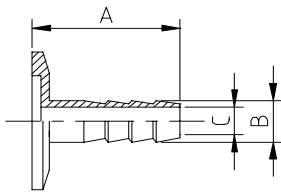
Reducing piece	SS							
		DN 25-16 KF	28				5P-A23-125	16,00
		DN 40-16 KF	28				5P-A23-140	20,00
		DN 40-25 KF	28				5P-A23-240	22,00
		DN 50-25 KF	28				5P-A23-250	32,00
		DN 50-40 KF	28				5P-A23-450	34,00



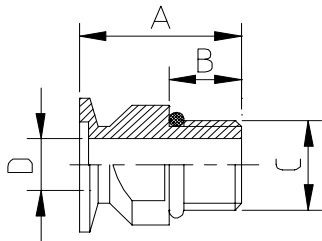
Conical reducing piece	SS							
		DN 25-16 KF	40				5P-A24-125	20,00
		DN 40-16 KF	40				5P-A24-140	24,00
		DN 40-25 KF	40				5P-A24-240	26,00



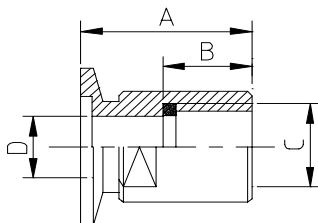
Hose nipple	SS							
		DN 16 KF	40	12	8		5P-A34-016	12,00
		DN 25 KF	40	12	8		5P-A34-025	14,00
		DN 40 KF	40	12	8		5P-A34-040	16,00



Screw-in flange	SS-Viton							
		DN 10 KF-G 3/8"	35	15	G 3/8"	10	5P-A35-010	22,00
		DN 16 KF-G 1/2"	35	16	G 1/2"	16	5P-A35-016	22,00
		DN 25 KF-G 1"	45	24	G 1"	24	5P-A35-025	24,00
		DN 40 KF-G 1 1/2"	50	28	G 1 1/2"	40	5P-A35-040	30,00



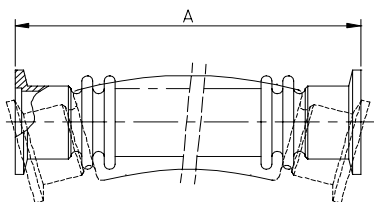
Screw-on flange	SS-Viton							
		DN 10 KF-G 3/8"	35	15	G 3/8"	10	5P-A36-010	26,00
		DN 16 KF-G 1/2"	35	16	G 1/2"	16	5P-A36-016	26,00
		DN 25 KF-G 1"	45	24	G 1"	24	5P-A36-025	32,00
		DN 40 KF-G 1 1/2"	50	28	G 1 1/2"	40	5P-A36-040	40,00



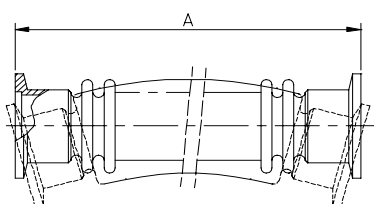
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Bellows

Flexible metal hose (extra flex)	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 10 KF	250				5P-A37-010	48,00
		DN 16 KF	250				5P-A37-016	46,00
		DN 25 KF	250				5P-A37-025	50,80
		DN 40 KF	250				5P-A37-040	64,00
		DN 50 KF	250				5P-A37-050	80,00
		DN 10 KF	500				5P-A37-110	58,80
		DN 16 KF	500				5P-A37-116	56,00
		DN 25 KF	500				5P-A37-125	64,00
		DN 40 KF	500				5P-A37-140	80,00
		DN 50 KF	500				5P-A37-150	101,60
		DN 10 KF	750				5P-A37-210	70,00
		DN 16 KF	750				5P-A37-216	68,00
		DN 25 KF	750				5P-A37-225	80,00
		DN 40 KF	750				5P-A37-240	100,00
		DN 50 KF	750				5P-A37-250	124,00
		DN 10 KF	1000				5P-A37-310	81,60
		DN 16 KF	1000				5P-A37-316	82,80
		DN 25 KF	1000				5P-A37-325	96,00
		DN 40 KF	1000				5P-A37-340	121,60
		DN 50 KF	1000				5P-A37-350	148,00

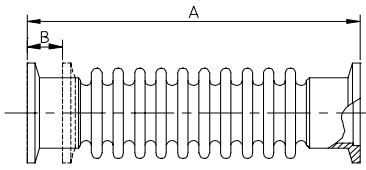


Flexible metal hose (standard)	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 10 KF	250				5P-A38-010	44,00
		DN 16 KF	250				5P-A38-016	40,00
		DN 25 KF	250				5P-A38-025	48,00
		DN 40 KF	250				5P-A38-040	60,00
		DN 50 KF	250				5P-A38-050	100,00
		DN 10 KF	500				5P-A38-110	52,00
		DN 16 KF	500				5P-A38-116	50,00
		DN 25 KF	500				5P-A38-125	56,00
		DN 40 KF	500				5P-A38-140	70,00
		DN 50 KF	500				5P-A38-150	108,00
		DN 10 KF	750				5P-A38-210	60,00
		DN 16 KF	750				5P-A38-216	60,00
		DN 25 KF	750				5P-A38-225	66,00
		DN 40 KF	750				5P-A38-240	80,00
		DN 50 KF	750				5P-A38-250	116,00
		DN 10 KF	1000				5P-A38-310	68,00
		DN 16 KF	1000				5P-A38-316	70,00
		DN 25 KF	1000				5P-A38-325	76,00
		DN 40 KF	1000				5P-A38-340	90,00
		DN 50 KF	1000				5P-A38-350	124,00

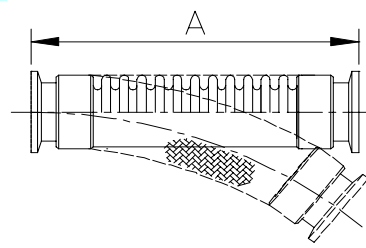


DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Bellows (extra flex)	SS	DN 10 KF	90	15			5P-A39-010	60,00
		DN 16 KF	120	22			5P-A39-016	60,00
		DN 25 KF	120	22			5P-A39-025	66,00
		DN 40 KF	120	22			5P-A39-040	80,00
		DN 50 KF	120	22			5P-A39-050	90,00

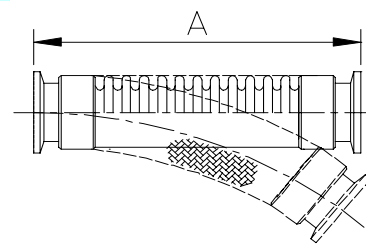


Braided flexible metal hose (standard)	SS	DN 16 KF	500				5P-A40-016	106,00
		DN 25 KF	500				5P-A40-025	132,00
		DN 40 KF	500				5P-A40-040	176,00



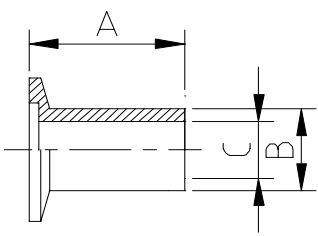
		DN 16 KF	1000				5P-A40-116	122,00
		DN 25 KF	1000				5P-A40-125	152,00
		DN 40 KF	1000				5P-A40-140	202,00

Braided flexible metal hose (extra flex)	SS	DN 16 KF	500				5P-A40-516	132,00
		DN 25 KF	500				5P-A40-525	160,00
		DN 40 KF	500				5P-A40-540	216,00



		DN 16 KF	1000				5P-A40-616	163,20
		DN 25 KF	1000				5P-A40-625	200,00
		DN 40 KF	1000				5P-A40-640	260,00

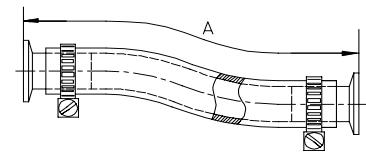
Flange for PVC hose	Al	DN 16 KF	30	18	15		5P-A41-016	8,00
		DN 25 KF	30	27	24		5P-A41-025	10,00
		DN 40 KF	30	43	39		5P-A41-040	16,00



PVC hose with steel spiral		DN 16 KF	16	22,4			5P-A42-016	10,00
		DN 25 KF	25	33			5P-A42-025	13,00
		DN 40 KF	40	50			5P-A42-040	20,00



PVC hose complete	Al-PVC	DN 16 KF	500				5P-A43-016	26,00
		DN 25 KF	500				5P-A43-025	32,00
		DN 40 KF	500				5P-A43-040	52,00

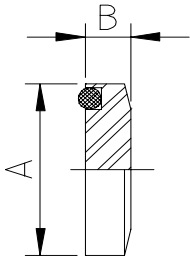


		DN 16 KF	1000				5P-A43-116	30,00
		DN 25 KF	1000				5P-A43-125	40,00
		DN 40 KF	1000				5P-A43-140	62,00

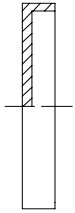
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Miscellanea

Viewport	Plexiglass							
		DN 16 KF	30	10			5P-A44-016	16,00
		DN 25 KF	40	10			5P-A44-025	20,00
		DN 40 KF	55	10			5P-A44-040	26,00



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



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 $1 \cdot 10^{-9}$ mbar^l/s.

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

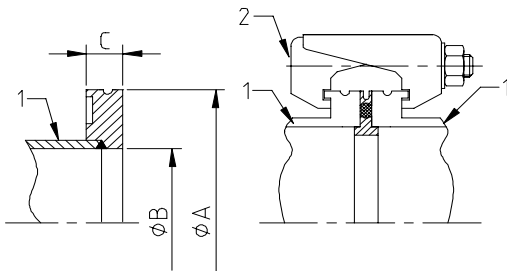
without baking and down to the 10^{-8} range, with Viton "O"ring baked up to 180°C.

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).

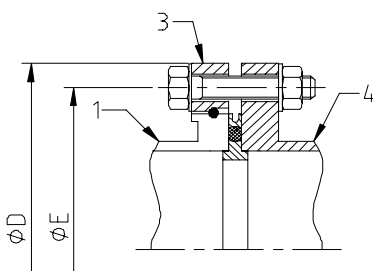
Clamp flange component to DIN 28404 or Pneurop 6606 standard



1 Clamp Flange
2 Clamps

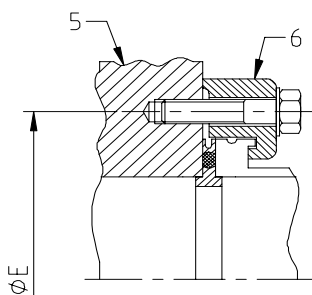
	A	B	C	Number clamps
DN 63 ISO	95	70	12	4
DN 100 ISO	130	102	12	4
DN 160 ISO	180	153	12	4
DN 200 ISO	240	213	12	6
DN 250 ISO	290	261	12	6
DN 320 ISO	370	318	17	8
DN 400 ISO	450	400	17	8
DN 500 ISO *	550	501	17	12
DN 630 ISO *	690	651	22	12

* 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
DN 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

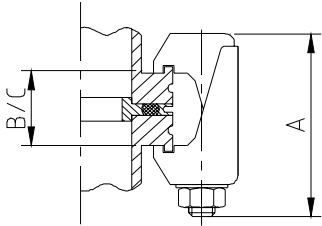


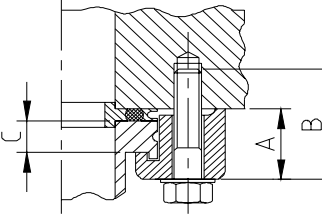
5 Base Plate
6 Claw grip

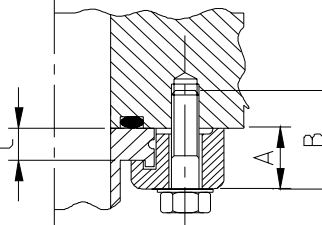
	E	Screws	Number of claw grips
DN 63 ISO	110	M8x35	4
DN 100 ISO	145	M8x35	8
DN 160 ISO	200	M10x40	8
DN 200 ISO	260	M10x40	12
DN 250 ISO	310	M10x40	12
DN 320 ISO	395	M12x50	12
DN 400 ISO	480	M12x50	16
DN 500 ISO *	580	M12x50	16
DN 630 ISO °	720	M12x55	20

DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Connecting elements

Claw clamp 	Steel, zinc plated	DN 63-250 ISO	60	27	17		5P-B01-025	4,40
		DN 320-500 ISO	75	39	27		5P-B01-050	8,80
		DN 630 ISO	85	46	30		5P-B01-063	10,40
	SS	DN 320-500 ISO	60	27	17		5P-B01-125	8,80
		DN 320-630 ISO	75	39	27		5P-B01-150	12,00

Claw grip for use with centering ring 	Steel, zinc plated	DN 63-100 ISO	22,5	35	10		5P-B02-010	2,40
		DN 160-250 ISO	23	35	10		5P-B02-025	3,00
		DN 320-500 ISO	36,5	50	15		5P-B02-050	4,80
	SS	DN 63-100 ISO	22,5	35	10		5P-B02-110	5,00
		DN 160-250 ISO	23	35	10		5P-B02-125	6,40
DN 320-500 ISO		36,5	50	15		5P-B02-150	9,60	
DN 630 ISO	41,5	55	20		5P-B02-163	10,40		

Claw grip for use with sealing groove 	Steel, zinc plated	DN 63-100 ISO	18,6	30	10		5P-B03-010	3,80
		DN 160-250 ISO	19,1	35	10		5P-B03-025	4,80
		DN 320-500 ISO	30,9	45	15		5P-B03-050	6,80
	SS	DN 63-100 ISO	18,6	30	10		5P-B03-110	6,40
		DN 160-250 ISO	19,1	35	10		5P-B03-125	8,40
DN 320-500 ISO		30,9	45	15		5P-B03-150	12,00	
DN 630 ISO	36,5	55	20		5P-B03-163	14,00		

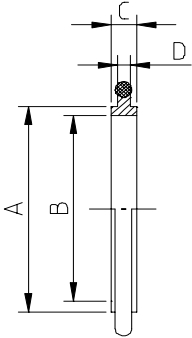
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Seals

Centering ring

SS-Viton

DN 63 ISO	70	67	8	3,9	5P-B04-006	16,00
DN 100 ISO	102	99	8	3,9	5P-B04-010	24,00
DN 160 ISO	153	150	8	3,9	5P-B04-016	32,00
DN 200 ISO	213	210	8	3,9	5P-B04-020	62,40
DN 250 ISO	261	258	8	3,9	5P-B04-025	72,00
DN 320 ISO	318	315	14	5,6	5P-B04-032	88,00
DN 400 ISO	400	397	14	5,6	5P-B04-040	112,00
DN 500 ISO	501	498	14	5,6	5P-B04-050	130,00
DN 630 ISO	651	648	14	5,6	5P-B04-063	200,00



SS-NBR

DN 63 ISO	70	67	8	3,9	5P-B04-106	14,80
DN 100 ISO	102	99	8	3,9	5P-B04-110	22,80
DN 160 ISO	153	150	8	3,9	5P-B04-116	30,00
DN 200 ISO	213	210	8	3,9	5P-B04-120	58,40
DN 250 ISO	261	258	8	3,9	5P-B04-125	68,40

Al-Viton

DN 63 ISO	70	67	8	3,9	5P-B04-206	14,00
DN 100 ISO	102	99	8	3,9	5P-B04-210	16,00
DN 160 ISO	153	150	8	3,9	5P-B04-216	19,20
DN 200 ISO	213	210	8	3,9	5P-B04-220	28,00
DN 250 ISO	261	258	8	3,9	5P-B04-225	49,20
DN 320 ISO	318	315	14	5,6	5P-B04-232	76,40
DN 400 ISO	400	397	14	5,6	5P-B04-240	100,00
DN 500 ISO	501	498	14	5,6	5P-B04-250	124,00
DN 630 ISO	651	648	14	5,6	5P-B04-263	188,00

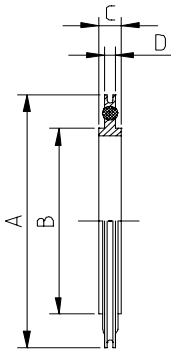
Al-NBR

DN 63 ISO	70	67	8	3,9	5P-B04-306	12,00
DN 100 ISO	102	99	8	3,9	5P-B04-310	14,80
DN 160 ISO	153	150	8	3,9	5P-B04-316	16,80
DN 200 ISO	213	210	8	3,9	5P-B04-320	24,00
DN 250 ISO	261	258	8	3,9	5P-B04-325	44,80

Centering ring with aluminium outer ring

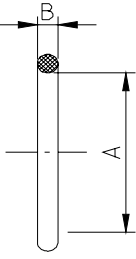
SS-Viton

DN 63 ISO	95	70	8	3,9	5P-B05-006	22,00
DN 100 ISO	128	102	8	3,9	5P-B05-010	30,00
DN 160 ISO	179	153	8	3,9	5P-B05-016	36,00
DN 200 ISO	238	213	8	3,9	5P-B05-020	84,00
DN 250 ISO	286	261	8	3,9	5P-B05-025	100,00



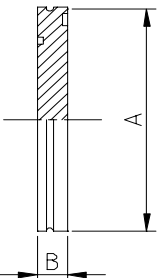
Al-Viton

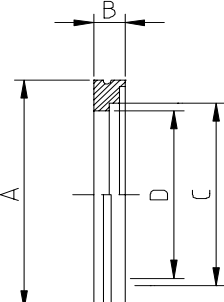
DN 63 ISO	95	70	8	3,9	5P-B05-106	20,00
DN 100 ISO	128	102	8	3,9	5P-B05-110	24,00
DN 160 ISO	179	153	8	3,9	5P-B05-116	28,00
DN 200 ISO	238	213	8	3,9	5P-B05-120	56,00
DN 250 ISO	286	261	8	3,9	5P-B05-125	84,00

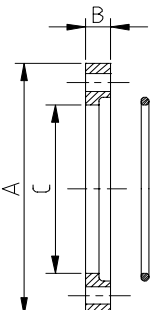
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
O-Ring 	Viton	DN 63 ISO	76	5,3			5P-B06-006	12,00
		DN 100 ISO	107	5,3			5P-B06-010	12,00
		DN 160 ISO	158	5,3			5P-B06-016	24,00
		DN 200 ISO	209	5,3			5P-B06-020	36,00
		DN 250 ISO	253	5,3			5P-B06-025	48,00
		DN 320 ISO	330	7			5P-B06-032	64,00
		DN 400 ISO	405	7			5P-B06-040	100,00
		DN 500 ISO	507	7			5P-B06-050	120,00
	DN 630 ISO	659	7			5P-B06-063	160,00	
	NBR	DN 63 ISO	76	5,3			5P-B06-106	2,40
		DN 100 ISO	107	5,3			5P-B06-110	2,40
		DN 160 ISO	158	5,3			5P-B06-116	4,80
		DN 200 ISO	209	5,3			5P-B06-120	7,20
		DN 250 ISO	253	5,3			5P-B06-125	9,60

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

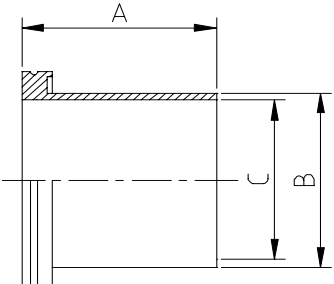
Blanking flange	SS							
		DN 63 ISO-K	95	12			5P-B12-006	32,00
		DN 100 ISO-K	130	12			5P-B12-010	42,00
		DN 160 ISO-K	180	12			5P-B12-016	70,00
		DN 200 ISO-K	240	12			5P-B12-020	130,00
		DN 250 ISO-K	290	12			5P-B12-025	160,00
		DN 320 ISO-K	370	17			5P-B12-032	370,00
		DN 400 ISO-K	450	17			5P-B12-040	480,00
		DN 500 ISO-K	550	17			5P-B12-050	640,00
		DN 630 ISO-K	690	22			5P-B12-063	1.120,00

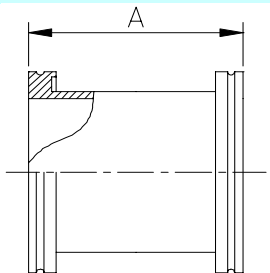
Welding flange	SS							
		DN 63 ISO-K	95	12	76,5	70	5P-B13-006	26,00
		DN 100 ISO-K	130	12	108,5	102	5P-B13-010	36,00
		DN 160 ISO-K	180	12	159,5	153	5P-B13-016	60,00
		DN 200 ISO-K	240	12	219,5	213	5P-B13-020	100,00
		DN 250 ISO-K	290	12	267,5	261	5P-B13-025	136,00
		DN 320 ISO-K	370	17	324,5	318	5P-B13-032	300,00
		DN 400 ISO-K	450	17	407	400	5P-B13-040	384,00
		DN 500 ISO-K	550	17	509	501	5P-B13-050	520,00
		DN 630 ISO-K	690	22	661	651	5P-B13-063	720,00

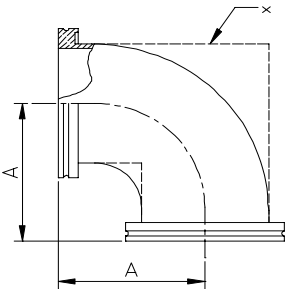
Collar flange with retaining ring	Steel,nickel plated							
		DN 63 ISO-F	130	12	95,5		5P-B14-006	34,00
		DN 100 ISO-F	165	12	130,5		5P-B14-010	50,00
		DN 160 ISO-F	225	16	180,7		5P-B14-016	90,00
		DN 200 ISO-F	285	16	240,7		5P-B14-020	120,00
		DN 250 ISO-F	335	16	290,7		5P-B14-025	150,00
		DN 320 ISO-F	425	20	370,8		5P-B14-032	200,00
		DN 400 ISO-F	510	20	451		5P-B14-040	300,00
		DN 500 ISO-F	610	20	551		5P-B14-050	450,00
		DN 630 ISO-F	750	24	691		5P-B14-063	720,00

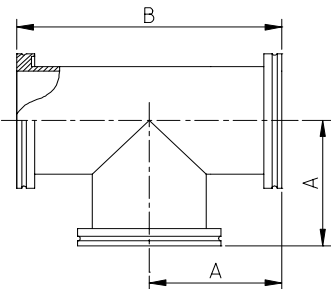
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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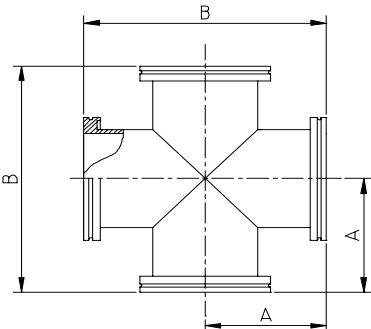
Pipe Components

Flange with pipe	SS							
		DN 63 ISO-K	100	76	70		5P-B15-006	50,00
		DN 100 ISO-K	100	108	102		5P-B15-010	72,00
		DN 160 ISO-K	100	159	153		5P-B15-016	100,00
		DN 200 ISO-K	100	219	213		5P-B15-020	160,00
		DN 250 ISO-K	100	267	261		5P-B15-025	200,00
		DN 320 ISO-K	100	324	318		5P-B15-032	392,00
		DN 400 ISO-K	100	408	400		5P-B15-040	500,00
		DN 500 ISO-K	100	508	500		5P-B15-050	640,00
	DN 630 ISO-K	100	660	650		5P-B15-063	920,00	

Intermediate piece	SS							
		DN 63 ISO-K	100				5P-B16-006	84,00
		DN 100 ISO-K	100				5P-B16-010	120,00
		DN 160 ISO-K	100				5P-B16-016	180,00
		DN 200 ISO-K	100				5P-B16-020	260,00
		DN 250 ISO-K	100				5P-B16-025	336,00

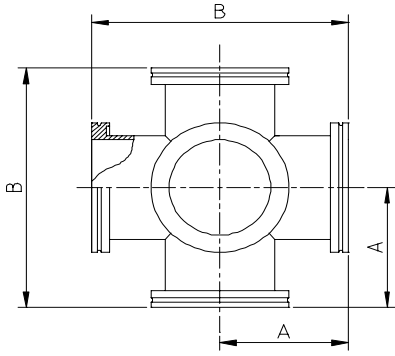
Elbow 90°	SS							
		DN 63 ISO-K	88				5P-B17-006	96,00
		DN 100 ISO-K	108				5P-B17-010	150,00
		DN 160 ISO-K	138				5P-B17-016	320,00
		DN 200 ISO-K	178				5P-B17-020	420,00
		DN 250 ISO-K	208				5P-B17-025	560,00

T-piece	SS							
		DN 63 ISO-K	88	176			5P-B18-006	160,00
		DN 100 ISO-K	108	216			5P-B18-010	200,00
		DN 160 ISO-K	138	276			5P-B18-016	420,00
		DN 200 ISO-K	178	356			5P-B18-020	600,00
		DN 250 ISO-K	208	416			5P-B18-025	800,00

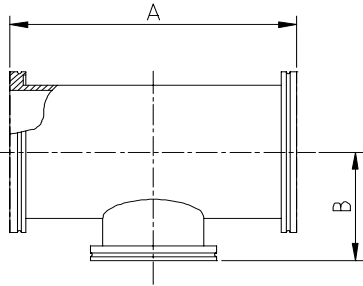
Cross piece	SS							
		DN 63 ISO-K	88	176			5P-B19-006	230,00
		DN 100 ISO-K	108	216			5P-B19-010	320,00
		DN 160 ISO-K	138	276			5P-B19-016	580,00
		DN 200 ISO-K	178	356			5P-B19-020	760,00
		DN 250 ISO-K	208	416			5P-B19-025	1.100,00

DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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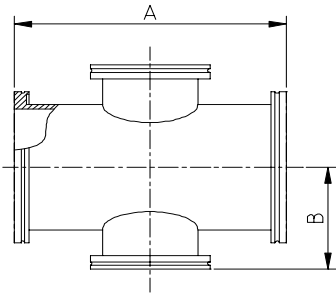
Double cross piece	SS	DN 63 ISO-K	88	176			5P-B20-006	360,00
		DN 100 ISO-K	108	216			5P-B20-010	480,00
		DN 160 ISO-K	138	276			5P-B20-016	860,00
		DN 200 ISO-K	178	356			5P-B20-020	1.200,00
		DN 250 ISO-K	208	416			5P-B20-025	1.600,00



Reducing T-piece	SS	DN 100-63 ISO-K	216	100			5P-B21-010	220,00
		DN 160-100 ISO-K	276	130			5P-B21-016	400,00
		DN 200-160 ISO-K	356	160			5P-B21-020	600,00
		DN 250-200 ISO-K	416	190			5P-B21-025	800,00



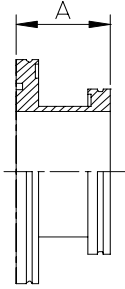
Reducing cross-piece	SS	DN 100-63 ISO-K	216	100			5P-B22-010	440,00
		DN 160-100 ISO-K	276	130			5P-B22-016	520,00
		DN 200-160 ISO-K	356	160			5P-B22-020	700,00
		DN 250-200 ISO-K	416	190			5P-B22-025	1.000,00



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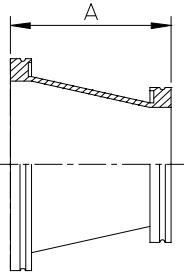
Adapters

Reducing-piece ISO-K / ISO-K	SS							
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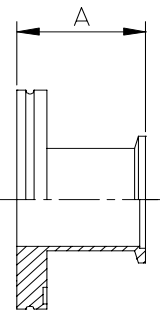
DN 100-63 ISO-K	50					5P-B23-010	96,00
DN 160-100 ISO-K	50					5P-B23-016	140,00
DN 200-160 ISO-K	50					5P-B23-020	240,00
DN 250-200 ISO-K	50					5P-B23-025	320,00

Conical reducing-piece	SS							
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DN 100-63 ISO-K	100					5P-B24-010	120,00
DN 160-100 ISO-K	120					5P-B24-016	200,00
DN 200-160 ISO-K	140					5P-B24-020	320,00
DN 250-200 ISO-K	160					5P-B24-025	400,00

Adaptor piece ISO-K / KF	SS							
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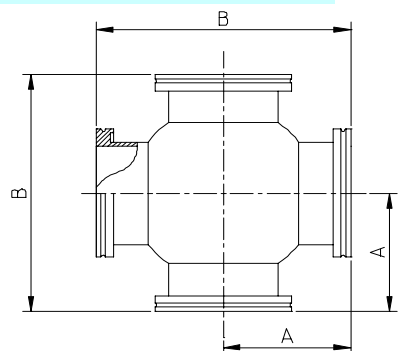


DN 63 ISO-K / 25 KF	40					5P-B25-062	44,00
DN 63 ISO-K / 40 KF	40					5P-B25-064	56,00
DN 100 ISO-K / 40 KF	40					5P-B25-104	68,00
DN 100 ISO-K / 50 KF	40					5P-B25-105	80,00
DN 160 ISO-K / 40 KF	40					5P-B25-164	120,00

DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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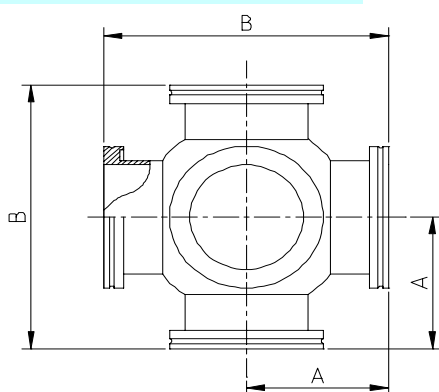
Spherical cross pieces

Spherical cross piece SS



DN 63 ISO-K	88	176				5P-B30-006	280,00
DN 100 ISO-K	108	216				5P-B30-010	380,00
DN 160 ISO-K	138	276				5P-B30-016	640,00
DN 200 ISO-K	178	356				5P-B30-020	900,00
DN 250 ISO-K	208	416				5P-B30-025	1.200,00

Spherical double cross piece SS

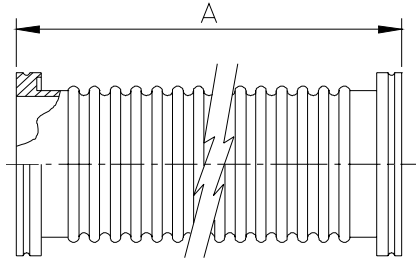


DN 63 ISO-K	88	176				5P-B31-006	400,00
DN 100 ISO-K	108	216				5P-B31-010	560,00
DN 160 ISO-K	138	276				5P-B31-016	900,00
DN 200 ISO-K	178	356				5P-B31-020	1.260,00
DN 250 ISO-K	208	416				5P-B31-025	1.800,00

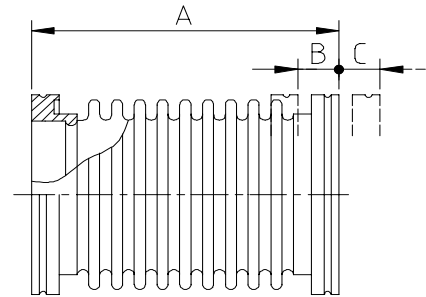
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Bellows

Flexible metal hose	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 63 ISO-K	250				5P-B38-006	136,00
		DN 100 ISO-K	250				5P-B38-010	168,00
		DN 63 ISO-K	500				5P-B38-106	156,00
		DN 100 ISO-K	500				5P-B38-110	200,00
		DN 63 ISO-K	750				5P-B38-206	176,00
		DN 100 ISO-K	750				5P-B38-210	220,00
		DN 63 ISO-K	1000				5P-B38-306	208,00
		DN 100 ISO-K	1000				5P-B38-310	250,00



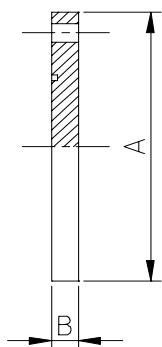
Bellow	SS	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 63 ISO-K	130	14	7	90	5P-B39-006	170,00
		DN 100 ISO-K	130	14	7	128	5P-B39-010	210,00
		DN 160 ISO-K	150	16	8	175	5P-B39-016	380,00
		DN 200 ISO-K	230	20	10	235	5P-B39-020	580,00
		DN 250 ISO-K	250	20	10	285	5P-B39-025	900,00



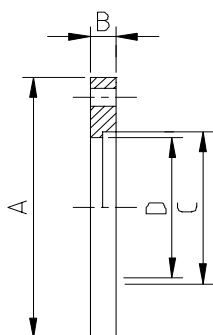
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Flanges ISO F

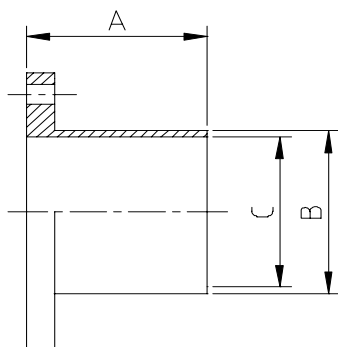
Blanking flange	SS							
		DN 63 ISO-F	130	12			5P-B40-006	76,00
		DN 100 ISO-F	165	12			5P-B40-010	108,00
		DN 160 ISO-F	225	16			5P-B40-016	160,00
		DN 200 ISO-F	285	16			5P-B40-020	220,00
		DN 250 ISO-F	335	16			5P-B40-025	300,00
		DN 320 ISO-F	425	20			5P-B40-032	440,00
		DN 400 ISO-F	510	20			5P-B40-040	560,00
		DN 500 ISO-F	610	20			5P-B40-050	760,00
		DN 630 ISO-F	750	24			5P-B40-063	1.100,00



Welding flange	SS							
		DN 63 ISO-F	130	12	76,5	70	5P-B41-006	70,00
		DN 100 ISO-F	165	12	108,5	102	5P-B41-010	100,00
		DN 160 ISO-F	225	16	159,5	153	5P-B41-016	150,00
		DN 200 ISO-F	285	16	219,5	213	5P-B41-020	200,00
		DN 250 ISO-F	335	16	267,5	261	5P-B41-025	260,00
		DN 320 ISO-F	425	20	324,5	318	5P-B41-032	400,00
		DN 400 ISO-F	510	20	407	400	5P-B41-040	520,00
		DN 500 ISO-F	610	20	509	501	5P-B41-050	700,00
		DN 630 ISO-F	750	24	661	651	5P-B41-063	1.040,00



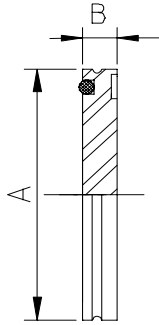
Flange with pipe	SS							
		DN 63 ISO-F	100	76	70		5P-B42-006	90,00
		DN 100 ISO-F	100	108	102		5P-B42-010	130,00
		DN 160 ISO-F	100	159	153		5P-B42-016	196,00
		DN 200 ISO-F	100	219	213		5P-B42-020	256,00
		DN 250 ISO-F	100	267	261		5P-B42-025	328,00
		DN 320 ISO-F	100	324	318		5P-B42-032	480,00
		DN 400 ISO-F	100	408	400		5P-B42-040	620,00
		DN 500 ISO-F	100	508	500		5P-B42-050	820,00
		DN 630 ISO-F	100	660	650		5P-B42-063	1.160,00



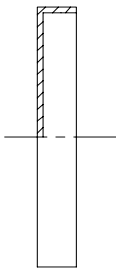
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Miscellanea

Viewport	Plexiglass	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 63 ISO-K	95	15			5P-B44-006	42,00
		DN 100 ISO-K	130	15			5P-B44-010	64,00
		DN 160 ISO-K	180	20			5P-B44-016	96,00



Protective cover	Plastic	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 63 ISO-K					5P-B45-006	10,00
		DN 100 ISO-K					5P-B45-010	14,00
		DN 160 ISO-K					5P-B45-016	
		DN 200 ISO-K					5P-B45-020	
		DN 250 ISO-K					5P-B45-025	



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

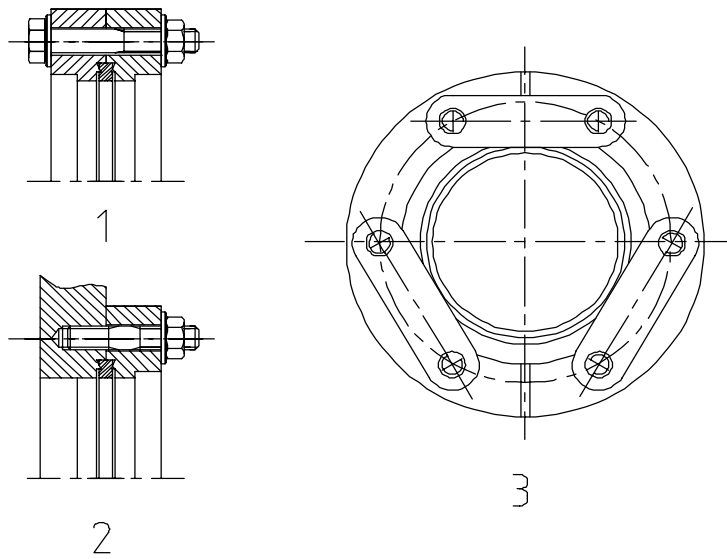
Materials:

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.

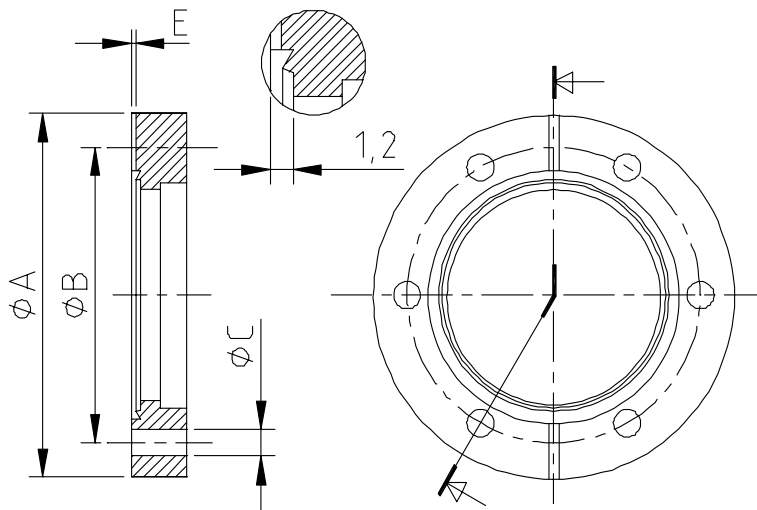
There are many types of CF gaskets.

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 knife-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



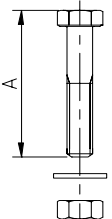
- 1 Connection with screws
 2 Connection with stud screws
 3 Connection with DUO nuts

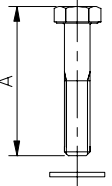


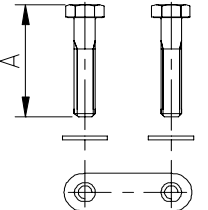
Nominal Diameter	A	O.D.	B	C	N. of Holes	Number of screws	Number of stud screws	Number of DUO nuts
DN 16 CF	34	1 1/3"	27	4,3	6	6xM4	6xM4	3xM4
DN 40 CF	69,5	2 3/4"	58,7	6,6	6	6xM6	6xM6	3xM6
DN 63 CF	113,5	4 1/2"	92,2	8,4	8	8xM8	8xM8	
DN 100 CF	152	6"	130,3	8,4	16	16xM8	16xM8	
DN 160 CF	202,5	8"	181	8,4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

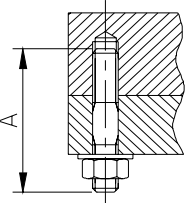
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Connecting elements

Set of hexagonal bolts	SS							
	<i>D= delivered quantity</i>	DN 16 CF	20	M4		25	5P-C01-001	8,00
		DN 40 CF	35	M6		25	5P-C01-004	10,00
		DN 63 CF	45	M8		25	5P-C01-006	12,00
		DN 100 CF	50	M8		25	5P-C01-010	14,00
		DN 160 CF	55	M8		25	5P-C01-016	16,00
		DN 200 CF	60	M8		25	5P-C01-020	18,00
		DN 250 CF	65	M8		25	5P-C01-025	20,00

Set of hexagonal bolts for TAPPED hole	SS							
	<i>D= delivered quantity</i>	DN 16 CF	16	M4		25	5P-C02-001	8,00
		DN 40 CF	25	M6		25	5P-C02-004	10,00
		DN 63 CF	30	M8		25	5P-C02-006	12,00
		DN 100 CF	35	M8		25	5P-C02-010	14,00
		DN 160 CF	40	M8		25	5P-C02-016	16,00
		DN 200 CF	45	M8		25	5P-C02-020	18,00
		DN 250 CF	50	M8		25	5P-C02-025	20,00

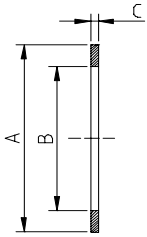
Set of hexagonal bolts with DUO nuts	SS							
	<i>D= delivered quantity</i>	DN 16 CF	20	M4		6+3	5P-C03-001	6,00
		DN 40 CF	35	M6		6+3	5P-C03-004	8,00
		DN 63 CF	40	M8		8+4	5P-C03-006	10,00
		DN 100 CF	45	M8		16+8	5P-C03-010	20,00
		DN 160 CF	50	M8		20+10	5P-C03-016	26,00
		DN 200 CF	55	M8		24+12	5P-C03-020	30,00
		DN 250 CF	60	M8		32+16	5P-C03-025	40,00

Set of stud screws	SS							
	<i>D= delivered quantity</i>	DN 16 CF	20	M4		25	5P-C04-001	14,00
		DN 40 CF	35	M6		25	5P-C04-004	16,00
		DN 63 CF	45	M8		25	5P-C04-006	24,00
		DN 100 CF	50	M8		25	5P-C04-010	26,00
		DN 160 CF	55	M8		25	5P-C04-016	28,00
		DN 200 CF	60	M8		25	5P-C04-020	30,00
		DN 250 CF	65	M8		25	5P-C04-025	32,00

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

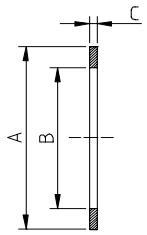
Copper gaskets



*D= delivered
quantity*

DN 16 CF	21	16	2	10	5P-C05-001	13,00
DN 40 CF	48	37	2	10	5P-C05-004	15,00
DN 63 CF	82	63	2	10	5P-C05-006	28,00
DN 100 CF	120	101	2	10	5P-C05-010	38,00
DN 160 CF	171	152	2	10	5P-C05-016	62,00
DN 200 CF	222	203	2	10	5P-C05-020	90,00
DN 250 CF	273	258	2	5	5P-C05-025	160,00

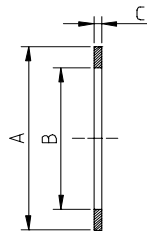
Annealed copper gaskets



*D= delivered
quantity*

DN 16 CF	21	16	2	5	5P-C05-101	14,00
DN 40 CF	48	37	2	5	5P-C05-104	16,00
DN 63 CF	82	63	2	5	5P-C05-106	24,00
DN 100 CF	120	101	2	5	5P-C05-110	30,00
DN 160 CF	171	152	2	5	5P-C05-116	34,00
DN 200 CF	222	203	2	5	5P-C05-120	44,00
DN 250 CF	273	258	2	5	5P-C05-125	220,00

Silver plated copper gaskets



*D= delivered
quantity*

DN 16 CF	21	16	2	5	5P-C05-201	10,00
DN 40 CF	48	37	37	5	5P-C05-204	12,00
DN 63 CF	82	63	2	5	5P-C05-206	20,00
DN 100 CF	120	101	2	5	5P-C05-210	26,00
DN 160 CF	171	152	2	5	5P-C05-216	40,00
DN 200 CF	222	203	2	5	5P-C05-220	54,00
DN 250 CF	273	258	2	5	5P-C05-225	120,00

Viton gaskets



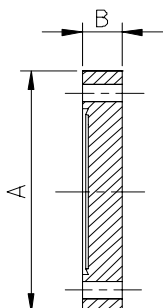
*D= delivered
quantity*

DN 16 CF				5	5P-C05-501	16,00
DN 40 CF				5	5P-C05-504	24,00
DN 63 CF				1	5P-C05-506	26,00
DN 100 CF				1	5P-C05-510	28,00
DN 160 CF				1	5P-C05-516	30,00
DN 200 CF				1	5P-C05-520	48,00
DN 250 CF				1	5P-C05-525	80,00

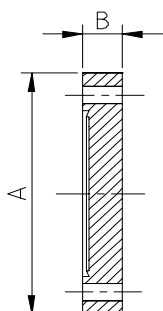
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Flanges

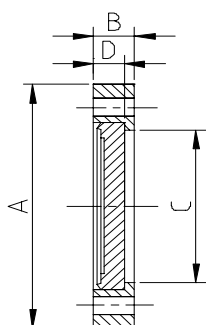
Blanking flange	AISI 316 L	DN 16 CF	34	7,3			5P-C08-001	11,20
	1.4404	DN 40 CF	69,5	12,7			5P-C08-004	18,00
	DN 63 CF	113,5	17,5			5P-C08-006	56,00	
	DN 100 CF	152	20			5P-C08-010	86,00	
	DN 160 CF	202,5	22			5P-C08-016	144,00	
	DN 200 CF	253	24,5			5P-C08-020	240,00	
	DN 250 CF	306	26			5P-C08-025	480,00	
	AISI 316 LN	DN 16 CF	34	7,3			5P-C08-201	20,00
	ESR-FORG	DN 40 CF	69,5	12,7			5P-C08-204	26,00
	1.4429	DN 63 CF	113,5	17,5			5P-C08-206	106,00
		DN 100 CF	152	20			5P-C08-210	166,00
		DN 160 CF	202,5	22			5P-C08-216	300,00
		DN 200 CF	253	24,5			5P-C08-220	490,00
		DN 250 CF	306	26			5P-C08-225	820,00



Blanking flange with tapped holes	AISI 316 L	DN 16 CF	34	7,3			5P-C08-501	17,20
	1.4404	DN 40 CF	69,5	12,7			5P-C08-504	24,00
	DN 63 CF	113,5	17,5			5P-C08-506	68,00	
	DN 100 CF	152	20			5P-C08-510	112,00	
	DN 160 CF	202,5	22			5P-C08-516	176,00	
	DN 200 CF	253	24,5			5P-C08-520	272,00	
	DN 250 CF	306	26			5P-C08-525	540,00	
	AISI 316 LN	DN 16 CF	34	7,3			5P-C08-701	26,00
	ESR-FORG	DN 40 CF	69,5	12,7			5P-C08-704	32,00
	1.4429	DN 63 CF	113,5	17,5			5P-C08-706	118,00
		DN 100 CF	152	20			5P-C08-710	188,00
		DN 160 CF	202,5	22			5P-C08-716	336,00
		DN 200 CF	253	24,5			5P-C08-720	536,00
		DN 250 CF	306	26			5P-C08-725	860,00

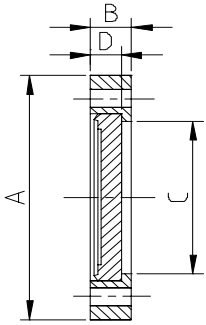


Blanking flange rotatable	AISI 316 L	DN 16 CF	34	7,3	19,4	5,8	5P-C09-001	15,60
	1.4404	DN 40 CF	69,5	12,7	40,5	7,6	5P-C09-004	23,20
	DN 63 CF	113,5	19	70,5	12,6	5P-C09-006	78,00	
	DN 100 CF	152	21,5	109	14,3	5P-C09-010	136,00	
	DN 160 CF	202,5	24	160	15,8	5P-C09-016	232,00	
	DN 200 CF	253	24,5	207	17,1	5P-C09-020	364,00	
	DN 250 CF	306	26	257	18	5P-C09-025	672,00	
	AISI 316 LN	DN 16 CF	34	7,3	19,4	5,8	5P-C09-201	24,00
	ESR-FORG	DN 40 CF	69,5	12,7	40,5	7,6	5P-C09-204	36,00
	1.4429	DN 63 CF	113,5	19	70,5	12,6	5P-C09-206	136,00
		DN 100 CF	152	21,5	109	14,3	5P-C09-210	208,00
		DN 160 CF	202,5	24	160	15,8	5P-C09-216	336,00
		DN 200 CF	253	24,5	207	17,1	5P-C09-220	520,00
		DN 250 CF	306	26	257	18	5P-C09-225	860,00



DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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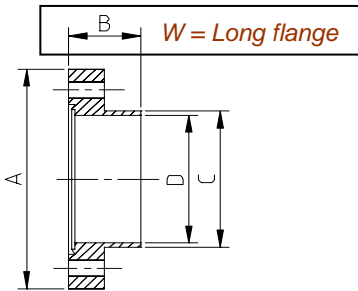
Blanking flange rotatable with tapped holes	AISI 316 L 1.4404	DN 16 CF	34	7,3	19,4	5,8	5P-C09-501	20,00
		DN 40 CF	69,5	12,7	40,5	7,6	5P-C09-504	26,00
		DN 63 CF	113,5	19	70,5	12,6	5P-C09-506	82,00
		DN 100 CF	152	21,5	109	14,3	5P-C09-510	160,00
		DN 160 CF	202,5	24	160	15,8	5P-C09-516	260,00
		DN 200 CF	253	24,5	207	17,1	5P-C09-520	400,00
		DN 250 CF	306	26	257	18	5P-C09-525	728,00



AISI 316 LN
ESR-FORG
1.4429

DN 16 CF	34	7,3	19,4	5,8	5P-C09-701	30,00
DN 40 CF	69,5	12,7	40,5	7,6	5P-C09-704	42,00
DN 63 CF	113,5	19	70,5	12,6	5P-C09-706	146,00
DN 100 CF	152	21,5	109	14,3	5P-C09-710	236,00
DN 160 CF	202,5	24	160	15,8	5P-C09-716	360,00
DN 200 CF	253	24,5	207	17,1	5P-C09-720	572,00
DN 250 CF	306	26	257	18	5P-C09-725	940,00

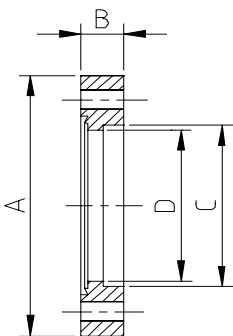
Welding flange	AISI 316 L 1.4404	DN 16 CF	34	14,2	19,2	16	5P-C10-001W	14,00
		DN 16 CF	34	7,3	19,2	16	5P-C10-001	11,20
		DN 40 CF	69,5	12,7	40,2	37	5P-C10-004	18,00
		DN 63 CF	113,5	17,5	70,2	64	5P-C10-006	56,00
		DN 100 CF	152	20	108,5	102	5P-C10-010	86,00
		DN 160 CF	202,5	22	159,5	153	5P-C10-016	144,00
		DN 200 CF	253	24,5	206,5	200	5P-C10-020	240,00



AISI 316 LN
ESR-FORG
1.4429

DN 16 CF	34	14,2	19,2	16	5P-C10-201W	24,00
DN 16 CF	34	7,3	19,2	16	5P-C10-201	20,00
DN 40 CF	69,5	12,7	40,2	37	5P-C10-204	26,00
DN 63 CF	113,5	17,5	70,2	64	5P-C10-206	106,00
DN 100 CF	152	20	108,5	102	5P-C10-210	136,00
DN 160 CF	202,5	22	159,5	153	5P-C10-216	224,00
DN 200 CF	253	24,5	206,5	200	5P-C10-220	352,00
DN 250 CF	306	26	256,5	250	5P-C10-225	640,00

Welding flange with tapped holes	AISI 316 L 1.4404	DN 16 CF	34	7,3	19,2	16	5P-C10-501	17,20
		DN 40 CF	69,5	12,7	40,2	37	5P-C10-504	24,00
		DN 63 CF	113,5	17,5	70,2	64	5P-C10-506	68,00
		DN 100 CF	152	20	108,5	102	5P-C10-510	112,00
		DN 160 CF	202,5	22	159,5	153	5P-C10-516	176,00
		DN 200 CF	253	24,5	206,5	200	5P-C10-520	272,00
		DN 250 CF	306	26	256,5	250	5P-C10-525	540,00

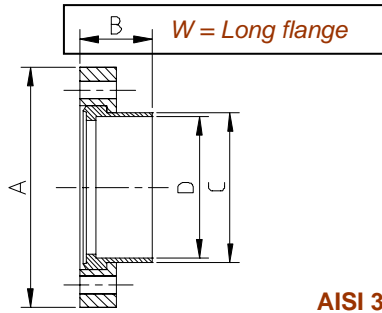


AISI 316 LN
ESR-FORG
1.4429

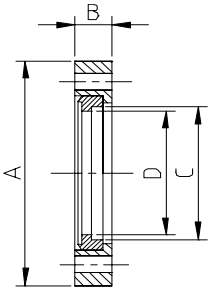
DN 16 CF	34	7,3	19,2	16	5P-C10-701	26,00
DN 40 CF	69,5	12,7	40,2	37	5P-C10-704	32,00
DN 63 CF	113,5	17,5	70,2	64	5P-C10-706	118,00
DN 100 CF	152	20	108,5	102	5P-C10-710	168,00
DN 160 CF	202,5	22	159,5	153	5P-C10-716	272,00
DN 200 CF	253	24,5	206,5	200	5P-C10-720	416,00
DN 250 CF	306	26	256,5	250	5P-C10-725	720,00

DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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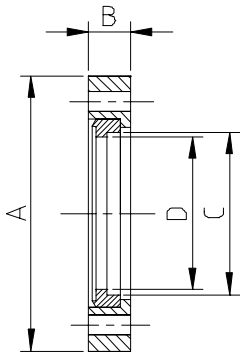
Welding flange rotatable	AISI 316 L	DN 16 CF	34	14,2	19,2	16	5P-C11-001W	20,00
	1.4404	DN 16 CF	34	7,3	19,2	16	5P-C11-001	15,60
	DN 40 CF	69,5	12,7	40,2	37	5P-C11-004	23,20	
	DN 63 CF	113,5	19	70,2	64	5P-C11-006	78,00	
	DN 100 CF	152	21,5	108,5	102	5P-C11-010	136,00	
	DN 160 CF	202,5	24	159,5	153	5P-C11-016	232,00	
	DN 200 CF	253	24,5	206,5	200	5P-C11-020	364,00	
	DN 250 CF	306	26	256,5	250	5P-C11-025	672,00	



Welding flange rotatable	AISI 316 LN	DN 16 CF	34	14,2	19,2	16	5P-C11-201W	28,00
	1.4429	DN 16 CF	34	7,3	19,2	16	5P-C11-201	24,00
	DN 40 CF	69,5	12,7	40,2	37	5P-C11-204	36,00	
	DN 63 CF	113,5	19	70,2	64	5P-C11-206	136,00	
	DN 100 CF	152	21,5	108,5	102	5P-C11-210	200,00	
	DN 160 CF	202,5	24	159,5	153	5P-C11-216	320,00	
	DN 200 CF	253	24,5	206,5	200	5P-C11-220	520,00	
	DN 250 CF	306	26	256,5	250	5P-C11-225	860,00	

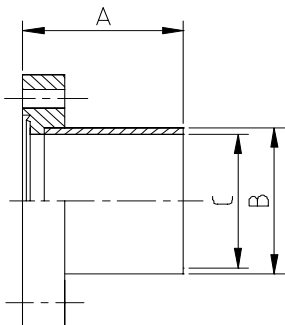


Welding flange rotatable with tapped holes	AISI 316 L	DN 16 CF	34	7,3	19,2	16	5P-C11-501	20,00
	1.4404	DN 40 CF	69,5	12,7	40,2	37	5P-C11-504	26,00
	DN 63 CF	113,5	19	70,2	64	5P-C11-506	82,00	
	DN 100 CF	152	21,5	108,5	102	5P-C11-510	160,00	
	DN 160 CF	202,5	24	159,5	153	5P-C11-516	260,00	
	DN 200 CF	253	24,5	206,5	200	5P-C11-520	400,00	
	DN 250 CF	306	26	256,5	250	5P-C11-525	728,00	



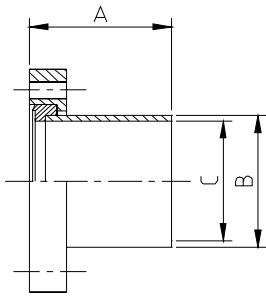
Welding flange rotatable with tapped holes	AISI 316 LN	DN 16 CF	34	7,3	19,2	16	5P-C11-701	30,00
	1.4429	DN 40 CF	69,5	12,7	40,2	37	5P-C11-704	42,00
	DN 63 CF	113,5	19	70,2	64	5P-C11-706	146,00	
	DN 100 CF	152	21,5	108,5	102	5P-C11-710	236,00	
	DN 160 CF	202,5	24	159,5	153	5P-C11-716	380,00	
	DN 200 CF	253	24,5	206,5	200	5P-C11-720	572,00	
	DN 250 CF	306	26	256,5	250	5P-C11-725	940,00	

Flange with pipe	AISI 316 L	DN 16 CF	38	19	16		5P-C12-001	23,20
	1.4404	DN 40 CF	63	40	37		5P-C12-004	34,00
	DN 63 CF	105	70	64		5P-C12-006	85,20	
	DN 100 CF	135	108	102		5P-C12-010	130,00	
	DN 160 CF	167	159	153		5P-C12-016	204,00	
	DN 200 CF	203	206	200		5P-C12-020	340,00	



Flange with pipe	AISI 316 LN	DN 16 CF	38	19	16		5P-C12-201	42,00
	1.4429	DN 40 CF	63	40	37		5P-C12-204	54,00
	DN 63 CF	105	70	64		5P-C12-206	150,00	
	DN 100 CF	135	108	102		5P-C12-210	200,00	
	DN 160 CF	167	159	153		5P-C12-216	320,00	
	DN 200 CF	203	206	200		5P-C12-220	500,00	

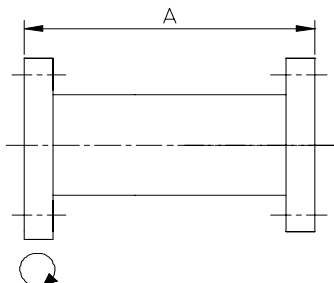
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
Rotatable flange with pipe	AISI 316 L 1.4404	DN 16 CF	38	19	16		5P-C13-001	27,60
		DN 40 CF	63	40	37		5P-C13-004	39,20
		DN 63 CF	105	70	64		5P-C13-006	109,20
		DN 100 CF	135	108	102		5P-C13-010	192,00
		DN 160 CF	167	159	153		5P-C13-016	304,00
	DN 200 CF	203	206	200		5P-C13-020	476,00	
	AISI 316 LN ESR-FORG 1.4429	DN 16 CF	38	19	16		5P-C13-201	46,00
		DN 40 CF	63	40	37		5P-C13-204	66,00
		DN 63 CF	105	70	64		5P-C13-206	184,00
		DN 100 CF	135	108	102		5P-C13-210	272,00
DN 160 CF		167	159	153		5P-C13-216	440,00	
DN 200 CF	203	206	200		5P-C13-220	680,00		



DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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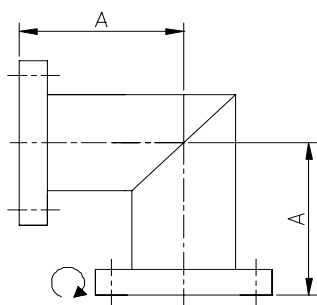
Pipe components & adapters

Intermediate piece	AISI 316 L	DN 16 CF	76				5P-C16-001	48,00
	1.4404	DN 40 CF	126				5P-C16-004	68,00
	DN 63 CF	210				5P-C16-006	178,00	
	DN 100 CF	270				5P-C16-010	284,00	
	DN 160 CF	334				5P-C16-016	440,00	
	DN 200 CF	406				5P-C16-020	700,00	



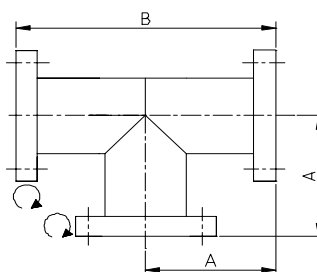
AISI 316 LN ESR-FORG	DN 16 CF	76				5P-C16-201	84,00
	1.4429	DN 40 CF	126				5P-C16-204
	DN 63 CF	210				5P-C16-206	320,00
	DN 100 CF	270				5P-C16-210	380,00
	DN 160 CF	334				5P-C16-216	640,00
	DN 200 CF	406				5P-C16-220	1.100,00

Elbow 90°	AISI 316 L	DN 16 CF	38				5P-C17-001	60,00
	1.4404	DN 40 CF	63				5P-C17-004	84,00
	DN 63 CF	105				5P-C17-006	224,00	
	DN 100 CF	135				5P-C17-010	360,00	
	DN 160 CF	167				5P-C17-016	550,00	
	DN 200 CF	203				5P-C17-020	880,00	



AISI 316 LN ESR-FORG	DN 16 CF	38				5P-C17-201	108,00
	1.4429	DN 40 CF	63				5P-C17-204
	DN 63 CF	105				5P-C17-206	400,00
	DN 100 CF	135				5P-C17-210	480,00
	DN 160 CF	167				5P-C17-216	800,00
	DN 200 CF	203				5P-C17-220	1.360,00

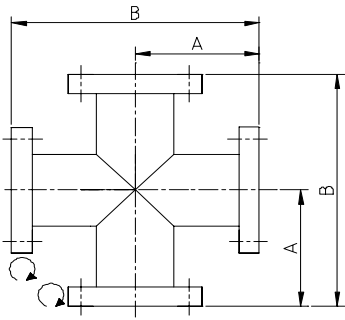
T-piece	AISI 316 L	DN 16 CF	38	76			5P-C18-001	90,00
	1.4404	DN 40 CF	63	126			5P-C18-004	126,00
	DN 63 CF	105	210			5P-C18-006	336,00	
	DN 100 CF	135	270			5P-C18-010	540,00	
	DN 160 CF	167	334			5P-C18-016	820,00	
	DN 200 CF	203	406			5P-C18-020	1.320,00	



AISI 316 LN ESR-FORG	DN 16 CF	38	76			5P-C18-201	162,00
	1.4429	DN 40 CF	63	126			5P-C18-204
	DN 63 CF	105	210			5P-C18-206	576,00
	DN 100 CF	135	270			5P-C18-210	720,00
	DN 160 CF	167	334			5P-C18-216	1.200,00
	DN 200 CF	203	406			5P-C18-220	1.800,00

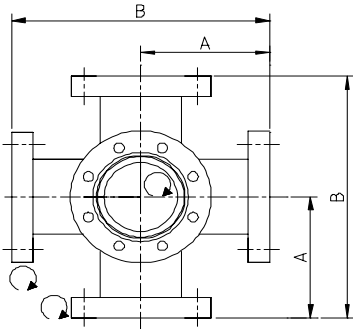
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
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Cross-piece	AISI 316 L 1.4404	DN 16 CF	38	76			5P-C19-001	126,00
		DN 40 CF	63	126			5P-C19-004	170,00
		DN 63 CF	105	210			5P-C19-006	432,00
		DN 100 CF	135	270			5P-C19-010	700,00
		DN 160 CF	167	334			5P-C19-016	1.080,00
		DN 200 CF	203	406			5P-C19-020	1.720,00



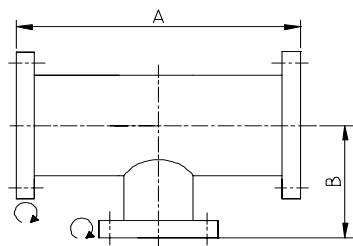
AISI 316 LN ESR-FORG 1.4429	DN 16 CF	38	76			5P-C19-201	224,00
	DN 40 CF	63	126			5P-C19-204	312,00
	DN 63 CF	105	210			5P-C19-206	750,00
	DN 100 CF	135	270			5P-C19-210	960,00
	DN 160 CF	167	334			5P-C19-216	1.560,00
	DN 200 CF	203	406			5P-C19-220	2.400,00

Double cross-piece	AISI 316 L 1.4404	DN 16 CF	38	76			5P-C20-001	188,00
		DN 40 CF	63	126			5P-C20-004	256,00
		DN 63 CF	105	210			5P-C20-006	648,00
		DN 100 CF	135	270			5P-C20-010	1.056,00
		DN 160 CF	167	334			5P-C20-016	1.600,00
		DN 200 CF	203	406			5P-C20-020	2.580,00



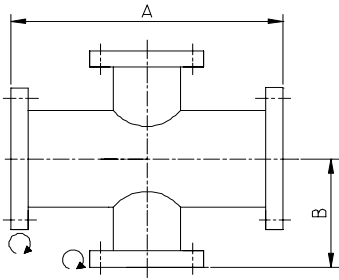
AISI 316 LN ESR-FORG 1.4429	DN 16 CF	38	76			5P-C20-201	336,00
	DN 40 CF	63	126			5P-C20-204	468,00
	DN 63 CF	105	210			5P-C20-206	1.120,00
	DN 100 CF	135	270			5P-C20-210	1.440,00
	DN 160 CF	167	334			5P-C20-216	2.340,00
	DN 200 CF	203	406			5P-C20-220	3.600,00

Reducing T-piece	AISI 316 L 1.4404	DN 40-16 CF	126	50			5P-C21-004	116,00
		DN 63-40 CF	210	75			5P-C21-006	250,00
		DN 100-63 CF	270	100			5P-C21-010	468,00
		DN 160-100 CF	334	125			5P-C21-016	700,00
		DN 200-160 CF	406	150			5P-C21-020	1.128,00

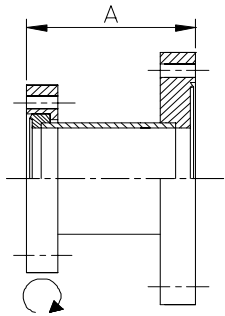


AISI 316 LN ESR-FORG 1.4429	DN 40-16 CF	126	50			5P-C21-504	208,00
	DN 63-40 CF	210	75			5P-C21-506	440,00
	DN 100-63 CF	270	100			5P-C21-510	700,00
	DN 160-100 CF	334	125			5P-C21-516	1.040,00
	DN 200-160 CF	406	150			5P-C21-520	1.560,00

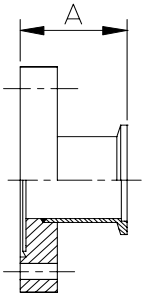
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
Reducing cross-piece	AISI 316 L 1.4404	DN 40-16 CF	126	100			5P-C22-004	144,00
		DN 63-40 CF	210	150			5P-C22-006	276,00
		DN 100-63 CF	270	200			5P-C22-010	550,00
		DN 160-100 CF	334	250			5P-C22-016	840,00
		DN 200-160 CF	406	300			5P-C22-020	1.330,00
	AISI 316 LN ESR-FORG 1.4429	DN 40-16 CF	126	100			5P-C22-204	260,00
		DN 63-40 CF	210	150			5P-C22-206	500,00
		DN 100-63 CF	270	200			5P-C22-210	880,00
		DN 160-100 CF	334	250			5P-C22-216	1.260,00
		DN 200-160 CF	406	300			5P-C22-220	2.000,00



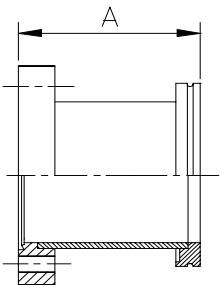
Reducing piece CF / CF	AISI 316 L 1.4404	DN 40-16 CF	45				5P-C23-004	68,00
		DN 63-40 CF	75				5P-C23-006	128,00
		DN 100-63 CF	95				5P-C23-010	224,00
		DN 160-100 CF	105				5P-C23-016	364,00
		DN 200-160 CF	115				5P-C23-020	568,00
	AISI 316 LN ESR-FORG 1.4429	DN 40-16 CF	45				5P-C23-204	94,00
		DN 63-40 CF	75				5P-C23-206	210,00
		DN 100-63 CF	95				5P-C23-210	400,00
		DN 160-100 CF	105				5P-C23-216	620,00
		DN 200-160 CF	115				5P-C23-220	1.000,00



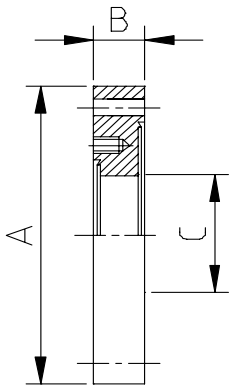
Adaptor piece CF / KF	AISI 316 L 1.4404	DN 16 CF-16 KF	36				5P-C24-011	29,20
		DN 16 CF-25 KF	36				5P-C24-012	31,20
		DN 40 CF-25 KF	36				5P-C24-042	44,00
		DN 40 CF-40 KF	50				5P-C24-044	50,00
		DN 63 CF-40 KF	50				5P-C24-064	103,20
		DN 100 CF-40 KF	50				5P-C24-104	146,00



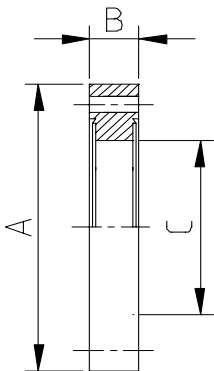
Adaptor piece CF / ISO-K	AISI 316 L 1.4404	DN 63 CF-63 ISO-K	90				5P-C25-006	167,20
		DN 100 CF-100 ISO-K	90				5P-C25-010	242,00
		DN 160 CF-160 ISO-K	90				5P-C25-016	360,00
		DN 200 CF-200 ISO-K	90				5P-C25-020	520,00



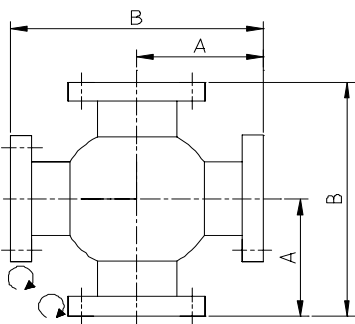
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
Reducing flange CF / CF	AISI 316 L 1.4404	DN 40-16 CF	69,5	12,7	16		5P-C26-021	36,40
		DN 63-40 CF	113,5	17,5	37		5P-C26-032	87,20
		DN 100-40 CF	152	20	37		5P-C26-042	114,00
		DN 100-63 CF	152	20	64		5P-C26-043	134,00
		DN 160-040 CF	202,5	24	37		5P-C26-052	184,00
		DN 160-063 CF	202,5	24	64		5P-C26-053	200,00
		DN 160-100 CF	202,5	24	102		5P-C26-054	212,00
	AISI 316 LN ESR-FORG 1.4429	DN 200-063 CF	253	24	64		5P-C26-063	296,00
		DN 200-100 CF	253	24	102		5P-C26-064	312,00
		DN 200-160 CF	253	24	153		5P-C26-065	328,00
		DN 40-16 CF	69,5	12,7	16		5P-C26-221	68,00
		DN 63-40 CF	113,5	17,5	37		5P-C26-232	180,00
		DN 100-40 CF	152	20	37		5P-C26-242	260,00
		DN 100-63 CF	152	20	64		5P-C26-243	280,00
DN 160-040 CF	202,5	24	37		5P-C26-252	380,00		
DN 160-063 CF	202,5	24	64		5P-C26-253	420,00		
DN 160-100 CF	202,5	24	102		5P-C26-254	440,00		
DN 200-063 CF	253	24	64		5P-C26-263	620,00		
DN 200-100 CF	253	24	102		5P-C26-264	660,00		
DN 200-160 CF	253	24	153		5P-C26-265	700,00		



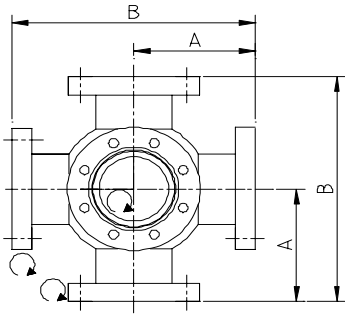
Double-sided flange	AISI 316 L 1.4404	DN 16 CF	34	7,3	16		5P-C27-001	27,20
		DN 40 CF	69,5	12,7	37		5P-C27-004	38,00
		DN 63 CF	113,5	17,5	64		5P-C27-006	91,20
		DN 100 CF	152	20	102		5P-C27-010	140,00
		DN 160 CF	202,5	22	153		5P-C27-016	198,00
		DN 200 CF	253	24,5	200		5P-C27-020	300,00
		AISI 316 LN ESR-FORG 1.4429	DN 16 CF	34	7,3	16		5P-C27-201
	DN 40 CF		69,5	12,7	37		5P-C27-204	80,00
	DN 63 CF		113,5	17,5	64		5P-C27-206	160,00
	DN 100 CF		152	20	102		5P-C27-210	240,00
	DN 160 CF		202,5	22	153		5P-C27-216	380,00
	DN 200 CF		253	24,5	200		5P-C27-220	600,00



Spherical cross-piece	AISI 316 L 1.4404	DN 40 CF	63	126			5P-C30-004	210,00	
		DN 63 CF	105	210			5P-C30-006	480,00	
		DN 100 CF	135	270			5P-C30-010	800,00	
		DN 160 CF	167	334			5P-C30-016	1.260,00	
		DN 200 CF	203	406			5P-C30-020	2.000,00	
		AISI 316 LN ESR-FORG 1.4429	DN 40 CF	63	126			5P-C30-204	360,00
			DN 63 CF	105	210			5P-C30-206	788,00
	DN 100 CF		135	270			5P-C30-210	1.084,00	
	DN 160 CF		167	334			5P-C30-216	1.712,00	
	DN 200 CF		203	406			5P-C30-220	2.700,00	



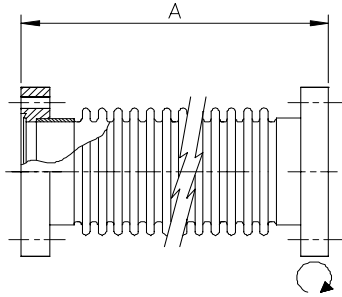
DESCRIPTION	MAT.	NOM. DIAMETER	A	B	C	D	CODE	PRICE
Spherical double cross-piece	AISI 316 L 1.4404	DN 40 CF	63	126			5P-C31-004	312,00
		DN 63 CF	105	210			5P-C31-006	740,00
		DN 100 CF	135	270			5P-C31-010	1.200,00
		DN 160 CF	167	334			5P-C31-016	1.960,00
		DN 200 CF	203	406			5P-C31-020	3.120,00
	AISI 316 LN ESR-FORG 1.4429	DN 40 CF	63	126			5P-C31-204	538,00
		DN 63 CF	105	210			5P-C31-206	1.282,00
		DN 100 CF	135	270			5P-C31-210	1.696,00
		DN 160 CF	167	334			5P-C31-216	2.708,00
		DN 200 CF	203	406			5P-C31-220	4.200,00



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

Flexible metal hose	AISI 316 L 1.4404	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 16 CF	250					5P-C38-001
		DN 40 CF	250				5P-C38-004	116,00
		DN 63 CF	250				5P-C38-006	248,00

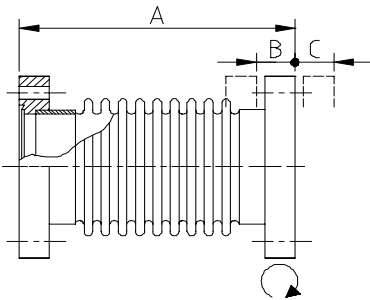


DN 16 CF	500					5P-C38-101	94,00
DN 40 CF	500					5P-C38-104	132,00
DN 63 CF	500					5P-C38-106	276,00

DN 16 CF	750					5P-C38-201	104,00
DN 40 CF	750					5P-C38-204	150,00
DN 63 CF	750					5P-C38-206	296,00

DN 16 CF	1000					5P-C38-301	124,00
DN 40 CF	1000					5P-C38-304	174,00
DN 63 CF	1000					5P-C38-306	332,00

Bellow	AISI 316 L 1.4404	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 16 CF	110	14	7			5P-C39-001
		DN 40 CF	160	16	8		5P-C39-004	130,00
		DN 63 CF	250	20	10		5P-C39-006	280,00
		DN 100 CF	250	20	10		5P-C39-010	450,00
		DN 160 CF	270	20	10		5P-C39-016	680,00
		DN 200 CF	300	24	12		5P-C39-020	1.120,00



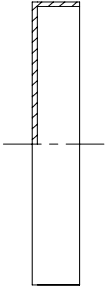
AISI 316 LN
ESR-FORG
1.4429

DN 16 CF	110	14	7			5P-C39-201	124,00
DN 40 CF	160	16	8			5P-C39-204	186,00
DN 63 CF	250	20	10			5P-C39-206	474,00
DN 100 CF	250	20	10			5P-C39-210	552,00
DN 160 CF	270	20	10			5P-C39-216	1.056,00
DN 200 CF	300	24	12			5P-C39-220	1.600,00

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

Protective cover	Plastic	NOM. DIAMETER	A	B	C	D	CODE	PRICE
		DN 16 CF				10	5P-C45-001	1,60
		DN 40 CF				10	5P-C45-004	5,00
		DN 63 CF				10	5P-C45-006	10,00
		DN 100 CF				10	5P-C45-010	16,00
		DN 160 CF				1	5P-C45-016	
		DN 200 CF				1	5P-C45-020	



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- Flanges and components
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- Electrical feedthroughs
- Motion feedthroughs
- Gas/liquid feedthroughs
- Manual, pneumatic & motorized valves



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- Scroll dry pumps
- Large oil sealed pumps and pumping systems
- Industrial dry pumps and pumping systems
- Chemical pumps and pumping systems
- Turbomolecular pumps
- Vapour pumps for scientific R&D and industrial applications
- Cryopumps



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- Vacuum gauges & controllers
- Vacuum sensors calibrations equipment
- SIT calibrations
- Thin film monitor & controllers



VACUUM SYSTEMS

- Laboratory freeze-dryers
- Vacuum shelf dryers
- Deaeration equipment
- Custom systems



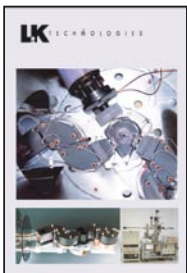
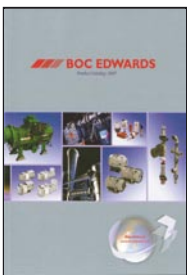
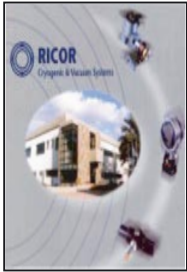
CRYOGENIC PRODUCTS

- Coldheads
- Closed cycle cryostats
- Open cycle flow cryostat
- Vacuum shrouds & radiation shields
- Sample holders



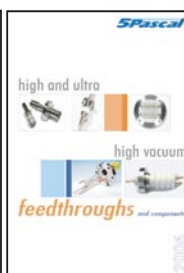
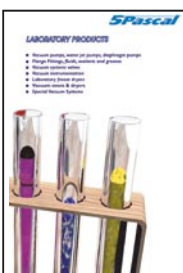
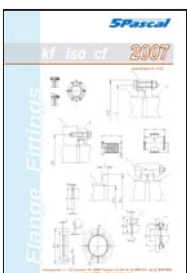
SURFACE ANALYSIS EQUIPMENT

- Low-Energy Electron Diffraction (LEED)
- Reflection High-Energy Electron Diffraction (RHEED)
- Mini Cylindrical Mirror Analyzer (Mini-CMA)
- High Resolution Electron Energy Loss Spectroscopy (HREELS)
- Ion guns
- Electron guns
- Carbon dioxide snow cleaning



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- Vacuum coating systems for R&D applications
- Sources for organic and polymeric electroluminescent film (OLED)
- Pulsed Plasma Deposition (PPD)
- Thin film deposition systems



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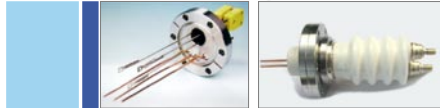
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20090 Trezzano s/N (Milano)
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