



KF / DN Flanges & Fittings

KF Flanges & Fittings

AdvanTorr Clamp flanges are designed in accordance with the International Standards Organization (ISO) specifications and are 100% compatible with other manufacturers' KF- ISO flange design. Standard materials include stainless steel (SS 304L and SS 316L) and Aluminum is also available upon request. KF flanges are a convenient solution for quick assembly and disassembly of vacuum components and flange connections are available in a range of tube sizes from 1/2" to 2.0".

KF flanges utilize an aluminum clamp with a single wing nut allowing frequent assembly and disassembly without the need for any tools. The 15 degree taper surface of the flange allows uniform pressure for compressing an O-ring held in place by a centering ring. The vacuum seal can be applied up to 1×10^{-8} Torr and baked to 200°C. However, sustained baking above 200°C may result in deterioration of the elastomer seal. **AdvanTorr** provides a broad range of KF adaptors for connecting to different types of flanges so please refer to the Adaptor section in this catalogue.

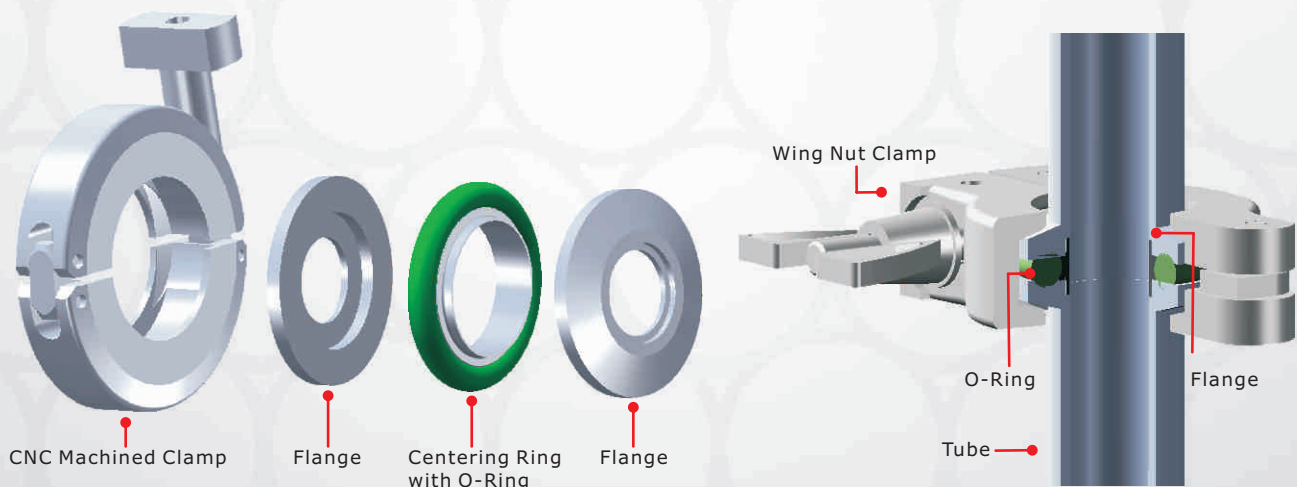
STANDARD SPECIFICATION

Vacuum Rate:	High Vacuum
Material:	SS 304L, SS 316L and Aluminum
Flange Sizes:	KF10~KF50
Tube Sizes:	1/2"~2.0" Surface Finish: Bead-blast and polished
Vacuum Range:	760 Torr ~ 1×10^{-8} Torr
Seal Material:	FKM, FFKM
Temperature Range:	$\leq 200^{\circ}\text{C}$ (150°C sustained)

**K F
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Cleaning and Packaging

All products with weld joints are 100% helium leak tested to assure leak free operation prior to use. In addition, to ensure the cleanliness of **AdvanTorr** products, all parts are ultrasonically cleaned to HV standards using de-ionized water and packaged in contamination free, class 10,000 clean room conditions. Each bag is affixed with a barcode label identifying the component's part number, heat number and batch number for full traceability.

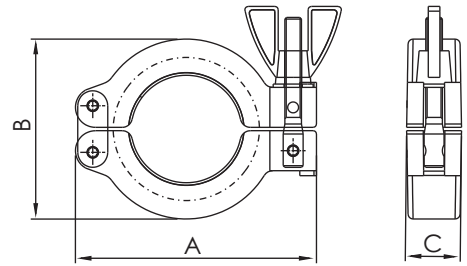


-All dimensions are in millimeters unless otherwise specified.

KF Hardware & Seals

KF WING-NUT CLAMPS TYPE 1

*Die-Casting Aluminum Clamp

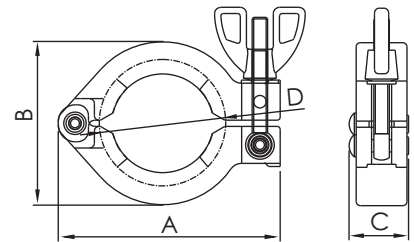


Part Number	Size	A	B	C
KF-WC1-16	KF10/16	62.00	42.00	16.50
KF-WC1-25	KF25	72.00	53.50	16.50
KF-WC1-40	KF40	89.50	69.50	16.50
KF-WC1-50	KF50	113.00	90.00	20.00

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KF WING-NUT CLAMPS TYPE 2

*Die-Casting Aluminum Clamp



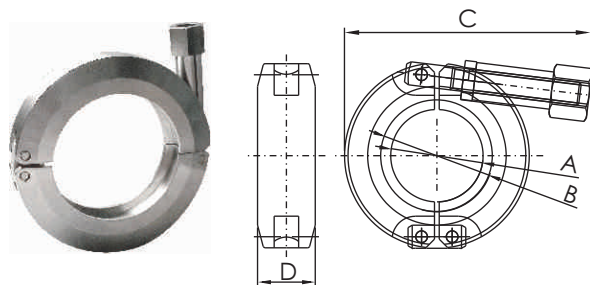
Part Number	Size	A	B	C	D
KF-WC2-16	KF10/16	62.70	41.40	19.30	32.60
KF-WC2-25	KF25	72.00	53.10	19.30	42.00
KF-WC2-40	KF40	90.00	70.20	19.30	58.80
KF-WC2-50	KF50	113.40	93.40	22.80	79.60

KF Hardware & Seals

KF CNC SS304 CLAMPS

*CNC Machined Clamp Manufactured from SS304 for Extra Rigid Strength and Durability.

*Integral Latching Mechanism can Prevent Unintentional Opening.



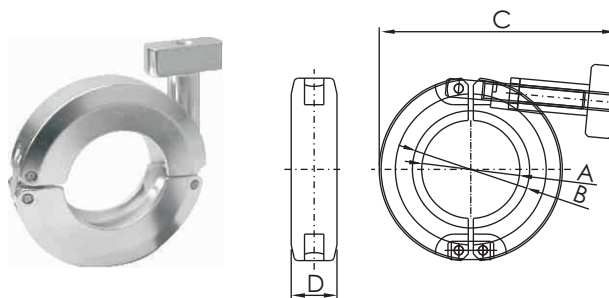
Part Number	Size	A	B	C	D
KF-CC-16	KF10/16	25.40	30.80	68.00	15.90
KF-CC-25	KF25	34.12	40.94	80.63	15.90
KF-CC-40	KF40	49.40	55.70	87.20	15.90
KF-CC-50	KF50	69.00	75.60	109.30	15.90

KF CNC ALUMINUM CLAMPS

*CNC Machined Clamp Manufactured from Aluminum Solid Bar for Extra Rigid Strength and Durability.

*3 Times Tensile Strength than Die-Casting Clamps.

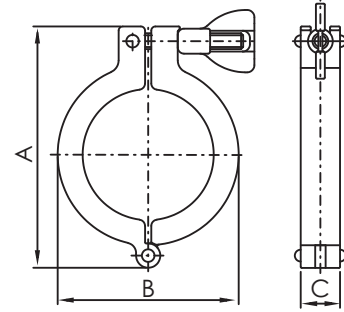
*Integral Latching Mechanism can Prevent Unintentional Opening.



Part Number	Size	A	B	C	D	Max Pressure
KF-CC-16-AL	KF10/16	25.40	30.80	70.20	15.90	300 PSI
KF-CC-25-AL	KF25	34.12	40.94	82.66	15.90	270 PSI
KF-CC-40-AL	KF40	49.40	55.70	90.80	15.90	250 PSI
KF-CC-50-AL	KF50	69.00	75.60	113.00	15.90	-

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KF Hardware & Seals

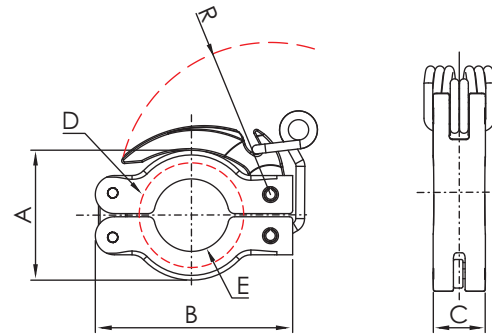


KF NW CLAMPS

*Clamp Material: SS304

Part Number	Size	A	B	C
KF-WC1-16-04	KF10/16	59.5	33.5	16.0
KF-WC1-25-04	KF25	73.0	48.0	16.0
KF-WC1-40-04	KF40	89.0	63.0	16.0
KF-WC1-50-04	KF50	112.5	80.0	20.0

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KF QUICK CLAMPS

*Clamp Material: Aluminum

Part Number	Size	A	B	C	D	E	R
KF-QC-16	KF10/16	41.00	62.30	16.50	16.50	11.94	48.00
KF-QC-25	KF25	54.00	72.40	16.50	22.00	16.64	56.00
KF-QC-40	KF40	69.00	89.70	16.50	29.00	24.26	72.37

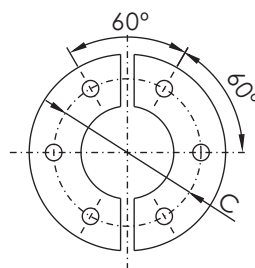


Figure 1

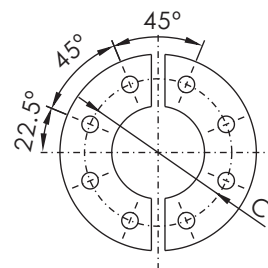
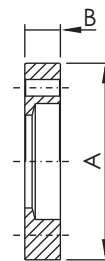


Figure 2



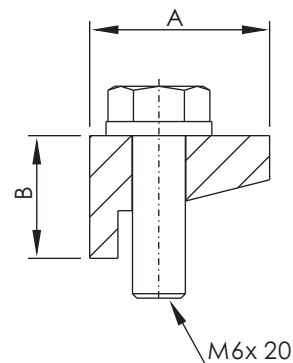
KF BULKHEAD (Clamps) SETS

*Clamp Material: Aluminum

Part Number	Size	Figure	A	B	C	Bolt Hole Size	No of Bolt Holes	Bolt Size
KF-BCS-16	KF10/16	1	50.80	9.20	38.10	4.30	6	10-32UNF-15.9L
KF-BCS-25	KF25	1	60.30	9.90	48.00	5.30	6	10-32UNF-15.9L
KF-BCS-40	KF40	1	74.60	9.30	62.00	5.30	6	10-32UNF-15.9L
KF-BCS-50	KF50	2	95.20	10.30	82.55	5.30	8	10-32UNF-15.9L

KF WALL CLAMPS

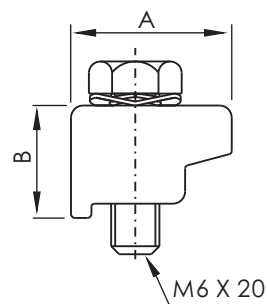
*Material: Aluminum



Part Number	Size	A	B
KF-WC2-1650	KF16~KF50	20.40	13.90

KF WALL CLAMPS with BOLTS

*Die-Casting Aluminum Clamp

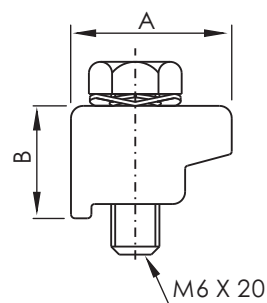


Part Number	Size	A	B
KF-WC1-1650	KF16~KF50	20.00	15.00

KF SINGLE CLAW CLAMP KIT

*Material: SS 304

*4pcs in 1 pack



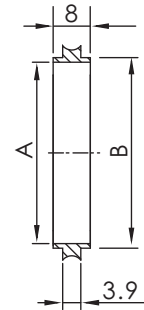
Part Number	Size	A	B
KF-SC-1650	KF16~KF50	20.00	14.00

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KF Hardware & Seals

KF CENTERING RINGS

*Material: SS 304/ Aluminum



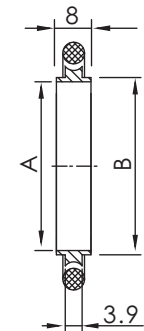
Part Number (SS304)	Part Number (Aluminum)	Size	A	B
KF-CR-10	KF-CR-10-AL	KF10	10.00	12.00
KF-CR-16	KF-CR-16-AL	KF16	16.00	17.00
KF-CR-25	KF-CR-25-AL	KF25	25.00	26.00
KF-CR-40	KF-CR-40-AL	KF40	40.00	41.00
KF-CR-50	KF-CR-50-AL	KF50	50.00	52.00

*Note: SS 316L Material Available on Request.

KF CENTERING RINGS with O-RINGS

* Centering Ring Material: SS 304

* O-Ring Material: FKM / NBR



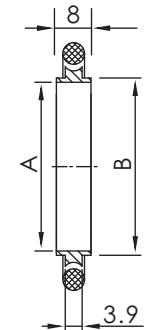
Part Number (FKM)	Part Number (NBR)	Size	A	B
KF-CRO-10	KF-CRO-10-NB	KF10	10.00	12.00
KF-CRO-16	KF-CRO-16-NB	KF16	16.00	17.00
KF-CRO-25	KF-CRO-25-NB	KF25	25.00	26.00
KF-CRO-40	KF-CRO-40-NB	KF40	40.00	41.00
KF-CRO-50	KF-CRO-50-NB	KF50	50.00	52.00

**KF
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KF CENTERING RINGS with O-RINGS, ALUMINUM

* Centering Ring Material: Aluminum

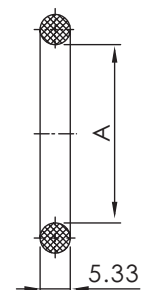
* O-Ring Material: FKM / NBR



Part Number(FKM)	Part Number (NBR)	Size	A	B
KF-CRO-10-AL	KF-CRO-10-AL-NB	KF10	10.00	12.00
KF-CRO-16-AL	KF-CRO-16-AL-NB	KF16	16.00	17.00
KF-CRO-25-AL	KF-CRO-25-AL-NB	KF25	25.00	26.00
KF-CRO-40-AL	KF-CRO-40-AL-NB	KF40	40.00	41.00
KF-CRO-50-AL	KF-CRO-50-AL-NB	KF50	50.00	52.00

KF REPLACEMENT O-RINGS

*Material: FKM / NBR



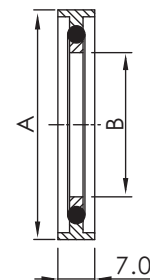
Part Number (FKM)	Part Number (NBR)	Size	A
KF-RO-10	KF-RO-10-NB	KF 10	15.24
KF-RO-16	KF-RO-16-NB	KF 16	18.42
KF-RO-25	KF-RO-25-NB	KF 25	27.94
KF-RO-40	KF-RO-40-NB	KF 40	40.64
KF-RO-50	KF-RO-50-NB	KF 50	53.34

*Note: FFKM O-Ring Material Available on Request.

KF Hardware & Seals

KF CENTERING RINGS with O-RINGS & SPACERS

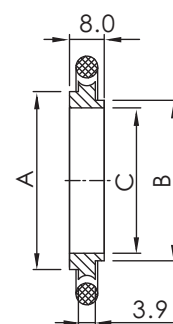
- *Centering Ring Material: SS 304
- *O-Ring Material: FKM
- *Spacer Material: Aluminum



Part Number	Size	A	B
KF-CROS-16	KF16	32.50	16.00
KF-CROS-25	KF25	42.50	25.00
KF-CROS-40	KF40	57.50	40.00
KF-CROS-50	KF50	77.50	50.00

KF ADAPTIVE CENTERING RINGS with O-RINGS

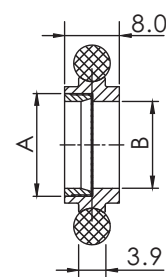
- *Centering Ring Material: SS 304
- *O-Ring Material: FKM



Part Number	Size	A	B	C
KF-CROA-1016	KF10/16	17.00	12.00	10.00
KF-CROA-2025	KF20/25	26.00	22.00	20.00
KF-CROA-3240	KF32/40	41.00	34.00	32.00

KF SCREENED CENTERING RINGS with O-RINGS

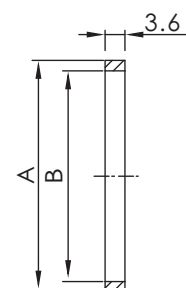
- *Centering Ring Material: SS 304
- *O-Ring Material: FKM
- *70 Mesh Screen
- *Screen Material: SS 304



Part Number	Size	A	B
KF-CROSC-16	KF16	15.00	12.70
KF-CROSC-25	KF25	23.80	21.80
KF-CROSC-40	KF40	38.80	36.80
KF-CROSC-50	KF50	50.00	47.75

KF OVER PRESSURE RINGS

- *Material: SS 304



Part Number	Size	A	B
KF-OR-10	KF 10	31.80	27.70
KF-OR-16	KF 16	31.80	29.90
KF-OR-25	KF 25	41.90	39.10
KF-OR-40	KF 40	57.20	54.50
KF-OR-50	KF 50	69.90	67.60

*Note: FFKM O-Ring Material Available on Request.

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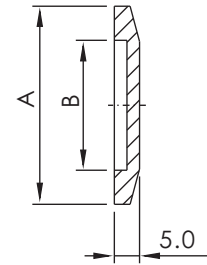
KF Flanges



KF BLANK FLANGES (WITHOUT BOSS)

*Material: SS 304L/ Aluminum

Part Number (SS 304L)	Part Number (Aluminum)	Flange Size	A	B
KF-BL1-10	KF-BL1-10-AL	KF10	29.97	12.27
KF-BL1-16	KF-BL1-16-AL	KF16	29.97	17.27
KF-BL1-25	KF-BL1-25-AL	KF25	39.88	26.16
KF-BL1-40	KF-BL1-40-AL	KF40	54.86	41.15
KF-BL1-50	KF-BL1-50-AL	KF50	74.93	52.32



*Note: SS 316L Material Available on Request.

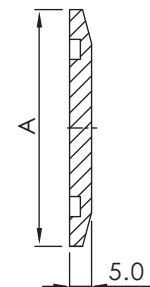
**KF
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KF BLANK FLANGES (WITH BOSS)

*Material: SS 304L/ Aluminum

Part Number (SS 304L)	Part Number (Aluminum)	Flange Size	A
KF-BL2-10	KF-BL2-10-AL	KF10	30.00
KF-BL2-16	KF-BL2-16-AL	KF16	30.00
KF-BL2-25	KF-BL2-25-AL	KF25	40.00
KF-BL2-40	KF-BL2-40-AL	KF40	55.00
KF-BL2-50	KF-BL2-50-AL	KF50	75.00



*Note: SS 316L Material Available on Request.

KF Flanges

KF BORED FLANGES

*Material: SS 304L



Part Number	Size	Figure	A	B	C	D	E
KF-BF-10x038	KF10- $\frac{3}{8}$ "	1	30.00	12.20	-	9.65	5.10
KF-BF-16x025	KF16- $\frac{1}{4}$ "	1	30.00	17.20	-	6.50	5.10
KF-BF-16x038	KF16- $\frac{3}{8}$ "	1	30.00	17.20	-	9.65	5.10
KF-BF-16x050	KF16- $\frac{1}{2}$ "	2	30.00	17.20	10.16	12.95	5.10
KF-BF-16x075	KF16- $\frac{3}{4}$ "	2	30.00	17.20	16.51	19.30	4.40
KF-BF-25x025	KF25- $\frac{1}{4}$ "	1	40.00	26.20	-	6.50	5.10
KF-BF-25x038	KF25- $\frac{3}{8}$ "	1	40.00	26.20	-	9.65	5.10
KF-BF-25x050	KF25- $\frac{1}{2}$ "	2	40.00	26.20	10.16	12.95	5.10
KF-BF-25x075	KF25- $\frac{3}{4}$ "	2	40.00	26.20	16.51	19.30	5.10
KF-BF-25x100	KF25-1"	2	40.00	26.20	22.88	25.65	4.90
KF-BF-40x025	KF40- $\frac{1}{4}$ "	1	55.00	41.20	-	6.50	5.10
KF-BF-40x038	KF40- $\frac{3}{8}$ "	1	55.00	41.20	-	9.65	5.10
KF-BF-40x050	KF40- $\frac{1}{2}$ "	2	55.00	41.20	10.16	12.95	5.10
KF-BF-40x075	KF40- $\frac{3}{4}$ "	2	55.00	41.20	16.51	19.30	5.10
KF-BF-40x100	KF40-1"	2	55.00	41.20	22.88	25.65	5.10
KF-BF-40x150	KF40-1 $\frac{1}{2}$ "	2	55.00	41.20	35.58	38.35	5.10
KF-BF-50x025	KF50- $\frac{1}{4}$ "	1	75.00	52.20	-	6.50	5.10
KF-BF-50x038	KF50- $\frac{3}{8}$ "	1	75.00	52.20	-	9.65	5.10
KF-BF-50x050	KF50- $\frac{1}{2}$ "	2	75.00	52.20	10.16	12.95	5.10
KF-BF-50x075	KF50- $\frac{3}{4}$ "	2	75.00	52.20	16.51	19.30	5.10
KF-BF-50x100	KF50-1"	2	75.00	52.20	22.88	25.65	5.10
KF-BF-50x150	KF50-1 $\frac{1}{2}$ "	2	75.00	52.20	35.58	38.35	5.10
KF-BF-50x200	KF50-2"	2	75.00	52.20	48.26	51.05	5.10

*Note: SS 316L or Aluminum Material Available on Request.

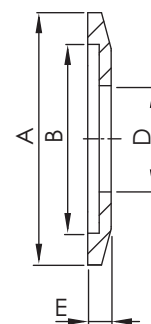


Figure 1

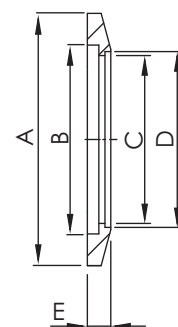


Figure 2

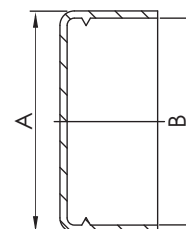
**K F
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KF FLANGE PLASTIC CAP

*Material: PE



Part Number	Size	A	B
KF-PC-16	KF10/ 16	32.00	30.00
KF-PC-25	KF25	42.00	40.00
KF-PC-40	KF40	57.00	55.00
KF-PC-50	KF50	77.00	75.00



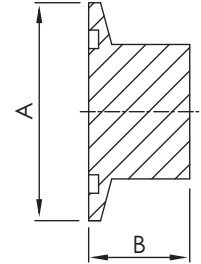
KF Flanges

KF UNBORED STUB FLANGES

*Material: SS 304L



Part Number	Size	A	B
KF-UF-10	KF 10-0.56"L	30.00	14.20
KF-UF-16	KF 16-0.56"L	30.00	14.20
KF-UF-16-1	KF 16-0.75"L	30.00	19.10
KF-UF-25	KF 25-0.47"L	40.00	11.90
KF-UF-25-1	KF 25-0.75"L	40.00	19.10
KF-UF-40	KF 40-0.50"L	55.00	12.70
KF-UF-40-1	KF 40-1.00"L	55.00	25.40
KF-UF-50	KF 50-0.62"L	75.00	15.70
KF-UF-50-1	KF 50-1.00"L	75.00	25.40

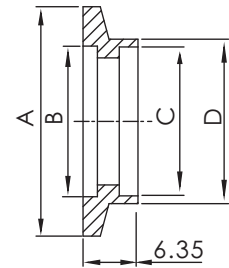


KF SOCKET WELD FLANGES, SHORT

*Material: SS 304L



Part Number	Flange Size	A	B	C	D
KF-SWS-10	KF10	30.00	12.20	12.90	16.00
KF-SWS-16	KF16	30.00	17.20	19.30	22.40
KF-SWS-25	KF25	40.00	26.20	25.70	28.80
KF-SWS-40	KF40	55.00	41.20	38.40	41.50
KF-SWS-50	KF50	75.00	52.20	51.10	54.20

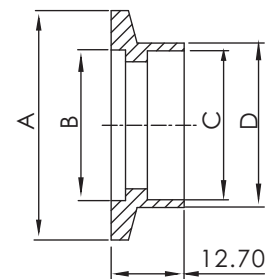


KF SOCKET WELD FLANGES, LONG

*Material: SS 304L



Part Number	Flange Size	A	B	C	D
KF-SWL-10	KF10	30.00	12.20	13.00	15.50
KF-SWL-16	KF16	30.00	17.20	19.30	22.20
KF-SWL-25	KF25	40.00	26.20	25.90	28.60
KF-SWL-40	KF40	55.00	41.20	38.60	44.50
KF-SWL-50	KF50	75.00	52.20	51.30	57.20

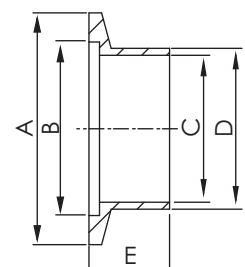


KF BUTT WELD STUB FLANGES, SHORT

*Material: SS 304L



Part Number	Flange Size	A	B	C	D	E
KF-BWS-10	KF10	30.00	12.20	9.40	12.70	12.70
KF-BWS-16	KF16	30.00	12.70	15.70	19.10	12.70
KF-BWS-25	KF25	40.00	26.20	22.10	25.40	12.70
KF-BWS-40	KF40	55.00	41.20	34.80	38.10	19.10
KF-BWS-50	KF50	75.00	52.20	47.50	50.80	19.10



*Note: SS 316L or Aluminum Material Available on Request.

**KF
DN**

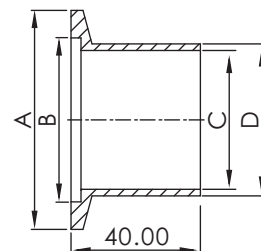
KF Fittings



KF BUTT WELD STUB FLANGES, LONG

*Material: SS 304L

Part Number	Flange Size	A	B	C	D
KF-BWL-10	KF10	30.00	12.20	9.40	12.70
KF-BWL-1016	K10/16	30.00	17.20	9.40	12.70
KF-BWL-16	KF16	30.00	17.20	15.75	19.05
KF-BWL-25	KF25	40.00	26.20	22.10	25.40
KF-BWL-40	KF40	55.00	41.20	34.90	38.10
KF-BWL-50	KF50	75.00	52.20	47.60	50.80



**K F
DN**

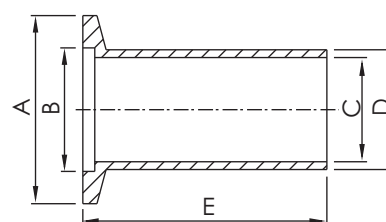


Figure 1
Machined

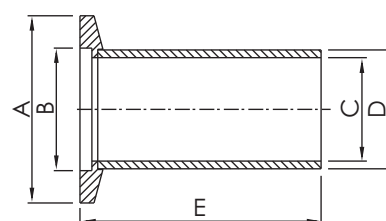


Figure 2
Welded

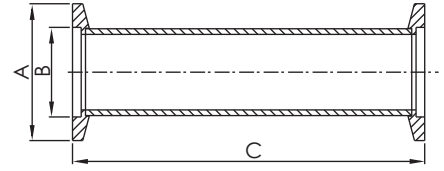
KF HALF NIPPLES

*Material: SS 304L

Part Number	Flange Size	Figure	A	B	C	D	E
KF-HN-10	KF 10	1	30.00	12.20	9.40	12.70	31.75
KF-HN-16	KF 16	1	30.00	17.20	15.80	19.10	29.21
KF-HN-16-1	KF 16	1	30.00	17.20	15.80	19.10	38.10
KF-HN-25	KF 25	2	40.00	26.20	22.10	25.40	51.56
KF-HN-25-1	KF 25	1	40.00	26.20	22.10	25.40	51.80
KF-HN-40	KF40	2	55.00	41.20	34.80	38.10	60.96
KF-HN-40-1	KF40	2	55.00	41.20	34.80	38.10	62.50
KF-HN-50	KF50	2	75.00	52.20	47.50	50.80	80.01
KF-HN-50-1	KF50	2	75.00	52.20	47.50	50.80	81.50

*Note: SS 316L or Aluminum Material Available on Request.

KF Fittings



KF FULL NIPPLES

*Material: SS 304L

*Tube Finish: Bead Blast

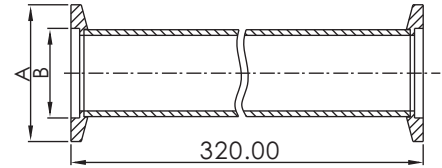
Part Number	Flange Size	A	B	C
KF-FN-10	KF10	30.00	12.20	63.50
KF-FN-16	KF16	30.00	17.20	58.40
KF-FN-25	KF25	40.00	26.20	103.10
KF-FN-40	KF40	55.00	41.20	121.90
KF-FN-50	KF50	75.00	52.20	160.00

**KF
DN**

KF FULL NIPPLES, LONG

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	B
KF-FNL-16	KF16	30.00	17.20
KF-FNL-25	KF25	40.00	26.20
KF-FNL-40	KF40	55.00	41.20
KF-FNL-50	KF50	75.00	52.20

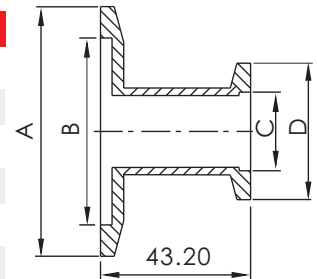
*Note: SS 316L Material Available on Request.

*Note: Polished and Electro- Polished Tube Finishes Available on Request.

KF Fittings

KF STRAIGHT REDUCING NIPPLES

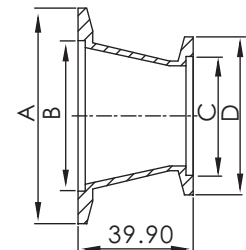
*Material: SS 304L



Part Number	Flange Size	A	B	C	D
KF-SRN-25x16	KF25/KF16	40.00	26.20	17.20	30.00
KF-SRN-40x16	KF40/KF16	55.00	41.20	17.20	30.00
KF-SRN-40x25	KF40/KF25	55.00	41.20	26.20	40.00
KF-SRN-50x16	KF50/KF16	75.00	52.20	17.20	30.00
KF-SRN-50x25	KF50/KF25	75.00	52.20	26.20	40.00
KF-SRN-50x40	KF50/KF40	75.00	52.20	41.20	55.00

KF CONICAL REDUCING NIPPLES

*Material: SS 304L



Part Number	Flange Size	A	B	C	D
KF-CRN-25x16	KF25/KF16	40.00	26.20	17.20	30.00
KF-CRN-40x16	KF40/KF16	55.00	41.20	17.20	30.00
KF-CRN-40x25	KF40/KF25	55.00	41.20	26.20	40.00
KF-CRN-50x16	KF50/KF16	75.00	52.20	17.20	30.00
KF-CRN-50x25	KF50/KF25	75.00	52.20	26.20	40.00
KF-CRN-50x40	KF50/KF40	75.00	52.20	41.20	55.00

**K F
DN**

*Note: SS 316L or Aluminum Material Available on Request.

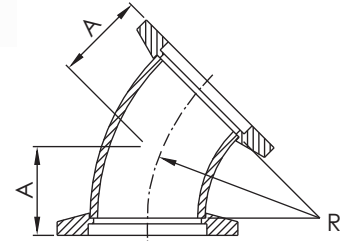
*Note: Polished and Electro- Polished Tube Finishes Available on Request.

KF Fittings

KF 45° ELBOWS

*Material: SS 304L

*Tube Finish: Bead Blast



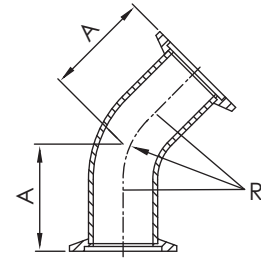
Part Number	Flange Size	A	R
KF-45EL-16	KF16	15.65	28.60
KF-45EL-25	KF25	19.58	38.10
KF-45EL-40	KF40	27.47	57.20
KF-45EL-50	KF50	35.36	76.20

**KF
DN**

KF 45° ELBOWS with TANGENTS

*Material: SS 304L

*Tube Finish: Bead Blast

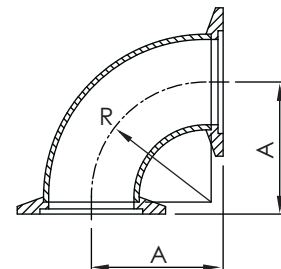


Part Number	Flange Size	A	R
KF-45ELT-16	KF16	23.10	28.60
KF-45ELT-25	KF25	28.45	38.10
KF-45ELT-25-1	KF25	33.88	38.10
KF-45ELT-40	KF40	42.67	57.20
KF-45ELT-40-1	KF40	45.10	57.20
KF-45ELT-50	KF50	50.55	76.20
KF-45ELT-50-1	KF50	62.50	76.20

KF 90° ELBOWS

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	R
KF-90EL-10	KF10	31.80	19.10
KF-90EL-16	KF16	29.20	28.60
KF-90EL-25	KF25	41.90	38.10
KF-90EL-40	KF40	61.00	57.15
KF-90EL-50	KF50	80.00	76.20

*Note: SS 316L Material Available on Request.

*Note: Polished and Electro- Polished Tube Finishes Available on Request.

KF Fittings

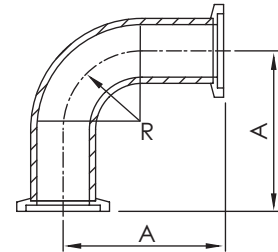


KF 90° ELBOWS with TANGENTS

*Material: SS 304L

*Tube Finish: Bead Blast

Part Number	Flange Size	A	R
KF-90ELT-16	KF16	68.58	28.60
KF-90ELT-16-1	KF16	40.00	28.60
KF-90ELT-25	KF25	92.46	38.10
KF-90ELT-25-1	KF25	50.00	38.10
KF-90ELT-40	KF40	130.05	57.15
KF-90ELT-40-1	KF40	65.00	57.15
KF-90ELT-50	KF50	139.95	76.20

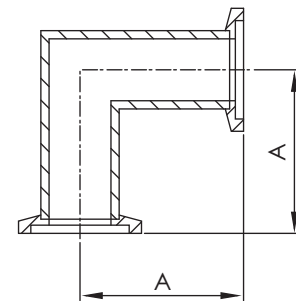


KF 90° MITERED ELBOWS

*Material: SS 304L

*Tube Finish: Bead Blast

Part Number	Flange Size	A
KF-MEL-16	KF16	29.21
KF-MEL-16-1	KF16	40.00
KF-MEL-25	KF25	50.00
KF-MEL-25-1	KF25	51.56
KF-MEL-40	KF40	60.96
KF-MEL-40-1	KF40	65.00
KF-MEL-50	KF50	69.84
KF-MEL-50-1	Kf50	80.01



**K F
DN**

*Note: SS 316L Material Available on Request.

*Note: Polished and Electro- Polished Tube Finishes Available on Request.

KF Fittings

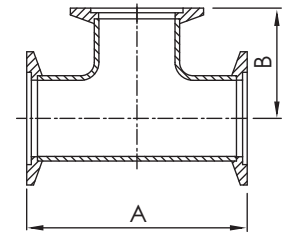
KF EQUAL TEES

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	B
KF-ET-10	KF10	63.50	31.75
KF-ET-16	KF16	58.40	29.20
KF-ET-16-1	KF16	80.00	40.00
KF-ET-25	KF25	100.00	50.00
KF-ET-25-1	KF25	102.80	51.40
KF-ET-40	KF40	122.00	61.00
KF-ET-40-1	KF40	130.00	65.00
KF-ET-50	KF50	140.00	70.00
KF-ET-50-1	KF50	160.00	80.00



**K F
DN**

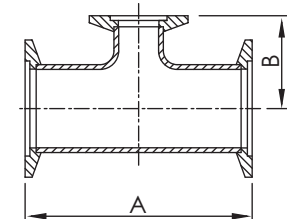
KF REDUCING TEES

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	B
KF-RT-25x16	KF25/KF16	100.00	27.80
KF-RT-25x16-1	KF25/KF16	100.00	43.20
KF-RT-25x16-2	KF25/KF16	103.10	32.25
KF-RT-40x16	KF40/KF16	121.90	38.85
KF-RT-40x16-1	KF40/KF16	130.00	34.00
KF-RT-40x16-2	KF40/KF16	130.00	49.50
KF-RT-40x25	KF40/KF25	121.90	57.91
KF-RT-40x25-1	KF40/KF25	130.00	56.40
KF-RT-50x16	KF50/KF16	140.00	40.10
KF-RT-50x16-1	KF50/KF16	140.00	55.90
KF-RT-50x16-2	KF50/KF16	160.00	45.20
KF-RT-50x25	KF50/KF25	140.00	62.70
KF-RT-50x40	KF50/KF40	140.00	71.40
KF-RT-50x40-1	KF50/KF40	160.00	67.31



*Note: SS 316L Material Available on Request.

*Note: Polished and Electro- Polished Tube Finishes Available on Request.

KF Fittings

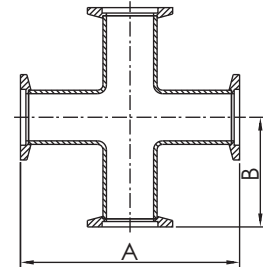
KF 4-WAY CROSSES

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	B
KF-4C-10	KF10	63.50	31.75
KF-4C-16	KF16	58.40	29.20
KF-4C-16-1	KF16	80.00	40.00
KF-4C-25	KF25	100.00	50.00
KF-4C-25-1	KF25	102.80	51.40
KF-4C-40	KF40	122.00	61.00
KF-4C-40-1	KF40	130.00	65.00
KF-4C-50	KF50	140.00	70.00
KF-4C-50-1	KF50	160.00	80.00



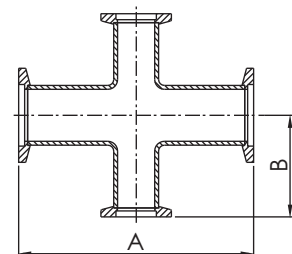
KF REDUCING 4-WAY CROSSES

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	B
KF-4RC-25x16	KF25/KF16	100.00	43.20
KF-4RC-25x16-1	KF25/KF16	103.12	32.26
KF-4RC-40x16	KF40/KF16	121.92	38.86
KF-4RC-40x16-1	KF40/KF16	130.00	49.50
KF-4RC-40x25	KF40/KF25	121.92	57.91
KF-4RC-40x25-1	KF40/KF25	130.00	56.40
KF-4RC-50x16	KF50/KF16	140.00	55.90
KF-4RC-50x16-1	KF50/KF16	160.02	45.21
KF-4RC-50x25	KF50/KF25	140.00	62.70
KF-4RC-50x40	KF50/KF40	140.00	71.40
KF-4RC-50x40-1	KF50/KF40	160.02	67.31



**K F
DN**

*Note: SS 316L Material Available on Request.

*Note: Polished and Electro- Polished Tube Finishes Available on Request.

KF Fittings

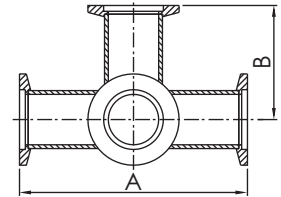


KF 5-WAY CROSSES

*Material: SS 304L

*Tube Finish: Bead Blast

Part Number	Flange Size	A	B
KF-5C-16	KF16	80.00	40.00
KF-5C-25	KF25	100.00	50.00
KF-5C-40	KF40	130.00	65.00
KF-5C-50	KF50	140.00	70.00



**K F
DN**

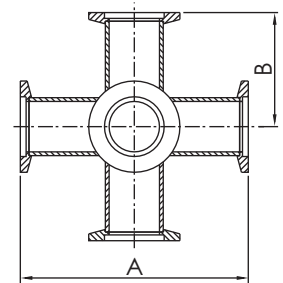


KF 6-WAY CROSSES

*Material: SS 304L

*Tube Finish: Bead Blast

Part Number	Flange Size	A	B
KF-6C-16	KF16	80.00	40.00
KF-6C-25	KF25	100.00	50.00
KF-6C-40	KF40	130.00	65.00
KF-6C-50	KF50	140.00	70.00



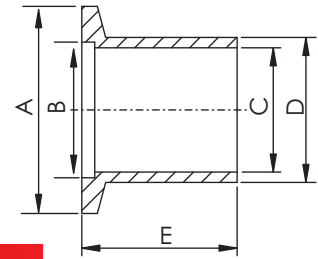
*Note: SS 316L Material Available on Request.

*Note: Polished and Electro- Polished Tube Finishes Available on Request.

DN Fittings

DN BUTT WELD STUBS, LENGTH 26MM

*Material: SS 304L



Part Number	Flange Size	A	B	C	D	E
DN-BW26-10	DN10	30.00	12.20	10.00	14.00	26.00
DN-BW26-16	DN16	30.00	17.20	16.00	20.00	26.00
DN-BW26-20	DN20	40.00	22.20	21.00	25.00	26.00
DN-BW26-25	DN25	40.00	26.20	24.00	28.00	26.00
DN-BW26-32	DN32	55.00	34.20	34.00	38.00	26.00
DN-BW26-40	DN40	55.00	41.20	40.50	44.50	26.00
DN-BW26-50	DN50	75.00	52.20	50.60	57.00	26.00

DN BUTT WELD STUBS, LENGTH 30MM

*Material: SS 304L

Part Number	Flange Size	A	B	C	D	E
DN-BW30-10	DN10	30.00	12.20	10.00	14.00	30.00
DN-BW30-16	DN16	30.00	17.20	16.00	20.00	30.00
DN-BW30-25	DN25	40.00	26.20	24.00	28.00	30.00
DN-BW30-40	DN40	55.00	41.20	40.50	44.50	30.00
DN-BW30-50	DN50	75.00	52.20	50.60	57.00	30.00

DN BUTT WELD STUBS, LENGTH 55MM

*Material: SS 304L

Part Number	Flange Size	A	B	C	D	E
DN-BW55-10	DN10	30.00	12.20	10.00	14.00	55.00
DN-BW55-16	DN16	30.00	17.20	16.00	20.00	55.00
DN-BW55-25	DN25	40.00	26.20	24.00	28.00	55.00
DN-BW55-40	DN40	55.00	41.20	40.50	44.50	55.00
DN-BW55-50	DN50	75.00	52.20	50.60	57.00	55.00

DN BUTT WELD STUBS, LENGTH 70MM

*Material: SS 304L

Part Number	Flange Size	A	B	C	D	E
DN-BW70-10	DN10	30.00	12.20	10.00	14.00	70.00
DN-BW70-16	DN16	30.00	17.20	16.00	20.00	70.00
DN-BW70-25	DN25	40.00	26.20	24.00	28.00	70.00
DN-BW70-40	DN40	55.00	41.20	40.50	44.50	70.00
DN-BW70-50	DN50	75.00	52.20	50.60	57.00	70.00

*Note: SS 316L Material Available on Request.

**K F
DN**

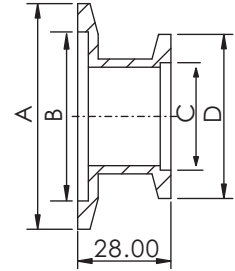
DN Fittings



DN STRAIGHT REDUCING NIPPLES, SHORT

*Material: SS 304L

Part Number	Flange Size	A	B	C	D
DN-SRNS-16x10	DN16/DN10	30.00	17.20	12.20	30.00
DN-SRNS-25x10	DN25/DN10	40.00	26.20	12.20	30.00
DN-SRNS-25x16	DN25/DN16	40.00	26.20	17.20	30.00
DN-SRNS-40x10	DN40/DN10	55.00	41.20	12.20	30.00
DN-SRNS-40x16	DN40/DN16	55.00	41.20	17.20	30.00
DN-SRNS-40x25	DN40/DN25	55.00	41.20	26.20	40.00
DN-SRNS-50x16	DN50/DN16	75.00	52.20	17.20	30.00
DN-SRNS-50x25	DN50/DN25	75.00	52.20	26.20	40.00
DN-SRNS-50x40	DN50/DN40	75.00	52.20	41.20	55.00



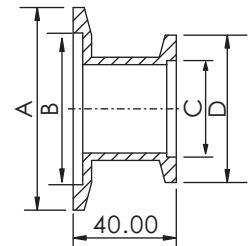
**K F
DN**



DN STRAIGHT REDUCING NIPPLES, LONG

*Material: SS 304L

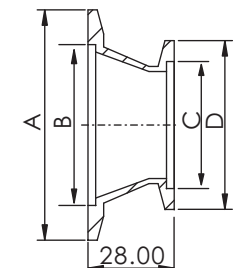
Part Number	Flange Size	A	B	C	D
DN-SRNL-25x16	DN25/DN16	40.00	26.20	17.20	30.00
DN-SRNL-40x16	DN40/DN16	55.00	41.20	17.20	30.00
DN-SRNL-40x25	DN40/DN25	55.00	41.20	26.20	40.00
DN-SRNL-50x16	DN50/DN16	75.00	52.20	17.20	30.00
DN-SRNL-50x25	DN50/DN25	75.00	52.20	26.20	40.00
DN-SRNL-50x40	DN50/DN40	75.00	52.20	41.20	55.00



DN CONICAL REDUCING NIPPLES

*Material: SS 304L

Part Number	Flange Size	A	B	C	D
DN-CRN-25x16	DN25/DN16	40.00	26.20	17.20	30.00
DN-CRN-40x16	DN40/DN16	55.00	41.20	17.20	30.00
DN-CRN-40x25	DN40/DN25	55.00	41.20	26.20	40.00
DN-CRN-50x16	DN50/DN16	75.00	52.40	17.20	30.00
DN-CRN-50x25	DN50/DN25	75.00	52.40	26.20	40.00
DN-CRN-50x40	DN50/DN40	75.00	52.40	41.20	55.00



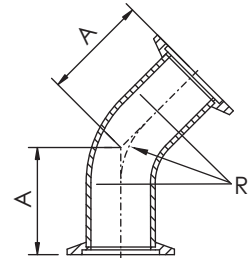
*Note: SS 316L Material Available on Request.

DN Fittings

DN 45° ELBOWS WITH TANGENTS

*Material: SS 304L

*Tube Finish: Bead Blast

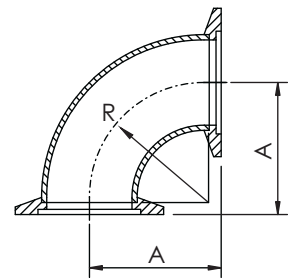


Part Number	Flange Size	A	R	Tube Size
DN-45ELT-10	DN10	30.00	26.50	14.0 X 2.0mmt
DN-45ELT-16	DN16	26.00	37.00	20.0 X 1.5mmt
DN-45ELT-25	DN25	32.00	42.00	28.0 X 1.5mmt
DN-45ELT-40	DN40	40.00	62.00	44.5 X 2.0mmt
DN-45ELT-50	DN50	51.00	66.50	54.0 X 2.0mmt

DN 90° ELBOWS

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	R	Tube Size
DN-90EL-10	DN10	30.00	26.50	14.0 x 2.0mmt
DN-90EL-16	DN16	40.00	37.00	20.0 x 1.5mmt
DN-90EL-25	DN25	50.00	42.00	28.0 x 1.5mmt
DN-90EL-40	DN40	65.00	62.00	44.5 x 2.0mmt
DN-90EL-50	DN50	70.00	66.50	54.0 x 2.0mmt

K F
DN

*Note: SS 316L Material Available on Request.

*Note: Polished and Electro- Polished Tube Finishes Available on Request.

DN Fittings

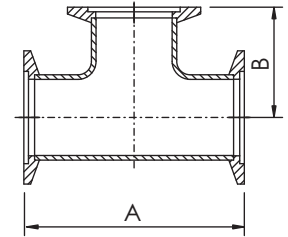
DN EQUAL TEES

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	B	Tube Size
DN-ET-10	DN10	60.00	30.00	14.0 x 2.0mmt
DN-ET-16	DN16	80.00	40.00	20.0 x 1.5mmt
DN-ET-25	DN25	100.00	50.00	28.0 x 1.5mmt
DN-ET-40	DN40	130.00	65.00	44.5 x 2.0mmt
DN-ET-50	DN50	140.00	70.00	54.0 x 2.0mmt
DN-ET-57	DN57	140.00	70.00	57.0 x 3.0mmt



**K F
DN**

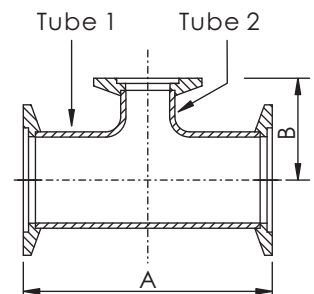
DN REDUCING TEES

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	B	Tube 1	Tube 2
DN-RT-25x10	DN25/DN10	100.00	40.00	28.0 x 1.5mmt	14.0 x 2.0mmt
DN-RT-25x16	DN25/DN16	100.00	40.00	28.0 x 1.5mmt	20.0 x 1.5mmt
DN-RT-40x16	DN40/DN16	130.00	40.00	44.5 x 2.0mmt	20.0 x 1.5mmt
DN-RT-40x25	DN40/DN25	130.00	50.00	44.5 x 2.0mmt	28.0 x 1.5mmt
DN-RT-50x16	DN50/DN16	140.00	50.00	20.0 x 1.5mmt	20.0 x 1.5mmt
DN-RT-50x25	DN50/DN25	140.00	65.00	54.0 x 2.0mmt	28.0 x 1.5mmt
DN-RT-50x40	DN50/DN40	140.00	65.00	54.2 x 2.0mmt	44.5 x 2.0mmt
DN-RT-57x16	DN57/DN16	140.00	50.00	57.0 x 3.0mmt	20.0 x 1.5mmt
DN-RT-57x25	DN57/DN25	140.00	65.00	57.0 x 3.0mmt	28.0 x 1.5mmt
DN-RT-57x40	DN57/DN40	140.00	65.00	57.0 x 3.0mmt	44.5 x 2.0mmt



Note: SS 316L Material Available on Request.

Note: Polished and Electro- Polished Tube Finishes Available on Request.

DN Fittings

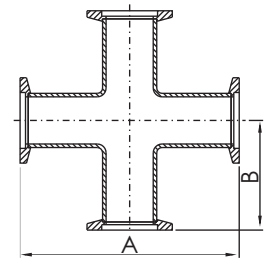
DN 4-WAY CROSSES

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	B	Tube Size
DN-4C-10	DN10	60.00	30.00	14.0 x 2.0mmt
DN-4C-16	DN16	80.00	40.00	20.0 x 1.5mmt
DN-4C-25	DN25	100.00	50.00	28.0 x 1.5mmt
DN-4C-40	DN40	130.00	65.00	44.5 x 2.0mmt
DN-4C-50	DN50	140.00	70.00	54.0 x 2.0mmt
DN-4C-57	DN57	140.00	70.00	57.0 x 3.0mmt



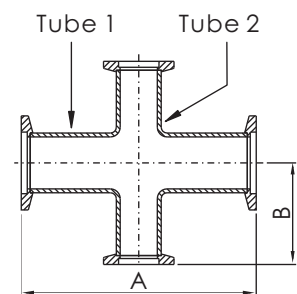
DN REDUCING 4-WAY CROSSES

*Material: SS 304L

*Tube Finish: Bead Blast



Part Number	Flange Size	A	B	Tube 1	Tube 2
DN-4RC-25x10	DN25/DN10	100.00	40.00	28.0 x 1.5mmt	14.0 x 2.0mmt
DN-4RC-25x16	DN25/DN16	100.00	40.00	28.0 x 1.5mmt	20.0 x 1.5mmt
DN-4RC-40x10	DN40/DN10	130.00	40.00	44.5 x 2.0mmt	14.0 x 2.0mmt
DN-4RC-40x16	DN40/DN16	130.00	40.00	44.5 x 2.0mmt	20.0 x 1.5mmt
DN-4RC-40x25	DN40/DN25	130.00	50.00	44.5 x 2.0mmt	28.0 x 1.5mmt
DN-4RC-50x16	DN50/DN16	140.00	50.00	54.0 x 2.0mmt	20.0 x 1.5mmt
DN-4RC-50x25	DN50/DN25	140.00	50.00	54.0 x 2.0mmt	28.0 x 1.5mmt
DN-4RC-50x40	DN50/DN40	140.00	65.00	54.0 x 2.0mmt	44.5 x 2.0mmt
DN-4RC-57x16	DN57/DN16	140.00	50.00	57.0 x 3.0mmt	20.0 x 1.5mmt
DN-4RC-57x25	DN57/DN25	140.00	50.00	57.0 x 3.0mmt	28.0 x 1.5mmt
DN-4RC-57x40	DN57/DN40	140.00	65.00	57.0 x 3.0mmt	44.5 x 2.0mmt



*Note: SS 316L Material Available on Request.

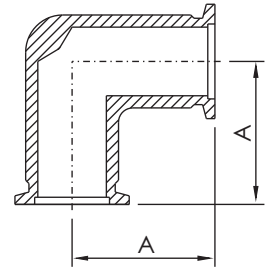
*Note: Polished and Electro- Polished Tube Finishes Available on Request.

**K F
DN**

DN Machined Fittings

DN 90° ELBOW, MACHINED

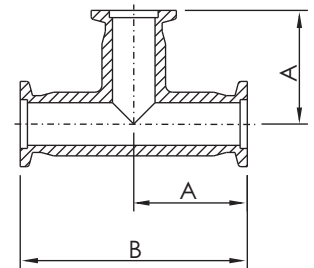
*Material: Aluminum



Part Number	Flange Size	A
DN-90ELMA-16-AL	DN16	40.00
DN-90ELMA-25-AL	DN25	50.00
DN-90ELMA-40-AL	DN40	65.00

DN EQUAL TEES, MACHINED

*Material: Aluminum

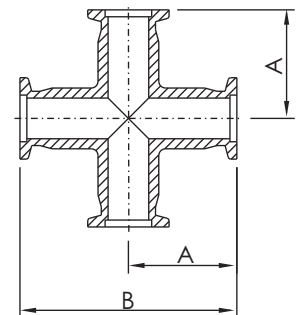


**K F
DN**

Part Number	Flange Size	A	B
DN-ETMA-16-AL	DN16	40.00	80.00
DN-ETMA-25-AL	DN25	50.00	100.00
DN-ETMA-40-AL	DN40	65.00	130.00

DN 4-WAY CROSSES, MACHINED

*Material: Aluminum



Part Number	Flange Size	A	B
DN-4CMA-16-AL	DN16	40.00	80.00
DN-4CMA-25-AL	DN25	50.00	100.00
DN-4CMA-40-AL	DN40	65.00	130.00