



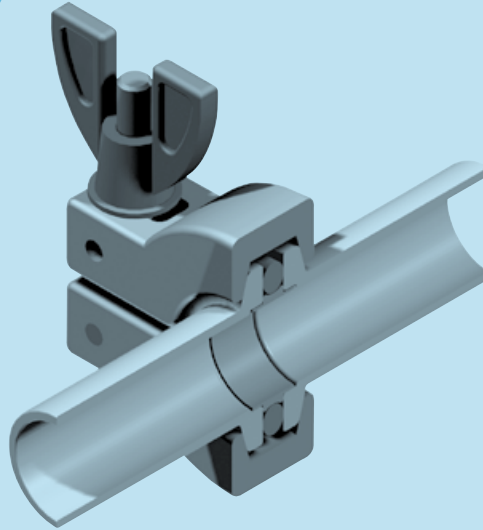
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KF-FLANGE

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General Information



Features

- The typical KF or NW assembly consists of two identical flanges, a center-ring, and an aluminum clamp with a wingnut fastener frequently connect and disconnect without tools.
- The vacuum seal is effected by uniform application of pressure by the clamp on 15° surface of the flange.
- The mating flange surfaces compress an O'ring (held in place by metal centering ring) to generate a seal.

Specifications

- Blanks : 304 S.S. (Other material available upon request)
- Flanges : 304 S.S. (Other material available upon request)
- Fittings : 304 S.S. (Other material available upon request)
- Clamp : Aluminum
- O'ring material : Viton or NBR
- Temperature Range : 150°C (Viton) 80°C (NBR)
- Vacuum Rate : 10^{-8} torr
- **Larger or special size available upon request**

Complete Clamp Assemblies

VACUUM SOLUTION 2009

WING NUT

WASHER

EYE BOLT

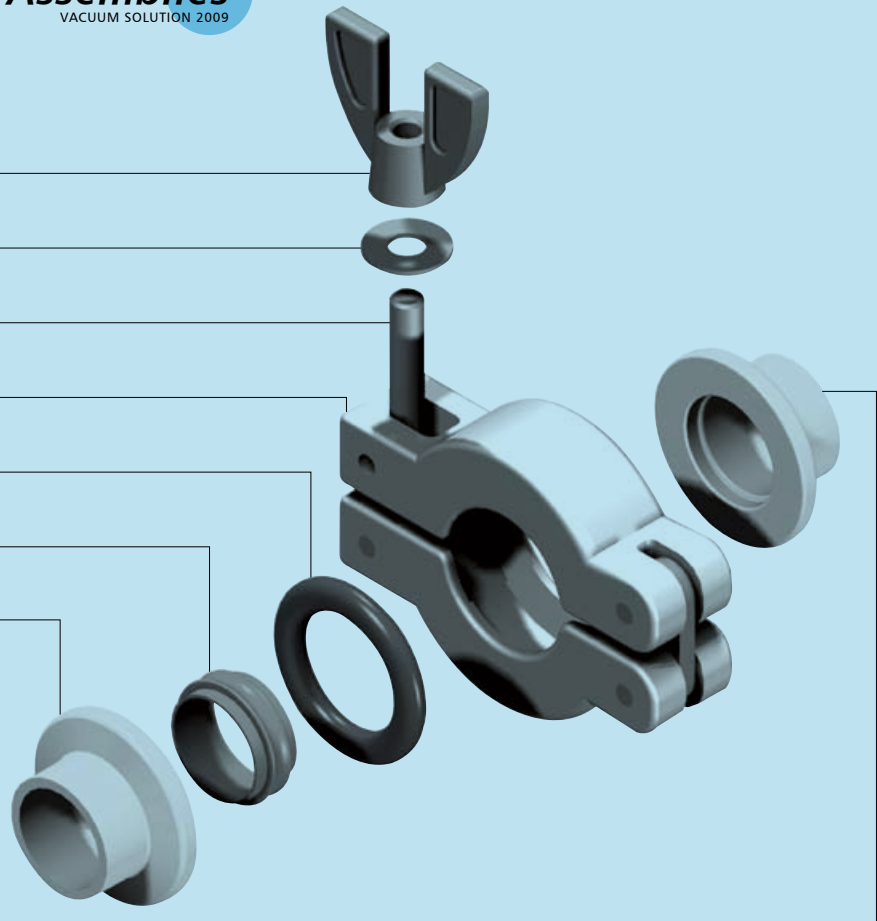
HINGED CLAMP

O-RING

CENTERING RING

WELD FLANGE

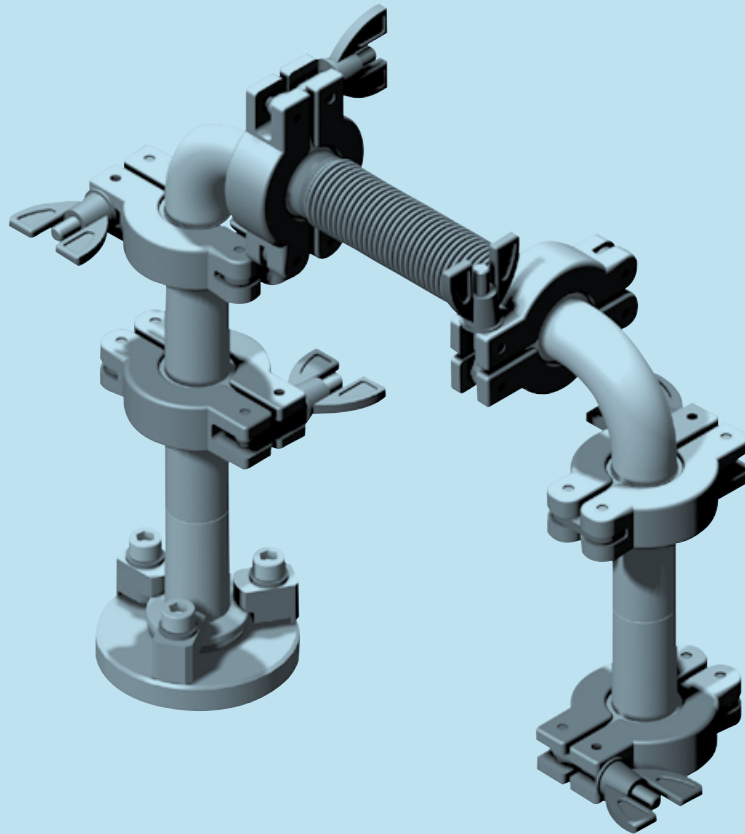
WELD FLANGE



- Hinged Clamp assemblies, detailed above, are the most commonly used method for making KF-Flange vacuum seal connections. Assembly is simplified by the 360° rotatable flanges and self-centering feature of the centering ring.
- Pressure is applied uniformly around the 15° outer surface of both flanges by finger-tightening the single wingnut until the first metal-to-metal contact is made between the spacing lips of the centering ring and the inner surface of the mating flanges. This compresses the O'ring between the flanges and makes the vacuum seal.

Application for KF Components

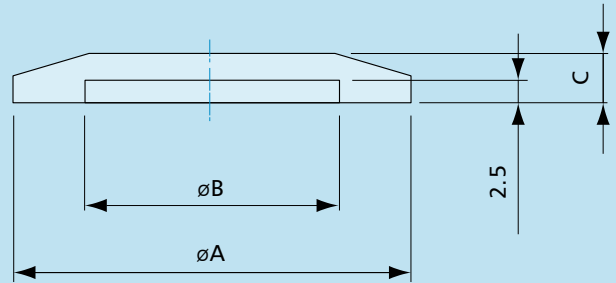
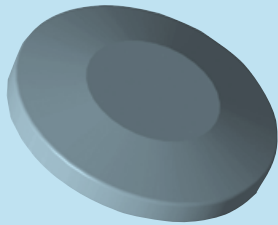
VACUUM SOLUTION 2009



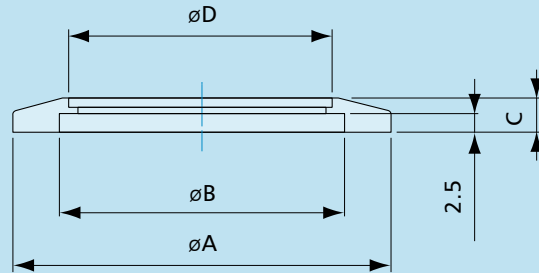
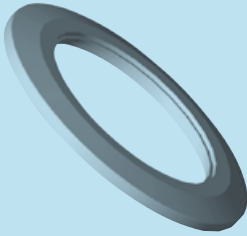
Applications for this system are as varied as the imagination can make them. Some examples are:

- ① Roughing and foreline plumbing for large vacuum system.
- ② Small system.
- ③ System demanding frequent change.
- ④ System demanding frequent cleaning.
- ⑤ Experimental system in research laboratories.
- ⑥ Teaching laboratories.

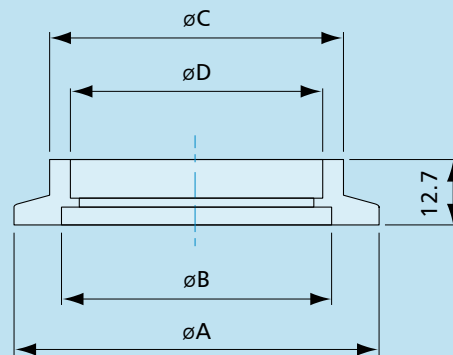
Blank



Model No.	Material	A	B	C	Parts No.
KF10BS	304 S.S.	30	12.2	5	150101003
KF16BS	304 S.S.	30	17.2	5	150102003
KF25BS	304 S.S.	40	26.2	5	150103003
KF40BS	304 S.S.	55	41.2	5	150105003
KF50BS	304 S.S.	75	52.2	5	150106003
KF63BS	304 S.S.	87	70	5	150107003
KF80BS	304 S.S.	114	83	12	150108003
KF100BS	304 S.S.	134	102	12	150109003
KF160BS	304 S.S.	190	153	12	150112003
KF10BA	Aluminum	30	12.2	5	150101001
KF16BA	Aluminum	30	17.2	5	150102001
KF25BA	Aluminum	40	26.2	5	150103001
KF40BA	Aluminum	55	41.2	5	150105001
KF50BA	Aluminum	75	52.2	5	150106001
KF63BA	Aluminum	87	70	5	150107001
KF80BA	Aluminum	114	83	12	150108001
KF100BA	Aluminum	134	102	12	150109001
KF160BA	Aluminum	190	153	12	150112001

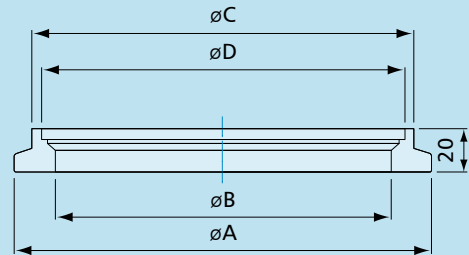
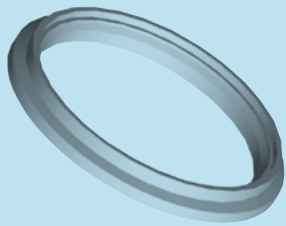
Bored Blank

Model No.	Material	A	B	C	D	Parts No.
KF10B12	304 S.S.	30	12.2	5	12.9	150201073
KF16B19	304 S.S.	30	17.2	5	19.3	150202093
KF25B25	304 S.S.	40	26.2	5	25.7	150203113
KF40B38	304 S.S.	55	41.2	5	38.4	150205133
KF50B51	304 S.S.	75	52.2	5	51	150206143
KF63B63	304 S.S.	87	70	5	63.7	150207153
KF80B76	304 S.S.	114	83	12	76.4	150208163
KF100B102	304 S.S.	134	102	12	101.8	150209183
KF160B153	304 S.S.	190	153	12	152.9	150212203

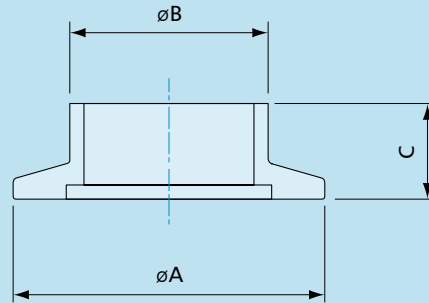
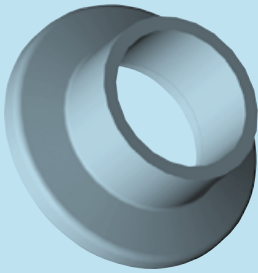
Socket Weld Flange

Model No.	Material	A	B	C	D	Parts No.
KF10WS	304 S.S.	30	12.2	16.5	13	150901073
KF16WS	304 S.S.	30	17.2	20.5	19.3	150902093
KF25WS	304 S.S.	40	26.2	29	25.7	150903113
KF40WS	304 S.S.	55	41.2	44.7	38.4	150905133
KF50WS	304 S.S.	75	52.2	57.4	51	150906143
KF63WS	304 S.S.	87	70	67.5	63.7	150907153

Socket Weld Flange



Model No.	Material	A	B	C	D	Parts No.
KF80WS	304 S.S.	114	83	98	89.5	150908AL3
KF100WS	304 S.S.	134	102	118	114.5	150909AN3
KF160WS	304 S.S.	190	153	174	165.5	150912AQ3

Half Nipple(Short)

Model No.	Available Area	Material	A	B	C	Parts No.
KF10SHNSA	U.S.A	304 S.S.	30	12.7	12.7	150301073
KF16SHNSA	U.S.A	304 S.S.	30	19.05	12.7	150302093
KF25SHNSA	U.S.A	304 S.S.	40	25.4	12.7	150303113
KF40SHNSA	U.S.A	304 S.S.	55	38.1	19.1	150305133
KF50SHNSA	U.S.A	304 S.S.	75	50.8	19.1	150306143

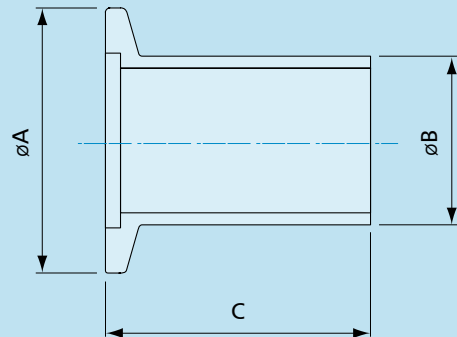
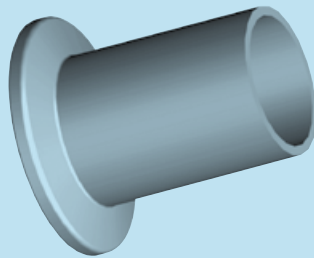
Special Sizes Available Upon Request

KF10SHNSE	Europe	304 S.S.	30	14	30	150501AB3
KF16SHNSE	Europe	304 S.S.	30	20	30	150502AD3
KF25SHNSE	Europe	304 S.S.	40	28	30	150503AE3
KF40SHNSE	Europe	304 S.S.	55	45	30	150505AG3
KF50SHNSE	Europe	304 S.S.	75	57	30	150506AJ3

Special Sizes Available Upon Request

KF25SHNSJ27	Japan	304 S.S.	40	27.2	20	150703AE3
KF40SHNSJ42	Japan	304 S.S.	55	42.7	20	150705AG3
KF50SHNSJ60	Japan	304 S.S.	75	60.5	20	150706AJ3

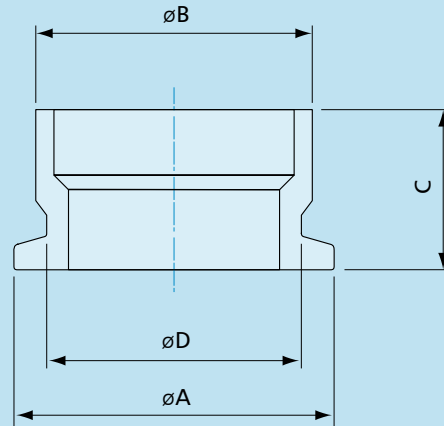
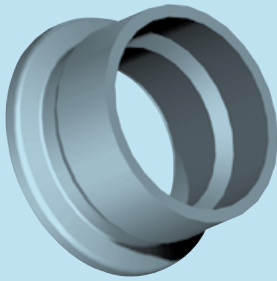
Half Nipple(Long)



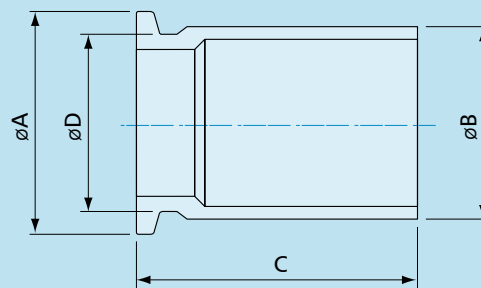
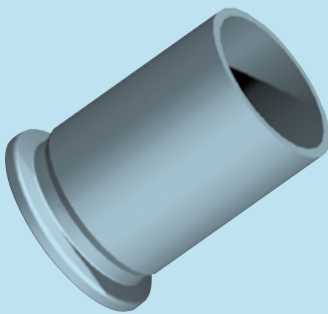
Model No.	Available Area	Material	A	B	C	Parts No.
KF10LHNSA	U.S.A	304 S.S.	30	12.7	40	150401073
KF16LHNSA	U.S.A	304 S.S.	30	19.05	40	150402093
KF25LHNSA	U.S.A	304 S.S.	40	25.4	40	150403113
KF40LHNSA	U.S.A	304 S.S.	55	38.1	40	150405133
KF50LHNSA	U.S.A	304 S.S.	75	50.8	40	150406143
KF10LHNAA	U.S.A	Aluminum	30	12.7	40	150401071
KF16LHNAA	U.S.A	Aluminum	30	19.05	40	150402091
KF25LHNAA	U.S.A	Aluminum	40	25.4	40	150403111
KF40LHNAA	U.S.A	Aluminum	55	38.1	40	150405131
KF50LHNAA	U.S.A	Aluminum	75	50.8	40	150406141

Special Sizes Available Upon Request

KF10LHNSE	Europe	304 S.S.	30	14	70	150601AB3
KF16LHNSE	Europe	304 S.S.	30	20	70	150602AD3
KF25LHNSE	Europe	304 S.S.	40	28	70	150603AE3
KF40LHNSE	Europe	304 S.S.	55	45	70	150605AG3
KF50LHNSE	Europe	304 S.S.	75	57	70	150606AJ3
KF50LHNSJ	Japan	304 S.S.	75	60.5	40	150806AJ3

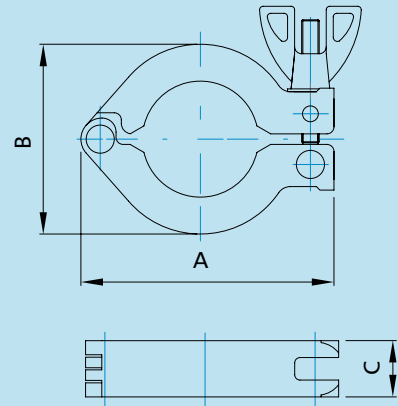
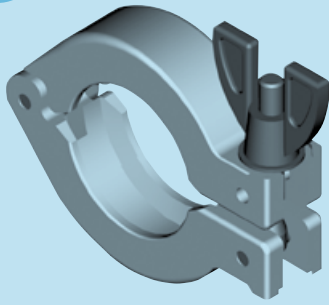
Half Nipple(Short for JIS Pipe)

Model No.	Available Area	Material	A	B	C	D	Parts No.
KF25SHNSJ34	Japan	304 S.S.	40	34	20	32	150703AF3
KF40SHNSJ48	Japan	304 S.S.	55	48.6	20	45	150705AH3

Half Nipple(Long for JIS Pipe)

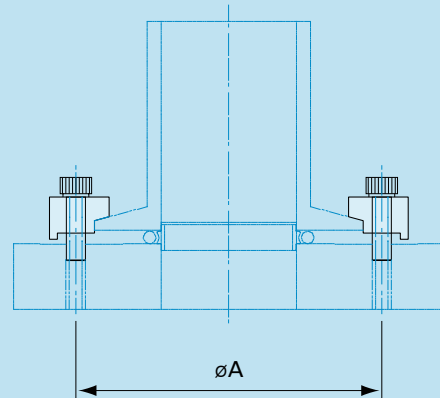
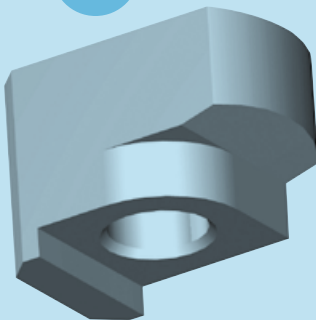
Model No.	Available Area	Material	A	B	C	D	Parts No.
KF25LHNSJ	Japan	304 S.S.	40	34	40	32	150803AF3
KF40LHNSJ	Japan	304 S.S.	55	48.6	40	45	150805AH3

Clamp



Model No.	Surface Treatment	Material	A	B	C	Parts No.
KF16CLA		Aluminum	63	42.5	16	21010511
KF25CLA		Aluminum	72	54	16	21010611
KF40CLA		Aluminum	90	70	16	21010811
KF50CLA		Aluminum	114	90	20	21010911
KF16CLA-NP	Nickel Plating	Aluminum	63	42.5	16	21010521
KF25CLA-NP	Nickel Plating	Aluminum	72	54	16	21010621
KF40CLA-NP	Nickel Plating	Aluminum	90	70	16	21010821
KF50CLA-NP	Nickel Plating	Aluminum	114	90	20	21010921

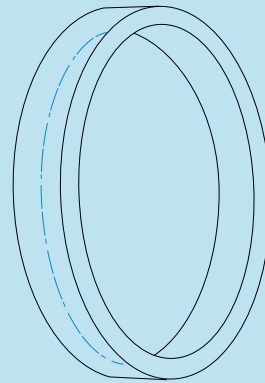
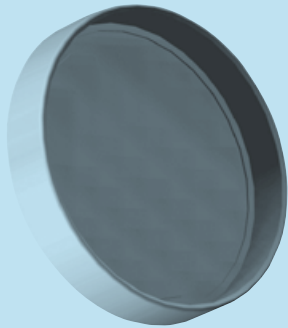
Nail Clamp



Model No.	Material	Fits Size	Bolt	Quantity	A	Parts No.
KF-NCA	Aluminum	KF10	M6*20	3	43	2103A111
KF-NCA	Aluminum	KF16	M6*20	3	43	2103A111
KF-NCA	Aluminum	KF25	M6*20	4	53	2103A111
KF-NCA	Aluminum	KF40	M6*20	4	68	2103A111
KF-NCA	Aluminum	KF50	M6*20	6	88	2103A111

01 CHAPTER KF-FLANGE SERIES

Cap



Model No.	Material	Fits Flange	Parts No.
KF10CAP	Polyethylene	KF10	5085DG
KF16CAP	Polyethylene	KF16	5085DG
KF25CAP	Polyethylene	KF25	5085DY
KF40CAP	Polyethylene	KF40	5085EJ
KF50CAP	Polyethylene	KF50	5085FD