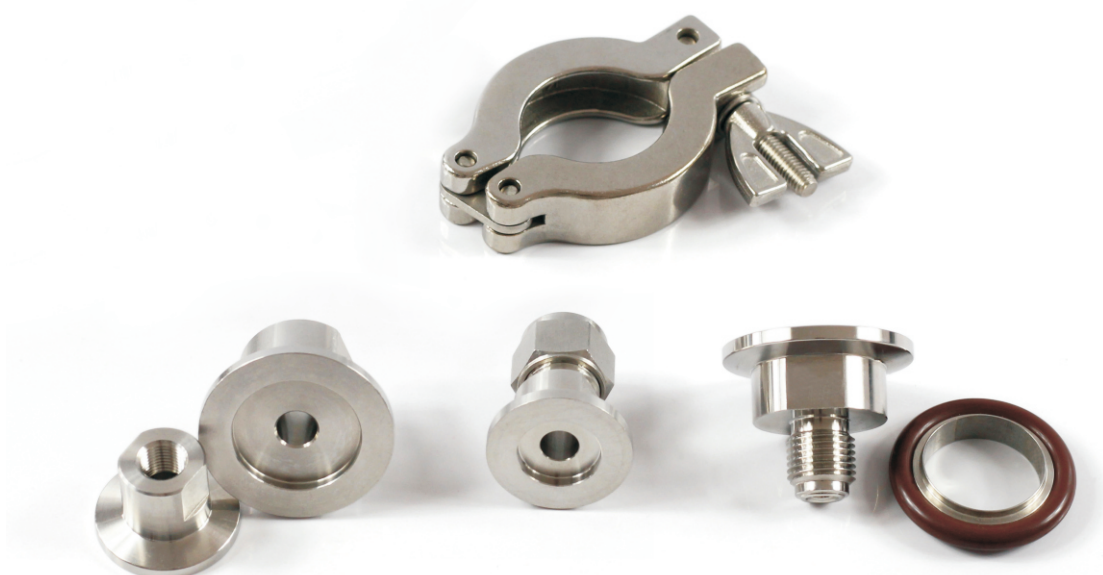


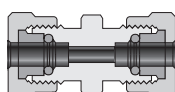


Vacuum Fittings and Vacuum Adapter Fittings

VF, KF and CF Series

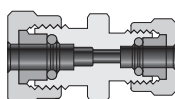
Contents

Vacuum Fittings (VF series)



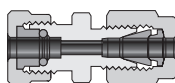
Unions

7-14



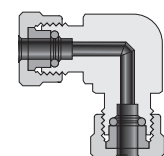
Reducing Unions

7-14



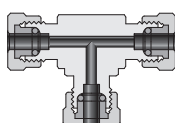
VF to Tube Fitting Unions

7-14



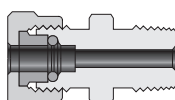
Union Elbows

7-14



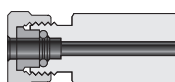
Union Tees

7-14



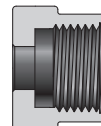
VF to Male Connectors

7-15



VF to Adapters

7-15



Nut

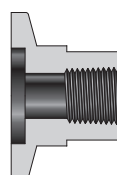
7-15



O-ring for Vacuum Fittings

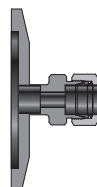
7-16

Vacuum Adapter Fittings (KF series)



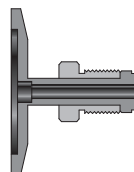
KF to Female NPT

7-17



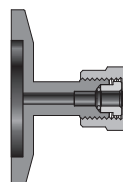
KF to Tube Fitting

7-18



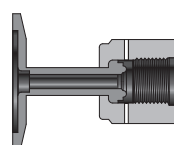
KF to Rotatable Male Metal
Gasket Face Seal Fitting

7-18



KF to Vacuum Fitting

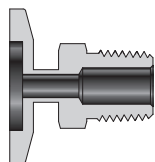
7-19



KF to Female Metal Gasket
Face Seal Fitting

7-19

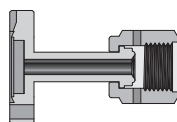
Contents



KF to Male NPT

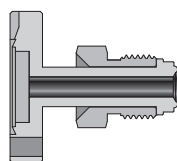
7-20

Vacuum Fittings (CF series)



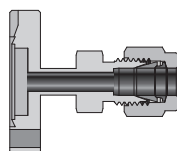
CF to Female GFS Metal Gasket
Face Seal Fitting

7-21



CF to Rotatable Male GFS Metal
Gasket Face Seal Fitting

7-21



CF to Tube Fitting

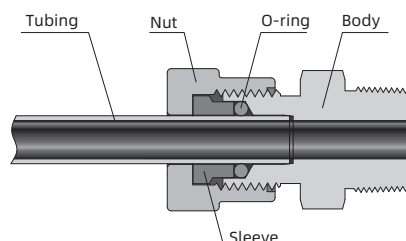
7-21

Vacuum Fittings

VF series

Features

- ❖ O-ring seals to glass, metal, or plastic tubing
- ❖ Knurled nut for easy, finger-tight assembly
- ❖ Stainless steel construction, fluorocarbon FKM O-ring
- ❖ Reliable, repeatable sealing performance
- ❖ Easy to install and maintain
- ❖ Available in tube sizes from 1/16 to 1 1/2 in.



Working Pressure

- ❖ Catalog working pressure is calculated in accordance with ANSI/ASME B31.3. To determine working pressure in accordance with ANSI/ASME B31.1, multiply values by 0.94

Working Temperature

- ❖ Temperature ranges for vacuum fittings are determined by the O-ring materials
- ❖ Standard fluorocarbon FKM O-ring, -25°F to 400°F (-31°C to 204°C)

Materials Standards

Material	Bar Stock	Forging
316 stainless steel	ASTM A276	ASTM A182
316L stainless steel	ASTM SA479, EN 1.4401	ASTM SA182, EN 1.4401

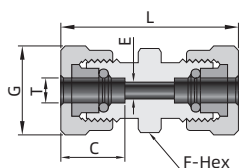
Working Temperature

- ❖ The vacuum fitting is tested with helium at a maximum leak rate of 4×10^{-9} std cm³/s

Cleaning and Packaging

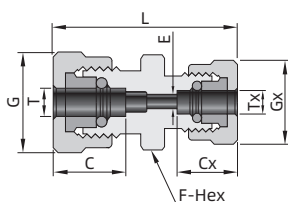
- ❖ Hikelok vacuum fittings are cleaned to remove machine oil, grease, and loose particles.

Dimensions



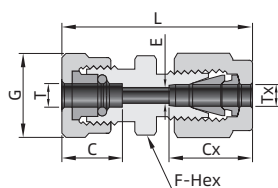
Unions

T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)				
		L	C	E	G	F
1/16	VF1-U-VF1-	1.23 (31.2)	0.43 (10.9)	0.05 (1.3)	3/8	3/8 (9.5)
1/8	VF2-U-VF2-	1.40 (35.6)	0.43 (10.9)	0.09 (2.3)	9/16	1/2 (12.7)
1/4	VF4-U-VF4-	1.63 (41.4)	0.62 (15.7)	0.18 (4.6)	11/16	5/8 (15.9)
3/8	VF6-U-VF6-	1.81 (46.0)	0.66 (16.8)	0.28 (7.1)	13/16	13/16 (20.6)
1/2	VF8-U-VF8-	1.84 (46.7)	0.80 (20.3)	0.40 (10.2)	15/16	7/8 (22.2)
5/8	VF10-U-VF10-	1.84 (46.7)	0.84 (21.3)	0.50 (12.7)	1 1/8	1 1/16 (27.0)
3/4	VF12-U-VF12-	2.05 (52.1)	0.94 (23.9)	0.62 (15.7)	1 1/4	1 3/16 (30.1)
1	VF16-U-VF16-	2.15 (54.6)	0.94 (23.9)	0.87 (22.1)	1 9/16	1 1/2 (38.1)
1 1/2	VF24-U-VF24-	2.27 (57.6)	0.94 (23.9)	1.38 (35.1)	2 1/16	2 1/8 (54.0)



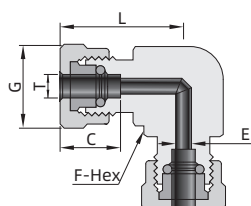
Reducing Unions

T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)						
			L	C	Cx	E	G	Gx	F
3/8	1/4	VF6-U-VF4-	1.72 (43.7)	0.66 (16.8)	0.62 (15.7)	0.18 (4.6)	13/16	11/16	13/16 (20.6)
1/2	1/4	VF8-U-VF4-	1.75 (44.4)	0.80 (20.3)	0.62 (15.7)	0.18 (4.6)	15/16	11/16	7/8 (22.2)



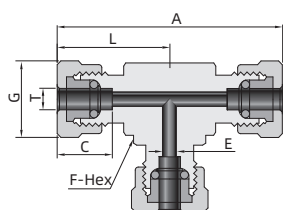
VF to Tube Fitting Unions

T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)					
			L	C	Cx	E	G	F
1/4	1/4	VF4-U-F4-	1.66 (42.2)	0.62 (15.7)	0.60 (15.2)	0.18 (4.6)	11/16	5/8 (15.9)
3/8	3/8	VF6-U-F6-	1.81 (46.0)	0.66 (16.8)	0.66 (16.8)	0.28 (7.1)	13/16	13/16 (20.6)
1/2	1/2	VF8-U-F8-	1.95 (49.5)	0.80 (20.3)	0.90 (22.9)	0.40 (10.2)	15/16	7/8 (22.2)



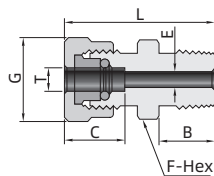
Union Elbows

T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)				
		L	C	E	G	F
1/4	VF4-UE-VF4-	1.14 (29.0)	0.62 (15.7)	0.18 (4.6)	11/16	1/2 (12.7)
3/8	VF6-UE-VF6-	1.36 (34.5)	0.66 (16.8)	0.28 (7.1)	13/16	11/16 (17.5)
1/2	VF8-UE-VF8-	1.36 (34.5)	0.80 (20.3)	0.40 (10.2)	15/16	13/16 (20.6)



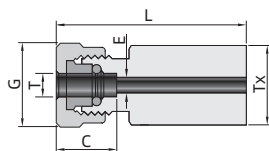
Union Tees

T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)					
		A	L	C	E	G	F
1/8	VF2-UT-VF2-VF2-	2.12 (53.8)	1.06 (26.9)	0.43 (10.9)	0.09 (2.3)	9/16	1/2 (12.7)
1/4	VF4-UT-VF4-VF4-	2.30 (58.4)	1.15 (29.2)	0.62 (15.7)	0.18 (4.6)	11/16	1/2 (12.7)
3/8	VF6-UT-VF6-VF6-	2.72 (69.1)	1.36 (34.5)	0.66 (16.8)	0.28 (7.1)	13/16	11/16 (17.5)
1/2	VF8-UT-VF8-VF8-	2.72 (69.1)	1.36 (34.5)	0.80 (20.3)	0.40 (10.2)	15/16	11/16 (17.5)
3/4	VF12-UT-VF12-VF12-	3.30 (83.8)	1.65 (41.9)	0.94 (23.9)	0.62 (15.7)	1 1/4	15/16 (23.8)
1	VF16-UT-VF16-VF16-	3.64 (92.4)	1.82 (46.2)	0.94 (23.9)	0.87 (22.1)	1 9/16	1 1/4 (31.8)



VF to Male Connectors

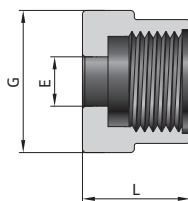
T-Tube O.D. (in.)	NPT Size in.	Basic Ordering Number	Dimension, in. (mm)					
			L	C	B	E	G	F
1/16	1/8	VF1-MC-NPT2-	1.12 (28.4)	0.43 (10.9)	0.38 (9.6)	0.05 (1.3)	3/8	7/16 (11.1)
1/8	1/8	VF2-MC-NPT2-	1.22 (31.0)	0.43 (10.9)	0.38 (9.6)	0.09 (2.3)	9/16	1/2 (12.7)
1/4	1/8	VF4-MC-NPT2-	1.35 (34.3)	0.62 (15.7)	0.38 (9.6)	0.18 (4.6)	11/16	5/8 (15.9)
1/4	1/4	VF4-MC-NPT4-	1.53 (38.9)	0.62 (15.7)	0.56 (14.2)	0.18 (4.6)	11/16	5/8 (15.9)
3/8	1/8	VF6-MC-NPT2-	1.44 (36.6)	0.66 (16.8)	0.38 (9.6)	0.18 (4.6)	13/16	13/16 (20.6)
3/8	1/4	VF6-MC-NPT4-	1.62 (41.1)	0.66 (16.8)	0.56 (14.2)	0.28 (7.1)	13/16	13/16 (20.6)
1/2	3/8	VF8-MC-NPT6-	1.65 (41.9)	0.80 (20.3)	0.56 (14.2)	0.40 (10.2)	15/16	7/8 (22.2)
1/2	1/2	VF8-MC-NPT8-	1.84 (46.7)	0.80 (20.3)	0.75 (19.1)	0.40 (10.2)	15/16	7/8 (22.2)
3/4	3/4	VF12-MC-NPT12-	1.96 (49.8)	0.94 (23.9)	0.75 (19.1)	0.62 (15.7)	1 1/4	1 3/16 (30.1)
1	1	VF16-MC-NPT16-	2.25 (57.2)	0.94 (23.9)	0.94 (23.9)	0.87 (22.1)	1 9/16	1 1/2 (38.1)



VF to Adapters

T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)			
			L	C	E	G
1/16	1/4	VF1-VA-VT4-	1.12 (28.4)	0.43 (10.9)	0.05 (1.3)	3/8
1/8	1/4	VF2-VA-VT4-	1.20 (30.5)	0.43 (10.9)	0.09 (2.3)	9/16
1/8	3/8	VF2-VA-VT6-	1.21 (30.7)	0.43 (10.9)	0.09 (2.3)	9/16
1/4	1/4	VF4-VA-VT4-	1.34 (34.0)	0.62 (15.7)	0.18 (4.6)	11/16
1/4	3/8	VF4-VA-VT6-	1.33 (33.8)	0.62 (15.7)	0.18 (4.6)	11/16
1/4	1/2	VF4-VA-VT8-	1.47 (37.3)	0.62 (15.7)	0.18 (4.6)	11/16
3/8	3/8	VF6-VA-VT6-	1.47 (37.3)	0.66 (16.8)	0.28 (7.1)	13/16
3/8	1/2	VF6-VA-VT8-	1.58 (40.1)	0.66 (16.8)	0.28 (7.1)	13/16
1/2	5/8	VF8-VA-VT10-	1.64 (41.7)	0.80 (20.3)	0.40 (10.2)	15/16
1/2	3/4	VF8-VA-VT12-	1.69 (42.9)	0.80 (20.3)	0.40 (10.2)	15/16
3/4	1	VF12-VA-VT16-	1.78 (45.2)	0.94 (23.9)	0.62 (15.7)	1 1/4
1	1 1/4	VF16-VA-VT20-	1.80 (45.7)	0.94 (23.9)	0.87 (22.1)	1 9/16
1 1/2	1 1/2	VF24-VA-VT24-	1.98 (50.3)	0.94 (23.9)	1.25 (31.8)	2 1/16

Nut



T-Tube O.D. (in.)	Basic Ordering Number	Thread Size	Dimension, in. (mm)		
			E	L	G
1/16	N-VF1-	1/4-20 UNC	0.07 (1.8)	0.38 (9.6)	3/8
1/8	N-VF2-	3/8-20 UN	0.13 (3.3)	0.41 (10.4)	9/16
1/4	N-VF4-	1/2-20 UNF	0.26 (6.6)	0.53 (13.5)	11/16
3/8	N-VF6-	5/8-20 UN	0.38 (9.6)	0.62 (15.7)	13/16
1/2	N-VF8-	3/4-20 UNEF	0.51 (13.0)	0.62 (15.7)	15/16
5/8	N-VF10-	15/16-20 UNEF	0.63 (16.0)	0.62 (15.7)	1 1/8
3/4	N-VF12-	1 1/16-20 UN	0.76 (19.3)	0.72 (18.3)	1 1/4
1	N-VF16-	1 3/8-20 UN	1.01 (25.6)	0.72 (18.3)	1 9/16
1 1/2	N-VF24-	1 7/8-20 UN	1.51 (38.4)	0.72 (18.3)	2 1/16

O-ring for Vacuum Fittings

T-Tube O.D. (in.)	Basic Ordering Number	Material
1/16	FKM7-001	70 Durometer Fluorocarbon FKM
1/8	FKM7-006	
1/4	FKM7-010	
3/8	FKM7-012	
1/2	FKM7-014	
5/8	FKM7-114	
3/4	FKM7-116	
1	FKM7-120	
1 1/2	FKM7-128	



How to Order

VF4

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UT

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VF4

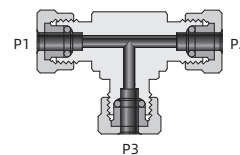
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VF4

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316

Port 1 Type	Port 1 Size	Configuration Designator	Port 2 Type	Port 2 Size	Port 3 Type	Port 3 Size	Material
VF Vacuum Fitting	1 1/16 in.	U Union	VF Vacuum Fitting	1 1/16 in.	VF Vacuum Fitting	1 1/16 in.	316 316 S.S. 316L 316L S.S.
	2 1/8 in.	UE Union Elbow	F Fractional Ferrule	2 1/8 in.		2 1/8 in.	
	4 1/4 in.	UT Union Tee	NPT Male NPT	4 1/4 in.		4 1/4 in.	
	6 3/8 in.	MC Male Connector	VT Adapter	6 3/8 in.		6 3/8 in.	
	8 1/2 in.	VA Adapter		8 1/2 in.		8 1/2 in.	
	10 5/8 in.	N Nut		10 5/8 in.		10 5/8 in.	
	12 3/4 in.			12 3/4 in.		12 3/4 in.	
	16 1 in.			16 1 in.		16 1 in.	
	24 1 1/2 in.			24 1 1/2 in.		24 1 1/2 in.	



Vacuum Adapter Fittings

KF and CF Series

Features

- ❖ Adapter Vacuum products are generally used on vacuum chamber ports to connect vacuum flanges to various fittings

Vacuum Range

- ❖ Copper Seal: ≥10 Torr
- ❖ Elastomeric Seal: ≥10 Torr

Working Temperature

- ❖ Copper Seal: -325°F to 842°F (-200°C to 450°C)
- ❖ Elastomeric Seal: -4°F to 302°F (-20°C to 150°C)

Materials Standards

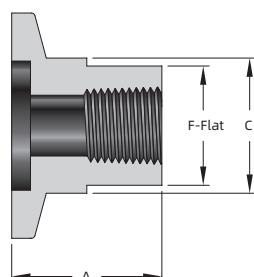
Material	Bar Stock	Forging
316 stainless steel	ASTM A276	ASTM A182
316L stainless steel	ASTM SA479, EN 1.4401	ASTM SA182, EN 1.4401

Flanges Standards

- ❖ KF Flanges: ISO 2861
- ❖ CF Flanges: ISO 3669

Dimensions

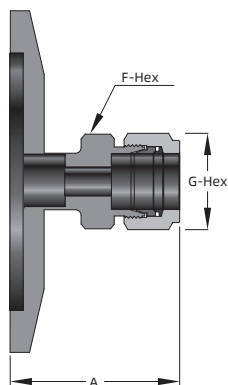
KF Series



KF to Female NPT

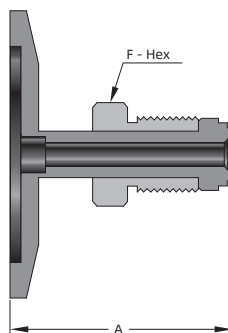
NPT O.D. in.	Flange Size	Basic Ordering Number	Dimension, in. (mm)		
			A	C	F
1/8	KF10	KF10-KA-FNPT2-	0.75(19.1)	0.75(19.1)	0.63(16.0)
	KF16	KF16-KA-FNPT2-	0.75(19.1)	0.75(19.1)	0.63(16.0)
	KF25	KF25-KA-FNPT2-	0.75(19.1)	1.00(25.4)	0.87(22.0)
	KF40	KF40-KA-FNPT2-	1.00(25.4)	1.50(38.1)	1.26(32.0)
	KF50	KF50-KA-FNPT2-	1.00(25.4)	2.00(50.8)	1.73(44.0)
1/4	KF10	KF10-KA-FNPT4-	0.75(19.1)	0.75(19.1)	0.63(16.0)
	KF16	KF16-KA-FNPT4-	0.75(19.1)	0.75(19.1)	0.63(16.0)
	KF25	KF25-KA-FNPT4-	0.75(19.1)	1.00(25.4)	0.87(22.0)
	KF40	KF40-KA-FNPT4-	1.00(25.4)	1.50(38.1)	1.26(32.0)
	KF50	KF50-KA-FNPT4-	1.00(25.4)	2.00(50.8)	1.73(44.0)
1/2	KF25	KF25-KA-FNPT8-	1.00(25.4)	1.10(27.8)	0.94(24.0)
	KF40	KF40-KA-FNPT8-	1.00(25.4)	1.50(38.1)	1.26(32.0)
	KF50	KF50-KA-FNPT8-	1.00(25.4)	2.00(50.8)	1.73(44.0)
3/4	KF40	KF40-KA-FNPT12-	1.00(25.4)	1.63(41.3)	1.34(34.0)
	KF50	KF50-KA-FNPT12-	1.00(25.4)	2.00(50.8)	1.73(44.0)

KF to Tube Fitting



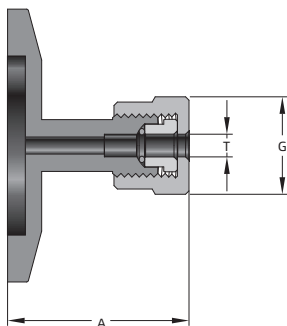
Tube O.D. in.	Flange Size	Basic Ordering Number	Dimension, in. (mm)		
			A	F	G
1/4	KF10	KF10-KA-F4-	1.47(37.3)	1/2(12.7)	9/16(14.3)
	KF16	KF16-KA-F4-			
	KF25	KF25-KA-F4-			
	KF40	KF40-KA-F4-			
	KF50	KF50-KA-F4-			
3/8	KF10	KF10-KA-F6-	1.63(41.4)	5/8(15.9)	11/16(17.5)
	KF16	KF16-KA-F6-			
	KF25	KF25-KA-F6-			
	KF40	KF40-KA-F6-			
	KF50	KF50-KA-F6-			
1/2	KF25	KF25-KA-F8-	1.77(45.0)	13/16(20.6)	7/8(22.2)
	KF40	KF40-KA-F8-			
	KF50	KF50-KA-F8-			
3/4	KF25	KF25-KA-F12-	2.14(54.4)	1 1/16(27.0)	1 1/8(28.6)
	KF40	KF40-KA-F12-			
	KF50	KF50-KA-F12-			
1	KF25	KF25-KA-F16-	2.60(66.0)	1 3/8(34.9)	1 1/2(38.1)
	KF40	KF40-KA-F16-			
	KF50	KF50-KA-F16-			

KF to Rotatable Male Metal Gasket Face Seal Fitting



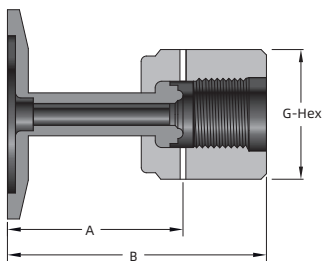
GFS Size in.	Flange Size	Basic Ordering Number	Dimension, in. (mm)	
			A	F
1/4	KF10	KF10-KA-RGFS4-	1.46(37.1)	5/8(15.9)
	KF16	KF16-KA-RGFS4-		
	KF25	KF25-KA-RGFS4-		
	KF40	KF40-KA-RGFS4-		
	KF50	KF50-KA-RGFS4-		
1/2	KF16	KF16-KA-RGFS8-	1.65(41.9)	15/16(23.8)
	KF25	KF25-KA-RGFS8-	1.55(39.4)	
	KF40	KF40-KA-RGFS8-		
	KF50	KF50-KA-RGFS8-		
3/4	KF25	KF25-KA-RGFS12-	2.15(54.6)	1 5/16(33.3)
	KF40	KF40-KA-RGFS12-	2.05(52.1)	
	KF50	KF50-KA-RGFS12-		
1	KF25	KF25-KA-RGFS16-	2.26(57.4)	1 5/8(41.3)
	KF40	KF40-KA-RGFS16-		
	KF50	KF50-KA-RGFS16-		

KF to Vacuum Fitting

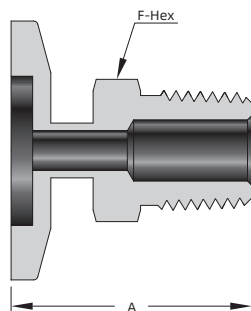


T-Tube O.D. in.	Flange Size	Basic Ordering Number	Dimension, in. (mm)	
			A	G
1/4	KF10	KF10-KA-VF4-	1.48(37.6)	11/16(17.5)
	KF16	KF16-KA-VF4-		
	KF25	KF25-KA-VF4-		
	KF40	KF40-KA-VF4-		
	KF50	KF50-KA-VF4-		
3/8	KF10	KF10-KA-VF6-	1.62(41.1)	13/16(20.6)
	KF16	KF16-KA-VF6-		
	KF25	KF25-KA-VF6-		
	KF40	KF40-KA-VF6-		
	KF50	KF50-KA-VF6-		
1/2	KF16	KF16-KA-VF8-	1.79(45.5)	15/16(23.8)
	KF25	KF25-KA-VF8-		
	KF40	KF40-KA-VF8-		
	KF50	KF50-KA-VF8-		
3/4	KF25	KF25-KA-VF12-	1.93(49.0)	1 1/4(31.8)
	KF40	KF40-KA-VF12-		
	KF50	KF50-KA-VF12-		
1	KF40	KF40-KA-VF16-	1.95(49.5)	1 9/16(39.7)
	KF50	KF50-KA-VF16-		

KF to Female Metal Gasket Face Seal Fitting



GFS Size in.	Flange Size	Basic Ordering Number	Dimension, in. (mm)		
			A	B	G
1/4	KF10	KF10-KA-FGFS4-	1.46(37.1)	1.96(49.8)	3/4(19.1)
	KF16	KF16-KA-FGFS4-			
	KF25	KF25-KA-FGFS4-			
	KF40	KF40-KA-FGFS4-			
	KF50	KF50-KA-FGFS4-			
1/2	KF16	KF16-KA-FGFS8-	1.65(41.9)	2.21(56.1)	1 1/16(27.0)
	KF25	KF25-KA-FGFS8-			
	KF40	KF40-KA-FGFS8-			
	KF50	KF50-KA-FGFS8-			



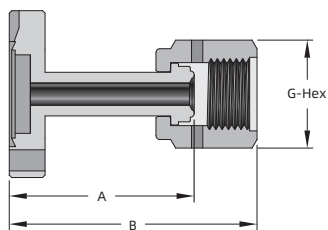
KF to Male NPT

NPT O.D. in.	Flange Size	Basic Ordering Number	Dimension, in. (mm)	
			A	F
1/8	KF10	KF10-KA-NPT2-	0.89(22.6)	7/16(11.1)
	KF16	KF16-KA-NPT2-		
	KF25	KF25-KA-NPT2-		
	KF40	KF40-KA-NPT2-		
	KF50	KF50-KA-NPT2-		
1/4	KF10	KF10-KA-NPT4-	1.10(27.9)	9/16(14.3)
	KF16	KF16-KA-NPT4-		
	KF25	KF25-KA-NPT4-		
	KF40	KF40-KA-NPT4-		
	KF50	KF50-KA-NPT4-		
1/2	KF16	KF16-KA-NPT8-	1.35(34.3)	7/8(22.2)
	KF25	KF25-KA-NPT8-		
	KF40	KF40-KA-NPT8-		
	KF50	KF50-KA-NPT8-		
	KF50	KF50-KA-NPT8-		
3/4	KF25	KF25-KA-NPT12-	1.35(34.3)	1 1/16(27.0)
	KF40	KF40-KA-NPT12-		
	KF50	KF50-KA-NPT12-		
1	KF25	KF25-KA-FNPT16-	1.64(41.7)	1 3/8(34.9)
	KF40	KF40-KA-FNPT16-		
	KF50	KF50-KA-FNPT16-		

How to Order

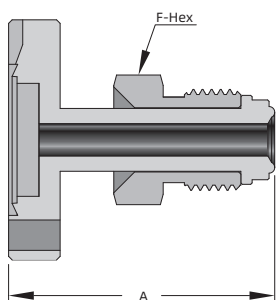
KF10		KA		FNPT4		316
Port 1 Type	Port 1 Size	Configuration Designator	Port 2 Type	Port 2 Size	Material	
KF KF Flanges	10	KA Vacuum Adapter Fittings	NPT Male NPT	2 1/8 in.	316 316 S.S.	
	16		FNPT Female NPT	4 1/4 in.	316L 316L S.S.	
	25		F Fractional Ferrule	6 3/8 in.		
	40		RGFS Rotatable Male Metal Gasket Face Seal Fitting	8 1/2 in.		
	50		FGFS Female Metal Gasket Face Seal Fitting	12 3/4 in.		
			VF Vacuum Fitting	16 1 in.		

CF Series



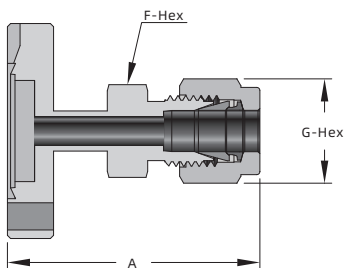
CF to Female GFS Metal Gasket Face Seal Fitting

GFS Size in.	Flange Size	Basic Ordering Number	Dimension, in. (mm)		
			A	B	G
1/4	133CF	133CF-KA-FGFS4-	1.48(37.7)	1.98(50.4)	3/4(19.1)
1/2	133CF	133CF-KA-FGFS8-	1.68(42.6)	2.34(56.8)	1 1/16(27.0)
1/4	275CF	275CF-KA-FGFS4-	1.52(38.6)	2.02(51.3)	3/4(19.1)
1/2	275CF	275CF-KA-FGFS8-	1.71(43.4)	2.27(57.6)	1 1/16(27.0)



CF to Rotatable Male GFS Metal Gasket Face Seal Fitting

GFS Size in.	Flange Size	Basic Ordering Number	Dimension, in. (mm)	
			A	F
1/4	133CF	133CF-KA-RGFS4-	1.48(37.7)	5/8(15.9)
1/2	133CF	133CF-KA-RGFS8-	1.68(42.6)	15/16(23.8)
1/4	275CF	275CF-KA-RGFS4-	1.52(38.6)	5/8(15.9)
1/2	275CF	275CF-KA-RGFS8-	1.71(43.4)	15/16(23.8)



CF to Tube Fitting

Tube O.D. in.	Flange Size	Basic Ordering Number	Dimension, in. (mm)		
			A	F	G
1/4	133CF	133CF-KA-F4-	1.50(38.0)	1/2(12.7)	9/16(14.3)
3/8	133CF	133CF-KA-F6-	1.66(42.0)	5/8(15.9)	11/16(17.5)
1/2	133CF	133CF-KA-F8-	1.80(45.6)	13/16(20.6)	7/8(22.2)
1/4	275CF	275CF-KA-F4-	1.53(38.9)	1/2(12.7)	9/16(14.3)
3/8	275CF	275CF-KA-F6-	1.69(42.9)	5/8(15.9)	11/16(17.5)
1/2	275CF	275CF-KA-F8-	1.83(46.5)	13/16(20.6)	7/8(22.2)

How to Order

133CF		KA		FNPT4		316
Port 1 Size	Port 1 Type	Configuration Designator		Port 2 Type	Port 2 Size	Material
133 1.33 in. 275 2.75 in.	CF CF Flanges	KA Vacuum Adapter Fittings		F Fractional Ferrule RGFS Rotatable Male Metal Gasket Face Seal Fitting FGFS Female Metal Gasket Face Seal Fitting	4 1/4 in. 6 3/8 in. 8 1/2 in.	316 316 S.S. 316L 316L S.S.