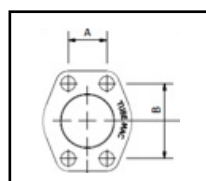


SAE 1000 PSI, 70 bar Reference Guide



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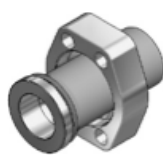
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**Flare Flange Set
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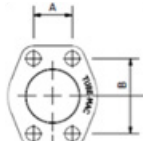
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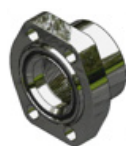
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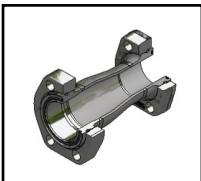
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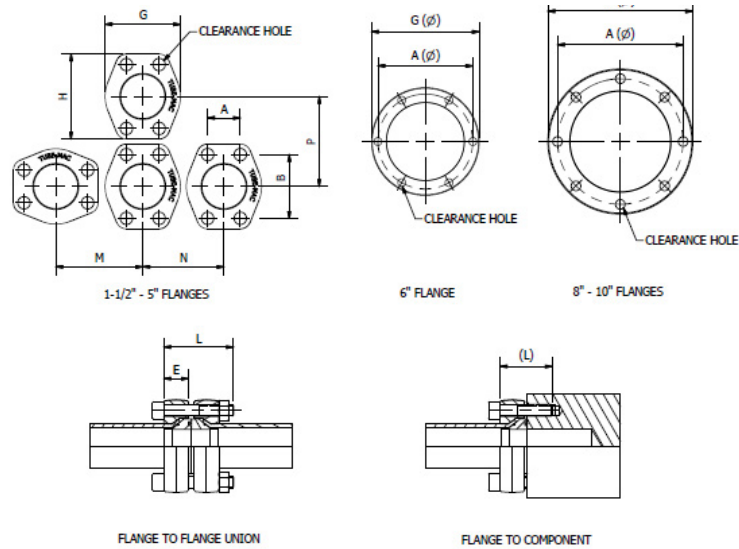
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SAE 1000 PSI Flare Flange Dimensions

1-1/2" through 5" Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Flare Flange Dimensions, NPS

Size	Dimensions (in)								SHCS Bolt (in)* L (L)	Working Pressure PSI (Bar)
	A	B	G	H	M	N	P	E		
1-1/2"	1.41	2.75	3.25	3.66	3.58	3.35	3.78	0.79	1/2"-13 UNC x 3.00 (2.00)	1000 (70)
2"	1.69	3.06	3.81	4.02	4.02	3.94	4.13	0.98	1/2"-13 UNC x 3.50 (2.00)	1000 (70)
2-1/2"	2.00	3.50	4.28	4.49	4.49	4.37	4.61	1.18	1/2"-13 UNC x 4.00 (2.50)	1000 (70)
3"	2.44	4.19	5.16	5.28	5.35	5.24	5.39	1.18	5/8"-11 UNC x 4.50 (2.75)	1000 (70)
3-1/2"	2.75	4.75	5.50	6.00	5.85	5.60	6.15	1.18	5/8"-11 UNC x 5.00 (2.50)	1000 (70)
4"	3.06	5.13	6.00	6.38	6.30	6.10	6.50	1.44	5/8"-11 UNC x 4.00 (2.75)	1000 (70)
5"	3.63	6.00	7.12	7.24	7.28	7.20	7.32	1.58	5/8"-11 UNC x 4.75 (2.75)	1000 (70)
6"	8.19	-	9.29	-	9.79	9.79	9.79	1.58	5/8"-11 UNC x 4.75 (2.75)	725 (50)
8"	10.83	-	12.48	-	13.00	13.00	13.00	1.58	3/4"-10 UNC x 4.75 (2.75)	725 (50)
10"	13.58	-	16.14	-	16.60	16.60	16.60	2.00	3/4"-10 UNC x 5.50 (3.00)	725 (50)

* SHCS Bolt Specification

Carbon Steel: ASTM A574

316 Stainless Steel: ASTM A193 - B8M Class.1

For 3/4" SS Bolts and larger ASTM A-193-B8M Class.2

Flare Flange Dimensions, Metric

Size	Dimensions (mm)								SHCS Bolt (mm)* L (L)	Working Pressure PSI (Bar)
	A	B	G	H	M	N	P	E		
1-1/2"	35.8	69.9	82.6	93.0	90.9	85.1	96.0	20	M12 x 75 (50)	1000 (70)
2"	42.9	77.7	96.8	102.1	102.1	100.1	104.9	25	M12 x 90 (50)	1000 (70)
2-1/2"	50.8	88.9	108.7	114.0	114.0	111.0	117.1	30	M12 x 100 (65)	1000 (70)
3"	62.0	106.4	131.1	134.1	135.9	133.1	136.9	30	M16 x 120 (70)	1000 (70)
3-1/2"	69.9	120.7	139.7	152.4	148.6	142.2	156.2	30	M16 x 130 (65)	1000 (70)
4"	77.7	130.3	152.4	162.1	160.0	154.9	165.1	39	M16 x 100 (70)	1000 (70)
5"	92.1	152.4	180.0	184.0	185.0	183.0	186.0	39	M16 x 120 (70)	1000 (70)
6"	208.0	-	236.0	-	249.0	249.0	249.0	39	M16 x 120 (70)	725 (50)
8"	275.0	-	317.0	-	330.0	330.0	330.0	39	M20 x 120 (70)	725 (50)
10"	345.0	-	410.0	-	422.0	422.0	422.0	50	M20 x 140 (80)	725 (50)

* SHCS Bolt Specification

Carbon Steel: DIN 912/ISO 4762, Minimum Grade 8.8

316 Stainless Steel: A4-70, DIN 912/ISO 4762

M16 and M20 SS Bolts, A4-80 DIN 912/ISO 4762

3D step models available upon request

SAE 1000 PSI Flare Flange with Clearance Holes

1-1/2" through 5" Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



1-1/2" - 5" FLANGES



6" FLANGE



8" - 10" FLANGES

FFC14, FFC34, FFC16, FFC18 - Flare Flange with Clearance Holes, NPS

Size	Pipe O.D. in. (mm)	Standard Part Number	Working Pressure PSI (bar)	WT lbs (kg)
1-1/2"	1.900" (48.26)	FFC14-150-*	1000 (70)	1.10 (0.50)
2"	2.375" (60.33)	FFC14-200-*	1000 (70)	1.90 (0.86)
2-1/2"	2.875" (70.03)	FFC14-250-*	1000 (70)	2.17 (0.99)
3"	3.500" (88.90)	FFC14-300-*	1000 (70)	3.80 (1.73)
3-1/2"	4.000" (101.6)	FFC14-350-*	1000 (70)	4.38 (1.99)
4"	4.500" (114.30)	FFC34-400-*	1000 (70)	8.61 (3.91)
5"	5.563" (141.30)	FFC34-500-*	1000 (70)	9.80 (4.45)
6"	6.625" (168.28)	FFC16-600-*	725 (50)	10.50 (4.77)
8"	8.625" (219.08)	FFC18-800-*	725 (50)	23.20 (10.55)
10"	10.750" (273.05)	FFC18-1000-*	725 (50)	51.30 (23.32)

* Materials:

Standard, No Designation = Carbon Steel, Zinc Nickel Plated.

HDG = Carbon Steel, Hot Dip Galvanized.

SS = Stainless Steel, Type 316.

Ordering Example: FFC14-150-SS

* Insert Material

FFCM14, FFCM34, FFCM16, FFCM18 - Flare Flange with Clearance Holes, Metric

Size	Pipe O.D. (mm)	Standard Part Number	Working Pressure PSI (bar)	WT lbs (kg)
1-1/2"	50	FFCM14-150-50MM-*	1000 (70)	1.10 (0.50)
2"	60	FFCM14-200-*	1000 (70)	1.90 (0.86)
2-1/2"	75	FFCM14-250-75MM-*	1000 (70)	2.17 (0.99)
3"	90	FFCM14-300-90MM-*	1000 (70)	3.80 (1.73)
3-1-2"	100	FFCM14-350-100MM-*	1000 (70)	4.38 (1.99)
4"	115	FFCM34-400-*	1000 (70)	8.61 (3.91)
5"	140	FFCM34-500-140MM-*	1000 (70)	9.80 (4.45)
6"	165	FFCM16-600-165MM-*	725 (50)	10.50 (4.77)
8"	220	FFCM18-800-220MM-*	725 (50)	23.20 (10.55)
10"	273	FFCM18-1000-*	725 (50)	51.30 (23.32)

* Materials:

Standard, No Designation = Carbon Steel, Zinc Nickel Plated.

HDG = Carbon Steel, Hot Dip Galvanized.

SS = Stainless Steel, Type 316.

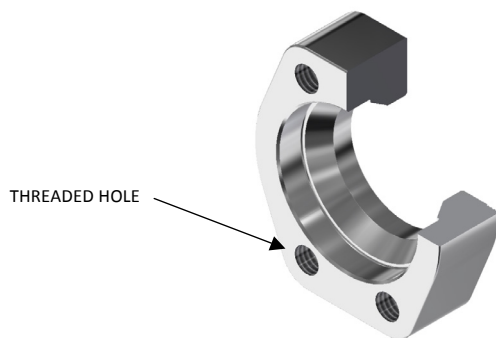
Ordering Example: FFCM14-150-50MM-SS

* Insert Material

3D step models available upon request

SAE 1000 PSI Flare Flange with Threaded Holes

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



FFT14 - Flare Flange with Threaded Holes, NPS

Size	Pipe O.D. in (mm)	Standard Part Number	Working Pressure PSI (bar)	Weight lbs (kg)
1-1/2"	1.900" (48.26)	FFT14-150-*	1000 (70)	1.10 (0.50)
2"	2.375" (60.33)	FFT14-200-*	1000 (70)	1.90 (0.86)
2-1/2"	2.875" (70.03)	FFT14-250-*	1000 (70)	2.17 (0.99)
3"	3.500" (88.90)	FFT14-300-*	1000 (70)	3.80 (1.73)

*** Materials:**

Standard, No Designation = Carbon Steel, Zinc Nickel Plated.

HDG = Carbon Steel, Hot Dip Galvanized.

SS = Stainless Steel, Type 316.

Ordering Example: FFT14-200-SS

* Insert Material

FFTM14 - Flare Flange with Threaded Holes, Metric

Size	Pipe O.D. (mm)	Standard Part Number	Working Pressure PSI (bar)	Weight lbs (kg)
1-1/2"	50	FFTM14-150-50MM-*	1000 (70)	1.10 (0.50)
2"	60	FFTM14-200-60MM*	1000 (70)	1.90 (0.86)
2-1/2"	75	FFTM14-250-75MM*	1000 (70)	2.17 (0.99)
3"	90	FFTM14-300-90MM*	1000 (70)	3.80 (1.73)

*** Materials:**

Standard, No Designation = Carbon Steel, Zinc Nickel Plated.

HDG = Carbon Steel, Hot Dip Galvanized.

SS = Stainless Steel, Type 316.

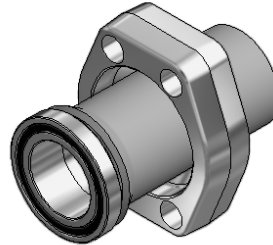
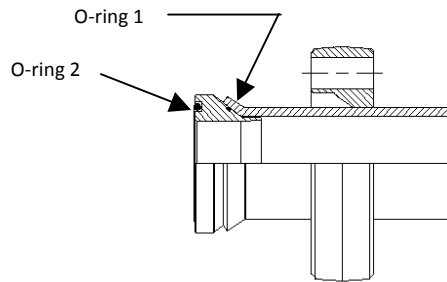
Ordering Example: FFTM14-200-60MMSS

* Insert Material

SAE 1000 PSI Flare Flange Set

O-Ring Face with Clearance Holes, NPS

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Flare Flange
- One (1) O-Ring Face Cone
- One (1) Face O-Ring (O-Ring 2)
- One (1) Back Up O-Ring (O-Ring 1)

To be Ordered Separately:

- Bolt Kit (See Page F1)

FFC14-CO, FFC34-CO, FFC16-CO, FFC18-CO - Flare Flange Set O-Ring Face with Clearance Holes, NPS

Size	Pipe Size	Complete Flange Set Reference Number	WT/Set lbs (kg)	Flange Part Number	O-Ring Face Cone Insert Part Number	O-Ring 1 (VITON) Part Number	O-Ring 2 (Buna) Part Number
1-1/2"	1-1/2" SCH40	FFC14-CO-SCH40-150-*~^	1.93 (0.88)	FFC14-150-*	CO-SCH40-150-*~^	ORV-4315	OR^~2-225
1-1/2"	1-1/2" SCH80	FFC14-CO-SCH80-150-*~^	1.93 (0.88)	FFC14-150-*	CO-SCH80-150-*~^	ORV-4315	OR^~2-225
2"	2" SCH40	FFC14-CO-SCH40-200-*~^	2.67 (1.21)	FFC14-200-*	CO-SCH40-200-*~^	ORV-5615	OR^~2-228
2"	2" SCH80	FFC14-CO-SCH80-200-*~^	2.67 (1.21)	FFC14-200-*	CO-SCH80-200-*~^	ORV-5515	OR^~2-228
2-1/2"	2-1/2" SCH40	FFC14-CO-SCH40-250-*~^	4.01 (1.82)	FFC14-250-*	CO-SCH40-250-*~^	ORV-2-036	OR^~2-232
2-1/2"	2-1/2" SCH80	FFC14-CO-SCH80-250-*~^	4.01 (1.82)	FFC14-250-*	CO-SCH80-250-*~^	ORV-2-036	OR^~2-232
3"	3" SCH40	FFC14-CO-SCH40-300-*~^	6.33 (2.87)	FFC14-300-*	CO-SCH40-300-*~^	ORV-2-041	OR^~2-237
3"	3" SCH80	FFC14-CO-SCH80-300-*~^	6.33 (2.87)	FFC14-300-*	CO-SCH80-300-*~^	ORV-2-041	OR^~2-237
3-1/2"	3-1/2" SCH40	FFC14-CO-SCH40-350-*~^	6.60 (3.00)	FFC14-350-*	CO-SCH40-350-*~^	ORV-2-043	OR^~2-241
4"	4" SCH40	FFC34-CO-SCH40-400-*~^	6.90 (3.13)	FFC34-400-*	CO-SCH40-400-*~^	ORV-2-044	OR^~2-245
4"	4" SCH80	FFC34-CO-SCH80-400-*~^	6.90 (3.13)	FFC34-400-*	CO-SCH80-400-*~^	ORV-2-044	OR^~2-245
5"	5" SCH40	FFC34-CO-SCH40-500-*~^	12.20 (5.55)	FFC34-500-*	CO-SCH40-500-*~^	ORV-2-159	OR^~2-253
6"	6" SCH40	FFC16-CO-SCH40-600-*~^	14.20 (6.45)	FFC16-600-*	CO-SCH40-600-*~^	ORV-2-163	OR^~2-259
8"	8" SCH40	FFC18-CO-SCH40-800-*~^	30.30 (13.77)	FFC18-800-*	CO-SCH40-800-*~^	ORV-2-171	OR^~3-372
10"	10" SCH40	FFC18-CO-SCH40-1000-*~^	61.00 (27.73)	FFC18-1000-*	CO-SCH40-1000-*~^	ORV-2-273	OR^~2-377

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Cone, Type 316.

HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Cone, Type 316.

^ O-Ring 2 Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

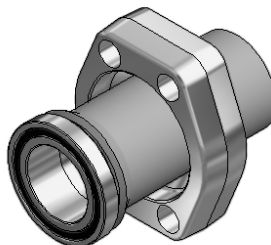
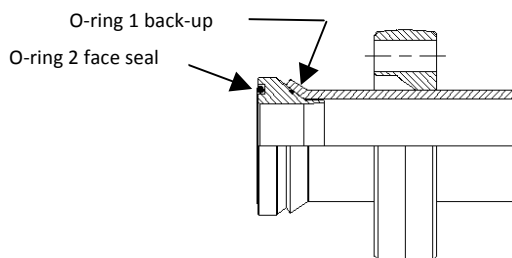
Ordering Example: FFC14-CO-SCH40-200-SS-V*

*Insert Material _____

^ Insert O-Ring 2 Type _____

SAE 1000 PSI Flare Flange Set O-Ring Face with Clearance Holes, Metric

SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Flare Flange
- One (1) O-Ring Face Cone
- One (1) Face O-Ring (O-Ring 2)
- One (1) Back Up O-Ring (O-Ring 1)

To be Ordered Separately:

- Bolt Kit (See Page F1)

FFCM14-CO, FFCM34-CO, FFCM16-CO, FFCM18-CO - Flare Flange Set O-Ring Face with Clearance Holes, Metric

Size	Pipe Size	Complete Flange Set Reference Number	WT/Set lbs (kg)	Flange Part Number	O-Ring Face Cone Insert Part Number	O-Ring 1 (VITON) Part Number	O-Ring 2 (Buna) Part Number
1-1/2"	50x3.0	FFCM14-CO-50x3.0-150-*^-^	1.91 (0.87)	FFCM34-150-50MM-*	CO-50x3.0-150-*^-^	ORV-4715	OR^-2-225
2"	60x3.0	FFC14-CO-60x3.0-200-*^-^	2.63 (1.20)	FFC14-200-*	CO-60x3.0-200-*^-^	ORV-5715	OR^-2-228
2-1/2"	75x3.0	FFCM14-CO-75x3.0-250-*^-^	4.07 (1.85)	FFCM14-250-75MM-*	CO-75x3.0-250-*^-^	ORV-2-037	OR^-2-232
3"	90x3.5	FFCM14-CO-90x3.5-300-*^-^	5.92 (2.69)	FFCM14-300-90MM-*	CO-90x3.5-300-*^-^	ORV-2-041	OR^-2-237
3-1/2"	100x4.0	FFCM14-CO-100x4.0-250-*^-^	6.60 (3.00)	FFCM14-350-100MM-*	CO-100x4.0-350-*^-^	ORV-2-043	OR^-2-241
4"	115x4.0	FFC34-CO-115x4.0-400-*^-^	6.90 (3.13)	FFC34-400-*	CO-115x4.0-400-*^-^	ORV-2-044	OR^-2-245
5"	140x4.5	FFCM34-CO-140x4.5-500-*^-^	12.20 (5.55)	FFCM34-500-140MM-*	CO-140x4.5-500-*^-^	ORV-2-159	OR^-2-253
6"	165x5.0	FFCM16-CO-165x5.0-600-*^-^	14.20 (6.45)	FFCM16-600-165MM-*^-^	CO-165x5.0-600-*^-^	ORV-2-163	OR^-2-259
8"	220x6.0	FFCM18-CO-220x6.0-800-*^-^	30.30 (13.77)	FFCM18-800-220MM-*^-^	CO-220x6.0-800-*^-^	ORV-2-171	OR^-3-372
10"	273x6.0	FFC18-CO-273x6.0-1000-*^-^	61.00 (27.73)	FFC18-1000-*^-^	CO-273x6.0-1000-*^-^	ORV-2-273	OR^-2-377

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Cone, Type 316.

HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Cone, Type 316.

^ O-Ring 2 Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

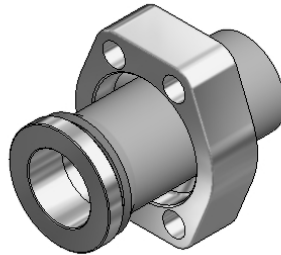
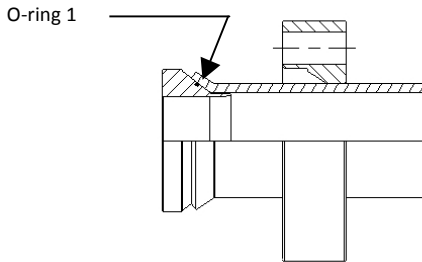
Ordering Example: FFCM14-CO-50x3.0-150-SS-V

*Insert Material

^ Insert O-Ring 2 Type

SAE 1000 PSI Flare Flange Set Flat Face with Clearance Holes, NPS

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Flare Flange
- One (1) Flat Face Cone
- One (1) Back Up O-Ring (O-Ring 1)

To be Ordered Separately:

- Bolt Kit (See Page F1)

FFC14-CF, FFC34-CF, FFC16-CF, FFC18-CF - Flare Flange Set Flat Face with Clearance Holes, NPS

Size	Pipe Size	Complete Flange Set Reference Number	WT/Set lbs (kg)	Flange Part Number	Flat Face Cone Insert Part Number	O-Ring 1 (VITON) Part Number
1-1/2"	1-1/2" SCH40	FFC14-CF-SCH40-150-*	1.93 (0.88)	FFC14-150-*	CF-SCH40-150-*	ORV-4315
1-1/2"	1-1/2" SCH80	FFC14-CF-SCH80-150-*	1.93 (0.88)	FFC14-150-*	CF-SCH80-150-*	ORV-4315
2"	2" SCH40	FFC14-CF-SCH40-200-*	2.67 (1.21)	FFC14-200-*	CF-SCH40-200-*	ORV-5615
2"	2" SCH80	FFC14-CF-SCH80-200-*	2.67 (1.21)	FFC14-200-*	CF-SCH80-200-*	ORV-5515
2-1/2"	2-1/2" SCH40	FFC14-CF-SCH40-250-*	4.01 (1.82)	FFC14-250-*	CF-SCH40-250-*	ORV-2-036
2-1/2"	2-1/2" SCH80	FFC14-CF-SCH80-250-*	4.01 (1.82)	FFC14-250-*	CF-SCH80-250-*	ORV-2-036
3"	3" SCH40	FFC14-CF-SCH40-300-*	6.33 (2.87)	FFC14-300-*	CF-SCH40-300-*	ORV-2-041
3"	3" SCH80	FFC14-CF-SCH80-300-*	6.33 (2.87)	FFC14-300-*	CF-SCH80-300-*	ORV-2-041
3-1/2"	3-1/2" SCH 40	FFC14-CF-SCH40-350-*	6.64 (3.02)	FFC14-350-*	CF-SCH40-350-*	ORV-2-043
4"	4" SCH40	FFC34-CF-SCH40-400-*	6.90 (3.13)	FFC34-400-*	CF-SCH40-400-*	ORV-2-044
4"	4" SCH80	FFC34-CF-SCH80-400-*	6.90 (3.13)	FFC34-400-*	CF-SCH80-400-*	ORV-2-044
5"	5" SCH40	FFC34-CF-SCH40-500-*	12.20 (5.55)	FFC34-500-*	CF-SCH40-500-*	ORV-2-159
6"	6" SCH40	FFC16-CF-SCH40-600-*	14.20 (6.45)	FFC16-600-*	CF-SCH40-600-*	ORV-2-163
8"	8" SCH40	FFC18-CF-SCH40-800-*	30.30 (13.77)	FFC18-800-*	CF-SCH40-800-*	ORV-2-171
10"	10" SCH40	FFC18-CF-SCH40-1000-*	61.00 (27.73)	FFC18-1000-*	CF-SCH40-1000-*	ORV-2-273

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Cone, Type 316.

HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Cone, Type 316.

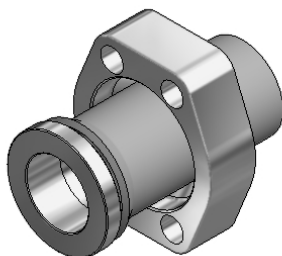
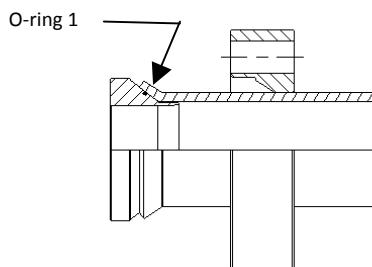
Ordering Example: FFC14-CF-SCH40-200-SS

* Insert Material

SAE 1000 PSI Flare Flange Set

Flat Face with Clearance Holes, Metric

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Flare Flange
- One (1) Flat Face Cone
- One (1) Back Up O-Ring (O-Ring 1)

To be Ordered Separately:

- Bolt Kit (See Page F1)

FFCM14-CF, FFCM34-CF, FFCM16-CF, FFCM18-CF - Flare Flange Set Flat Face with Clearance Holes, Metric

Size	Pipe Size	Complete Flange Set Reference Number	WT/Set lbs (kg)	Flange Part Number	Flat Face Cone Insert Part Number	O-Ring 1 (VITON) Part Number
1-1/2"	50x3.0	FFCM14-CF-50x3.0-150-*	1.93 (0.88)	FFCM14-150-50MM-*	CF-50x3.0-150-*	ORV-4715
2"	60x3.0	FFCM14-CF-60x3.0-200-*	2.67 (1.21)	FFCM14-200-*	CF-60x3.0-200-*	ORV-5715
2-1/2"	75x3.0	FFCM14-CF-75x3.0-250-*	4.01 (1.82)	FFCM14-250-75MM-*	CF-75x3.0-250-*	ORV-2-037
3"	90x3.5	FFCM14-CF-90x3.5-300-*	6.33 (2.87)	FFCM14-300-90MM-*	CF-90x3.5-300-*	ORV-2-041
3-1/2"	100x4.0	FFCM14-CF-100x4.0-350-*	6.64 (3.02)	FFCM14-350-100MM-*	CF-100x4.0-400-*	ORV-2-043
4"	115x4.0	FFCM34-CF-115x4.0-400-*	6.93 (3.15)	FFCM34-400-*	CF-115x4.0-400-*	ORV-2-044
5"	140x4.5	FFCM34-CF-140x4.5-500-*	12.25 (5.57)	FFCM34-500-140MM-*	CF-140x4.5-500-*	ORV-2-159
6"	165x5.0	FFCM16-CF-165x5.0-600-*	14.25 (6.47)	FFCM16-600-165MM-*	CF-165x5.0-600-*	ORV-2-163
8"	220x6.0	FFCM18-CF-220x6.0-800-*	30.38 (13.81)	FFCM18-800-220MM-*	CF-220x6.0-800-*	ORV-2-171
10"	273x6.0	FFCM18-CF-273x6.0-1000-*	61.14 (27.80)	FFCM18-1000-*	CF-273x6.0-1000-*	ORV-2-273

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Cone, Type 316.

HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Cone, Type 316.

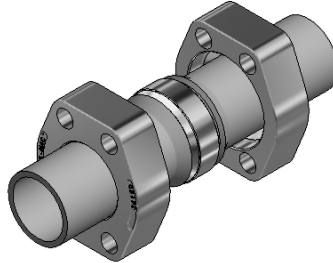
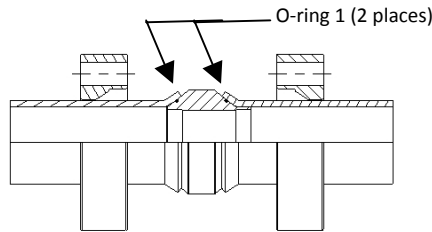
Ordering Example: FFCM14-CF-50x3-150-SS

* Insert Material

3D step models available upon request

SAE 1000 PSI Flare Flange Double Cone Union Set with Clearance Holes, NPS

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- Two (2) Flare Flanges
- One (1) Double Cone
- Two (2) Back Up O-Ring (O-Ring 1)

To be Ordered Separately:

- Bolt Kit (See Page F1)

FFC14-CD, FFC34-CD, FFC16-CD, FFC18-CD - Flare Flange Double Cone Union Set with Clearance Holes, NPS

Size	Pipe Size	Complete Flange Set Reference Number	WT/Set lbs (kg)	Flange Part Number	Double Cone Insert Part Number	O-Ring 1 (VITON) Part Number
1-1/2"	1-1/2" SCH40	FFC14-CD-SCH40-150-*	2.00 (0.91)	FFC14-150-*	CD-SCH40-150-*	ORV-4315
1-1/2"	1- 1/2" SCH80	FFC14-CD-SCH80-150-*	2.00 (0.91)	FFC14-150-*	CD-SCH80-150-*	ORV-4315
2"	2" SCH40	FFC14-CD-SCH40-200-*	2.90 (1.32)	FFC14-200-*	CD-SCH40-200-*	ORV-5615
2"	2" SCH80	FFC14-CD-SCH80-200-*	2.90 (1.32)	FFC14-200-*	CD-SCH80-200-*	ORV-5515
2-1/2"	2-1/2" SCH40	FFC14-CD-SCH40-250-*	4.62 (2.10)	FFC14-250-*	CD-SCH40-250-*	ORV-2-036
2-1/2"	2-1/2" SCH80	FFC14-CD-SCH80-250-*	4.62 (2.10)	FFC14-250-*	CD-SCH80-250-*	ORV-2-036
3"	3" SCH40	FFC14-CD-SCH40-300-*	6.90 (3.13)	FFC14-300-*	CD-SCH40-300-*	ORV-2-041
3"	3" SCH80	FFC14-CD-SCH80-300-*	6.90 (3.13)	FFC14-300-*	CD-SCH80-300-*	ORV-2-041
3-1/2"	3-1/2" SCH40	FFC14-CD-SCH40-350-*	6.94 (3.15)	FFC14-350-*	CD-SCH40-350-*	ORV-2-043
4"	4" SCH40	FFC34-CD-SCH40-400-*	7.86 (3.57)	FFC34-400-*	CD-SCH40-400-*	ORV-2-044
4"	4" SCH80	FFC34-CD-SCH80-400-*	7.86 (3.57)	FFC34-400-*	CD-SCH80-400-*	ORV-2-044
5"	5" SCH40	FFC34-CD-SCH40-500-*	13.40 (6.09)	FFC34-500-*	CD-SCH40-500-*	ORV-2-159
6"	6" SCH40	FFC16-CD-SCH40-600-*	15.90 (7.23)	FFC14-600-*	CD-SCH40-600-*	ORV-2-259
8"	8" SCH40	FFC18-CD-SCH40-800-*	33.80 (15.36)	FFC14-800-*	CD-SCH40-800-*	ORV-2-372
10"	10" SCH40	FFC18-CD-SCH40-1000-*	66.10 (30.04)	FFC14-1000-*	CD-SCH40-1000-*	ORV-2-178

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Cone, Type 316.

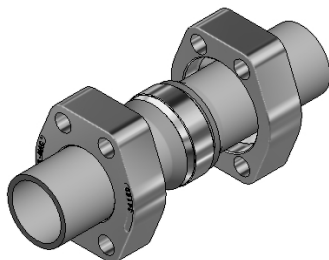
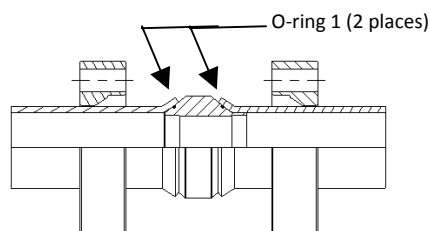
HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Cone, Type 316.

Ordering Example: FFC14-CD-SCH40-200-SS*

*Insert Material _____

SAE 1000 PSI Flare Flange Double Cone Union Set with Clearance Holes, Metric

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- Two (2) Flare Flanges
- One (1) Double Cone
- Two (2) Back Up O-Ring (O-Ring 1)

To be Ordered Separately:

- Bolt Kit (See Page F1)

FFCM14-CD, FFCM34-CD, FFCM16-CD, FFCM18-CD - Flare Flange Double Cone Union Set with Clearance Holes, Metric

Size	Pipe Size	Complete Flange Set Reference Number	WT/Set lbs (kg)	Flange Part Number	Double Cone Insert Part Number	O-Ring 1 (VITON) Part Number
1-1/2"	50x3.0	FFCM14-CD-50x3.0-150-*	2.00 (0.91)	FFCM14-150-*	CD-50x3.0-150-*	ORV-4715
2"	60x3.0	FFC14-CD-60x3.0-200-*	2.90 (1.32)	FFC14-200-*	CD-60x3.0-200-*	ORV-5715
2-1/2"	75x3.0	FFCM14-CD-75x3.0-250-*	4.62 (2.10)	FFCM14-250-*	CD-75x3.0-250-*	ORV-2-037
3"	90x3.5	FFCM14-CD-90x3.5-300-*	6.90 (3.13)	FFCM14-300-*	CD-90x3.5-300-*	ORV-2-041
3-1/2"	100x4.0	FFCM14-CD-100x4.0-350-*	6.94 (3.15)	FFCM14-350-*	CD-100x4.0-350-*	ORV-2-043
4"	115x4.0	FFC34-CD-115x4.0-400-*	7.86 (3.57)	FFC34-400-*	CD-115x4.0-400-*	ORV-2-044
5"	140x4.5	FFCM34-CD-140x4.5-500-*	13.40 (6.09)	FFCM34-500-*	CD-140x4.5-500-*	ORV-2-159
6"	165x5.0	FFCM16-CD-165x5.0-600-*	15.90 (7.23)	FFCM16-600-*	CD-165x5.0-600-*	ORV-2-163
8"	220x6.0	FFCM18-CD-220x6.0-800-*	33.80 (15.36)	FFCM18-800-*	CD-220x6.0-800-*	ORV-2-171
10"	273x6.0	FFC18-CD-273x6.0-1000-*	66.10 (30.04)	FFC18-1000-*	CD-273x6.0-1000-*	ORV-2-273

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Cone, Type 316.

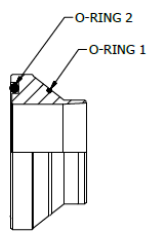
HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Cone, Type 316.

Ordering Example: FFCM14-CD-50x3.0-150-SS

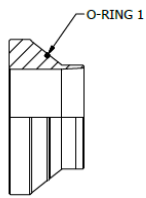
*Insert Material _____

SAE 1000 PSI Cone Inserts for Flare Flange Connections, NPS

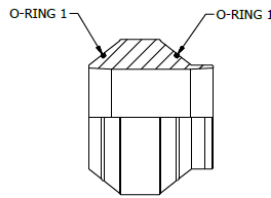
SAE J518 Code 61 (ISO 6162-1)



TYPE CO



TYPE CF



TYPE CD

CO, CF and CD – Cone Inserts for Flare Flange Connections, NPS

Size	Pipe Size	O-Ring Face Cone Insert Part Number (Type CO)	WT lbs (kg)	Flat Face Cone Insert Part Number (Type CF)	Weight lbs (kg)	Double Cone Insert Part Number (Type CD)	Weight lbs (kg)	O-Ring 1 (VITON) Part Number	O-Ring 2 (Buna) Part Number
1-1/2"	1-1/2" SCH40	CO-SCH40-150-*^	0.41 (0.19)	CF-SCH40-150-*	0.45 (0.20)	CD-SCH40-150-*	0.72 (0.33)	ORV-4315	OR^2-225
1-1/2"	1-1/2" SCH80	CO-SCH80-150-*^	0.41 (0.19)	CF-SCH80-150-*	0.45 (0.20)	CD-SCH80-150-*	0.72 (0.33)	ORV-4315	OR^2-225
2"	2" SCH40	CO-SCH40-200-*^	0.47 (0.21)	CF-SCH40-200-*	0.52 (0.24)	CD-SCH40-200-*	0.84 (0.38)	ORV-5615	OR^2-228
2"	2" SCH80	CO-SCH80-200-*^	0.47 (0.21)	CF-SCH80-200-*	0.52 (0.24)	CD-SCH80-200-*	0.84 (0.38)	ORV-5515	OR^2-228
2-1/2"	2-1/2" SCH40	CO-SCH40-250-*^	0.99 (0.45)	CF-SCH40-250-*	1.01 (0.46)	CD-SCH40-250-*	1.60 (0.73)	ORV-2-036	OR^2-232
2-1/2"	2-1/2" SCH80	CO-SCH80-250-*^	0.99 (0.45)	CF-SCH80-250-*	1.01 (0.46)	CD-SCH80-250-*	1.60 (0.73)	ORV-2-036	OR^2-232
3"	3" SCH40	CO-SCH40-300-*^	1.33 (0.60)	CF-SCH40-300-*	1.39 (0.63)	CD-SCH40-300-*	2.17 (0.99)	ORV-2-041	OR^2-237
3"	3" SCH80	CO-SCH80-300-*^	1.33 (0.60)	CF-SCH80-300-*	1.39 (0.63)	CD-SCH80-300-*	2.17 (0.99)	ORV-2-041	OR^2-237
3-1/2"	3-1/2" SCH40	CO-SCH40-350-*^	1.50 (0.68)	CF-SCH40-350-*	1.60 (0.73)	CD-SCH40-350-*	2.50 (1.14)	ORV-2-043	OR^2-241
4"	4" SCH40	CO-SCH40-400-*^	1.80 (0.82)	CF-SCH40-400-*	1.90 (0.86)	CD-SCH40-400-*	3.00 (1.36)	ORV-2-044	OR^2-245
4"	4" SCH80	CO-SCH80-400-*^	1.80 (0.82)	CF-SCH80-400-*	1.90 (0.86)	CD-SCH80-400-*	3.00 (1.36)	ORV-2-044	OR^2-245
5"	5" SCH40	CO-SCH40-500-*^	2.40 (1.09)	CF-SCH40-500-*	2.50 (1.14)	CD-SCH40-500-*	3.90 (1.77)	ORV-2-159	OR^2-253
6"	6" SCH40	CO-SCH40-600-*^	4.70 (2.14)	CF-SCH40-600-*	4.80 (2.18)	CD-SCH40-600-*	7.40 (3.36)	ORV-2-163	OR^2-259
8"	8" SCH40	CO-SCH40-800-*^	7.10 (3.23)	CF-SCH40-800-*	7.30 (3.32)	CD-SCH40-800-*	11.68 (5.31)	ORV-2-171	OR^2-372
10"	10" SCH40	CO-SCH40-1000-*^	16.80 (7.64)	CF-SCH40-1000-*	17.00 (7.73)	CD-SCH40-1000-*	27.20 (12.36)	ORV-2-178	OR^2-377

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

^ O-Ring 2 Type

Standard, No Designation = Buna Nitrile.

V = Viton.

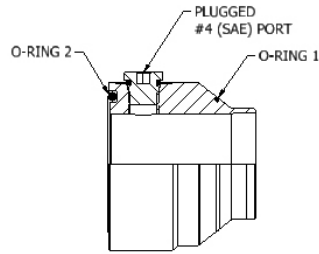
Ordering Example: CO-SCH40-200-SS-V

* Insert Material _____

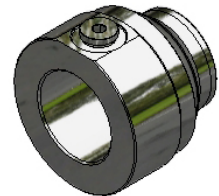
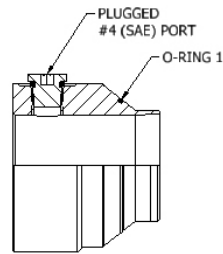
^ Insert O-Ring 2 Type _____

SAE 1000 PSI Cone Inserts with Pilot Port for Flare Flange Connections, NPS

SAE J518 Code 61 (ISO 6162-1)



TYPE COP



TYPE CFP

COP and CFP Cone Inserts with Pilot Port for Flare Flange Connections, NPS

Size	Pipe Size	O-Ring Face Cone Insert Part Number (Type COP)	WT lbs (kg)	Flat Face Cone Insert Part Number (Type CFP)	Weight lbs (kg)	O-Ring 1 (VITON) Part Number	O-Ring 2 (Buna) Part Number
1-1/2"	1-1/2" SCH40	COP-SCH40-150-*^	1.31 (0.59)	CFP-SCH40-150-*	1.31 (0.59)	ORV-4315	OR^-2-225
1-1/2"	1-1/2" SCH80	COP-SCH80-150-*^	1.31 (0.59)	CFP-SCH80-150-*	1.31 (0.59)	ORV-4315	OR^-2-225
2"	2" SCH40	COP-SCH40-200-*^	1.70 (0.77)	CFP-SCH40-200-*	1.70 (0.77)	ORV-5615	OR^-2-228
2"	2" SCH80	COP-SCH80-200-*^	1.70 (0.77)	CFP-SCH80-200-*	1.70 (0.77)	ORV-5515	OR^-2-228
2-1/2"	2-1/2" SCH40	COP-SCH40-250-*^	2.51 (1.14)	CFP-SCH40-250-*	2.51 (1.14)	ORV-2-036	OR^-2-232
2-1/2"	2-1/2" SCH80	COP-SCH80-250-*^	2.51 (1.14)	CFP-SCH80-250-*	2.51 (1.14)	ORV-2-036	OR^-2-232
3"	3" SCH40	COP-SCH40-300-*^	3.39 (1.54)	CFP-SCH40-300-*	3.39 (1.54)	ORV-2-041	OR^-2-237
3"	3" SCH80	COP-SCH80-300-*^	3.39 (1.54)	CFP-SCH80-300-*	3.39 (1.54)	ORV-2-041	OR^-2-237
3-1/2"	3-1/2" SCH40	COP-SCH40-350-*^	3.91 (1.78)	CFP-SCH40-350-*	3.91 (1.78)	ORV-2-043	OR^-2-241
4"	4" SCH40	COP-SCH40-400-*^	4.70 (2.14)	CFP-SCH40-400-*	4.70 (2.14)	ORV-2-044	OR^-2-245
4"	4" SCH80	COP-SCH80-400-*^	4.70 (2.14)	CFP-SCH80-400-*	4.70 (2.14)	ORV-2-044	OR^-2-245
5"	5" SCH40	COP-SCH40-500-*^	6.11 (2.78)	CFP-SCH40-500-*	6.11 (2.78)	ORV-2-159	OR^-2-253
6"	6" SCH40	COP-SCH40-600-*^	11.30 (5.14)	CFP-SCH40-600-*	11.30 (5.14)	ORV-2-163	OR^-2-259
8"	8" SCH40	COP-SCH40-800-*^	14.85 (6.75)	CFP-SCH40-800-*	14.85 (6.75)	ORV-2-171	OR^-3-372
10"	10" SCH40	COP-SCH40-1000-*^	32.29 (14.68)	CFP-SCH40-1000-*	32.29 (14.68)	ORV-2-178	OR^-2-377

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

^ O-Ring 2 Type

Standard, No Designation = Buna Nitrile.

V = Viton.

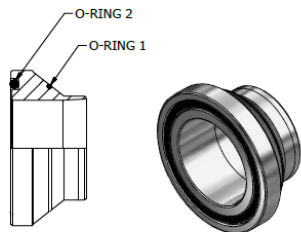
Ordering Example: COP-SCH40-200-SS-V

* Insert Material

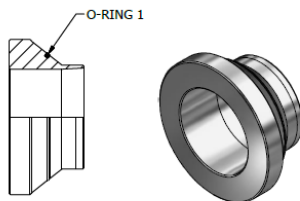
^ Insert O-Ring 2 Type

SAE 1000 PSI Cone Inserts for Flare Flange Connections, Metric

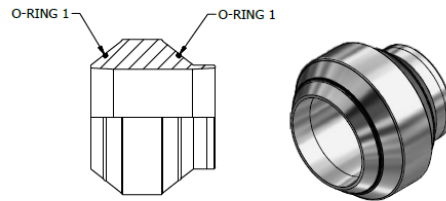
SAE J518 Code 61 (ISO 6162-1)



TYPE CO



TYPE CF



TYPE CD

CO, CF and CD – Cone Inserts for Flare Flange Connections, Metric

Size	Pipe Size	O-Ring Face Cone Insert Part Number (Type CO)	WT lbs (kg)	Flat Face Cone Insert Part Number (Type CF)	Weight lbs (kg)	Double Cone Insert Part Number (Type CD)	Weight lbs (kg)	O-Ring 1 (VITON) Part Number	O-Ring 2 (Buna) Part Number
1-1/2"	50x3.0	CO-50x3.0-150-* [^]	0.50 (0.23)	CF-50x3.0-150-*	0.50 (0.23)	CD-50x3.0-150-*	0.98 (0.45)	ORV-4715	OR [^] -2-225
2"	60x3.0	CO-60x3.0-200-* [^]	0.56 (0.25)	CF-60x3.0-200-*	0.56 (0.25)	CD-60x3.0-200-*	1.10 (0.50)	ORV-5715	OR [^] -2-228
2-1/2"	75x3.0	CO-75x3.0-250-* [^]	1.00 (0.45)	CF-75x3.0-250-*	1.00 (0.45)	CD-75x3.0-250-*	1.91 (0.87)	ORV-2-037	OR [^] -2-232
3"	90x3.5	CO-90x3.5-300-* [^]	1.50 (0.68)	CF-90x3.5-300-*	1.50 (0.68)	CD-90x3.5-300-*	2.70 (1.22)	ORV-2-041	OR [^] -2-237
3-1/2"	100x4.0	CO-100x4.0-350-* [^]	1.50 (0.68)	CF-100x4.0-350-*	1.60 (0.73)	CD-100x4.0-350-*	2.50 (1.14)	ORV-2-043	OR [^] -2-241
4"	115x4.0	CO-115x4.0-400-* [^]	1.80 (0.82)	CF-115x4.0-400-*	1.90 (0.86)	CD-115x4.0-400-*	3.00 (1.36)	ORV-2-044	OR [^] -2-245
5"	140x4.5	CO-140x4.5-500-* [^]	2.40 (1.09)	CF-140x4.5-500-*	2.50 (1.14)	CD-140x4.5-500-*	3.90 (1.77)	ORV-2-159	OR [^] -2-253
6"	165x5.0	CO-165x5.0-600-* [^]	4.70 (2.14)	CF-165x5.0-600-*	4.80 (2.18)	CD-165x5.0-600-*	7.40 (3.36)	ORV-2-163	OR [^] -2-259
8"	220x6.0	CO-220x6.0-800-* [^]	7.10 (3.23)	CF-220x6.0-800-*	7.30 (3.32)	CD-220x6.0-800-*	11.68 (5.31)	ORV-2-171	OR [^] -3-372
10"	273x6.0	CO-273x6.0-1000-* [^]	16.80 (7.64)	CF-273x6.0-1000-*	17.00 (7.73)	CD-273x6.0-1000-*	27.20 (12.36)	ORV-2-273	OR [^] -2-377

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

[^] O-Ring 2 Type

Standard, No Designation = Buna Nitrile.
V = Viton.

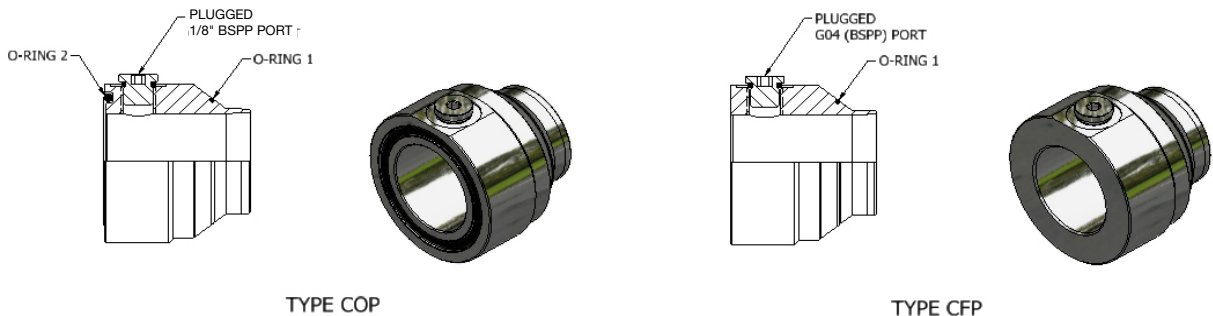
Ordering Example: CO-SCH40-200-SS-V*

Insert Material

[^] Insert O-Ring 2 Type

SAE 1000 PSI Cone Inserts with Pilot Port for Flare Flange Connections, Metric

SAE J518 Code 61 (ISO 6162-1)



COP and CFP Metric Cone Inserts with Pilot Port for Flare Flange Connections							
Size	Pipe Size	O-Ring Face Cone Insert Part Number (Type COP)	WT lbs (kg)	Flat Face Cone Insert Part Number (Type CFP)	Weight lbs (kg)	O-Ring 1 (VITON) Part Number	O-Ring 2 (Buna) Part Number
1-1/2"	50x3.0	COP-50x3.0-150-*^-^	1.31 (0.59)	CFP-50x3.0-150-*	1.31 (0.59)	ORV-4715	OR^-2-225
2"	60x3.0	COP-60x3.0-200-*^-^	1.70 (0.77)	CFP-60x3.0-200-*	1.70 (0.77)	ORV-5715	OR^-2-228
2-1/2"	75x3.0	COP-75x3.0-250-*^-^	2.60 (1.18)	CFP-75x3.0-250-*	2.60 (1.18)	ORV-2-037	OR^-2-232
3"	90x3.5	COP-90x3.5-300-*^-^	3.46 (1.57)	CFP-90x3.5-300-*	3.46 (1.57)	ORV-2-041	OR^-2-237
3-1/2"	100x4.0	COP-100x4.0-350-*^-^	3.60 (1.64)	CFP-100x4.0-350-*	3.60 (1.64)	ORV-2-043	OR^-2-241
4"	115x4.0	COP-115x4.0-400-*^-^	4.10 (1.86)	CFP-115x4.0-400-*	4.10 (1.86)	ORV-2-044	OR^-2-245
5"	140x4.5	COP-140x4.5-500-*^-^	5.00 (2.27)	CFP-140x4.5-500-*	5.00 (2.27)	ORV-2-159	OR^-2-253
6"	165x5.0	COP-165x5.0-600-*^-^	9.00 (4.10)	CFP-165x5.0-600-*	9.00 (4.10)	ORV-2-163	OR^-2-259
8"	220x6.0	COP-220x6.0-800-*^-^	13.20 (6.00)	CFP-220x6.0-800-*	13.20 (6.00)	ORV-2-171	OR^-3-372
10"	273x6.0	COP-273x6.0-1000-*^-^	28.70 (13.05)	CFP-273x6.0-1000-*	28.70 (13.05)	ORV-2-273	OR^-3-377

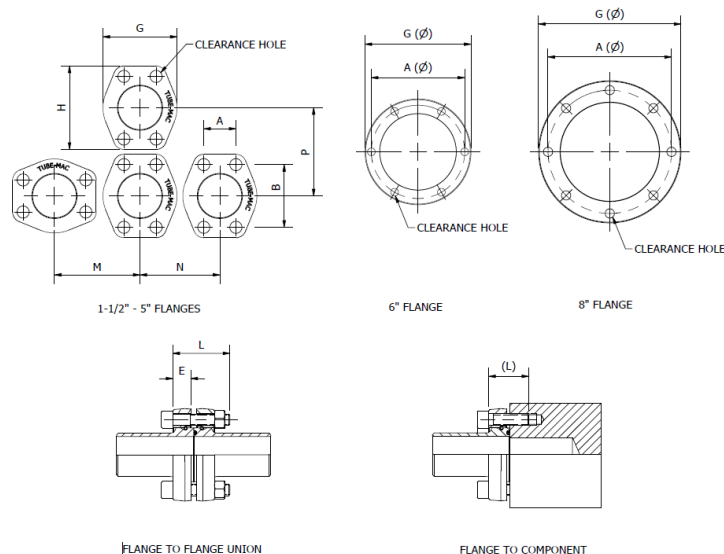
*** Materials:**
Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

^ O-Ring 2 Type
Standard, No Designation = Buna Nitrile.
V = Viton.

Ordering Example: COP-50x3.0-200-SS-V
* Insert Material _____
^ Insert O-Ring 2 Type _____

SAE 1000 PSI Retain Ring Flange Dimensions

1-1/2" through 5" Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Retain Ring Flange Dimensions, NPS

Size	Dimensions (in)								SHCS Bolt (in)* L (L)	Working Pressure PSI (Bar)
	A	B	G	H	M	N	P	E		
1-1/2"	1.41	2.75	3.25	3.66	3.58	3.35	3.78	0.79	1/2"-13 UNC x 3.00 (2.00)	1000 (70)
2"	1.69	3.06	3.81	4.02	4.02	3.94	4.13	0.79	1/2"-13 UNC x 3.50 (2.00)	1000 (70)
2-1/2"	2.00	3.50	4.28	4.49	4.49	4.37	4.61	0.79	1/2"-13 UNC x 4.00 (2.50)	1000 (70)
3"	2.44	4.19	5.16	5.28	5.35	5.24	5.39	1.00	5/8"-11 UNC x 4.50 (2.75)	1000 (70)
4"	3.06	5.13	6.00	6.38	6.30	6.10	6.50	1.18	5/8"-11 UNC x 4.00 (2.75)	1000 (70)
5"	3.63	6.00	7.09	7.24	7.28	7.20	7.32	1.57	5/8"-11 UNC x 4.75 (2.75)	1000 (70)
6"	8.19	-	9.29	-	-	-	-	1.57	5/8"-11 UNC x 4.75 (2.75)	725 (50)
8"	10.83	-	12.48	-	-	-	-	1.57	3/4"-10 UNC x 4.75 (2.75)	725 (50)

* SHCS Bolt Specification

Carbon Steel: ASTM A574/ SAE J429 Grade 8

316 Stainless Steel: ASTM A193 - B8M Class.1

Retain Ring Flange Dimensions, Metric

Size	Dimensions (mm)								SHCS Bolt (mm)* L (L)	Working Pressure PSI (Bar)
	A	B	G	H	M	N	P	E		
1-1/2"	35.8	69.9	82.6	93.0	90.9	85.1	96.0	20	M12 x 75 (50)	1000 (70)
2"	42.9	77.7	96.8	102.1	102.1	100.1	104.9	20	M12 x 90 (50)	1000 (70)
2-1/2"	50.8	88.9	108.7	114.0	114.0	111.0	117.1	20	M12 x 100 (65)	1000 (70)
3"	62.0	106.4	131.1	134.1	135.9	133.1	136.9	25	M16 x 120 (70)	1000 (70)
4"	77.7	130.3	152.4	162.1	160.0	154.9	165.1	30	M16 x 100 (70)	1000 (70)
5"	92.1	152.4	180.0	184.0	185.0	183.0	186.0	40	M16 x 120 (70)	1000 (70)
6"	208.0	-	236.0	-	-	-	-	40	M16 x 120 (70)	725 (50)
8"	275.0	-	317.0	-	-	-	-	40	M20 x 120 (70)	725 (50)

* SHCS Bolt Specification

Carbon Steel: DIN 912/ISO 4762, Minimum Grade 8.8

316 Stainless Steel: A4-70, DIN 912/ISO 4762

3D step models available upon request

SAE 1000 PSI Retain Ring Flange with Clearance Holes

1-1/2" through 5" Flange pattern according to SAE J518 Code 61 (ISO 6162-1)

6" Flange Pattern TMI 6-bolt

8" Flange Pattern TMI 8-bolt



1-1/2" - 5" FLANGES



6" FLANGE



8" FLANGES

RFC14, RFC34, RFC16, RFC18 - Flare Flange with Clearance Holes			
Size	Standard Part Number	Working Pressure PSI (Bar)	Weight lbs (kg)
1-1/2"	RFC14-150-*	1000 (70)	1.10 (0.50)
2"	RFC14-200-*	1000 (70)	1.90 (0.86)
2-1/2"	RFC14-250-*	1000 (70)	2.17 (0.99)
3"	RFC14-300-*	1000 (70)	3.80 (1.73)
4"	RFC14-400-*	1000 (70)	8.61 (3.91)
5"	RFC14-500-*	1000 (70)	9.80 (4.45)
6"	RFC16-600-*	725 (50)	10.50 (4.77)
8"	RFC18-800-*	725 (50)	23.20 (10.55)

*** Materials:**

Standard, No Designation = Carbon Steel,
Zinc Nickel Plated.

HDG = Carbon Steel, Hot Dip Galvanized.

SS = Stainless Steel, Type 316.

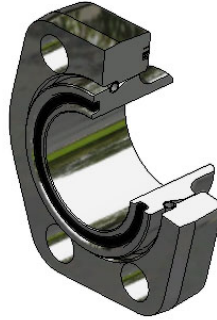
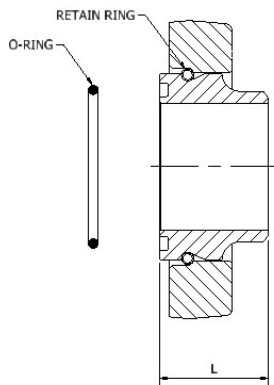
Note: Flanges can be used on NPS and
Metric Low Pressure Butt Weld Adapters.

Ordering Example: RFC14-150-SS

* Insert Material

SAE 1000 PSI Low Pressure Butt Weld Adapter Assembly, O-Ring Face with Clearance Holes, NPS

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Retain Ring Flange
- One (1) Weld Adapter Body
- One (1) Retain Ring
- One (1) O-ring

To be Ordered Separately:

- Bolt Kit (See Page F14)

A/LBWAO Low Pressure Butt Weld Adapter Assembly, O-Ring Face with Clearance Holes, NPS

Size	Pipe Size	Complete Flange Set Part Number	WT/Set lbs (kg)	Dimension (in) L	Weld Adapter Body Part Number	Flange Part Number	Retain Ring (Stainless Steel) Part No.	"O" Ring (Buna) Part No.
1-1/2"	1-1/2" SCH10	A/LBWAO-SCH10-150-FC14-*	1.75 (0.80)	1.38	LBWAO-SCH10-150-*	RFC14-150-*	LR-150	OR*-2-225
1-1/2"	1-1/2" SCH40	A/LBWAO-SCH40-150-FC14-*	1.90 (0.86)	1.38	LBWAO-SCH40-150-*	RFC14-150-*	LR-150	OR*-2-225
2"	2" SCH10	A/LBWAO-SCH10-200-FC14-*	2.76 (1.25)	1.38	LBWAO-SCH10-200-*	RFC14-200-*	LR-200	OR*-2-228
2"	2" SCH40	A/LBWAO-SCH40-200-FC14-*	2.90 (1.32)	1.38	LBWAO-SCH40-200-*	RFC14-200-*	LR-200	OR*-2-228
2-1/2"	2-1/2" SCH10	A/LBWAO-SCH10-250-FC14-*	3.40 (1.55)	1.38	LBWAO-SCH10-250-*	RFC14-250-*	LR-250	OR*-2-232
2-1/2"	2-1/2" SCH40	A/LBWAO-SCH40-250-FC14-*	3.59 (1.63)	1.38	LBWAO-SCH40-250-*	RFC14-250-*	LR-250	OR*-2-232
3"	3" SCH10	A/LBWAO-SCH10-300-FC14-*	6.00 (2.73)	1.57	LBWAO-SCH10-300-*	RFC14-300-*	LR-300	OR*-2-237
3"	3" SCH40	A/LBWAO-SCH40-300-FC14-*	6.13 (2.79)	1.57	LBWAO-SCH40-300-*	RFC14-300-*	LR-300	OR*-2-237
4"	4" SCH10	A/LBWAO-SCH10-400-FC14-*	10.30 (4.68)	1.58	LBWAO-SCH10-400-*	RFC14-400-*	LR-400	OR*-2-245
4"	4" SCH40	A/LBWAO-SCH40-400-FC14-*	10.84 (4.93)	1.58	LBWAO-SCH40-400-*	RFC14-400-*	LR-400	OR*-2-245
5"	5" SCH10	A/LBWAO-SCH10-500-FC14-*	12.80 (5.82)	1.77	LBWAO-SCH10-500-*	RFC14-500-*	LR-500	OR*-2-253
5"	5" SCH40	A/LBWAO-SCH40-500-FC14-*	13.31 (6.05)	1.77	LBWAO-SCH40-500-*	RFC14-500-*	LR-500	OR*-2-253
6"	6" SCH10	A/LBWAO-SCH10-600-FC16-*	15.75 (15.60)	1.97	LBWAO-SCH10-600-*	RFC16-600-*	LR-600	OR*-2-259
6"	6" SCH40	A/LBWAO-SCH40-600-FC16-*	16.15 (7.34)	1.97	LBWAO-SCH40-600-*	RFC16-600-*	LR-600	OR*-2-259
8"	8" SCH10	A/LBWAO-SCH10-800-FC18-*	32.47 (14.76)	2.36	LBWAO-SCH10-800-*	RFC18-800-*	LR-800	OR*-2-372
8"	8" SCH40	A/LBWAO-SCH40-800-FC18-*	33.77 (15.35)	2.36	LBWAO-SCH40-800-*	RFC18-800-*	LR-800	OR*-2-372

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Adapter Body, Type 316.

HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Adapter Body, Type 316.

Note:

1. To Order A Retain Ring Flange with Threaded Holes, Replace FC with FT in the Part Number.
2. Please refer to pressure rating chart for SCH10 pipe.

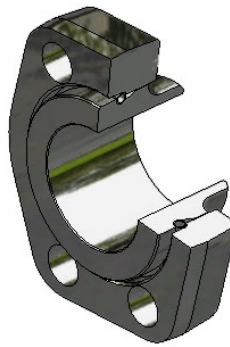
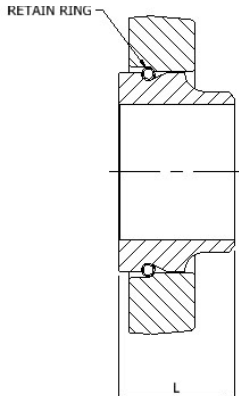
Ordering Example: A/LBWAO-SCH40-200-FC14-SS

* Insert Material

3D step models available upon request

SAE 1000 PSI Low Pressure Butt Weld Adapter Assembly, Flat Face with Clearance Holes, NPS

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Retain Ring Flange
- One (1) Weld Adapter Body
- One (1) Retain Ring

To be Ordered Separately:

- Bolt Kit (See Page F14)

A/LBWAFLow Pressure Butt Weld Adapter Assembly, Flat Face with Clearance Holes, NPS

Size	Pipe Size	Complete Flange Set Part Number	WT/Set lbs (kg)	Dimension (in) L	Weld Adapter Body Part Number	Flange Part Number	Retain Ring (Stainless Steel) Part No.
1-1/2"	1-1/2" SCH10	A/LBWAFL-SCH10-150-FC14-*	1.87 (0.85)	1.38	LBWAF-SCH10-150-*	RFC14-150-*	LR-150
1-1/2"	1-1/2" SCH40	A/LBWAFL-SCH40-150-FC14-*	1.93 (0.88)	1.38	LBWAF-SCH40-150-*	RFC14-150-*	LR-150
2"	2" SCH10	A/LBWAFL-SCH10-200-FC14-*	2.86 (1.30)	1.38	LBWAF-SCH10-200-*	RFC14-200-*	LR-200
2"	2" SCH40	A/LBWAFL-SCH40-200-FC14-*	2.94 (1.33)	1.38	LBWAF-SCH40-200-*	RFC14-200-*	LR-200
2-1/2"	2-1/2" SCH10	A/LBWAFL-SCH10-250-FC14-*	3.53 (1.61)	1.38	LBWAF-SCH10-250-*	RFC14-250-*	LR-250
2-1/2"	2-1/2" SCH40	A/LBWAFL-SCH40-250-FC14-*	3.64 (1.66)	1.38	LBWAF-SCH40-250-*	RFC14-250-*	LR-250
3"	3" SCH10	A/LBWAFL-SCH10-300-FC14-*	6.05 (2.75)	1.57	LBWAF-SCH10-300-*	RFC14-300-*	LR-300
3"	3" SCH40	A/LBWAFL-SCH40-300-FC14-*	6.20 (2.82)	1.57	LBWAF-SCH40-300-*	RFC14-300-*	LR-300
4"	4" SCH10	A/LBWAFL-SCH10-400-FC14-*	10.72 (4.87)	1.58	LBWAF-SCH10-400-*	RFC14-400-*	LR-400
4"	4" SCH40	A/LBWAFL-SCH40-400-FC14-*	10.95 (4.98)	1.58	LBWAF-SCH40-400-*	RFC14-400-*	LR-400
5"	5" SCH10	A/LBWAFL-SCH10-500-FC14-*	13.13 (5.97)	1.77	LBWAF-SCH10-500-*	RFC14-500-*	LR-500
5"	5" SCH40	A/LBWAFL-SCH40-500-FC14-*	13.48 (6.13)	1.77	LBWAF-SCH40-500-*	RFC14-500-*	LR-500
6"	6" SCH10	A/LBWAFL-SCH10-600-FC16-*	15.85 (7.20)	1.97	LBWAF-SCH10-600-*	RFC16-600-*	LR-600
6"	6" SCH40	A/LBWAFL-SCH40-600-FC16-*	16.42 (7.46)	1.97	LBWAF-SCH40-600-*	RFC16-600-*	LR-600
8"	8" SCH10	A/LBWAFL-SCH10-800-FC18-*	33.22 (15.10)	2.36	LBWAF-SCH10-800-*	RFC18-800-*	LR-800
8"	8" SCH40	A/LBWAFL-SCH40-800-FC18-*	34.27 (15.58)	2.36	LBWAF-SCH40-800-*	RFC18-800-*	LR-800

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Adapter Body, Type 316.

HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Adapter Body, Type 316.

Note:

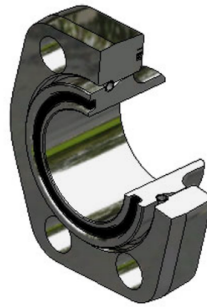
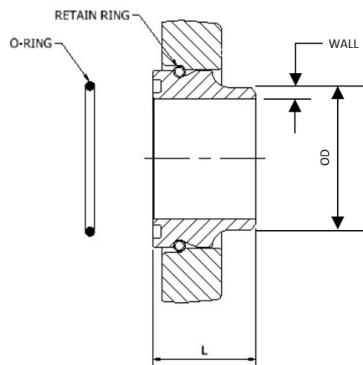
1. To Order A Retain Ring Flange with Threaded Holes, Replace FC with FT in the Part Number.
2. Please refer to pressure rating chart for SCH10 pipe.

Ordering Example: A/LBWAFL-SCH40-200-FC14-SS

* Insert Material

SAE 1000 PSI Low Pressure Butt Weld Adapter Assembly, O-Ring Face with Clearance Holes, Metric

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Retain Ring Flange
- One (1) Weld Adapter Body
- One (1) Retain Ring
- One (1) O-ring

To be Ordered Separately:

- Bolt Kit (See Page F14)

A/LBWA0 Low Pressure Butt Weld Adapter Assembly, O-Ring Face with Clearance Holes, Metric

Size	Pipe Size OD x wall	Complete Flange Set Part Number	WT/Set lbs (kg)	Dimension (mm) L	Weld Adapter Body Part Number	Flange Part Number	Retain Ring (Stainless Steel) Part No.	"O" Ring (Buna) Part No.
1-1/2"	50 x 3.0	A/LBWA0-50x3-150-FC14-*	1.75 (0.80)	35	LBWA0-50x3-150-*	RFC14-150-*	LR-150	OR*-2-225
1-1/2"	50 x 5.0	A/LBWA0-50x5-150-FC14-*	1.90 (0.86)	35	LBWA0-50x5-150-*	RFC14-150-*	LR-150	OR*-2-225
2"	60 x 3.0	A/LBWA0-60x3-200-FC14-*	2.76 (1.25)	35	LBWA0-60x3-200-*	RFC14-200-*	LR-200	OR*-2-228
2"	60 x 5.0	A/LBWA0-60x5-200-FC14-*	2.90 (1.32)	35	LBWA0-60x5-200-*	RFC14-200-*	LR-200	OR*-2-228
2-1/2"	73 x 3.0	A/LBWA0-73x3-250-FC14-*	3.40 (1.55)	35	LBWA0-73x3-250-*	RFC14-250-*	LR-250	OR*-2-232
2-1/2"	75 x 3.0	A/LBWA0-75x3-250-FC14-*	3.59 (1.63)	35	LBWA0-75x3-250-*	RFC14-250-*	LR-250	OR*-2-232
3"	90 x 3.5	A/LBWA0-90x3.5-300-FC14-*	6.00 (2.73)	40	LBWA0-90x3.5-300-*	RFC14-300-*	LR-300	OR*-2-237
3"	90 x 5.0	A/LBWA0-90x5-300-FC14-*	6.13 (2.79)	40	LBWA0-90x5-300-*	RFC14-300-*	LR-300	OR*-2-237
4"	115 x 4.0	A/LBWA0-115x4-400-FC14-*	10.30 (4.68)	40	LBWA0-115x4-400-*	RFC14-400-*	LR-400	OR*-2-245
4"	114.3 x 4.5	A/LBWA0-114.3x4.5-400-FC14-*	10.84 (4.93)	40	LBWA0-114.3x4.5-400-*	RFC14-400-*	LR-400	OR*-2-245
5"	139.7 x 5.6	A/LBWA0-139.7x5.6-500-FC14-*	12.80 (5.82)	45	LBWA0-139.7x5.6-500-*	RFC14-500-*	LR-500	OR*-2-253
5"	140 x 4.5	A/LBWA0-140x4.5-500-FC14-*	13.31 (6.05)	45	LBWA0-140x4.5-500-*	RFC14-500-*	LR-500	OR*-2-253
6"	165 x 5.0	A/LBWA0-165x5-600-FC16-*	15.75 (15.60)	50	LBWA0-165x5-600-*	RFC16-600-*	LR-600	OR*-2-259
6"	168.3 x 7.1	A/LBWA0-SCH40-600-FC16-*	16.15 (7.34)	50	LBWA0-SCH40-600-*	RFC16-600-*	LR-600	OR*-2-259
8"	220 x 6.0	A/LBWA0-220x6-800-FC18-*	32.47 (14.76)	60	LBWA0-220x6-800-*	RFC18-800-*	LR-800	OR*-2-372
8"	219 x 8.18	A/LBWA0-SCH40-800-FC18-*	33.77 (15.35)	60	LBWA0-SCH40-800-*	RFC18-800-*	LR-800	OR*-2-372

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Adapter Body, Type 316.

HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Adapter Body, Type 316.

Note:

1. To Order A Retain Ring Flange with Threaded Holes, Replace FC with FT in the Part Number.
2. Please refer to pressure rating chart for SCH10 pipe.

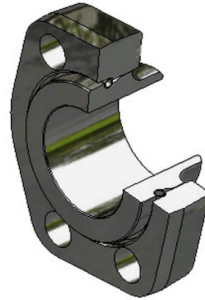
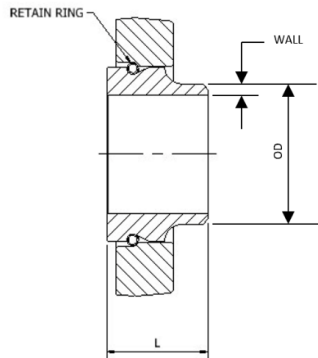
Ordering Example: A/LBWA0-60x3-200-FC14-SS

* Insert Material

3D step models available upon request

SAE 1000 PSI Low Pressure Butt Weld Adapter Assembly, Flat Face with Clearance Holes, Metric

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Retain Ring Flange
- One (1) Weld Adapter Body
- One (1) Retain Ring

To be Ordered Separately:

- Bolt Kit (See Page F14)

A/LBWAFL Low Pressure Butt Weld Adapter Assembly, Flat Face with Clearance Holes, Metric

Size	Pipe Size OD x wall	Complete Flange Set Part Number	WT/Set lbs (kg)	Dimension (mm) L	Weld Adapter Body Part Number	Flange Part Number	Retain Ring (Stainless Steel) Part No.
1-1/2"	50 x 3.0	A/LBWAFL-50x3-150-FC14-*	1.87 (0.85)	35	LBWAFL-50x3-150-*	RFC14-150-*	LR-150
1-1/2"	50 x 5.0	A/LBWAFL-50x5-150-FC14-*	1.93 (0.88)	35	LBWAFL-50x5-150-*	RFC14-150-*	LR-150
2"	60 x 3.0	A/LBWAFL-60x3-200-FC14-*	2.86 (1.30)	35	LBWAFL-60x3-200-*	RFC14-200-*	LR-200
2"	60 x 5.0	A/LBWAFL-60x5-200-FC14-*	2.94 (1.33)	35	LBWAFL-60x5-200-*	RFC14-200-*	LR-200
2-1/2"	73 x 3.0	A/LBWAFL-73x3-250-FC14-*	3.53 (1.61)	35	LBWAFL-73x3-250-*	RFC14-250-*	LR-250
2-1/2"	75 x 3.0	A/LBWAFL-75x3-250-FC14-*	3.64 (1.66)	35	LBWAFL-75x3-250-*	RFC14-250-*	LR-250
3"	90 x 3.5	A/LBWAFL-90x3.5-300-FC14-*	6.05 (2.75)	40	LBWAFL-90x3.5-300-*	RFC14-300-*	LR-300
3"	90 x 5.0	A/LBWAFL-90x5-300-FC14-*	6.20 (2.82)	40	LBWAFL-90x5-300-*	RFC14-300-*	LR-300
4"	115 x 4.0	A/LBWAFL-115x4-400-FC14-*	10.72 (4.87)	40	LBWAFL-115x4-400-*	RFC14-400-*	LR-400
4"	114.3 x 4.5	A/LBWAFL-114.3x4.5-400-FC14-*	10.95 (4.98)	40	LBWAFL-114.3x4.5-400-*	RFC14-400-*	LR-400
5"	139.7 x 5.6	A/LBWAFL-139.7x5.6-500-FC14-*	13.13 (5.97)	45	LBWAFL-139.7x5.6-500-*	RFC14-500-*	LR-500
5"	140 x 4.5	A/LBWAFL-140x4.5-500-FC14-*	13.48 (6.13)	45	LBWAFL-140x4.5-500-*	RFC14-500-*	LR-500
6"	165 x 5.0	A/LBWAFL-165x5-600-FC16-*	15.85 (7.20)	50	LBWAFL-165x5-600-*	RFC16-600-*	LR-600
6"	168.3 x 7.1	A/LBWAFL-SCH40-600-FC16-*	16.42 (7.46)	50	LBWAFL-SCH40-600-*	RFC16-600-*	LR-600
8"	220 x 6.0	A/LBWAFL-220x6-800-FC18-*	33.22 (15.10)	60	LBWAFL-220x6-800-*	RFC18-800-*	LR-800
8"	219 x 8.18	A/LBWAFL-SCH40-800-FC18-*	34.27 (15.58)	60	LBWAFL-SCH40-800-*	RFC18-800-*	LR-800

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

ZSS = Carbon Steel Flange with Stainless Steel Adapter Body, Type 316.

HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Adapter Body, Type 316.

Ordering Example: A/LBWAFL-60x3-200-FC14-SS

* Insert Material

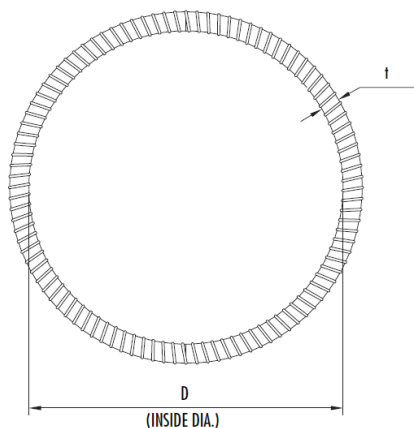
Note:

1. To Order A Retain Ring Flange with Threaded Holes, Replace FC with FT in the Part Number.

2. Please refer to pressure rating chart for SCH10 pipe.

3D step models available upon request

SAE 1000 PSI Low Pressure Retain Ring

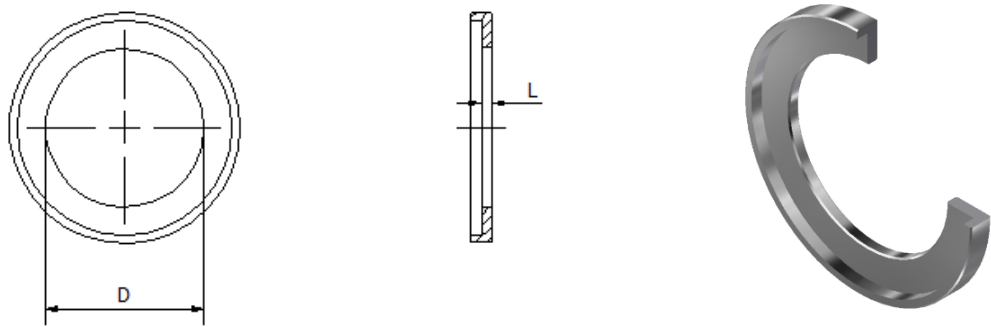


Flange Dimensions , NPS				
Size	Retain Ring Part Number	Dimensions in (mm)		WT lbs (kg)
		D	t	
1-1/2"	LR-150	2.165 (55)	.158 (4)	0.02 (0.01)
2"	LR-200	2.560 (65)	.158 (4)	0.03 (0.014)
2-1/2"	LR-250	2.992 (76)	.158 (4)	0.04 (0.02)
3"	LR-300	3.622 (92)	.197 (5)	0.09 (0.04)
4"	LR-400	4.685 (119)	.197 (5)	0.11 (0.05)
5"	LR-500	5.630 (143)	.236 (6)	0.19 (0.09)
6"	LR-600	6.811 (173)	.236 (6)	0.21 (0.10)
8"	LR-800	9.110 (231)	.315 (8)	0.59 (0.27)

Materials:
Stainless Steel –AISI 316 Spring Temper

3D step models available upon request

SAE 1000 PSI Low Pressure O-Ring Connector Plate



LOCP – Low Pressure O-Ring Connector Plate				
Size	Connector Plate Part Number	Dimensions in (mm)		WT lbs (kg)
		D	L	
1-1/2"	LOCP-150-*	1.50 (38.1)	0.13 (3.18)	0.13 (0.06)
2"	LOCP-200-*	1.94 (49.3)	0.13 (3.18)	0.15 (0.07)
2-1/2"	LOCP-250-*	2.47 (62.74)	0.13 (3.18)	0.17 (0.08)
3"	LOCP-300-*	3.07 (78.00)	0.13 (3.18)	0.25 (0.11)
4"	LOCP-400-*	4.03 (102.36)	0.13 (3.18)	0.33 (0.15)
5"	LOCP-500-*	4.91 (124.71)	0.19 (4.75)	0.57 (0.26)
6"	LOCP-600-*	5.91 (150.00)	0.19 (4.75)	0.79 (0.36)
8"	LOCP-800-*	7.98 (202.69)	0.19 (4.75)	1.34 (0.61)

*** Materials:**

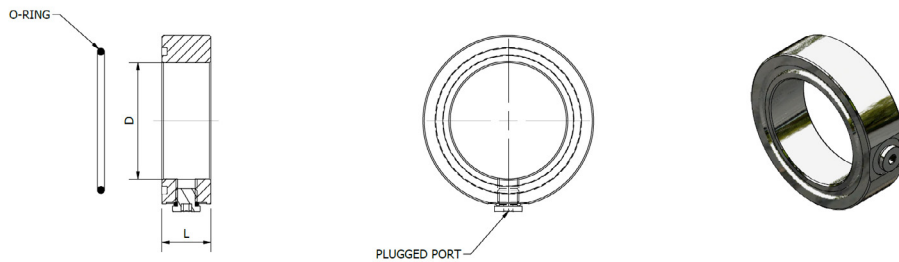
Standard, No Designation = All Carbon Steel,
Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

Ordering Example: LOCP-200-SS

* Insert Material

SAE 1000 PSI Low Pressure Pilot Tee Between



LPPT – Low Pressure Pilot Tee Between with #4 SAE Port (Plugged), NPS

Size	Part Number	Dimensions in (mm)		O-Rings (Buna) Part Number	WT lbs (kg)
		D	L		
1-1/2"	LPPT-150-*^-^	1.61 (40.89)	1.00 (25.4)	OR^-3-924	86.9 (39.50)
2"	LPPT-200-*^-^	2.00 (50.08)	1.00 (25.4)	OR^-3-928	1.13 (0.54)
2-1/2"	LPPT-250-*^-^	2.50 (63.50)	1.00 (25.4)	OR^-2-232	1.47 (0.67)
3"	LPPT-300-*^-^	3.00 (76.20)	1.00 (25.4)	OR^-2-237	1.92 (0.87)
4"	LPPT-150-*^-^	4.00 (101.60)	1.00 (25.4)	OR^-2-245	2.69 (1.22)
5"	LPPT-200-*^-^	5.00 (127.00)	1.00 (25.4)	OR^-2-253	3.54 (1.61)
6"	LPPT-250-*^-^	6.00 (152.40)	1.00 (25.4)	OR^-2-259	4.08 (1.85)
8"	LPPT-300-*^-^	8.00 (203.20)	1.25 (31.75)	OR^-2-372	10.55 (4.80)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

Ordering Example: LPPT-200-SS-V

* Insert Material

^ Insert O-Ring Type

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

LPPTM – Low Pressure Pilot Tee Between with G 1/8 Port (Plugged), Metric

Size	Part Number	Dimensions in (mm)		O-Rings (Buna) Part Number	WT lbs (kg)
		D	L		
1-1/2"	LPPTM-150-*^-^	1.61 (40.89)	1.00 (25.4)	OR^-3-924	86.9 (39.50)
2"	LPPTM-200-*^-^	2.00 (50.08)	1.00 (25.4)	OR^-3-928	1.13 (0.54)
2-1/2"	LPPTM-250-*^-^	2.50 (63.50)	1.00 (25.4)	OR^-2-232	1.47 (0.67)
3"	LPPTM-300-*^-^	3.00 (76.20)	1.00 (25.4)	OR^-2-237	1.92 (0.87)
4"	LPPTM-150-*^-^	4.00 (101.60)	1.00 (25.4)	OR^-2-245	2.69 (1.22)
5"	LPPTM-200-*^-^	5.00 (127.00)	1.00 (25.4)	OR^-2-253	3.54 (1.61)
6"	LPPTM-250-*^-^	6.00 (152.40)	1.00 (25.4)	OR^-2-259	4.08 (1.85)
8"	LPPTM-300-*^-^	8.00 (203.20)	1.25 (31.75)	OR^-2-372	10.55 (4.80)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

Ordering Example: LPPTM-200-SS-V

* Insert Material

^ Insert O-Ring Type

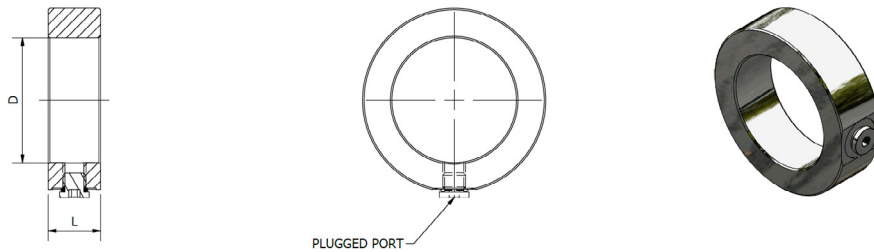
^ O-Ring Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

3D step models available upon request

SAE 1000 PSI Low Pressure Pilot Tee Between Flat Face



LPPTF – Low Pressure Pilot Tee Between Flat Face with #4 SAE Port (Plugged), NPS

Size	Part Number	Dimensions in (mm)		WT lbs (kg)
		D	L	
1-1/2"	LPPTF-150-*^-^	1.61 (40.89)	1.00 (25.4)	86.9 (39.50)
2"	LPPTF-200-*^-^	2.00 (50.08)	1.00 (25.4)	1.13 (0.54)
2-1/2"	LPPTF-250-*^-^	2.50 (63.50)	1.00 (25.4)	1.47 (0.67)
3"	LPPTF-300-*^-^	3.00 (76.20)	1.00 (25.4)	1.92 (0.87)
4"	LPPTF-150-*^-^	4.00 (101.60)	1.00 (25.4)	2.69 (1.22)
5"	LPPTF-200-*^-^	5.00 (127.00)	1.00 (25.4)	3.54 (1.61)
6"	LPPTF-250-*^-^	6.00 (152.40)	1.00 (25.4)	4.08 (1.85)
8"	LPPTF-300-*^-^	8.00 (203.20)	1.25 (31.75)	10.55 (4.80)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

Ordering Example: LPPTF-200-SS-V

* Insert Material

^ Insert O-Ring Type

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.
V = Viton.

LPPTFM – Low Pressure Pilot Tee Between Flat Face with G 1/8 Port (Plugged), Metric

Size	Part Number	Dimensions in (mm)		WT lbs (kg)
		D	L	
1-1/2"	LPPTFM-150-*^-^	1.61 (40.89)	1.00 (25.4)	86.9 (39.50)
2"	LPPTFM-200-*^-^	2.00 (50.08)	1.00 (25.4)	1.13 (0.54)
2-1/2"	LPPTFM-250-*^-^	2.50 (63.50)	1.00 (25.4)	1.47 (0.67)
3"	LPPTFM-300-*^-^	3.00 (76.20)	1.00 (25.4)	1.92 (0.87)
4"	LPPTFM-150-*^-^	4.00 (101.60)	1.00 (25.4)	2.69 (1.22)
5"	LPPTFM-200-*^-^	5.00 (127.00)	1.00 (25.4)	3.54 (1.61)
6"	LPPTFM-250-*^-^	6.00 (152.40)	1.00 (25.4)	4.08 (1.85)
8"	LPPTFM-300-*^-^	8.00 (203.20)	1.25 (31.75)	10.55 (4.80)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

Ordering Example: LPPTFM-200-SS-V

* Insert Material

^ Insert O-Ring Type

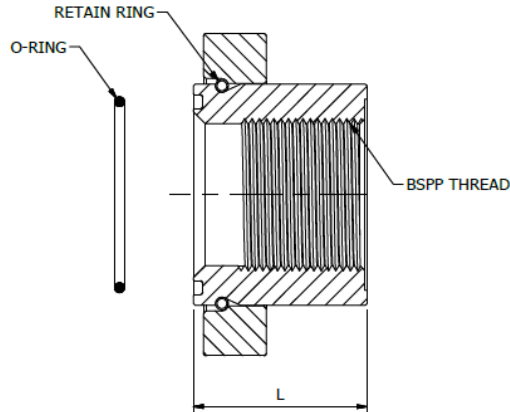
^ O-Ring Type:

Standard, No Designation = Buna Nitrile.
V = Viton.

3D step models available upon request

SAE 1000 PSI Low Pressure Female Thread Adapter, BSPP Complete Assembly

Flange pattern according to SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Female Thread Adapter
- One (1) Retain Ring Flange
- One (1) Retain Ring
- One (1) Face O-Ring (O-Ring 1)

To be Ordered Separately:

- Bolt Kit (See Page F14)

A/LFBTA Low Pressure Female Thread Adapter, BSPP – Complete Assembly Complete with Buna O-Ring

Size (flange x thread)	Complete Assembly Part Number	Dimensions in (mm)		Thread Size	O-Ring Part Number	Assembly WT lbs (kg)	Body Only Part Number	Body Only WT lbs (kg)
		L	R					
1-1/2"x 1-1/4"	A/LFBTA-150x125-FC14-*~^	1.77 (45.00)	1 1/4"		OR^~2-225	0.99 (0.45)	LFBTA-150x125-*~^	1.2 (0.54)
2"x 1-1/2"	A/LFBTA-200x150-FC14-*~^	2.17 (55.00)	1 1/2"		OR^~2-228	1.65 (0.75)	LFBTA-200x150-*~^	2.0 (0.92)
2-1/2"x 2"	A/LFBTA-250x200-FC14-*~^	3.15 (80.00)	2"		OR^~2-232	3.35 (1.52)	LFBTA-250x200-*~^	3.5 (1.59)
3"x 2-1/2"	A/LFBTA-300x250-FC14-*~^	3.35 (85.00)	2 1/2"		OR^~2-237	4.65 (2.11)	LFBTA-300x250-*~^	4.8 (2.16)

Flange Option:

Standard, FC34 = SAE 3000 PSI Code 61 (ISO 6162-1) Clearance Flange.

FT34 = SAE 3000 PSI Code 61 (ISO 6162-1) UNC Threaded Flange.

FTM34 = SAE 3000 PSI Code 61 (ISO 6162-1) Metric Threaded Flange.

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

Ordering Example: A/LFBTA-200x150-FC34-SS-V

Flange Option _____

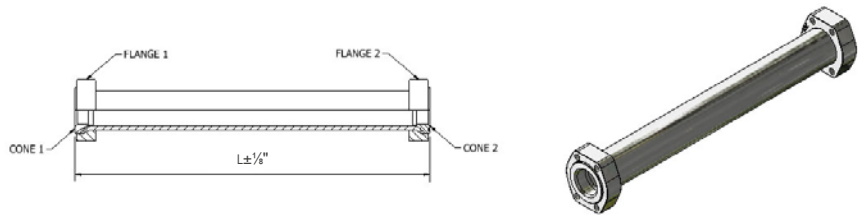
* Insert Material _____

^ Insert O-Ring Type _____

SAE 1000 PSI Flare Flange Pipe Assembly, NPS

SAE J518 Code 61 (ISO 6162-1)

Typical LPAF Assembly



- Complete assembly consists of:
- One (1) length of clean pipe
 - Two (2) flare flanges
 - Two (2) cone inserts
 - Buna O-rings as required

		Code	LPAF	Pipe & Cone Material	Pipe Size & Schedule	End 1	End 2	Lgth	Options
Bent Pipe Assembly - Flared		LPAF							
Pipe & Cone Material Carbon Steel	TMP52CD	52							
	♦♦TMP37CD	37							
Pipe & Cone Material Stainless Steel	TMP304SS	304							
	TMP316SS	316							
	♦TMP2205SS	2205							
Pipe Size & Schedule	1-1/2"	SCH40-125							
		SCH80-125							
	2"	SCH40-200							
		SCH80-200							
	2-1/2"	SCH40-250							
		SCH80-250							
	3"	SCH40-300							
		SCH80-300							
	4"	SCH40-400							
		SCH80-400							
End Style	Flat Face	CF							
		CO							
	'O' Ring Face	CF							
		CO							
Length	L	Specify (in.)							
Options	Viton	V							
	Painted (Specify)	P							
	Complete Stainless Steel Assembly: (including flanges)	SS							

Note:

TMP52CD (E355+N) PIPE IS AVAILBLE IN 1-1/2" UP TO 3" SCHEDULE 40 PIPE SIZES AND 1-1/2" UP TO 4" SCHEDULE 80 PIPE SIZES

♦♦TMP37CD (E235+N) PIPE IS AVAILABLE IN 2 1/2" THROUGH 10" SCHEDULE 40 PIPE SIZES

♦TMP2205SS PIPE IS ONLY AVAILABLE UPON REQUEST

PART NO. (EXAMPLE): LPAF/52-SCH40150-CF-CO-240

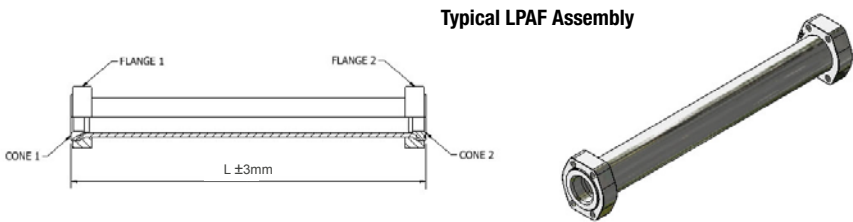
ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR PIPE RATINGS

SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS

SAE 1000 PSI Flare Flange Pipe Assembly, Metric

SAE J518 Code 61 (ISO 6162-1)

Introduction
Technical Data
Pipe Selection Guide
16 bar, 90° Flare
ANSI 150#, 300# Flare
SAE 1000, 70 bar
SAE 3000, 210 bar
SAE 6000, 420 bar
SAE 10000, 690 bar
ISO 6164, 400 bar
ISO 6164, 400 bar F10° Flare
Clamp Supports - Heavy Series
Valves, Ball and Check



Complete assembly consists of:

- One (1) length of clean pipe
- Two (2) flare flanges
- Two (2) cone inserts
- Buna O-rings as required

		Code	LPAF	Pipe & Cone Material	Pipe Size & Schedule	End 1	End 2	Lgth	Options
Bent Pipe Assembly - Flared		LPAF							
Pipe & Cone Material	Carbon Steel	♦♦TMP37CD	37						
Pipe & Cone Material	Stainless Steel	TMP304SS	304						
		TMP316SS	316						
		♦TMP2205SS	2205						
Pipe Size & Schedule	1-1/2"	50 x 3.0							
	2"	60 x 3.0							
	2-1/2"	75 x 3.0							
	3"	90 x 3.5							
	4"	115 x 4.0							
	5"	140 x 4.5							
	6"	165 x 5.0							
	8"	220 x 6.0							
	10"	273 x 6.0							
End Style	Flat Face	CF							
	'O' Ring Face	CO							
Length	L	(mm)							
Options	Viton	V							
	Painted (Specify)	P							
	Complete Stainless Steel Assembly: (including flanges)	SS							

Note:

♦♦TMP37CD (E235+N) PIPE IS AVAILABLE IN ALL SIZES

♦TMP2205SS PIPE IS ONLY AVAILABLE UPON REQUEST

PART NO. (EXAMPLE): LPAF/37-50x 3.0-150-CF-CO-6000

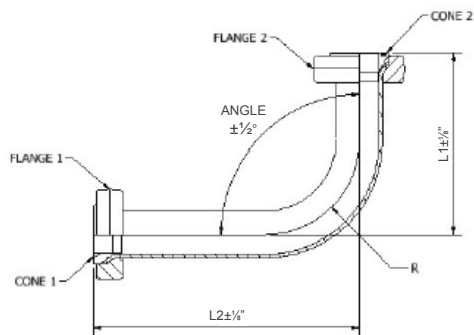
ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR PIPE RATINGS

SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS

SAE 1000 PSI Flare Flange Bent Pipe Assembly, NPS

SAE J518 Code 61 (ISO 6162-1)

Typical LBPAF Assembly



Complete assembly consists of:

- One (1) length of clean pipe
- Two (2) flare flanges
- Two (2) cones

Size	R1		R2		R3	
	Dimensions (in)		Dimensions (in)		Dimensions (in)	
	L(min.)	R	L(min.)	R	L(min.)	R
1-1/2"	7.50	3.80	9.25	5.70	13.50	9.50
2"	8.50	4.75	10.75	7.13	16.00	11.87
2-1/2"	9.75	5.75	12.63	8.63	18.00	14.38
3"	11.00	7.00	14.50	10.50	22.00	17.50
4"	-	-	17.50	13.50	26.50	22.50
5"	-	-	19.00	15.00	29.00	25.00
6"	-	-	22.00	18.00	34.00	30.00
8"	-	-	28.00	24.00	44.00	40.00
10"	-	-	34.00	30.00	54.00	50.00

Note:

1. RADIUS R1 IS NOT AVAILABLE FOR PIPE SIZES 4" AND ABOVE.
2. SIZES 5", 6", 8" AND 10" ARE FACTORY BENDS ONLY – CANNOT BE DONE WITH PORTABLE BENDERS

Flare Flange Bent Pipe Assembly, NPS

SAE J518 Code 61 (ISO 6162-1)

		Code	BPAF /	Pipe & Cone Material	Pipe Size & Schedule	Cone 1	Cone 2	Rad.	Lgth L1	Angle	Lgth L2	Options
Bent Pipe Assembly - Flared		BPAF										
Pipe & Cone Material Carbon Steel	TMP52CD	52										
	♦♦TMP37CD	37										
Pipe & Cone Material Stainless Steel	TMP304SS	304										
	TMP316SS	316										
	♦TMP2205SS	2205										
Pipe Size & Schedule	1-1/2"	SCH40-150										
		SCH80-150										
	2"	SCH40-200										
		SCH80-200										
	2-1/2"	SCH40-250										
		SCH80-250										
	3"	SCH40-300										
		SCH80-300										
	4"	SCH40-400										
		SCH80-400										
	5"	SCH40-500										
	6"	SCH40-600										
8"	SCH40-800											
10"	SCH40-1000											
End Type	Flat Face	CF										
	'O' Ring Face	CO										
Radius	Factory Manufactured	R1										
	Factory Manufactured	R2										
	Field Manufactured	R3										
Length	L1	Specify (in)										
Angle	Max 90°	Specify (°)										
Length	L2	Specify (in)										
Options	Viton	V										
	Painted (Specify)	P										
	Complete Stainless Steel Assembly: (including flanges)	SS										

Note:

♦♦TMP37CD (E235+N) PIPE IS AVAILABLE IN ALL SIZES

♦TMP2205SS PIPE IS ONLY AVAILABLE UPON REQUEST

PART NO. (EXAMPLE): LPAF/52-SCH40-150-CO-CF-R1-25-90-11

ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR PIPE RATINGS

SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS

METRIC PIPE BENDING INFORMATION CONSULT FACTORY.

3D step models available upon request

TUBE-MAC.com

Introduction

Technical Data

Pipe Selection Guide

16 bar, 90° Flare

ANSI 150#, 300# Flare

SAE 1000, 70 bar

SAE 3000, 210 bar

SAE 6000, 420 bar

SAE 10000, 690 bar

ISO 6164, 400 bar

ISO 6164, 400 bar F10° Flare

Clamp Supports - Heavy Series

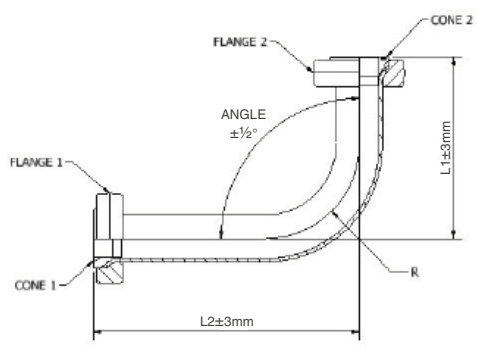
Valves, Ball and Check

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SAE 1000 PSI Flare Flange Bent Pipe Assembly, Metric

SAE J518 Code 61 (ISO 6162-1)

Typical LBPAF Assembly



Complete assembly consists of:

- One (1) length of clean pipe
- Two (2) flare flanges
- Two (2) cones

Pipe Size	Flange Size	R1		R2		R3	
		Dimensions (mm)		Dimensions (mm)		Dimensions (mm)	
		L(min.)	R	L(min.)	R	L(min.)	R
50 x 3.0	1-1/2"	194	100	244	150	294	200
60 x 3.0	2"	215	120	275	180	335	240
75 x 3.0	2-1/2"	264	150	339	225	225	414
90 x 3.5	3"	294	180	384	270	474	360
115 x 4.0	4"	-	-	450	345	675	575
140 x 4.5	5"	-	-	530	420	800	700
165 x 5.0	6"	-	-	600	495	925	825
220 x 6.0	8"	-	-	710	610	1120	1016
273 x 6.0	10"	-	-	865	762	1370	1270

Note:

1. RADIUS R1 IS NOT AVAILABLE FOR PIPE SIZES 115mm AND ABOVE.
2. SIZES 140mm, 165mm, 220mm AND 273mm ARE FACTORY BENDS ONLY – CANNOT BE DONE WITH PORTABLE BENDERS

Flare Flange Bent Pipe Assembly, Metric

SAE J518 Code 61 (ISO 6162-1)

			Code	BPAF	Pipe & Cone Material	Pipe Size & Schedule	Cone 1	Cone 2	Rad.	Lgth L1	Angle	Lgth L2	Options
Bent Pipe Assembly - Flared			BPAF										
Pipe & Cone Material Carbon Steel	TMP52CD		52										
	♦♦TMP37CD		37										
Pipe & Cone Material Stainless Steel	TMP304SS		304										
	TMP316SS		316										
	♦TMP2205SS		2205										
Pipe Size & Schedule	1-1/2"		50x3.0										
	2"		60x3.0										
	2-1/2"		75x3.0										
	3"		90x3.5										
	4"		115x4.0										
	5"		140x4.5										
	6"		165x5.0										
	8"		220x6.0										
	10"		273x6.0										
End Type	Flat Face		CF										
	'O' Ring Face		CO										
Radius	Factory Manufactured		R1										
	Factory Manufactured		R2										
	Field Manufactured		R3										
Length	L1		Specify (mm)										
Angle	Max 90°		Specify (°)										
Length	L2		Specify (mm)										
Options	Viton		V										
	Painted (Specify)		P										
	Complete Stainless Steel Assembly: (including flanges)		SS										

Note:

TMP52CD (E355+N) PIPE IS AVAILABLE IN 50mm UP TO 115mm SIZES

♦♦TMP37CD (E235+N) PIPE IS ONLY AVAILABLE IN 50mm UP TO 273mm SIZES

♦TMP2205SS PIPE IS ONLY AVAILABLE UPON REQUEST

PART NO. (EXAMPLE): LBPAF/52-50x3-CO-CF-R1-3175-90-292

ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR PIPE RATINGS

SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS

METRIC PIPE BENDING INFORMATION CONSULT FACTORY.

3D step models available upon request

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16 bar, 90° Flare

ANSI 150#, 300# Flare

SAE 1000, 70 bar

SAE 3000, 210 bar

SAE 6000, 420 bar

SAE 10000, 690 bar

ISO 6164, 400 bar

ISO 6164, 400 bar F10° Flare

Clamp Supports - Heavy Series

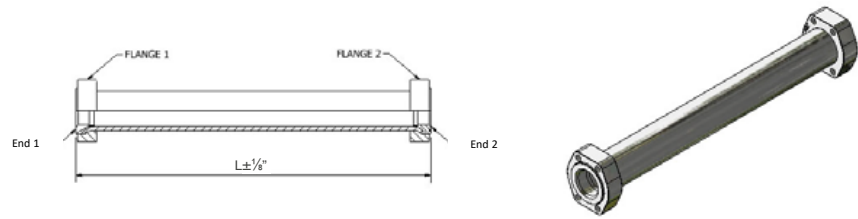
Valves, Ball and Check

F30

SAE 1000 PSI Retain Ring Flange Pipe Assembly, NPS

SAE J518 Code 61 (ISO 6162-1)

Typical LPAR Assembly



- Complete assembly consists of:
- One (1) length of clean pipe
 - Two (2) LP retain ring flanges
 - Two (2) LP butt weld adapters
 - Two (2) LP retain rings
 - Buna O-rings as required

		Code	LPAF	Pipe & Cone Material	Pipe Size & Schedule	End 1	End 2	Lgth	Options
Bent Pipe Assembly - Flared		LPAR							
Pipe & Cone Material	TMP52CD	42							
	♦♦TMP37CD	37							
Pipe & Cone Material	TMP304SS	304							
	TMP316SS	316							
	♦TMP2205SS	2205							
Pipe Size & Schedule	1-1/2"	SCH40-125							
		SCH80-125							
	2"	SCH40-200							
		SCH80-200							
	2-1/2"	SCH40-250							
		SCH80-250							
	3"	SCH40-300							
		SCH80-300							
	4"	SCH40-400							
		SCH80-400							
	5"	SCH40-500							
	6"	SCH40-600							
	8"	SCH40-800							
	10"	SCH40-1000							
End Style	Flat Face	LF							
	'O' Ring Face	LO							
Length	L	Specify (in.)							
Options	Viton	V							
	Painted (Specify)	P							
	Complete Stainless Steel Assembly: (including flanges)	SS							

Note:

TMP52CD (E355+N) PIPE IS AVAILBLE IN 1-1/2" UP TO 3" SCHEDULE 40 PIPE SIZES AND 1-1/2" UP TO 4" SCHEDULE 80 PIPE SIZES

♦♦TMP37CD (E235+N) PIPE IS AVAILABLE IN ALL SIZES

♦TMP2205SS PIPE IS ONLY AVAILABLE UPON REQUEST

PART NO. (EXAMPLE): LPAR/52-SCH40-150-LF-LO-240

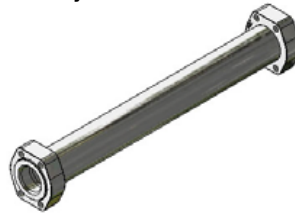
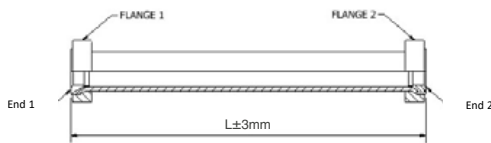
ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR PIPE RATINGS

SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS

SAE 1000 PSI Retain Ring Flange Pipe Assembly, Metric

SAE J518 Code 61 (ISO 6162-1)

Typical LPAR Assembly



Complete assembly consists of:

- One (1) length of clean pipe
- Two (2) LP retain ring flanges
- Two (2) LP butt weld adapters
- Two (2) LP retain rings
- Buna O-rings as required

		Code	LPAR	Pipe & Cone Material	Pipe Size & Schedule	End 1	End 2	Lgth	Options
Bent Pipe Assembly - Flared		LPAR							
Pipe & Cone Material Carbon Steel	♦♦TMP37CD	37							
Pipe & Cone Material Stainless Steel	TMP304SS	304							
	TMP316SS	316							
	♦TMP2205SS	2205							
Pipe Size & Schedule	1-1/2"	50 x 3.0							
	2"	60 x 3.0							
	2-1/2"	75 x 3.0							
	3"	90 x 3.5							
	4"	115 x 4.0							
	5"	140 x 4.5							
	6"	165 x 5.0							
	8"	220 x 6.0							
	10"	273 x 6.0							
End Style	Flat Face	LF							
	'O' Ring Face	LO							
Length	L	(mm)							
Options	Viton	V							
	Painted (Specify)	P							
	Complete Stainless Steel Assembly: (including flanges)	SS							

Note:

♦♦TMP37CD (E235+N) PIPE IS AVAILABLE IN ALL SIZES

♦TMP2205SS PIPE IS ONLY AVAILABLE UPON REQUEST

PART NO. (EXAMPLE): LPAR/37-50x3.0-150-LF-LO-6000

ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR PIPE RATINGS

SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS

3D step models available upon request

TUBE-MAC.com

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16 bar, 90° Flare

ANSI 150#, 300# Flare

SAE 1000, 70 bar

SAE 3000, 210 bar

SAE 6000, 420 bar

SAE 10000, 690 bar

ISO 6164, 400 bar

ISO 6164, 400 bar F10° Flare

Clamp Supports - Heavy Series

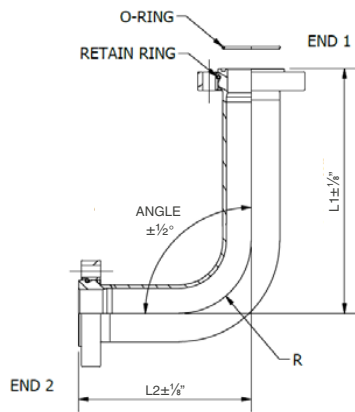
Valves, Ball and Check

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SAE 1000 PSI Retain Ring Flange Bent Pipe Assembly, NPS

SAE J518 Code 61 (ISO 6162-1)

Typical LBPARG Assembly



- Complete assembly consists of:
- One (1) length of clean pipe
 - Two (2) LP retain ring flanges
 - Two (2) LP butt weld adapters
 - Two (2) LP retain rings
 - Buna O-rings as required

Size	R1		R2		R3	
	Dimensions (in)		Dimensions (in)		Dimensions (in)	
	L(min.)	R	L(min.)	R	L(min.)	R
1-1/2"	7.50	3.80	9.25	5.70	13.50	9.50
2"	8.50	4.75	10.75	7.13	16.00	11.87
2-1/2"	9.75	5.75	12.63	8.63	18.00	14.38
3"	11.00	7.00	14.50	10.50	22.00	17.50
4"	-	-	17.50	13.50	26.50	22.50
5"	-	-	19.00	15.00	29.00	25.00
6"	-	-	22.00	18.00	34.00	30.00
8"	-	-	28.00	24.00	44.00	40.00

- Note:**
1. RADIUS R1 IS NOT AVAILABLE FOR PIPE SIZES 4" AND ABOVE.
 2. SIZES 5", 6", 8" AND 10" ARE FACTORY BENDS ONLY – CANNOT BE DONE WITH PORTABLE BENDERS

SAE 1000 PSI Retain Ring Flange Bent Pipe Assembly, NPS

SAE J518 Code 61 (ISO 6162-1)

J518 Code 61 (ISO 6162-1)

		Code	LBPART	Pipe & Cone Material	Pipe Size & Schedule	End 1	End 2	Rad.	Lgth L1	Angle	Lgth L2	Options
Bent Pipe Assembly - Flared		LBPART										
Pipe & Cone Material Carbon Steel	TMP52CD	52										
	♦♦TMP37CD	37										
Pipe & Cone Material Stainless Steel	TMP304SS	304										
	TMP316SS	316										
	♦TMP2205SS	2205										
Pipe Size & Schedule	1-1/2"	SCH40-150										
		SCH80-150										
	2"	SCH40-200										
		SCH80-200										
	2-1/2"	SCH40-250										
		SCH80-250										
	3"	SCH40-300										
		SCH80-300										
	4"	SCH40-400										
		SCH80-400										
	5"	SCH40-500										
	6"	SCH40-600										
8"	SCH40-800											
10"	N/A											
End Type	Flat Face	LF										
	'O' Ring Face	LO										
Radius	Factory Manufactured	R1										
	Factory Manufactured	R2										
	Field Manufactured	R3										
Length	L1	Specify (in)										
Angle	Max 90°	Specify (°)										
Length	L2	Specify (in)										
Options	Viton	V										
	Painted (Specify)	P										
	Complete Stainless Steel Assembly: (including flanges)	SS										

Note:

TMP52CD (E355+N) PIPE IS AVAILABLE IN 1-1/2" UP TO 3" SCHEDULE 40 SIZES AND 1-1/2" UP TO 4" SCHEDULE 80 PIPE SIZES

♦♦TMP37CD (E235+N) PIPE IS ONLY AVAILABLE IN 2-1/2" UP TO 8" SCHEDULE 40 SIZES

♦TMP2205SS PIPE IS ONLY AVAILABLE UPON REQUEST

PART NO. (EXAMPLE): LBPART/52-SCH40-150-LO-LF-R1-125-90-11

ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR PIPE RATINGS

SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS

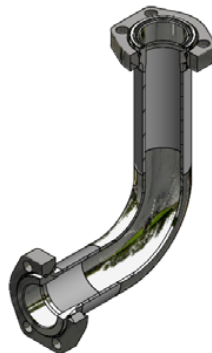
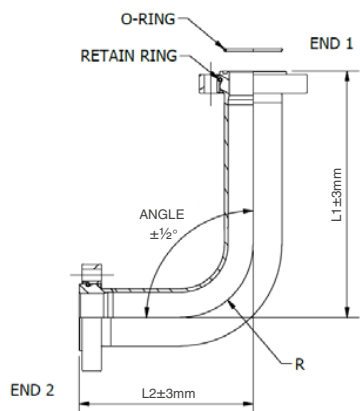
METRIC PIPE BENDING INFORMATION CONSULT FACTORY.

3D step models available upon request

SAE 1000 PSI Retain Ring Flange Bent Pipe Assembly, Metric

SAE J518 Code 61 (ISO 6162-1)

Typical LBPAR Assembly



Complete assembly consists of:

- One (1) length of clean pipe
- Two (2) lp retain ring flanges
- Two (2) LP butt weld adapters
- Two (2) LP retain rings
- Buna O-rings as required

Pipe Size	Flange Size	R1		R2		R3	
		Dimensions (mm)		Dimensions (mm)		Dimensions (mm)	
		L(min.)	R	L(min.)	R	L(min.)	R
50 x 3.0	1-1/2"	194	100	244	150	294	200
60 x 3.0	2"	215	120	275	180	335	240
75 x 3.0	2-1/2"	264	150	339	225	225	414
90 x 3.5	3"	294	180	384	270	474	360
115 x 4.0	4"	-	-	450	345	675	575
140 x 4.5	5"	-	-	530	420	800	700
165 x 5.0	6"	-	-	600	495	925	825
220 x 6.0	8"	-	-	710	610	1120	1016

Note:

1. RADIUS R1 IS NOT AVAILABLE FOR PIPE SIZES 115mm AND ABOVE.
2. SIZES 140mm, 165mm, 220mm AND 273mm ARE FACTORY BENDS ONLY – CANNOT BE DONE WITH PORTABLE BENDERS

Flare Flange Bent Pipe Assembly, Metric

SAE J518 Code 61 (ISO 6162-1)

		Code	LBPAF	Pipe & Cone Material	Pipe Size & Schedule	Cone 1	Cone 2	Rad.	Lgth L1	Angle	Lgth L2	Options
Bent Pipe Assembly - Flared		LBPAF										
Pipe & Cone Material Carbon Steel	TMP52CD	52										
	♦♦TMP37CD	37										
Pipe & Cone Material Stainless Steel	TMP304SS	304										
	TMP316SS	316										
	♦TMP2205SS	2205										
Pipe Size & Schedule	1-1/2"	50x3.0										
	2"	60x3.0										
	2-1/2"	75x3.0										
	3"	90x3.5										
	4"	115x4.0										
	5"	140x4.5										
	6"	165x5.0										
	8"	220x6.0										
	10"	N/A										
End Type	Flat Face	LF										
	'O' Ring Face	LO										
Radius	Factory Manufactured	R1										
	Factory Manufactured	R2										
	Field Manufactured	R3										
Length	L1	Specify (mm)										
Angle	Max 90°	Specify (°)										
Length	L2	Specify (mm)										
Options	Viton	V										
	Painted (Specify)	P										
	Complete Stainless Steel Assembly: (including flanges)	SS										

Note:

TMP52CD (E355+N) PIPE IS AVAILABLE IN 50mm UP TO 115mm SIZES

♦♦TMP37CD (E235+N) PIPE IS ONLY AVAILABLE IN 50mm UP TO 220mm SIZES

♦TMP2205SS PIPE IS ONLY AVAILABLE UPON REQUEST

PART NO. (EXAMPLE): LBPAF/52-50x3-CO-CF-R1-3175-90-292

ASSEMBLY WORKING PRESSURE RATINGS ARE SUBJECT TO THE LESSER OF THE FLANGE OR PIPE RATINGS

SEE REFERENCE PAGES INDICATED ABOVE FOR PRESSURE RATINGS

METRIC PIPE BENDING INFORMATION CONSULT FACTORY.

Introduction

Technical Data

Pipe Selection Guide

16 bar, 90° Flare

ANSI 150#, 300# Flare

SAE 1000, 70 bar

SAE 3000, 210 bar

SAE 6000, 420 bar

SAE 10000, 690 bar

ISO 6164, 400 bar

ISO 6164, 400 bar F10° Flare

Clamp Supports - Heavy Series

Valves, Ball and Check

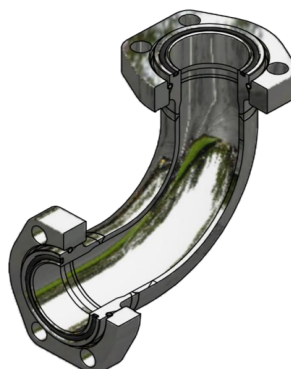
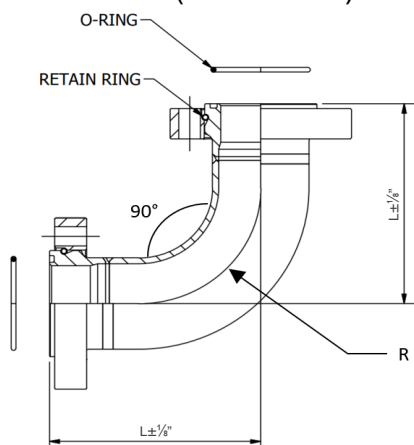
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3D step models available upon request

TUBE-MAC.com

SAE 1000 PSI Low Pressure Retain Ring Flange Elbow Complete Assembly

SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Flange Elbow
- Two (2) Retain Ring Flanges
- Two (2) Retain Rings
- Two (2) Face O-Rings

To be Ordered Separately:

- Bolt Kit

A/LRE – Low Pressure Retain Ring Flange Elbow Complete Assembly

Size	Complete Assembly Part Number	Dimensions in (mm)		O-Ring (Buna) Part Number	Assembly WT lbs (kg)	Body Only Part Number	Body Only WT lbs (kg)	Working Pressure PSI (bar)
		L	LL					
1-1/2"	A/LRE-150-FC14-*^-^	2.98 (75.7)	2.25 (57.1)	OR^-3-924	5.34 (2.43)	LRE-150-*^-^	3.10 (1.41)	1000 (70)
2"	A/LRE-200-FC14-*^-^	4.50 (114.3)	3.00 (76.2)	OR^-3-928	8.26 (3.75)	LRE-200-*^-^	4.40 (2.00)	1000 (70)
2-1/2"	A/LRE-250-FC14-*^-^	5.22 (132.5)	3.75 (95.3)	OR^-2-232	10.48 (4.76)	LRE-250-*^-^	6.06 (2.75)	1000 (70)
3"	A/LRE-300-FC14-*^-^	6.19 (157.2)	4.50 (114.3)	OR^-2-237	16.98 (7.72)	LRE-300-*^-^	9.50 (4.32)	1000 (70)
4"	A/LRE-400-FC14-*^-^	7.69 (195.3)	6.00 (152.4)	OR^-2-245	19.85 (9.02)	LRE-400-*^-^	13.24 (6.02)	1000 (70)
5"	A/LRE-500-FC14-*^-^	9.36 (237.7)	7.50 (190.5)	OR^-2-253	30.75 (13.98)	LRE-500-*^-^	22.14 (10.06)	1000 (70)
6"	A/LRE-600-FC16-*^-^	11.13 (282.7)	9.00 (228.6)	OR^-2-259	45.17 (20.53)	LRE-600-*^-^	35.37 (16.08)	725 (50)
8"	A/LRE-800-FC18-*^-^	14.44 (366.8)	12.00 (304.8)	OR^-2-372	89.20 (40.54)	LRE-800-*^-^	69.95 (31.80)	725 (50)

Flange Option:

FC14 = 1-1/2" Thru 5" SAE Code 61 (ISO 6162-1) Flange Pattern with Clearance Holes.

FC16 = 6" Round Flange with 6 Bolt Clearance Hole Pattern.

FC18 = 8" Round Flange with 8 Bolt Clearance Hole Pattern.

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

Ordering Example: A/LRE-200-FC14-SS-V

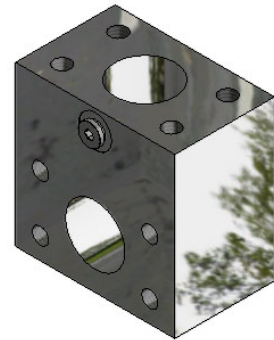
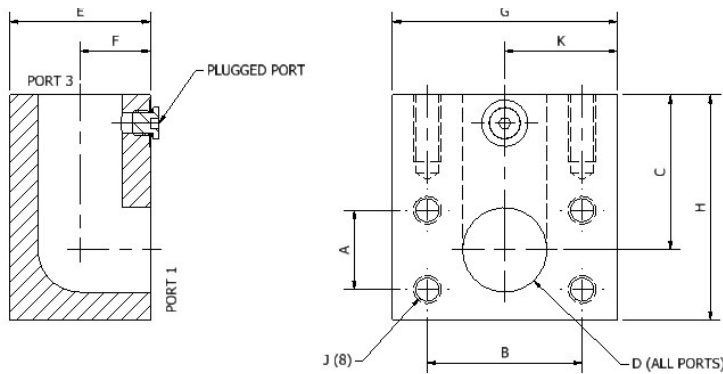
Flange Option _____

* Insert Material _____

^ Insert O-Ring Type _____

Block Elbow

Drilled to SAE J518 Code 61 (ISO 6162-1) Flange Style



BE34 - Block Elbow Flat Face with Threaded Holes Complete with #4 SAE Port (Plugged), NPS

Size	Block Elbow Part Number	Dimensions (in)									Thread UNC-2B	WT lbs (kg)	Working Pressure PSI (bar)
		A	B	C	D	E	F	G	H	K			
1-1/2"	BE34-150-*	1.41	2.75	2.75	1.50	2.50	1.25	4.00	4.00	2.00	1/2"-13	8.60 (3.90)	4000 (280)
2"	BE34-200-*	1.69	3.06	3.00	1.94	3.00	1.50	4.00	4.50	2.00	1/2"-13	10.60 (4.81)	4000 (280)
2-1/2"	BE34-250-*	2.00	3.50	3.25	2.38	3.50	1.75	5.00	5.00	2.50	1/2"-13	17.40 (7.89)	3000 (210)
3"	BE34-300-*	2.44	4.19	3.75	2.88	4.00	2.00	5.50	6.00	2.75	5/8"-11	25.60 (11.61)	3000 (210)
4"	BE34-400-*	3.06	5.13	4.13	2.88	6.00	3.00	5.50	7.00	3.25	5/8"-11	51.40 (23.30)	1000 (70)

Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

Ordering Example: BE34-200-SS

* Insert Material

Note:

The working pressure is dependent upon the flange and pipe selected.

BEM34 - Block Elbow Flat Face with Threaded Holes Complete with G1/8 Port (Plugged), Metric

Size	Block Elbow Part Number	Dimensions (mm)									Thread	WT lbs (kg)	Working Pressure PSI (bar)
		A	B	C	D	E	F	G	H	K			
1-1/2"	BEM34-150-*	35.8	69.9	69.9	38.1	63.5	31.8	101.6	101.6	50.8	M12 x 1.75	8.60 (3.90)	4000 (280)
2"	BEM34-200-*	42.9	77.7	76.2	49.3	76.2	38.1	101.6	114.3	50.8	M12 x 1.75	10.60 (4.81)	4000 (280)
2-1/2"	BEM34-250-*	50.8	88.9	82.6	60.5	88.9	44.5	127.0	127.0	63.5	M12 x 1.75	17.40 (7.89)	3000 (210)
3"	BEM34-300-*	62.0	106.4	95.3	73.2	101.6	50.8	139.70	152.4	69.9	M16 x 2.00	25.60 (11.61)	3000 (210)
4"	BEM34-400-*	77.7	130.0	104.9	101.6	152.4	76.2	165.1	177.8	82.5	M16 x 2.00	51.40 (23.30)	1000 (70)

Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

Ordering Example: BEM34-200-SS

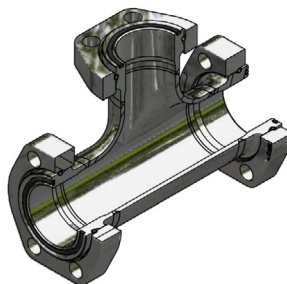
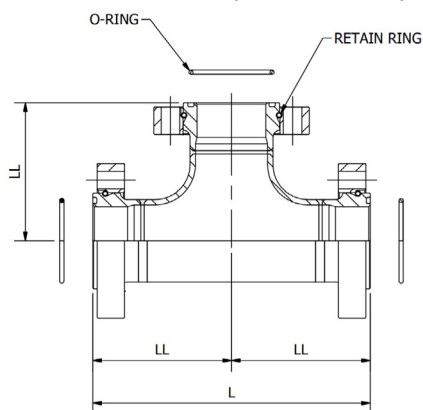
* Insert Material

Note:

The working pressure is dependent upon the flange and pipe selected.

SAE 1000 PSI Low Pressure Retain Ring Flange Tee Complete Assembly

SAE J518 Code 61 (ISO 6162-1)



Complete Flange Set Includes:

- One (1) Flange Tee
- Three (3) Retain Ring Flanges
- Three (3) Retain Rings
- Three (3) Face O-Rings

To be Ordered Separately:

- Bolt Kit

A/LRT - Retain Ring Flange Tee Complete Assembly Complete with Buna O-Ring

Size	Complete Assembly Part Number	Dimensions in (mm)		O-Ring (Buna) Part Number	Assembly WT lbs (kg)	Body Only Part Number	Body Only WT lbs (kg)	Working Pressure PSI (bar)
		L	LL					
1-1/2"	A/LRT-150-FC14-*-*^	7.44 (189.0)	3.72 (94.5)	OR^~3-924	8.30 (3.77)	LRT-150-*-*^	4.90 (2.23)	1000 (70)
2"	A/LRT-200-FC14-*-*^	7.94 (201.7)	4.00 (101.6)	OR^~3-928	13.70 (12.05)	LRT-200-*-*^	7.10 (3.23)	1000 (70)
2-1/2"	A/LRT-250-FC14-*-*^	8.95 (227.3)	4.47 (113.5)	OR^~2-232	16.77 (7.63)	LRT-250-*-*^	9.06 (4.12)	1000 (70)
3"	A/LRT-300-FC14-*-*^	10.10 (256.5)	5.05 (128.3)	OR^~2-237	22.95 (10.45)	LRT-300-*-*^	11.28 (5.13)	1000 (70)
4"	A/LRT-400-FC14-*-*^	11.60 (294.6)	5.80 (147.3)	OR^~2-245	44.79 (20.36)	LRT-400-*-*^	18.63 (8.47)	1000 (70)
5"	A/LRT-500-FC14-*-*^	13.48 (342.4)	6.74 (171.2)	OR^~2-253	60.96 (27.71)	LRT-500-*-*^	30.96 (14.07)	1000 (70)
6"	A/LRT-600-FC16-*-*^	15.44 (392.2)	7.75 (195.8)	OR^~2-260	82.44 (37.47)	LRT-600-*-*^	50.31 (22.87)	725 (50)
8"	A/LRT-800-FC18-*-*^	18.91 (480.3)	9.45 (240.0)	OR^~2-372	156.33 (71.06)	LRT-800-*-*^	84.93 (38.60)	725 (50)

Note:

FC16=Round 6-bolt flange and FC18=Round 8-bolt flange

Flange Options:

FC14 = SAE Code 61 (ISO 6162-1) Clearance Flange

FT14 = SAE Code 61 (ISO 6162-1) UNC Threaded Flange

FTM14 = SAE Code 61 (ISO 6162-1) Metric Threaded Flange

Materials:

No Designation = All Carbon Steel, Zinc Nickel Plated.

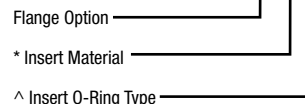
SS = Stainless Steel, Type 316.

O-Ring Type:

No Designation = Buna Nitrile.

V = Viton.

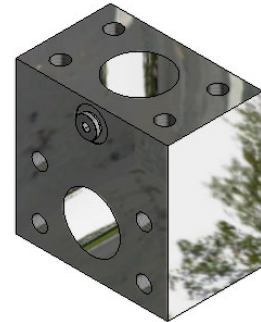
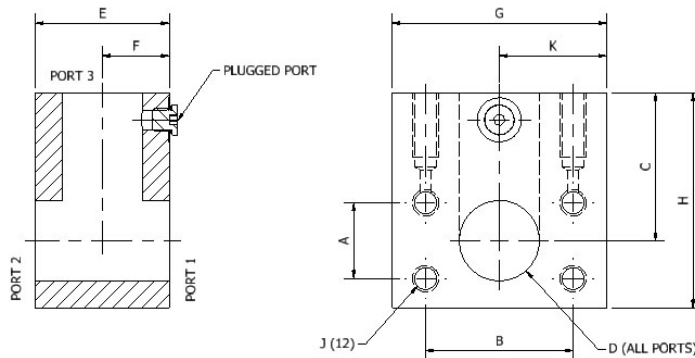
Ordering Example: A/LRT-200-FC14-SS-V



3D step models available upon request

Block Tee

Drilled to SAE J518 Code 61 (ISO 6162-1) Flange Style



BT34 - Block Tee Flat Face with Threaded Holes Complete with #4 SAE Port (Plugged), NPS

Size	Block Tee Part No	Dimensions (in)									Thread UNC-2B	WT lbs (kg)	Working Pressure PSI (bar)
		A	B	C	D	E	F	G	H	K			
1-1/2"	BT34-150-*	1.41	2.75	2.75	1.50	2.50	1.25	4.00	4.00	2.00	1/2"-13	8.20 (3.72)	4000 (280)
2"	BT34-200-*	1.69	3.06	3.00	1.94	3.00	1.50	4.00	4.50	2.00	1/2"-13	10.00 (4.54)	4000 (280)
2-1/2"	BT34-250-*	2.00	3.50	3.25	2.38	3.50	1.75	5.00	5.00	2.50	1/2"-13	16.30 (7.39)	3000 (210)
3"	BT34-300-*	2.44	4.19	3.75	2.88	4.00	2.00	5.50	6.00	2.75	5/8"-11	23.70 (10.75)	3000 (210)
4"	BT34-400-*	3.06	5.13	4.13	4.00	6.00	3.00	6.50	7.00	3.25	5/8"-11	45.80 (20.60)	1000 (70)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

Ordering Example: BT34-200-SS

* Insert Material

Note:

The working pressure is dependent upon the flange and pipe selected.

BTM34 - Block Tee Flat Face with Threaded Holes Complete with G1/8 Port (Plugged), Metric

Size (inch)	Block Tee Part No	Dimensions (mm)									Thread	WT lbs (kg)	Working Pressure PSI (bar)
		A	B	C	D	E	F	G	H	K			
1-1/2"	BTM34-150-*	35.8	69.9	69.9	38.1	63.5	31.8	101.6	101.6	50.8	M12 x 1.75	8.20 (3.72)	4000 (280)
2"	BTM34-200-*	42.9	77.7	76.2	49.3	76.2	38.1	101.6	114.3	50.8	M12 x 1.75	10.00 (4.54)	4000 (280)
2-1/2"	BTM34-250-*	50.8	88.9	82.6	60.5	88.9	44.5	127.0	127.0	63.5	M12 x 1.75	16.30 (7.39)	3000 (210)
3"	BTM34-300-*	62.0	106.4	95.3	73.2	101.6	50.8	139.7	152.4	69.9	M16 x 2.00	23.70 (10.75)	3000 (210)
4"	BTM34-400-*	77.7	130.3	104.9	101.6	152.4	76.2	165.1	177.8	82.5	M16 x 2.00	45.80 (20.60)	1000 (70)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

Ordering Example: BTM34-200-SS

* Insert Material

Note:

The working pressure is dependent upon the flange and pipe selected.

3D step models available upon request

TUBE-MAC.com

Introduction

Technical Data

Pipe Selection Guide

16 bar, 90° Flare

ANSI 150#, 300# Flare

SAE 1000, 70 bar

SAE 3000, 210 bar

SAE 6000, 420 bar

SAE 10000, 690 bar

ISO 6164, 400 bar

ISO 6164, 400 bar F10° Flare

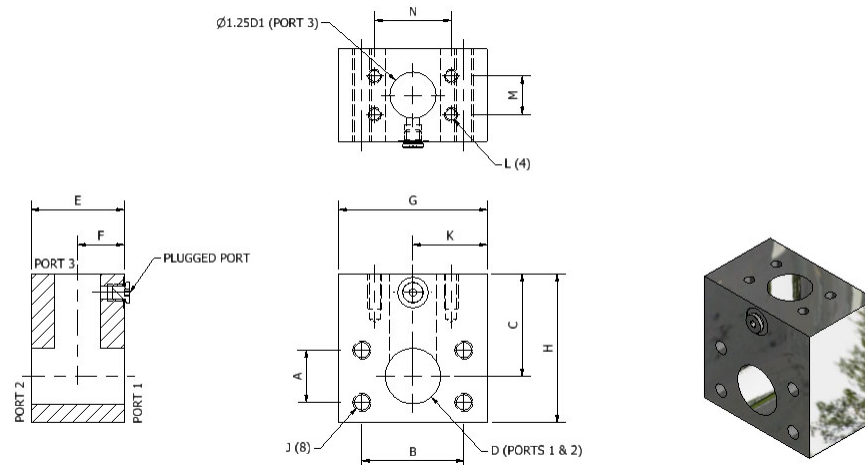
Clamp Supports - Heavy Series

Valves, Ball and Check

F40

Reducing Branch Block Tee

Drilled to SAE J518 Code 61 (ISO 6162-1) Flange Style



BTR34 - Reducing Branch Block Tee Flat Face with Threaded Holes Complete with #4 SAE Port (Plugged), NPS

Size (run x branch)	Tee Part Number	Dimensions (in)												Thread 1 UNC-2B	Thread 2 UNC-2B	WT lbs (kg)	Working Pressure PSI (bar)
		A	B	C	D	D1	E	F	G	H	K	M	N				
2"x1-1/2"	BTR34-200x150-*	1.69	3.06	3.00	1.94	1.50	3.00	1.50	4.00	4.50	2.00	1.41	2.75	1/2"-13	1/2"-13	11.60 (5.26)	4000 (280)
2-1/2"x1/2"	BTR34-250x050-*	2.00	3.50	3.25	2.38	0.50	3.50	1.75	5.00	5.00	2.50	0.69	1.50	1/2"-13	5/16"-18	19.40 (8.80)	3000 (210)
2-1/2"x1-1/2"	BTR34-250x150-*	2.00	3.50	3.25	2.38	1.50	3.50	1.75	5.00	5.00	2.50	1.41	2.75	1/2"-13	1/2"-13	18.30 (8.30)	3000 (210)
2-1/2"x2"	BTR34-250x200-*	2.00	3.50	3.25	2.38	1.94	3.50	1.75	5.00	5.00	2.50	1.69	3.06	1/2"-13	1/2"-13	17.56 (7.97)	3000 (210)
3"x1-1/2"	BTR34-300x150-*	2.44	4.19	3.75	2.88	1.50	4.00	2.00	5.50	6.00	2.75	1.41	2.75	5/8"-11	1/2"-13	27.67 (12.55)	3000 (210)
3"x2"	BTR34-300x200-*	2.44	4.19	3.75	2.88	1.94	4.00	2.00	5.50	6.00	2.75	1.69	3.06	5/8"-11	1/2"-13	26.87 (12.19)	3000 (210)
3"x2-1/2"	BTR34-300x250-*	2.44	4.19	3.75	2.88	2.38	4.00	2.00	5.50	6.00	2.75	2.00	3.50	5/8"-11	1/2"-13	25.30 (11.48)	3000 (210)
4"x1-1/2"	BTR34-400x150-*	3.06	5.13	3.75	4.00	1.50	3.50	1.75	6.50	7.00	3.25	1.41	2.75	5/8"-11	1/2"-13	29.20 (13.25)	1000 (70)
2"x2"	BTR34-400x200-*	3.06	5.13	3.75	4.00	1.94	6.00	3.00	6.50	7.00	3.25	1.69	3.06	5/8"-11	1/2"-13	52.60 (23.85)	1000 (70)
4"x2-1/2"	BTR34-400x250-*	3.06	5.13	3.75	4.00	2.38	6.00	3.00	6.50	7.00	3.25	2.00	3.50	5/8"-11	1/2"-13	51.80 (23.50)	1000 (70)
4"x3"	BTR34-400x300-*	3.06	5.13	3.75	4.00	2.88	6.00	3.00	6.50	7.00	3.25	2.44	2.44	5/8"-11	5/8"-11	50.40 (22.91)	1000 (70)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

Ordering Example: BTR34-200x050-SS

* Insert Material

BTRM34 - Reducing Branch Block Tee Flat Face with Threaded Holes Complete with G1/8 Port (Plugged), Metric

Size (run x branch)	Block Tee Part Number	Dimensions (mm)												Thread 1	Thread 2	WT lbs (kg)	Working Pressure PSI (bar)
		A	B	C	D	D1	E	F	G	H	K	M	N				
2"x1-1/2"	BTRM34-200x150-*	42.9	77.7	76.2	49.3	38.1	76.2	38.1	101.6	114.3	50.8	35.8	69.9	M12 X 1.75	M12 X 1.75	11.60 (5.26)	4000 (280)
2-1/2"x1-1/2"	BTRM34-250x150-*	50.8	88.9	82.6	60.5	38.1	88.9	44.5	127.0	127.0	63.5	35.8	69.9	M12 X 1.75	M12 X 1.75	18.30 (8.30)	3000 (210)
2-1/2"x2"	BTRM34-250x200-*	50.8	88.9	82.6	60.5	49.3	88.9	44.5	127.0	127.0	63.5	42.9	77.7	M12 X 1.75	M12 X 1.75	17.56 (7.97)	3000 (210)
3"x1-1/2"	BTRM34-300x150-*	62.0	106.4	95.3	73.2	38.1	101.6	50.8	139.7	152.4	69.9	35.8	69.9	M16 X 2.00	M12 X 1.75	27.67 (12.55)	3000 (210)
3"x2"	BTRM34-300x200-*	62.0	106.4	95.3	73.2	49.3	101.6	50.8	139.7	152.4	69.9	42.9	77.7	M16 X 2.00	M12 X 1.75	26.87 (12.19)	3000 (210)
3"x2-1/2"	BTRM34-300x250-*	62.0	106.4	95.3	73.2	60.5	101.6	50.8	139.7	152.4	69.9	50.8	88.9	M16 X 2.00	M12 X 1.75	25.30 (11.48)	3000 (210)
4"x1-1/2"	BTRM34-400x150-*	77.7	130.3	105.0	101.6	38.1	88.9	44.4	165.1	177.8	82.5	35.8	69.9	M12 X 2.00	M12 X 1.75	29.20 (13.25)	1000 (70)
4"x2"	BTRM34-400x200-*	77.7	130.3	105.0	101.6	49.3	152.4	76.2	165.1	177.8	82.5	43.0	77.7	M16 X 2.00	M12 X 1.75	52.60 (23.85)	1000 (70)
4"x2-1/2"	BTRM34-400x250-*	77.7	130.3	105.0	101.6	60.5	152.4	76.2	165.1	177.8	82.5	50.8	88.9	M16 X 2.00	M12 X 1.75	51.80 (23.50)	1000 (70)
4"x3"	BTRM34-400x300-*	77.7	130.3	105.0	101.6	73.2	152.4	76.2	165.1	177.8	82.5	62.0	106.4	M16 X 2.00	M16 X 2.00	50.40 (22.91)	1000 (70)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.
SS = Stainless Steel, Type 316.

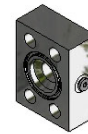
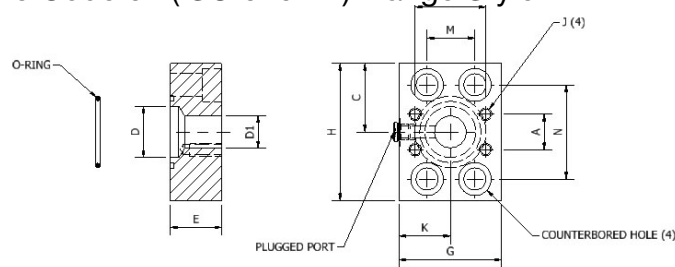
Ordering Example: BTRM34-200x050-SS

* Insert Material

3D step models available upon request

Transition Plate Reducer with O-Ring Face and Countersunk Holes

Drilled to SAE J518 Code 61 (ISO 6162-1) Flange Style



Note:

5" Transition plate is round.

Larger sizes available upon request

TPRO34 – Transition Plate Reducer with O-Ring Face, Countersunk Holes and #4 SAE Port (Plugged), NPS

Size	Reducer Part Number	Dimensions (in)											C'T Bore Bolt	J Thread UNC-2B	O-Ring (Buna) Part Number	WT lbs (kg)	Working Pressure PSI (bar)
		A	B	C	D	D1	E	G	H	K	M	N					
2" x 1-1/2"	TPRO34-200x150-*^	1.41	2.75	2.00	1.94	1.50	1.75	4.00	4.00	2.00	1.69	3.06	1/2"-13	1/2"-13	OR^2-228	5.90 (2.68)	4000 (280)
2-1/2" x 1-1/2"	TPRO34-250x150-*^	1.41	2.75	2.50	2.38	1.50	2.00	4.00	5.00	2.00	2.00	3.50	1/2"-13	1/2"-13	OR^2-232	8.80 (3.99)	4000 (280)
2-1/2" x 2"	TPRO34-250x200-*^	1.69	3.06	2.50	2.38	1.94	1.75	4.00	5.00	2.00	2.00	3.50	1/2"-13	1/2"-13	OR^2-232	7.30 (3.31)	4000 (280)
3" x 2"	TPRO34-300x200-*^	1.69	3.06	3.00	2.88	1.94	2.00	4.00	6.00	2.00	2.44	4.19	5/8"-11	1/2"-13	OR^2-237	9.80 (4.45)	4000 (280)
3" x 2-1/2"	TPRO34-300x250-*^	2.00	3.50	3.00	2.88	2.38	1.75	4.50	6.00	2.25	2.44	4.19	5/8"-11	1/2"-13	OR^2-237	9.50 (4.31)	3000 (210)
4" x 1-1/2"	TPRO34-400x150-*^	1.41	2.75	3.50	4.00	1.50	2.75	6.00	7.00	3.00	3.06	5.13	5/8"-11	1/2"-13	OR^2-245	30.30 (13.77)	1000 (70)
4" x 2"	TPRO34-400x200-*^	1.69	3.06	3.50	4.00	1.94	2.75	6.00	7.00	3.00	3.06	5.13	5/8"-11	1/2"-13	OR^2-245	26.50 (12.02)	1000 (70)
4" x 2-1/2"	TPRO34-400x250-*^	2.00	3.50	3.50	4.00	2.38	2.75	6.00	7.00	3.00	3.06	5.13	5/8"-11	1/2"-13	OR^2-245	25.40 (11.50)	1000 (70)
4" x 3"	TPRO34-400x300-*^	2.44	4.19	3.50	4.00	2.88	2.75	6.00	7.00	3.00	3.06	5.13	5/8"-11	5/8"-11	OR^2-245	24.00 (10.90)	1000 (70)
5" x 4"	TPRO34-500x400-*^	3.06	5.13	4.13	5.00	4.00	2.00	8.25 dia.	4.13	3.63	6.00		5/8"-11	5/8"-11	OR^2-253	20.40 (9.25)	1000 (70)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

Ordering Example: TPRO34-200x150-SS-V

* Insert Material

^ Insert O-Ring Type

TPROM34 – Transition Plate Reducer with O-Ring Face, Countersunk Holes and G1/8 Port (Plugged), Metric

Size	Reducer Part Number	Dimensions (in)											C'T Bore Bolt	J Thread	O-Ring (Buna) Part Number	WT lbs (kg)	Working Pressure PSI (bar)
		A	B	C	D	D1	E	G	H	K	M	N					
2" x 1-1/2"	TPROM34-200x150-*^	35.8	69.9	50.8	49.3	38.1	44.5	101.6	101.6	50.8	42.9	77.7	M12x1.75	M12x1.75	OR^2-228	5.90 (2.68)	4000 (280)
2-1/2" x 1-1/2"	TPROM34-250x150-*^	35.8	69.9	63.5	60.5	38.1	50.8	101.6	127.0	50.8	50.8	88.9	M12x1.75	M12x1.75	OR^2-232	8.80 (3.99)	4000 (280)
2-1/2" x 2"	TPROM34-250x200-*^	42.9	77.7	63.5	60.5	49.3	44.5	101.6	127.0	50.8	50.8	88.9	M12x1.75	M12x1.75	OR^2-232	7.30 (3.31)	4000 (280)
3" x 2"	TPROM34-300x200-*^	42.9	77.78	76.2	73.2	49.3	50.8	101.6	152.4	50.8	62.0	106.4	M16x2.00	M12x1.75	OR^2-237	9.80 (4.45)	4000 (280)
3" x 2-1/2"	TPROM34-300x250-*^	50.8	88.9	76.2	73.2	60.5	44.5	114.3	152.4	57.2	62.0	106.4	M16x2.00	M12x1.75	OR^2-237	9.50 (4.31)	3000 (210)
4" x 1-1/2"	TPROM34-400x150-*^	35.8	69.9	88.9	101.6	38.1	69.9	152.4	177.8	76.2	77.7	130.3	M16x2.00	M12x1.75	OR^2-245	30.30 (13.77)	1000 (70)
4" x 2"	TPROM34-400x200-*^	42.9	77.7	88.9	101.6	49.3	69.9	152.4	177.8	76.2	77.7	130.3	M16x2.00	M12x1.75	OR^2-245	26.50 (12.02)	1000 (70)
4" x 2-1/2"	TPROM34-400x250-*^	50.8	88.9	88.9	101.6	60.5	69.9	152.4	177.8	76.2	77.7	130.3	M16x2.00	M12x1.75	OR^2-245	25.40 (11.50)	1000 (70)
4" x 3"	TPROM34-400x300-*^	62.0	106.4	88.9	101.6	73.2	69.9	152.4	177.8	76.2	77.7	130.3	M16x2.00	M16x2.00	OR^2-245	24.00 (10.90)	1000 (70)
5" x 4"	TPROM34-500x400-*^	77.7	130.3	104.9	127.0	101.6	50.8	209.5 dia.	104.9	92.2	152.4		M16x2.00	M16x2.00	OR^2-253	20.40 (9.25)	1000 (70)

* Materials:

Standard, No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

Ordering Example: TPROM34-200x150-SS-V

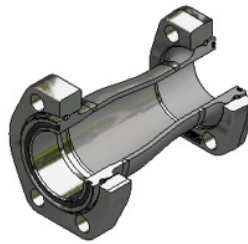
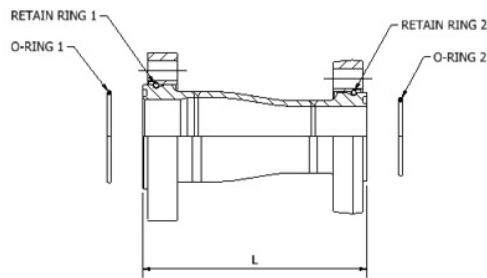
* Insert Material

^ Insert O-Ring Type

3D step models available upon request

SAE 1000 PSI Low Pressure Retain Ring Flange Reducer Complete Assembly

SAE J518 Code 61 (ISO 6162-1)



Complete Assembly Consists Of:

- One (1) Concentric Reducer Body
- Two (2) Retain Ring Flanges
- Two (2) Retain Ring
- Two (2) Buna O-Rings (Standard)

To be Ordered Separately:

- Bolt Kit

SAE 1000 PSI Low Pressure Retain Ring Flange Reducer

Size	Complete Assembly Part Number	Dimensions in (mm)	O-Ring 1 (Buna) Part Number	O-Ring 2 (Buna) Part Number	Assembly WT lbs (kg)	Body Only Part Number	Body Only WT lbs (kg)	Working Pressure PSI (bar)
		L						
2" x 1-1/2"	A/LRR-200x150-FC14-FC14-*-*^	5.94 (150.9)	OR^2-228	OR^2-225	5.29 (2.4)	LRR-200x150-*-*^	2.24 (1.0)	4000 (280)
2-1/2" x 1-1/2"	A/LRR-250x150-FC14-FC14-*-*^	6.44 (163.6)	OR^2-232	OR^2-225	6.16 (2.8)	LRR-250x100-*-*^	2.83 (1.3)	3000 (210)
2-1/2" x 2"	A/LRR-250x200-FC14-FC14-*-*^	6.44 (163.6)	OR^2-232	OR^2-228	7.38 (3.4)	LRR-250x200-*-*^	3.24 (1.5)	3000 (210)
3" x 2"	A/LRR-300x200-FC14-FC14-*-*^	6.64 (168.7)	OR^2-237	OR^2-228	9.83 (4.5)	LRR-300x200-*-*^	4.01 (1.8)	3000 (210)
3" x 2-1/2"	A/LRR-300x250-FC14-FC14-*-*^	6.64 (168.7)	OR^2-237	OR^2-232	10.41 (4.7)	LRR-300x250-*-*^	4.45 (2.0)	3000 (210)
4" x 2-1/2"	A/LRR-400x250-FC14-FC14-*-*^	7.14 (181.4)	OR^2-245	OR^2-232	13.23 (6.0)	LRR-400x250-*-*^	6.39 (2.9)	1000 (70)
4" x 3"	A/LRR-400x300-FC14-FC14-*-*^	7.35 (186.7)	OR^2-245	OR^2-237	17.34 (7.9)	LRR-400x300-*-*^	6.93 (3.2)	1000 (70)
5" x 3"	A/LRR-500x300-FC14-FC14-*-*^	8.54 (216.9)	OR^2-253	OR^2-237	22.65 (10.3)	LRR-500x300-*-*^	10.25 (4.7)	1000 (70)
5" x 4"	A/LRR-500x400-FC14-FC14-*-*^	8.54 (216.9)	OR^2-253	OR^2-245	26.66 (12.1)	LRR-500x400-*-*^	11.44 (5.2)	1000 (70)
6" x 4"	A/LRR-600x400-FC16-FC14-*-*^	9.24 (234.7)	OR^2-259	OR^2-245	32.22 (14.6)	LRR-600x400-*-*^	15.81 (7.2)	725 (50)
6" x 5"	A/LRR-600x500-FC16-FC14-*-*^	9.43 (239.5)	OR^2-259	OR^2-253	35.66 (16.2)	LRR-600x500-*-*^	17.26 (7.9)	725 (50)
8" x 5"	A/LRR-800x500-FC18-FC14-*-*^	10.32 (262.1)	OR^2-372	OR^2-253	53.16 (24.2)	LRR-800x500-*-*^	25.30 (11.5)	725 (50)
8" x 6"	A/LRR-800x600-FC18-FC16-*-*^	10.52 (267.2)	OR^2-372	OR^2-259	57.71 (26.2)	LRR-800x600-*-*^	28.66 (13.0)	725 (50)

Flange Options:

1-1/2" thru 5", RFC14 = SAE Code 61 (ISO 6162-1) Flange Pattern with clearance holes.

6", RFC16 = Round 6-bolt Flange Pattern with clearance holes.

8", RFC18 = Round 8-bolt Flange Pattern with clearance holes.

Materials

No Designation = All Carbon Steel, Zinc Nickel Plated.

SS = Stainless Steel, Type 316.

O-Ring Type:

No Designation = Buna Nitrile.

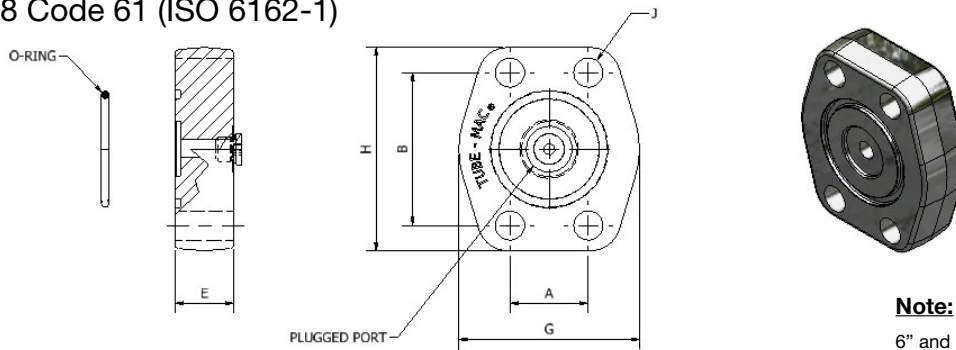
V = Viton.

Ordering Example: A/LRR-200x150-FC14-FC14-SS-V



SAE 1000 PSI Low Pressure Blanking Flange O-Ring Face with Clearance Holes

SAE J518 Code 61 (ISO 6162-1)



Note:

6" and 8" Blanking Flanges are Round

BF014, BF016, BF018 – Blanking Flange O-Ring Face, Clearance Holes and #4 SAE Port (Plugged), NPS

Size	Blanking Flange Part Number	Dimensions (in)					Bolt Size J	O-Ring (Buna) Part Number	Working Pressure PSI (bar)	WT lbs (kg)
		A	B	G	H	E				
1-1/2"	BF014-150-*^	1.41	2.75	3.25	3.66	0.79	1/2" – 13 UNC	OR^~2-225	4000 (280)	2.1 (0.9)
2"	BF014-200-*^	1.69	3.06	3.81	4.02	0.79	1/2" – 13 UNC	OR^~2-228	4000 (280)	2.6 (1.2)
2-1/2"	BF014-250-*^	2.00	3.50	4.28	4.49	0.79	1/2" – 13 UNC	OR^~2-232	3000 (210)	3.4 (1.6)
3"	BF014-300-*^	2.44	4.19	5.16	5.28	1.00	5/8" – 11 UNC	OR^~2-237	3000 (210)	6.0 (2.7)
4"	BF014-400-*^	3.06	5.13	6.00	6.38	1.18	5/8" – 11 UNC	OR^~2-245	1000 (70)	10.4 (4.7)
5"	BF014-500-*^	3.63	6.00	7.09	7.24	1.57	5/8" – 11 UNC	OR^~2-253	1000 (70)	18.9 (8.5)
6"	BF016-600-*^	8.19	-	9.29	-	1.57	5/8" – 11 UNC	OR^~2-259	725 (50)	25.2 (11.5)
8"	BF018-800-*^	10.83	-	12.48	-	1.57	3/4" – 10 UNC	OR^~2-372	725 (50)	51.2 (23.3)

* Materials:

Standard, No Designation = Carbon Steel, Zinc Nickel Plated

HDG = Carbon Steel, Hot Dip Galvanized.

SS = Stainless Steel, Type 316.

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

Ordering Example: BF014-200-SS-V*

Insert Material

^ Insert O-Ring 2 Type

BF0M14, BF0M16, BF0M18 – Blanking Flange O-Ring Face, Clearance Holes and G1/8 Port (Plugged), Metric

Size	Blanking Flange Part Number	Dimensions (mm)					Bolt Size J	O-Ring (Buna) Part Number	Working Pressure PSI (bar)	WT lbs (kg)
		A	B	G	H	E				
1-1/2"	BF0M14-150-*^	35.8	69.9	82.6	93.0	20	M12 x 1.75	OR^~2-225	4000 (280)	2.1 (0.9)
2"	BF0M14-200-*^	42.9	77.7	96.8	102.1	20	M12 x 1.75	OR^~2-228	4000 (280)	2.6 (1.2)
2-1/2"	BF0M14-250-*^	50.8	88.9	108.7	114.0	20	M12 x 1.75	OR^~2-232	3000 (210)	3.4 (1.6)
3"	BF0M14-300-*^	62.0	106.4	131.1	134.1	25	M16 x 2.00	OR^~2-237	3000 (210)	6.0 (2.7)
4"	BF0M14-400-*^	77.7	130.3	152.4	162.1	30	M16 x 2.00	OR^~2-245	1000 (70)	10.4 (4.7)
5"	BF0M14-500-*^	92.2	152.4	180.0	184.0	40	M16 x 2.00	OR^~2-253	1000 (70)	18.9 (8.5)
6"	BF0M16-600-*^	208.0	-	236.0	-	40	M16 x 2.00	OR^~2-259	725 (50)	25.2 (11.5)
8"	BF0M18-800-*^	275.0	-	317.0	-	40	M20 x 2.50	OR^~2-372	725 (50)	51.2 (23.3)

* Materials:

Standard, No Designation = Carbon Steel, Zinc Nickel Plated

HDG = Carbon Steel, Hot Dip Galvanized.

SS = Stainless Steel, Type 316.

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

Ordering Example: BF0M14-200-SS-V*

Insert Material

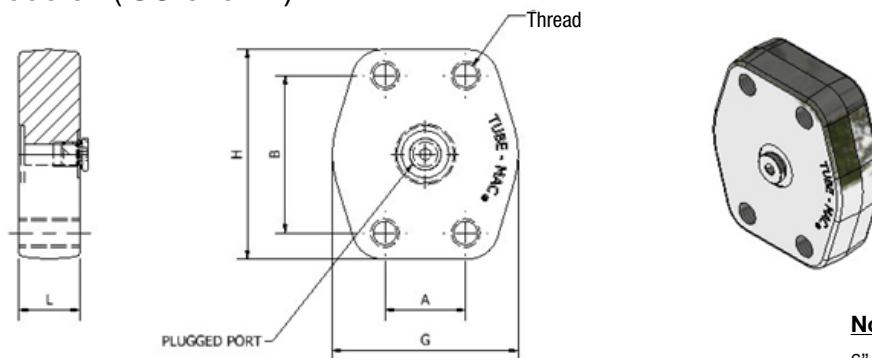
^ Insert O-Ring 2 Type

3D step models available upon request

SAE 1000 PSI Low Pressure Blanking Flange

Flat Face with Threaded Holes

SAE J518 Code 61 (ISO 6162-1)



Note:

6" and 8" Blanking Flanges are Round

BFF14, BFF16, BFF18 – Blanking Flange Flat Face, Threaded Holes and #4 SAE Port (Plugged), NPS

Size	Blanking Flange Part Number	Dimensions (in)					Thread	Working Pressure PSI (bar)	WT lbs (kg)
		A	B	G	H	E			
1-1/2"	BFF14-150-*^	1.41	2.75	3.25	3.66	0.79	1/2" – 13 UNC	4000 (280)	2.1 (0.9)
2"	BFF14-200-*^	1.69	3.06	3.81	4.02	0.79	1/2" – 13 UNC	4000 (280)	2.7 (1.2)
2-1/2"	BFF14-250-*^	2.00	3.50	4.28	4.49	0.79	1/2" – 13 UNC	3000 (210)	3.5 (1.6)
3"	BFF14-300-*^	2.44	4.19	5.16	5.28	1.00	5/8" – 11 UNC	3000 (210)	6.2 (2.8)
4"	BFF14-400-*^	3.06	5.13	6.00	6.38	1.18	5/8" – 11 UNC	1000 (70)	10.4 (4.7)
5"	BFF14-500-*^	3.63	6.00	7.09	7.24	1.57	5/8" – 11 UNC	1000 (70)	19.0 (8.6)
6"	BFF16-600-*^	8.19	-	9.29	-	1.57	5/8" – 11 UNC	725 (50)	25.9 (11.7)
8"	BFF18-800-*^	10.83	-	12.48	-	1.57	3/4" – 10 UNC	725 (50)	52.2 (23.7)

* Materials:

Standard, No Designation = Carbon Steel, Zinc Nickel Plated
 HDG = Carbon Steel, Hot Dip Galvanized.
 SS = Stainless Steel, Type 316.

Ordering Example: BFF14-200-SS-V

* Insert Material

^ Insert O-Ring Type

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.
 V = Viton.

BFFM14, BFFM16, BFFM18 – Blanking Flange Flat Face, Threaded Holes and G1/8 Port (Plugged), Metric

Size	Blanking Flange Part Number	Dimensions (mm)					Thread	Working Pressure PSI (bar)	WT lbs (kg)
		A	B	G	H	E			
1-1/2"	BFFM14-150-*^	35.8	69.9	82.6	93.0	20	M12 x 1.75	4000 (280)	2.1 (0.9)
2"	BFFM14-200-*^	42.9	77.7	96.8	102.1	20	M12 x 1.75	4000 (280)	2.7 (1.2)
2-1/2"	BFFM14-250-*^	50.8	88.9	108.7	114.0	20	M12 x 1.75	3000 (210)	3.5 (1.6)
3"	BFFM14-300-*^	62.0	106.4	131.1	134.1	25	M16 x 2.00	3000 (210)	6.2 (2.8)
4"	BFFM14-400-*^	77.7	130.3	152.4	162.1	30	M16 x 2.00	1000 (70)	10.4 (4.7)
5"	BFFM14-500-*^	92.2	152.4	180.0	184.0	40	M16 x 2.00	1000 (70)	19.0 (8.6)
6"	BFFM16-600-*^	208.0	-	236.0	-	40	M16 x 2.00	725 (50)	25.9 (11.7)
8"	BFFM18-800-*^	275.0	-	317.0	-	40	M20 x 2.50	725 (50)	52.2 (23.7)

* Materials:

Standard, No Designation = Carbon Steel, Zinc Nickel Plated
 HDG = Carbon Steel, Hot Dip Galvanized.
 SS = Stainless Steel, Type 316.

Ordering Example: BFFM14-200-SS-V

* Insert Material

^ Insert O-Ring Type

^ O-Ring Type:

Standard, No Designation = Buna Nitrile.
 V = Viton.

3D step models available upon request

Notes

Technical
Data

Pipe Selection Guide

16 bar,
90° FlareANSI 150#,
300# Flare

SAE 1000,
70 bar

SAE 3000,
210 bar

SAE 6000,
420 bar

SAE 10000,
690 bar

ISO 6164,
400 bar

ISO 6164,
400 bar
F10° Flare

Clamp Supports - Heavy Series

Valves, Ball and Check

F46