

SAE 1000 PSI Reference Guide

					
Flare Flange Dimensions	Flare Flange Clearance Holes NPS FFC14-FFC34- FFC16-FFC18	Flare Flange Clearance Holes Metric FFCM14-FFCM34 FFCM16-FFCM18	Flare Flange Set O-Ring Face Cone Clearance Holes NPS	Flare Flange Set O-Ring Face Cone Clearance Holes Metric	Flare Flange Set Flat Face Cone Clearance Holes NPS
					
Flare Flange Set Flat Face Cone Clearance Holes Metric	Flare Flange Set Double Cone Clearance Holes NPS	Flare Flange Set Double Cone Clearance Holes Metric FFCM64-CD	Flare Flange Cone Inserts NPS CO, CD	Flare Flange Cone Inserts Metric CO, CD	Flare Flange Flat Face Cone NPS CF
					
Flare Flange Flat Face Cone Metric CF	Retain Ring Flange Dimensions	Retain Ring Flange Clearance Holes NPS, Metric RFC14, RFC34, RFC16, RFC18	Retain Ring LR	Bump Style Butt Weld Adapter Assembly, NPS A/LBWA	Bump Style Butt Weld Adapter Assembly, Metric A/LBWA
					
Retain Ring Flange Elbow Assembly A/LRE	Flange Tee Assembly NPS, Metric A/LRT	Retain Ring Flange Concentric Reducer Assembly A/LR	Flare Flange Pipe Assembly NPS, Metric PAF	Flare Flange Bent Pipe Assembly NPS, Metric BPAF	O-Ring Connector Plate LOCP
					
O-Ring Spacer With Pilot Port NPS, Metric LOSP, LOSPM					

PYPLOK

FLANGES
SAE 1000

PIPES &
TUBES

CLAMPS

VALVES

BITE TYPE
FITTINGS

HP HOSES

QUICK
COUPL.

TEST
POINTS

ADAPTORS

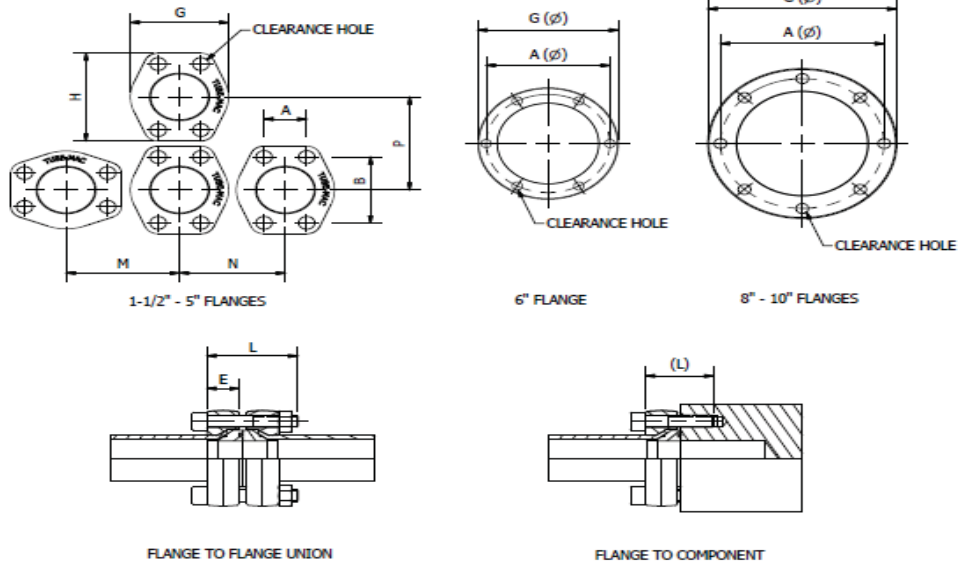
MACHINES

OTHER
PRODUCTS

SAE 1000

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 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: DIN912 / ISO4762 Grade 8.8

316 Stainless Steel: DIN912 / ISO4762 A480

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, Clear Zinc Plated (Cr6 Free).

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	FFC14-200-*	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	FFC34-400-*	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	FFC18-1000-*	725 (50)	51.30 (23.32)

* Materials:

Standard, No Designation = Carbon Steel, Clear Zinc Plated (Cr6 Free).

HDG = Carbon Steel, Hot Dip Galvanized.

SS = Stainless Steel, Type 316.

Ordering Example: FFCM14-150-50MM-SS

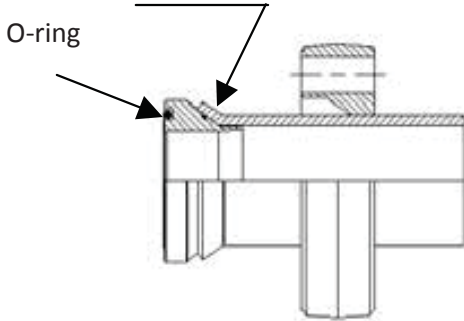
* Insert Material

SAE 1000

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 Section

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

Size	Pipe Size	Complete Flange Set Part 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
2"	2" SCH40	FFC14-CO-SCH40-200-*^-^	2.67 (1.21)	FFC14-200-*	CO-SCH40-200-*^-^	ORV-5615	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
3"	3" SCH40	FFC14-CO-SCH40-300-*^-^	6.33 (2.87)	FFC14-300-*	CO-SCH40-300-*^-^	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
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:

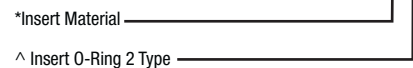
Standard, No Designation = All Carbon Steel, Clear Zinc Plated (Cr6 Free).

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-CO-SCH40-200-SS-V*



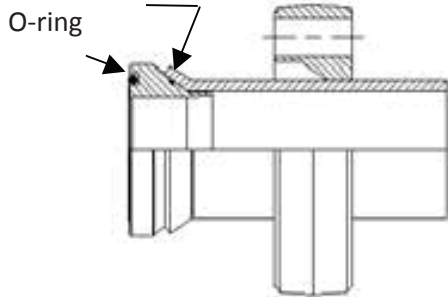
^ O-Ring 2 Type:

Standard, No Designation = Buna Nitrile.

V = Viton.

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 Section

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

Size	Pipe Size	Complete Flange Set Part 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-6915	OR^2-232
3"	90x3.5	FFCM14-CO-90x3.5-300-*^	5.92 (2.69)	FFCM14-300-90MM-*	CO-90x3.5-300-*^	ORV-8515	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, Clear Zinc Plated (Cr6 Free).

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-CO-50x3.0-150-SS-V

*Insert Material _____

^ Insert O-Ring 2 Type _____

^ O-Ring 2 Type:

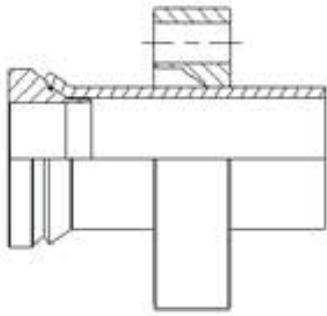
Standard, No Designation = Buna Nitrile.

V = Viton.

SAE 1000

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 Section

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

Size	Pipe Size	Complete Flange Set Part 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
2"	2" SCH40	FFC14-CF-SCH40-200-*	2.67 (1.21)	FFC14-200-*	CF-SCH40-200-*	ORV-5615
2-1/2"	2 1/2" SCH40	FFC14-CF-SCH40-250-*	4.01 (1.82)	FFC14-250-*	CF-SCH40-250-*	ORV-2-036
3"	3" SCH40	FFC14-CF-SCH40-300-*	6.33 (2.87)	FFC14-300-*	CF-SCH40-300-*	ORV-2-041
3-1/2"	3-1/2" SCH 40	FFC14CF-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
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, Clear Zinc Plated (Cr6 Free).

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.

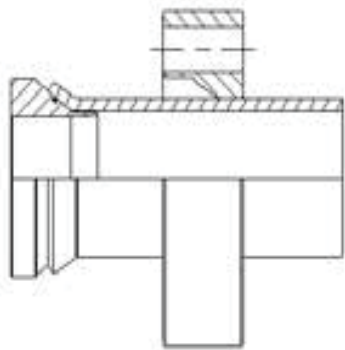
Ordering Example: FFC14-CF-SCH40-200-SS

* 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 Section

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

Size	Pipe Size	Complete Flange Set Part 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-4315
2"	60x3.0	FFC14-CF-60x3.0-200-*	2.67 (1.21)	FFC14-200-*	CF-60x3.0-200-*	ORV-5615
2-1/2"	75x3.0	FFCM14-CF-75x3.0-250-*	4.01 (1.82)	FFCM14-250-75MM-*	CF-75x3.0-250-*	ORV-2-036
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	FFC34-CF-115x4.0-400-*	6.93 (3.15)	FFC34-400-*	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	FFC18-CF-273x6.0-1000-*	61.14 (27.80)	FFC18-1000--*	CF-273x6.0-1000-*	ORV-2-273

* Materials:

Standard, No Designation = All Carbon Steel, Clear Zinc Plated (Cr6 Free).

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.

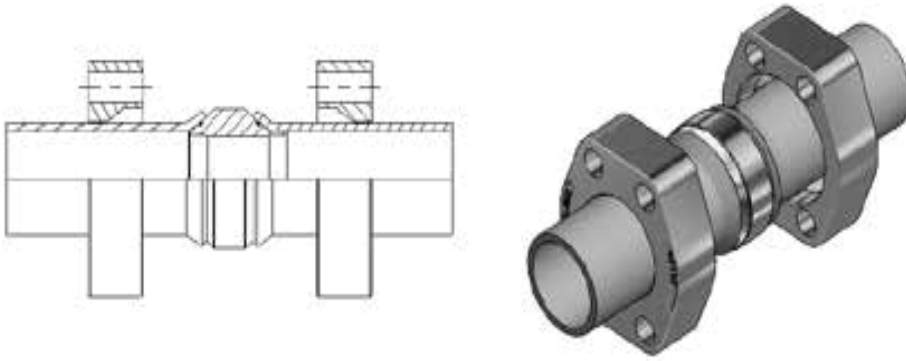
Ordering Example: FFCM14-CF-50x3-150-SS

* Insert
Material

SAE 1000

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
- One (1) Back Up O-Ring (O-Ring 1)

To be Ordered Separately:

- Bolt Kit
- See Section

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

Size	Pipe Size	Complete Flange Set Part 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
2"	2" SCH40	FFC14-CD-SCH40-200-*	2.90 (1.32)	FFC14-200-*	CD-SCH40-200-*	ORV-5615
2-1/2"	2 1/2" SCH40	FFC14-CD-SCH40-250-*	4.62 (2.10)	FFC14-250-*	CD-SCH40-250-*	ORV-2-036
3"	3" SCH40	FFC14-CD-SCH40-300-*	6.90 (3.13)	FFC14-300-*	CD-SCH40-300-*	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
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, Clear Zinc Plated (Cr6 Free).

SS = Stainless Steel, Type 316.

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

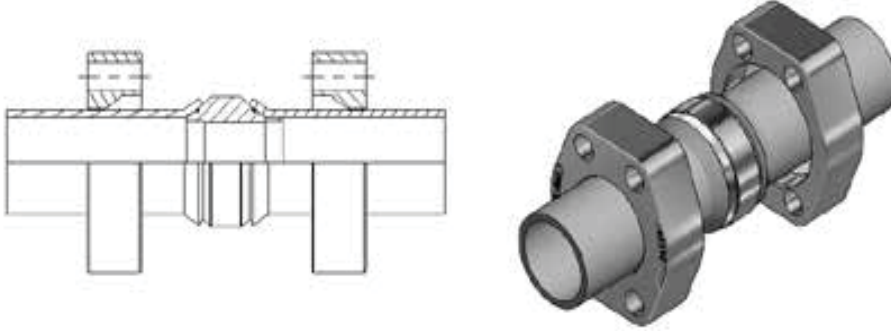
HDGSS = Carbon Steel, Hot Dip Galvanized Flange with Stainless Steel Cone, Type 316.

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
- One (1) Back Up O-Ring (O-Ring 1)

To be Ordered Separately:

- Bolt Kit
- See Section

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

Size	Pipe Size	Complete Flange Set Part 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-4315
2"	60x3.0	FFC14-CD-60x3.0-200-*	2.90 (1.32)	FFC14-200-*	CD-60x3.0-200-*	ORV-5615
2-1/2"	75x3.0	FFCM14-CD-75x3.0-250-*	4.62 (2.10)	FFCM14-250-*	CD-75x3.0-250-*	ORV-2-036
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, Clear Zinc Plated (Cr6 Free).

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

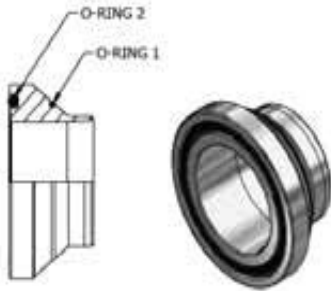
*Insert Material _____

SAE 1000

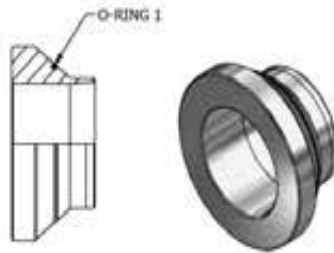
SAE 1000 PSI Cone Inserts

for Flare Flange Connections, NPS

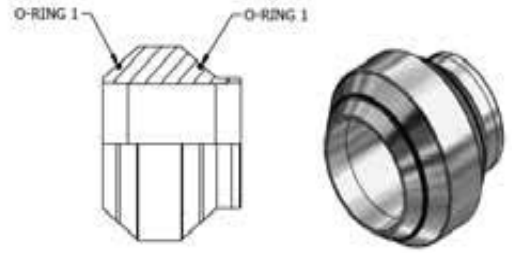
SAE J518 Code 61 (ISO 6162-1)



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
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
2-1/2"	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
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
3-1/2"	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
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^-3-372
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-2-273	OR^-2-377

* Materials:

Standard, No Designation = All Carbon Steel, Clear Zinc Plated (Cr6 Free). SS

= Stainless Steel, Type 316.

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

* Insert

Material

^ Insert O-Ring 2 Type

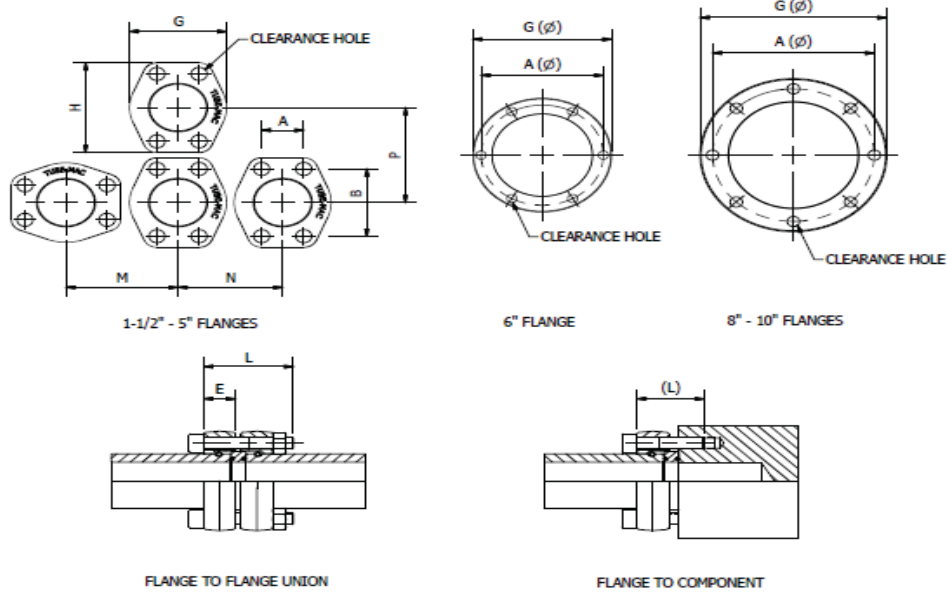
^ O-Ring 2 Type

Standard, No Designation = Buna Nitrile. V

= Viton.

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)
10"	13.58	-	16.14	-	-	-	-	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 2

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)
10"	345.0	-	410.0	-	-	-	-	50	M20 x 140 (80)	725 (50)

* SHCS Bolt Specification
 Carbon Steel: DIN912 / ISO4762 Grade 8.8
 316 Stainless Steel: DIN912 / ISO4762 A480

3D step models available upon request

SAE 1000

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)



1-1/2" - 5" FLANGES



6" FLANGE



8" - 10" FLANGES

RFC14, RFC34, RFC16, RFC18 - Flare Flange with Clearance Holes, NPS			
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"	RFC34-400-*	1000 (70)	8.61 (3.91)
5"	RFC34-500-*	1000 (70)	9.80 (4.45)
6"	RFC16-600-*	725 (50)	10.50 (4.77)
8"	RFC18-800-*	725 (50)	23.20 (10.55)
10"	RFC18-1000-*	725 (50)	51.30 (23.32)

* Materials:

Carbon Steel,

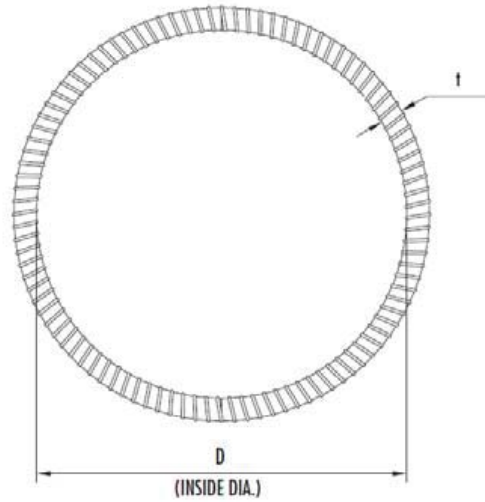
Ordering Example: RFC14-150-SS

* Insert Material

Clear Zinc Plated (Cr6 Free).

HDG = Carbon Steel, Hot Dip Galvanized. SS = Stainless Steel, Type 316.

SAE 1000 PSI 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)
10"	LR-1000	11.299 (287)	.315 (8)	1.18 (0.54)

Materials:
 Stainless Steel – AISI 302/304 Spring Temper

SAE 1000

More pages under constructions.....