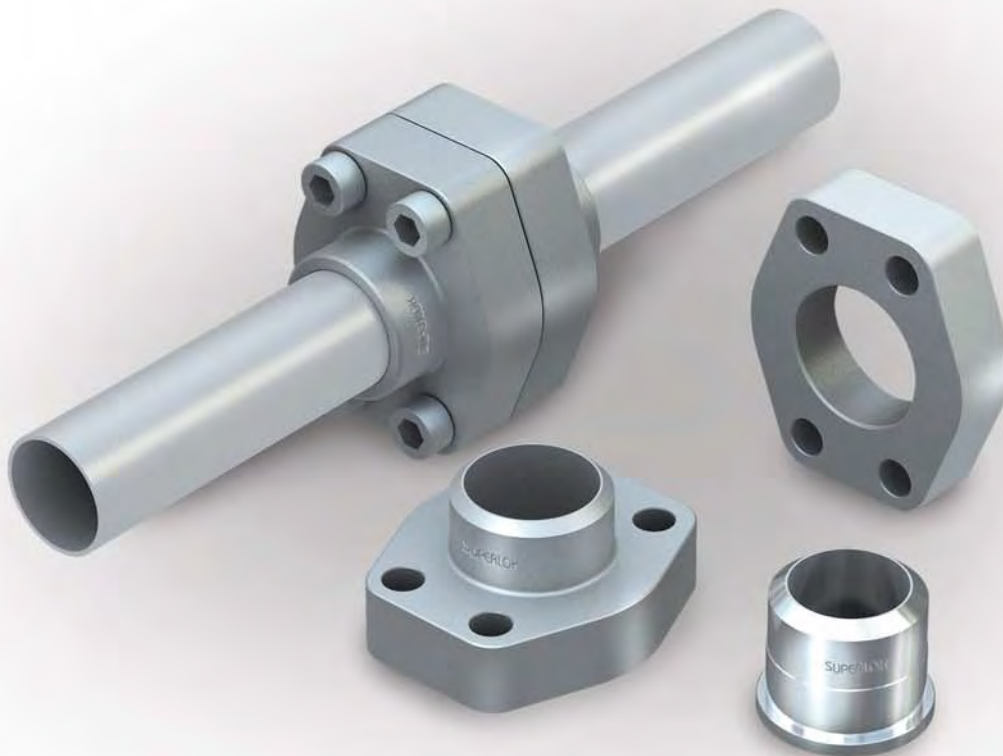




Hydraulic Flanges

SAE Flanges(J518 C, ISO 6162)



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TECHNICAL INFORMATION

Used standards

SUPERLOK flanges are based on the following standards:

SAE-flanges	standard : SAE J518 C, ISO 6162
Cetop-flanges	standard : CETOP RP 63H, ISO 6164
4-bolt square flanges	standard : ISO / DIS 6164

Pressure rates

The maximum recommended working pressure is indicated in each article. Please note the appropriate pressure directives before using a part. All pressure directives are based on a working temperature from -20°C up to 90°C. Beyond this temperature range, the physical properties of the used material are affected and the maximum recommended working pressure is reduced accordingly. The indicated working pressure refers only to the flange itself. For used tubes, fittings and connections, the pressure directives of the respective manufacturer are the determining factor.

Used materials

Materials used for each product group are given. The manufacturer can within reason determine freely whether varying materials are to be implemented.

Flange kits

If required, all flange connections can be supplied with accessories (bolt set and o-ring). The respective order code is then to be given as shown in the attached example.

Used bolts		
SAE Flange	metric bolts :	DIN 912 - 8.8 (ISO 4762 - 8.8) DIN 912 - 10.9 (ISO 4762 - 10.9)
	UNC bolts :	ASA B 18.3 - grade 10
4-bolt square flanges	metric bolts :	DIN 912 / 931/934-10.9 (ISO 4014/4017-10.9) *1)
Cetop flanges	metric bolts :	DIN 912 / 931/934-10.9 (ISO 4014/4017-10.9) *1)

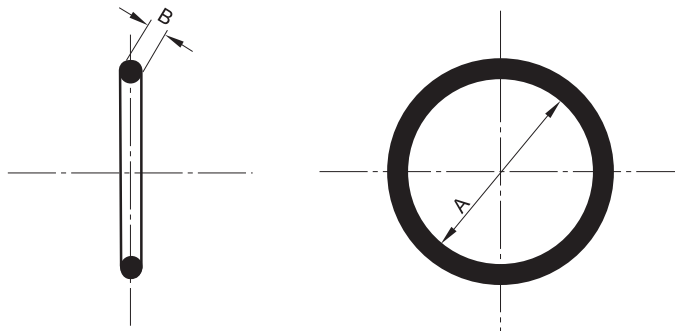
Seals

All flange connections shown in this catalogue are sealed using o-rings. The o-rings supplied by SUPERLOK are made from the following materials:

- Buna 90 shore (standard)
- Viton 85-90 shore (option)

For all SAE flanges and Cetop flanges, the o-ring dimensions are to be read as according to the following table.

O-rings differing from these dimensions are listed in the respective article showing their exact dimensions accordingly.



Flange Size	A	B
3/8"	17.12	2.62
1/2"	18.66	3.53
3/4"	25.00	3.53
1"	32.92	3.53
1 1/4"	37.70	3.53
1 1/2"	47.22	3.53
2"	56.75	3.53
2 1/2"	69.45	3.53
3"	85.32	3.53
3 1/2"	98.02	3.53
4"	110.72	3.53
5"	136.12	3.53

Flange tube connections

We suggest that where applicable tubing to the following standards should be utilized

Seamless precision steel tube to DIN2391, material grade C, ST 37-4 or ST 52-4. Tubing according to ASME B36.10M

we suggest the use of tubing to the following tube dimensions:

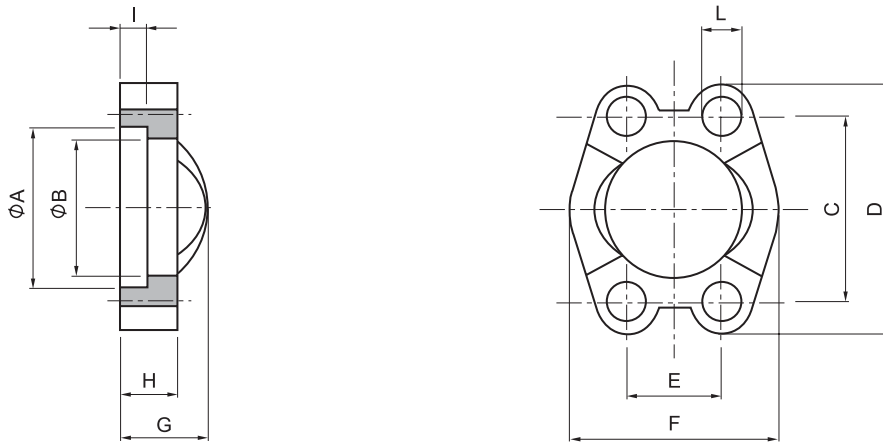
size	Tubes to DIN 2391					Tubes to DIN 2448		Tube to ASME B36.10M			
	series					series		series			
	100 bar	160 bar	250 bar	315 bar	400 bar	250 bar	400 bar	schedule	250	schedule	400
1/2"	15×1 18×1	18×1.5	16×2 20×2.5	16×2.5 20×3	16×3 20×3.5	21.3×2.6	21.3×3.2	40	21.3×2.8	80	21.3×3.7
3/4"			25×3	25×3.2	25×4	26.9×2.6	26.9×4	40	26.7×2.9	80	26.7×3.9
1"	28×2		28×3 30×4	30×5	30×6	33.7×4	33.7×6.3	40	33.7×4.8	160	33.7×6.4
1 1/4"	35×2		35×4 38×5	38×6	38×7	42.4×5	42.4×6.3	80	42.4×4.8	160	42.4×6.4
1 1/2"	42×3		42×5 50×6	50×8	50×9	48.3×5	48.3×8	80	48.3×5.1	160	48.3×7.1
2"				65×8	65×10	60.3×6.3	60.3×10	160	60.3×8.7	200	60.3×11.1
2 1/2"				80×10	80×12	76.1×8	76.1×12.5	160	73×9.5	200	73×14
3"						88.9×10	88.9×16	160	88.9×11.1	200	88.9×15.2
3 1/2"						101.6×10	101.6×16				
4"						114.3×12.5	114.3×20	160	114.3×13.5	200	114.3×17.1

SAE-SPLIT FLANGE HALVES



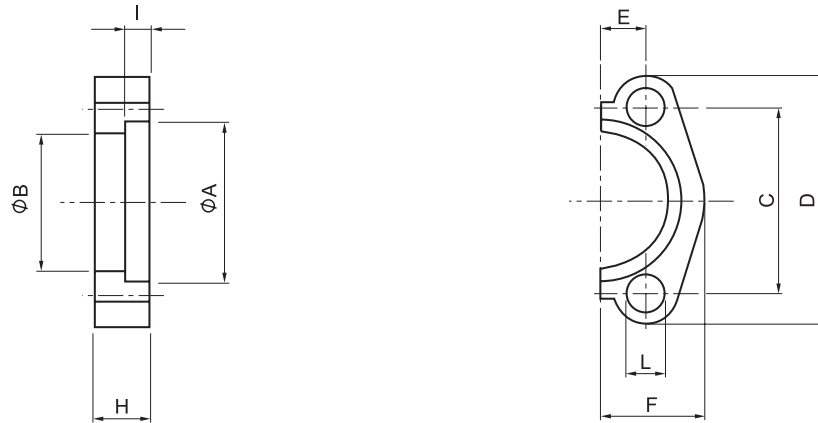
Maximum recommended working Pressusre (kg / cm ²)	Nominal flange size (inch)	Type	Dimensions										Bolts		Weight kg.	
			A	B	C	D	E	F	G	H	I	L	metr.	unc		
		Standard pressure														
350	1/2"	FH3015	30.96	24.26	38.10	54	8.74	22.8	19	13	6.22	9.0	M8 × 25	5/16 × 1 1/4	0.07	
350	3/4"	FH3020	38.89	32.13	47.63	65	11.13	25.9	22	14	6.22	11.0	M10 × 30	3/8 × 1 1/4	0.09	
315	1"	FH3025	45.24	38.48	52.37	70	13.08	29.2	24	16	7.49	11.0	M10 × 30	3/8 × 1 1/4	0.11	
250	1 1/4"	FH3032	51.59	43.69	58.72	79	15.09	36.3	22	16	7.49	11.5	M10 × 30	7/16 × 1 1/2	0.15	
250	1 1/4"	FH3032-M10	51.59	43.69	58.72	79	15.09	36.3	22	16	7.49	11.0	M10 × 30	-	0.15	
250	1 1/4"	FH3032-M12	51.59	43.69	58.72	79	15.09	36.3	22	16	7.49	13.0	M12 × 35	-	0.15	
200	1 1/2"	FH3040	61.09	50.80	69.85	94	17.86	41.1	25	16	7.49	13.5	M12 × 35	1/2 × 1 1/2	0.23	
200	2"	FH3050	72.24	62.74	77.77	102	21.44	48.2	26	16	9.02	13.5	M12 × 35	1/2 × 1 1/2	0.25	
160	2 1/2"	FH3065	84.94	74.93	88.90	114	25.40	54.1	38	19	9.02	13.5	M12 × 40	1/2 × 1 1/2	0.37	
160	3"	FH3080	102.39	90.93	106.38	135	30.96	65.3	41	22	9.02	17.0	M16 × 50	5/8 × 2	0.65	
35	3 1/2"	FH3090	115.10	102.36	120.65	152	34.92	69.5	28	22	10.72	17.0	M16 × 50	5/8 × 2	0.75	
35	4"	FH3100	127.79	115.06	130.18	162	38.88	76.0	35	25	10.72	17.0	M16 × 50	5/8 × 2	0.84	
35	5"	FH3125	153.19	140.46	152.40	184	46.04	90.0	41	28	10.72	17.0	M16 × 55	5/8 × 2	1.25	
		High pressure														
	1/2"	FH6015	32.54	24.64	40.49	56	9.12	23.6	22	16	7.24	9.0	M8 × 30	5/16 × 1 1/4	0.08	
	3/4"	FH6020	42.06	32.51	50.80	71	11.91	30.0	28	19	8.26	11.0	M10 × 35	3/8 × 1 1/2	0.18	
	1"	FH6025	48.41	38.86	57.17	81	13.89	34.8	33	24	9.02	13.0	M12 × 45	-	0.27	
400	1 1/4"	FH6032	54.76	44.45	66.68	95	15.88	38.6	38	27	9.78	15.0	M14 × 45	-	0.40	
	1 1/2"	FH6040	64.29	51.56	79.38	113	18.26	47.5	43	30	12.07	17.0	M16 × 55	5/8 × 2	0.68	
	2"	FH6050	80.16	67.56	96.82	133	22.23	56.9	52	37	12.07	21.0	M20 × 70	3/4 × 2 1/2	1.05	

SAE-FLANGE CLAMP



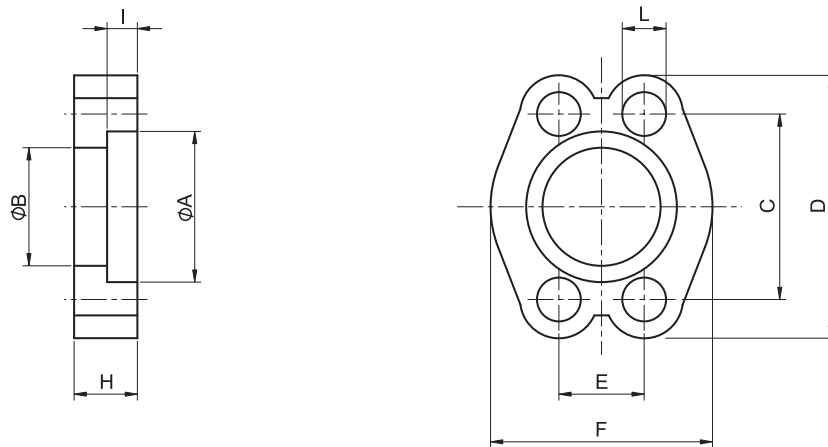
Maximum recommended working Pressure kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Bolts		Weight kg.		
			A	B	C	D	E	F	G	H	I	L	metr.	unc			
		Standard pressure															
350	1/2"	FC3015	30.96	24.26	38.10	54	17.48	45.60	19	13	6.22	9.0	M8 × 25	5/16 × 1 1/4	0.15		
350	3/4"	FC3020	38.89	32.13	47.63	65	22.23	51.80	22	14	6.22	11.0	M10 × 30	3/8 × 1 1/4	0.17		
315	1"	FC3025	45.24	38.48	52.37	70	26.19	58.40	24	16	7.49	11.0	M10 × 30	3/8 × 1 1/4	0.22		
250	1 1/4"	FC3032	51.59	43.69	58.72	79	30.18	72.60	22	16	7.49	12.0	M10 × 30	7/16 × 1 1/2	0.30		
400	1 1/4"	FC3032 -H	51.59	43.69	58.72	80	30.18	73.00	33	24	7.49	13.0	M12 × 45	-	0.64		
200	1 1/2"	FC3040	61.09	50.80	69.85	94	35.71	82.20	25	16	7.49	13.5	M12 × 35	1/2 × 1 1/2	0.45		
400	1 1/2"	FC3040 -H	61.09	50.80	69.85	95	35.71	83.00	37	27	7.49	13.0	M12 × 50	-	0.96		
200	2"	FC3050	72.24	62.74	77.77	102	42.88	96.40	26	16	9.02	13.5	M12 × 35	1/2 × 1 1/2	0.50		
400	2"	FC3050 -H	72.24	62.47	77.77	103	42.88	97.00	43	30	9.02	13.0	M12 × 50	-	1.38		
160	2 1/2"	FC3065	84.94	74.93	88.90	114	50.80	108.20	38	19	9.02	13.5	M12 × 40	1/2 × 1 1/2	0.74		
160	3"	FC3080	102.39	90.93	106.38	135	61.93	130.60	41	22	9.02	17.0	M16 × 50	5/8 × 2	1.30		
35	3 1/2"	FC3090	115.10	102.36	120.65	152	69.85	139.00	28	22	10.72	17.0	M16 × 50	5/8 × 2	1.50		
35	4"	FC3100	127.79	115.06	130.18	162	77.77	152.00	35	25	10.72	17.0	M16 × 50	5/8 × 2	1.65		
35	5"	FC3125	153.19	140.46	152.40	184	92.08	180.00	41	28	10.72	17.0	M16 × 55	5/8 × 2	2.50		
		High pressure															
	1/2"	FC6015	32.54	24.64	40.49	56	18.24	47.20	22	16	7.24	9.0	M8 × 30	5/16 × 1 1/4	0.16		
	3/4"	FC6020	42.06	32.51	50.80	71	23.80	60.00	28	19	8.26	11.0	M10 × 35	3/8 × 1 1/2	0.35		
	1"	FC6025	48.41	38.86	57.15	81	27.76	69.90	33	24	9.02	13.0	M12 × 45	-	0.53		
	1 1/4"	FC6032	54.76	44.45	66.68	95	31.75	77.20	38	27	9.78	15.0	M14 × 45	1/2 × 1 3/4	0.80		
400	1 1/2"	FC6040	64.29	51.56	79.38	113	36.50	95.00	43	30	12.07	17.0	M16 × 55	5/8 × 2	1.35		
	2"	FC6050	80.16	67.56	96.82	133	44.45	113.80	52	37	12.07	21.0	M20 × 70	3/4 × 2 1/2	2.10		
	2 1/2"	FC6065	108.90	90.00	123.80	180	58.80	150.20	45	45	20.50	25.0	M24 × 75	-	4.10		
	3"	FC6080	132.50	115.00	152.40	215	71.60	198.16	55	55	20.50	31.0	M30 × 90	-	8.60		

SAE-SPLIT FLANGE HAVES-FLAT



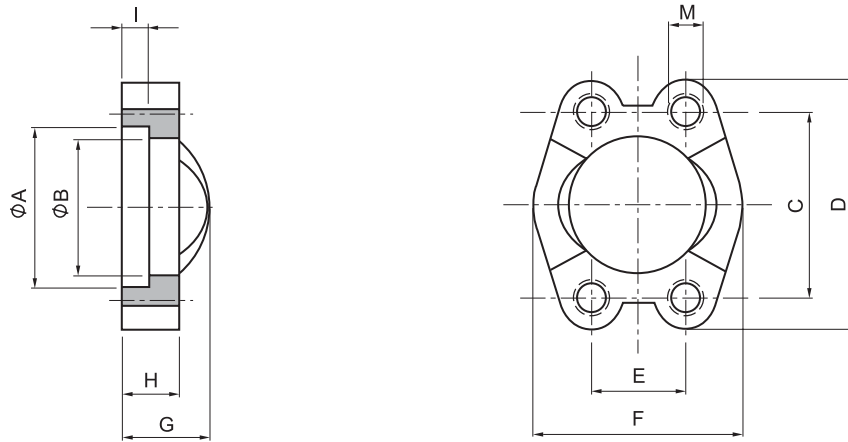
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Bolts		Weight kg.	
			A	B	C	D	E	F	H	I	L	metr.	unc		
		Standard pressure													
350	1/2"	FHF3015	30.96	24.26	38.10	54	8.74	22.80	13	6.22	9	M8 × 25	5/16 × 1 1/4	0.06	
350	3/4"	FHF3020	38.89	32.13	47.63	65	11.13	25.90	14	6.22	11	M10 × 30	3/8 × 1 1/4	0.07	
315	1"	FHF3025	45.24	38.48	52.37	70	13.08	29.20	16	7.49	11	M10 × 30	3/8 × 1 1/4	0.10	
250	1 1/4"	FHF3032	51.59	43.69	58.72	79	15.09	36.60	16	7.49	11	M10 × 30	-	0.15	
200	1 1/2"	FHF3040	61.09	50.80	69.85	94	17.86	41.10	16	7.49	13	M12 × 35	1/2 × 1 1/2	0.18	
200	2"	FHF3050	72.24	62.74	77.77	102	21.44	48.20	16	9.02	13	M12 × 35	1/2 × 1 1/2	0.22	
		High pressure													
	1/2"	FHF6015	32.54	24.64	40.49	56	9.12	23.60	16	7.24	9	M8 × 30	5/16 × 1 1/4	0.08	
	3/4"	FHF6020	42.06	32.51	50.80	71	11.91	30.00	20	8.26	11	M10 × 35	3/8 × 1 1/2	0.16	
	1"	FHF6025	48.41	38.86	57.15	81	13.89	34.80	25	9.02	13	M12 × 45	7/16 × 1 3/4	0.25	
400	1 1/4"	FHF6032	54.76	44.45	66.68	95	15.88	38.60	27	9.78	15	M14 × 45	1/2 × 1 3/4	0.34	
	1 1/2"	FHF6040	64.29	51.56	79.38	113	18.26	47.50	30	12.07	17	M16 × 55	5/8 × 2	0.55	
	2"	FHF6050	80.16	67.56	96.82	133	22.23	56.90	37	12.07	21	M20 × 70	3/4 × 2 1/2	1.02	
	2 1/2"	FHF6065	108.90	90.00	123.80	180	29.40	75.08	45	20.50	25	M24 × 75	-	2.05	
	3"	FHF6080	132.50	115.00	152.40	215	35.80	99.08	55	20.50	31	M30 × 90	-	4.30	

SAE-FLANGE CLAMP-FLAT



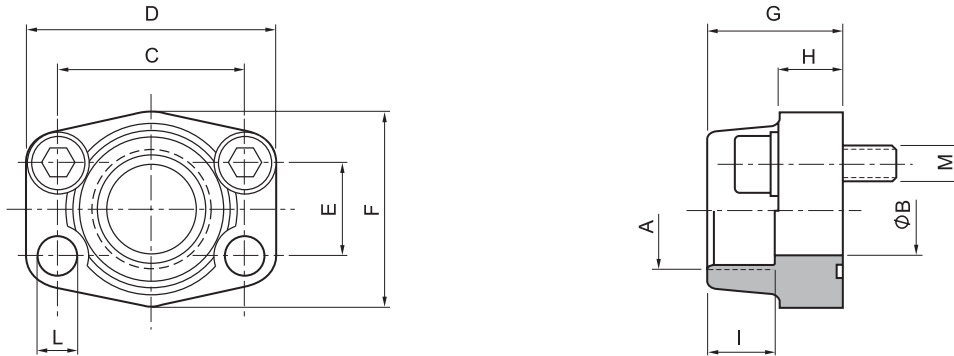
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Bolts		Weight kg.	
			A	B	C	D	E	F	H	I	L	metr.	unc		
		Standard pressure													
350	1/2"	FCF3015	30.96	24.26	38.10	54	17.48	45.6	13	6.22	9.0	M8 × 25	5/16 × 1 1/4	0.15	
350	3/4"	FCF3020	38.89	32.13	47.63	65	22.23	51.8	14	6.22	11.0	M10 × 30	3/8 × 1 1/4	0.17	
315	1"	FCF3025	45.24	38.48	52.37	70	26.19	58.4	16	7.49	11.0	M10 × 30	3/8 × 1 1/4	0.22	
250	1 1/4"	FCF3032	51.59	43.69	58.72	79	30.18	72.6	16	7.49	12.0	M10 × 30	7/16 × 1 1/2	0.30	
200	1 1/2"	FCF3040	61.09	50.80	69.85	94	35.71	82.2	16	7.49	13.5	M12 × 35	1/2 × 1 1/2	0.45	
200	2"	FCF3050	72.24	62.74	77.77	102	42.88	96.4	16	9.02	13.5	M12 × 35	1/2 × 1 1/2	0.50	
		High pressure													
	1/2"	FCF6015	32.54	24.64	40.49	56	18.24	47.2	16	7.24	9.0	M8 × 30	5/16 × 1 1/4	0.16	
	3/4"	FCF6020	42.06	32.51	50.80	71	23.80	60.0	20	8.26	11.0	M10 × 35	3/8 × 1 1/2	0.35	
	1"	FCF6025	48.41	38.86	57.15	81	27.76	69.9	25	9.02	13.0	M12 × 45	-	0.53	
400	1 1/4"	FCF6032	54.76	44.45	66.68	95	31.75	77.2	27	9.78	15.0	M14 × 45	1/2 × 1 3/4	0.80	
	1 1/2"	FCF6040	64.29	51.56	79.38	113	36.50	95.0	30	12.07	17.0	M16 × 55	5/8 × 2	1.35	
	2"	FCF6050	80.16	67.56	96.82	133	44.45	113.8	37	12.07	21.0	M20 × 70	3/4 × 2 1/2	2.10	

SAE-FLANGE CLAMP METRIC THREAD HOLE



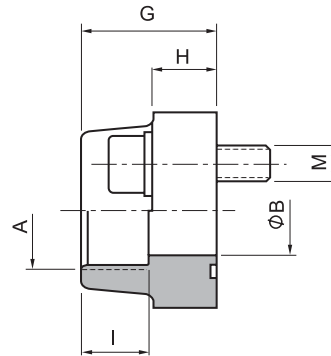
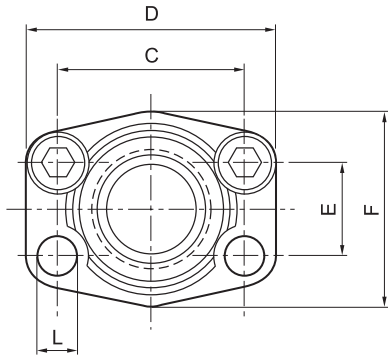
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Weight kg.	
			A	B	C	D	E	F	G	H	I	M		
		Standard pressure												
350	1/2"	FCMT 3015	30.96	24.26	38.10	54	17.48	45.60	19	13	6.22	M 8	0.15	
350	3/4"	FCMT 3020	38.89	32.13	47.63	65	22.23	51.80	22	14	6.22	M 10	0.17	
315	1"	FCMT 3025	45.24	38.48	52.37	70	26.19	58.40	24	16	7.49	M 10	0.22	
250	1 1/4"	FCMT 3032	51.59	43.69	58.72	79	30.18	72.60	22	14	7.49	M 10	0.30	
200	1 1/2"	FCMT 3040	61.09	50.80	69.85	94	35.71	82.20	25	16	7.49	M 12	0.45	
200	2"	FCMT 3050	72.24	62.74	77.77	102	42.88	96.40	26	16	9.02	M 12	0.50	
160	2 1/2"	FCMT 3065	84.94	74.93	88.90	114	50.80	108.20	38	19	9.02	M 12	0.74	
160	3"	FCMT 3080	102.39	90.93	106.38	135	61.93	130.60	41	22	9.02	M 16	1.30	
35	3 1/2"	FCMT 3090	115.10	102.36	120.65	152	69.85	139.00	28	22	10.72	M 16	1.50	
35	4"	FCMT 3100	127.79	115.06	130.18	162	77.77	152.00	35	25	10.72	M 16	1.65	
35	5"	FCMT 3125	153.19	140.46	152.40	184	92.08	180.00	41	28	10.72	M 16	2.50	
		High pressure												
	1/2"	FCMT 6015	32.54	24.64	40.49	56	18.24	47.20	22	16	7.24	M 8	0.16	
	3/4"	FCMT 6020	42.06	32.51	50.80	71	23.80	60.00	28	19	8.26	M 10	0.35	
	1"	FCMT 6025	48.41	38.86	57.15	81	27.76	69.90	33	24	9.02	M 12	0.53	
400	1 1/4"	FCMT 6032	54.76	44.45	66.68	95	31.75	77.20	38	27	9.78	M 14	0.80	
	1 1/2"	FCMT 6040	64.29	51.56	79.38	113	36.50	95.00	43	30	12.07	M 16	1.35	
	2"	FCMT 6050	80.16	67.56	96.82	133	44.45	113.80	52	37	12.07	M 20	2.10	
	2 1/2"	FCMT 6065	108.90	90.00	123.80	180	58.80	190.20	45	45	20.50	M 24	4.10	
	3"	FCMT 6080	132.50	115.00	152.40	215	71.60	198.16	55	55	20.50	M 30	8.60	

SAE-PIPE THREADED FLANGE-BSPP



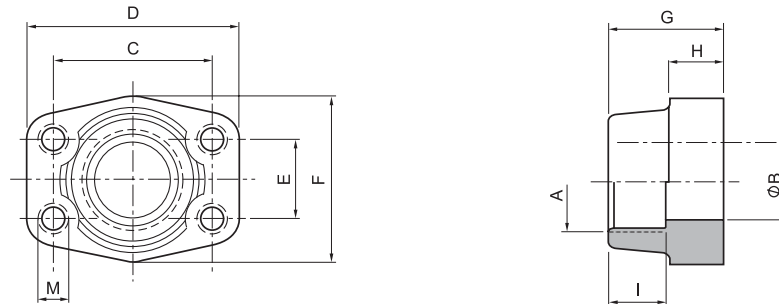
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Bolts		Weight kg.		
			A	B	C	D	E	F	G	H	I	L	M				
														metr.		unc	
		Standard pressure															
350	1/2"	FT 3015-8G	G 1/2	13	38.10	54	17.48	46	36	16	19	9.0	M 8x30	5/16x1 1/4	0.25		
350	1/2"	FT 3015-6G	G 3/8	13	38.10	54	17.48	46	36	16	19	9.0	M 8x30	5/16x1 1/4	0.28		
350	3/4"	FT 3020-12G	G 3/4	19	47.63	65	22.23	52	36	18	19	11.0	M 10x35	3/8x1/2	0.39		
350	3/4"	FT 3020-8G	G 1/2	13	47.63	65	22.23	52	36	18	19	11.0	M 10x35	3/8x1/2	0.42		
315	1"	FT 3025-16G	G 1	25	52.37	70	26.19	59	38	18	22	11.0	M 10x35	3/8x1/2	0.46		
315	1"	FT 3025-12G	G 3/4	19	52.37	70	26.19	59	38	18	20	11.0	M 10x35	3/8x1/2	0.49		
315	1"	FT 3025-8G	G 1/2	13	52.37	70	26.19	59	38	18	22	11.0	M 10x35	3/8x1/2	0.52		
250	1 1/4"	FT 3032-20G	G 1 1/4	32	58.72	79	30.18	73	41	21	22	11.5	M 10x40	7/16x1 1/2	0.66		
250	1 1/4"	FT 3032-20G	G 1 1/4	32	58.72	79	30.18	73	41	21	22	13.0	M 12x40	-	0.66		
250	1 1/4"	FT 3032-16G	G 1	25	58.72	81	30.18	73	42	25	22	11.5	M 10x40	7/16x1 3/4	0.75		
250	1 1/4"	FT 3032-16G	G 1	25	58.72	81	30.18	73	42	25	22	13.0	M 12x40	-	0.75		
250	1 1/4"	FT 3032-12G	G 3/4	19	58.72	79	30.18	73	41	21	22	11.5	M 10x40	7/16x1 1/2	0.79		
200	1 1/2"	FT 3040-24G	G 1 1/2	38	69.85	93	35.71	83	45	25	24	13.5	M 12x45	1/2x3/4	1.05		
200	1 1/2"	FT 3040-20G	G 1 1/4	32	69.85	95	35.71	83	45	27	24	13.5	M 12x45	1/2x3/4	1.10		
200	1 1/2"	FT 3040-16G	G 1	25	69.85	93	35.71	83	45	25	24	13.5	M 12x45	1/2x3/4	1.16		
200	1 1/2"	FT 3040-12G	G 3/4	19	69.85	93	35.71	83	45	25	24	13.5	M 12x45	1/2x3/4	1.23		
200	2"	FT 3050-32G	G 2	51	77.77	102	42.88	97	45	25	30	13.5	M 12x45	1/2x3/4	1.19		
200	2"	FT 3050-24G	G 1 1/2	38	77.77	102	42.88	97	45	25	26	13.5	M 12x45	1/2x3/4	1.25		
200	2"	FT 3050-20G	G 1 1/4	32	77.77	102	42.88	97	45	25	24	13.5	M 12x45	1/2x3/4	1.40		
200	2"	FT 3050-16G	G 1	25	77.77	102	42.88	97	45	25	26	13.5	M 12x45	1/2x3/4	1.44		
160	2 1/2"	FT 3065-40G	G 2 1/2	63	88.90	114	50.80	109	50	25	30	13.5	M 12x45	1/2x3/4	1.40		
160	2 1/2"	FT 3065-32G	G 2	51	88.90	114	50.80	109	50	25	30	13.5	M 12x45	1/2x3/4	1.45		
138	3"	FT 3080-48G	G 3	73	106.38	134	61.93	131	50	27	34	17.0	M 16x50	5/8x2	2.15		
138	3"	FT 3080-40G	G 2 1/2	63	106.38	134	61.93	131	50	27	30	17.0	M 16x50	5/8x2	2.25		
35	3 1/2"	FT 3090-56G	G 3 1/2	89	120.65	152	69.85	140	48	27	34	17.0	M 16x50	5/8x2	2.40		
35	3 1/2"	FT 3090-48G	G 3	73	120.65	152	69.85	140	48	27	34	17.0	M 16x50	5/8x2	2.50		
35	4"	FT 3100-64G	G 4	99	130.18	162	77.77	152	48	27	34	17.0	M 16x50	5/8x2	2.85		
35	4"	FT 3100-56G	G 3 1/2	89	130.18	162	77.77	152	48	27	34	17.0	M 16x50	5/8x2	3.00		
35	5"	FT 3125-80G	G 5	120	152.40	184	92.10	181	50	28	30	17.0	M 16x50	5/8x2	5.80		

SAE-PIPE THREADED FLANGE-BSPP



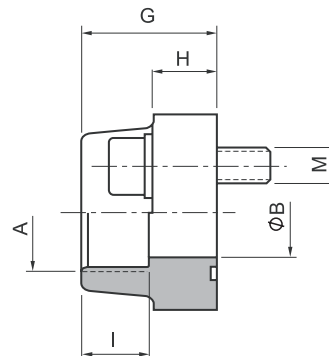
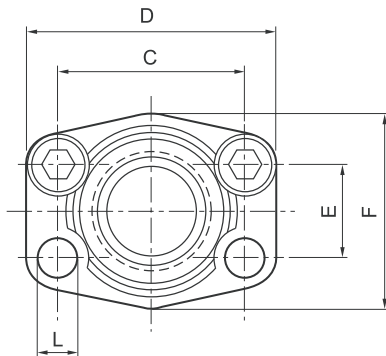
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Bolts		Weight kg.		
			A	B	C	D	E	F	G	H	I	L	M				
														metr.		unc	
		High pressure															
	1/2"	FT 6015-8G	G 1/2	13	40.49	54	18.24	48	36	16	19	9	M 8x30	5/16"x1 1/4"	0.26		
	1/2"	FT 6015-6G	G 3/8	13	40.49	54	18.24	48	36	16	19	9	M 8x30	5/16"x1 1/4"	0.29		
	3/4"	FT 6020-12G	G 3/4	19	50.80	71	23.80	60	35	21	22	11	M 10x35	3/8"x1 1/2"	0.50		
	3/4"	FT 6020-8G	G 1/2	13	50.80	71	23.80	60	35	21	22	11	M 10x35	3/8"x1 1/2"	0.55		
400	1"	FT 6025-16G	G 1	25	57.15	81	27.76	70	42	25	24	13	M 12x45	7/16"x1 3/4"	0.76		
	1"	FT 6025-12G	G 3/4	19	57.15	81	27.76	70	42	25	24	13	M 12x45	7/16"x1 3/4"	0.80		
	1 1/4"	FT 6032-20G	G 1 1/4	32	66.68	95	31.75	78	45	27	25	15	M 14x45	1/2"x1 3/4"	1.20		
	1 1/4"	FT 6032-16G	G 1	25	66.68	95	31.75	78	45	27	25	15	M 14x45	1/2"x1 3/4"	1.30		
	1 1/2"	FT 6040-24G	G 1 1/2	38	79.38	112	36.50	95	50	30	28	17	M 16x50	5/8"x 2	1.65		
	1 1/2"	FT 6040-20G	G 1 1/4	32	79.38	112	36.50	95	50	30	28	17	M 16x50	5/8"x 2	1.75		
	2"	FT 6050-32G	G 2	51	96.82	134	44.45	114	65	37	30	21	M 20x70	3/4"x 2 1/2"	2.45		
	2"	FT 6050-24G	G 1 1/2	38	96.82	134	44.45	114	65	37	30	21	M 20x70	3/4"x 2 1/2"	2.55		
	2 1/2"	FT 6065-40G	G 2 1/2	63	123.80	180	58.80	152	80	45	32	26	M 24x80	-	6.75		
	3"	FT 6080-48G	G 3	73	152.40	208	71.40	178	90	55	40	33	M 30x100	-	-		

SAE-PIPE THREAD FLANGE-BSPP-COMPANION



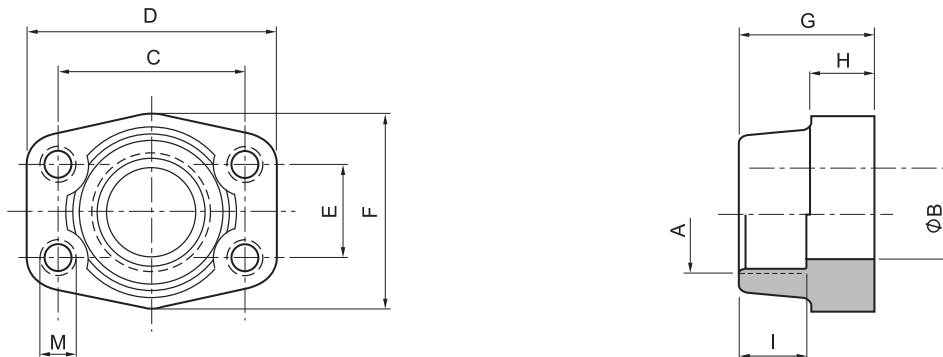
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Bolts		Weight kg.	
			A	B	C	D	E	F	G	H	I	M			
												metr.	unc		
		Standard pressure													
350	1/2"	FTC 3015-8G	G 1/2	13	38.10	54	17.48	46	36	16	19	M 8	5/16	0.25	
350	1/2"	FTC 3015-6G	G 3/8	13	38.10	54	17.48	46	36	16	19	M 8	5/16	0.28	
350	3/4"	FTC 3020-12G	G 3/4	19	47.63	65	22.23	52	36	18	19	M 10	3/8	0.39	
350	3/4"	FTC 3020-8G	G 1/2	13	47.63	65	22.23	52	36	18	19	M 10	3/8	0.42	
315	1 "	FTC 3025-16G	G 1	25	52.37	70	26.19	59	38	18	22	M 10	3/8	0.46	
315	1 "	FTC 3025-12G	G 3/4	19	52.37	70	26.19	59	35	21	19	M 10	3/8	0.49	
250	1 1/4"	FTC 3032-20G	G 1 1/4	32	58.72	79	30.18	73	41	21	22	M 10	7/16	0.66	
250	1 1/4"	FTC 3032-16G	G 1	25	58.72	81	30.18	73	42	25	22	M 10	7/16	0.75	
200	1 1/2"	FTC 3040-24G	G 1 1/2	38	69.85	93	35.71	83	45	25	24	M 12	1/2	1.05	
200	1 1/2"	FTC 3040-20G	G 1 1/4	32	69.85	95	35.71	83	45	27	24	M 12	1/2	1.10	
200	2 "	FTC 3050-32G	G 2	51	77.77	102	42.88	97	45	25	30	M 12	1/2	1.19	
200	2 "	FTC 3050-24G	G 1 1/2	38	77.77	102	42.88	97	45	25	26	M 12	1/2	1.25	
160	2 1/2"	FTC 3065-40G	G 2 1/2	63	88.90	114	50.80	109	50	25	30	M 12	1/2	1.40	
160	2 1/2"	FTC 3065-32G	G 2	51	88.90	114	50.80	109	50	25	30	M 12	1/2	1.45	
138	3 "	FTC 3080-48G	G 3	73	106.38	134	61.93	131	50	27	34	M 16	5/8	2.15	
138	3 "	FTC 3080-40G	G 2 1/2	63	106.38	134	61.93	131	50	27	30	M 16	5/8	2.25	
35	3 1/2"	FTC 3090-56G	G 3 1/2	89	120.65	152	69.85	140	48	27	34	M 16	5/8	2.40	
35	3 1/2"	FTC 3090-48G	G 3	73	120.65	152	69.85	140	48	27	34	M 16	5/8	2.50	
35	4 "	FTC 3100-64G	G 4	99	130.18	162	77.77	152	48	27	34	M 16	5/8	2.85	
35	4 "	FTC 3100-56G	G 3 1/2	89	130.18	162	77.77	152	48	27	34	M 16	5/8	3.00	
35	5 "	FTC 3125-80G	G 5	120	152.40	184	92.10	181	50	28	30	M 16	5/8	5.80	
		High pressure													
	1/2"	FTC 6015-8G	G 1/2	13	40.49	54	18.24	48	36	16	19	M 8	5/16	0.26	
	1/2"	FTC 6015-6G	G 3/8	13	40.49	54	18.24	48	36	16	19	M 8	5/16	0.29	
	3/4"	FTC 6020-12G	G 3/4	19	50.80	71	23.80	60	35	21	22	M 10	3/8	0.50	
	3/4"	FTC 6020-8G	G 1/2	13	50.80	71	23.80	60	35	21	22	M 10	3/8	0.55	
	1 "	FTC 6025-16G	G 1	25	57.16	81	27.76	70	42	25	24	M 12	7/16	0.76	
	1 "	FTC 6025-12G	G 3/4	19	57.16	81	27.76	70	42	25	24	M 12	7/16	0.80	
400	1 1/4"	FTC 6032-20G	G 1 1/4	32	66.68	95	31.75	78	45	27	25	M 14	1/2	1.20	
	1 1/4"	FTC 6032-16G	G 1	25	66.68	95	31.75	78	45	27	25	M 14	1/2	1.30	
	1 1/2"	FTC 6040-24G	G 1 1/2	38	79.38	112	36.50	95	50	30	28	M 16	5/8	1.65	
	1 1/2"	FTC 6040-20G	G 1 1/4	32	79.38	112	36.50	95	50	30	28	M 16	5/8	1.75	
	2 "	FTC 6050-32G	G 2	51	96.82	134	44.45	114	65	37	30	M 20	3/4	2.45	
	2 "	FTC 6050-24G	G 1 1/2	38	96.82	134	44.45	114	65	37	30	M 20	3/4	2.55	
	2 1/2"	FTC 6065-40G	G 2 1/2	63	123.80	180	58.70	152	80	45	32	M 24	-	6.98	
	3"	FTC 6080-48G	G 3	73	152.40	208	71.40	178	90	55	40	M 30	-	-	

SAE-PIPE THREAD FLANGE-NPT



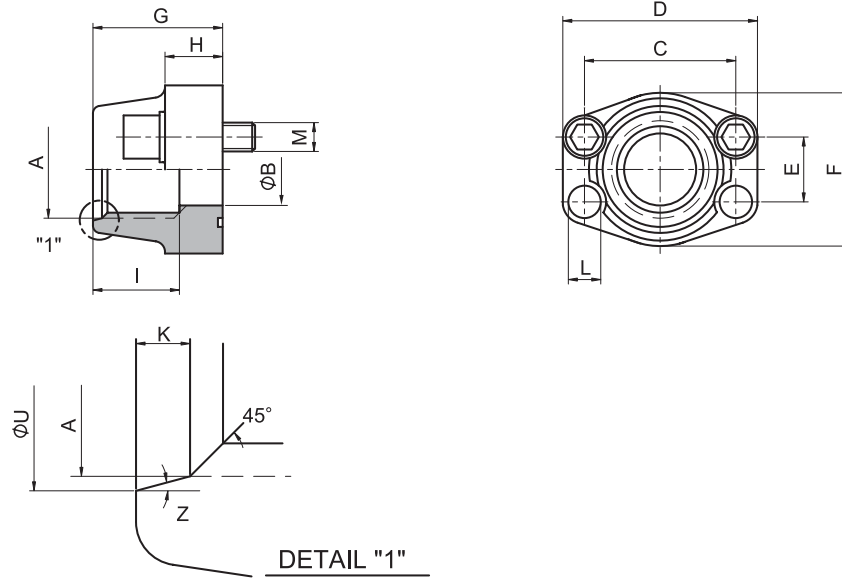
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Bolts		Weight kg.		
			A	B	C	D	E	F	G	H	I	L	M				
			metr.		unc												
		Standard pressure															
350	1/2"	FT 3015-8N	1/2 NPT	13	38.10	54	17.48	46	36	16	19	9.0	M 8x30	5/16x1 1/4	0.25		
350	1/2"	FT 3015-6N	3/8 NPT	13	38.10	54	17.48	46	36	16	19	9.0	M 8x30	5/16x1 1/4	0.28		
350	3/4"	FT 3020-12N	3/4 NPT	19	47.63	65	22.23	52	36	18	19	11.0	M 10x35	3/8x1 1/2	0.39		
350	3/4"	FT 3020-8N	1/2 NPT	13	47.63	65	22.23	52	36	18	19	11.0	M 10x35	3/8x1 1/2	0.42		
315	1 "	FT 3025-16N	1 NPT	25	52.37	70	26.19	59	38	18	22	11.0	M 10x35	3/8x1 1/2	0.46		
315	1 "	FT 3025-12N	3/4 NPT	19	52.37	70	26.19	59	35	21	19	11.0	M 10x35	3/8x1 1/2	0.49		
250	1 1/4"	FT 3032-20N	1 1/4 NPT	32	58.72	79	30.18	73	41	21	22	11.5	M 10x40	7/16x1 1/2	0.66		
250	1 1/4"	FT 3032-16N	1 NPT	25	58.72	81	30.18	73	42	25	22	11.5	M 10x40	7/16x1 1/2	0.75		
200	1 1/2"	FT 3040-24N	1 1/2 NPT	38	69.85	93	35.71	83	45	25	24	13.5	M 12x45	1/2x1 3/4	1.05		
200	1 1/2"	FT 3040-20N	1 1/4 NPT	32	69.85	95	35.71	83	45	27	24	13.5	M 12x45	1/2x1 3/4	1.10		
200	2"	FT 3050-32N	2 NPT	51	77.77	102	42.88	97	45	25	30	13.5	M 12x45	1/2x1 3/4	1.19		
200	2"	FT 3050-24N	1 1/2 NPT	38	77.77	102	42.88	97	45	25	26	13.5	M 12x45	1/2x1 3/4	1.25		
160	2 1/2"	FT 3065-40N	2 1/2 NPT	63	88.90	114	50.80	109	50	25	30	13.5	M 12x45	1/2x1 3/4	1.40		
138	3"	FT 3080-48N	3 NPT	73	106.38	134	61.93	131	50	27	34	17.0	M 16x50	5/8x2	2.15		
35	3 1/2"	FT 3090-56N	3 1/2 NPT	89	120.65	152	69.85	140	48	27	34	17.0	M 16x50	5/8x2	2.40		
35	4"	FT 3100-64N	4 NPT	99	130.18	162	77.77	152	48	27	34	17.0	M 16x50	5/8x2	2.85		
		High pressure															
	1/2"	FT 6015-8N	1/2 NPT	13	40.49	54	18.24	48	36	16	19	9.0	M 8x30	5/16x1 1/4	0.26		
	1/2"	FT 6015-6N	3/8 NPT	13	40.49	54	18.24	48	36	16	19	9.0	M 8x30	5/16x1 1/4	0.29		
	3/4"	FT 6020-12N	3/4 NPT	19	50.80	71	23.80	60	35	21	22	11.0	M 10x35	3/8x1 1/2	0.50		
	3/4"	FT 6020-8N	1/2 NPT	13	50.80	71	23.80	60	35	21	22	11.0	M 10x35	3/8x1 1/2	0.55		
	1 "	FT 6025-16N	1 NPT	25	57.15	81	27.76	70	42	25	24	13.0	M 12x45	7/16x1 3/4	0.76		
400	1 "	FT 6025-12N	3/4 NPT	19	57.15	81	27.76	70	42	25	24	13.0	M 12x45	7/16x1 3/4	0.80		
	1 1/4"	FT 6032-20N	1 1/4 NPT	32	66.68	95	31.75	78	45	27	25	15.0	M 14x45	1/2x1 3/4	1.20		
	1 1/4"	FT 6032-16N	1 NPT	25	66.68	95	31.75	78	45	27	25	15.0	M 14x45	1/2x1 3/4	1.30		
	1 1/2"	FT 6040-24N	1 1/2 NPT	38	79.38	112	36.50	95	50	30	28	17.0	M 16x50	5/8x2	1.65		
	1 1/2"	FT 6040-20N	1 1/4 NPT	32	79.38	112	36.50	95	50	30	28	17.0	M 16x50	5/8x2	1.75		
	2"	FT 6050-32N	2 NPT	51	96.82	134	44.45	114	65	37	30	21.0	M 20x65	3/4x2 1/2	2.45		
	2"	FT 6050-24N	1 1/2 NPT	38	96.82	134	44.45	114	65	37	30	21.0	M 20x65	3/4x2 1/2	2.55		

SAE-PIPE THREADED FLANGE-NPT-COMPANION



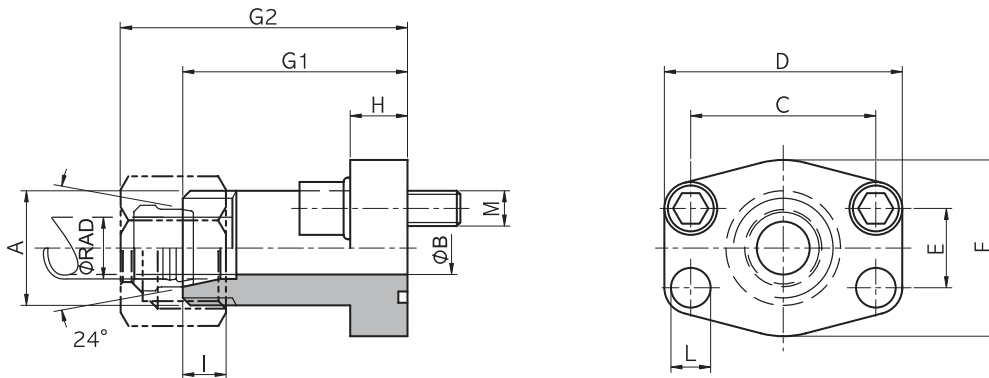
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Bolts		Weight kg.	
			A	B	C	D	E	F	G	H	I	M			
												metr.	unc		
		Standard pressure													
350	1/2"	FTC 3015-8N	1/2 NPT	13	38.10	54	17.48	46	36	16	19	M 8	5/16	0.25	
350	1/2"	FTC 3015-6N	3/8 NPT	13	38.10	54	17.48	46	36	16	19	M 8	5/16	0.28	
350	3/4"	FTC 3020-12N	3/4 NPT	19	47.63	65	22.23	52	36	18	19	M 10	3/8	0.39	
350	3/4"	FTC 3020-8N	1/2 NPT	13	47.63	65	22.23	52	36	18	19	M 10	3/8	0.42	
315	1 "	FTC 3025-16N	1 NPT	25	52.37	70	26.19	59	38	18	22	M 10	3/8	0.46	
315	1 "	FTC 3025-12N	3/4 NPT	19	52.37	70	26.19	59	35	21	19	M 10	3/8	0.49	
250	1 1/4"	FTC 3032-20N	1 1/4 NPT	32	58.72	79	30.18	73	41	21	22	M 10	7/16	0.66	
250	1 1/4"	FTC 3032-16N	1 NPT	25	58.72	81	30.18	73	42	25	22	M 10	7/16	0.75	
200	1 1/2"	FTC 3040-24N	1 1/2 NPT	38	69.85	93	35.71	83	45	25	24	M 12	1/2	1.05	
200	1 1/2"	FTC 3040-20N	1 1/4 NPT	32	69.85	95	35.71	83	45	27	24	M 12	1/2	1.10	
200	2 "	FTC 3050-32N	2 NPT	51	77.77	102	42.88	97	45	25	30	M 12	1/2	1.19	
200	2 "	FTC 3050-24N	1 1/2 NPT	38	77.77	102	42.88	97	45	25	26	M 12	1/2	1.25	
160	2 1/2"	FTC 3065-40N	2 1/2 NPT	63	88.90	114	50.80	109	50	25	30	M 12	1/2	1.40	
138	3 "	FTC 3080-48N	3 NPT	73	106.38	134	61.93	131	50	27	34	M 16	5/8	2.15	
35	3 1/2"	FTC 3090-56N	3 1/2 NPT	89	120.65	152	69.85	140	48	27	34	M 16	5/8	2.40	
35	4 "	FTC 3100-64N	4 NPT	99	130.18	162	77.77	152	48	27	34	M 16	5/8	2.85	
		High pressure													
	1/2"	FTC 6015-8N	1/2 NPT	13	40.49	54	18.24	48	36	16	19	M 8	5/16	0.26	
	1/2"	FTC 6015-6N	3/8 NPT	13	40.49	54	18.24	48	36	16	19	M 8	5/16	0.29	
	3/4"	FTC 6020-12N	3/4 NPT	19	50.80	71	23.80	60	35	21	22	M 10	3/8	0.50	
	3/4"	FTC 6020-8N	1/2 NPT	13	50.80	71	23.80	60	35	21	22	M 10	3/8	0.55	
	1 "	FTC 6025-16N	1 NPT	25	57.15	81	27.76	70	42	25	24	M 12	7/16	0.76	
400	1 "	FTC 6025-12N	3/4 NPT	19	57.15	81	27.76	70	42	25	24	M 12	7/16	0.80	
	1 1/4"	FTC 6032-20N	1 1/4 NPT	32	66.68	95	31.75	78	45	27	25	M 14	1/2	1.20	
	1 1/4"	FTC 6032-16N	1 NPT	25	66.68	95	31.75	78	45	27	25	M 14	1/2	1.30	
	1 1/2"	FTC 6040-24N	1 1/2 NPT	38	79.38	112	36.50	95	50	30	28	M 16	5/8	1.65	
	1 1/2"	FTC 6040-20N	1 1/4 NPT	32	79.38	112	36.50	95	50	30	28	M 16	5/8	1.75	
	2 "	FTC 6050-32N	2 NPT	51	96.82	134	44.45	114	65	37	30	M 20	3/4	2.45	
	2 "	FTC 6050-24N	1 1/2 NPT	38	96.82	134	44.45	114	65	37	30	M 20	3/4	2.55	

SAE-UN/UNF THREAD FLANGE



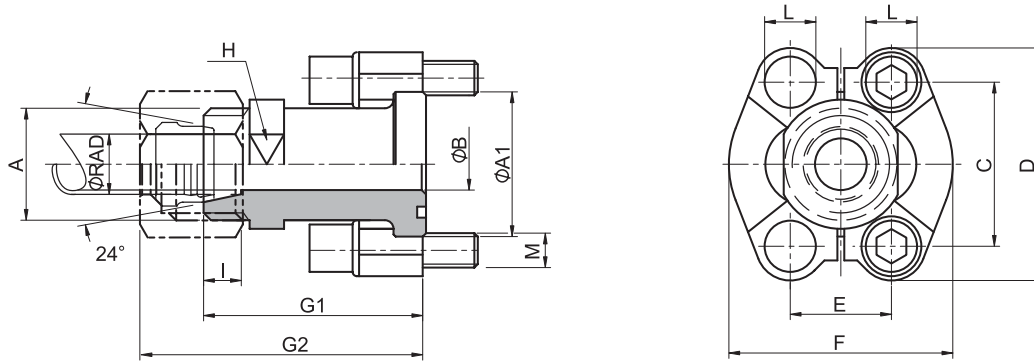
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions													Bolts		Weight kg.	
			A	B	C	D	E	F	G	H	I	L	U	K	Z	M			
			metr.		unc														
		Standard pressure																	
350	1/2"	FT 3015- 8U	3/4-16UNF	13	38.10	54	17.48	46	36	16	17	9.0	20.6	2.5	15°	M 8x30	5/16x1 1/4	0.25	
350	3/4"	FT 3020-12U	1 1/16-12UN	19	47.63	65	22.23	52	36	18	23	11.0	29.2	3.3	15°	M 10x35	3/8x1 1/2	0.39	
315	1 "	FT 3025-16U	1 5/16-12UN	25	52.37	70	26.19	59	38	18	23	11.0	35.5	3.3	15°	M 10x35	3/8x1 1/2	0.46	
250	1 1/4"	FT 3032-20U	1 5/8-12UN	32	58.72	79	30.18	73	41	21	23	11.5	43.5	3.3	15°	M 10x40	7/16x1 1/2	0.66	
200	1 1/2"	FT 3040-24U	1 7/8-12UN	38	69.85	93	35.71	83	45	25	23	13.5	49.8	3.3	15°	M 12x45	1/2x1 1/2	1.05	
		High pressure																	
	1/2"	FT 6015- 8U	3/4-16UNF	13	40.49	54	18.24	48	36	16	17	9.0	20.6	2.5	15°	M 8x30	5/16x1 1/4	0.26	
	3/4"	FT 6020-12U	1 1/16-12UN	19	50.80	71	23.80	60	35	21	23	11.0	29.3	3.3	15°	M 10x35	3/8x1 1/2	0.50	
400	1 "	FT 6025-16U	1 5/16-12UN	25	57.15	81	27.76	70	42	25	23	13.0	35.5	3.3	15°	M 12x45	7/16x1 1/2	0.76	
	1 1/4"	FT 6032-20U	1 5/8-12UN	32	66.68	95	31.75	78	45	27	23	15.0	43.5	3.3	15°	M 14x45	1/2x1 3/4	1.20	
	1 1/2"	FT 6040-24U	1 7/8-12UN	38	79.38	112	36.50	95	50	30	23	17.0	49.8	3.3	15°	M 16x50	5/8x2	1.65	

SAE-24° METRIC THREAD FLANGE DIN 3901/3902



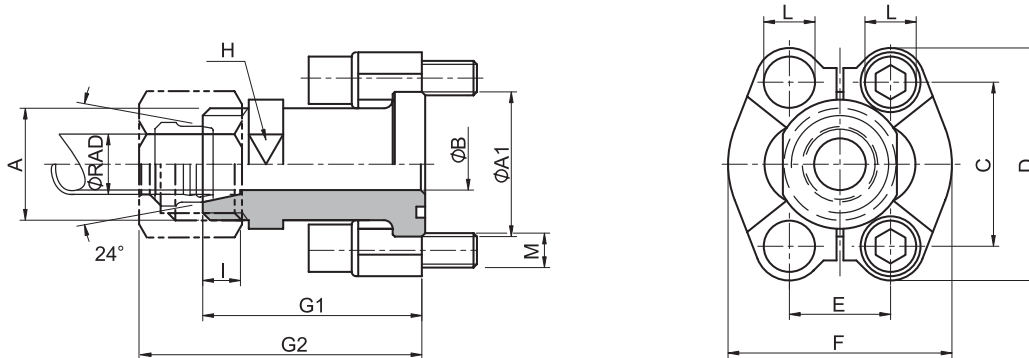
Maximum recommended working Pressurere kg / cm ²	Nominal flange size (inch)	Type	Dimensions											Bolts		Weight kg.		
			A	B	C	D	E	F	G1	G2	H	I	L	M				
															metr.		unc	
		Standard pressure																
315	1/2"	FD 3015-15L	M 22x1.5	12	38.10	54	17.48	46	52	60	13	7.0	9.0	M 8x25	5/16x1 1/4	0.25		
160	3/4"	FD 3020-22L	M 30x2	19	47.63	65	22.23	52	60	69	14	7.5	11.5	M 10x30	3/8x1 1/4	0.35		
345	3/4"	FD 3020-20S	M 30x2	16	47.63	65	22.23	52	60	73	14	10.5	11.5	M 10x30	3/8x1 1/4	0.36		
160	1"	FD 3025-22L	M 30x2	19	52.37	70	26.19	59	63	72	16	7.5	11.5	M 10x30	3/8x1 1/4	0.44		
160	1"	FD 3025-28L	M 36x2	24	52.37	70	26.19	59	63	72	16	7.5	11.5	M 10x30	3/8x1 1/4	0.50		
315	1"	FD 3025-20S	M 30x2	16	52.37	70	26.19	59	63	76	16	10.5	11.5	M 10x30	3/8x1 1/4	0.46		
315	1"	FD 3025-25S	M 36x2	20	52.37	70	26.19	59	63	75	16	12.0	11.5	M 10x30	3/8x1 1/4	0.52		
160	1 1/4"	FD 3032-28L	M 36x2	24	58.72	79	30.18	73	65	74	14	7.5	11.5	M 10x30	7/16x1 1/2	0.68		
160	1 1/4"	FD 3032-35L	M 45x2	29	58.72	79	30.18	73	65	76	14	10.5	11.5	M 10x30	7/16x1 1/2	0.72		
250	1 1/4"	FD 3032-30S	M 42x2	25	58.72	79	30.18	73	65	78	14	13.5	11.5	M 10x30	7/16x1 1/2	0.70		
160	1 1/2"	FD 3040-42L	M 52x2	36	69.85	94	35.71	83	70	82	16	11.0	13.5	M 12x35	1/2x1 1/2	1.00		
200	1 1/2"	FD 3040-38S	M 52x2	32	69.85	94	35.71	83	70	82	16	16.0	13.5	M 12x35	1/2x1 1/2	1.02		
		High pressure																
	1/2"	FD 6015-16S	M 24x1.5	12	40.49	56	18.24	48	60	70	16	8.5	9.0	M 8x30	5/16x1 1/4	0.30		
	3/4"	FD 6020-25S	M 36x2	19	50.80	71	23.80	60	73	85	19	12.0	11.5	M 10x35	3/8x1 1/2	0.68		
400	1"	FD 6025-30S	M 42x2	25	57.20	81	27.80	70	82	95	24	13.5	13.0	M 12x45	7/16x1 3/4	1.00		
	1 1/4"	FD 6032-30S	M 42x2	25	66.68	95	31.75	78	92	106	27	13.5	15.0	M 14x45	1/2x1 3/4	1.54		
	1 1/4"	FD 6032-38S	M 52x2	29	66.60	95	31.75	78	92	107	27	16.0	15.0	M 14x45	1/2x1 3/4	1.60		
	1 1/2"	FD 6040-38S	M 52x2	32	79.38	113	36.50	95	96	111	30	16.0	17.0	M 16x55	5/8x2	2.20		

SAE-24° METRIC THREAD ADAPTER FLANGE DIN 3901/3902



Maximum recommended working Pressurure kg / cm ²	Nominal flange size (inch)	Type	Dimensions											Bolts		Weight kg.		
			A	A1	B	C	D	E	F	G1	G2	I	L	H	M			
																	metr.	unc
		Standard pressure																
315	1/2"	FHD 3015-15L	M 22x1.5	30.2	12	38.10	54	17.48	45.6	48.2	56	7.0	9.0	24	M 8x25	5/16x1 1/4	0.29	
350	1/2"	FHD 3015-16S	M 24x1.5	30.2	13	38.10	54	17.48	45.6	50.2	60	8.5	9.0	24	M 8x25	5/16x1 1/4	0.32	
315	3/4"	FHD 3020-18L	M 26x1.5	38.1	15/20	47.63	65	22.23	51.8	53.2	62	7.5	11.0	30	M 10x30	3/8x1 1/2	0.55	
160	3/4"	FHD 3020-22L	M 30x2	38.1	19	47.63	65	22.23	51.8	53.2	62	7.5	11.0	30	M 10x30	3/8x1 1/2	0.56	
160	3/4"	FHD 3020-28L	M 36x2	38.1	19	47.63	65	22.23	51.8	53.2	62	7.5	11.0	30	M 10x30	3/8x1 1/2	0.75	
350	3/4"	FHD 3020-20S	M 30x2	38.1	16/20	47.63	65	22.23	51.8	57.2	68	10.5	11.0	30	M 10x30	3/8x1 1/2	0.63	
350	3/4"	FHD 3020-25S	M 36x2	38.1	17	47.63	65	22.23	51.8	57.2	69	12.0	11.0	30	M 10x30	3/8x1 1/2	0.76	
160	1"	FHD 3025-28L	M 36x2	44.4	24	52.37	70	26.19	58.4	54.2	65	7.5	11.0	36	M 10x30	3/8x1 1/2	0.69	
315	1"	FHD 3025-25S	M 36x2	44.4	20	52.37	70	26.19	58.4	58.2	70	12.0	11.0	36	M 10x30	3/8x1 1/2	0.78	
315	1"	FHD 3025-30S	M 42x2	44.4	24	52.37	70	26.19	58.4	63.2	76	13.5	11.0	36	M 10x30	3/8x1 1/2	0.91	
160	1 1/4"	FHD 3032-28L	M 36x2	50.8	22	58.72	79	30.18	72.6	58.6	67	7.5	11.5	36	M 10x35	7/16x1 1/2	1.05	
160	1 1/4"	FHD 3032-35L	M 45x2	50.8	30/32	58.72	79	30.18	72.6	58.2	69	10.5	11.5	41	M 10x35	7/16x1 1/2	1.10	
250	1 1/4"	FHD 3032-25S	M 36x2	50.8	20/27	58.72	79	30.18	72.6	60.2	72	12.0	11.5	41	M 10x35	7/16x1 1/2	1.17	
250	1 1/4"	FHD 3032-30S	M 42x2	50.8	25/28	58.72	79	30.18	72.6	62.2	75	13.5	11.5	41	M 10x35	7/16x1 1/2	1.19	
250	1 1/4"	FHD 3032-38S	M 52x2	50.8	28	58.72	79	30.18	72.6	66.6	81	16.0	11.5	46	M 10x35	7/16x1 1/2	1.39	
160	1 1/2"	FHD 3040-42L	M 52x2	60.3	36	69.85	94	35.71	82.2	64.2	76	11.0	13.5	46	M 12x35	1/2x1 1/2	1.34	
200	1 1/2"	FHD 3040-38S	M 52x2	60.3	32	69.85	94	35.71	82.2	70.2	85	16.0	13.5	46	M 12x35	1/2x1 1/2	1.50	

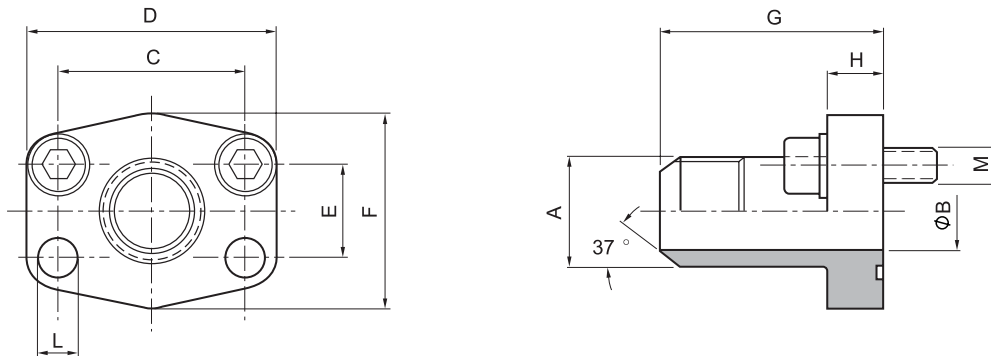
SAE-24° METRIC THREAD ADAPTER FLANGE DIN 3901/3902



Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions											Bolts		Weight kg.		
			A	A1	B	C	D	E	F	G1	G2	I	L	H	M			
																	metr.	unc
		High pressure																
400	1/2"	FHD 6015-16S	M 24x1.5	31.7	12	40.49	56	18.24	47.2	53.2	63	8.5	9.0	24	M 8x30	5/16x1 1/4	0.46	
	3/4"	FHD 6020-16S	M 24x1.5	41.3	12	50.80	71	23.80	60.0	59.2	69	8.5	11.0	30	M 10x35	3/8x1 1/2	0.78	
	3/4"	FHD 6020-20S	M 30x2	41.3	16	50.80	71	23.80	60.0	61.2	72	10.5	11.0	30	M 10x35	3/8x1 1/2	0.84	
	3/4"	FHD 6020-25S	M 36x2	41.3	17	50.80	71	23.80	60.0	63.2	75	12.0	11.0	30	M 10x35	3/8x1 1/2	0.96	
	3/4"	FHD 6020-30S	M 42x2	41.3	18	50.80	71	23.80	60.0	64.0	77	13.5	11.0	36	M 10x35	3/8x1 1/2	1.20	
350	1"	FHD 6025-25S	M 36x2	47.6	20	57.15	81	27.76	69.6	72.2	84	12.0	13.0	41	M 12x45	7/16x1 3/4	1.42	
	1"	FHD 6025-30S	M 42x2	47.6	24	57.15	81	27.76	69.6	74.0	87	13.5	13.0	41	M 12x45	7/16x1 3/4	1.52	
	1 1/4"	FHD 6032-30S	M 42x2	54.0	25/30	66.68	95	31.75	77.2	79.2	92	13.5	15.0	41	M 14x45	1/2x1 3/4	1.93	
	1 1/4"	FHD 6032-38S	M 52x2	54.0	30	66.68	95	31.75	77.2	83.2	98	16.0	15.0	46	M 14x45	1/2x1 3/4	2.08	
	1 1/2"	FHD 6040-38S	M 52x2	63.5	30	79.38	113	36.50	95.0	89.2	104	16.0	17.0	46	M 16x55	5/8x 2	3.03	

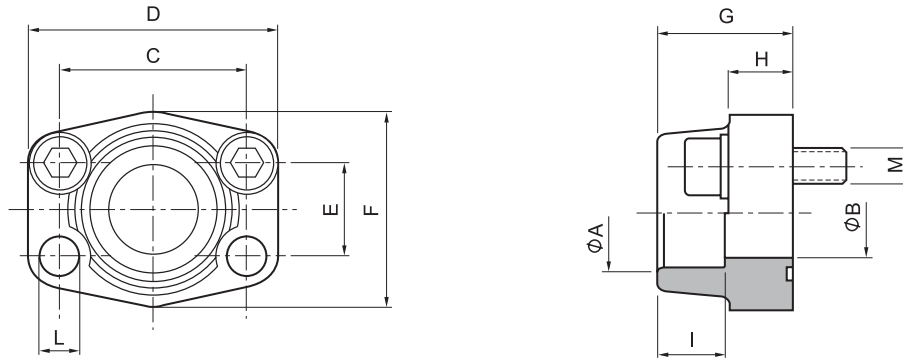
Please note: The maximum working pressure is fixed by SAE J 518 C on flange side or by the thread side to DIN 3861.

SAE-JIC 37° FLARED FLANGE



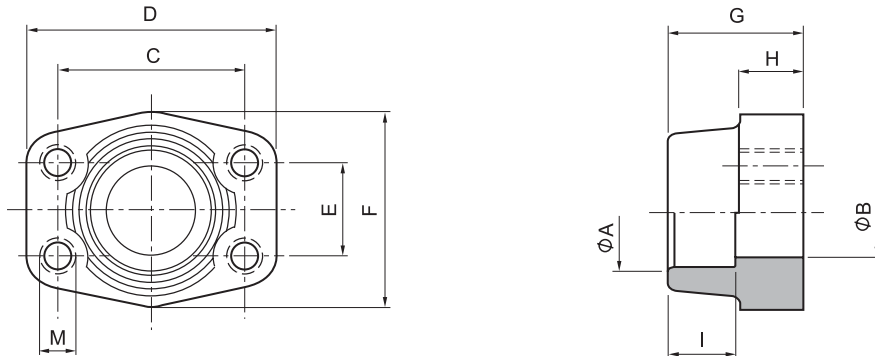
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Bolts		Weight kg.	
			A	B	C	D	E	F	G	H	L	M			
												metr.	unc		
		Standard pressure													
350	1/2"	FFL 3015-8J	3/4-16	9.9	38.10	54	17.48	46	52	13	9.0	M 8x30	5/16x1 1/4	0.25	
350	1/2"	FFL 3015-10J	7/8-14	12.3	38.10	54	17.48	46	52	13	9.0	M 8x30	3/8x1 1/4	0.30	
350	3/4"	FFL 3020-12J	1 1/16-12	15.5	47.63	65	22.23	52	60	14	11.5	M 10x30	3/8x1 1/4	0.35	
315	1"	FFL 3025-16J	1 5/16-12	21.5	52.37	70	26.19	59	63	16	11.5	M 10x30	3/8x1 1/4	0.50	
250	1 1/4"	FFL 3032-20J	1 5/8-12	27.5	58.72	79	30.18	73	65	14	11.5	M 10x30	7/16x1 1/2	0.70	
250	1 1/4"	FFL 3032-16J	1 5/16-12	21.5	58.72	79	30.18	73	65	14	11.5	M 10x30	7/16x1 1/2	0.70	
200	1 1/2"	FFL 3040-24J	1 7/8-12	33.0	69.85	94	35.71	83	70	16	13.5	M 12x35	1/2x1 1/2	1.00	
		High pressure													
	1/2"	FFL 6015-8J	3/4-16	9.9	40.49	56	18.24	48	60	16	9.0	M 8x30	5/16x1 1/4	0.30	
	1/2"	FFL 6015-10J	7/8-14	12.3	40.49	56	18.24	48	60	16	9.0	M 8x30	5/16x1 1/4	0.40	
400	3/4"	FFL 6020-12J	1 1/16-12	15.5	50.80	71	23.80	60	73	19	11.5	M 10x35	3/8x1 1/2	0.70	
	1"	FFL 6025-16J	1 5/16-12	21.5	57.15	81	27.76	70	82	24	13.0	M 12x45	7/16x1 3/4"	1.00	
	1 1/4"	FFL 6032-20J	1 5/8-12	27.5	66.68	95	31.75	78	92	27	15.0	M 14x45	1/2x1 3/4"	1.50	
	1 1/4"	FFL 6032-16J	1 5/16-12	21.5	66.68	95	31.75	78	92	27	15.0	M 14x45	1/2x1 3/4"	1.50	
	1 1/2"	FFL 6040-24J	1 7/8-12	33.0	79.38	113	36.50	95	96	30	17.0	M 16x55	5/8x 2	2.30	

SAE-SOCKET WELD FLANGE



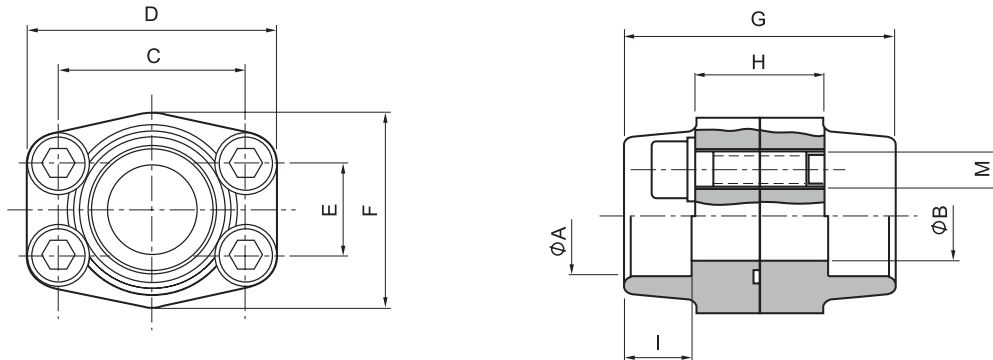
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions											Bolts		Weight kg.		
			Nominal Pipe Size	A	B	C	D	E	F	G	H	I	L	M				
														metr.	unc			
		Standard pressure																
350	1/2"	FSW 3015-04	21.3x3.7	22.0	13	38.10	54	17.48	46	36	16	19	9.0	M 8x30	5/16x1 1/4	0.25		
350	1/2"	FSW 3015-03	17.1x3.2	17.8	13	38.10	54	17.48	46	36	16	19	9.0	M 8x30	5/16x1 1/4	0.28		
350	3/4"	FSW 3020-06	26.7x3.9	27.4	19	47.63	65	22.23	52	36	18	19	11.0	M 10x35	3/8x1 1/2	0.39		
315	1"	FSW 3025-08	33.4x4.6	34.1	25	52.37	70	26.19	59	38	18	19	11.0	M 10x35	3/8x1 1/2	0.46		
250	1 1/4"	FSW 3032-10	42.2x4.9	42.9	32	58.72	79	30.18	73	41	21	22	11.5	M 10x40	7/16x1 1/2	0.66		
200	1 1/2"	FSW 3040-12	48.3x5.1	49.0	38	69.85	93	35.71	83	45	25	24	13.5	M 12x45	1/2x1 3/4	1.05		
200	2"	FSW 3050-16	60.3x5.5	61.4	51	77.77	102	42.88	97	45	25	26	13.5	M 12x45	1/2x1 3/4	1.19		
160	2 1/2"	FSW 3065-20	73.0x7.0	74.1	63	88.90	114	50.80	109	50	25	30	13.5	M 12x45	1/2x1 3/4	1.40		
138	3"	FSW 3080-24	88.9x7.6	90.0	73	106.38	134	61.93	131	50	27	34	17.0	M 16x50	5/8x2	2.15		
35	3 1/2"	FSW 3090-28	101.6x8.1	102.7	89	120.65	152	69.85	140	48	27	34	17.0	M 16x50	5/8x2	2.40		
35	4"	FSW 3100-32	114.3x8.6	115.5	99	130.18	162	77.77	152	48	27	34	17.0	M 16x50	5/8x2	2.85		
35	5"	FSW 3125-40	141.3x9.5	142.5	120	152.40	184	92.10	181	50	28	28	17.0	M 16x50	5/8x2	5.80		
		High pressure																
	1/2"	FSW 6015-04	21.3x3.7	22.0	13	40.49	54	18.24	48	36	16	19	9.0	M 8x30	5/16x1 1/4	0.26		
	1/2"	FSW 6015-03	17.1x3.2	17.8	13	40.49	54	18.24	48	36	16	19	9.0	M 8x30	5/16x1 1/4	0.29		
	3/4"	FSW 6020-06	26.7x3.9	27.4	19	50.80	71	23.80	60	35	21	22	11.0	M 10x35	3/8x1 1/2	0.50		
400	1"	FSW 6025-08	33.4x4.6	34.1	25	57.15	81	27.76	70	42	25	22	13.0	M 12x45	7/16x1 3/4	0.76		
	1 1/4"	FSW 6032-10	42.2x4.9	42.9	32	66.68	95	31.75	78	45	27	25	15.0	M 14x45	1/2x1 3/4	1.20		
	1 1/2"	FSW 6040-12	48.3x5.1	49.0	38	79.38	112	36.50	95	50	30	28	17.0	M 16x50	5/8x2	1.65		
	2"	FSW 6050-16	60.3x5.5	61.4	51	96.82	134	44.45	114	65	37	24	21.0	M 20x70	3/4x2 1/2	2.45		
	2 1/2"	FSW 6065-20	73.0x7.0	74.1	63	123.80	180	58.70	152	80	45	30	26.0	M 24x75	-	8.30		
	3"	FSW 6080-24	88.9x7.6	90.0	73	152.40	208	71.40	178	90	55	30	33.0	M 30x100	-	-		

SAE-SOCKET WELD FLANGE COMPANION



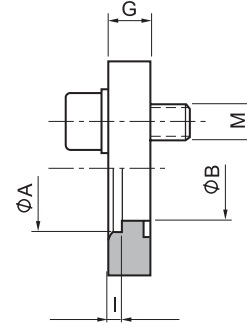
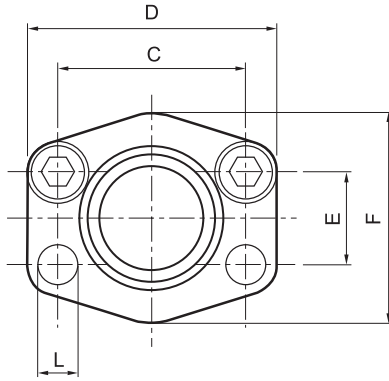
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Thread		Weight kg.		
			Nominal Pipe Size	A	B	C	D	E	F	G	H	I	M				
													metr.	unc			
		Standard pressure															
350	1/2"	FSWC 3015-04	21.3x3.7	22.0	13	38.10	54	17.48	46	36	16	19	M 8	5/16	0.25		
350	1/2"	FSWC 3015-03	17.1x3.2	17.8	13	38.10	54	17.48	46	36	16	19	M 8	5/16	0.28		
350	3/4"	FSWC 3020-06	26.7x3.9	27.4	19	47.63	65	22.23	52	36	18	19	M 10	3/8	0.39		
315	1"	FSWC 3025-08	33.4x4.6	34.1	25	52.37	70	26.19	59	38	18	19	M 10	3/8	0.46		
250	1 1/4"	FSWC 3032-10	42.2x4.9	42.9	32	58.72	79	30.18	73	41	21	22	M 10	7/16	0.66		
200	1 1/2"	FSWC 3040-12	48.3x5.1	49.0	38	69.85	93	35.71	83	45	25	24	M 12	1/2	1.05		
200	2"	FSWC 3050-16	60.3x5.5	61.4	51	77.77	102	42.88	97	45	25	26	M 12	1/2	1.19		
160	2 1/2"	FSWC 3065-20	73.0x7.0	74.1	63	88.90	114	50.80	109	50	25	30	M 12	1/2	1.40		
138	3"	FSWC 3080-24	88.9x7.6	90.0	73	106.38	134	61.93	131	50	27	34	M 16	5/8	2.15		
35	3 1/2"	FSWC 3090-28	101.6x8.1	102.7	89	120.65	152	69.85	140	48	27	34	M 16	5/8	2.40		
35	4"	FSWC 3100-32	114.3x8.6	115.5	99	130.18	162	77.77	152	48	27	34	M 16	5/8	2.85		
35	5"	FSWC 3125-40	141.3x9.5	142.5	120	152.40	184	92.10	181	50	28	28	M 16	5/8	5.80		
		High pressure															
	1/2"	FSWC 6015-04	21.3x3.7	22.0	13	40.49	54	18.24	48	36	16	19	M 8	5/16	0.26		
	1/2"	FSWC 6015-03	17.1x3.2	17.8	13	40.49	54	18.24	48	36	16	19	M 8	5/16	0.29		
	3/4"	FSWC 6020-06	26.7x3.9	27.4	19	50.80	71	23.80	60	35	21	22	M 10	3/8	0.50		
400	1"	FSWC 6025-08	33.4x4.6	34.1	25	57.15	81	27.76	70	42	25	22	M 12	7/16	0.76		
	1 1/4"	FSWC 6032-10	42.2x4.9	42.9	32	66.68	95	31.75	78	45	27	25	M 14	1/2	1.20		
	1 1/2"	FSWC 6040-12	48.3x5.1	49.0	38	79.38	112	36.50	95	50	30	28	M 16	5/8	1.65		
	2"	FSWC 6050-16	60.3x5.5	61.4	51	96.82	134	44.45	114	65	37	24	M 20	3/4	2.45		
	2 1/2"	FSWC 6065-20	73.0x7.0	74.1	63	123.80	180	58.70	152	80	45	30	M 24	-	8.30		
	3"	FSWC 6080-24	88.9x7.6	90.0	73	152.40	208	71.40	178	90	55	33	M 30	-	-		

SAE-SOCKET WELD FLANGE COUPLING



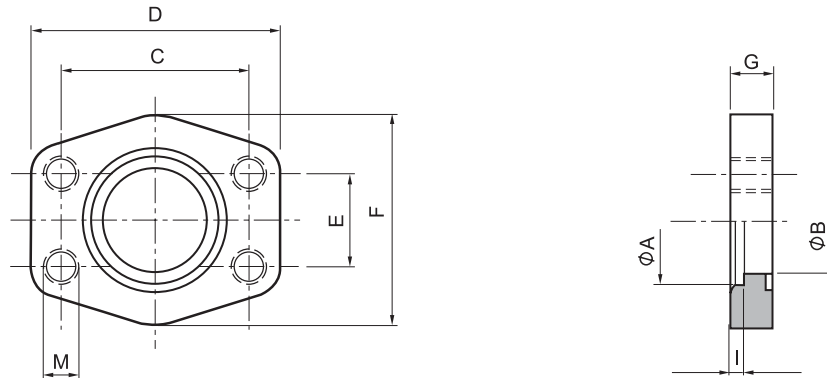
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Bolts		Weight kg.		
			Nominal Pipe Size	A	B	C	D	E	F	G	H	I	M				
													metr.	unc			
		Standard pressure															
350	1/2"	DFSW 3015-04	21.3x3.7	22.0	13	38.10	54	17.48	46	72	32	19	M 8x30	5/16x1 1/4	0.50		
350	1/2"	DFSW 3015-03	17.1x3.2	17.8	13	38.10	54	17.48	46	72	32	19	M 8x30	5/16x1 1/4	0.56		
350	3/4"	DFSW 3020-06	26.7x3.9	27.4	19	47.63	65	22.23	52	72	36	19	M 10x35	3/8x1 1/2	0.78		
315	1"	DFSW 3025-08	33.4x4.6	34.1	25	52.37	70	26.19	59	76	36	19	M 10x35	3/8x1 1/2	0.92		
250	1 1/4"	DFSW 3032-10	42.2x4.9	42.9	32	58.72	79	30.18	73	82	42	22	M 10x40	7/16x1 1/2	1.32		
200	1 1/2"	DFSW 3040-12	48.3x5.1	49.0	38	69.85	93	35.71	83	90	50	24	M 12x45	1/2x1 3/4	2.10		
200	2"	DFSW 3050-16	60.3x5.5	61.4	51	77.77	102	42.88	97	90	50	26	M 12x45	1/2x1 3/4	2.38		
160	2 1/2"	DFSW 3065-20	73.0x7.0	74.1	63	88.90	114	50.80	109	100	50	30	M 12x45	1/2x1 3/4	2.80		
138	3"	DFSW 3080-24	88.9x7.6	90.0	73	106.38	134	61.93	131	100	54	34	M 16x50	5/8x2	4.30		
35	3 1/2"	DFSW 3090-28	101.6x8.1	102.7	89	120.65	152	69.85	140	96	54	34	M 16x50	5/8x2	4.80		
35	4"	DFSW 3100-32	114.3x8.6	115.5	99	130.18	162	77.77	152	96	54	34	M 16x50	5/8x2	5.70		
35	5"	DFSW 3125-40	141.3x9.5	142.5	120	152.40	184	92.10	181	100	56	28	M 16x50	5/8x2	12.10		
		High pressure															
	1/2"	DFSW 6015-04	21.3x3.7	22.0	13	40.49	54	18.24	48	72	32	19	M 8x30	5/16x1 1/4	0.52		
	1/2"	DFSW 6015-03	17.1x3.2	17.8	13	40.49	54	18.24	48	72	32	19	M 8x30	5/16x1 1/4	0.58		
	3/4"	DFSW 6020-06	26.7x3.9	27.4	19	50.80	71	23.80	60	70	42	22	M 10x35	3/8x1 1/2	1.00		
400	1"	DFSW 6025-08	33.4x4.6	34.1	25	57.15	81	27.76	70	84	50	22	M 12x45	7/16x1 3/4	1.52		
	1 1/4"	DFSW 6032-10	42.2x4.9	42.9	32	66.68	95	31.75	78	90	54	25	M 14x50	1/2x1 3/4	2.40		
	1 1/2"	DFSW 6040-12	48.3x5.1	49.0	38	79.38	112	36.50	95	100	60	28	M 16x55	5/8x2	3.30		
	2"	DFSW 6050-16	60.3x5.5	61.4	51	96.82	134	44.45	114	130	74	24	M 20x70	3/4x2 1/2	4.90		
	2 1/2"	DFSW 6065-20	73.0x7.0	74.1	63	123.80	180	58.70	152	160	90	32	M 24x80	-	-		
	3"	DFSW 6080-24	88.9x7.6	90.0	73	152.40	208	71.40	178	180	110	30	M 30x100	-	-		

SAE-SOCKET WELD FLANGE 500PSI



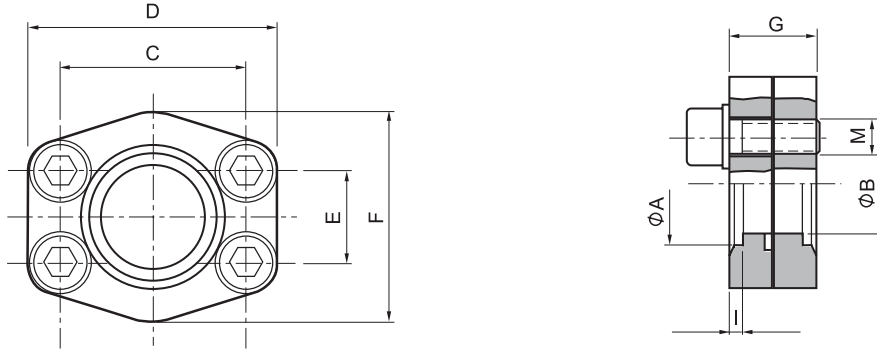
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Bolts		Weight kg.	
			Nominal Pipe Size	A	B	C	D	E	F	G	I	L	M			
													metr.	unc		
		Standard pressure														
40	1/2"	FSWL 3015-04	21.3x3.7	22.0	13	38.10	56	17.48	46	10	3	9.0	M 8x25	-	0.12	
40	3/4"	FSWL 3020-06	26.7x3.9	27.4	19	47.63	65	22.23	52	12	4	11.0	M 10x30	-	0.20	
40	1 "	FSWL 3025-08	33.4x4.6	34.1	25	52.37	70	26.19	59	12	4	11.0	M 10x30	-	0.25	
40	1 1/4"	FSWL 3032-10	42.2x4.9	42.9	32	58.72	79	30.18	73	12	4	11.5	M 10x30	-	0.31	
40	1 1/2"	FSWL 3040-12	48.3x5.1	49.0	38	69.85	93	35.71	83	15	4	13.5	M 12x35	-	0.50	
40	2 "	FSWL 3050-16	60.3x5.5	61.4	51	77.77	102	42.88	97	15	4	13.5	M 12x35	-	0.59	
40	2 1/2"	FSWL 3065-20	73.0x7.0	74.1	63	88.90	114	50.80	109	15	4	13.5	M 12x35	-	0.72	
40	3 "	FSWL 3080-24	88.9x7.6	90.0	76	106.38	134	61.93	131	20	5	17.0	M 16x40	-	1.25	
35	3 1/2"	FSWL 3090-28	101.6x8.1	102.7	89	120.65	152	69.85	140	20	5	17.0	M 16x40	-	1.50	
35	4 "	FSWL 3100-32	114.3x8.6	115.5	99	130.18	162	77.77	152	25	6	17.0	M 16x50	-	2.15	
35	5 "	FSWL 3125-40	141.3x9.5	142.5	120	152.40	190	92.08	181	28	8	17.0	M 16x50	-	3.00	

SAE-SOCKET WELD COMPANION 500PSI



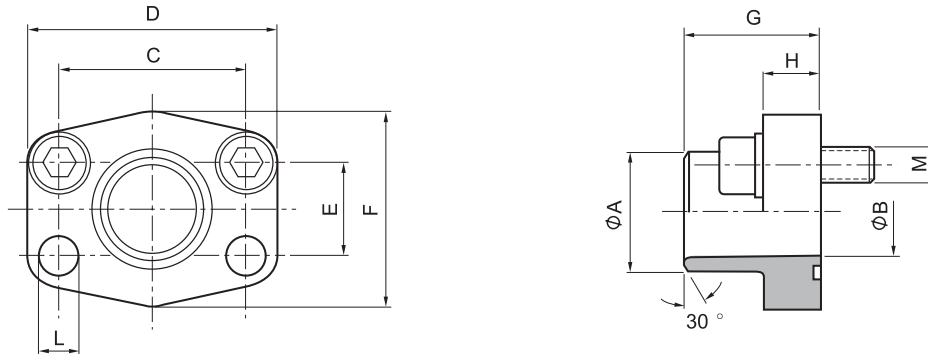
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Thread	Weight kg.	
			Nominal Pipe Size	A	B	C	D	E	F	G	I	M		
		Standard pressure												
40	1/2"	FSWLC 3015-04	21.3x3.7	22.0	13	38.10	56	17.48	46	10	3	M 8	0.12	
40	3/4"	FSWLC 3020-06	26.7x3.9	27.4	19	47.63	65	22.23	52	12	4	M 10	0.20	
40	1"	FSWLC 3025-08	33.4x4.6	34.1	25	52.37	70	26.19	59	12	4	M 10	0.25	
40	1 1/4"	FSWLC 3032-10	42.2x4.9	42.9	32	58.72	79	30.18	73	12	4	M 10	0.31	
40	1 1/2"	FSWLC 3040-12	48.3x5.1	49.0	38	69.85	93	35.71	83	15	4	M 12	0.50	
40	2"	FSWLC 3050-16	60.3x5.5	61.4	51	77.77	102	42.88	97	15	4	M 12	0.59	
40	2 1/2"	FSWLC 3065-20	73.0x7.0	74.1	63	88.90	114	50.80	109	15	4	M 12	0.72	
40	3"	FSWLC 3080-24	88.9x7.6	90.0	76	106.38	134	61.93	131	20	5	M 16	1.25	
35	3 1/2"	FSWLC 3090-28	101.6x8.1	102.7	89	120.65	152	69.85	140	20	5	M 16	1.50	
35	4"	FSWLC 3100-32	114.3x8.6	115.5	99	130.18	162	77.77	152	25	6	M 16	2.15	
35	5"	FSWLC 3125-40	141.3x9.5	142.5	120	152.40	190	92.08	181	28	8	M 16	3.00	

SAE-SOCKET WELD FLANGE COUPLING 500PSI



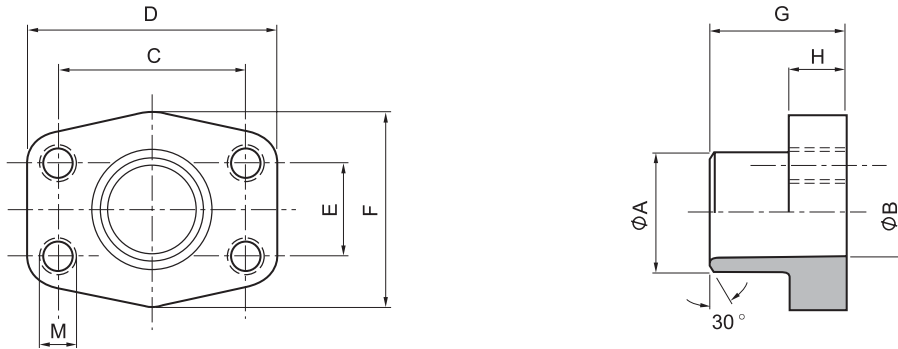
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Bolt	Weight kg.	
			Nominal Pipe Size	A	B	C	D	E	F	G	I	M		
		Standard pressure												
40	1/2"	DFSWL 3015-04	21.3x3.7	22.0	13	38.10	56	17.48	46	20	3	M 8x25	0.24	
40	3/4"	DFSWL 3020-06	26.7x3.9	27.4	19	47.63	65	22.23	52	24	4	M 10x30	0.40	
40	1"	DFSWL 3025-08	33.4x4.6	34.1	25	52.37	70	26.19	59	24	4	M 10x30	0.50	
40	1 1/4"	DFSWL 3032-10	42.2x4.9	42.9	32	58.72	79	30.18	73	24	4	M 10x30	0.62	
40	1 1/2"	DFSWL 3040-12	48.3x5.1	49.0	38	69.85	93	35.71	83	30	4	M 12x35	1.00	
40	2"	DFSWL 3050-16	60.3x5.5	61.4	51	77.77	102	42.88	97	30	4	M 12x35	1.18	
40	2 1/2"	DFSWL 3065-20	73.0x7.0	74.1	63	88.90	114	50.80	109	30	4	M 12x35	1.44	
40	3"	DFSWL 3080-24	88.9x7.6	90.0	76	106.38	134	61.93	131	40	5	M 16x40	2.50	
35	3 1/2"	DFSWL 3090-28	101.6x8.1	102.7	89	120.65	152	69.85	140	40	5	M 16x40	3.00	
35	4"	DFSWL 3100-32	114.3x8.6	115.5	99	130.18	162	77.77	152	50	6	M 16x45	4.30	
35	5"	DFSWL 3125-40	141.3x9.5	142.5	120	152.40	190	92.08	181	56	8	M 16x45	6.00	

SAE-BUTT WELD FLANGE



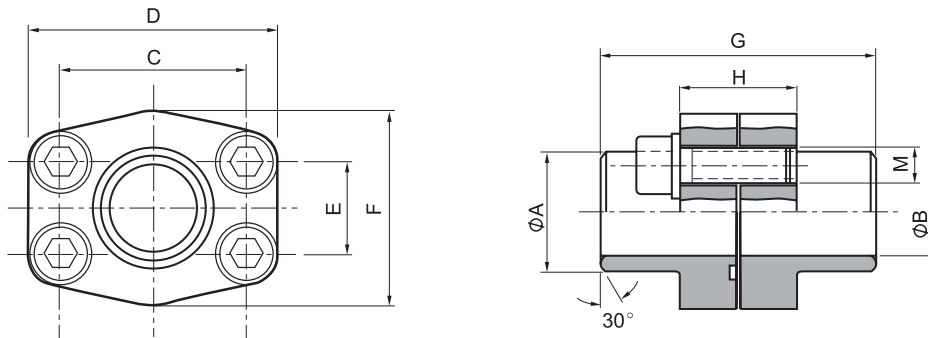
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Bolts		Weight kg.	
			A	B	C	D	E	F	G	H	L	M			
												metr.	unc		
		Standard pressure													
350	1/2"	FBW 3015-04	21.3	13.9	38.10	54	17.48	46	36	16	9.0	M 8x30	5/16x1 1/4	0.28	
350	3/4"	FBW 3020-06	26.7	18.9	47.63	65	22.23	52	36	18	11.0	M 10x35	3/8x1 1/2	0.39	
315	1"	FBW 3025-08	33.4	24.2	52.37	70	26.19	59	38	18	11.0	M 10x35	3/8x1 1/2	0.46	
250	1 1/4"	FBW 3032-10	42.2	32.4	58.72	79	30.18	73	41	21	11.5	M 10x40	7/16x1 1/2	0.66	
200	1 1/2"	FBW 3040-12	48.3	38.1	69.85	93	35.71	83	44	25	13.5	M 12x45	1/2x1 3/4	1.05	
200	2"	FBW 3050-16	60.3	49.3	77.77	102	42.88	97	45	25	13.5	M 12x45	1/2x1 3/4	1.19	
160	2 1/2"	FBW 3065-20	73.0	59.0	88.90	114	50.80	109	50	25	13.5	M 12x45	1/2x1 3/4	1.40	
138	3"	FBW 3080-24	88.9	73.7	106.38	134	61.93	131	50	27	17.0	M 16x50	5/8x2	2.15	
35	3 1/2"	FBW 3090-28	101.6	85.4	120.65	152	69.85	140	48	27	17.0	M 16x50	5/8x2	2.40	
35	4"	FBW 3100-32	114.3	97.1	130.18	162	77.77	152	48	27	17.0	M 16x50	5/8x2	2.85	
35	5"	FBW 3125-40	141.3	122.3	152.40	184	92.08	181	50	28	17.0	M 16x55	5/8x2	5.20	
		High pressure													
400	1/2"	FBW 6015-04	21.3	11.7	40.49	54	18.24	48	36	16	9.0	M 8x30	5/16x1 1/4	0.29	
400	3/4"	FBW 6020-06	26.7	15.5	50.80	71	23.80	60	35	21	11.0	M 10x35	3/8x1 1/2	0.50	
400	1"	FBW 6025-08	33.4	20.6	57.15	79	27.76	70	41	21	12.5	M 12x45	7/16x1 3/4	0.76	
375	1 1/4"	FBW 6032-10	42.2	29.4	66.68	93	31.75	78	44	25	14.5	M 14x45	1/2x1 3/4	1.20	
250	1 1/2"	FBW 6040-12	48.3	34.1	79.38	112	36.50	95	55	30	17.0	M 16x50	5/8x2	1.65	
250	2"	FBW 6050-16	60.3	42.9	96.82	134	44.45	114	65	37	21.0	M 20x65	3/4x2 1/2	2.45	
400	2 1/2"	FBW 6065-20	73.0	54.0	123.80	180	58.70	152	80	45	25.0	M 24x75	-	6.40	

SAE-BUTT WELD FLANGE COMPANION



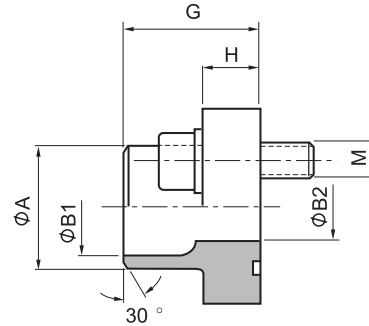
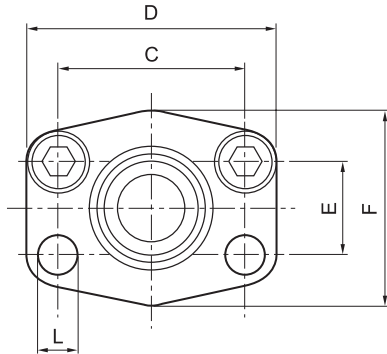
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions								Thread		Weight kg.
			A	B	C	D	E	F	G	H	M		
											metr.	unc	
		Standard pressure											
350	1/2"	FBWC 3015-04	21.3	13.9	38.10	54	17.48	46	36	16	M 8	5/16"	0.25
350	3/4"	FBWC 3020-06	26.7	18.9	47.63	65	22.23	52	36	18	M 10	3/8"	0.39
315	1"	FBWC 3025-08	33.4	24.2	52.37	70	26.19	59	38	18	M 10	3/8"	0.46
250	1 1/4"	FBWC 3032-10	42.2	32.4	58.72	79	30.18	73	41	21	M 10	7/16"	0.66
200	1 1/2"	FBWC 3040-12	48.3	38.1	69.85	93	35.71	83	44	25	M 12	1/2"	1.05
200	2"	FBWC 3050-16	60.3	49.3	77.77	102	42.88	97	45	25	M 12	1/2"	1.19
160	2 1/2"	FBWC 3065-20	73.0	59.0	88.90	114	50.80	109	50	25	M 12	1/2"	1.40
138	3"	FBWC 3080-24	88.9	73.7	106.38	134	61.93	131	50	27	M 16	5/8"	2.15
35	3 1/2"	FBWC 3090-28	101.6	85.4	120.65	152	69.85	140	48	27	M 16	5/8"	2.40
35	4"	FBWC 3100-32	114.3	97.1	130.18	162	77.77	152	48	27	M 16	5/8"	2.85
35	5"	FBWC 3125-40	141.3	122.3	152.40	184	92.08	181	50	28	M 16	5/8"	5.20
		High pressure											
400	1/2"	FBWC 6015-04	21.3	11.7	40.49	54	18.24	48	36	16	M 8	5/16"	0.26
400	3/4"	FBWC 6020-06	26.7	15.5	50.80	71	23.80	60	35	21	M 10	3/8"	0.50
400	1"	FBWC 6025-08	33.4	20.6	57.15	79	27.76	70	41	21	M 12	7/16"	0.76
375	1 1/4"	FBWC 6032-10	42.2	29.4	66.68	93	31.75	78	44	25	M 14	1/2"	1.20
250	1 1/2"	FBWC 6040-12	48.3	34.1	79.38	112	36.50	95	55	30	M 16	5/8"	1.65
250	2"	FBWC 6050-16	60.3	42.9	96.82	134	44.45	114	65	37	M 20	3/4"	2.45
400	2 1/2"	FBWC 6065-20	73.0	54.0	123.80	180	58.70	152	80	45	M 24	-	6.40

SAE-BUTT WELD FLANGE COUPLING



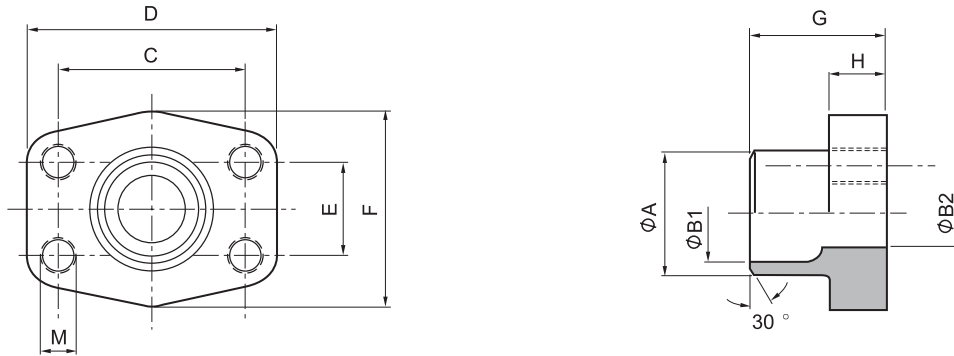
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions								Bolt		Weight kg.	
			A	B	C	D	E	F	G	H	M			
											metr.	unc		
		Standard pressure												
350	1/2"	DFBW 3015	21.3	13.9	38.10	54	17.48	46	72	32	M 8x30	5/16x1 1/4	0.56	
350	3/4"	DFBW 3020	26.7	18.9	47.63	65	22.23	52	72	36	M 10x35	3/8x1/2	0.78	
315	1"	DFBW 3025	33.4	24.2	52.37	70	26.19	59	76	36	M 10x35	3/8x1/2	0.92	
250	1 1/4"	DFBW 3032	42.2	32.4	58.72	79	30.18	73	82	42	M 10x40	7/16x1/2	1.32	
200	1 1/2"	DFBW 3040	48.3	38.1	69.85	93	35.71	83	88	50	M 12x45	1/2x1 3/4	2.10	
200	2"	DFBW 3050	60.3	49.3	77.77	102	42.88	97	90	50	M 12x45	1/2x1 3/4	2.38	
160	2 1/2"	DFBW 3065	73.0	59.0	88.90	114	50.80	109	100	50	M 12x45	1/2x1 3/4	2.80	
138	3"	DFBW 3080	88.9	73.7	106.38	134	61.93	131	100	54	M 16x50	5/8x2	4.30	
35	3 1/2"	DFBW 3090	101.6	85.4	120.65	152	69.85	140	96	54	M 16x50	5/8x2	4.80	
35	4"	DFBW 3100	114.3	97.1	130.18	162	77.77	152	96	54	M 16x50	5/8x2	5.70	
35	5"	DFBW 3125	141.3	122.3	152.40	184	92.08	181	100	56	M 16x55	5/8x2	10.00	
		High pressure												
400	1/2"	DFBW 6015	21.3	11.7	40.49	54	18.24	48	72	32	M 8x30	5/16x1 1/4	0.58	
400	3/4"	DFBW 6020	26.7	15.5	50.80	71	23.80	60	70	42	M 10x35	3/8x1/2	1.00	
400	1"	DFBW 6025	33.4	20.6	57.15	79	27.76	70	82	42	M 12x45	7/16x1 3/4	1.52	
375	1 1/4"	DFBW 6032	42.2	29.4	66.68	93	31.75	78	88	48	M 14x50	1/2x1 3/4	2.40	
250	1 1/2"	DFBW 6040	48.3	34.1	79.38	112	36.50	95	110	60	M 16x55	5/8x2	3.30	
250	2"	DFBW 6050	60.3	42.9	96.82	134	44.45	114	130	74	M 20x70	3/4x2 1/2	4.90	
400	2 1/2"	DFBW 6065	73.0	54.0	123.80	180	58.70	152	160	90	M 24x75	-	12.80	

SAE-BUTT WELD FLANGE SCHEDULE 40



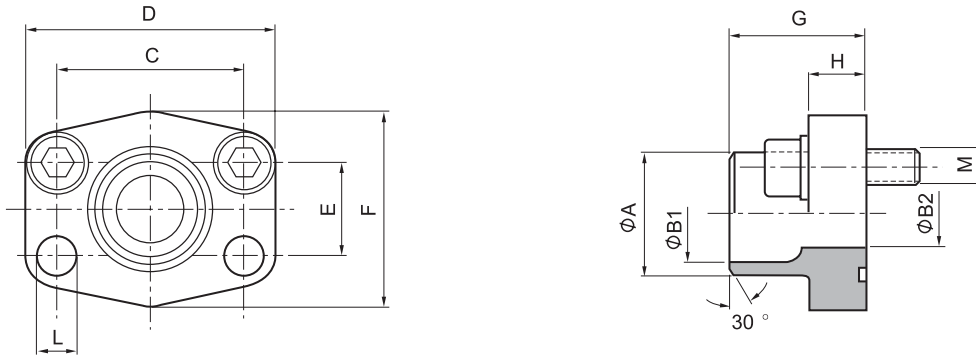
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions											Bolts		Weight kg.	
			Nominal Pipe Size	A	B1	B2	C	D	E	F	G	H	L	M			
														metr.	unc		
		Standard pressure															
350	1/2"	FBW 3015-04H	21.3x2.7	21.3	15.9	13	38.10	54	17.48	46	35	16.0	9.0	M 8x30	5/16x1 1/4	0.28	
350	3/4"	FBW 3020-06H	26.7x2.9	26.7	20.9	19	47.63	65	22.23	52	36	18.0	11.0	M 10x35	3/8x1 1/2	0.39	
350	1"	FBW 3025-08H	33.4x3.4	33.4	26.6	25	52.37	70	26.19	59	38	18.0	11.0	M 10x35	3/8x1 1/2	0.46	
280	1 1/4"	FBW 3032-10H	42.2x3.6	42.2	35.0	31	58.72	79	30.18	73	41	21.0	11.5	M 10x40	7/16x1 1/2	0.66	
210	1 1/2"	FBW 3040-12H	48.3x3.7	48.3	40.9	38	69.85	93	35.71	83	45	24.5	13.5	M 12x45	1/2x1 3/4	1.05	
210	2"	FBW 3050-16H	60.3x3.9	60.3	52.5	51	77.77	102	42.88	97	45	25.0	13.5	M 12x45	1/2x1 3/4	1.19	
175	2 1/2"	FBW 3065-20H	73.0x5.2	73.0	62.6	63	88.90	114	50.80	109	50	25.0	13.5	M 12x45	1/2x1 3/4	1.40	
140	3"	FBW 3080-24H	88.9x5.5	88.9	77.9	76	106.38	134	61.93	131	51	26.0	17.0	M 16x50	5/8x2	2.15	
35	3 1/2"	FBW 3090-28H	101.6x5.7	101.6	90.2	89	120.65	152	69.85	140	48	26.0	17.0	M 16x50	5/8x2	2.40	
35	4"	FBW 3100-32H	114.3x6.0	114.3	102.3	102	130.18	162	77.77	152	48	26.0	17.0	M 16x50	5/8x2	2.85	
35	5"	FBW 3125-40H	141.3x6.6	141.3	128	127	152.40	184	92.08	181	50	28.0	17.0	M 16x55	5/8x2	5.00	

SAE-BUTT WELD FLANGE SCHEDULE 40-COMPANION



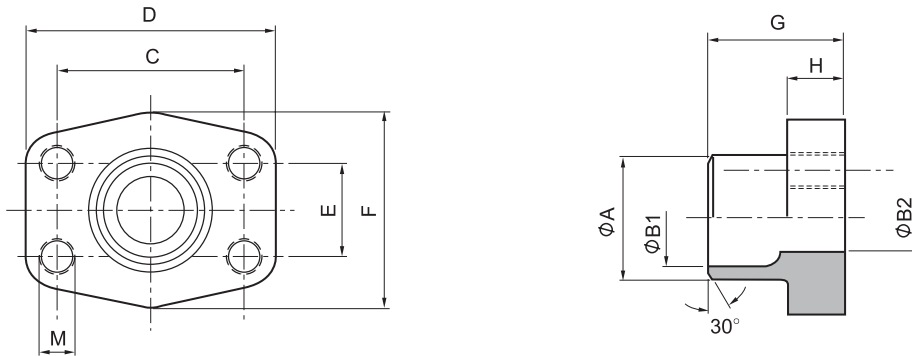
Maximum recommended working Pressure kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Thread	Weight kg.	
			Nominal Pipe Size	A	B1	B2	C	D	E	F	G	H	M		
		Standard pressure													
350	1/2"	FBWC 3015-04H	21.3x2.7	21.3	15.9	13	38.10	54	17.48	46	35	16.0	M 8	0.28	
350	3/4"	FBWC 3020-06H	26.7x2.9	26.7	20.9	19	47.63	65	22.23	52	36	18.0	M 10	0.39	
350	1"	FBWC 3025-08H	33.4x3.4	33.4	26.6	25	52.37	70	26.19	59	38	18.0	M 10	0.46	
280	1 1/4"	FBWC 3032-10H	42.2x3.6	42.2	35.0	31	58.72	79	30.18	73	41	21.0	M 10	0.66	
210	1 1/2"	FBWC 3040-12H	48.3x3.7	48.3	40.9	38	69.85	93	35.71	83	45	25.0	M 12	1.05	
210	2"	FBWC 3050-16H	60.3x3.9	60.3	52.5	51	77.77	102	42.88	97	45	25.0	M 12	1.19	
175	2 1/2"	FBWC 3065-20H	73.0x5.2	73.0	62.6	63	88.90	114	50.80	109	50	25.0	M 12	1.40	
140	3"	FBWC 3080-24H	88.9x5.5	88.9	77.9	76	106.38	134	61.93	131	51	26.0	M 16	2.15	
35	3 1/2"	FBWC 3090-28H	101.6x5.7	101.6	90.2	89	120.65	152	69.85	140	48	26.0	M 16	2.38	
35	4"	FBWC 3100-32H	114.3x6.0	114.3	102.3	102	130.18	162	77.77	152	48	26.0	M 16	2.85	
35	5"	FBWC 3125-40H	141.3x6.6	141.3	128	127	152.40	184	92.08	181	50	28.0	M 18	5.00	

SAE-BUTT WELD FLANGE-METRIC TUBE



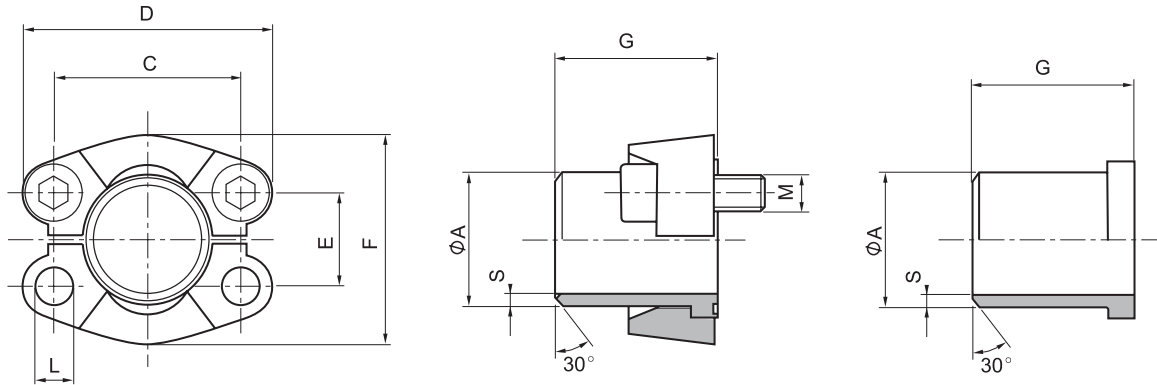
Maximum recommended working Pressurure kg / cm ²	Nominal flange size (inch)	Type	Dimensions											Bolts		Weight kg.	
			Tube Size	A	B1	B2	C	D	E	F	G	H	L	M			
														metr.	unc		
		Standard pressure															
350	1/2"	FBW 3015-20M	20x3	20	14.0	14	38.10	54	17.48	46	35.0	16.0	9.0	M 8x30	5/16x1 1/4	0.28	
350	1/2"	FBW 3015-22M	22x3	22	16.0	13	38.10	54	17.48	46	35.0	16.0	9.0	M 8x30	5/16x1 1/4	0.28	
350	3/4"	FBW 3020-25M	25x3	25	19.0	19	47.63	65	22.23	52	36.0	18.0	11.0	M 10x35	3/8x1 1/2	0.39	
350	3/4"	FBW 3020-28M	28x3	28	21.5	19	47.63	65	22.23	52	36.0	18.0	11.0	M 10x35	3/8x1 1/2	0.39	
315	1"	FBW 3025-30M	30x4	30	22.0	22	52.37	70	26.19	59	38.0	18.0	11.0	M 10x35	3/8x1 1/2	0.46	
315	1"	FBW 3025-35M	35x4	35	27.0	25	52.37	70	26.19	59	38.0	18.0	11.0	M 10x35	3/8x1 1/2	0.47	
250	1 1/4"	FBW 3032-38M	38x4	38	30.0	30	58.72	79	30.18	73	41.0	21.0	11.5	M 10x40	7/16x1 1/2	0.66	
250	1 1/4"	FBW 3032-42M	42x3	42	36.0	31	58.72	79	30.18	73	41.0	21.0	11.5	M 10x40	7/16x1 1/2	0.66	
200	1 1/2"	FBW 3040-38M	38x4	38	30.0	30	69.85	93	35.71	83	44.5	24.5	13.5	M 12x45	1/2x1 3/4	1.05	
200	1 1/2"	FBW 3040-42M	42x3	42	36.0	36	69.85	93	35.71	83	44.5	24.5	13.5	M 12x45	1/2x1 3/4	1.05	
200	1 1/2"	FBW 3040-48M	48.3x4.5	49	38.0	38	69.85	93	35.71	83	44.5	24.5	13.5	M 12x45	1/2x1 3/4	1.05	
200	2"	FBW 3050-60M	60.3x5.6	61	49.0	49	77.77	102	42.88	97	45.0	25.0	13.5	M 12x45	1/2x1 3/4	1.20	
160	2 1/2"	FBW 3065-76M	76.1x7.1	77	62.0	62	88.90	114	50.80	109	50.0	25.0	13.5	M 12x45	1/2x1 3/4	1.40	
138	3"	FBW 3080-76M	76.1x7.1	77	62.0	62	106.38	134	61.93	131	51.0	26.0	17.0	M 16x50	5/8x 2	2.15	
		High pressure															
	1/2"	FBW 6015-20M	20x3	20	14	14	40.49	54	18.24	48	34	16	9.0	M 8x30	5/16x1 1/4	0.29	
	3/4"	FBW 6020-20M	20x3	20	14	14	50.80	71	23.80	60	35	21	11.0	M 10x35	3/8x1 1/2	0.50	
	3/4"	FBW 6020-25M	25x4	25	17	17	50.80	71	23.80	60	35	21	11.0	M 10x35	3/8x1 1/2	0.53	
	1"	FBW 6025-25M	25x4	25	17	17	57.15	81	27.76	70	42	25	13.0	M 12x45	7/16x1 1/2	0.76	
	1"	FBW 6025-30M	30x4	30	22	22	57.15	81	27.76	70	42	25	13.0	M 12x45	7/16x1 1/2	0.80	
400	1 1/4"	FBW 6032-30M	30x4	30	22	22	66.68	95	31.75	78	44	25	15.0	M 14x45	1/2x1 3/4	1.20	
	1 1/4"	FBW 6032-38M	38x6	38	26	26	66.68	95	31.75	78	44	25	15.0	M 14x45	1/2x1 3/4	1.29	
	1 1/2"	FBW 6040-38M	38x6	38	26	26	79.38	112	36.50	95	56	28	17.0	M 16x50	5/8x2	1.52	
	1 1/2"	FBW 6040-48M	48.3x8	49	32	32	79.38	112	36.50	95	56	28	17.0	M 16x50	5/8x2	1.57	
	1 1/2"	FBW 6040-60M	60.3x10	61	40	40	79.38	112	36.50	95	56	28	17.0	M 16x50	5/8x2	1.65	
	2"	FBW 6050-60M	60.3x10	61	40	40	96.82	134	44.45	114	65	37	21.0	M 20x70	3/4x2 1/2	2.45	
	2"	FBW 6050-76M	76.1x12.5	76	50	48	96.82	134	44.45	114	80	33	21.0	M 20x65	3/4x2 1/2	2.96	

SAE-BUTT WELD FLANGE-METRIC TUBE-COMPANION



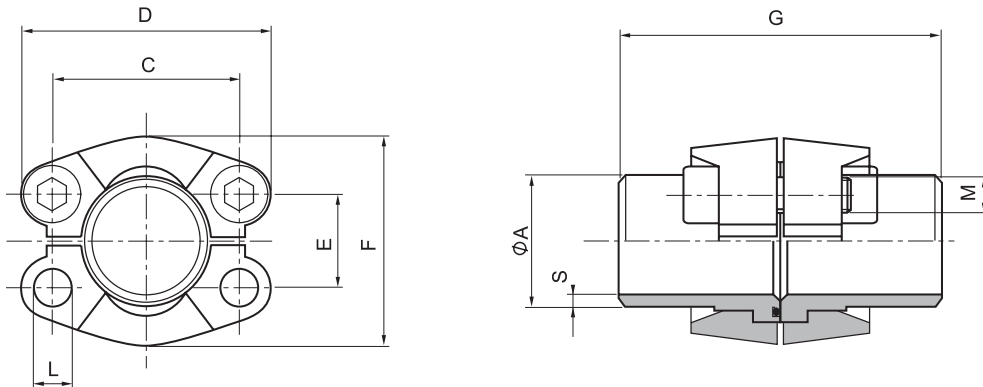
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Thread	Weight kg.	
			Tube Size	A	B1	B2	C	D	E	F	G	H	M		
		Standard pressure													
350	1/2"	FBWC3015-20M	20x3	20	14.0	14	38.10	54	17.48	46	35.0	16.0	M 8	0.28	
350	1/2"	FBWC3015-22M	22x3	22	16.0	13	38.10	54	17.48	46	35.0	16.0	M 8	0.28	
350	3/4"	FBWC3020-25M	25x3	25	19.0	19	47.63	65	22.23	52	36.0	18.0	M 10	0.39	
350	3/4"	FBWC3020-28M	28x3	28	21.5	19	47.63	65	22.23	52	36.0	18.0	M 10	0.39	
315	1"	FBWC3025-30M	30x4	30	22.0	22	52.37	70	26.19	59	38.0	18.0	M 10	0.46	
315	1"	FBWC3025-35M	35x4	35	27.0	25	52.37	70	26.19	59	38.0	18.0	M 10	0.47	
250	1 1/4"	FBWC3032-38M	38x4	38	30.0	30	58.72	79	30.18	73	41.0	21.0	M 10	0.66	
250	1 1/4"	FBWC3032-42M	42x3	42	36.0	31	58.72	79	30.18	73	41.0	21.0	M 10	0.66	
200	1 1/2"	FBWC3040-38M	38x4	38	30.0	30	69.85	93	35.71	83	44.5	24.5	M 12	1.05	
200	1 1/2"	FBWC3040-42M	42x3	42	36.0	36	69.85	93	35.71	83	44.5	24.5	M 12	1.05	
200	1 1/2"	FBWC3040-48M	48.3x4.5	49	38.0	38	69.85	93	35.71	83	44.5	24.5	M 12	1.05	
200	2"	FBWC3050-60M	60.3x5.6	61	49.0	49	77.77	102	42.88	97	45.0	25.0	M 12	1.20	
160	2 1/2"	FBWC3065-76M	76.1x7.1	77	62.0	62	88.90	114	50.80	109	50.0	25.0	M 12	1.40	
138	3"	FBWC3080-76M	76.1x7.1	77	62.0	62	106.38	134	61.93	131	51.0	26.0	M 16	2.15	
		High pressure													
	1/2"	FBWC6015-20M	20x3	20	14.0	14	40.49	54	18.24	48	34.0	16.0	M 8	0.29	
	1/2"	FBWC6015-20M	20x3	20	14.0	14	50.80	71	23.80	48	35.0	21.0	M 10	0.50	
	3/4"	FBWC6020-25M	25x4	25	17.0	17	50.80	71	23.80	60	35.0	21.0	M 10	0.53	
	1"	FBWC6025-25M	25x4	25	17.0	17	57.15	81	27.76	70	42.0	25.0	M 12	0.76	
400	1"	FBWC6025-30M	30x4	30	22.0	22	57.15	81	27.76	70	42.0	25.0	M 12	0.80	
	1 1/4"	FBWC6032-30M	30x4	30	22.0	22	66.68	95	31.75	78	44.0	25.0	M 14	1.20	
	1 1/4"	FBWC6032-38M	38x6	38	26.0	26	66.68	95	31.75	78	44.0	25.0	M 14	1.29	
	1 1/2"	FBWC6040-38M	38x6	38	26.0	26	79.38	112	36.50	95	56.0	28.0	M 16	1.52	
	1 1/2"	FBWC6040-48M	48.3x8	49	32.0	32	79.38	112	36.50	95	56.0	28.0	M 16	1.57	
	1 1/2"	FBWC6040-60M	60.3x10	61	40.0	40	79.38	112	36.50	95	56.0	28.0	M 16	1.65	
	2"	FBWC6050-60M	60.3x10	61	40.0	40	96.82	134	44.45	114	65.0	37.0	M 20	2.45	
	2"	FBWC6050-76M	76.1x12.5	76	50.0	48	96.82	134	44.45	114	80.0	33.0	M 20	2.96	

SAE-WELDING HEAD FLANGE



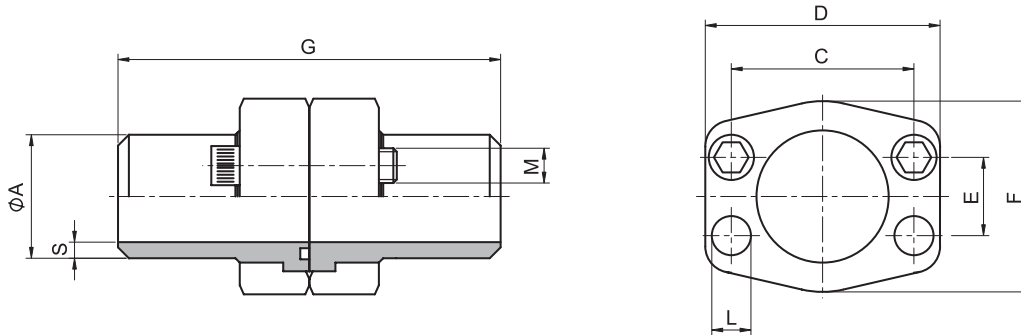
Maximum recommended working Pressuure kg / cm ²	Nominal flange size (inch)	Type	Dimensions							Bolts		Weight kg.
			Pipe Size A x S	C	D	E	F	G	L	M		
										metr.	unc	
Standard pressure												
350	1/2"	FWH 3015	21.3x3.7	38.10	54	17.48	45.6	41	9.0	M 8x25	5/16x1 1/4	0.08
350	3/4"	FWH 3020	26.7x3.9	47.63	65	22.23	51.8	50	11.0	M 10x30	3/8x1 1/4	0.16
315	1"	FWH 3025	33.4x4.6	52.37	70	26.19	58.4	50	11.0	M 10x30	3/8x1 1/4	0.23
250	1 1/4"	FWH 3032	42.2x4.9	58.72	79	30.18	72.6	55	11.5	M 10x30	7/16x1 1/2	0.30
200	1 1/2"	FWH 3040	48.3x5.1	69.85	94	35.71	82.2	57	13.5	M 12x35	1/2x1 1/2	0.40
200	2"	FWH 3050	60.3x5.5	77.77	102	42.88	96.4	57	13.5	M 12x35	1/2x1 1/2	0.50
160	2 1/2"	FWH 3065	73.0x7.0	88.90	114	50.80	108.2	58	13.5	M 12x40	1/2x1 3/4	0.80
138	3"	FWH 3080	88.9x7.6	106.38	135	61.93	130.6	58	17.0	M 16x50	5/8x2	1.10
35	3 1/2"	FWH 3090	101.6x8.1	120.65	152	69.85	139.0	60	17.0	M 16x50	5/8x2	1.40
35	4"	FWH 3100	114.3x8.6	130.18	162	77.77	152.0	60	17.0	M 16x50	5/8x2	1.75
35	5"	FWH 3125	141.3x9.5	152.40	184	92.08	180.0	60	17.0	M 16x55	5/8x2	2.62
High pressure												
	1/2"	FWH 6015	21.3x4.8	40.49	56	18.24	47.2	34	9.0	M 8x30	5/16x1 1/4	0.08
	3/4"	FWH 6020	26.7x5.6	50.80	71	23.80	60.0	38	11.0	M 10x35	3/8x1 1/2	0.17
	1"	FWH 6025	33.4x6.4	57.15	81	27.76	69.6	40	12.5	M 12x45	7/16x1 3/4	0.25
400	1 1/4"	FWH 6032	42.2x6.4	66.68	95	31.75	77.2	45	14.5	M 14x50	1/2x1 3/4	0.30
	1 1/2"	FWH 6040	48.3x7.1	79.38	113	36.50	95.0	50	17.0	M 16x55	5/8x2	0.53
	2"	FWH 6050	60.3x8.7	96.82	133	44.45	113.8	58	21.0	M 20x70	3/4x2 1/2	0.90
	2 1/2"	FWH 6065	73.0x9.5	123.80	180	58.80	150.2	75	26.0	M 24x75	-	2.40
	3"	FWH 6080	88.9x11.1	152.40	215	71.60	198.2	80	31.0	M 30x90	-	3.60

SAE - WELDING HEAD FLANGE-COUPLING



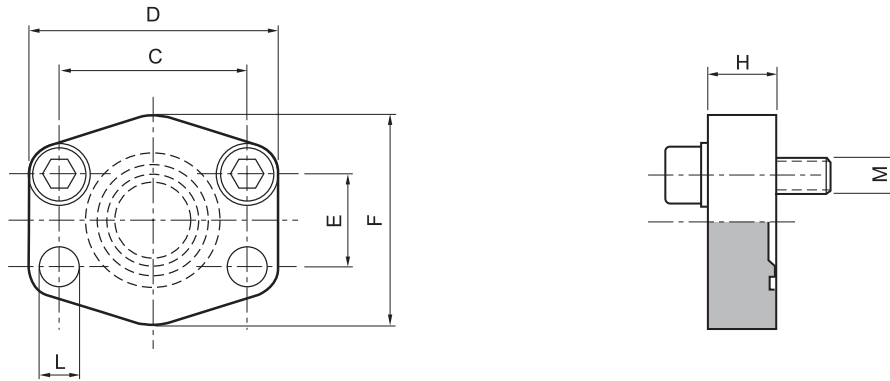
Maximum recommended working Pressure kg / cm ²	Nominal flange size (inch)	Type	Dimensions							Bolts		Weight kg.
			Pipe Size A x S	C	D	E	F	G	L	M		
										metr.	unc	
		Standard pressure										
350	1/2"	DFWH 3015	21.3x3.7	38.10	54	17.48	45.6	82	9.00	M 8x25	5/16x1 1/4	0.50
350	3/4"	DFWH 3020	26.7x3.9	47.63	65	22.23	51.8	100	11.00	M 10x30	3/8x1 1/4	0.80
315	1"	DFWH 3025	33.4x4.6	52.37	70	26.19	58.4	100	11.00	M 10x30	3/8x1 1/4	1.10
250	1 1/4"	DFWH 3032	42.2x4.9	58.72	79	30.18	72.6	110	11.50	M 10x30	7/16x1 1/2	1.50
200	1 1/2"	DFWH 3040	48.3x5.1	69.85	94	35.71	82.2	114	13.50	M 12x35	1/2x1 1/2	2.20
200	2"	DFWH 3050	60.3x5.5	77.77	102	42.88	96.4	114	13.50	M 12x35	1/2x1 1/2	2.40
160	2 1/2"	DFWH 3065	73.0x7.0	88.90	114	50.80	108.2	116	13.50	M 12x40	1/2x1 3/4	3.50
138	3"	DFWH 3080	88.9x7.6	106.38	135	61.93	130.6	116	17.00	M 16x50	5/8x2	5.30
35	3 1/2"	DFWH 3090	101.6x8.1	120.65	152	69.85	139.0	120	17.00	M 16x50	5/8x2	5.30
35	4"	DFWH 3100	114.3x8.6	130.18	162	77.77	152.0	120	17.00	M 16x50	5/8x2	7.50
35	5"	DFWH 3125	141.3x9.5	152.40	184	92.08	180.0	120	17.00	M 16x55	5/8x2	11.0
	1/2"	DFWH 6015	21.3x4.8	40.49	56	18.24	47.2	68	9.0	M 8x30	5/16x1 1/4	0.60
	3/4"	DFWH 6020	26.7x5.6	50.80	71	23.80	60.0	76	11.0	M 10x35	3/8x1 1/2	1.10
	1"	DFWH 6025	33.4x6.4	57.15	81	27.76	69.6	80	12.5	M 12x45	7/16x1 3/4	1.70
400	1 1/4"	DFWH 6032	42.2x6.4	66.68	95	31.75	77.2	90	14.5	M 14x50	1/2x1 3/4	2.50
	1 1/2"	DFWH 6040	48.3x7.1	79.38	113	36.50	95.0	100	17.0	M 16x55	5/8x2	4.10
	2"	DFWH 6050	60.3x8.7	96.82	133	44.45	113.8	116	21.0	M 20x70	3/4x2 1/2	6.70
	2 1/2"	DFWH 6065	73.0x9.5	123.80	180	58.80	150.2	150	26.0	M 24x75	-	15.0
	3"	DFWH 6080	88.9x11.1	152.40	215	71.60	198.2	160	31.0	M 30x90	-	27.0

SAE-WELDING NECK COUPLING



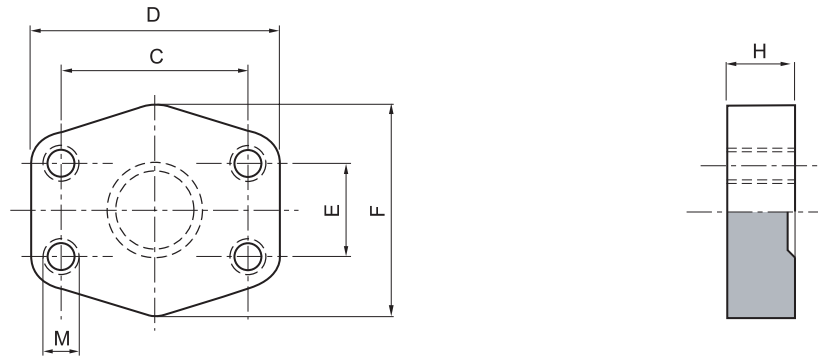
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions							Bolts		Weight kg.
			Pipe Size A x S	C	D	E	F	G	L	M		
										metr.	unc	
		Standard pressure										
350	1/2"	FWNC 3015	21.3x3.7	38.10	54	17.48	46	100	9.0	M 8x35	5/16x1 1/4	0.08
350	3/4"	FWNC 3020	26.7x3.9	47.63	65	22.23	52	100	11.0	M 10x35	3/8x1 1/4	0.16
315	1"	FWNC 3025	33.4x4.6	52.37	70	26.19	59	100	11.0	M 10x35	3/8x1 1/4	0.23
250	1 1/4"	FWNC 3032	42.2x4.9	58.72	79	30.18	73	110	11.5	M 12x45	7/16x1 1/2	0.30
200	1 1/2"	FWNC 3040	48.3x5.1	69.85	94	35.71	83	120	13.5	M 12x45	1/2x1 1/2	0.40
200	2"	FWNC 3050	60.3x5.5	77.77	102	42.88	97	120	13.5	M 12x50	1/2x1 1/2	0.50
160	2 1/2"	FWNC 3065	73.0x7.0	88.90	114	50.80	109	120	13.5	M 12x60	1/2x1 3/4	0.80
138	3"	FWNC 3080	88.9x7.6	106.38	135	61.93	131	120	17.0	M 16x70	5/8x2	1.10
35	3 1/2"	FWNC 3090	101.6x8.1	120.65	152	69.85	140	120	17.0	M 16x50	5/8x2	1.40
35	4"	FWNC 3100	114.3x8.6	130.18	162	77.77	152	120	17.0	M 16x60	5/8x2	1.75
35	5"	FWNC 3125	141.3x9.5	152.40	184	92.08	181	120	17.0	M 16x70	5/8x2	2.62
		High pressure										
400	1/2"	FWNC 6015	21.3x4.8	40.49	56	18.24	48	100	9.0	M 8x35	5/16x1 1/4	0.08
400	3/4"	FWNC 6020	26.7x5.6	50.80	71	23.80	60	100	11.0	M 10x40	3/8x1 1/2	0.17
400	1"	FWNC 6025	33.4x6.4	57.15	81	27.76	70	100	13.0	M 12x45	7/16x1 3/4	0.25
400	1 1/4"	FWNC 6032	42.2x6.4	66.68	95	31.75	78	110	14.5	M 14x50	1/2x1 3/4	0.30
400	1 1/2"	FWNC 6040	48.3x7.1	79.38	113	36.50	95	120	17.0	M 16x60	5/8x2	0.53
400	2"	FWNC 6050	60.3x8.7	96.82	133	44.45	114	120	21.0	M 20x70	3/4x2 1/2	0.90
400	2 1/2"	FWNC 6065	73.0x9.5	123.80	180	58.80	152	120	26.0	M 24x75	-	2.40
400	3"	FWNC 6080	88.9x11.1	152.40	215	71.60	178	120	31.0	M 30x90	-	3.60

SAE-CLOSED FLANGE



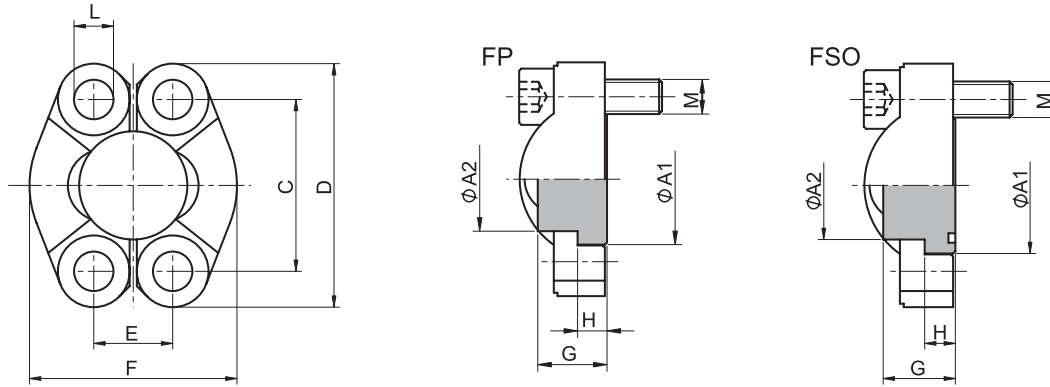
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions						Bolts		Weight kg.
			C	D	E	F	H	L	M		
									metr.	unc	
		Standard pressure									
350	1/2"	FCL 3015	38.10	56	17.48	46	16	9.0	M 8x30	5/16x1 1/4	0.20
350	3/4"	FCL 3020	47.63	65	22.23	52	16	11.0	M 10x35	3/8x1 1/2	0.30
315	1 "	FCL 3025	52.37	70	26.19	59	19	11.0	M 10x35	3/8x1 1/2	0.37
250	1 1/4"	FCL 3032	58.72	79	30.18	73	18	11.5	M 10x40	7/16x1 1/2	0.54
200	1 1/2"	FCL 3040	69.85	93	35.71	83	20	13.5	M 12x45	1/2x1 3/4	0.90
200	2 "	FCL 3050	77.77	102	42.88	97	20	13.5	M 12x45	1/2x1 3/4	1.00
160	2 1/2"	FCL 3065	88.90	114	50.80	109	20	13.5	M 12x45	1/2x1 3/4	1.35
138	3 "	FCL 3080	106.38	134	61.93	131	24	17.0	M 16x50	5/8x2	2.35
35	3 1/2"	FCL 3090	120.65	152	69.85	140	22	17.0	M 16x50	5/8x2	2.90
35	4 "	FCL 3100	130.18	162	77.77	152	25	17.0	M 16x50	5/8x2	3.90
35	5 "	FCL 3125	152.40	190	92.08	181	28	17.0	M 16x50	5/8x2	4.00
		High pressure									
	1/2"	FCL 6015	40.49	56	18.24	48	16	9.0	M 8x30	5/16x1 1/4	0.20
	3/4"	FCL 6020	50.80	71	23.80	60	19	11.0	M 10x35	3/8x1 1/2	0.48
	1 "	FCL 6025	57.15	81	27.76	70	24	13.0	M 12x45	7/16x1 1/2	0.77
400	1 1/4"	FCL 6032	66.68	95	31.75	78	27	15.0	M 14x45	1/2x1 3/4	0.85
	1 1/2"	FCL 6040	79.38	112	36.50	95	30	17.0	M 16x50	5/8x2	1.80
	2 "	FCL 6050	96.82	134	44.45	114	28	21.0	M 20x65	3/4x2 1/2	2.00
	2 1/2"	FCL 6065	123.80	180	58.80	152	45	26.0	M 24x80	-	5.30
	3 "	FCL 6080	152.40	208	71.40	178	55	33.0	M 30x100	-	-

SAE-CLOSED FLANGE COMPANION



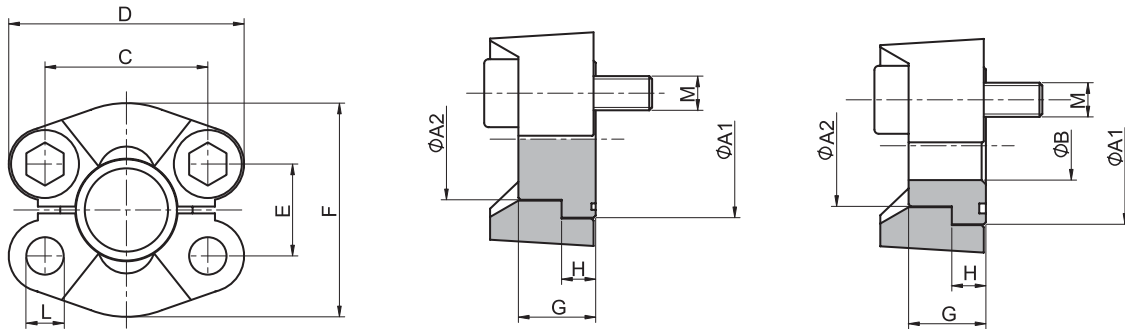
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions					Bolts	Weight kg.
			C	D	E	F	H	M	
		Standard pressure							
350	1/2"	FCLC 3015	38.10	56	17.48	46	16	M 8	0.20
350	3/4"	FCLC 3020	47.63	65	22.23	52	16	M 10	0.30
315	1"	FCLC 3025	52.37	70	26.19	59	19	M 10	0.37
250	1 1/4"	FCLC 3032	58.72	79	30.18	73	18	M 10	0.54
200	1 1/2"	FCLC 3040	69.85	93	35.71	83	20	M 12	0.90
200	2"	FCLC 3050	77.77	102	42.88	97	20	M 12	1.00
160	2 1/2"	FCLC 3065	88.90	114	50.80	109	20	M 12	1.35
138	3"	FCLC 3080	106.38	134	61.93	131	24	M 16	2.35
35	3 1/2"	FCLC 3090	120.65	152	69.85	140	22	M 16	2.90
35	4"	FCLC 3100	130.18	162	77.77	152	25	M 16	3.90
35	5"	FCLC 3125	152.40	190	92.08	181	28	M 16	4.00
		High pressure							
	1/2"	FCLC 6015	40.49	56	18.24	48	16	M 8	0.20
	3/4"	FCLC 6020	50.80	71	23.80	60	19	M 10	0.48
	1"	FCLC 6025	57.15	81	27.76	70	24	M 12	0.77
400	1 1/4"	FCLC 6032	66.68	95	31.75	78	27	M 14	0.85
	1 1/2"	FCLC 6040	79.38	112	36.50	95	30	M 16	1.80
	2"	FCLC 6050	96.82	134	44.45	114	28	M 20	2.00
	2 1/2"	FCLC 6065	123.80	180	58.80	152	45	M 24	5.30

SAE-PLUG FLANGE



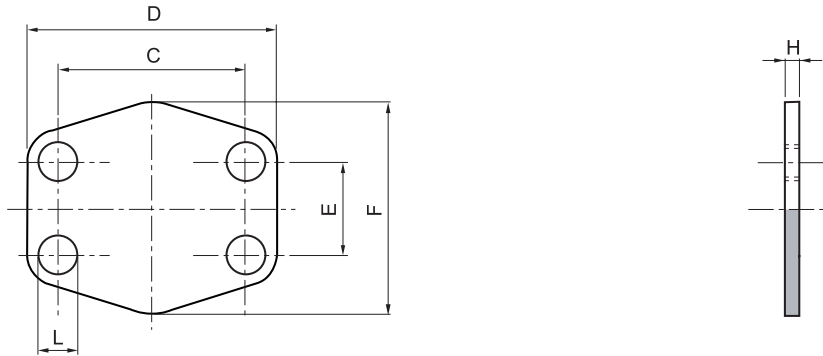
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Bolts		Weight kg.	
			A1	A2	C	D	E	F	G	H	L	M			
													metr.		unc
		Standard pressure													
350	1/2"	FP/FSO 3015	30.2	24.0	38.10	54	17.48	45.60	16	6.8	9.0	M 8x25	5/16x1 1/4	0.07	
350	3/4"	FP/FSO 3020	38.1	31.8	47.63	65	22.23	51.80	17	6.8	11.0	M 10x30	3/8x1 1/4	0.12	
315	1"	FP/FSO 3025	44.5	38.0	52.37	70	26.19	58.40	17	8.0	11.0	M 10x30	3/8x1 1/4	0.17	
250	1 1/4"	FP/FSO 3032	50.8	43.0	58.72	79	30.18	72.60	17	8.0	11.5	M 10x30	7/16x1 1/2	0.22	
200	1 1/2"	FP/FSO 3040	60.3	50.0	69.85	94	35.71	82.20	19	8.0	13.5	M 12x35	1/2x1 1/2	0.34	
200	2"	FP/FSO 3050	71.4	62.0	77.77	102	42.88	96.40	19	9.6	13.5	M 12x35	1/2x1 1/2	0.51	
160	2 1/2"	FP/FSO 3065	84.1	74.0	88.90	114	50.80	108.00	40	9.6	13.5	M 12x35	1/2x1 1/2	1.43	
138	3"	FP/FSO 3080	101.6	90.0	106.38	135	61.93	130.60	45	9.6	17.0	M 16x50	5/8x2	2.35	
35	3 1/2"	FP/FSO 3090	114.3	102.0	120.65	152	69.85	139.00	30	11.3	17.0	M 16x50	5/8x2	2.80	
35	4"	FP/FSO 3100	127.0	114.5	130.18	162	77.77	152.00	36	11.3	17.0	M 16x50	5/8x2	3.08	
35	5"	FP/FSO 3125	152.4	140.0	152.40	185	92.08	180.00	45	11.3	17.0	M 16x50	5/8x2	5.69	
		High pressure													
	1/2"	FP/FSO 6015	31.8	24.0	40.49	56	18.24	47.20	14	7.8	9.0	M 8x30	5/16x1 1/4	0.07	
	3/4"	FP/FSO 6020	41.3	31.8	50.80	71	23.80	60.00	15	8.8	11.0	M 10x35	3/8x1 1/2	0.13	
	1"	FP/FSO 6025	47.6	38.0	57.15	81	27.76	69.60	16	9.5	12.5	M 12x45	7/16x1 3/4	0.18	
400	1 1/4"	FP/FSO 6032	54.0	44.0	66.68	95	31.75	77.20	16	10.3	14.5	M 14x45	1/2x1 3/4	0.38	
	1 1/2"	FP/FSO 6040	63.5	50.8	79.38	113	36.50	95.00	19	12.6	17.0	M 16x55	5/8x2	0.41	
	2"	FP/FSO 6050	79.4	67.0	96.82	133	44.45	113.80	30	12.6	21.0	M 20x70	3/4x2 1/2	0.95	
	2 1/2"	FP/FSO 6065	108.0	89.0	123.80	180	58.70	150.20	45	21.2	26.0	M 24x75	-	2.66	
	3"	FP/FSO 6080	132.0	114.3	152.40	215	71.60	198.16	55	26.5	32.0	M 30x90	-	5.10	

SAE-HEAD FLANGE



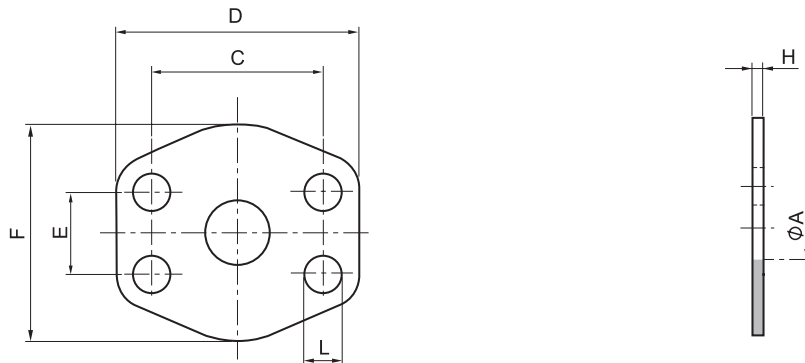
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions										Bolts		Weight kg.	
			A1	A2	B	C	D	E	F	G	H	L	M			
														metr.		unc
		Standard pressure														
350	1/2"	FLH 3015	30.2	24.0	0/10	38.10	54	17.48	45.6	16	6.8	9.0	M 8x25	5/16x1 1/4	0.17	
350	3/4"	FLH 3020	38.1	31.8	0/15	47.63	65	22.23	51.8	17	6.8	11.0	M 10x30	3/8x1 1/4	0.19	
315	1"	FLH 3025	44.5	38.0	0/20	52.37	70	26.19	58.4	17	8.0	11.0	M 10x30	3/8x1 1/2	0.25	
250	1 1/4"	FLH 3032	50.8	43.0	0/27	58.72	79	30.18	72.6	17	8.0	11.5	M 10x30	7/16x1 1/2	0.35	
200	1 1/2"	FLH 3040	60.3	50.0	0/32	69.85	94	35.71	82.2	19	8.0	13.5	M 12x35	1/2x1 1/2	0.53	
200	2"	FLH 3050	71.4	62.0	0/40	77.77	102	42.88	96.4	19	9.6	13.5	M 12x35	1/2x1 1/2	0.59	
160	2 1/2"	FLH 3065	84.1	74.0	0/50	88.90	114	50.80	108.2	30	9.6	13.5	M 12x40	1/2x1 3/4	0.86	
		High pressure														
	1/2"	FLH 6015	31.8	24.0	0/10	40.49	56	18.24	47.2	16	7.8	9.0	M 8x30	5/16x1 1/4	0.18	
	3/4"	FLH 6020	41.3	31.8	0/15	50.80	71	23.80	60.0	20	8.8	11.0	M 10x35	3/8x1 1/4	0.41	
400	1"	FLH 6025	47.6	38.0	0/20	57.15	81	27.76	69.6	22	9.5	12.5	M 12x45	7/16x1 3/4	0.63	
	1 1/4"	FLH 6032	54.0	44.0	0/27	66.68	95	31.75	77.2	27	10.3	14.5	M 14x45	1/2x1 3/4	0.95	
	1 1/2"	FLH 6040	63.5	50.8	0/32	79.38	113	36.50	95.0	32	12.6	17.0	M 16x55	5/8x2	1.61	
	2"	FLH 6050	79.4	67.0	0/40	96.82	133	44.45	113.8	40	12.6	21.0	M 20x70	3/4x 2 1/2	2.51	

SAE-LOCKING SHEET



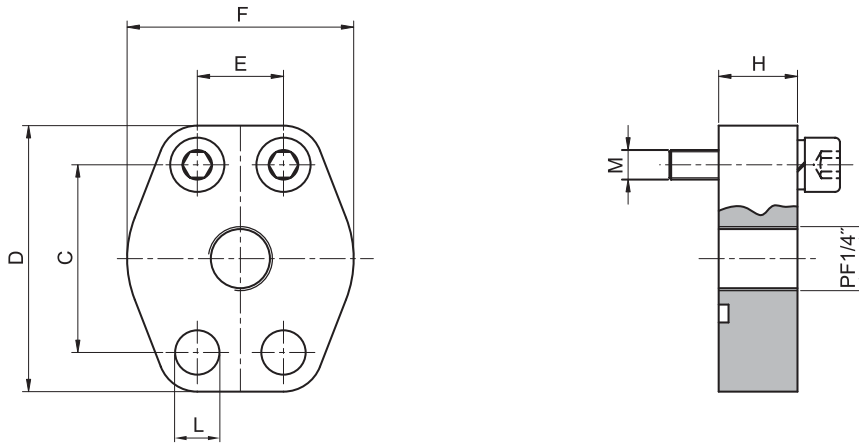
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions						Weight kg.
			C	D	E	F	H	L	
		Standard pressure							
-	1/2"	FLS 3015	38.10	54	17.48	46	3	9.0	0.04
-	3/4"	FLS 3020	47.63	65	22.23	52	3	11.0	0.06
-	1"	FLS 3025	52.37	70	26.19	59	3	11.0	0.08
-	1 1/4"	FLS 3032	58.72	79	30.18	73	3	11.5	0.09
-	1 1/2"	FLS 3040	69.85	94	35.71	83	3	13.5	0.14
-	2"	FLS 3050	77.77	102	42.88	97	3	13.5	0.17
-	2 1/2"	FLS 3065	88.90	114	50.80	109	3	13.5	0.23
-	3"	FLS 3080	106.38	135	61.93	131	4	17.0	0.43
-	3 1/2"	FLS 3090	120.65	152	69.85	140	4	17.0	0.52
-	4"	FLS 3100	130.18	162	77.77	152	4	17.0	0.65
-	5"	FLS 3125	152.40	184	92.08	181	4	17.0	0.75
		High pressure							
-	1/2"	FLS 6015	40.49	56	18.24	48	4	9.0	0.06
-	3/4"	FLS 6020	50.80	71	23.80	60	4	11.0	0.10
-	1"	FLS 6025	57.15	81	27.76	70	4	13.0	0.13
-	1 1/4"	FLS 6032	66.68	95	31.75	78	4	15.0	0.17
-	1 1/2"	FLS 6040	79.38	113	36.50	95	4	17.0	0.24
-	2"	FLS 6050	96.82	133	44.45	114	4	21.0	0.35
-	2 1/2"	FLS 6065	123.80	180	58.80	152	4	26.0	0.65

SAE-ADAPTER SHEET



Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions							Weight kg.
			A	C	D	E	F	H	L	
		Standard pressure								
-	1/2"	FAS 3015	13	38.10	54	17.48	46	3	9.0	0.04
-	3/4"	FAS 3020	19	47.63	65	22.23	52	3	11.0	0.05
-	1"	FAS 3025	25	52.37	70	26.19	59	3	11.0	0.06
-	1 1/4"	FAS 3032	32	58.72	79	30.18	73	3	11.5	0.08
-	1 1/2"	FAS 3040	38	69.85	94	35.71	83	3	13.5	0.11
-	2"	FAS 3050	51	77.77	102	42.88	97	3	13.5	0.12
-	2 1/2"	FAS 3065	63	88.90	114	50.80	109	3	13.5	0.16
-	3"	FAS 3080	73	106.38	135	61.93	131	4	17.0	0.29
-	3 1/2"	FAS 3090	89	120.65	152	69.85	140	4	17.0	0.34
-	4"	FAS 3100	99	130.18	162	77.77	152	4	17.0	0.38
-	5"	FAS 3125	120	152.40	184	92.08	181	4	17.0	0.49
		High pressure								
-	1/2"	FAS 6015	13	40.49	56	18.24	48	4	9.0	0.06
-	3/4"	FAS 6020	17	50.80	71	23.80	60	4	11.0	0.07
-	1"	FAS 6025	24	57.15	81	27.76	70	4	13.0	0.12
-	1 1/4"	FAS 6032	31	66.68	95	31.75	78	4	15.0	0.15
-	1 1/2"	FAS 6040	38	79.38	113	36.50	95	4	17.0	0.21
-	2"	FAS 6050	51	96.82	133	44.45	114	4	21.0	0.28
-	2 1/2"	FAS 6065	62	123.80	180	58.80	152	4	26.0	0.56

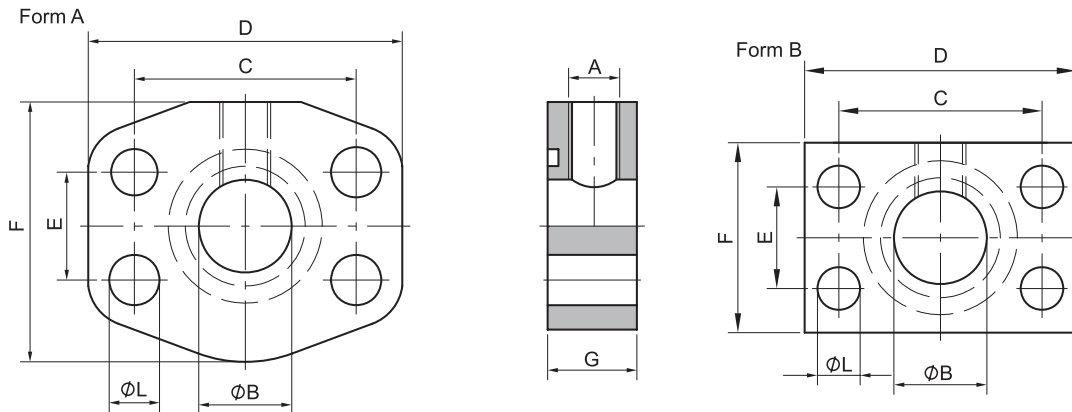
SAE-FLANGE WITH TEST POINT-STRAIGHT



Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions						Bolts		Weight kg.
			C	D	E	F	H	L	M		
									metr.	unc	
		Standard pressure									
350	1/2"	FTPS 3015	38.10	56	17.48	46	16	9.0	M 8x30	5/16x1 1/4	0.20
350	3/4"	FTPS 3020	47.63	65	22.23	52	16	11.0	M 10x35	3/8x1 1/2	0.30
315	1 "	FTPS 3025	52.37	70	26.19	59	19	11.0	M 10x35	3/8x1 1/2	0.37
250	1 1/4"	FTPS 3032	58.72	79	30.18	73	18	11.5	M 10x40	7/16x1 1/2	0.54
200	1 1/2"	FTPS 3040	69.85	93	35.71	83	20	13.5	M 12x45	1/2x1 3/4	0.90
200	2 "	FTPS 3050	77.77	102	42.88	97	20	13.5	M 12x45	1/2x1 3/4	1.00
160	2 1/2"	FTPS 3065	88.90	114	50.80	109	20	13.5	M 12x45	1/2x1 3/4	1.35
138	3 "	FTPS 3080	106.38	134	61.93	131	24	17.5	M 16x50	5/8x2	2.35
35	3 1/2"	FTPS 3090	120.65	152	69.85	140	22	17.5	M 16x50	5/8x2	2.90
35	4 "	FTPS 3100	130.18	162	77.77	152	25	17.5	M 16x50	5/8x2	3.90
35	5 "	FTPS 3125	152.40	190	92.08	181	28	17.5	M 16x50	5/8x2	4.00
		High pressure									
	1/2"	FTPS 6015	40.49	56	18.24	48	16	9.0	M 8x30	5/16x1 1/4	0.20
	3/4"	FTPS 6020	50.80	71	23.80	60	19	11.0	M 10x35	3/8x1 1/2	0.48
	1 "	FTPS 6025	57.15	81	27.76	70	24	13.0	M 12x45	7/16x1 1/2	0.77
400	1 1/4"	FTPS 6032	66.68	95	31.75	78	27	15.0	M 14x45	1/2x1 3/4	0.85
	1 1/2"	FTPS 6040	79.38	112	36.50	95	30	17.0	M 16x50	5/8x2	1.80
	2 "	FTPS 6050	96.82	134	44.45	114	28	21.0	M 20x65	3/4x2 1/2	2.00
	2 1/2"	FTPS 6065	123.80	180	58.80	152	45	26.0	M 24x80	-	5.30

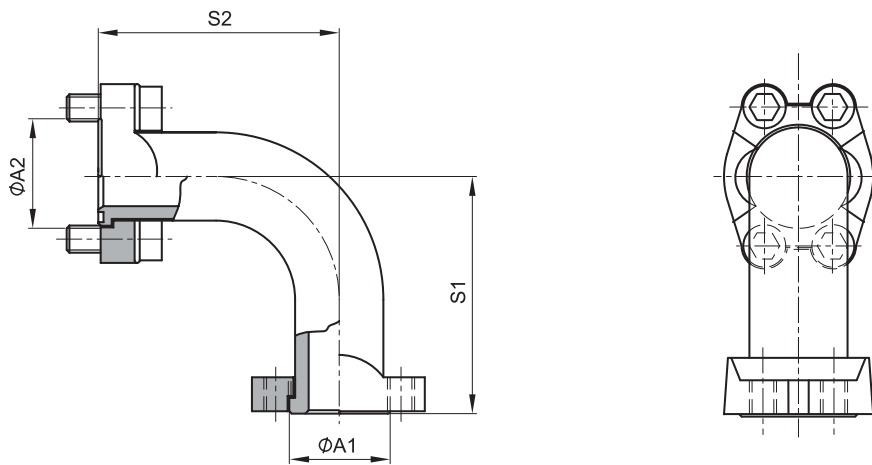
*L=13.5 with UNC-bolts

SAE-ADAPTER FLANGE WITH TEST POINT 90°



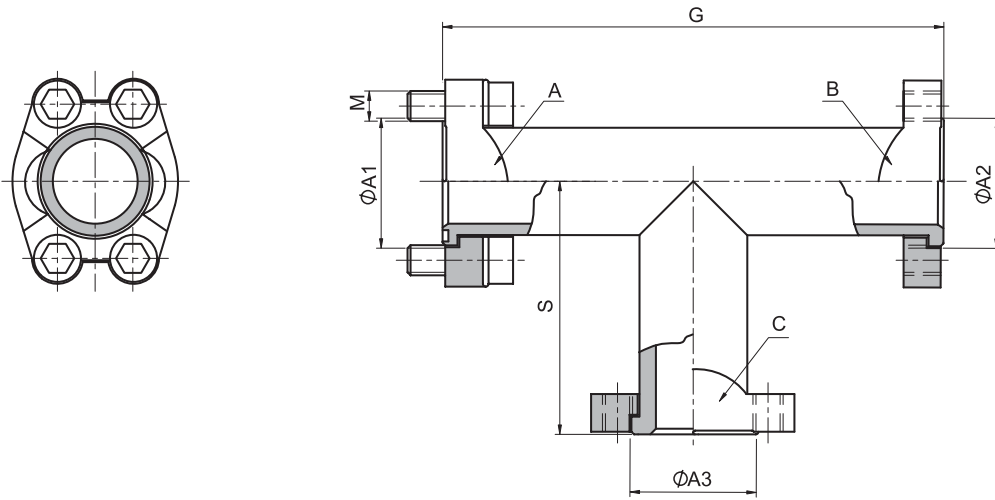
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions								Weight kg.	
			A	B	C	D	E	F	G	L		
		Standard pressure										
350	1/2"	FTPA 3015	G 1/4"	12	38.10	55	17.48	38	24	9.0	0.45	
350	3/4"	FTPA 3020	G 1/4"	19	47.63	65	22.23	50	28	11.0	0.60	
315	1"	FTPA 3025	G 1/4"	24	52.37	70	26.19	50	24	11.0	0.60	
250	1 1/4"	FTPA 3032	G 1/4"	32	58.72	81	30.18	70	23	12.5	0.75	
200	1 1/2"	FTPA 3040	G 1/4"	38	69.85	95	35.71	78	24	13.5	0.80	
200	2"	FTPA 3050	G 1/4"	50	77.77	102	42.88	90	24	13.5	0.98	
160	2 1/2"	FTPA 3065	G 1/4"	63	88.90	114	50.80	103	25	13.5	1.21	
		High pressure										
	1/2"	FTPA 6015	G 1/4"	12	40.49	55	18.24	38	24	9.0	0.45	
	3/4"	FTPA 6020	G 1/4"	19	50.80	71	23.80	57	24	11.0	0.60	
400	1"	FTPA 6025	G 1/4"	24	57.15	81	27.76	70	23	13.0	0.75	
	1 1/4"	FTPA 6032	G 1/4"	32	66.68	95	31.75	78	24	15.0	0.80	
	1 1/2"	FTPA 6040	G 1/4"	38	79.38	112	36.50	94	24	17.0	1.40	
	2"	FTPA 6050	G 1/4"	51	96.82	134	44.45	114	24	21.0	1.57	

SAE-ELBOW ADAPTER



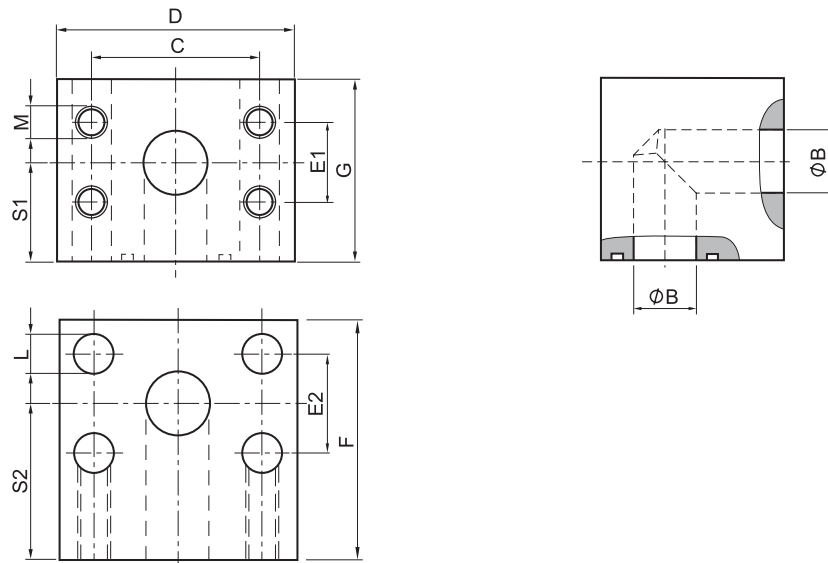
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions				Weight kg.
			A1	A2	S1	S2	
		Standard pressure					
350	1/2"	FEA 3015	30.2	30.2	70	70	0.65
350	3/4"	FEA 3020	38.1	38.1	80	80	0.90
315	1"	FEA 3025	44.4	44.4	90	90	1.15
250	1 1/4"	FEA 3032	50.8	50.8	103	103	1.50
200	1 1/2"	FEA 3040	60.3	60.3	115	115	2.55
200	2"	FEA 3050	71.4	71.4	135	135	2.79
160	2 1/2"	FEA 3065	84.1	84.1	155	155	3.20
35	3"	FEA 3080	101.6	101.6	175	175	4.60
35	3 1/2"	FEA 3090	114.3	114.3	175	175	5.12
35	4"	FEA 3100	127.0	127.0	215	215	6.25
35	5"	FEA 3125	152.4	152.4	250	250	7.65

SAE-TEE ADAPTER



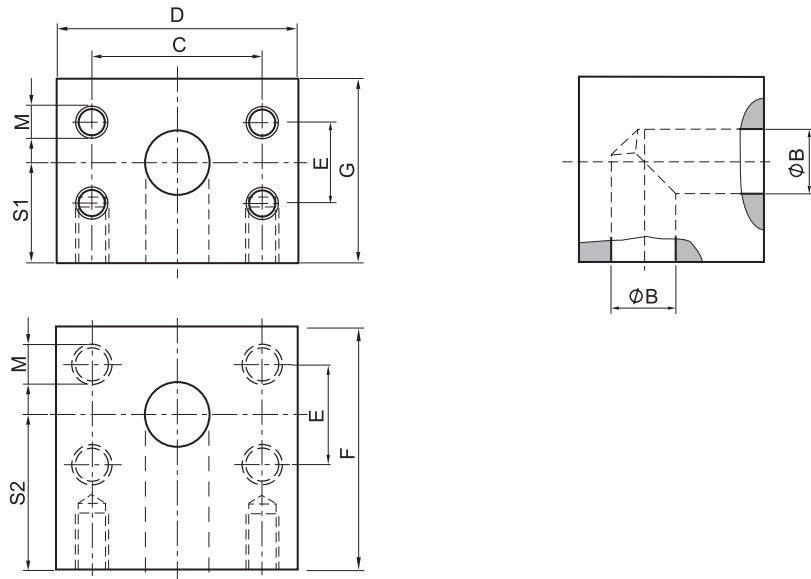
Maximum recommended working Pressusre kg / cm ²	Type	Connection A			Connection B		Connection C		G	S	Weight kg.
		Size	A1	M	Size	A2	Size	A3			
350	FTA 3015	1/2"	30.2	M 8x30	1/2"	30.2	1/2"	30.2	133	67	0.97
350	FTA 3020	3/4"	38.1	M 10x35	3/4"	38.1	3/4"	38.1	160	80	1.20
315	FTA 3025	1"	44.4	M 10x35	1"	44.4	1"	44.4	177	88	1.63
250	FTA 3032	1 1/4"	50.8	M 10x30	1 1/4"	50.8	1 1/4"	50.8	208	103	2.25
200	FTA 3040	1 1/2"	60.3	M 12x35	1 1/2"	60.3	1 1/2"	60.3	230	114	3.50
200	FTA 3050	2"	71.4	M 12x35	2"	71.4	2"	71.4	244	122	4.20
160	FTA 3065	2 1/2"	84.1	M 12x40	2 1/2"	84.1	2 1/2"	84.1	270	135	4.70
138	FTA 3080	3"	101.6	M 16x50	3 1/2"	101.6	3"	101.6	293	146	8.20
35	FTA 3090	3 1/2"	114.3	M 16x50	3 1/2"	114.3	3 1/2"	114.3	293	146	9.55
35	FTA 3100	4"	127.0	M 16x50	4"	127.0	4"	127.0	332	165	12.10
35	FTA 3125	5"	152.4	M 16x50	5"	152.4	5"	152.4	370	185	14.70

SAE-90° L-BLOCK



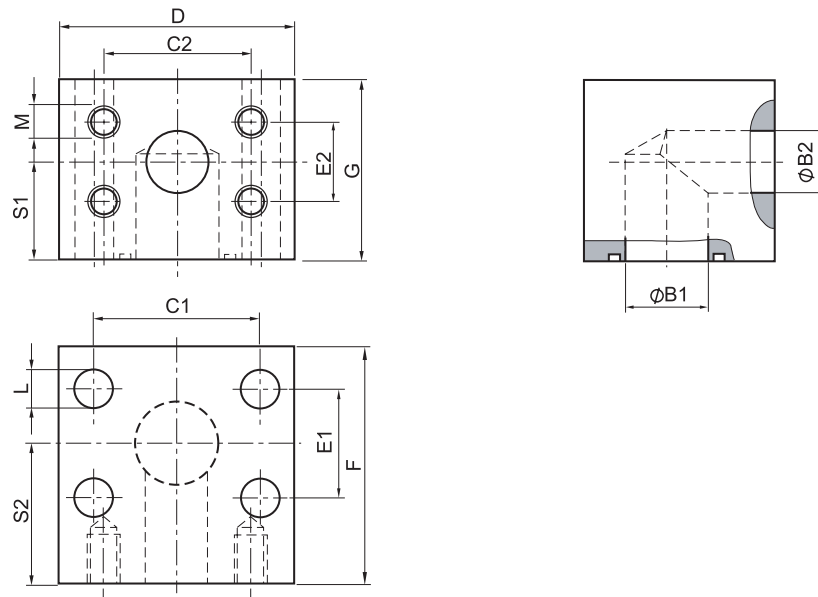
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions											Weight kg.
			B	C	D	E1	E2	F	G	L	M	S1	S2	
		Standard pressure												
350	1/2"	FLB 3015	13	38.10	55	17.48	17.48	55	50	9.0	M 8	25.0	35	1.0
350	3/4"	FLB 3020	19	47.65	65	23.25	23.25	60	60	11.0	M 10	30.0	40	1.2
315	1"	FLB 3025	24	52.40	72	26.20	26.20	65	65	11.0	M 10	33.0	40	1.9
250	1 1/4"	FLB 3032	32	58.72	82	30.18	30.18	82	80	11.0	M 10	39.0	38	3.5
200	1 1/2"	FLB 3040	38	69.85	98	35.71	35.71	92	92	13.5	M 12	51.0	59	5.0
200	2"	FLB 3050	46	77.77	102	42.88	42.88	85	87	13.5	M 12	51.0	48	7.9
160	2 1/2"	FLB 3065	62	88.90	115	50.80	50.80	110	120	13.5	M 12	60.0	65	8.6
138	3"	FLB 3080	73	106.38	135	61.93	61.93	150	135	17.0	M 16	67.5	90	10.5
35	3 1/2"	FLB 3090	89	120.70	150	69.90	69.90	145	145	17.0	M 16	72.5	75	-
		High pressure												
	1/2"	FLB 6015	13	40.50	60	18.25	18.25	60	50	9.0	M 8	25.0	40	1.0
	3/4"	FLB 6020	19	50.80	72	23.80	23.80	60	55	11.0	M 10	32.0	36	1.4
	1"	FLB 6025	23	57.15	82	27.76	27.76	68	64	13.0	M 12	37.0	40	2.3
400	1 1/4"	FLB 6032	30	66.68	96	31.75	31.75	76	72	15.0	M 14	41.0	46	3.3
	1 1/2"	FLB 6040	38	79.38	114	36.50	36.50	86	89	17.0	M 16	50.0	52	5.4
	2"	FLB 6050	50	96.82	133	44.45	44.45	110	105	21.0	M 20	59.0	70	9.0
	2 1/2"	FLB 6065	62	123.80	180	58.80	58.80	160	155	26.0	M 24	77.5	90	14.6

SAE-90° L-BLOCK-COMPANION



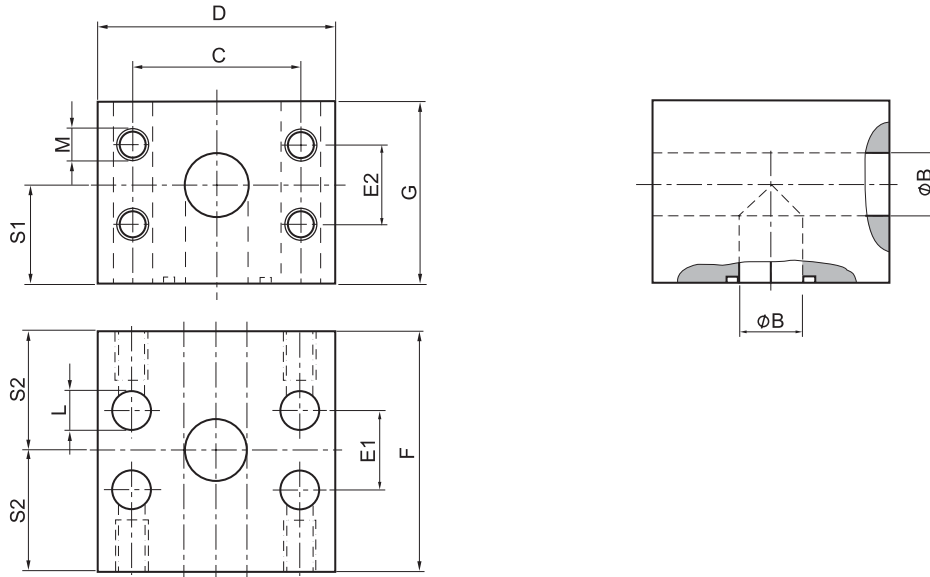
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions									Weight kg.
			B	C	D	E	F	G	M	S1	S2	
		Standard pressure										
350	1/2"	FLBC 3015	13	38.10	55	17.48	55	50	M 8	25.0	35	1.0
350	3/4"	FLBC 3020	19	47.65	65	23.25	60	60	M 10	30.0	40	1.2
315	1"	FLBC 3025	24	52.40	72	26.20	65	65	M 10	33.0	40	1.9
250	1 1/4"	FLBC 3032	32	58.72	82	30.18	82	80	M 10	39.0	38	3.5
200	1 1/2"	FLBC 3040	38	69.85	98	35.71	92	92	M 12	51.0	59	5.0
200	2"	FLBC 3050	46	77.77	102	42.88	85	87	M 12	51.0	48	7.9
160	2 1/2"	FLBC 3065	62	88.90	110	50.80	110	120	M 12	60.0	65	8.6
138	3"	FLBC 3080	73	106.38	135	61.93	150	135	M 16	67.5	90	10.5
35	3 1/2"	FLBC 3090	89	120.70	150	69.90	145	145	M 16	72.5	75	16.0
		High pressure										
	1/2"	FLBC 6015	13	40.50	60	18.25	60	50	M 8	25.0	40	1.0
	3/4"	FLBC 6020	19	50.80	72	23.80	60	55	M 10	32.0	36	1.4
	1"	FLBC 6025	23	57.15	82	27.76	68	64	M 12	37.0	40	2.3
400	1 1/4"	FLBC 6032	30	66.68	96	31.75	72	72	M 14	41.0	46	3.3
	1 1/2"	FLBC 6040	38	79.38	114	36.50	86	89	M 16	50.0	52	5.3
	2"	FLBC 6050	50	96.82	133	44.45	110	105	M 20	59.0	70	9.0
	2 1/2"	FLBC 6065	62	123.80	180	58.80	160	155	M 24	77.5	90	14.6

SAE - 90° L BLOCK-REDUCTION



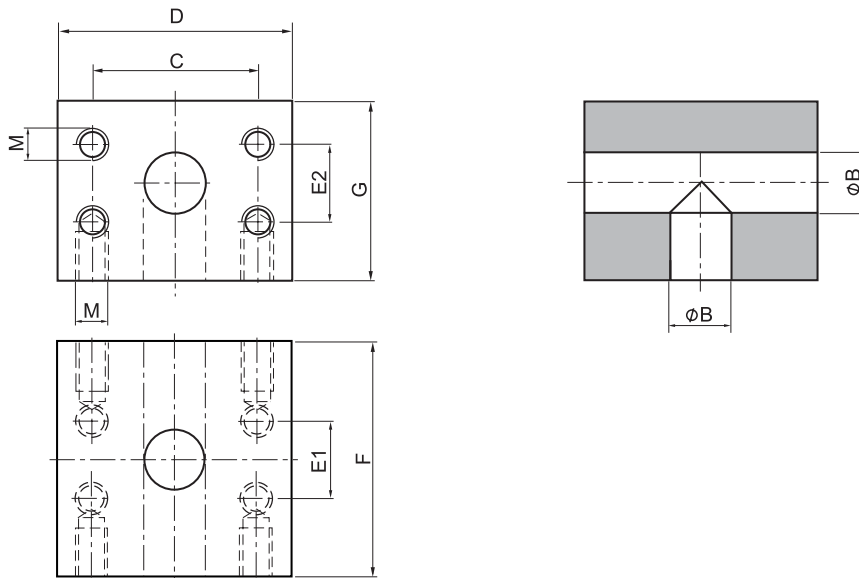
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions													Weight kg.	
			B1	B2	C1	C2	D	E1	E2	F	G	L	M	S1	S2		
		High pressure 6000psi (code62)															
400	1" - 3/4"	FLR 6025-20	23	19	57.15	50.80	82	27.76	23.80	68	64	13	M 10	37	40	2.8	
	1 1/4" - 3/4"	FLR 6032-20	30	19	66.68	50.80	96	31.75	23.80	72	72	15	M 10	41	46	3.6	
	1 1/4" - 1"	FLR 6032-25	30	23	66.68	57.15	96	31.75	27.76	76	72	15	M 12	41	46	3.3	
	1 1/2" - 1 1/4"	FLR 6040-32	38	30	79.38	66.68	114	36.50	31.75	86	89	17	M 14	50	52	5.7	
	2" - 1 1/2"	FLR 6050-40	50	38	96.82	79.38	133	44.45	36.50	110	105	21	M 16	63	70	9.0	

SAE - T - BLOCK



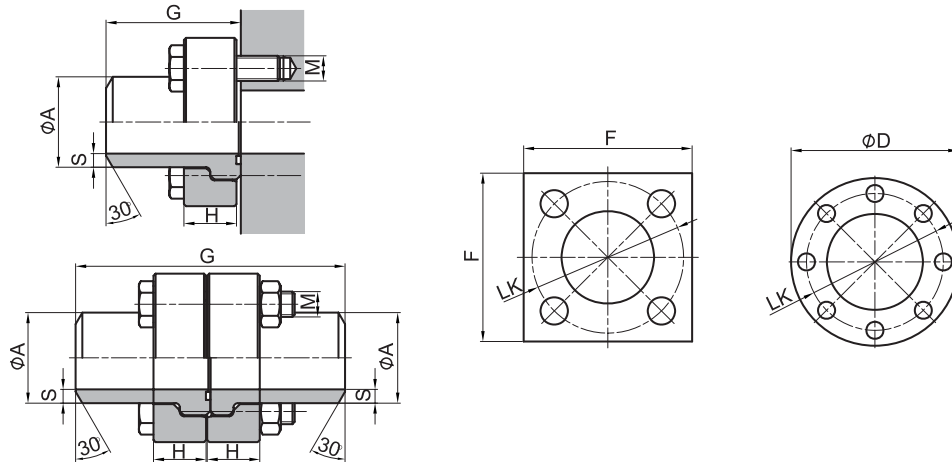
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions											Weight kg.
			B	C	D	E1	E2	F	G	L	M	S1	S2	
		High pressure												
400	3/4"	FTB 6020	19	50.80	72	23.80	23.80	72	55	11	M 10	32	36.0	1.7
	1"	FTB 6025	23	57.15	82	27.76	27.76	80	64	13	M 12	37	40.0	2.9
	1 1/4"	FTB 6032	30	66.68	96	31.75	31.75	92	72	15	M 14	41	46.0	3.8
	1 1/2"	FTB 6040	38	79.38	114	36.50	36.50	104	89	17	M 16	50	52.0	8.9
	2"	FTB 6050	50	96.82	133	44.45	44.45	140	105	21	M 20	63	70.0	12.7

SAE-90° T-BLOCK-COMPANION



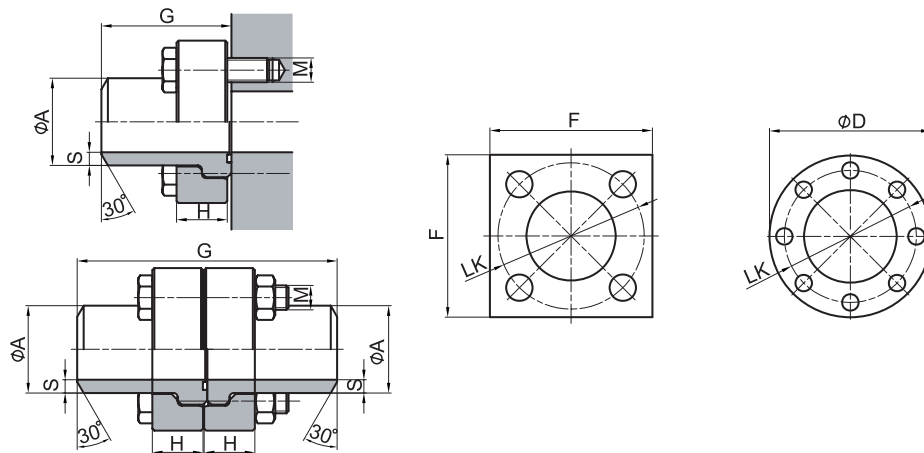
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions								Weight kg.	
			B	C	D	E1	E2	F	G	M		
		Standard pressure										
350	1/2"	FTBC 3015	13	38.10	55	17.48	17.48	70	50	M 8	1.4	
350	3/4"	FTBC 3020	19	47.63	65	22.23	22.23	75	55	M 10	1.8	
315	1"	FTBC 3025	25	52.37	70	26.19	26.19	80	60	M 10	2.3	
250	1 1/4"	FTBC 3032	32	58.72	80	30.18	30.18	90	70	M 10	3.9	
200	1 1/2"	FTBC 3040	38	69.85	95	35.71	35.71	110	85	M 12	6.3	
200	2"	FTBC 3050	50	77.77	100	42.88	42.88	120	110	M 12	8.3	
160	2 1/2"	FTBC 3065	63	88.90	120	50.80	50.80	160	120	M 12	11.6	
138	3"	FTBC 3080	73	106.38	135	61.93	61.93	160	160	M 16	15.3	
35	3 1/2"	FTBC 3090	89	120.70	150	69.90	69.90	160	145	M 16	16.2	
		High pressure										
	1/2"	FTBC 6015	12	40.49	60	18.24	18.24	90	50	M 8	1.3	
	3/4"	FTBC 6020	19	50.80	72	23.80	23.81	72	55	M 10	1.7	
	1"	FTBC 6025	23	57.15	82	27.76	27.76	80	64	M 12	2.9	
400	1 1/4"	FTBC 6032	30	66.68	100	31.75	31.75	92	72	M 14	3.8	
	1 1/2"	FTBC 6040	38	79.38	110	36.50	36.50	100	100	M 16	8.9	
	2"	FTBC 6050	50	96.82	133	44.45	44.45	140	105	M 20	12.7	
	2 1/2"	FTBC 6065	62	123.80	180	58.80	58.80	180	155	M 24	16.5	

SAE-ON CENTERING FLANGE-PN 160-ISO 6164-2



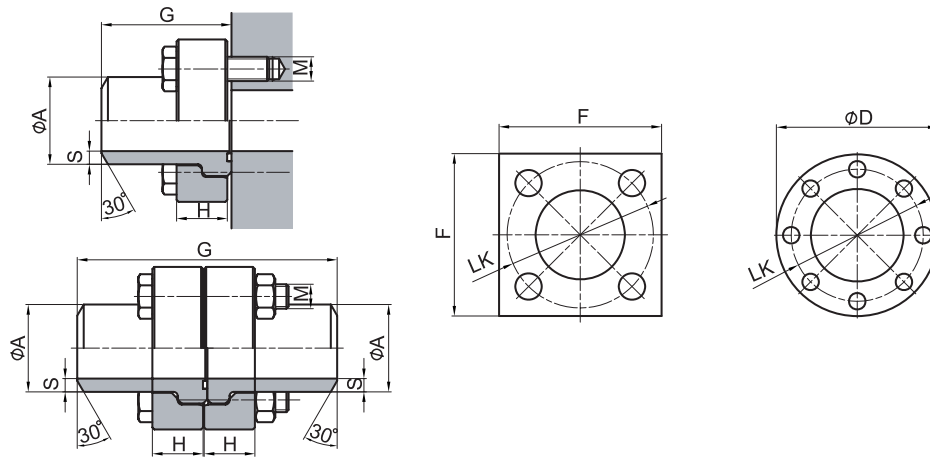
Maximum recommended working Pressusre kg / cm ²	DIN	Type	Dimensions						Bolts	O-ring	Weight kg.
			A x S	LK	F	D	H	G	M		
		Weld-on Flange									
160	3/8"	FI16-010	17.1x2.3	44	50	-	20	43	4 - M10 x 35	16.3 x 2.4	0.40
160	1/2"	FI16-015	21.3x2.8	54	50	-	20	50	4 - M10 x 35	25.3 x 2.4	0.70
160	3/4"	FI16-020	26.7x2.9	54	60	-	20	50	4 - M10 x 35	25.3 x 2.4	0.70
160	1"	FI16-025	33.4x3.4	64	70	-	20	56	4 - M12 x 35	29.8 x 2.6	0.90
160	1 1/4"	FI16-032	42.2x3.6	72	80	-	24	64	4 - M12 x 40	34.5 x 2.6	1.40
160	1 1/2"	FI16-040	48.3x3.7	80	90	-	29	68	4 - M16 x 50	43.0 x 3.0	2.20
160	2"	FI16-050	60.3x3.9	98	100	-	40	80	4 - M16 x 60	53.3 x 5.33	3.20
160	2 1/2"	FI16-065	73.0x5.2	118	120	-	50	98	4 - M20 x 70	61.0 x 5.0	5.60
160	3"	FI16-080	88.9x5.5	145	150	-	54	109	4 - M24 x 75	75.0 x 5.0	9.50
160	3 1/2"	FI16-090	101.6x5.7	175	180	-	58	135	4 - M30 x 90	88.0 x 6.0	17.60
160	4"	FI16-100	114.3x6.0	175	180	-	58	135	4 - M30 x 90	88.0 x 6.0	17.60
160	5"	FI16-125	141.3x6.6	200	-	245	70	150	8 - M24 x 100	115.0 x 6.0	29.30
160	6"	FI16-150	168.3x7.1	245	-	300	80	190	8 - M30 x 110	148.0 x 7.0	48.20
160	8"	FI16-200	219.1x8.2	290	-	355	90	190	8 - M36 x 130	183.5 x 7.0	55.10
		Weld-on Flange Coupling									
160	3/8"	FI16-010	17.1x2.3	44	50	-	20	87	4 - M10 x 55	16.3 x 2.4	0.80
160	1/2"	FI16-015	21.3x2.8	54	50	-	20	101	4 - M10 x 60	25.3 x 2.4	1.40
160	3/4"	FI16-020	26.7x2.9	54	60	-	20	101	4 - M12 x 60	29.8 x 2.6	1.40
160	1"	FI16-025	33.4x3.4	64	70	-	20	113	4 - M12 x 60	34.5 x 2.6	1.80
160	1 1/4"	FI16-032	42.2x3.6	72	80	-	24	129	4 - M16 x 70	43.0 x 3.0	2.80
160	1 1/2"	FI16-040	48.3x3.7	80	90	-	29	137	4 - M16 x 80	43.0 x 3.0	4.40
160	2"	FI16-050	60.3x3.9	98	100	-	40	161	4 - M16 x 100	53.3 x 5.33	6.40
160	2 1/2"	FI16-065	73.0x5.2	118	120	-	50	197	4 - M20 x 120	61.0 x 5.0	11.20
160	3"	FI16-080	88.9x5.5	145	150	-	54	219	4 - M24 x 130	75.0 x 5.0	19.00
160	3 1/2"	FI16-090	101.6x5.7	175	180	-	58	271	4 - M30 x 150	88.0 x 6.0	35.20
160	4"	FI16-100	114.3x6.0	175	180	-	58	271	4 - M30 x 150	88.0 x 6.0	35.20
160	5"	FI16-125	141.3x6.6	200	-	245	70	301	8 - M24 x 170	115.0 x 6.0	58.60
160	6"	FI16-150	168.3x7.1	245	-	300	80	380	8 - M30 x 200	148.0 x 7.0	96.40
160	8"	FI16-200	219.1x8.2	290	-	355	90	380	8 - M36 x 220	183.5 x 7.0	110.20

SAE-ON CENTERING FLANGE-PN 250-ISO 6164-2



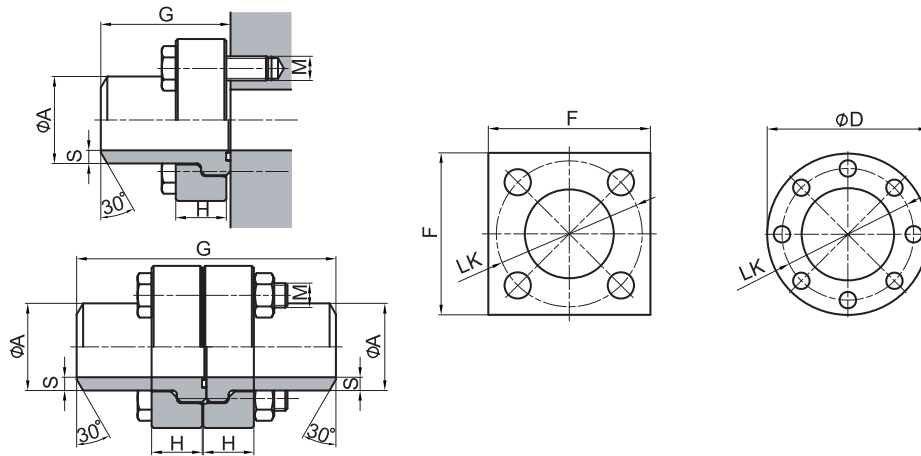
Maximum recommended working Presssure kg / cm ²	DIN	Type	Dimensions					Bolts	O-ring	Weight kg.	
			A x S	LK	F	D	H	G			M
		Weld-on Flange									
250	3/8"	FI25-010	17.1x3.2	44	50	-	20	43	4 - M10 x 35	16.3 x 2.4	0.40
250	1/2"	FI25-015	21.3x3.7	54	60	-	20	50	4 - M10 x 35	25.3 x 2.4	0.70
250	3/4"	FI25-020	26.7x3.9	64	70	-	20	56	4 - M12 x 35	29.8 x 2.6	0.90
250	1"	FI25-025	33.4x4.6	72	80	-	25	64	4 - M12 x 40	34.5 x 2.6	1.45
250	1 1/4"	FI25-032	42.2x4.9	80	90	-	32	68	4 - M16 x 50	43.0 x 3.0	2.20
250	1 1/2"	FI25-040	48.3x5.1	85	90	-	34	68	4 - M16 x 50	43.0 x 3.0	2.20
250	2"	FI25-050	60.3x5.5	98	100	-	40	80	4 - M16 x 60	53.3 x 5.33	3.20
250	2 1/2"	FI25-065	73.0x7.0	118	120	-	50	98	4 - M20 x 70	61.0 x 5.0	5.60
250	3"	FI25-080	88.9x7.6	145	150	-	54	109	4 - M24 x 75	75.0 x 5.0	9.50
250	3 1/2"	FI25-090	101.6x8.1	175	180	-	58	135	4 - M30 x 90	88.0 x 6.0	17.60
250	4"	FI25-100	114.3x8.6	175	180	-	58	135	4 - M30 x 90	88.0 x 6.0	17.60
250	5"	FI25-125	141.3x9.5	200	-	245	70	150	8 - M24 x 100	115.0 x 6.0	29.30
250	6"	FI25-150	168.3x11.0	245	-	300	80	190	8 - M30 x 110	148.0 x 7.0	48.20
250	8"	FI25-200	219.1x12.7	290	-	355	90	190	8 - M36 x 130	183.5 x 7.0	55.10
		Weld-on Flange Coupling									
250	3/8"	FI25-010	17.1x3.2	44	50	-	20	87	4 - M10 x 55	16.3 x 2.4	0.80
250	1/2"	FI25-015	21.3x3.7	54	60	-	20	101	4 - M10 x 60	25.3 x 2.4	1.40
250	3/4"	FI25-020	26.7x3.9	64	70	-	20	113	4 - M12 x 60	29.8 x 2.6	1.80
250	1"	FI25-025	33.4x4.6	72	80	-	25	129	4 - M12 x 70	34.5 x 2.6	2.90
250	1 1/4"	FI25-032	42.2x4.9	80	90	-	32	137	4 - M16 x 80	43.0 x 3.0	4.40
250	1 1/2"	FI25-040	48.3x5.1	85	90	-	34	137	4 - M16 x 80	43.0 x 3.0	4.40
250	2"	FI25-050	60.3x5.5	98	100	-	40	161	4 - M16 x 100	53.3 x 5.33	6.40
250	2 1/2"	FI25-065	73.0x7.0	118	120	-	50	197	4 - M20 x 120	61.0 x 5.0	11.20
250	3"	FI25-080	88.9x7.6	145	150	-	54	219	4 - M24 x 130	75.0 x 5.0	19.00
250	3 1/2"	FI25-090	101.6x8.1	175	180	-	58	271	4 - M30 x 150	88.0 x 6.0	35.20
250	4"	FI25-100	114.3x8.6	175	180	-	58	271	4 - M30 x 150	88.0 x 6.0	35.20
250	5"	FI25-125	141.3x9.5	200	-	245	70	301	8 - M24 x 170	115.0 x 6.0	58.60
250	6"	FI25-150	168.3x11.0	245	-	300	80	380	8 - M30 x 200	148.0 x 7.0	96.40
250	8"	FI25-200	219.1x12.7	290	-	355	90	380	8 - M36 x 220	183.5 x 7.0	110.20

SAE-ON CENTERING FLANGE-PN 350-ISO 6164-2



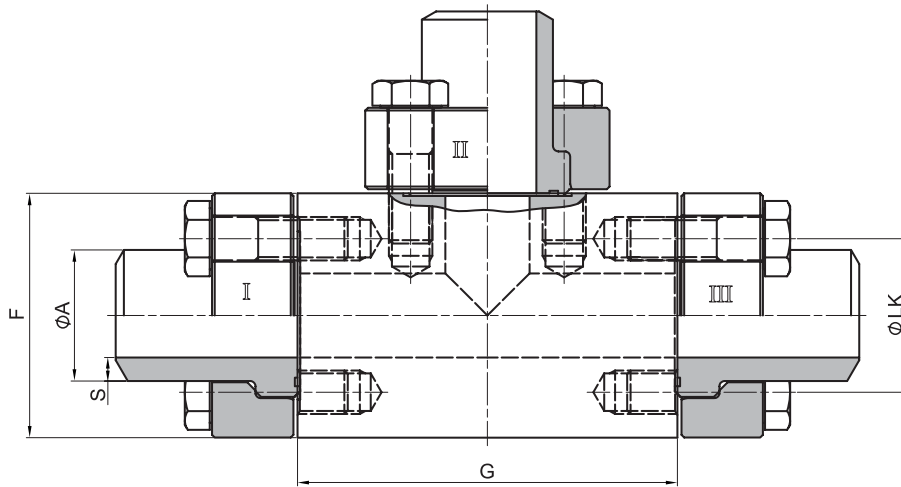
Maximum recommended working Pressusre kg / cm ²	DIN	Type	Dimensions						Bolts	O-ring	Weight kg.
			A x S	LK	F	D	H	G			
		Weld-on Flange									
350	1/2"	FI35-015	21.3x4.8	54	60	-	20	50	4 - M10 x 35	25.3 x 2.4	0.70
350	3/4"	FI35-020	26.7x5.6	54	60	-	20	50	4 - M10 x 35	25.3 x 2.4	0.70
350	1"	FI35-025	33.4x6.4	64	70	-	25	56	4 - M12 x 40	29.8 x 2.6	0.90
350	1 1/4"	FI35-032	42.2x6.4	72	80	-	32	64	4 - M12 x 50	34.5 x 2.6	1.45
350	1 1/2"	FI35-040	48.3x7.1	80	90	-	34	68	4 - M16 x 50	43.0 x 3.0	2.20
350	2"	FI35-050	60.3x8.7	98	100	-	40	80	4 - M16 x 60	53.3 x 5.33	3.20
350	2 1/2"	FI35-065	73.0x9.5	118	120	-	50	98	4 - M20 x 70	61.0 x 5.0	5.60
350	3"	FI35-080	88.9x11.1	145	150	-	54	109	4 - M24 x 75	75.0 x 5.0	9.50
350	4"	FI35-100	114.3x13.5	175	180	-	58	135	4 - M30 x 90	88.0 x 6.0	17.60
350	5"	FI35-125	141.3x15.9	200	-	245	70	150	8 - M24 x 100	115.0 x 6.0	29.30
350	6"	FI35-150	168.3x18.3	245	-	300	80	190	8 - M30 x 110	148.0 x 7.0	48.20
350	8"	FI35-200	219.1x23.0	290	-	355	90	190	8 - M36 x 130	183.5 x 7.0	55.10
		Weld-on Flange Coupling									
350	1/2"	FI35-015	21.3x4.8	54	60	-	20	101	4 - M10 x 60	25.3 x 2.4	1.40
350	3/4"	FI35-020	26.7x5.6	54	60	-	20	101	4 - M10 x 60	25.3 x 2.4	1.40
350	1"	FI35-025	33.4x6.4	64	70	-	25	113	4 - M12 x 70	29.8 x 2.6	1.80
350	1 1/4"	FI35-032	42.2x6.4	72	80	-	32	129	4 - M16 x 80	34.5 x 2.6	2.90
350	1 1/2"	FI35-040	48.3x7.1	80	90	-	34	137	4 - M16 x 80	43.0 x 3.0	4.40
350	2"	FI35-050	60.3x8.7	98	100	-	40	161	4 - M16 x 100	53.3 x 5.33	6.40
350	2 1/2"	FI35-065	73.0x9.5	118	120	-	50	197	4 - M20 x 120	61.0 x 5.0	11.20
350	3"	FI35-080	88.9x11.1	145	150	-	54	219	4 - M24 x 130	75.0 x 5.0	19.00
350	4"	FI35-100	114.3x13.5	175	180	-	58	271	4 - M30 x 150	88.0 x 6.0	35.20
350	5"	FI35-125	141.3x15.9	200	-	245	70	301	8 - M24 x 170	115.0 x 6.0	58.60
350	6"	FI35-150	168.3x18.3	245	-	300	80	380	8 - M30 x 200	148.0 x 7.0	96.40
350	8"	FI35-200	219.1x23.0	290	-	355	90	380	8 - M36 x 220	183.5 x 7.0	110.20

SAE-ON CENTERING FLANGE-PN 400-ISO 6164-2



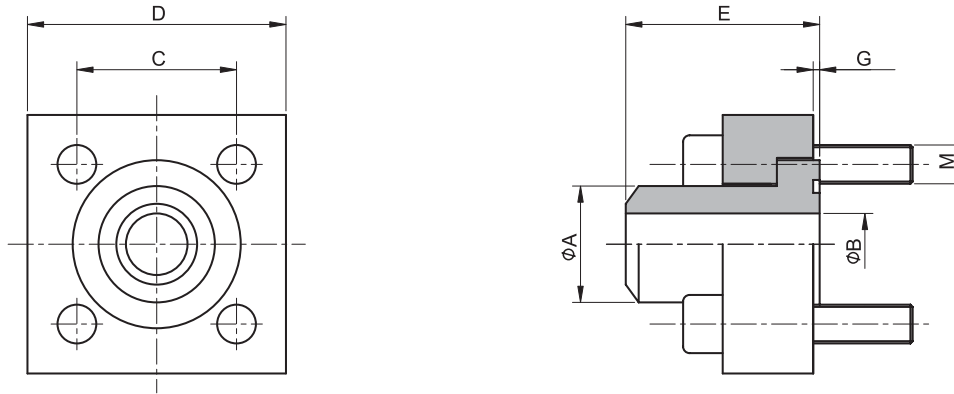
Maximum recommended working Pressure kg / cm ²	DIN	Type	Dimensions					Bolts	O-ring	Weight kg.	
			A x S	LK	F	D	H				G
		Weld-on Flange									
400	1/2"	FI40-015	21.3x7.5	54	60	-	20	50	4 - M10 x 35	25.3 x 2.4	0.70
400	3/4"	FI40-020	26.7x7.8	54	60	-	20	50	4 - M10 x 35	25.3 x 2.4	0.90
400	1"	FI40-025	33.4x9.1	64	70	-	25	56	4 - M12 x 40	29.8 x 2.6	1.45
400	1 1/4"	FI40-032	42.2x9.7	72	80	-	32	64	4 - M12 x 50	34.5 x 2.6	2.20
400	1 1/2"	FI40-040	48.3x10.2	85	90	-	34	68	4 - M16 x 50	43.0 x 3.0	2.20
400	2"	FI40-050	60.3x11.1	98	100	-	40	80	4 - M16 x 60	53.3 x 5.33	3.20
400	2 1/2"	FI40-065	73.0x14.0	118	120	-	50	98	4 - M20 x 70	61.0 x 5.0	5.60
400	3"	FI40-080	88.9x15.2	145	150	-	54	109	4 - M24 x 75	75.0 x 5.0	9.50
400	3 1/2"	FI40-090	101.6x16.2	175	180	-	58	135	4 - M30 x 90	88.0 x 6.0	17.60
400	4"	FI40-100	114.3x17.1	175	180	-	65	135	4 - M30 x 95	88.0 x 6.0	17.60
400	5"	FI40-125	141.3x19.1	200	-	245	70	150	8 - M24 x 100	115.0 x 6.0	29.30
400	6"	FI40-150	168.3x22.0	245	-	300	80	190	8 - M30 x 110	148.0 x 7.0	48.20
400	8"	FI40-200	219.1x22.2	290	-	355	90	190	8 - M36 x 130	183.5 x 7.0	55.10
		Weld-on Flange Coupling									
400	1/2"	FI40-015	21.3x7.5	54	60	-	20	101	4 - M10 x 60	25.3 x 2.4	1.40
400	3/4"	FI40-020	26.7x7.8	54	60	-	20	101	4 - M10 x 60	25.3 x 2.4	1.80
400	1"	FI40-025	33.4x9.1	64	70	-	25	113	4 - M12 x 60	29.8 x 2.6	2.90
400	1 1/4"	FI40-032	42.2x9.7	72	80	-	32	129	4 - M12 x 80	34.5 x 2.6	4.40
400	1 1/2"	FI40-040	48.3x10.2	80	90	-	34	137	4 - M16 x 85	43.0 x 3.0	4.40
400	2"	FI40-050	60.3x11.1	98	100	-	40	161	4 - M16 x 100	53.3 x 5.33	6.40
400	2 1/2"	FI40-065	73.0x14.0	118	120	-	50	197	4 - M20 x 130	61.0 x 5.0	11.20
400	3"	FI40-080	88.9x15.2	145	150	-	54	219	4 - M24 x 150	75.0 x 5.0	19.00
400	3 1/2"	FI40-090	101.6x16.2	175	180	-	58	271	4 - M30 x 150	88.0 x 6.0	35.20
400	4"	FI40-100	114.3x17.1	175	180	-	65	271	4 - M30 x 160	88.0 x 6.0	35.20
400	5"	FI40-125	141.3x19.1	200	-	245	70	301	8 - M24 x 170	115.0 x 6.0	58.60
400	6"	FI40-150	168.3x22.0	245	-	300	80	380	8 - M30 x 200	148.0 x 7.0	96.40
400	8"	FI40-200	219.1x22.2	290	-	355	90	380	8 - M36 x 220	183.5 x 7.0	110.20

T-FLANGE CONNECTION



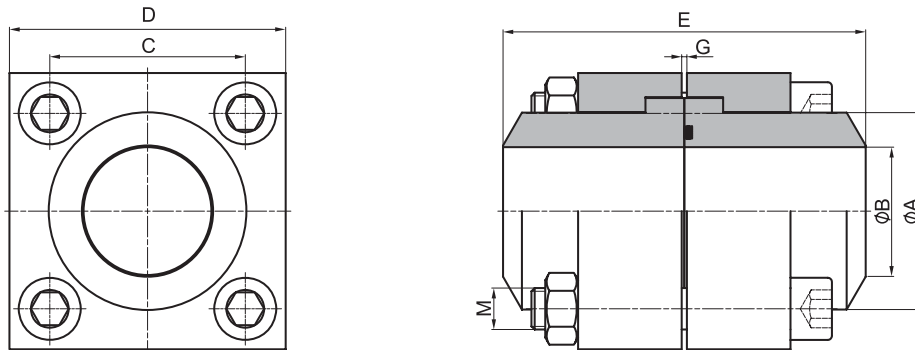
Maximum recommended working Pressusre kg / cm ²	DIN	Type	Dimensions				Bolts	O-ring	Weight kg.
			A x S	LK	F	G	M		
		Weld-on Flange							
	10	FCNT 10	17.1 x 3.2	44	50	100	12-M10x35	16.3 x 2.40	-
	16	FCNT 16	21.3 x 3.7	54	60	110	12-M10x35	25.3 x 2.40	-
	20	FCNT 20	26.7 x 3.9	64	70	115	12-M12x35	29.8 x 2.60	-
	25	FCNT 25	33.4 x 4.6	72	80	125	12-M12x40	34.5 x 2.60	-
-	32	FCNT 32	42.2 x 4.9	80	90	140	12-M16x50	43.0 x 3.00	-
	40	FCNT 40	48.3 x 5.1	98	100	160	12-M16x60	53.3 x 5.33	-
	50	FCNT 50	60.3 x 5.5	118	120	180	12-M20x70	61.0 x 5.00	-
	65	FCNT 65	73.0 x 7.0	145	150	200	12-M24x75	75.0 x 5.00	-
	80	FCNT 80	88.9 x 7.6	175	180	240	12-M30x90	88.0 x 6.00	-

CETOP-WELD-ON FLANGE



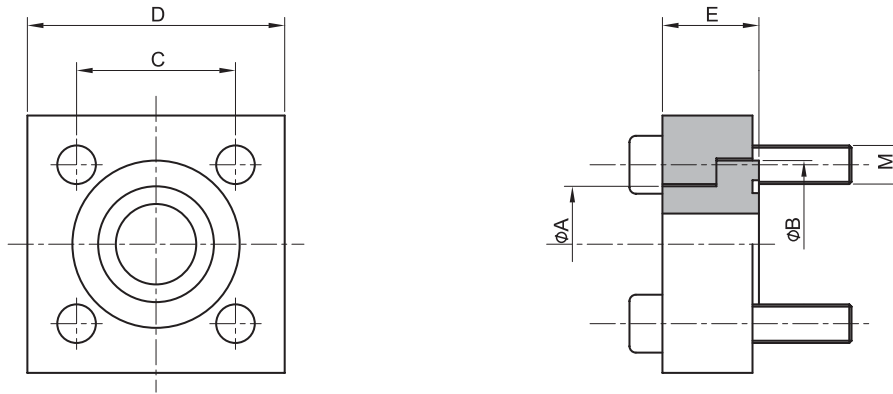
Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions						Bolts	Weight kg.
			Amax	Bmax	C	D	E	G		
Nominal Pressure 250bar										
250	3/8"	FCET 2510	17.5	12.5	24.7	40	30	1.0	M 6x 25	0.17
250	1/2"	FCET 2515	21.6	15.0	29.7	45	30	1.0	M 8x30	0.22
250	3/4"	FCET 2520	27.2	20.0	35.3	50	35	1.0	M 8x30	0.32
250	1"	FCET 2525	34.0	25.0	43.8	65	40	1.0	M 10x35	0.63
250	1 1/4"	FCET 2532	42.8	32.0	51.6	75	45	1.0	M 12x40	0.92
250	1 1/2"	FCET 2540	48.6	38.0	60.0	85	50	1.0	M 14x45	1.34
250	2"	FCET 2550	61.0	47.0	69.4	100	60	1.5	M 16x55	2.30
250	2 1/2"	FCET 2565	73.5	58.0	83.4	120	70	1.5	M 20x65	4.00
250	3"	FCET 2580	90.5	70.0	102.5	140	80	1.5	M 20x75	6.03
250	3 1/2"	FCET 2590	103.0	80.0	102.5	140	90	1.5	M 20x90	7.56
250	4"	FCET 25100	115.0	90.0	113.2	160	105	1.5	M 24x100	10.96
Nominal Pressure 400bar										
400	3/8"	FCET 4010	17.5	11.0	24.7	40	35	1.0	M 6x25	0.20
400	1/2"	FCET 4015	21.6	14.0	29.7	45	40	1.0	M 8x30	0.31
400	3/4"	FCET 4020	27.2	18.0	35.3	50	45	1.0	M 8x35	0.45
400	1"	FCET 4025	34.0	22.0	43.8	65	50	1.0	M 10x40	0.83
400	1 1/4"	FCET 4032	42.8	29.0	51.6	75	55	1.0	M 12x45	1.19
400	1 1/2"	FCET 4040	48.6	35.0	60.0	85	60	1.0	M 14x55	1.80
400	2"	FCET 4050	61.0	43.0	69.4	100	70	1.5	M 16x65	3.08
400	2 1/2"	FCET 4065	73.5	53.0	83.4	120	80	1.5	M 20x75	5.14
400	3"	FCET 4080	90.5	58.0	102.5	140	90	1.5	M 20x90	7.34
400	3 1/2"	FCET 4090	103.0	63.0	102.5	140	90	1.5	M 20x90	8.09
400	4"	FCET 40100	115.0	74.0	113.2	160	105	1.5	M 24x100	12.75

CETOP-WELD-ON FLANGE CONNECTION



Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions						Bolts	Weight kg.
			Amax	Bmax	C	D	E	G		
		Nominal Pressure 250bar								
250	3/8"	FCEF 2510	17.5	12.5	24.7	40	60	2	M 6x45	0.42
250	1/2"	FCEF 2515	21.6	15.0	29.7	45	60	2	M 8x45	0.52
250	3/4"	FCEF 2520	27.2	20.0	35.3	50	70	2	M 8x45	0.68
250	1"	FCEF 2525	34.0	25.0	43.8	65	80	2	M 10x50	1.30
250	1 1/4"	FCEF 2532	42.8	32.0	51.6	75	90	2	M 12x60	1.98
250	1 1/2"	FCEF 2540	48.6	38.0	60.0	85	100	2	M 14x70	2.79
250	2"	FCEF 2550	61.0	47.0	69.4	100	120	3	M 16x 90	4.67
250	2 1/2"	FCEF 2565	73.5	58.0	83.4	120	140	3	M 20x100	7.96
250	3"	FCEF 2580	90.5	70.0	102.5	140	160	3	M 20x110	11.80
250	3 1/2"	FCEF 2590	103.0	80.0	102.5	140	180	3	M 20x130	14.10
250	4"	FCEF 25100	115.0	90.0	113.2	160	210	3	M 24x150	21.60
		Nominal Pressure 400bar								
400	3/8"	FCEF 4010	17.5	11.0	24.7	40	70	2	M 6x45	0.47
400	1/2"	FCEF 4015	21.6	14.0	29.7	45	80	2	M 8x50	0.63
400	3/4"	FCEF 4020	27.2	18.0	35.2	50	90	2	M 8x60	0.90
400	1"	FCEF 4025	34.0	22.0	43.8	65	100	2	M 10x70	1.73
400	1 1/4"	FCEF 4032	42.8	29.0	51.6	75	110	2	M 12x80	2.62
400	1 1/2"	FCEF 4040	48.6	35.0	60.0	85	120	2	M 14x90	3.76
400	2"	FCEF 4050	61.0	43.0	69.4	100	140	3	M 16x100	6.40
400	2 1/2"	FCEF 4065	73.5	53.0	83.4	120	160	3	M 20x110	10.50
400	3"	FCEF 4080	90.5	58.0	102.5	140	180	3	M 20x130	16.40
400	3 1/2"	FCEF 4090	103.0	63.0	102.5	140	180	3	M 20x150	16.70
400	4"	FCEF 40100	115.0	74.0	113.2	160	210	3	M 24x160	25.00

CETOP-FLANGE PLUG



Maximum recommended working Pressusre kg / cm ²	Nominal flange size (inch)	Type	Dimensions					Bolts M	Weight kg.
			Amax	Bmax	C	D	E		
		Nominal Pressure 250bar							
250	3/8"	FCETP 25-10	18.0	24.5	24.7	40	15	M 6x25	0.04
250	1/2"	FCETP 25-15	24.0	30.2	29.7	45	16	M 8x30	0.07
250	3/4"	FCETP 25-20	31.5	38.1	35.3	50	17	M 8x30	0.13
250	1"	FCETP 25-25	38.0	44.5	43.8	65	19	M 10x35	0.19
250	1 1/4"	FCETP 25-32	43.0	50.8	51.6	75	23	M 12x40	0.30
250	1 1/2"	FCETP 25-40	50.0	60.3	60.0	85	26	M 14x45	0.46
250	2"	FCETP 25-50	62.0	71.4	69.4	100	31	M 16x55	0.82
250	2 1/2"	FCETP 25-65	76.0	87.2	83.4	120	37	M 20x65	1.44
250	3"	FCETP 25-80	90.0	101.6	102.5	140	42	M 20x75	2.25
250	3 1/2"	FCETP 25-90	102.0	119.0	102.5	140	54	M 20x90	3.90
250	4"	FCETP 25-100	114.0	131.0	114.5	160	62	M 24x100	5.54
		Nominal Pressure 400bar							
400	3/8"	FCETP 40-10	18.0	26.0	24.7	40	16	M 6x35	0.05
400	1/2"	FCETP 40-15	24.0	31.8	29.7	45	18	M 8x30	0.09
400	3/4"	FCETP 40-20	32.0	41.3	35.3	50	20	M 8x35	0.17
400	1"	FCETP 40-25	38.0	47.6	43.8	65	24	M 10x40	0.27
400	1 1/4"	FCETP 40-32	44.0	54.0	51.6	75	28	M 12x45	0.44
400	1 1/2"	FCETP 40-40	51.0	63.5	60.3	85	32	M 14x55	0.65
400	2"	FCETP 40-50	67.0	79.4	69.4	100	40	M 16x60	1.32
400	2 1/2"	FCETP 40-65	80.0	94.2	83.4	120	45	M 20x70	2.13
400	3"	FCETP 40-80	90.0	104.0	102.5	160	52	M 24x90	3.00
400	3 1/2"	FCETP 40-90	102.0	119.0	113.1	160	52	M 24x90	3.90
400	4"	FCETP 40-100	114.0	131.0	123.7	180	60	M 24x100	5.54



Valve Series

- Key Operation Ball Valves
- Key Operation Needle Valves
- Ball Valves
- Integral Bonnet Needle Valves
- Union Bonnet Needle Valves
- Check Valves
- High Pressure Check Valves
- High Pressure Needle Valves
- Plug Valves
- Manifold Valves
- Vacuum Clamps
- Water Regulators
- Flexible Hoses
- Double Block & Bleed Valves
- Swing-Out Ball Valves
- Toggle Valves
- Bleed & Purge Valves
- Quick Connectors
- High Pressure Ball Valves
- Hydraulic Ball Valves
- Trunnion Ball Valves
- Rising Plug Valves
- Relief Valves
- Cryogenic Needle Valves
- Cryogenic Ball Valves
- Micron in-Line Filters
- Gauge Root Valves
- Hydraulic Flange and Components

Fitting Series

- Tube Fittings (Compression Type)
- Instrument Thread Fittings
- Forged Fittings
- Bite Type Tube Fittings (DIN2353)
- Bite Type Tube Fittings (JIS B2351)
- 37° Flared Tube Fittings (SAE J514)
- O-Ring Face Seal Fittings
- Hose Connectors & Push-On Hose Fittings

Electric

- MCPD(Molded Case Power Distributor)

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