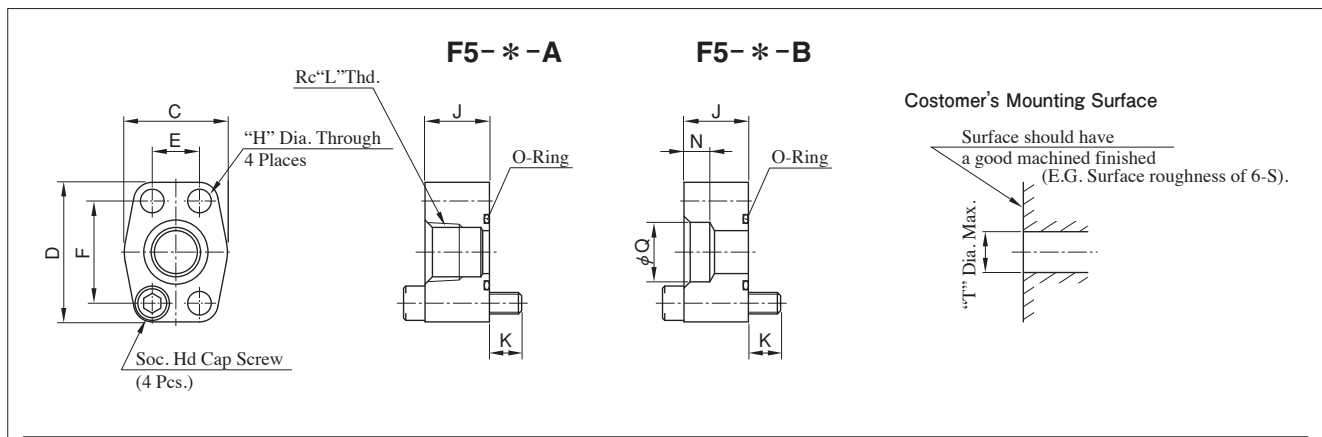


## 4 Bolt Solid Flanges (SAE) “F5” Series Pipe Flange Kits

The dimensions of the flange mounting surface are based upon SAE 4 Bolt Split Flange (Standard Pressure Series).

### Model Number Designation

F5	—06	—A	—10
Series Number	Flange Size	Type of Pipe Connection	Design Standards
F5	Refer to below table	A : Threaded Connection B : Socket Welding C : Butt Welding	10

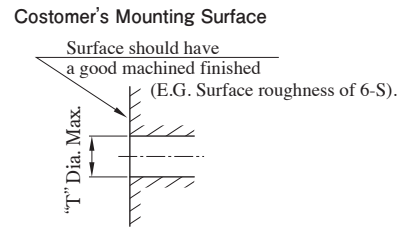
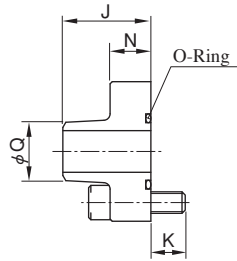
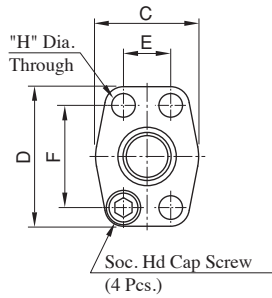


Kit Number	Piping Size	Dimension mm											O-Ring	Socket Head Cap Screw (4 Pcs.)	Max. Operating Pressure MPa	Approx. Mass kg	Tightening Torque Nm	
		C	D	E	F	H	J	K	L	N	Q	T					Recommendation	Tolerance
F5-04W-A	3/8	40	54	17.5	38.1	8.8	30	10	3/8	-	-	13	SO-NB-P22	M 8 x40	28	0.5	35	
F5-04W-B									-	9	17.8							
F5-04 -A	1/2	40	54	17.5	38.1	8.8	30	10	1/2	-	-	13	SO-NB-P22	M 8 x40	28	0.5	35	
F5-04 -B									-	11	22.2							
F5-06X-A	3/4	48	65	22.2	47.6	8.8	30	15	3/4	-	-	19	SO-NB-G30	M 8 x45	28	0.7	68.5	
F5-06X-B									-	12	27.7							
F5-06 -A	3/4	48	65	22.2	47.6	11	30	15	3/4	-	-	19	SO-NB-G30	M10x45	28	0.7	68.5	
F5-06 -B									-	12	27.7							
F5-08W-A	3/4	55	70	26.2	52.4	11	30	15	3/4	-	-	26	SO-NB-G35	M10x45	28	0.9	68.5	
F5-08W-B									-	12	27.7							
F5-08 -A	1	55	70	26.2	52.4	11	30	15	1	-	-	26	SO-NB-G35	M10x45	28	0.9	68.5	
F5-08 -B									-	14	34.5							
F5-10 -A	1 1/4	64	80	30.2	58.7	11	38	17	1 1/4	-	-	32	SO-NB-G40	M10x55	28	1.2	118	
F5-10 -B									-	16	43.2							
F5-12 -A	1 1/2	72	94	35.7	69.9	13.5	38	17	1 1/2	-	-	38	SO-NB-G50	M12x55	21	1.5	118	
F5-12 -B									-	18	49.1							
F5-16W-A	1 1/2	85	102	42.9	77.8	13.5	38	17	1 1/2	-	-	48	SO-NB-G60	M12x55	21	1.8	118	
F5-16W-B									-	18	49.1							
F5-16 -A	2	85	102	42.9	77.8	13.5	38	17	2	-	-	51	SO-NB-G65	M12x55	17.5	1.7	118	
F5-16 -B									-	20	61.1							
F5-20 -A	2 1/2	102	114	50.8	88.9	13.5	48	17	2 1/2	-	-	63	SO-NB-G75	M12x65	17.5	2.0	118	
F5-20 -B									-	22	77.1							
F5-24 -A	3	116	135	61.9	106.4	17.5	53	17	3	-	-	76	SO-NB-G85	M16x70	3.5	2.7	287	
F5-24 -B									-	25	90.0							
F5-28 -A	3 1/2	134	153	69.9	120.7	17.5	53	17	3 1/2	-	-	88	SO-NB-G100	M16x70	3.5	3.4	287	
F5-28 -B									-	28	102.8							
F5-32 -A	4	150	162	77.8	130.2	17.5	53	17	4	-	-	101	SO-NB-G115	M16x70	3.5	3.7	287	
F5-32 -B									-	28	115.5							

★1. Approx. mass is the value including socket head cap screw (4Pcs.).

★2. The values of tightening torque above apply to when these flanges are used for pressure line.

F5- \* -C



Kit Number	Piping Size	Dimension mm										O-Ring	Socket Head Cap Screw (4 Pcs.)	Max. Operating Pressure MPa	Approx. Mass kg	Tightening Torque Nm	
		C	D	E	F	H	J	K	N	Q	T					Recommendation	Tolerance
F5-04-C	1/2	40	54	17.5	38.1	8.8	39	13	17	21.7	13	SO-NB-P22	M 8 x30	28	0.25	35	±10%
F5-06-C	3/4	48	65	22.2	47.6	11	41	16	19	27.2	19	SO-NB-G30	M10x35	28	0.35	68.5	
F5-08-C	1	55	70	26.2	52.4	11	42	16	19	34	26	SO-NB-G35	M10x35	28	0.45	68.5	
F5-10-C	1 1/4	64	80	30.2	58.7	11	44	16	19	42.7	32	SO-NB-G40	M10x35	28	0.63	68.5	
F5-12-C	1 1/2	72	94	35.7	69.9	13.5	50	18	22	48.6	38	SO-NB-G50	M12x40	21	1.3	118	
F5-16-C	2	85	102	42.9	77.8	13.5	50	18	22	60.5	51	SO-NB-G65	M12x40	17.5	1.3	118	
F5-20-C	2 1/2	102	114	50.8	88.9	13.5	50	20	25	76.3	63	SO-NB-G75	M12x45	14	1.4	118	

★1. Approx. mass is the value including socket head cap screw (4Pcs.).

★2. The values of tightening torque above apply to when these flanges are used for pressure line.

## 4 Bolt Solid Flanges (SAE) “F6” Series Pipe Flange Kits

The dimensions of the flange mounting surface are based upon SAE 4 Bolt Split Flange (High Pressure Series).

### Specifications

Max. Operating Pressure..... 42 MPa

However, Rc Threaded Connection Type..... 31 MPa

### Model Number Designation

F6	-04W	-A	-M	-10
Series Number	Flange Size	Type of Pipe Connection	Type of Mounting Bolt	Design Standards
F6	Refer to below table	A : Threaded Connection B : Socket Welding	M : Metric Thd.	10

**F6- \* -A**

**F6- \* -B**

Customer's Mounting Surface

Kit Number	Piping Size	Dimension mm										O-Ring	Socket Head Cap Screw (4 Pcs.)	Approx. Mass kg	Tightening Torque Nm		
		C	D	E	F	H	J	K	L	N	Q				T	Recommendation	Tolerance
F6-04W-A	3/8	48	56.5	18.2	40.5	8.8	28	12	3/8	-	-	15	SO-NB-P22	M 8 x40	0.4	35	
F6-04W-B									-	9	17.8						
F6-04 -A	1/2	48	56.5	18.2	40.5	8.8	28	12	1/2	-	-	15	SO-NB-P22	M 8 x40	0.4	35	
F6-04 -B									-	11	22.2						
F6-06W-A	1/2	57.5	77.5	23.8	50.8	11	30	15	1/2	-	-	21	SO-NB-G30	M10x45	0.9	68.5	
F6-06W-B									-	11	22.2						
F6-06 -A	3/4	57.5	77.5	23.8	50.8	11	30	15	3/4	-	-	21	SO-NB-G30	M10x45	0.9	68.5	
F6-06 -B									-	12	27.7						
F6-08W-A	3/4	65	81	27.8	57.2	13.5	30	15	3/4	-	-	26	SO-NB-G35	M12x45	1.1	68.5	
F6-08W-B									-	12	27.7						
F6-08 -A	1	65	81	27.8	57.2	13.5	30	15	1	-	-	26	SO-NB-G35	M12x50	1.1	68.5	
F6-08 -B									-	14	34.5						
F6-10W-A	1	72	95	31.8	66.7	13.5	34	16	1	-	-	34	SO-NB-G40	M12x50	1.3	118	
F6-10W-B									-	14	34.5						
F6-10 -A	1 1/4	72	95	31.8	66.7	13.5	34	16	1 1/4	-	-	34	SO-NB-G40	M12x55	1.3	118	
F6-10 -B									-	16	43.2						
F6-12W-A	1 1/4	90	113	36.5	79.4	17.5	34	21	1 1/4	-	-	44	SO-NB-G50	M16x55	1.5	287	
F6-12W-B									-	16	43.2						
F6-12 -A	1 1/2	90	113	36.5	79.4	17.5	34	21	1 1/2	-	-	44	SO-NB-G50	M16x60	1.5	287	
F6-12 -B									-	18	49.1						

★1. Approx. mass is the value including socket head cap screw (4Pcs.).

★2. The values of tightening torque above apply to when these flanges are used for pressure line.

## Air Bleed Valves

These air bleed valves are designed to use, at the start-up of the pumps, to bleed off the air enclosed in the suction line or the other lines in the system.

### Specifications

Description	Model Numbers		
	ST 1004-2-1002	ST 1004-5-10	ST 1004-10-10
Port Size	Rc 3/8 Thd.		
Max. Operating Pressure	25 MPa		
Reseating Pressure	0.15 MPa		
Cracking Pressure	0.34 MPa		
Flow Rate to Reseating	2 L/min	5 L/min	10 L/min
Range of Usage to Pump Output Flow	For Under 20 L/min	For 20 to 75 L/min	For Over 75 L/min



Graphic Symbols

