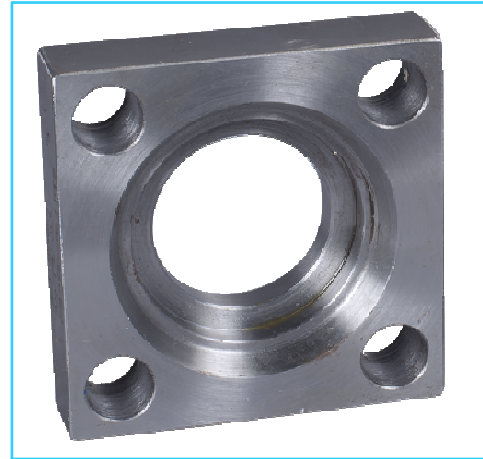


■ “F3” Series Pipe Flange Kits

■ Specifications

- Max. Operating Pressure 250 Kgf/cm²



■ Model Number Designation

F-	F3	-03W	B	N	-11	※
Material of Seal	Series Number	Flange Size	Type of Pipe Connection	O-Ring & Bolts	Design Number	Design * Standards
None: Standard NBR (Buna N) Seal F: FPM (Viton) Seal (For Synthetic Fluids)	F3	03W, 03, 06V 06W, 06, 10W 10, 16W, 16 24W, 24	B: Threaded Connection	None: With O-Ring and Mounting Bolts N: No O-Ring and Mounting Bolts	11	None: Japanese Standard “JIS” 80: European Design Standard
		03W, 03, 06V, 06W,06, 10W, 10,16W, 16, 24W,24	A: Pipe Socket Welding C: Block Type			80: European Design Standard

* Different design standard available as shown below. Select suitable design standard to your requirement.

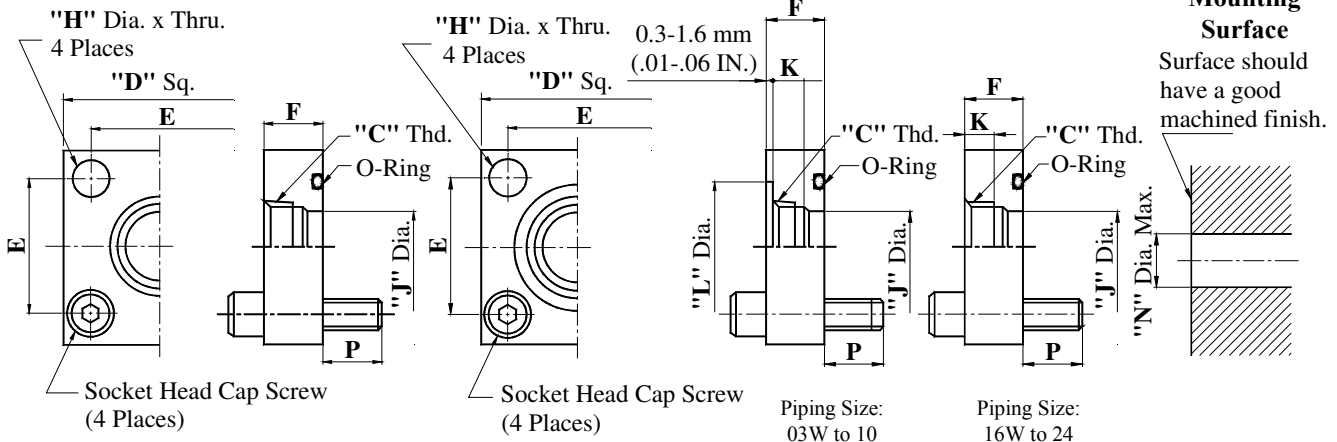
Type of Pipe Connection	Design Standard	Pipe Thread	Mounting Bolts (Socket Head Cap Screw)
For Threaded Connection	Japanese Standard “JIS”	Rc	Metric Thd.
	European Design Standard	BSP.F	Metric Thd.
	N. American Design Standard	NPT	Unified Thd.
For Pipe Socket Welding	Japanese Standard “JIS”	Rc	Metric Thd.

Threaded Connection

Japanese Standard "JIS" &
N. American Design Standard
F3-※-B※-11/1190

European Design Standard
F3-※-B※-1180

Customer's
Mounting
Surface
Surface should
have a good
machined finish.

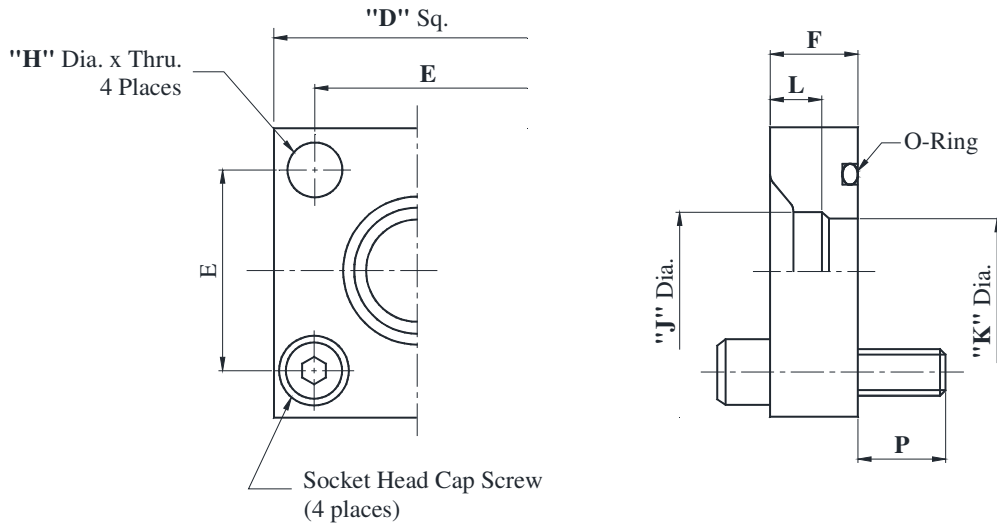


Kit Numbers	Piping Size "C" Thd.	Dimensions mm									O-Ring	Socket Head Cap Screw	Approx. Mass Kg.
		D	E	F	H	J	K	L	N	P			
F3-03W-B※-11	Rc 1/4	54	36	21	11	11	--	--	15	14	SO-NB-G25	M10x35Lg.	0.5
F3-03W-B※-1180	1/4 BSP.F					11.5	12	21					
F3-03W-B※-1190	1/4 NPT					11	--	--					
F3-03-B※-11	Rc 3/8					14	--	--					
F3-03-B※-1180	3/8 BSP.F					15	14	24.3					
F3-03-B※-1190	3/8 NPT	14	--	--	17.1								
F3-06V-B※-11	Rc 3/8	58	40	21	11	14	--	--	20	14	SO-NB-G30	M10x35Lg.	0.8
F3-06W-B※-11	Rc 1/2					17.5	--	--					
F3-06W-B※-1180	1/2 BSP.F					19	17	29					
F3-06W-B※-1190	1/2 NPT					17.5	--	--					
F3-06-B※-11	Rc 3/4					23	--	--					
F3-06-B※-1180	3/4 BSP.F	27			24.5	20	35.5						
F3-06-B※-1190	3/4 NPT	23	--	--	17.5								
F3-10W-B※-11	Rc 1	76	56	27	13.5	29	--	--	31.5	18	SO-NB-G40	M12x45Lg.	1.4
F3-10W-B※-1180	1 BSP.F					30.5	21	43.5					
F3-10W-B※-1190	1 NPT					29	--	--					
F3-10-B※-11	Rc 1/4					--	--	--					
F3-10-B※-1180	1-1/4 BSP.F					35	31.5	22					
F3-10-B※-1190	1-1/4 NPT	--	--	--	15.8								
F3-16W-B※-11	Rc 1 1/2	100	73	35	17.5	43.5	--	--	50	25	SO-NB-G60	M16x60Lg.	2.7
F3-16W-B※-1180	1-1/2 BSP.F					45	22	--					
F3-16W-B※-1190	1-1/2 NPT					43.5	--	--					
F3-16-B※-11	Rc 2					--	--	--					
F3-16-B※-1180	2 BSP.F					39	47.5	22					
F3-16-B※-1190	2 NPT	--	--	--	24.5								
F3-24W-B※-11	Rc 2-1/2	140	103	44	24	70	--	--	75	36	SO-NB-G85	M22x80Lg.	5.8
F3-24W-B※-1180	2-1/2 BSP.F					72.5	20	--					
F3-24W-B※-1190	2-1/2 NPT					70	--	--					
F3-24-B※-11	Rc 3					--	--	--					
F3-24-B※-1180	3 BSP.F					49	71	20					
F3-24-B※-1190	3 NPT	--	--	--	33.6								

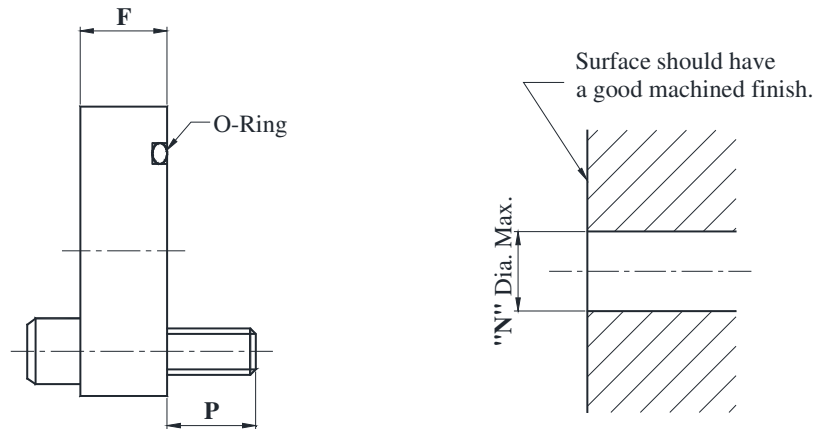
* Approx. Mass is the value including socket Head Cap Screw (4 Places).

■ Pipe Socket Welding

F3-※-A※-11



F3-※-C※-11



Kit numbers	Piping Size	Dimensions mm									O-Ring	Socket Head Cap Screw	Approx.* Mass Kg.
		D	E	F	H	J	K	L	N	P			
F3-03W-※-11	1/4	54	36	21	11	14.3	11	8	15	14	SO-NB-G25	M10 x 35Lg.	0.5
F3-03-※-11	3/8					17.8	12.5	9		14			
F3-06V-※-11	3/8	58	40	21	11	17.8	12.5	9	20	14	SO-NB-G30	M10 x 35Lg.	0.8
F3-06W-※-11	1/2					22.2	16	11		14			
F3-06-※-11	3/4					27.7	20	12		14			
F3-10W-※-11	1	76	56	27	13.5	34.5	25	14	31.5	18	SO-NB-G40	M12 x 45Lg.	1.4
F3-10-※-11	1-1/4					43.2	31.5	16		18			
F3-16W-※-11	1-1/2	100	73	35	17.5	49.1	37.5	18	50	25	SO-NB-G60	M16 x 60Lg.	2.7
F3-16-※-11	2					61.1	47.5	20		25			
F3-24W-※-11	2-1/2	140	103	44	24	77.1	60	22	75	36	SO-NB-G85	M22 x 80Lg.	5.8
F3-24-※-11	3					90	71	25		36			

“F5” Series Pipe Flange Kits

This flange mounting surface measurements is based upon SAE 4 Bolt Spring Flange (Standard Pressure Series).

Specifications

- Max. Operating Pressure
Maximum operating pressure varies with the type of pipe connection or flange size. Refer to the applicable installation drawing.



Model Number Designation

F-	F5	-06	-A	-10	※
Material of seal	Series Number	Flange Size	Type of Pipe Connection	Design Number	Design Standard *
None: Standard NBR (Buna N) Seal	F5	04W, 04, 06X 16, 08, 10 24, 28, 32	A: Threaded Connection	10	None: Japanese Standard "JIS"
		04, 06, 08 10, 12, 16 20		10	80: European Design Standard
		04W, 04, 06 08, 10, 12 16, 20		10	90: N. American Design Standard
F: FPM (Viton) Seal (For Synthetic Fluids)					

* The three different design standard available as shown below. Select suitable design standard to your requirement.

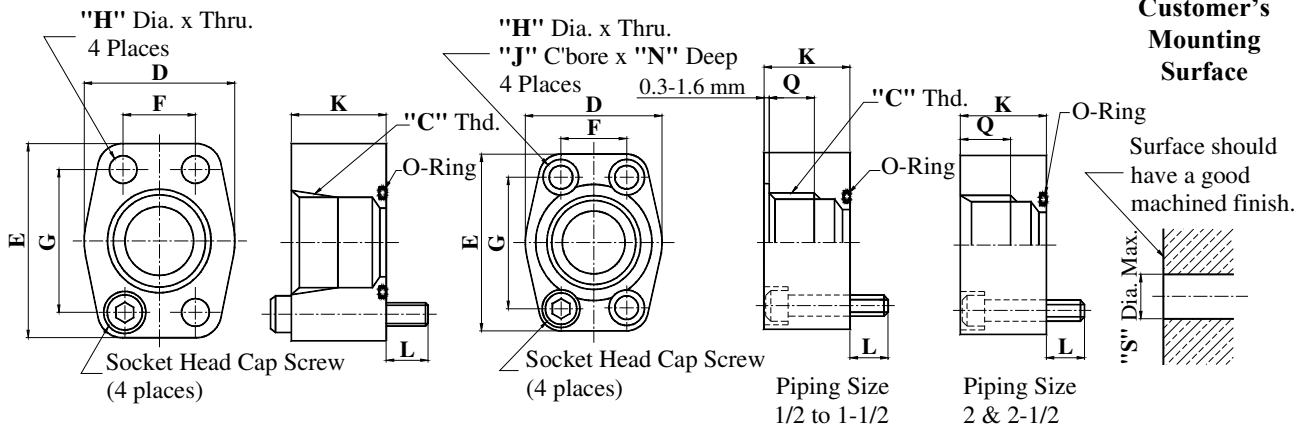
Type of Pipe Connection	Design Standard	Pipe Thread	Mounting bolt (Socket Head Cap Screw)
Threaded Connection	Japanese Standard "JIS"	Rc	Metric Thd.
	European Design Standard	BSP.F	Metric Thd.
	N. American Design Standard	N P T	Unified Thd.

Threaded Connection

Japanese Standard "JIS" & N. American Design Standard

**F5-※-A-10
F5-※-A-1090**

**European Design Standard
F5-※-A-1080**



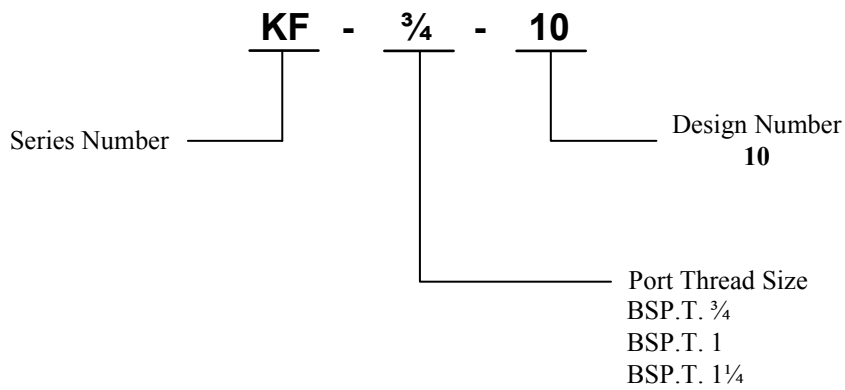
Kit numbers	Piping Size "C" Thd.	Dimensions mm										Socket Head Cap Screw (4 Places)	O-Ring	Max. Operating Pressure (Kgf/cm ²)	Approx. Mass Kg.					
		D	E	F	G	H	J	K	L	N	Q					S				
F5-04W-A-10	Rc 3/8											10			13	M8 x 40 Lg.	SO-NB-P22	280	0.5	
F5-04W-A-1090	3/8 NPT		54										30	14.5		15				5/16-18UNC x 1-3/4 Lg.
F5-04-A-10	Rc 1/2	40	54	17.5	38.1	8.8						10			13	M8 x 40 Lg.	SO-NB-G30	280	0.7	
F5-04-A-1080	1/2 BSP.F		59									14	31	12.6	8.6	17				M8 x 35 Lg.
F5-04-A-1090	1/2 NPT		54										30	14.5						13
F5-06X-A-10	Rc 3/4		65			8.8							30	15			M8 x 45 Lg.	SO-NB-G30	280	0.7
F5-06-A10		48		22.2	47.6												M10 x 45 Lg.			
F5-06-A-1080	3/4 BSP.F		72									17.5	31	14.8	10.8	20	M10 x 35 Lg.			
F5-06-A-1090	3/4 NPT		65										30	14.5			3/8-16UNC x 1-3/4 Lg.			
F5-08-A-10	Rc 1		70										30	15			M10 x 45 Lg.	SO-NB-G35	280	0.9
F5-08-A-1080	1 BSP.F	55	77	26.2	52.4	11						17.5	31	14.8	10.8	21	M10 x 35 Lg.			
F5-08-A-1090	1 NPT		70										30	14.5			3/8-16UNC x 1-3/4 Lg.			
F5-10-A-10	Rc 1-1/4		80										38	17			M10 x 55 Lg.	SO-NB-G40	218	1.2
F5-10-A-1080	1-1/4 BSP.F	64	83	30.2	58.7	11						17.5	3	16.8	10.8	22	M10 x 45 Lg.			
F5-10-A-1090	1-1/4 NPT		80										38	19.2			7/16-14UNC x 2-1/4 Lg.			
F5-12-A10	Rc 1-1/2		94										38	17			M12 x 55 Lg.	SO-NB-G50	210	1.5
F5-12-A-1080	1-1/2 BSP.F	72	99	35.7	69.9	13.5						21	41	17.5	13.5	22	M12 x 45 Lg.			
F5-12-A-1090	1-1/2 NPT		94										38	19.2			1/2-13UNC x 2-1/4 Lg.			
F5-16-A10	Rc 2		102										38	17			M12 x 55 Lg.	SO-NB-G65	175	1.7
F5-16-A-1080	2 BSP.F	85	107	42.9	77.8	13.5						21	41	17.5	13.5	31	M12 x 45 Lg.			
F5-16-A-1090	2 NPT		102										38	19.2			1/2-13UNC x 2-1/4 Lg.			
F5-20-A-10	Rc 2-1/2		114										48	17			M12 x 65 Lg.	SO-NB-G75	175	2
F5-20-A-1080	2-1/2 BSP.F	102	118	50.8	88.9	13.5						21	46	17.5	13.5	31	M12 x 50 Lg.			
F5-20-A-1090	2-1/2 NPT		114										48	21.8			1/2-13UNC x 2-3/4 Lg.			
F5-24-A-10	Rc 3	116	135	61.9	106.4												M16 x 70 Lg.	SO-NB-G85	35	2.7
F5-28-A-10	Rc 3-1/2	134	153	69.9	120.7	17.5	26	53	17	--	--						M16 x 70 Lg.	SO-NB-G100		3.4
F5-32-A-10	Rc 4	150	162	77.8	130.2												M16 x 70 Lg.	SO-NB-G115		3.7

Suction Pipe Flange for “A” Series Pumps

These flanges are used for connecting the pump port to suction pipe. The advantages are easy mounting, compact size, cost effective, and reduced pressure drop.



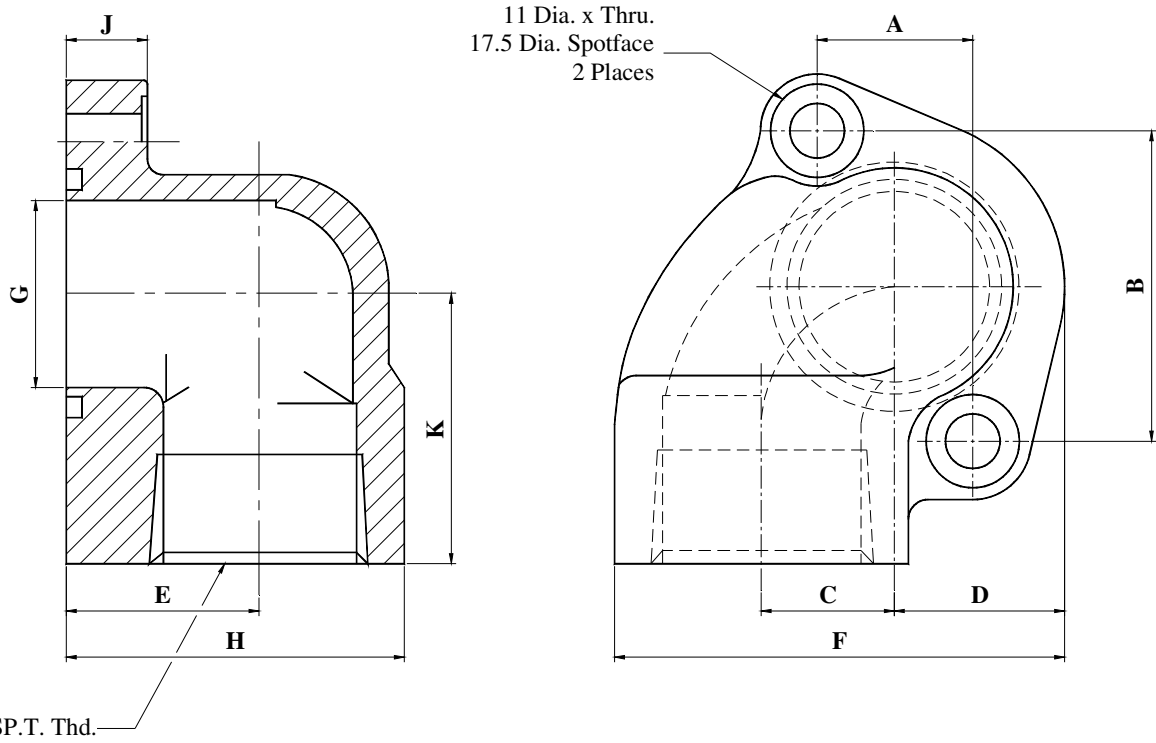
1. Model Number Designation



2. Applicable Pump Model Numbers.

Pump Model Number	Port Name	Pipe Flange Kit Model Number
AR16-FR*-**	Suction	KF-3/4-10 (Standard)
AR22-FR01*-**		KF-1-10 (Also available)
A37-F-R-01*-K-**		KF-1 1/4-10
A56-F-R-01*-K-**		

3. Overall Dimensions



Sl. No.	Suction Flange Model Number	Dimensions in mm										
		A	B	C	D	E	F	G	H	J	K	a
1	KF-3/4-10	22	48	23	26	30	81	22.5	60	16	45	3/4
2	KF-1-10											1
3	KF-1 1/4-10	30.2	58.7	25	32	37	84	36	65	15	52	1 1/4