

# Staffa

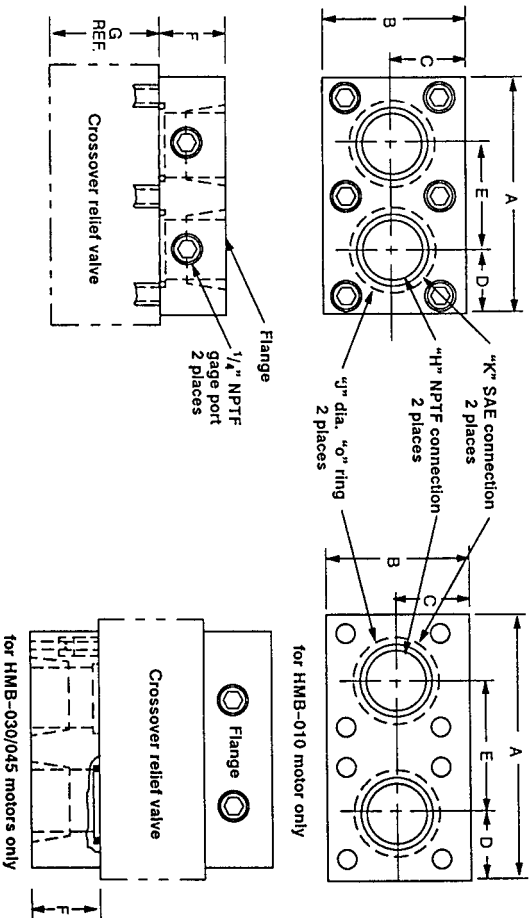
## Accessories Catalog



# SIX BOLT FLANGE KITS

Six bolt flange kits are available for use with SO3, SO4, and SO45 port options. Two flange kits are available for each motor model. One is used with the crossover relief valve, the other is used without the valve. Each flange kit consists of a flange and bolts, plus o-rings if required. Flange kits are sold separately and specified in accordance with the chart below.

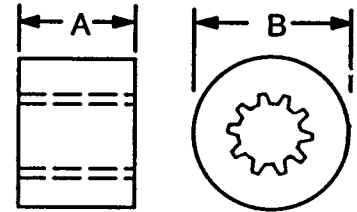
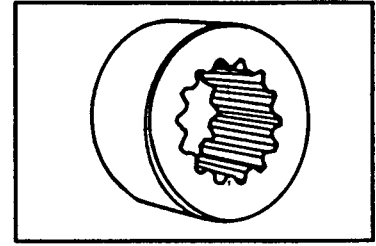
Staffa Motor Model	Valve Type	Flange Kit for Valve w/out CHMB relief			Flange Kit for Valve with CHMB relief			DIMENSIONAL DATA										
		NPT	SAE	SAE	NPT	SAE	SAE	A	B	C	D	E	F	G	H	J	K	
HMB010-series 10	Std	687441	687443	687445	687445	687447	4.64	2.37	1.18	1.18	2.28	1.47	1.50	1.00	1.56	1.312-12		
F3-HMB010-series 10	Std	687442	687444	687446	687448	(117.9)	(60.2)	(30.0)	(30.0)	(57.9)	(37.3)	(38.1)	1.50	1.00	(39.6)	SAE		
HMB010-series 11	Std	851409	851410	851413	851414	4.64	2.37	1.18	1.18	2.28	1.47	1.50	1.00	1.56	1.312-12			
F3-HMB010-series 11	Std	851411	851412	851415	851416	(117.9)	(60.2)	(30.0)	(30.0)	(57.9)	(37.3)	(38.1)	1.50	1.00	(39.6)	SAE		
HMC030-series 10	Std	687473	687475	n/a	n/a	6.00	3.00	1.50	1.52	2.95	1.47	—	—	—	—	—		
F3-HMC030-series 10	Std	687474	687476	n/a	n/a	(152.4)	(76.2)	(38.1)	(38.6)	(74.9)	(37.3)	—	—	—	(44.5)	—		
(F3-)HM(HD)B060/080/100/125/150/200	SO3	687453	850871	687455	850874	4.75	2.50	1.25	1.19	2.38	1.75	2.00	1.25	—	—	1.312-12		
(F3-)HMC030/045/080/125/200	SO4	687457	851137	687459	850872	(120.7)	(63.5)	(31.8)	(30.2)	(60.5)	(44.5)	(50.8)	2.00	1.00	—	SAE		
(F3-)HM(HD)B060/080/100/125/150/200	SO4	687457	851137	687459	850872	4.44	2.75	1.37	1.21	2.00	1.25	2.00	1.25	—	—	1.312-12		
(F3-)HMC030/045/080/125/200	SO4	687461	851138	687463	850873	(112.8)	(69.9)	(34.8)	(30.7)	(50.8)	(31.8)	(50.8)	2.00	1.00	—	SAE		
(F3-)HM(HD)B270/325	SO4	687461	851138	687463	850873	5.44	2.75	1.37	1.40	2.62	1.75	2.00	1.25	—	—	1.625-12		
(F3-)HMC270/325	SO4	687461	851138	687463	850873	(138.2)	(69.9)	(34.8)	(35.6)	(66.5)	(44.5)	(50.8)	2.00	1.00	—	SAE		
HM(HD)B400	Std	687465	687469	687467	687471	6.12	4.00	2.00	1.75	2.62	1.72	2.00	1.50	—	—	1.875-12		
F3-HM(HD)B400	Std	687466	687470	687468	687472	(155.4)	(101.6)	(50.8)	(44.5)	(66.5)	(43.7)	(50.8)	1.50	—	—	SAE		



# SPLINE ADAPTER BILLETS

A steel coupling adapter billet, having internal splines to match the motor output shaft is available. The output shaft fits into the billet, which is intended for welding onto drive gears, sprockets, etc.

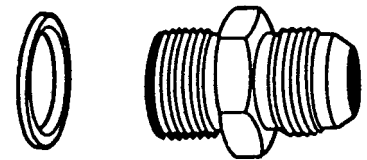
Motor Model	Shaft Code	Spline Adapter	Dimensions		# of Splines
			A	B	
HMB010	S	P-02-133424	1.97" 50mm	2.95" 75mm	13
HMB/C030 & 045	S	P-687482	3 1/4" 82.6mm	3.5016"/ 3.5000"	17
HMB060/080/100 HMC080	S	P-687483	2 1/2" 63.5mm	4.0016"/ 4.0000"	14
HMB125/150/200 HMC125 & 200 HMB/C270 & 325	S3	P-687484	3.0" 76.2mm	5.0016"/ 5.0000"	20
	HS3	P-851220	3 1/4" 82.6mm	5.0016"/ 5.0000"	20
	S4 HS4	P-501022	3 1/4" 82.6mm	5.0016"/ 5.0000"	16
HMHDB400	S5 HS5	P-687485	4.0" 101.6mm	5.5016"/ 5.5000"	23
	S				



# FITTINGS KIT

Some motors have B.S.P. threaded ports. Adapter fittings to JIC male threads are available as follows:

Motor Model	Part	Port Location	Description
	Number		
HMB030	P-687478	Flow Drain	(2) 3/4" B.S.P. x 1 1/16"-12 JIC 37 (1) 3/8" B.S.P. x 3/4"-16 JIC 37
HMB045	P-687479	Flow Drain	(2) 1" B.S.P. x 1 5/16"-12 JIC 37 (1) 3/8" B.S.P. x 3/4"-16 JIC 37
HMC030 thru HMC325	P-687480	"X" & "Y"	(1) 1/4" B.S.P. x 9/16"-18 JIC 37



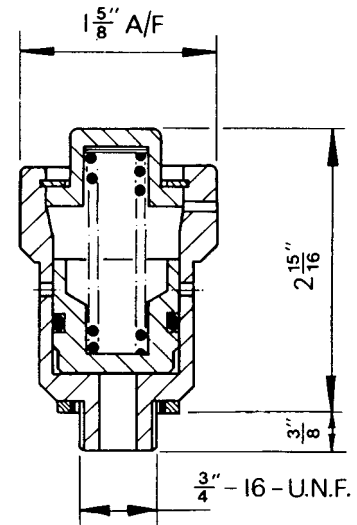
# CRANKCASE RELIEF VALVE

The motor crankcase relief valve prevents the crankcase pressure from exceeding the preset pressure. Crankcase relief valves are recommended for protection of the shaft seal on applications where there is a risk that the drain line may become restricted (e.g. trapped flexible hose) or subjected to excess pressure (e.g. connected with other drain/discharge lines).

The relief valve should be fitted into one of the drain ports not used for the drain line, using the bonded seal from the redundant sealing plug. The relief valve is designed to discharge excess fluid pressure via its side ports to atmosphere, thereby ensuring that the fault condition (high crankcase pressure) will be noted and corrected.

Part No.	Description
P-687477	Std 25 psi relief valve
P-501198	40 psi relief valve
P-02-275599	60 psi relief valve**
P-501183	30psi Stainless steel relief valve
P-02-274706C	40psi Stainless steel relief valve
P-02-274674	70psi Stainless steel relief valve**

\*\* For use with high pressure shaft seal option only.



**Crankcase relief valves are available for the following motor models:**

HMB060, HMB080, HMB100, HM(HD)B125, HM(HD)B150, HM(HD)B200, HM(HD)B270, HM(HD)B325, HMHDB400  
HMC045, HMC080, HMC125, HMC200, HMC270, HMC325

# S045 COVER PLATE

A cover plate kit is available for motors equipped with the optional S045 valve assembly. The part number for the kit is P-02-276419. This cover plate is necessary if only one of the port interfaces is to be used. This cover plate kit comes with the port cover plate, six 1/2-20 UNF x 1.75 socket head cap screws and two o-rings.

# CROSSOVER RELIEF VALVES

Crossover relief valves are used to protect system components from damage from hydraulic shock caused by sudden starting, Stopping or reversal if an inertial load. It is recommended that a crossover relief valve be used with the Staffa motor on all applications where these shock-producing conditions exist.

The series BBF crossover relief valve is designed so that oil relieved from the outlet port of the motor passes through the relief valve and into the motor inlet port.

The series BBF crossover relief valve mounts directly on the Staffa motor port pad and connects through special flanges to the system, except on the Staffa HMB-030 and HMB-045 which have threaded ports. For these models, the relief valve is installed in-line with a dual flange kit. Flange kits are described on the next page.

Motor Model	Valve Type	Part Number	A	B	C	D	E	F	G	H	J	K	L	M
HMB10	std	P-734905	4.64 (117.9)	3.84 (97.5)	3.06 (77.7)	2.28 (57.9)	1.56 (39.6)	0.78 (19.8)	0.39 (9.9)	0.78 (19.8)	1.56 (39.6)	2.5 (63.5)	1.25 (31.8)	0.41 (10.4)
HM(HD)B060/080/100/125/200 HMC030/045/080/125/200	SO3	P-734907	4.88 (124.0)	4.00 (101.6)	3.19 (81.0)	2.00 (50.8)		0.81 (20.6)	0.44 (11.2)	0.88 (22.4)	1.75 (44.5)	2.5 (63.5)	1.25 (31.8)	0.41 (10.4)
HMB030/045 HM(HD)B060/080/100/125/200 HMC030/045/080/125/200	R/D SO4	P-734909	4.88 (124.0)	3.75 (95.3)	2.88 (73.2)	1.88 (47.8)		0.88 (22.4)	0.56 (14.2)	0.88 (22.4)	1.75 (44.5)	3 (76.2)	1.5 (38.1)	0.41 (10.4)
HM(HD)B270/325 HMC270/325	SO4	P-734911	5.88 (149.4)	4.75 (120.7)	3.69 (93.7)	2.38 (60.5)		1.06 (26.9)	0.56 (14.2)	1.00 (25.4)	2.00 (50.8)	3 (76.2)	1.5 (38.1)	0.41 (10.4)

## ADJUSTMENT INSTRUCTIONS:

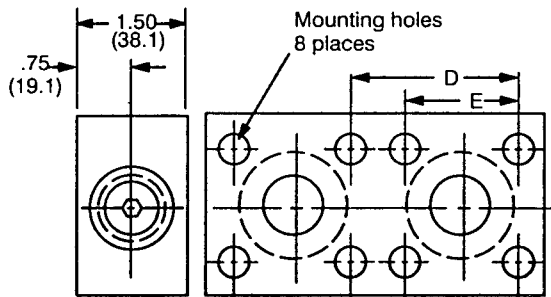
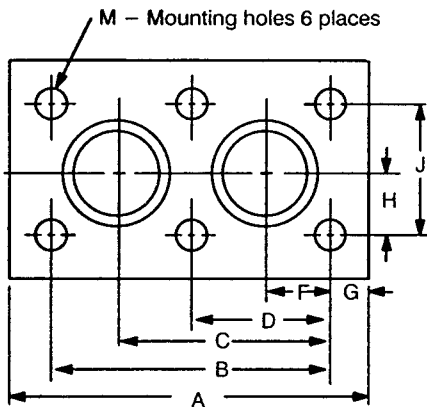
Relief valves are set at the factory to operate at 3500 psi. If a different setting is required, proceed as follows:

1. Remove valve
2. Adjust setting by turning socket set screw counter-clockwise to reduce pressure. One half (1/2) turn equals 500 psi.
3. Secure setting using Loctite.

NOTE: Do not increase setting above 3500 psi.

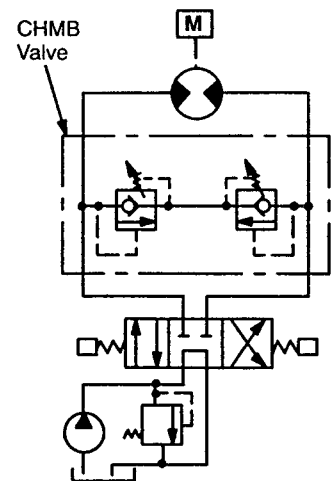
## WARNING:

Should the crossover relief valve fail to close, a direct flow path is provided between the motor ports resulting in a loss of torque and load holding ability. Provisions must be made to protect personnel and machinery against load runaway in this event.

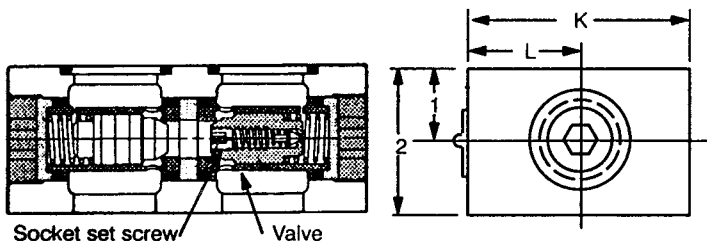


Dimensions for P-734905  
(See view at left for other dimensions)

NOTE: All dimensions in inches (millimeters)



CIRCUIT SYMBOL





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