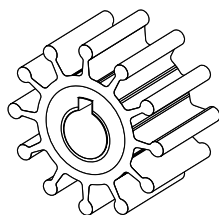
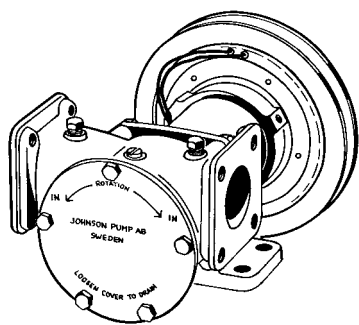




Impeller Pumps



Flexible impeller pumps provide an efficient solution to most raw water pumping needs. The pumps are self-priming and can pass fairly large solids without clogging or damaging the pumps. Designed for a number of applications on board.

Self-Priming Flexible Impeller Pumps

Operating Principle



A vacuum is created as the flexible impeller vanes straighten upon leaving the cam, drawing liquid into the pump.



The rotating impeller carries liquid from the inlet to the outlet port. As a consequence of their design, flexible impeller pumps can pass fairly large solids.



When the flexible impeller vanes regain contact with the cam, they bend and the liquid is discharged from the pump in a uniform flow. Liquids can be pumped in the opposite direction by reversing the rotation of the pump.

Automatically Controlled Clutch Pumps

With an electro-magnetic clutch you will have pumping power whenever needed, at a push of a button, without being at the pump. Combined with a vacuum switch (recommended for bilge pump application), the clutch will automatically disengage whenever the pump starts priming air, thereby preventing dry running and pump damage. Automatically controlled pumps are available in sizes from 1" to 2.1/2" (20 l/min to 625 l/min), with clutches in 12 or 24 volts. Wearing parts are easily replaceable and service kits are available for all standard models. Vacuum Switch as extra accessory, see page 32.

Technical Specifications, Clutch Pumps

Pump body: Bronze	Connection for vacuum switch	Clutch: Electro-magnetic 12/24 V DC
Shaft: Stainless steel	The shaft is mounted with permanently lubricated double ball bearings	Pulley: 2xA or 1xB-groove
Seal: Mechanical seal		Pulley dia: ø178 mm / 7"
Cam: Full or reduced		
Connection: BSP or NPTF		



Heavy Duty Electro-Magnetic Clutch Pumps

Order No.	Description	Impeller	Connection	Length	Width	Height	Weight
10-24577-98	F7B-50017	09-1028B	1" NPT	156 mm – 6.14"	120 mm – 4.72"	93 mm – 3.66"	5.8 kg – 12.7 lbs
10-13022-98	F8B-50017	09-819B	1½" NPT	225 mm – 8.85"	160 mm – 6.29"	124 mm – 4.88"	9.9 kg – 22 lbs
10-13022-95	US version 1¼" ports*						
10-13022-96	US version 1½" ports**						



Extra Heavy Duty Electro-Magnetic Clutch Pumps

Order No.	Description	Impeller	Connection	Length	Width	Height	Weight
10-24116-98	F7B-5007	09-1028B	1" NPT	226 mm – 8.9"	120 mm – 4.72"	93 mm – 3.66"	6.9 kg – 15 lbs
10-13025-99	F8B-5000 VF	09-819B	1½" NPT	265 mm – 10.43"	152 mm – 5.98"	154 mm – 6"	11.9 kg – 26 lbs
10-13176-99	F8B-5000 TSS	09-819B	1½" NPT	265 mm – 10.43"	198 mm – 7.79"	151 mm – 5.94"	11.9 kg – 26 lbs
10-13027-98	F9B-5607	09-814B	2" NPT	290 mm – 11.42"	192 mm – 7.56"	157 mm – 6.18"	13.2 kg – 29 lbs
		09-802B					
10-13226-99	F9B-5600 VF	09-814B	2" NPT	290 mm – 11.4"	152 mm – 5.98"	175 mm – 6.88"	13.2 kg – 27 lbs
		09-802B					
10-13178-99	F9B-5600 TSS	09-814B	2" NPT	290 mm – 11.4"	200 mm – 7.87"	151 mm – 5.94"	13.2 kg – 27 lbs
		09-802B					



Extra Heavy Duty, High Flow Electro-Magnetic Clutch Pump

Order No.	Description	Impeller	Connection	Length	Width	Height	Weight
10-13143-98	F95B-5000	09-820B	2½" NPT	358 mm – 14.09"	246/295 mm 9.68"/11.61"	226/201 mm 8.89"/7.91"	21 kg – 46 lbs

Flange with 2.½" BSP port adaptors (NPTF available on request)
The port adaptors can be fitted either vertically or horizontally

Choice of Clutch

Order No.	Description
05-32-1	Electro-magnetic clutch, 12 V 2xA pulley
05-32-2	Electro-magnetic clutch, 24 V 2xA pulley
05-32-3	Electro-magnetic clutch, 12 V 1xB pulley
05-32-4	Electro-magnetic clutch, 24 V 1xB pulley

Heavy Duty Impeller Pump

A range of multipurpose bronze pumps. Compact design, raw water resistant pumps at an attractive price – with the renowned Johnson Pump quality. These pumps are designed for a number of applications on board.

With excellent self-priming capability, these pumps are ideal as cooling water pumps for marine engines, bilge pumps, deckwash pumps, fresh water pumps, fuel transfer pumps and other applications. Also ideally suited on shore to empty septic tanks, to flush clean and to fill water tanks. Available in sizes from ¾" to 1½" (4 l/min to 279 l/min).

Vacuum switch (see page 32) as extra accessory for F8B-8 only.

Technical Specifications, Heavy Duty Impeller Pumps

Pump body: Bronze
 Shaft: Stainless steel
 The shaft is mounted with permanently lubricated double ball bearings
 Seal: Mechanical seal
 Cam: Full or reduced
 Connection: BSP or NPTF



Heavy Duty Impeller Pumps

Order No.	Description	Impeller	Connection	Length	Width	Height	Weight	Drive Shaft Ø
10-24569-51	F35B-8007	09-808B-1	¾" NPT	109 mm – 4.29"	80 mm – 3.14"	30 mm – 1.18"	0,5 kg – 1.2 lbs	¾"
10-24570-51	F4B-8007	09-810B-1 09-810B-9	¾" NPT	111 mm – 4.37"	80 mm – 3.15"	50 mm – 1.97"	0,8 kg – 1.8 lbs	¾"
10-24571-51	F5B-8007	09-1027B-1 09-1027B-9	¾" NPT	151 mm – 5.95"	106 mm – 4.17"	50 mm – 1.97"	1,6 kg – 3.5 lbs	5/8"
10-24572-51	F7B-8007	09-1028B 09-1028B-9	1" NPT	170 mm – 6.69"	120 mm – 4.72"	50 mm – 1.97"	1,9 kg – 4 lbs	5/8"
10-13021-9	F8B-8007	09-819B 09-819B-9	1½" NPT	217 mm – 8.54"	160 mm – 6.3"	65 mm – 2.56"	5,9 kg – 13 lbs	1"
10-13021-95	US version 1¼" ports, 1" shaft keyed							
10-13021-96	US version 1½" ports, 1" shaft keyed							

Extra Heavy Duty Impeller Pumps

Whenever you need greater strength or service from a pump, use an extra heavy duty flexible impeller pump with separate bearing housing and mechanical seal for less wear and longer life. These pumps cover the entire range of marine applications and may be used as cooling water pumps, bilge pumps, deckwash pumps, emergency and fire fighting pumps, etc. Available in sizes from ¾" to 2.½" (13 l/min to 625 l/min). Wearing parts are easily replaceable and service kits are available for all standard models.

Vacuum switch as extra accessory, see page 32.

Technical Specifications, Extra Heavy Duty Impeller Pumps

Pump body	Bronze. Connection for vacuum switch
Shaft	Stainless steel
Seal	Mechanical seal
Cam	Full or reduced
Pedestal	Cast iron with permanently lubricated double ball bearings
Connection	BSP or NPTF



Extra Heavy Duty Impeller Pumps

Order No.	Description	Impeller	Connection	Length	Width	Height	Weight	Drive Shaft Ø
10-24210-5	F5B-3007	09-1027B-1 09-1027B-9	¾" NPT	195 mm – 7.68"	106 mm – 4.17"	88 mm – 3.46"	2,9 kg – 6.5 lbs	17
10-24209-7	F7B-3007	09-1028B 09-1028B-9	1" NPT	213 mm – 8.38"	120 mm – 4.72"	93 mm – 3.66"	3,1 kg – 6.9 lbs	17
10-13024-1	F8B-3000 VF	09-819B 09-819B-9	1½" NPT	255 mm – 10.04"	152 mm – 5.98"	154 mm – 6.06"	7,6 kg – 16.5 lbs	1"
10-13026-7	F9B-3007	09-802B 09-814B	2" NPT	282 mm – 11.1"	192 mm – 7.56"	157 mm – 6.18"	9,3 kg – 21 lbs	1"
10-13175-01	F8B-3000 TSS	09-819B 09-819B-9	1½" NPT	255 mm – 10.04"	198 mm – 7.79"	151 mm – 5.94"	7,6 kg – 16.5 lbs	1"
10-13225-01	F9B-3000 VF	09-802B 09-814B	2" NPT	282 mm – 11.1"	152 mm – 5.98"	175 mm – 6.89"	9,3 kg – 21 lbs	1"
10-13177-01	F9B-3000 TSS	09-802B 09-814B	2" NPT	282 mm – 11.1"	200 mm – 7.87"	151 mm – 5.94"	9,3 kg – 21 lbs	1"



Extra Heavy Duty, High Flow, Impeller Pumps

Order No.	Description	Impeller	Connection	Length	Width	Height	Weight	Drive Shaft Ø
10-13121-04	F95B-3007	09-820B	2½" NPT	354 mm – 13.93"	246/295 mm 9.68"/11.61"	226/201 mm 8.89"/7.91"	17,2 kg – 38 lbs	24



Vacuum Switch

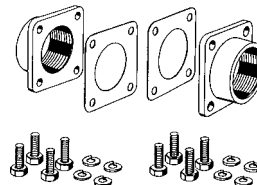
For automatic shut off operation to prevent pump damage

The vacuum switch works with all self-priming impeller pumps and should be used for e.g. bilge pumping/emptying of tanks to prevent the pump from dry running. The vacuum switch automatically shuts the pump off when the bilge/tank is dry. With the switch fitted, you can start the pump by remote push button or manually by depressing lever on the switch.

Order No.	Description
09-45053	Vacuum Switch

Port adaptor kit

Order No.	Description
09-45562	1½" NPT
09-46557-01	2" BSP for F9B-3000-VF and F9B-3000-TSS



Bronze Impeller Pump Performance Tables

Note! Reduced cam - 30-40% lower capacity
Impeller of nitrile - adjust total head approx. 30% down

F35B			700 rpm			900 rpm			1400 rpm			1750 rpm			2000 rpm			2500 rpm		
Bar	kPa	ft	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM
0.3	30	10.1	0.06	5.2	1.4	0.09	6.8	1.8	0.13	11.2	3.0	0.16	14.0	3.7	0.18	16.0	4.2	0.18	20.5	5.4
0.6	60	20.1	0.09	4.6	1.2	0.09	6.2	1.6	0.13	10.6	2.8	0.16	13.7	3.6	0.18	15.8	4.1	0.18	19.6	5.2
1.0	100	33.5	0.09	4.0	1.1	0.09	5.6	1.5	0.18	9.2	2.4	0.18	11.8	3.1	0.18	13.6	3.6	0.18	17.0	4.5

F4B			700 rpm			900 rpm			1400 rpm			1750 rpm			2000 rpm			2500 rpm		
Bar	kPa	ft	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM
0.3	30	10.1	0.06	12.0	3.2	0.09	15.0	4.0	0.13	23.0	6.0	0.17	27.0	7.1	0.18	30.5	8.1	0.18	34.5	9.1
0.6	60	20.1	0.09	11.0	2.9	0.09	14.0	3.7	0.13	21.0	5.4	0.17	25.0	6.6	0.18	28.0	7.4	0.18	33.0	8.7
1.0	100	33.5	0.09	9.0	2.4	0.09	11.0	2.9	0.18	18.0	4.8	0.18	22.0	5.8	0.18	25.0	6.6	0.18	29.5	7.8
1.5	150	50.3	0.09	4.5	1.2	0.09	7.0	1.8	0.18	13.5	3.6	0.18	17.0	4.5	0.18	20.0	5.3	0.24	25.0	6.6

F5B			700 rpm			900 rpm			1400 rpm			1750 rpm			2000 rpm					
Bar	kPa	ft	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM
0.3	30	10.1	0.13	16.0	4.2	0.18	21.0	5.5	0.37	33.0	8.7	0.37	41.0	10.8	0.37	46.0	12.2	0.37	46.0	12.2
0.6	60	20.1	0.13	15.0	4.0	0.18	20.0	5.3	0.37	32.0	8.5	0.37	39.5	10.4	0.37	45.0	11.9	0.37	45.0	11.9
1.0	100	33.5	0.13	14.0	3.7	0.18	19.0	5.0	0.37	30.0	7.9	0.37	37.0	9.8	0.37	42.0	11.1	0.37	42.0	11.1
1.5	150	50.3	0.13	13.0	3.4	0.18	17.0	4.5	0.37	27.0	7.1	0.37	33.5	8.9	0.37	38.0	10.0	0.37	38.0	10.0
2.0	200	67.1	-	-	-	-	-	-	0.37	22.0	5.8	0.37	28.5	7.5	0.37	33.0	8.07	0.37	33.0	8.07

F7B			700 rpm			900 rpm			1400 rpm			1750 rpm			2000 rpm					
Bar	kPa	ft	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM
0.3	30	10.1	0.37	36.0	9.5	0.37	46.0	12.2	0.75	74.0	19.6	0.75	98.0	25.9	0.75	107.0	28.3	0.75	107.0	28.3
0.6	60	20.1	0.37	34.0	9.0	0.37	44.0	11.6	0.75	72.0	19.0	0.75	96.0	25.4	0.75	104.0	27.5	0.75	104.0	27.5
1.0	100	33.5	0.37	29.0	7.7	0.37	40.0	10.6	0.75	67.0	17.7	0.75	87.0	23.0	0.75	98.0	25.9	0.75	98.0	25.9
1.8	180	60.4	0.37	21.0	5.5	0.37	30.0	7.9	0.75	57.0	15.1	0.75	73.0	19.3	0.75	84.0	22.2	0.75	84.0	22.2
2.5	250	83.8	-	-	-	-	-	-	0.75	37.0	9.8	1.1	52.0	13.7	1.1	63.0	16.6	1.1	63.0	16.6

F8B			700 rpm			900 rpm			1400 rpm			1750 rpm			2000 rpm					
Bar	kPa	ft	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM
0.3	30	10.1	0.37	87.0	9.5	0.75	114.0	30.1	1.1	188.0	50.0	1.5	241.0	63.7	1.5	279.0	73.7	1.5	279.0	73.7
0.6	60	20.1	0.37	80.0	9.0	0.75	107.0	28.3	1.1	180.0	47.6	1.5	233.0	61.6	1.5	270.0	71.3	1.5	270.0	71.3
1.0	100	33.5	0.37	73.0	7.7	0.75	101.0	26.7	1.1	177.0	46.8	1.5	228.0	60.2	1.5	264.0	69.7	1.5	264.0	69.7
1.8	180	60.4	-	-	-	1.1	70.0	18.5	1.1	148.0	39.1	2.2	203.0	53.6	2.2	242.0	63.4	2.2	242.0	63.4
2.5	250	83.8	-	-	-	-	-	-	1.1	108.0	28.5	2.2	166.0	43.9	2.2	208.0	55.0	2.2	208.0	55.0

F9B-5000			700 rpm			900 rpm			1400 rpm			1750 rpm			2000 rpm					
Bar	kPa	ft	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM
0.3	30	10.1	0.75	129.0	34.1	0.75	170.0	44.9	1.5	268.0	70.8	1.5	331.0	87.5	2.2	388.8	102.7	2.2	388.8	102.7
0.6	60	20.1	0.75	124.0	32.8	0.75	161.0	42.5	1.5	260.0	68.9	2.2	323.0	85.3	2.2	383.1	101.2	2.2	383.1	101.2
1.0	100	33.5	0.75	118.8	31.4	1.1	156.0	41.2	1.5	255.6	67.5	2.2	315.2	83.3	3.0	379.2	100.2	3.0	379.2	100.2
1.8	180	60.4	1.1	105.0	27.7	1.1	140.0	37.0	1.5	235.0	62.1	2.2	286.1	75.6	3.0	351.3	92.8	3.0	351.3	92.8
2.5	250	83.8	1.1	83.7	22.1	1.5	102.0	26.9	2.2	208.0	55.2	3.0	266.0	70.3	3.0	304.1	80.3	3.0	304.1	80.3

F9B-5600			700 rpm			900 rpm			1400 rpm			1750 rpm			2000 rpm					
Bar	kPa	ft	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM
0.3	30	10.1	0.75	129.0	34.1	1.1	170.0	44.9	1.5	270.0	71.3	1.5	331.0	87.5	2.2	376.0	99.3	2.2	376.0	99.3
0.6	60	20.1	0.75	126.0	32.8	1.1	165.0	43.6	1.5	266.0	70.3	2.2	323.0	85.3	2.2	368.0	97.2	2.2	368.0	97.2
1.0	100	33.5	0.75	123.0	32.5	1.1	161.1	42.6	2.2	260.0	68.7	2.2	314.0	83.3	3.0	361.0	95.4	3.0	361.0	95.4
1.8	180	60.4	0.75	110.0	29.1	1.5	153.0	40.4	2.2	242.0	63.9	2.2	291.0	76.9	3.0	340.0	89.8	3.0	340.0	89.8
2.5	250	83.8	1.1	90.0	23.8	1.5	130.0	34.3	2.2	218.0	57.6	3.0	269.0	71.1	3.0	312.0	82.4	3.0	312.0	82.4
3.0	300	100.6	1.5	61.0	16.1	2.2	102.0	26.9	3.0	190.0	50.2	3.0	242.0	63.9	3.5	284.0	75.0	3.5	284.0	75.0
3.5	350	117.4	-	-	-	-	-	-	3.0	160.0	42.3	3.5	205.0	54.2	3.5	235.0	62.1	3.5	235.0	62.1

F95B			700 rpm			900 rpm			1400 rpm			1750 rpm			2500 rpm					
Bar	kPa	ft	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM	kW	l/min	GPM
0.5	50	16.8	0.75	182.6	48.2	1.1	236.5	62.5	1.5	384.2	101.5	2.2	483.6	127.8	4.0	626.7	165.5	4.0	626.7	165.5
1.0	100	33.5	1.1	172.7	45.6	1.1	231.3	61.1	1.5	372.0	98.3	3.0	472.9	124.9	5.5	617.9	163.2	5.5	617.9	163.2
1.5	150	50.3	1.1	160.1	42.3	1.5	214.5	56.7	2.2	350.4	92.6	3.0	444.1	117.3	5.5	583.8	154.2	5.5	583.8	154.2
2.0	200	67.1	1.1	132.3	35.0	1.5	181.0	47.8	3.0	315.4	83.3	3.5	406.2	107.3	5.5	553.1	146.1	5.5	553.1	146.1
2.5	250	83.8	1.5	79.5	21.0	2.2	137.8	36.4	3.0	267.6	70.7	4.0	361.3	95.5	7.5	506.4	133.8	7.5	506.4	133.8