

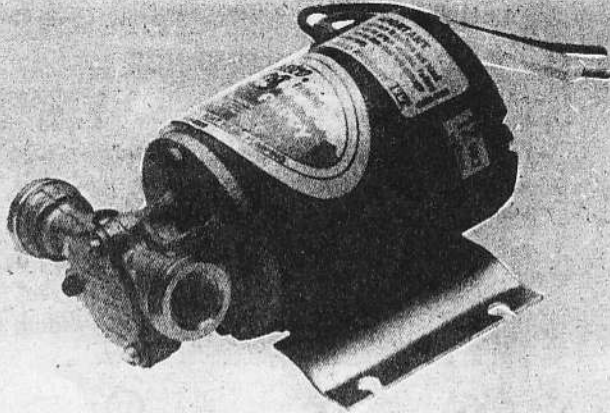
# JABSCO® PUMPS

SELF-PRIMING PUMPS

# MODELS: 8860-0001, 8870-000

## MINI-PUPPY SERIES

### PRODUCT DATA



These pumps meet applicable sections of U.S.C.G. Electrical Regulations (Title 33, Chapter 1, Subpart 183.410), and are listed as B.I.A. type accepted

### APPLICATIONS

Ideal for bilge pumping, bait tank circulation, wash down and general purpose pumping. When bilge water contains significant amounts of oil, use impeller No.14750-0003 in 8860 and 8870 series pumps.

With wet impellers, pumps will produce a suction lift of about 4 ft. (1.2 m) and a lift to 15 ft. (5 m) when primed. **BE SURE SUCTION LINES ARE AIR TIGHT.**

### INSTALLATION

The pump must be mounted in a dry location on vertical mounts, orient pump motor and head at 45° to horizontal with pump head down to trap water and allow easy priming.

### PLUMBING CONNECTIONS

Pumps have external garden hose threads and internal 3/8 inch pipe threads. Use hose that does not kink when bent or collapse due to the suction of the pump. Arrange hoses to trap water in pump body to wet the impeller.

Wetting the impeller aids in priming and extends impeller life. Use a strainer on the intake hose to prevent debris from entering pump. All hoses must have air tight connections.

### DESIGN FEATURES

Body:	Bronze
Impeller:	Neoprene
Seal:	Lip Type
Motor:	Non-reversible Permanent Magnet Type, Fully enclosed, Stainless Steel Shaft
Ports:	3/4 Inch Garden Hose External 3/8 Inch Pipe Thread Internal
Height:	3 Inches
Length:	6-3/8 Inches
Width:	4 Inches
Weight:	4-1/2 Pounds, 2 kg

MINI-PUPPY SERIES

### ELECTRICAL CONNECTIONS

#### MINIMUM WIRE SIZE

Connection Length Between Battery and Motor	8860- 0001 12 V.	8870- 0001 24 V.
1-10 ft. (3m)	No.14	No.16
11-20 ft. (6m)	No.12	No.16
21-30 ft. (9m)	No.10	No.14

#### AMPERE DRAW

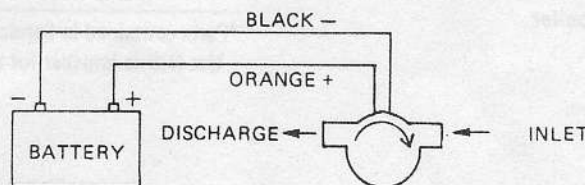
Model	8860- 0001 12 V.	8870- 0001 24 V.
Amp. Draw (Approx.)	4	2-1/2
Recommended Fuse Size	9	5

Use only proper wire sizes noted above. The proper fuse has been included in the fuse holder. Should this fuse blow, replace with the same size fuse. Determine reason for blown fuse.

**NO WARRANTY CONSIDERATION WILL BE GIVEN TO PUMPS INSTALLED WITHOUT FUSE AND FUSE HOLDER SUPPLIED.**

On model 8860 and 8870 pumps, the direction of the pump and motor rotation depends on the polarity of the wire connections. It is important to connect pump as shown in diagram below

### WIRING DIAGRAM 8860 & 8870



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Form 43000-0010 Rev 10/80

## OPERATION

If pump is idle for extended periods, the impeller may stick to the pump body preventing motor rotation and causing blown fuses. To correct, remove end cover and impeller. Clean body and impeller, then lubricate with water or small amounts of grease before assembly.

Flexible impeller pumps must *NOT* be run dry, as the pumped liquid is the lubricant for the impeller. Observe the outlet and shut off pump as soon as liquid stops flowing. An automatic level switch is convenient to control the pump. If pump has been idle for long periods, pouring water into the pump through the outlet hose will wet the impeller and increase impeller life.

**CAUTION**—Do not pump solvents, thinners, or gasoline. Impeller and motor damage will occur. **MOTOR IS NOT EXPLOSION PROOF.**

Temperature of pumped liquid may be in the range of 45° – 160°F. (10° – 70°C.). Pressure for normal operation should not exceed 40 feet of head. Motor runs hot, about 180° is a normal temperature.

The motor operates most efficiently when rotation is as shown in wiring diagram. If reversing operation is desired, use 1414-0001 or 1414-0003 impeller.

## HEAD CAPACITY TABLE

Models 8860 & 8870 Pumps

Lbs. Per Sq. Inch	Ft. of Water	GPM
4.3 (.30 kg/sq cm)	10 (3M)	1.8 (6.8 L/min)
8.7 (.61 kg/sq cm)	20 (6M)	1.7 (6.4 L/min)
13.0 (.91 kg/sq cm)	30 (9M)	1.6 (6.1 L/min)
17.3 (1.22 Kg/sq cm)	40(12.2M)	1.4 (5.3 L/min)

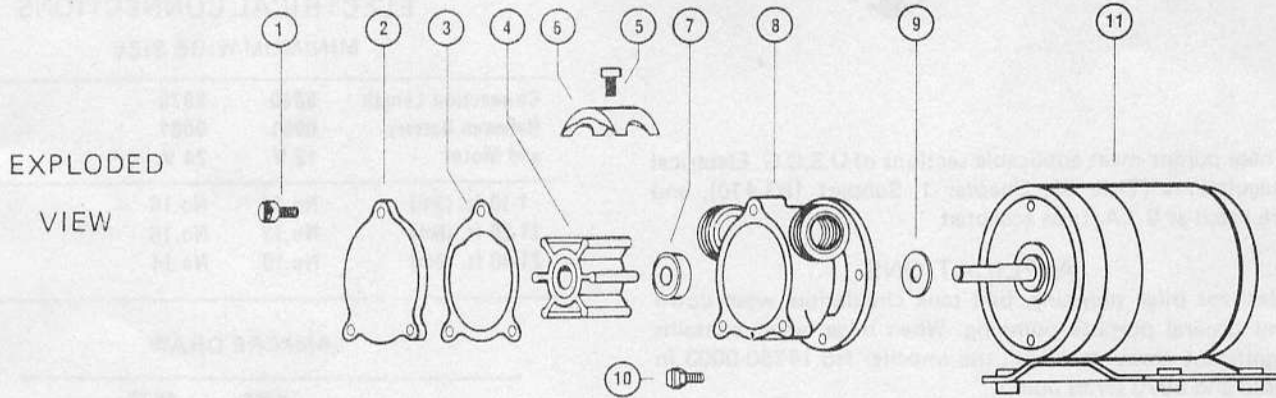
Table shows approximate Head-Flow for new pump in U.S. gallons per minute, and metric equivalents.

## MAINTENANCE

Check wires and connections to be sure corrosion is not adding additional resistance to the motor circuit and causing a low voltage condition at the motor. Low voltage can cause fuses to blow and is a common source of trouble in marine installations.

If pump is to be in freezing temperatures, drain by loosening end cover.

Service kits, or at least a spare impeller, should be carried aboard to be assured of pumping capability.



## ASSEMBLY INSTRUCTIONS DISASSEMBLY

- Remove end cover screws, end cover and gasket.
  - Withdraw impeller.
  - Loosen and remove two slotted hex screws, which attach body to motor.
  - Tap body lightly between ports and remove body from motor.
  - Deform seal and remove from body cavity.
- NOTE: Do not tamper with or disassemble motor.

## ASSEMBLY

- Lubricate seal. Deform seal and install in cavity with open side of seal facing impeller.
- Lubricate motor shaft and install body on motor.
- Lubricate impeller bore and aligning ding in impeller with flat on motor shaft, install impeller.
- Install gasket, end cover and screws.

KEY	DESCRIPTION	PART NUMBER	QTY.
1	Screw (End Cover)	91002-0090	3
2	End Cover	12076-0000	1
3*	Gasket	7828-0000	1
4*	Impeller, Neoprene	14750-0001	1
+	Impeller, Nitrile	14750-0003	
5	Screw (Cam)	91002-0010	1
6	Cam	8089-0000	1
7*	Seal	93000-0100	1
8	Body	7824-0000	1
9	Slinger	6342-0000	1
10	Screw (Body to Motor)	98019-0060	2
11	Motor		
	Model 8860-0001 12v.	98012-0020	
	Model 8870-0001 24v.	98012-0030	
	Service Kit, Neoprene	90092-0007	
+	Service Kit, Nitrile	90092-0004	
	Pump Head Only	9040-0001	

\*Parts contained in Service Kit

+ Use Nitrile impeller for extreme condition of oil in bilge water.

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