



a xylem brand

### SELF-PRIMING PUMP

#### Mini-Puppy

#### FEATURES

- Body:** Bronze
- Impeller:** Neoprene
- Seal:** Lip Type
- Motor:** Permanent Magnet Type, Fully enclosed, Stainless Steel Shaft
- Ports:** 3/8" Pipe Thread Internal
- Height:** 3-3/8" (85 mm)
- Length:** 6-3/4" (172 mm)
- Width:** 3-3/4" (95 mm)
- Weight:** 4-1/2 lb (2 kg)(approx.)



Model: 8860-0001 - Neoprene Impeller  
8860-0003 - Nitrile Impeller

**WARNING** Explosion Hazard. Do not pump gasoline, solvents, thinners or other flammable liquids. To do so can cause an explosion resulting in injury or death.

**WARNING** Explosion Hazard. Do not operate with rivets removed from motor case. Explosion resulting in personal injury, death or property damage can occur. Case openings must be sealed to avoid explosion and maintain ignition protected rating.

#### APPLICATION

Use for bilge pumping, livewell circulation, washdown and general pumping requirements. When bilge water contains significant amounts of oil, use impeller No. 14750-0003. For intermittent duty, motor may be reversed.\* With a wet impeller, pump will produce a suction lift of about 4 feet (1, 2m) and a lift to 15 feet (5m) when primed. BE SURE SUCTION LINES ARE AIRTIGHT.

#### INSTALLATION

The pump must be mounted in a dry location - the motor is not waterproof and must not be submerged. SELECTION OF A COOL location will generally extend pump motor life. The unit can be mounted in any desired position. It is best to mount so that water dripping from loose port connection will not wet the motor. The pump head may be rotated 180° degrees on the motor to reverse direction of flow.

\*To prolong motor life, install pump so normal motor rotation is clockwise. Polarity reversing switch not included with pump.

Motor meets USCG Electrical Standards (Title 33, Chapter 1, Part 183; Subpart 1) for IGNITION PROTECTION on gasoline powered vessels.

#### PLUMBING CONNECTIONS

Pump has external garden hose threads and internal 3/8" pipe threads. Use hose that does not kink when bent and with sufficient wall thickness to prevent collapse when used on suction side of pump. Hoses should be routed so that some water will be retained 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 stop trash and solids from going through the pump. All hoses must have airtight connections to enable faster priming.

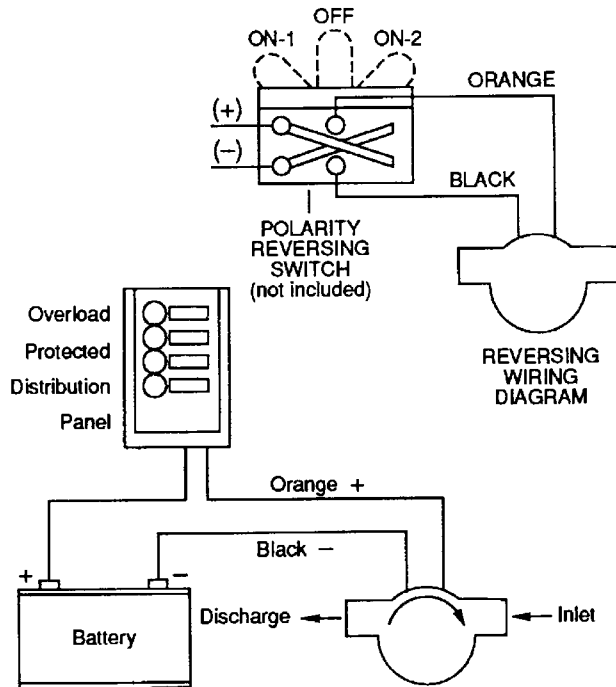
PSI	TOTAL HEAD		CAPACITY	
	FEET	METRES	GPM	I/MIN
2.1	5	1,5	1.8	6,8
4.3	10	3,0	1.7	6,4
8.7	20	6,1	1.4	5,3
13.0	30	9,1	1.0	3,8

Table shows approximate Head-Flow for new pump.

**WARNING**

Explosion hazard. If pump is operated in an area containing flammable vapors, motor wire leads must be joined by insulated mechanical locking connectors. Loose or inadequate wire connections can spark resulting in an explosion. Property damage, injury or death can occur.

Connect black wire to negative (-) terminal of battery. The orange wire should be connected to an overload protected fuse or circuit breaker panel. The positive conductor should include an on-off switch with a minimum 10 amp rating. Electrical circuit must be independent of all other accessories. A reversing switch which switches motor polarity may be used to reverse pump for intermittent duty cycles. Preferred motor rotation is clockwise looking at shaft end of motor.\* Use proper wire size as determined by wire table elsewhere on this sheet. Should the fuse blow, replace with the same size fuse after determining reason for blown fuse.

**WIRING DIAGRAM****AMPERE DRAW**

Model No.	Voltage	Amp Draw	Fuse Size
8860-0001	12 Vdc	4	1 OA-3AGC
8860-0003	12 Vdc	4	1 OA-3AGC

\* To prolong motor life, install pump so normal motor rotation is clockwise.

**MINIMUM WIRE SIZES**

Connection Length Between Battery and Motor	12 Vdc
1 -10ft (3m)	#14
11 -20 ft (6m)	#12

**OPERATION**

**NOTICE** - Do not pump solvents, thinner, or petroleum derivatives. Impeller and motor damage will occur.



**CAUTION** Motor runs hot; about 180°F is a normal temperature. Prolonged contact during operation may cause a burn.

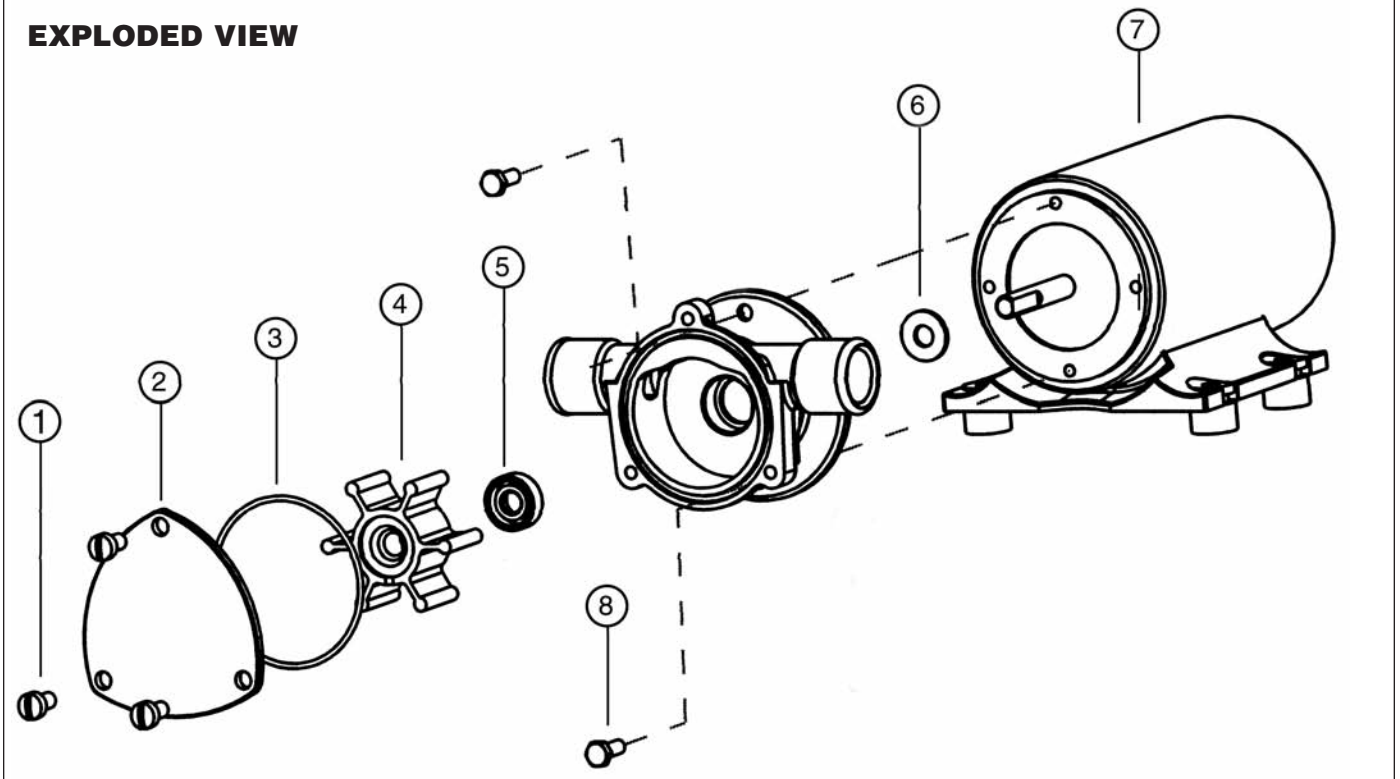
Flexible impeller pumps must NOT be run dry, as the pumped liquid is the lubricant for the impeller. Observe the outlet and shut off pump as soon as liquid stops flowing. An automatic level switch is convenient to control the pump.

The pump cannot run against a closed outlet such as encountered when using a garden hose type shut-off nozzle.

Temperature of pumped liquid may be in the range of 45°-160°F (10°-70°C).

Pressure for normal operation should not exceed 35 feet of head (15 psi).

## EXPLODED VIEW



Key	Description	Qty.	Part Number
1	Screw Kit (end cover)	3	91002-0090
2	End Cover	1	29305-0100
3	O-Ring (end cover)	1	92000-0760
4	Impeller (Neoprene)	1	14750-0001-P
	Impeller (Nitrile)	1	14750-0003-P
5	Seal	1	93000-0100
6	Slinger	1	6342-0000
7	Motor, 12V	1	98012-0020
8	Screw (Body to motor)	2	98019-0020

Service Kit, Neoprene	90092-1007
Service Kit, Nitrile	90092-1004
Pump Head Kit Only, Neoprene	9040-1001
Pump Head Kit Only, Nitrile	9040-1003

## DISASSEMBLY

1. Remove end cover screws, end cover and gasket.
2. Grasp hub of impeller with pliers and remove impeller.
3. Remove pump body from motor and deform seal so that it can be pulled from seal cavity.
4. Clean all parts and inspect for wear.

## ASSEMBLY

1. Install seal in seal cavity with lip pointing toward impeller bore.
2. Ensure the slinger is positioned on the shaft (next to motor) and install pump body on motor.
3. Install impeller with a clockwise rotary motion to bend blades.
4. Install end cover and gasket, tightening screws evenly.

## MAINTENANCE

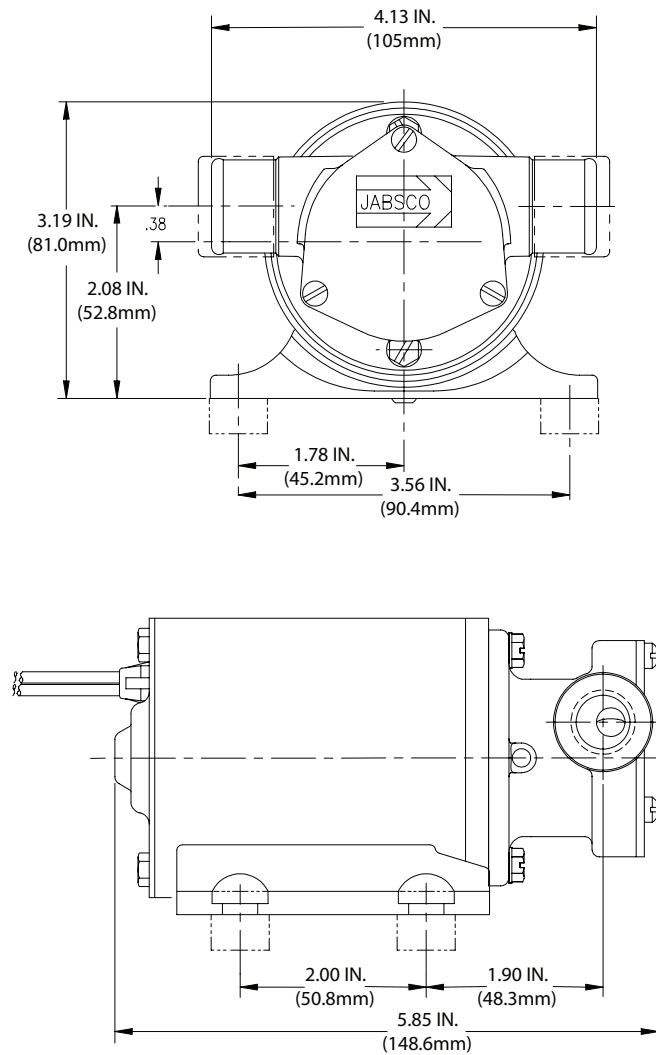
Check wires and connections to be sure corrosion is not adding additional resistance to the motor circuit and causing a low voltage condition at the motor. Low voltage can inhibit starting and cause fuse to blow. Full voltage should be available to prevent motor damage.

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.

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

A service kit, or at least a spare impeller, should be carried aboard to be assured of pumping capability.

**DIMENSIONAL DRAWING**  
INCHES (MILLIMETRES)



**One Year Limited Warranty**

**STANDARD WARRANTY:** If the products manufactured and sold hereunder are not Consumer Products, the warranty extended to Buyer shall be as set forth in subparagraphs (A), (B), and (C), **EXCEPT THAT ALL EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR SUITABILITY FOR ANY PARTICULAR PURPOSE ARE EXCLUDED.**

USA

UK

JAPAN

GERMANY

ITALY



a xylem brand