



## **WATER WOLF FLEX VANE IMPELLER PUMP**

### **INSTALLATION AND OPERATION MANUAL**

**CAUTION:** *Do not* pump flammable liquids with Flex Vane Impeller Pumps!

#### **MOUNTING**

- The pump can be positioned above the liquid tank if needed, as it is capable of a 7.5 ft. [2.3M] vertical prime (with water).
- Consider a location that allows easy access if maintenance is required. The pump should not be located in an area less than one cubic foot unless adequate ventilation is provided. Excessive heat may trigger the integral thermal breaker and interrupt operation. When the motor temperature drops, the breaker will automatically reset and the pump will start.

**NOTE:** Protect motor from rain or washdown; it is enclosed but not waterproof.

- The pump may be mounted in any position. If mounting the pump vertically, the pump head should be in the down position so that in the unlikely event of a leak, water will not enter the motor.
- Use #8 hardware to fasten the pump. Choose a *solid* surface that will not amplify pump operation. The mounting feet are intended to isolate the pump from the mounting surface; over-tightening, flattening, or use of oversized screws will reduce the ability to isolate vibration/noise.

#### **ELECTRICAL**

- The pump should be on a dedicated (individual) circuit, protected by the specified fuse indicated on the motor label.
- An "ON/OFF" switch rated at or above 15 amps is recommended (3000-000 & 3000-010 only). The switch must interrupt current flow on the positive (+ red) lead. Marine applications should use U/L approved marine duty (ignition protected) switches and wiring standards.
- The black lead (-) must be grounded to a "known ground." The ground wire must be the same size (gauge/Mm<sup>2</sup>) as the positive wire.
- Wire size (gauge/Mm<sup>2</sup>) is based on the distance from the power source to the pump. The minimum recommended size wire is #14 gauge [2.5 Mm<sup>2</sup>]. Lengths of 20-50 ft. [6-15M] use #12 gauge [4 Mm<sup>2</sup>].
- The total current draw on the circuit *must not* exceed 15 amps. If the pump is used in conjunction with other components, overload current protection (fuse or circuit breaker) and wire size must be for the total amp requirement of all devices on the circuit.

#### **PLUMBING**

- SHURflo recommends 1/2" [13mm] I.D. flexible high pressure tubing to both ports. Ideally, the pump ports/strainer *should not* be connected to plastic or rigid pipe. The pump's normal oscillation may transmit through rigid plumbing causing noise, and possibly loosen or crack components.
- Make sure washer in inlet fitting is clean and in good condition. Vacuum leaks on the inlet side will cause a "no prime" condition.
- Installation of the SHURflo Raw Water Strainer (P/N 252-3300) (50 mesh) on the inlet side is recommended to prevent foreign debris from entering the pump. Failure due to debris is not covered under the SHURflo limited warranty.

#### **OPERATION**

**NOTE: DO NOT RUN PUMP DRY.** Pump depends on liquid being pumped for lubrication. If pump does not prime within 20 seconds, recheck installation and plumbing. Failure due to dry running is not covered under the SHURflo limited warranty.

- To help priming, pour one ounce [30 ml] of liquid in inlet port.
- On older pumps that do not prime, replace the impeller with SHURflo P/N 94-120-00 impeller/seal kit.

- Pump should prime within 20 seconds. If not, turn off the pump and do the following:
  - a) Disconnect inlet hose at pump. Pour one ounce [30 ml] of liquid into inlet port.
  - b) Check washers in inlet hose and make sure inlet is airtight.
  - c) Make sure inlet and discharge line are free of kinks and restrictions.
  - d) Make sure pump is **less** than 7.5 feet [2.3 M] above the liquid source.
- Pump may deliver 3¾ G.P.M. [14 L.P.M] when discharge is not restricted. As discharge is restricted, pressure increases, and flow decreases.

**CAUTION: Do Not** operate pump at a discharge pressure of more than 12 psi [.8 bar] or discharge lift of more than 28 ft [8.5M]. Motor will exceed the normal safe operating temperature and can heat to 180°—190°F [82°—88°C]. **Motor is rated for intermittent duty only.**

## WINTERIZING

If water is allowed to freeze in the system, serious damage to the plumbing and the pump may occur. The best guarantee against damage is to drain the water system. Failures of this type will void the warranty.

## SPECIFICATIONS

<b>Model Number:</b>	3000-000 Std. .... 3000-010 (c€)
	3000-300 Premium ..... 3000-310 (c€)
	(w/ ON/OFF sw., 8' leads w/ clips, fittings, and ¼" oil probe)
<b>Application/Design:</b>	General purpose, transfer pump
<b>Duty Cycle:</b>	Intermittent Duty (20 min. per hour)
<b>Open Flow Rate:</b>	3.75 G.P.M. [14 L.P.M.]
<b>Maximum Pressure:</b>	12 psi [.8 bar]
<b>Maximum Liquid Temps:</b>	33° — 120°F [1°—48°C]
<b>Current Draw:</b>	5.5 Amps max. at 12 psi [.8 bar]
<b>Motor Design:</b>	12 VDC Permanent Magnet; Thermally Protected, Automatic Reset
<b>Fuse:</b>	Refer to motor label for recommended fuse
<b>Approvals:</b>	3000-000 Std: U/L Marine & C-U/L. .... 3000-010 (c€)
	3000-300 Premium: N/A. .... 3000-310 (c€)
<b>Impeller Material:</b>	Buna
<b>Self-Prime:</b>	7.5 ft. [2.3 M] vertical lift with water
<b>Ports:</b>	¾" garden hose thread (O.D.) ¾" NPT ports (I.D.)
<b>Weight:</b>	3.3 lb. [1.5 Kg] Std. .... 3.8 lb. [1.7 Kg] Premium.

## LIMITED WARRANTY

SHURflo warrants its Water Wolf Flex Vane impeller pump to be free from material and workmanship defects under normal use and service for a period of one (1) year from the date of manufacture or one (1) year of use with proof of purchase, not to exceed two (2) years in any event.

The limited warranty will not apply to pumps that were run dry, misapplied, or are incompatible with components not manufactured by SHURflo. Pump failure due to foreign debris or chemical incompatibility is not covered under the terms of this limited warranty. Water Wolf pumps are not intended for commercial use. SHURflo will not warrant any pump that is physically damaged or altered outside the SHURflo factory.

Warranty claims may be resolved by an authorized dealer service center or by a SHURflo service center. Returns are to be shipped with charges pre-paid. Package all returns carefully. SHURflo will not be responsible for freight damage incurred during shipping to a service center.

For complete limited warranty information consult Service Bulletin #1050.



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**SHURflo reserves the right to update specifications, prices, or make substitutions.**

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