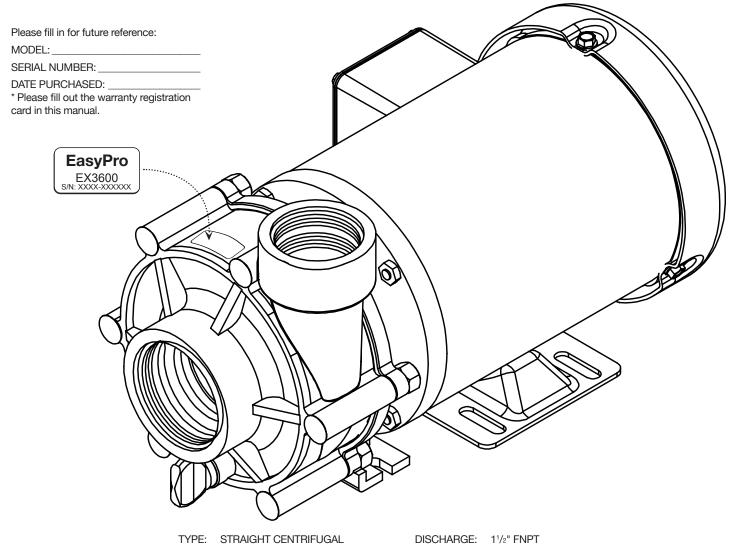


# **Installation and Service Manual**



STRAIGHT CENTRIFUGAL

INLET: 2" FNPT

INDUSTRIAL DUTY 1/8 HP, MATERIAL: 40% GLASS FILLED Polypropylene

WITH NORYL IMPELLER 1 PHASE, TEFC, 1550 RPM, 115 VAC MOTOR, HARDWARE: STAINLESS STEEL

8 FT 3-PRONGED CORD. ACCESSORIES: 90 CUBIC INCH STRAINER BASKETS (11/2" & 2")

SWING CHECK VALVES (11/2", 2", 3")

WARNING: Please read completely before you install or operate your new pump! This is an external "out-of-pond" pump! It is NOT submersible! Do NOT allow this pump to become submerged! Never run dry! Max. case pressure.- 25 PSI!



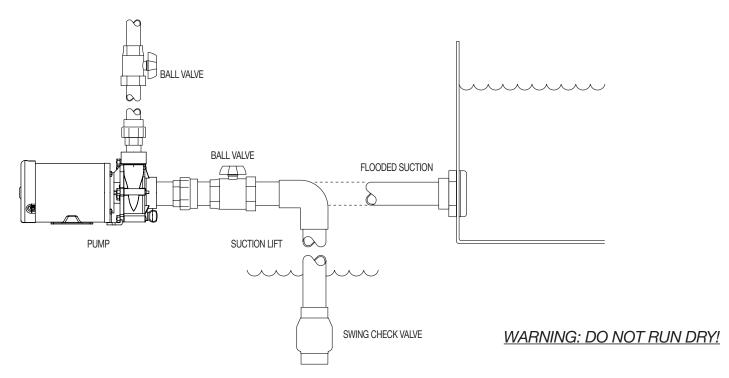
# **EX3600**

We congratulate you on your choice of the EX3600 centrifugal pump! Its leading edge design provides you with high output at a minimal operating cost. It is carefully constructed to give you long term, reliable service. To insure proper performance, we urge you to carefully follow the instructions in this manual. If you have any questions, please call your supplier for assistance.

#### **INSTALLATION**

Please read carefully! When properly installed, the EX3600 will provide dependable, trouble-free service.

- 1. Do not submerse the unit in water it is not a submersible pump. Do not allow the pump to become submerged during transient periods, such as heavy rain, run-off, etc.
- 2. Locate the pump as near the water source as possible. A flooded suction is preferred.
- 3. The pump is not self-priming. Therefore, if the fluid level is below the pump, a swing check valve must be installed below water level. The pump and inlet line must be primed prior to start up. Do not run pump dry! For non-flooded installations, a strainer basket and check valve are recommended.
- 4. Mount the motor base to a secure, immobile foundation.
- 5. Use only plastic fittings on both the inlet and discharge ports. Seal the inlet & discharge fittings with Teflon™ pipe dope. These fittings should be self-supported and in neutral alignment with each port (i.e., Fittings must not be forced into port alignment which may cause premature line failure or damage to the pump volute).
- 6. Never restrict the inlet! Keep both inlet and discharge lines as free of elbows and valves as possible. Always use pipe of adequate diameter. This will reduce friction losses and maximize output. Never use an inlet line of smaller diameter than the discharge line. Minimize the suction lift.





WARNING: ALWAYS SHUT OFF ELECTRICAL POWER BEFORE INSTALLATION AND / OR SERVICING THIS PUMP! ALL ELECTRICAL WIRING SHOULD MEET STATE AND LOCAL ORDINANCES. NOTE: THE PUMP MOTOR IS DESIGNED FOR 115 VAC 60HZ POWER ONLY! WARNING: SHUT OFF ELECTRICAL POWER BEFORE INSTALLATION AND / OR SERVICING THIS PUMP! 230V 50HZ MOTORS AVAILABLE - CONTACT YOUR SUPPLIER FOR INFORMATION.

#### **ELECTRICAL HOOK-UP**

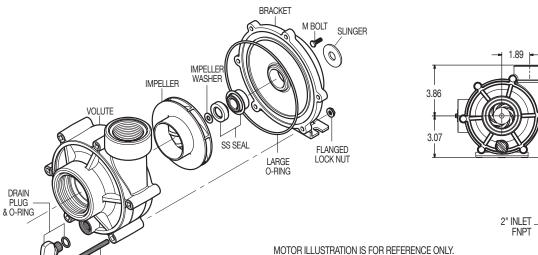
Carefully, examine the power cord before use. Do not use this power cord if there is any visible damage. Do not use this power cord in water or if the motor or electrical receptacle is in contact with any standing water! This power cord should only be plugged into a properly installed 115 VAC GFI receptacle! **ALWAYS TEST CYCLE A GFI RECEPTACLE TO DETERMINE ITS CONDITION BEFORE USE!** 

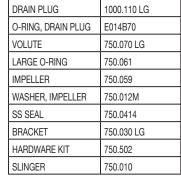


### **EX3600**

### **PUMP END ASSEMBLY**

- 1. Inspect all pump parts (O-ring, O-ring groove, impeller hub ID, motor shaft, etc.) and clean if necessary.
- 2. Apply sealant to the bracket bore ID wall and around the seal case follow sealant mfg. instructions. We recommend using Gasgacinch®. Silicone sealant can also be used.
- 3. Press the carbon graphite seal into the bracket while taking care not to touch or damage the carbon graphite face. Never touch or apply pressure to the carbon graphite seal face!
- 4. Screw four M-Bolts five complete turns into the threaded holes located on the motor face.
- 5. Mount the bracket to the motor by aligning the key holes over each bolt head, then rotate clockwise which will position the small key hole slot under each bolt head. Tighten each bolt with a wrench to secure the bracket to the motor (8-25 lb. in.).
- 6. Carefully, lubricate the seal seat elastomer OD and impeller hub ID with water. Press the seal seat into the impeller hub making certain that the ceramic is in evenly the sealing surface should be parallel with the impeller hub.
- 7. Apply clean water to the carbon-graphite and seal seat sealing surfaces. Do not use silicon lubricants or grease!
- 8. Lock the shaft by placing a screwdriver blade into the shaft slot at the fan end of the motor. Thread the impeller onto the motor shaft (Insure that the small impeller washer is in place on the impeller). Thread until the washer securely contacts the shaft shoulder.
- 9. Seat the large O-ring into the bracket O-ring groove.
- 10. Assemble the volute onto the bracket with six P-Bolts (10-24 x 2 3/4" carriage bolts) and six flanged lock nuts. Tighten in a cross pattern (30 lb. in.).
- 11. Install the drain plug and O-ring, into the volute drain hole.
- 12. Before operating the EX3600, allow a proper cure time for the sealant used in step 2.

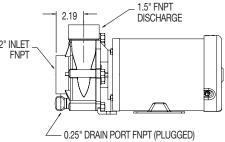




**PART NUMBER** 

DESCRIPTION

Note: These part numbers are only for standard models within the EX3600 series.



7.00

### **DISASSEMBLY**

P-BOLT

- 1. Shut off power to the motor before servicing any pump!
- Unplug the power cord.
- Disassemble the volute from the bracket six P-Bolts and six flanged lock nuts. The volute may remain attached to the plumbing to help simplify re-installation.
- 4. Lock the shaft by placing a screwdriver blade into the shaft slot at the fan end of the motor. Unthread the impeller from the motor shaft Take care not to misplace the small metal impeller washer.
- 5. Remove the ceramic, with rubber boot, from the impeller hub (if you are replacing the seal).
- 6. Loosen the four M-Bolts attaching the bracket to the motor. Rotate the bracket counter-clock wise until the screw heads are located in the large key hole slots. Lift off the bracket from the motor.
- 7. Remove the carbon-graphite seal assembly from the bracket by pressing it out from the motor-side of the bracket. Do not pry it out with a screwdriver from the pump cavity-side of the bracket (if you are replacing the seal)!



# **EX3600**

#### **MAINTENANCE**

#### Lubrication

Motor - Permanently Lubricated ball bearings - no service required. Rotary Seal - Requires no lubrication after assembly.

\*The pump must be drained before servicing or if stored below freezing temperatures. Periodic replacement of seals may be required due to normal carbon wear.

Symptom	Problem	Resolution
No Flow	Insufficient Prime	Prime system with water and purge all air from suction piping.
		Install check valve.
	Insufficient Power	Verify power supply and connection from panel to pump.
		Verify proper voltage. Some models are dual voltage (115/230).
	Flow Restriction	Ensure valves are open.
		Ensure plumbing is clear, including suction strainers, check valves, etc.
		Verify check valve orientation and direction of permitted flow.
		Clean out leaves or other debris from basket strainer (if applicable).
	Air leak	Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake side.
	System Incompatibility	Verify hydraulic compatibility: i.e. pump & pipe are sized for the system.
	Air leak	Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake side.
	System Incompatibility	Verify hydraulic compatibility: i.e. pump & pipe are sized for the system.
	Insufficient Power	Verify power supply and connection from panel to pump.
		Verify proper voltage. Some models are dual voltage (115/230).
	Flow Restriction	Ensure valves are open.
		Ensure plumbing is clear, including suction strainers, check valves, etc.
Low Flow		Clean out leaves or other debris from basket strainer (if applicable).
	Insufficient Prime	Prime system with water and purge all air from suction piping.
	Cavitation	Verify airtight plumbing on the suction plumbing especially fittings!
		Clean out leaves or other debris from basket strainer (if applicable).
		Increase pipe size where possible.
		Decrease suction pipe length, reduce the number of elbows, etc.
		Verify hydraulic compatibility: i.e. pump and pipe are sized for the system.
Sporadic Operation	Insufficient Power	Verify power supply and connection from panel to pump.
		Verify proper voltage. Some models are dual voltage (115/230).
	Poor Ventilation	Ensure adequate airflow over motor to prevent overheating.
Excessive Noise	Cavitation	Verify airtight plumbing on the suction plumbing especially fittings!
		Clean out leaves or other debris from basket strainer (if applicable).
		Increase pipe size where possible.
		Decrease suction pipe length, reduce the number of elbows, etc.
		Verify hydraulic compatibility: i.e. pump and pipe are sized for the system.
	Insufficient Power	Verify power supply and connection from panel to pump.
		Verify proper voltage. Some models are dual voltage (115/230).
	Flow Restriction	Ensure valves are open.
		Ensure plumbing is clear, including suction strainers, check valves, etc.
		Verify check valve orientation and direction of permitted flow.
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#### EasyPro Pond Products Limited Warranty

EasyPro Pond Products ("EasyPro") warrants to the purchaser that this product ("Product") will be free from any mechanical or material defects for a period of 18 months from the date of purchase. EasyPro specifically does fluid being pumped with pump materials of construction. This warranty only covers properly installed and maintained Products sold by authorized EasyPro Sellers who are subject to and follow EasyPro's quality control standards. Please note that because EasyPro is unable to control the quality of Products sold by unauthorized sellers, unless otherwise prohibited by law, this warranty does not cover Products purchased from unauthorized sellers.

This warranty does not cover normal wear and tear, nor any deterioration suffered through overloading, improper use, negligence, improper installation, acts of God or accident. Similarly, any modification made by the purchaser to the Product will cause the warranty to be null and void. This warranty does not cover any cost associated with the installation or removal of the Product subject to a warranty claim.

All returned items will be inspected to determine cause of failure before a warranty claim is approved. The exclusive remedies provided hereunder shall, upon EasyPro's inspection and option, be either repair or replacement of the Product or parts covered under this warranty.

Name:	
Address:	
City:	State: Zip:
Model:	Serial Number:
Date purcha	sed:Where purchased:

Activate your warranty by filling out this form and mailing to EasyPro Pond Products



Making a Claim: A Return Authorization ("RA") number must first be obtained by calling EasyPro at 800-448-3873 or via email at warranty@easypro.com. It is the purchaser's responsibility to pay the return shipping charges. Be sure to include the RA number, original receipt (in the form of an invoice or sales receipt), your name, your return address and your phone number inside of the package. No warranty claims will be honored without the original receipt that shows that your purchase was made from an Authorized EasyPro Seller. Ensure the product is properly packaged and insured for the replacement value. Damage due to improper packaging is the responsibility of the sender.

ALL OTHER EXPRESS OR IMPLIED WARRANTIES INCLLIDING MERCHANTARILITY OF FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY LIMITED IN DURATION TO THE DURATION OF THE WARRANTY AS DESCRIBED ABOVE. Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

EasyPro shall not be held liable for any damages caused by defective components or materials of this Product; or for loss incurred because of the interruption of service; or any consequential/incidental damages and expenses arising from the production, sale, use or misuse of this Product. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

EasyPro shall not be held liable for any loss of fish, plants or any other livestock as a result of any failure or defect of this Product. This warranty gives you specific legal rights, and you may also have other rights that vary from State to State.



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