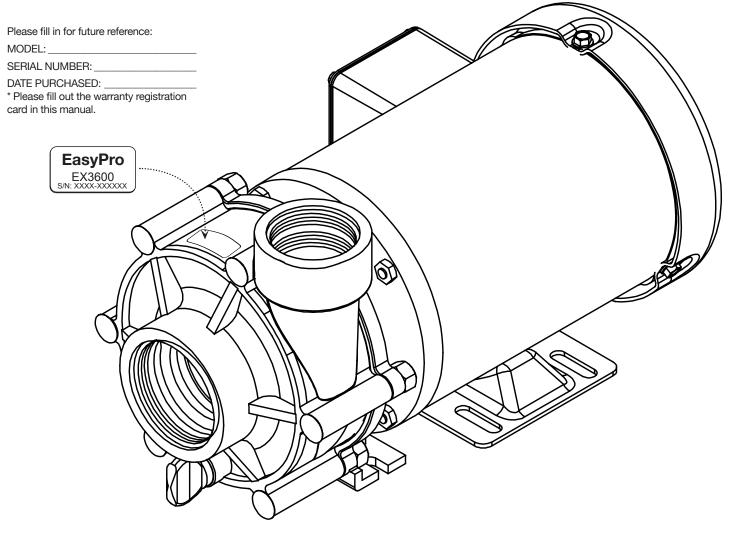


# **Installation and Service Manual**



TYPE: STRAIGHT CENTRIFUGAL

OR: INDUSTRIAL DUTY 1/8 HP, 1 PHASE, TEFC, 1550 RPM,

115 VAC MOTOR,

8 FT 3-PRONGED CORD.

INLET: 2" FNPT

DISCHARGE: 11/2" FNPT

MATERIAL: 40% GLASS FILLED Polypropylene

WITH NORYL IMPELLER

HARDWARE: STAINLESS STEEL

ACCESORIES: 90 CUBIC INCH STRAINER BASKETS (11/2" & 2")

SWING CHECK VALVES (1 $^{1}/_{2}$ ", 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!

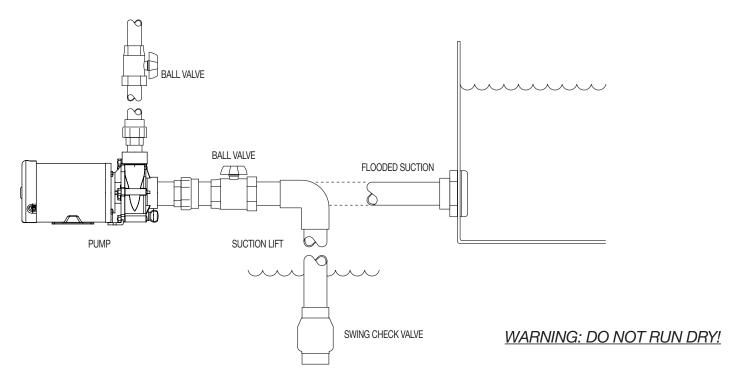


We congratulate you on your choice of the EX3600 centrifugal pump! Its leading edge design provides you with high output at a minimal operating cost. It is carefully constructed to give you long term, reliable service. To insure proper performance, we urge you to carefully follow the instructions in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

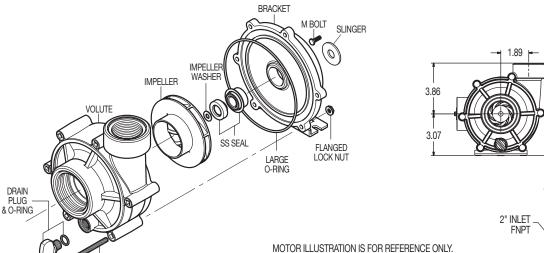
### **ELECTRICAL HOOK-UP**

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!** 



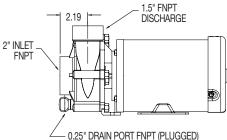
#### PUMP END ASSEMBLY

- 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.



DESCRIPTION	PART NUMBER
DRAIN PLUG	1000.110 LG
O-RING, DRAIN PLUG	E014B70
VOLUTE	750.070 LG
LARGE O-RING	750.061
IMPELLER	750.059
WASHER, IMPELLER	750.012M
SS SEAL	750.0414
BRACKET	750.030 LG
HARDWARE KIT	750.502
SLINGER	750.010

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



7.00

### DISASSEMBLY

- 1. Shut off power to the motor before servicing any pump!
- Unplug the power cord.

P-BOLT

- 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)!



### **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
	Insufficient Prime	Prime system with water and purge all air from suction piping.
	insunicient Prime	Install check valve.
	Insufficient Power	Verify power supply and connection from panel to pump.
	Insumcient Fower	Verify proper voltage. Some models are dual voltage (115/230).
No Flow		Ensure valves are open.
INO FIOW	Flow Restriction	Ensure plumbing is clear, including suction strainers, check valves, etc.
	Flow Restriction	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.
	Insumcient i owei	Verify proper voltage. Some models are dual voltage (115/230).
		Ensure valves are open.
	Flow Restriction	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.
		Verify airtight plumbing on the suction plumbing especially fittings!
	Cavitation	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.
Sporadic Operation		Verify proper voltage. Some models are dual voltage (115/230).
	Poor Ventilation	Ensure adequate aiflow over motor to prevent overheating.
Excessive Noise		Verify airtight plumbing on the suction plumbing especially fittings!
		Clean out leaves or other debris from basket strainer (if applicable).
	Cavitation	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.
	Inc. Hisiant Dawer	Verify power supply and connection from panel to pump.
	Insufficient Power	Verify proper voltage. Some models are dual voltage (115/230).
		Ensure valves are open.
	Flow Restriction	Ensure plumbing is clear, including suction strainers, check valves, etc.
		Verify check valve orientation and direction of permitted flow.

#### 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 not guarantee chemical compatibility, and expressly does not warrant units from any problems caused by chemical attack or failure due to incompatibility of 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 INCLUDING MERCHANTABILITY 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.



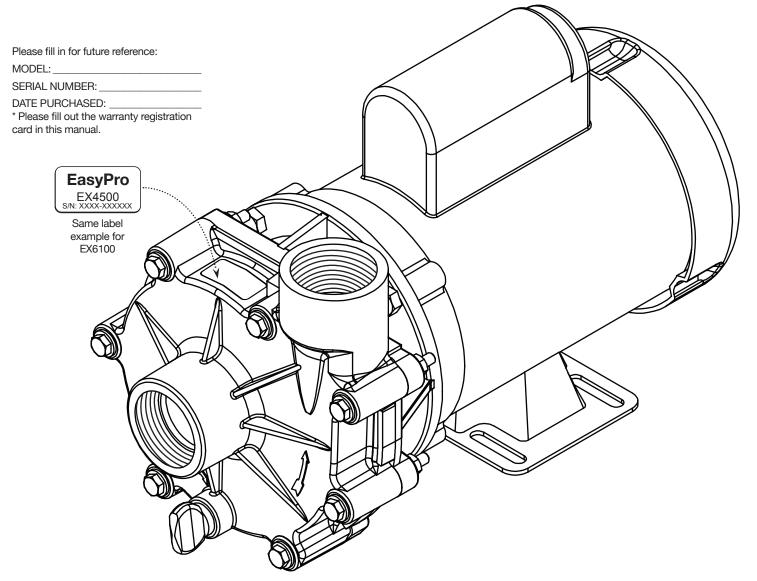
EasyPro Pond Products 4385 East 110th, Grant, MI 49327 800-448-3873 • 231-834-5537 fax www.EasyPro.com

Gasgacinch® is a registered trademark of Porter Manufacturing. Noryl® is a registered trademark of the General Electric Company. Teflon® is a registered trademark of DuPont Company. 5513 • 10/19





# **Installation and Service Manual**



MOTOR: HORSEPOWER: VOLTAGE: STRAIGHT CENTRIFUGAL NEMA C Face, 56J 1/8, 1/6, 1/4, 1/3 (1750 RPM)

115/230

INLET: DISCHARGE: MATERIAL:

11/2" FNPT 11/2" FNPT 40% Glass-Filled Polypropylene

HARDWARE: STAINLESS STEEL ACCESORIES:

90 CUBIC INCH STRAINER BASKETS (11/2" & 2"), SWING Check ValveS (11/2", 2", 3")

500 CUBIC INCH STRÄINER BASKETS  $(1^{1/2}", 2", 3")$ 

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.- 65 PSI!

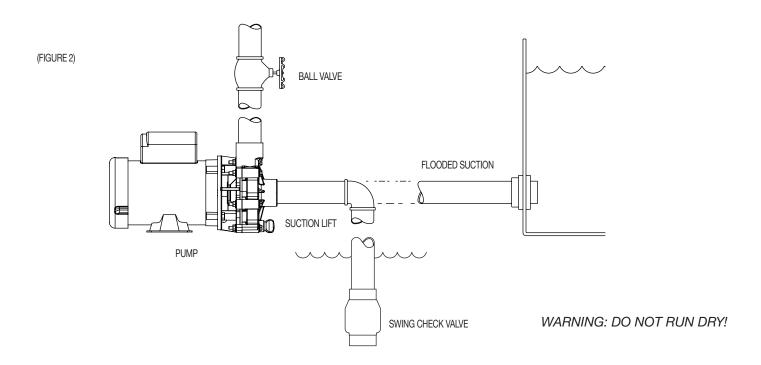


We congratulate you on your choice of the EX4500/EX6100 Centrifugal Pump! It has been carefully designed using the advantages of today's technology and carefully constructed to give you the dependability of yesterday. To insure proper performance, we urge you to carefully follow the instructions in this manual. If you have any questions, call your nearest distributor or EasyPro for assistance.

### **INSTALLATION**

Please read carefully! When properly installed the EX Series Pump will provide dependable trouble-free service.

- 1. Locate the pump as near the water source as possible. A flooded suction situation is preferred. The pump is not self-priming, therefore, if the fluid level is below the pump, a swing check valve must be installed and the pump primed prior to start-up. (Figure 2)
- Mount motor base to a secure, immobile foundation.
- 3. Use only plastic fittings on both the intake and discharge ports. Seal pipe connections with Teflon™ paste. These fittings should be self-supported and in neutral alignment with each port. (i.e. Fittings must not be forced into alignment which may cause premature line failure or damage to the pump volute.) For non-flooded installations, a strainer basket and check valve are recommended.
- 4. Never restrict the intake. Keep both input 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.
- 5. This pump is not self-priming! It must not be run dry! We recommend a flooded suction installation. Please read carefully! When properly installed, the pump will provide dependable, trouble-free service.





WARNING: ALWAYS SHUT OFF ELECTRICAL POWER BEFORE INSTALLATION AND / OR SERVICING THIS PUMP! ALL ELECTRICAL WIRING SHOULD MEET STATE AND LOCAL ORDINANCES. IMPROPER WIRING MAY NOT ONLY BE A SAFETY HAZARD BUT MAY PERMANENTLY DAMAGE THE MOTOR AND/OR PUMP! 230V 50 HZ MOTORS AVAILABLE - CONTACT YOUR SUPPLIER FOR INFORMATION.

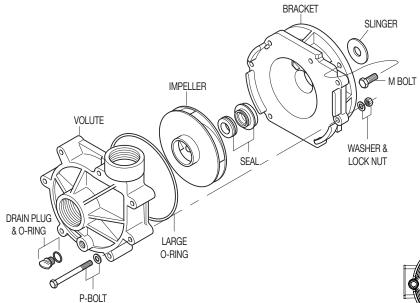
### **ELECTRICAL HOOK-UP**

- 1. Check that supply voltages match the motor's requirements.
- 2. Check motor wiring and connect, according to instructions on motor, to match supply voltage.
- 3. Power cord should be protected by conduit or by cable and be of proper gauge. It should be no longer than necessary.
- 4. Power should be drawn directly from a box with circuit breaker protection or with a fused disconnect switch.



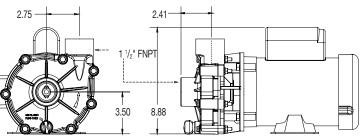
#### PUMP END ASSEMBLY

- 1. Clean and inspect all pump parts (0-ring, seal seats, motor shaft, etc.).
- 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 carbon graphite seal into bracket while taking care not to damage carbon graphite face.
- 4. Place slinger (rubber washer) over motor shaft and mount bracket to motor.
- 5. 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.
- 6. Carefully lubricate carbon-graphite and ceramic sealing surfaces with CLEAN water. Do not use silicon lubricants or grease!
- 7. Assemble bracket to motor with four M-bolts
- 8. Thread impeller onto shaft and tighten! If required, remove motor end-cap and use a screwdriver on the back of motor shaft to prevent shaft rotation while tightening. Replace motor end cap.
- 9. Seat large O-ring in volute slot and assemble volute to bracket with seven 1/4-20 x 2 <sup>3</sup>/<sub>4</sub>" hex cap screws, washers and nuts. Tighten in a cross pattern (30 in-lbf).
- 10. Install drain plug with its O-ring in volute drain hole.
- 11. Before operating pump, allow a proper cure time for the sealant used in step 2.



DESCRIPTION	MDM P/N
DRAIN PLUG	1000.110 LG
O-RING, DRAIN PLUG	E014B70
VOLUTE	K000.070 LG
LARGE O-RING	1000.061
IMPELLER	1000.05*
SEAL - BRASS	1000.0415
SEAL - SS316	1000.0414
BRACKET	K000.030 LG
SLINGER	1000.010V
HARDWARE KIT	1000.502

Note: These part numbers are only for standard models within the EX series. Consult factory for impeller part number.



MOTOR ILLUSTRATION IS FOR REFERENCE ONLY.

### DISASSEMBLY

- Shut off power to motor before disconnecting any electrical wiring from the back of the motor.
- 2. Disassemble volute from bracket by removing the seven  $\frac{1}{4}$  20 threads per inch x  $2^{3}$ /<sub>4</sub> hex cap screws.
- 3. Remove cap covering shaft at back of motor and with a large screwdriver, prevent shaft rotation while unscrewing impeller.
- 4. Remove ceramic piece from impeller. (If you are replacing the seal)
- 5. Detach bracket from motor.

& WASHER

6. Remove carbon-graphite seal from bracket by pressing out from the back. Do not dig out from the front! (If you are replacing the seal)



### **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.

Insufficient Prime   Prime system with water and purge all air from suction piping.   Install check valve.   Install check valve.   Verify power supply and connection from panel to pump.   Verify proper voltage. Some models are dual voltage (115/230).   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.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify airtight plumbing is clear, including suction strainers, check valves, etc.   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.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and connection from panel to pump.   Verify power supply and	Symptom	Problem	Resolution	
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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 not guarantee chemical compatibility, and expressly does not warrant units from any problems caused by chemical attack or failure due to incompatibility of 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:			
City:	State:	Zip:	
Model:	Serial Number:_		
Date purchased: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 invice 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 INCLUDING MERCHANTABILITY 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.



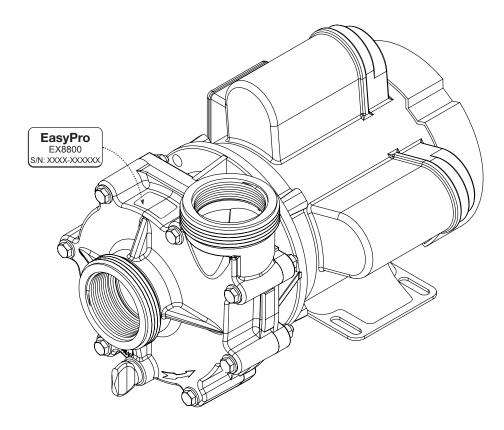
EasyPro Pond Products 4385 East 110th, Grant, MI 49327 800-448-3873 • 231-834-5537 fax www.EasyPro.com

Gasgacinch® is a registered trademark of Porter Manufacturing. Noryl® is a registered trademark of the General Electric Company. Teflon® is a registered trademark of DuPont Company. 7823 • 10/19





# **Installation and Service Manual**



Model	EX8800	EX11200	EX13200
Inlet	2"	2"	2"
Discharge	2"	2"	2"
Max Flow (gph)	8220	11160	13200
Max Head (feet)	22.3'	80.8'	81.7'
Max Power (watts)	450	2162	2595
Max Current (amps)	4.0 @ 115v	9.6@230v	11.5@230v
Volts	115/230	230	230
Motor HP	1/2	3	3
Motor Enclosure	TEFC	TEFC	TEFC
Impeller	8	6	7

Please fill in for future reference:

MODEL:

SERIAL NUMBER:

DATE PURCHASED:

\* Please fill out the warranty registration card in this manual

TYPE: STRAIGHT CENTRIFUGAL MOTOR: NEMA C FACE, 56J HORSEPOWER: 1/2 (1750 RPM), 3 (3450 RPM)

INLET: 2" FNPT AND BUTTRESS THREAD PORTS
DISCHARGE: 2" FNPT AND BUTTRESS THREAD PORTS
MATERIAL: 40% GLASS-FILLED POLYPROPYLENE

HARDWARE: STAINLESS STEEL OPTIONS: SALTWATER SERVICE

ACCESORIES: 90 CUBIC INCH STRAINER BASKETS (1.5" & 2")

SWING CHECK VALVES (1.5", 2", 3") 500 CUBIC INCH STRAINER BASKETS

(1.5", 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.- 65 PSI!

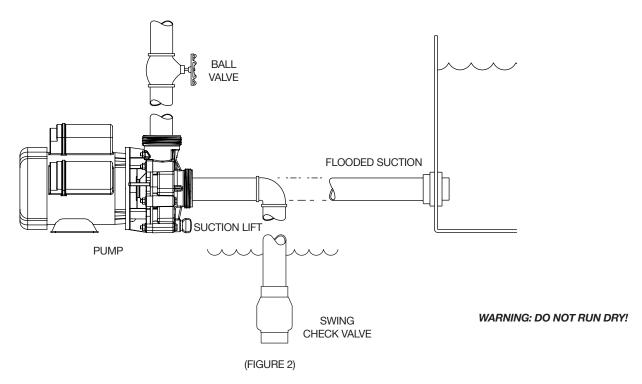


We congratulate you on your choice of the EX8800/EX11200/EX13200 Centrifugal Pump! It has been carefully designed using the advantages of today's technology and carefully constructed to give you the dependability of yesterday. To insure proper performance, we urge you to carefully follow the instructions in this manual. If you have any questions, call your nearest distributor or EasyPro for assistance.

#### INSTALLATION

Please read carefully! When properly installed the EX8800/EX11200/EX13200 will provide dependable trouble-free service.

- 1. Locate the pump as near the water source as possible. A flooded suction situation is preferred. The pump is not self-priming, therefore, if the fluid level is below the pump, a swing check valve must be installed and the pump primed prior to start-up. (Figure 2)
- 2. Mount motor base to a secure, immobile foundation.
- 3. Use only plastic fittings on both the intake and discharge ports. Seal pipe connections with Teflon™ paste. These fittings should be self-supported and in neutral alignment with each port. (i.e. Fittings must not be forced into alignment which may cause premature line failure or damage to the pump volute.) For non-flooded installations, a strainer basket and check valve are recommended.
- 4. Never restrict the intake. Keep both input 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.
- 5. The EX8800 is not self-priming! It must not be run dry! We recommend a flooded suction installation. Please read carefully! When properly installed, the EX8800 will provide dependable, trouble-free service.
- 6. For additional plumbing tips, review EasyPro's website: www.EasyPro.com for pond plumbing and pump installation hints.





WARNING: ALWAYS SHUT OFF ELECTRICAL POWER BEFORE INSTALLATION AND / OR SERVICING THIS PUMP! ALL ELECTRICAL WIRING SHOULD MEET STATE AND LOCAL ORDINANCES. IMPROPER WIRING MAY NOT ONLY BE A SAFETY HAZARD BUT MAY PERMANENTLY DAMAGE THE MOTOR AND/OR PUMP! 230V 50 HZ MOTORS AVAILABLE - CONTACT YOUR SUPPLIER FOR INFORMATION.

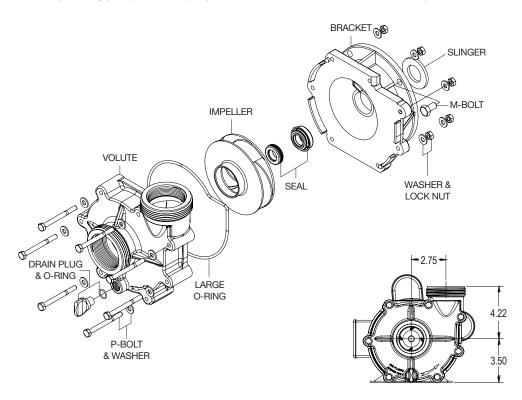
#### **ELECTRICAL HOOK-UP**

- 1. Check that supply voltages match the motor's requirements.
- 2. Check motor wiring and connect, according to instructions on motor, to match supply voltage.
- 3. Power cord should be protected by conduit or by cable and be of proper gauge. It should be no longer than necessary.
- 4. Power should be drawn directly from a box with circuit breaker protection or with a fused disconnect switch.



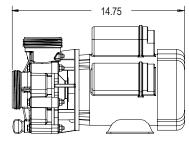
#### PUMP END ASSEMBLY

- Clean and inspect all pump parts (O-ring, seal seats, motor shaft, etc.).
- Apply sealant to the bracket bore ID wall and around the seal case follow sealant manufacturer instructions. We recommend using Gasgacinch<sup>®</sup>. Silicone sealant can also be used.
- 3. Press carbon graphite seal into bracket while taking care not to damage carbon graphite face.
- 4. Place slinger (rubber washer) over motor shaft and mount bracket to motor.
- 5. 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.
- 6. Carefully lubricate carbon-graphite and ceramic sealing surfaces with CLEAN water. Do not use silicon lubricants or grease!
- 7. Assemble bracket to motor with four m-bolts
- 8. Thread impeller onto shaft and tighten! If required, remove motor end-cap and use a screwdriver on the back of motor shaft to prevent shaft rotation while tightening. Replace motor end cap.
- 9. Seat large O-ring in volute slot and assemble volute to bracket with seven 1/4-20 x 2 3/4" hex cap screws, washers and nuts. Tighten in a cross pattern (30 in-lbf).
- 10. Install drain plug with its O-ring in volute drain hole.
- 11. Before operating pump, allow a proper cure time for the sealant used in step 2.



DESCRIPTION	EASYPRO® P/N
DRAIN PLUG	1000.110
O-RING, DRAIN PLUG	E014B70
VOLUTE	4000.070
LARGE O-RING	1000.061
IMPELLER	4000.05*
SEAL - BRASS	1000.0415
SEAL - SS316	1000.0414
BRACKET	1000.030P
SLINGER	1000.010V
HARDWARE KIT	1000.502

Note: These part numbers are only for the standard model of EX8800. Reference page one for impeller number.



\*Motor illustration is for reference only.

#### DISASSEMBLY

- 1. Shut off power to motor before disconnecting any electrical wiring from the back of the motor.
- 2. Disassemble volute from bracket by removing the seven \(^{1}/\_4\)" 20 threads per inch x 2 \(^{3}/\_4\)" hex cap screws.
- 3. Remove cap covering shaft at back of motor and with a large screwdriver, prevent shaft rotation while unscrewing impeller.
- 4. Remove ceramic piece from impeller. (If you are replacing the seal)
- Detach bracket from motor.
- 6. Remove carbon-graphite seal from bracket by pressing out from the back. Do not dig out from the front! (If you are replacing the seal)



#### **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.

Insufficient Power  Flow Restriction  Flow Restriction  Flow Restriction  Flow Restriction  Flow Restriction  Flow Restriction  Air leak  Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake si System Incompatibility  Air leak  Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake si Verify hydraulic compatibility. I.e. pump & pipe are sized for the system.  Air leak  System Incompatibility  Verify hydraulic compatibility. I.e. pump & pipe are sized for the system.  Verify power supply and connection from panel to pump.  Verify power supply and connection from panel to pump.  Verify power supply and connection from panel to pump.  Verify proper voltage. Some models are dual voltage (115/230).  Ensure plumbing is clear, including suction strainers, check valves, etc.  Clean out leaves or other debris from basket strainer (if applicable).  Insufficient Prime  Prime system with water and purge all air from suction piping.  Verify artight 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 proper voltage. Some models are dual voltage (115/230).  Ensure adequate aiflow over motor to prevent overheating.  Verify airtight plumbing on the suction plumbing especially fit Clean out leaves or other debris from basket strainer (if applicable).  Increase pipe size where possible.	Symptom	Problem	Resolution	
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Flow Restriction  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).  Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake si System Incompatibility  Air leak  Air leak  Air leak  System Incompatibility  Verify hydraulic compatibility: i.e. pump & pipe are sized for the system.  Verify hydraulic compatibility: i.e. pump & pipe are sized for the system.  Verify power supply and connection from panel to pump.  Verify proper voltage. Some models are dual voltage (115/230).  Ensure valves are open.  Flow Restriction  Fix air leaks at fittings, connections, strainer basket etc. This typically cours on the intake si  Verify power supply and connection from panel to pump.  Verify power supply and connection from panel to pump.  Verify power supply and connection from panel to pump.  Verify proper voltage. Some models are dual voltage (115/230).  Poor Ventilation  Flow Restriction  Fix air leaks at fittings, connections, strainer (if applicable).  Increase pipe size where possible.  Clean out leaves or other debris from basket strainer (if applicable).  Increase pipe size where possible.		insufficient Power	Verify proper voltage. Some models are dual voltage (115/230).	
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Cavitation  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.  Verify power supply and connection from panel to pump.  Verify proper voltage. Some models are dual voltage (115/230).  Poor Ventilation  Ensure adequate aiflow over motor to prevent overheating.  Verify airtight plumbing on the suction plumbing especially fit  Clean out leaves or other debris from basket strainer (if applicable).  Increase pipe size where possible.			Verify airtight plumbing on the suction plumbing especially fittings!	
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Flow Restriction Ensure plumbing is clear, including suction strainers, check valves, etc.		Flow Restriction	Ensure plumbing is clear, including suction strainers, check valves, etc.	
Verify check valve orientation and direction of permitted flow.			Verify check valve orientation and direction of permitted flow.	

#### EasyPro Pond Products Limited Warranty

FasyPro Pond Products ("FasyPro") warrants to the purchaser that this product ("Product") will be free from any mechanical or material defects for a period of 3 years from the date of purchase. EasyPro specifically does not guarantee chemical compatibility, and expressly does not warrant units from any problems caused by chemical attack or failure due to incompatibility of 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:		
City:	State:	Zip:
Model:	Serial Number:_	
Date purchased	d:Where pu	ırchased:

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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