



# AQUASURGE® POND PUMP

**AquaSurge® 2000  
Pond Pump**  
Item #91017

**AquaSurge® 3000  
Pond Pump**  
Item #91018

**AquaSurge® 4000  
Pond Pump**  
Item #91019

**AquaSurge® 5000  
Pond Pump**  
Item #91020



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# AquaSurge® Pond Pump

**Thank you for choosing the Aquascape AquaSurge® Pond Pump.** At Aquascape, we connect people to water the way nature intended. Since 1991, we've been creating and field-testing water features in order to provide you with the most reliable products and best value in the water gardening industry.

Aquascape AquaSurge Pond Pumps are ideal for use in ponds, Pondless® Waterfalls, and other water feature applications. AquaSurge asynchronous pumps are designed for use in skimmer and waterfall-filter systems. Extremely energy efficient, AquaSurge pumps are made for continuous use in either horizontal or vertical orientation.



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## ☎ Contact Us

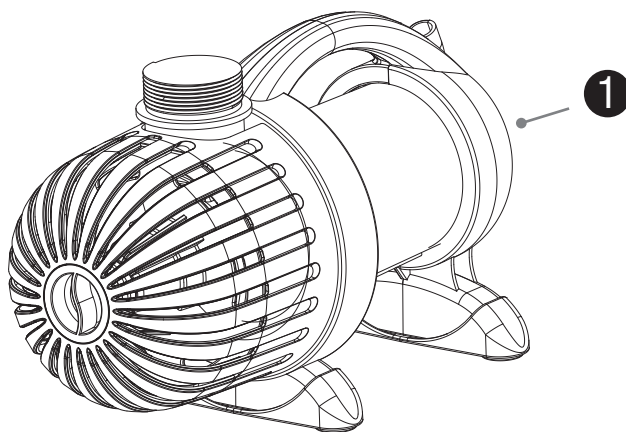
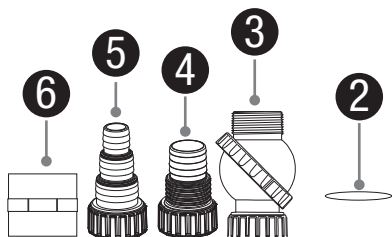
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Contents	
No.	Description
1.	AquaSurge® Pond Pump
2.	Flat Rubber Gasket
3.	1.5" Rotational Ball Output
4.	1.5", 2" Multi Hose Adapter
5.	1", 1.25", 1.5" Multi Hose Adapter
6.	1.5" Female Adapter



## Safety Information



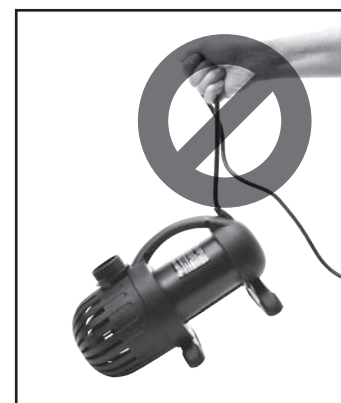
**WARNING:** Risk of electric shock – This pump has not been approved for use in swimming pool or marine areas



**WARNING:** To provide continued protection against risk of electric shock, connect to properly grounded, ground fault circuit interrupter (GFCI) outlets only, using the following guidelines:

- (A) Have a qualified electrician install a properly grounded receptacle outlet, acceptable for outdoor use and protected from snow and rain.
- (B) Inspect cord before using.
- (C) Do not use extension cords.
- (D) Any wiring of pumps should be performed by a qualified electrician to ensure code compliance and user safety.

- (E) Unplug pump at receptacle outlet when not in use or before removal from pond.
- (F) To reduce risk of electrical shock, all wiring and junction connections should be made per local codes. Requirements may vary depending on usage and location.
- (G) The power cable should be protected at all times to avoid punctures, cuts, bruises and abrasions.
- (H) Never handle power cords with wet hands.
- (I) Do not remove cord and strain relief. Do not connect conduit to pump.
- (J) Do not use power cable to lift pump.





- Always operate the pump fully submerged; or if using in-line, ensure a constant source of fresh water. Failure to do so may overheat the pump and cause it to fail, voiding the warranty.
- Use only in fully assembled state, paying particular attention to ensure that both the outer and inner filter screens are attached to the pump. Failure to operate the pump without the filter screen will allow large debris to enter the pump and cause the pump to fail, voiding the warranty.
- Do not wear loose clothing that may become entangled in the impeller or other moving parts.
- Keep clear of suction and discharge openings. DO NOT insert fingers into pump with power connected.
- Do not pump hazardous materials or liquids, such as oil, saltwater or organic solvents.
- Do not block or restrict discharge.
- Products returned must be cleaned, sanitized, or decontaminated, as necessary, prior to shipment to ensure that employees will not be exposed to health hazards in handling said material. All applicable laws and regulations shall apply.

- The AquaSurge Pond Pump is a thermally protected, submersible pump for outdoor or indoor use and has been evaluated for use with water only.



**IMPORTANT:** Aquascape, Inc. is not responsible for losses, injury, or death resulting from a failure to observe these safety precautions, misuse or abuse of pumps or equipment.

### AquaSurge Pond Pump Specifications

- Input Voltage: 120V AC
- Input Frequency: 60 Hz
- Submersible pump
- For outdoor or indoor use
- Thermally protected
- This pump has been evaluated for use with water only
- Input amps & wattage: see chart below

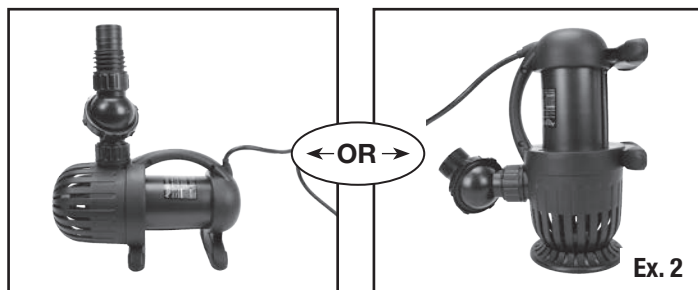
AquaSurge Pond Pump Specs				
Model Number	2000	3000	4000	5000
Maximum Flow Rate (GPH)	2,193	3,196	3,947	5,284
Maximum Head Height	12.5'	15'	18.5'	24'
Motor Type	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Wattage	160	165	215	360
Amperage	1.3	1.4	1.82	3
Power Cord Length	20'	20'	20'	20'
Pump Discharge Diameter	1.5" MPT	1.5" MPT	1.5" MPT	1.5" MPT
Ideal Pipe Diameter	1.5" - 2"	1.5" - 2"	1.5" - 2"	2"
Pump Dimensions	12"L x 5.5"W x 7"H	12"L x 5.5"W x 7"H	14"L x 6"W x 7.5"H	14"L x 6"W x 7.5"H

## Installation

- Do not submerge the AquaSurge pump directly into the pond. The AquaSurge pump is designed to be placed inside a skimmer, Pondless® Waterfall Vault, sump or basin. Please consider Aquascape AquaForce® solids-handling pumps (Ex. 1) if your application does not have a filter and requires a pump that can be placed directly into the pond.

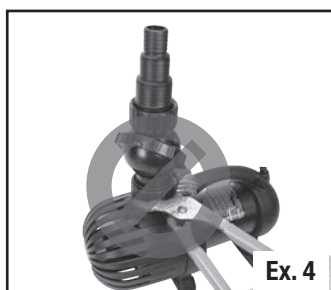
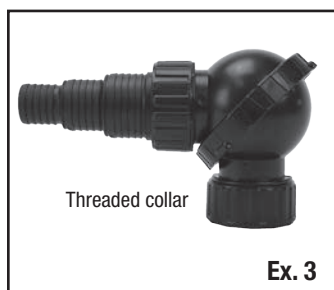


- The AquaSurge pump is designed to be installed horizontally on the rubber feet. The pump can also be mounted vertically, if needed, by attaching the filter stand ring on the outer filter screen, included with your pump (Ex. 2).

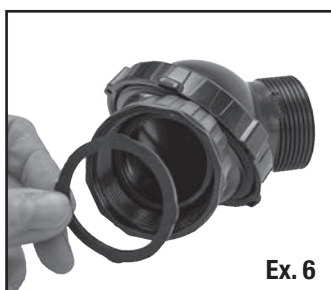


- The AquaSurge includes a wide assortment of fittings to choose from. Select the appropriate fitting or fittings needed for your application.
- The threaded collar (Ex. 3) on all of the fittings enables the AquaSurge pump to be installed and removed without the need for any tools.

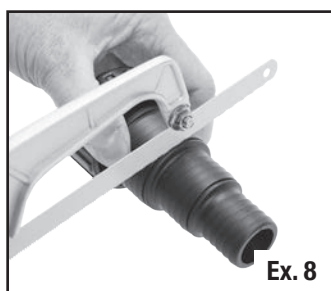
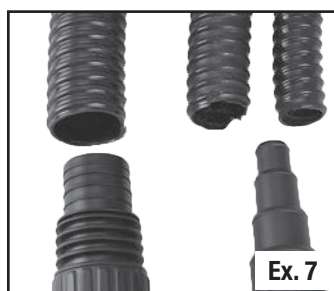
**NOTE:** Do not use tools to install the fittings into the pump discharge (Ex. 4). Fittings need to be only hand tight.



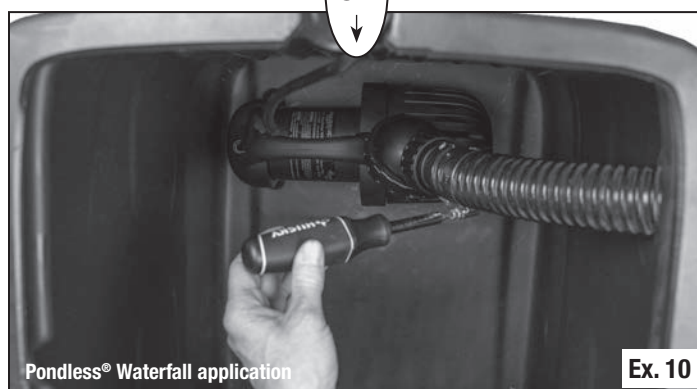
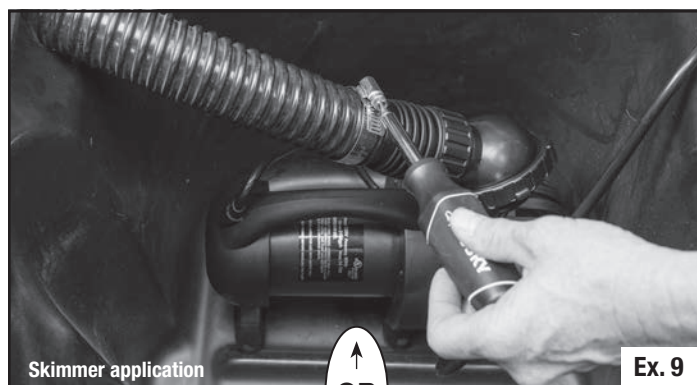
- The extremely versatile rotational ball outlet (Ex. 5) provides you the ability to adjust the pump discharge to the perfect position your water feature setup requires. Tightening the threaded collar (Ex. 5) allows you to rotate the upper half of the ball. A flat rubber washer seal (Ex. 6) is included to ensure a hand-tight and leak-free connection. Make sure this flat rubber washer is in place before installing the fittings.



- Install the right-sized multi-hose adapter based on the diameter of the pipe you are using (Ex. 7).
- If using pipe with a larger diameter than the smaller fittings of the multi-hose adapter, cut off the smaller section to avoid any flow restriction (Ex. 8).



- Lower the pump into the skimmer (Ex. 9) or Pondless® Waterfall Vault (Ex. 10) and rotate the rotational ball output to line up with the tubing. Attach tubing to the fitting and then tighten a hose clamp (not included) to secure tubing onto the fitting.



↑  
OR  
↓

- Plug the pump into an external GFI-rated electrical source (Ex. 11).

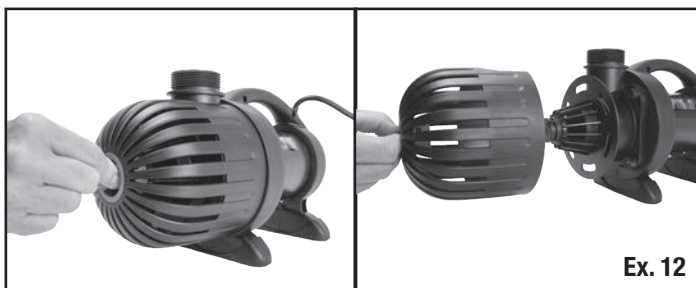
#### IN-LINE OPERATION

- The AquaSurge pump can also be operated in-line by attaching a pipe connected directly from the pond (or aquarium) to the male-threaded pump inlet. In this case the water must be pre-filtered of debris in order to prevent any damage to the pump or impeller. The pump must NEVER be operated dry without water. This pump is water-cooled and requires water flowing through the pump at all times for the pump to operate correctly and stay cooled so it doesn't overheat.



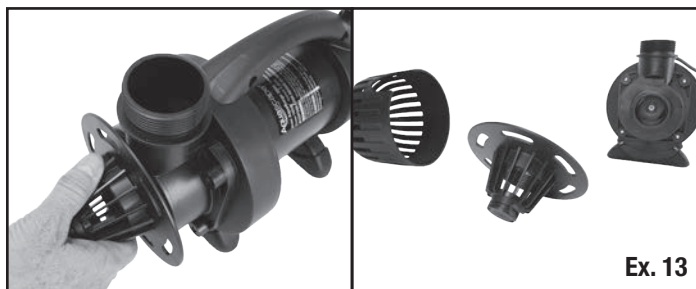
## General Maintenance

- **Filter Screens** - Operating the pump without the filter screen will allow large debris to enter the pump, causing the pump to fail and voiding the warranty.
- **Filter Screen Cleaning** - We recommend inspecting your AquaSurge on a regular basis to make sure it is functioning properly. If you notice the water flow rate diminish it may be due to the pump's filter screen becoming clogged with debris. Always disconnect the power before performing maintenance on the pump. In many cases the clogged screen can be cleaned by removing any debris by hand. If there is a lot of debris and/or the debris is difficult to clean you may need to disconnect the threaded collar on the fitting and remove the pump from the filter for a more thorough cleaning. A garden hose can be used to spray off any debris stuck on the filter screen. Be sure to replace all parts including the inner and outer screens, making sure they are firmly attached to the pump body before lowering the pump back into the filter box.
- The outer screen can be removed by twisting the locking knob counterclockwise and pulling the screen off (Ex. 12).



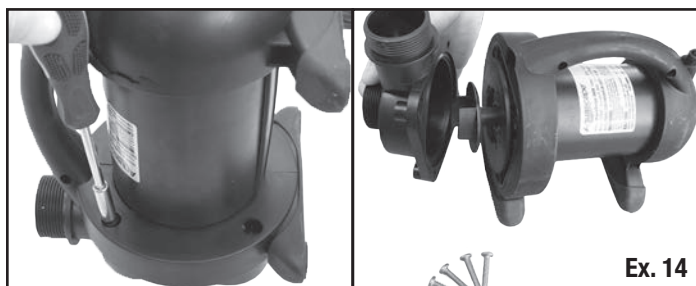
Ex. 12

- The inner filter screen is threaded on and can be removed by unscrewing counterclockwise (Ex. 13).

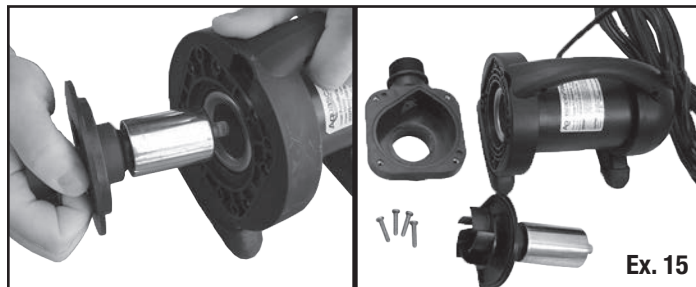


Ex. 13

- **Internal Pump Cleaning** - If you have thoroughly cleaned the filter screens on the pump and still have diminished flow rates, you will need to remove the water cover chamber (Ex. 14) and inspect the impeller rotor assembly (Ex. 15).

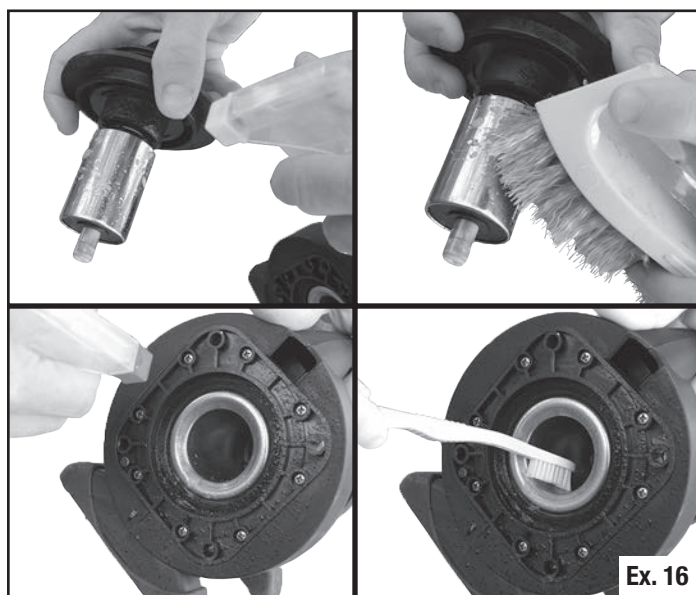


Ex. 14



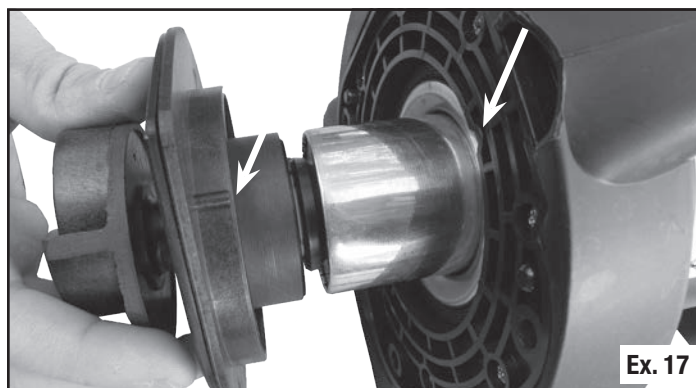
Ex. 15

- If your rotor assembly impeller and internal pump body have excessive scale build-up, clean with mild acid, such as white vinegar or a non-abrasive calcium, lime and rust remover product using a sponge or soft-bristled brush that won't scratch the stainless steel (Ex. 16). Removing scale buildup will allow your pump to run like new again.



Ex. 16

- When re-assembling the 4000 or 5000 pump models, be sure to align the raised key on the impeller flange to the matching notch in the face of the pump flange (Ex. 17).



Ex. 17



## Winter Application

- If concerned about possible freeze damage, disconnect the threaded collar on the fitting and remove the pump from the filter (be careful not to lose the flat rubber washer). Clean the pump and inlet screens with fresh water and store the pump in a frost-free location. The pump can be run during freezing weather, if desired, but the pump should be removed in the event of a power failure to prevent any freeze damage to either the pump or the piping.

## Troubleshooting

- Reduced water flow
  - Pump or plumbing may be clogged. It may be necessary to clean the filter screens and impeller.
- Pump hums but doesn't push water
  - The pump or plumbing may be clogged.
    - It may be necessary to clean the filter screens and impeller.
    - Remove the water chamber cover and inspect and clean the impeller rotor assembly and internal pump body.
    - Make sure nothing is blocking or wrapped around the impeller.
  - Make sure the pump is receiving the correct voltage.
  - Make sure the impeller blades are not worn or damaged.
- Pump not working
  - The ground-fault circuit interrupter (GFCI) may have tripped.
  - The pump is not receiving the correct voltage.

## Replacement Parts

AquaSurge® Pond Pump Replacement Parts	
No.	Item number/description
1.	91063 – AquaSurge 2000/3000 (G2) Intake Screen Kit
1.	91064 – AquaSurge 2000/3000 (G2) Intake Screen Kit
2.	91065 – AquaSurge (G2) Discharge Fitting Kit
3.	91066 – AquaSurge 2000/3000 (G2) Water Chamber Cover and O-Ring Kit
3.	91067 – AquaSurge 4000/5000 (G2) Water Chamber Cover and O-Ring Kit
4.	91068 – AquaSurge 2000/3000 (G2) Pump Handle and Feet Kit
4.	91069 – AquaSurge 4000/5000 (G2) Pump Handle and Feet Kit
5.	91070 – AquaSurge 2000 (G2) Replacement Impeller Kit
5.	91071 – AquaSurge 3000 (G2) Replacement Impeller Kit
5.	91072 – AquaSurge 4000 (G2) Replacement Impeller Kit
5.	91073 – AquaSurge 5000 (G2) Replacement Impeller Kit
	91155 – Pump/Filter Union Gasket Kit

