



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





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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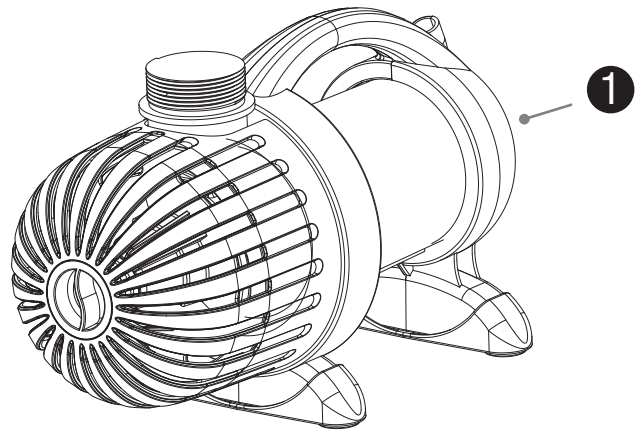
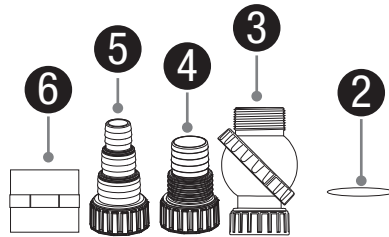
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Contents

No.	Description
1.	AquaSurge® Pond Pump
2.	Flat Rubber Gasket
3.	Rotational Ball Output 38 mm (1½")
4.	Multi-Hose Adapter 38, 50 mm (1½", 2")
5.	Multi-Hose Adapter 25, 32, 38 mm (1", 1¼", 1½")
6.	Female Adapter 38 mm (1½")



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, Residual Current Device (RCD) 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 cord and strain relief 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: 240V AC
- Input Frequency: 50 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

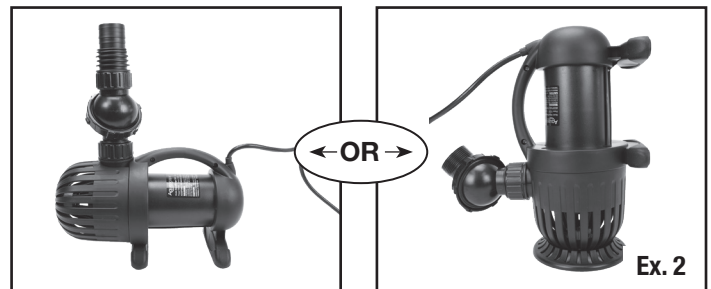
AquaSurge Pond Pump Specs				
Model Number	2000	3000	4000	5000
Maximum Flow Rate (LPH)	7,800	12,000	15,000	20,000
Maximum Head Height (m)	3.8	4	5.1	6
Motor Type	Asynchronous			
Volts	240			
Wattage	88	156	215	318
Hertz	50			
Power Cord Length (mm)	10			
Pump Discharge Diameter (mm)	40 MPT			
Ideal Pipe Diameter (mm)	38 – 50			50
Pump Dimensions (cm)	30.5 L x 14 W x 17.8 H		35.5 L x 15.2 W x 19 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.

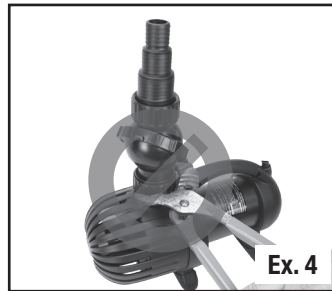
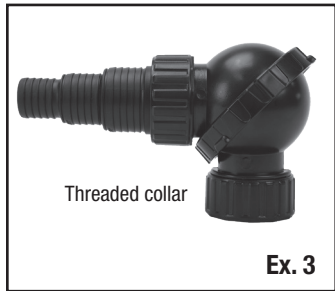


- The AquaSurge pump is designed to be installed horizontally on the rubber feet. The pump can also be mounted vertically, if needed, by attaching the filter stand ring on the outer filter screen, included with your pump (Ex. 2).

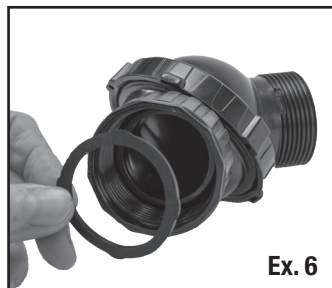


- The AquaSurge includes a wide assortment of fittings to choose from. Select the appropriate fitting or fittings needed for your application.
- The threaded collar (Ex. 3) on all of the fittings enables the AquaSurge pump to be installed and removed without the need for any tools.

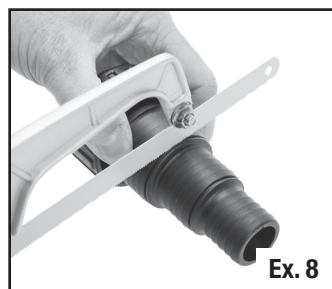
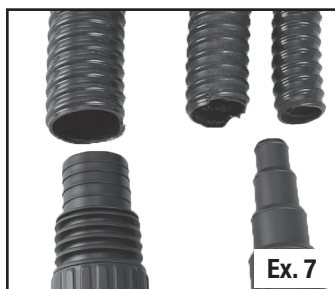
NOTE: Do not use tools to install the fittings into the pump discharge (Ex. 4). Fittings need to be only hand tight.



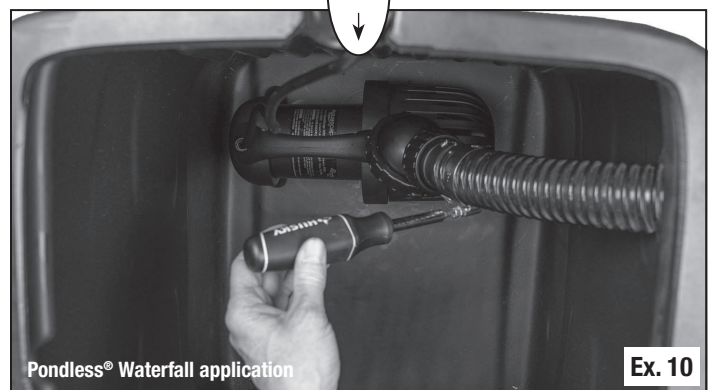
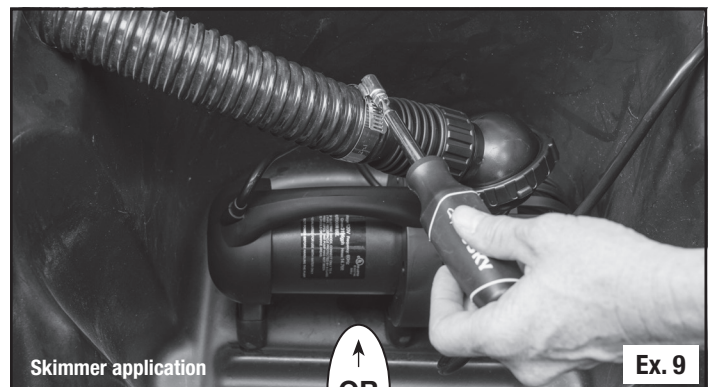
- The extremely versatile rotational ball outlet (Ex. 5) provides you the ability to adjust the pump discharge to the perfect position your water feature setup requires. Tightening the threaded collar (Ex. 5) allows you to rotate the upper half of the ball. A flat rubber washer seal (Ex. 6) is included 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
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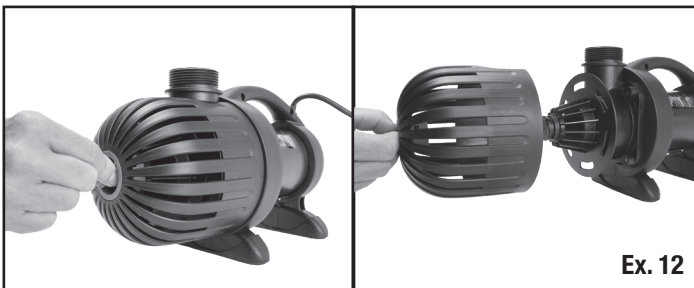
- Plug the pump into an external Residual Current Device (RCD).

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.

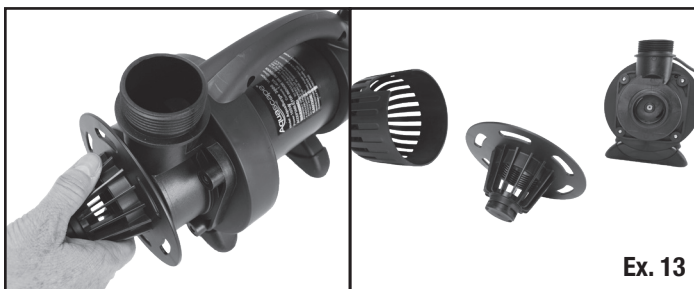
General Maintenance

- 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).



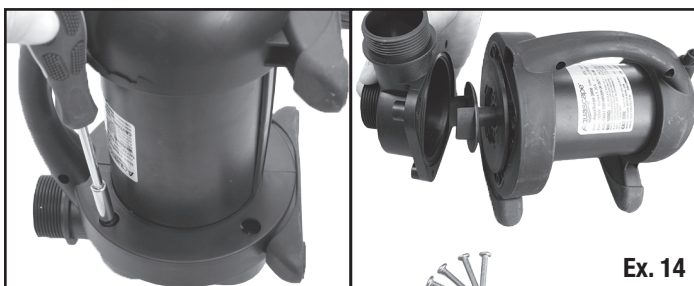
Ex. 12

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

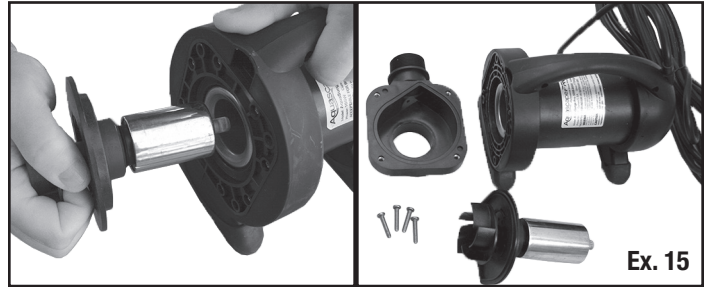


Ex. 13

- 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).

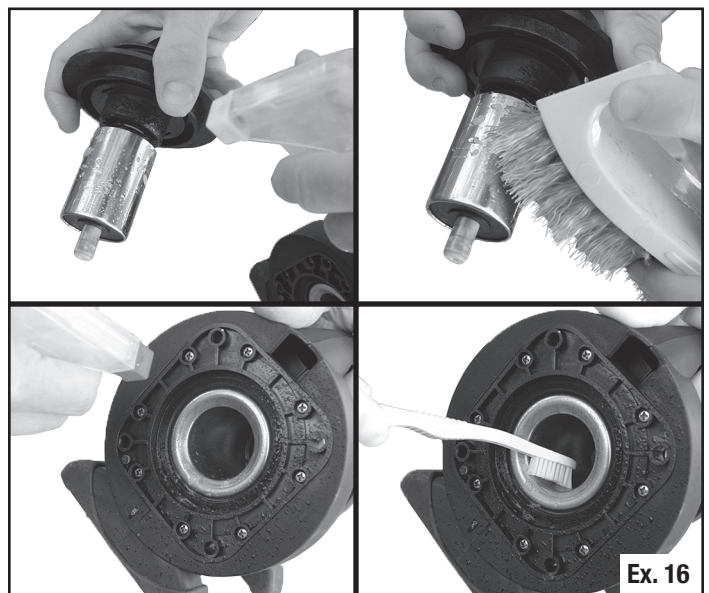


Ex. 14



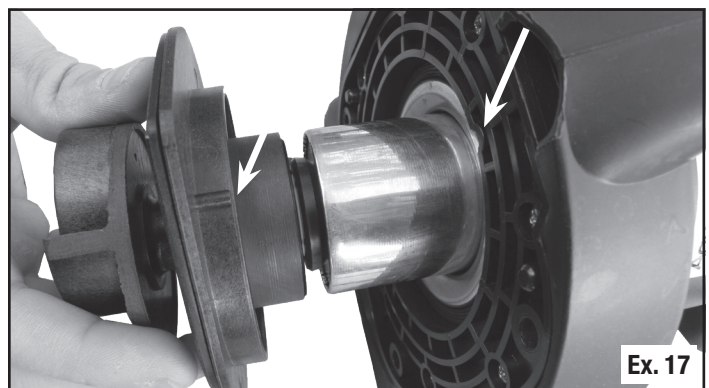
Ex. 15

- 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).



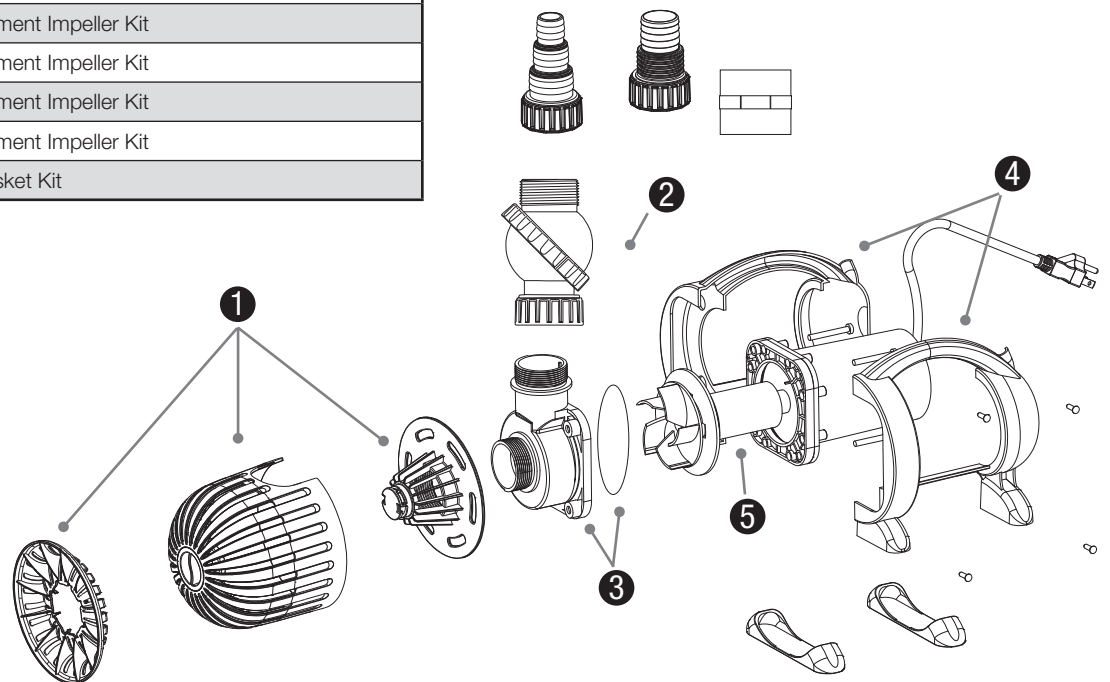
Ex. 17

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 Residual Current Device (RCD) 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.	AquaSurge 2000 (G2) Replacement Impeller Kit
5.	AquaSurge 3000 (G2) Replacement Impeller Kit
5.	AquaSurge 4000 (G2) Replacement Impeller Kit
5.	AquaSurge 5000 (G2) Replacement Impeller Kit
	91155 – Pump/Filter Union Gasket Kit



Warranty Information

3 YEAR WARRANTY

Aquascape warrants that the AquaSurge® Pond Pump will be free of manufacturing defects for three years from date of purchase. Proof of purchase required. Warranty does not cover damage resulting from electrical supply problems, improper wiring, lightning, negligent handling, misapplication, misuse, or lack of reasonable maintenance or care.

Warranty does not cover parts subject to normal wear, such as impellers. This product should only be operated in fresh water, completely submerged, without corrosive chemicals like chlorine or bromine. If upon Aquascape's inspection, the pump shows evidence of a manufacturing defect, Aquascape's liability is limited, at Aquascape's option, to the repair of the defect, replacement of the defective product, or refund of the original purchase price.

The warranty excludes costs of labor, removal of product, shipping and expenses related to the installation and re-installation of the product. All products that include plumbing (tubing, pumps, check valves) need to be properly drained and winterized otherwise warranty is null and void. No liability for loss or damage of any nature or kind, whether arising out of or from the use of the product, whether defective or not defective, is assumed by Aquascape, Inc. or its affiliates. Aquascape shall not be liable for any incidental, consequential or other damages arising under any theory of law whatsoever.

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