



# AQUAFORCE® SOLIDS-HANDLING POND PUMP

**AquaForce® 1000  
Solids-Handling  
Pond Pump**

Item #91011

**AquaForce® 2700  
Solids-Handling  
Pond Pump**

Item #91012

**AquaForce® 3600  
Solids-Handling  
Pond Pump**

Item #91113

**AquaForce® 5200  
Solids-Handling  
Pond Pump**

Item #91013

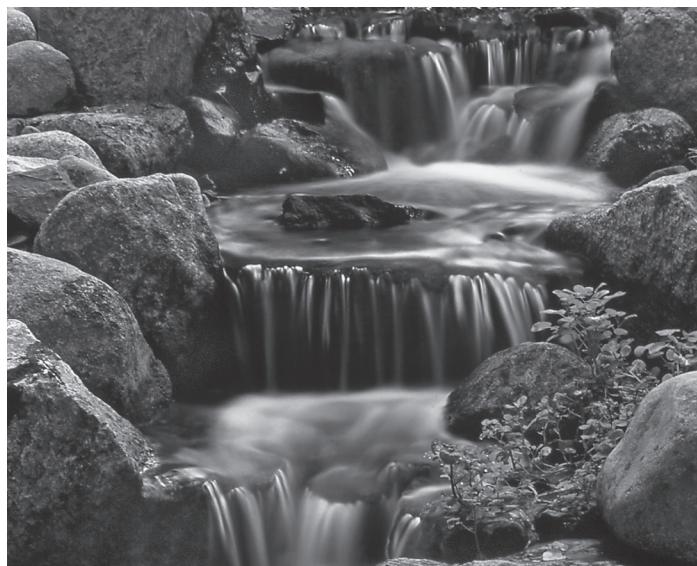


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## Thank you for choosing the Aquascape AquaForce® Solids-Handling Pond Pump.

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.



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# AquaForce® Solids-Handlings Pond Pump

The AquaForce asynchronous solids-handling waterfall and filter pumps accomplish what most other pumps only aspire to achieve. The combination of energy-efficient performance, flow and ease of maintenance makes this pump the ideal choice for discriminating pond owners. The AquaForce protective pre-filter cage allows the pump to be placed directly into the pond. AquaForce pumps are able to pump solids up to one quarter of an inch, making it ideal for use with external pressure filters or Aquascape waterfalls-type filter systems.

### ☎ Contact Us

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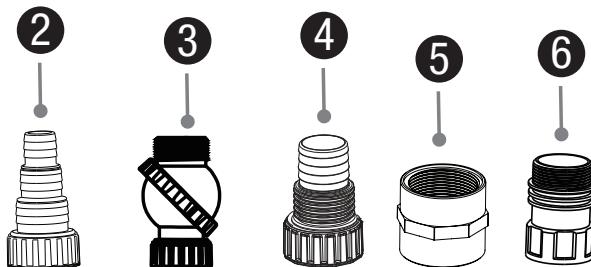
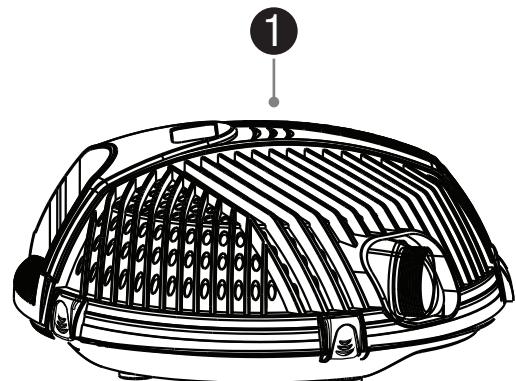
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## Contents

No.	Description
1.	AquaForce® Solids-Handling Pond Pump
2.	Multi-Hose Adapter 25, 32, 38 mm (1", 1¼", 1½")
3.	Rotational Ball Output 38 mm (1½")
4.	Multi-Hose Adapter 38, 50 mm (1½", 2")
5.	Female Adapter 38 mm (1½")
6.	38 mm (1½") FTP x 38 mm (1½") MPT



## 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 cable to lift pump.



- Always operate the pump fully submerged. Failure to do so will overheat the pump and cause it to fail, thus voiding the warranty. DO NOT OPERATE DRY.
- Use only in fully assembled state, and be sure that both the upper and lower cage screens are snapped together. Failure to operate the pump without the filter cage closed will allow large debris to enter the pump, causing the pump to fail and 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 in 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 so as to ensure that employees will not be exposed to health

hazards in handling said material. All applicable laws and regulations shall apply.



**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.

### AquaForce® Solids-Handling 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

**AquaForce Solids-Handling Pond Pump Specs**

Model Number	1000	2700	3600	5200
Maximum Flow Rate (LPH)	4,000	9,600	12,000	20,000
Maximum Head Height (m)	2	4	6	
Motor Type		Asynchronous		
Volts		240		
Wattage	45	138	156	318
Hertz		50		
Power Cord Length (m)		10		
Pump Discharge Diameter (mm)		40 MPT		
Multi-Hose Fitting Diameters (mm)		25, 32, 38, 50		

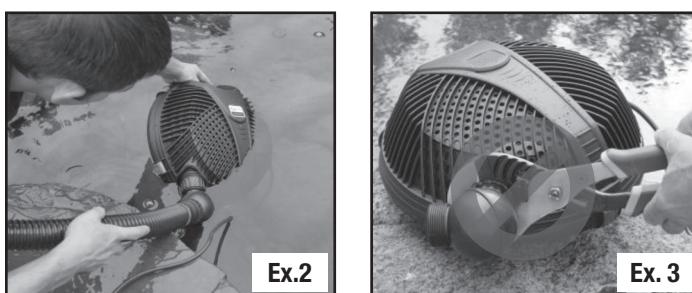
## Installation

- The AquaForce Solids-Handling Pond Pump is designed to be submerged directly into the pond. To maximize pond circulation, locate the AquaForce pump as far away as possible from the location of the water entering back into the water feature (Ex. 1).
- It is recommended that the pump NOT be positioned in the deepest area of the pond (Ex. 1). This will protect the fish by preventing the pond from completely draining in the case of leak in the plumbing or filter. Bricks or stones can be used, if needed, to raise the pump up off the bottom of the pond.

- The AquaForce includes a wide assortment of fittings to choose from. Select the appropriate fitting(s) needed for your application.
- The threaded collar, on all of the fittings, enables the AquaForce pump to be installed and removed without the need for any tools (Ex. 2). Do not use tools to attach the fittings onto the pump discharge (Ex. 3). Fittings need to be hand-tightened only.



Ex. 1



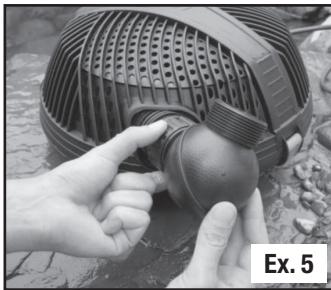
Ex. 2

Ex. 3

- The extremely versatile rotational ball outlet (Ex. 4) provides you the ability to adjust the pump discharge to the perfect position that your water feature set-up requires. Loosening the threaded collar allows you to rotate the upper half of the ball. A flat rubber washer seal (Ex. 5) is included to ensure a hand-tight and leak-free connection. Make sure the flat rubber washer is in place before installing the fittings.

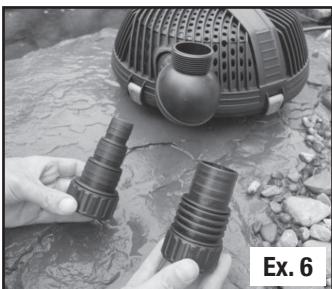


**Ex. 4**

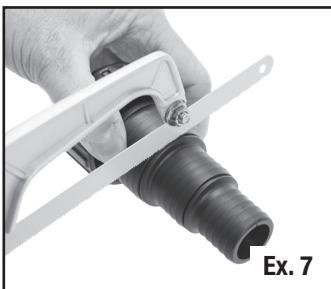


**Ex. 5**

- Install the right-sized multi-hose adapter, based on the diameter of the tubing you are using (Ex. 6).
- If using pipe with a larger diameter than the smaller fittings of the multi-hose adapters, cut off the smaller section to avoid any flow restriction (Ex. 7).

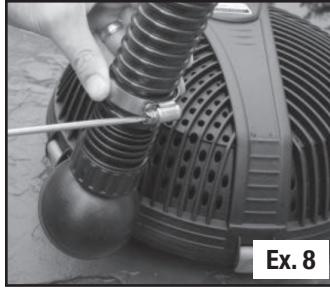


**Ex. 6**



**Ex. 7**

- Attach tubing to the fitting. If tubing is loose on the fitting, use a hose clamp (not included) to secure tubing onto the fitting (Ex. 8).
- Connect the other end of the pump tubing to the pond filter, such as a biological filter, waterfall spillway or pressurized filter (Ex. 9).



**Ex. 8**



**Ex. 9**

- Connect the pump to an outlet that is protected by a Residual Current Device (RCD). Once the pump is running and water is circulating, check for any leaks where the external connections are made.

## General Maintenance

- Pump Cage – Do not remove the upper or lower pump cage while operating the pump. Failure to operate the pump without the filter cage or operating the pump with a broken cage will allow large debris to enter the pump causing the pump to fail, thus voiding the warranty.
- Pump Cage Cleaning – We recommend inspecting your pump on a regular basis to ensure it is functioning properly. If you notice the water flow rate diminish, it may be due to the pump's filter cage becoming clogged with debris (Ex. 10). In many cases the filter can simply be pulled from the pond and cleaned of any debris on the filter cage. Always disconnect the power before performing maintenance on the pump.
- Remove any debris stuck to the pump filter cage and/or use a garden hose to spray off any debris stuck to the filter cage (Ex. 11).



**Ex. 10**

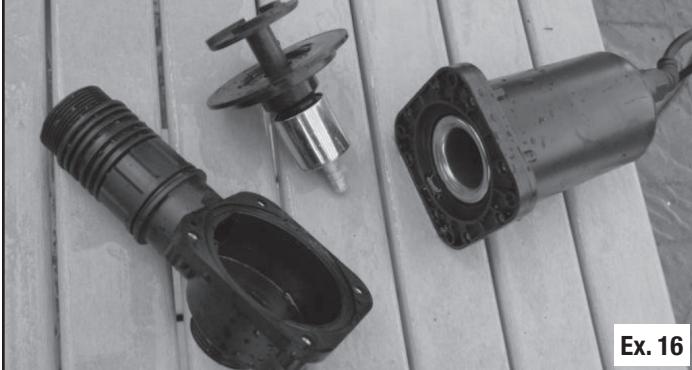


**Ex. 11**

- Internal Pump Cleaning – If you have thoroughly cleaned the filter cage screens and still have diminished flow rates, then you will need to remove the pump from the lower cage and inspect the impeller rotor assembly.
- Pull the cage release clips outward to unlock the upper and lower pump cages (Ex. 12).

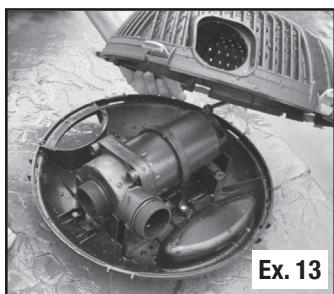


Ex. 12

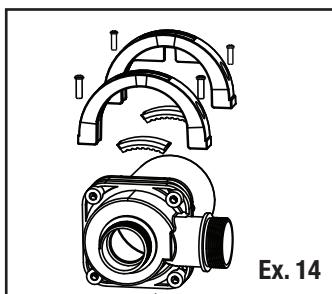


Ex. 16

- With the cage clips released, the upper filter cage can be lifted to expose the pump (Ex. 13).
- Remove the screws securing the pump restraining bracket, allowing the pump to be lifted from the lower cage (Ex. 14).



Ex. 13



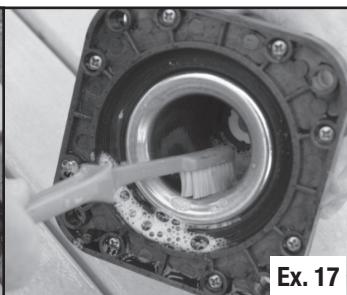
Ex. 14

- For easier pump access, pull the power cord free from the strain relief (Ex. 15).



Ex. 15

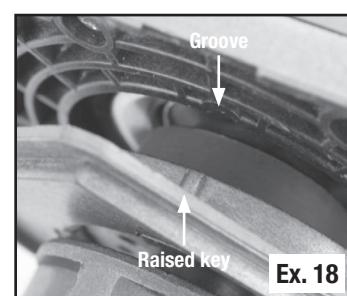
- Remove the four screws that hold the water cover chamber and inspect the impeller rotor assembly (Ex. 16).
- If your rotor assembly impeller and internal pump body have excessive scale build-up, clean with a mild acid, such as white vinegar or non-abrasive calcium, lime and rust remover product. A sponge or soft-bristled brush that won't scratch the stainless steel can be used at this time (Ex. 17). Removing scale build-up will allow your pump to run like new again.



Ex. 17

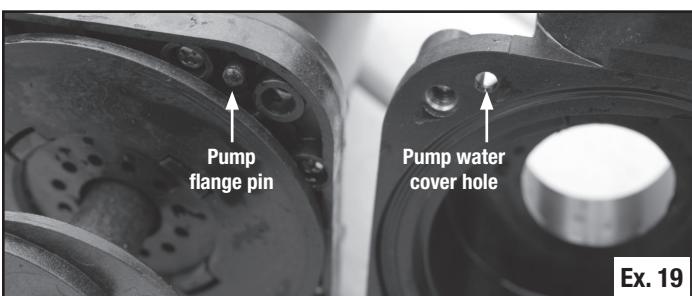
### Replacing the Impeller/Rotor Assembly

- For Model 3600 and 5200: When replacing the AquaForce 3600 or 5200 rotor-impeller assembly into the pump chamber, note the proper orientation. The raised key on the impeller face plate should be lined up with the groove in the pump housing (Ex. 18).



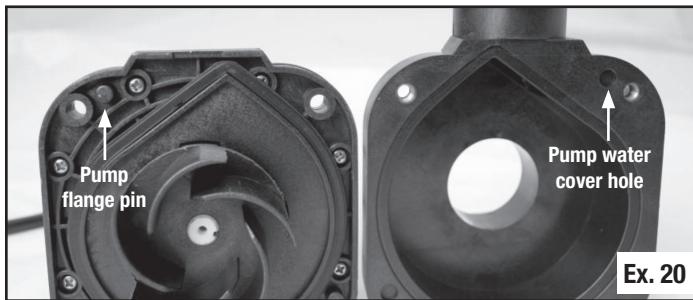
Ex. 18

- For Models 1000, 1800 and 2700: The 1000, 1800 and the 2700 models allow the impeller-rotor assembly to be inserted into the pump body with no special alignment guides needed (Ex. 19).



Ex. 19

- AquaForce 5200 ready for reassembly: The water chamber cover will only fit back onto the pump with the top of the tear-drop shapes lining up, along with matching the hole in the cover with the pin on the face of the pump motor flange (Ex. 20).



### Replacing Pump in Cage

- Replace the pump into the lower cage and secure in place with the brackets. Also replace the power cord in the strain relief.
- Reinstall filter cage and close all 5 clips.

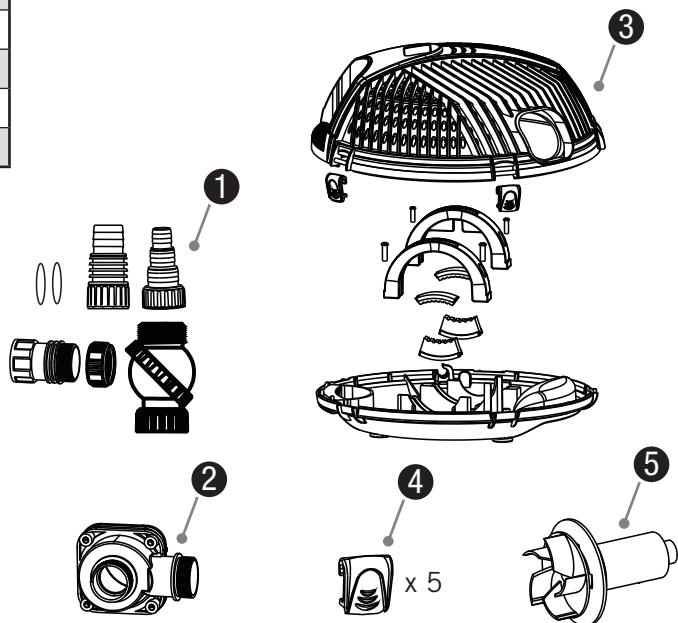
## Troubleshooting

- Reduced water flow
  - Pump or plumbing may be clogged. It may be necessary to clean the pump cage screens and impeller.
- Pump hums but doesn't push water
  - The pump or plumbing may be clogged.
    - It may be necessary to clean the pump cage 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.
- Pump not working
  - The Residual Current Device (RCD) may have tripped.
  - The pump is not receiving the correct voltage.

## Replacement Parts

### AquaForce® Solids-Handling Pond Pump Replacement Parts

No.	Item number/description
1.	91075 – AquaForce (G2) Replacement Cage Discharge Fitting Kit
2.	91076 – AquaForce 1000/2700 (G2) Replacement Water Chamber Cover
2.	91077 – AquaForce 5200 (G2) Replacement Water Chamber Cover
3.	91078 – AquaForce 1000/2700 (G2) Replacement Pump Cage Kit
3.	91096 – AquaForce 3600/5200 (G2) / Adjustable Flow 4000-8000 Replacement Pump Cage Kit
4.	91079 – AquaForce (G2) Replacement Cage Clip Kit
5.	AquaForce 1000 (G2) Replacement Impeller Kit
5.	AquaForce 2700 (G2) Replacement Impeller Kit
5.	AquaForce 3600 (G2) Replacement Impeller Kit
5.	AquaForce 5200 (G2) Replacement Impeller Kit



## Warranty Information

### 3 YEAR WARRANTY

Aquascape warrants that the AquaForce® Solids-Handling 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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