

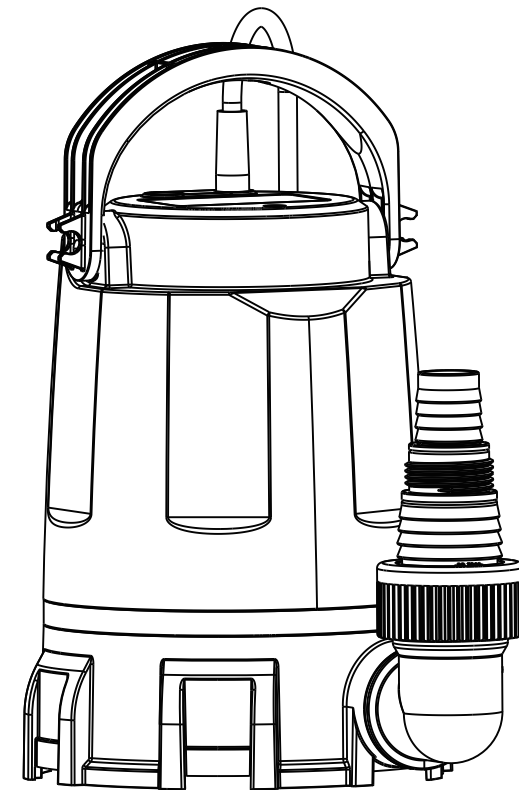


## Instruction Manual

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submersible utility pump

Model: ESU050PM  
ESU100PM



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# CONTENTS

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1. Introduction .....	2
2. Caution .....	2
3. Safety .....	3
4. Prior to Operation .....	3
5. Installation .....	4
6. Care and Maintenance .....	5
7. Trouble Shooting .....	6
8. Technical Data .....	7
9. Repairs .....	8

## 9. Repairs



### **Danger!**

Repairs to electric tools must only be carried out by a qualified electrician!  
Electric tools in need of repair can be sent to an authorized service center in your country.  
Please attach a description of the fault to the electric tool.

### **Environmental Protection**

The packaging of the pump can be 100% recycled.  
Worn-out power tools and accessories contain considerable amounts of valuable raw and plastic materials, which can be recycled.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance.

Cleaning and user maintenance shall not be made by children without supervision.

### **Attention!**

Children shall not play with the appliance.

Cleaning and user maintenance shall not be made by children without supervision.



Meaning of crossed-out wheeled dustbin:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available.

## 1. Introduction

These operating instructions have been written to make it easier for you, the operator, to learn how to operate this pump and to do so safely. These instructions should be used as follows:

Read these instructions before use. When reading these instructions, pay special attention to all safety instructions.

This appliance can be used by children aged 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

These operating instructions are intended for people with basic technical knowledge regarding the operation of a pump like this or similar pumps.

Inexperienced persons are advised to seek competent advice from an experienced person before operating this pump.


Keep all documents supplied with the pump for future reference. Retain proof of purchase for possible warranty claims.

This pump must not be sold or lent to someone else without being accompanied by these operating instructions and all other machine documents supplied with the pump. The pump is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.


## 2. Caution

The manufacturer assumes no liability for any damage resulting from the non-observance of any operating or safety instructions given in this manual.


The information in these instructions is denoted as under:

 **Danger!**  
Risk of personal injury or damage to the environment.

 **Risk of electric shock!**  
Risk of personal injury by electric shock.

 **Meaning of crossed-out wheeled**

 **Caution!**  
Risk of material damage.

 **Note:**  
Additional information.

### Dustbin:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal at least free of charge.

### Range of Application and Pumping Media

This pump is intended for pumping clear water in domestic applications, such as pumping containers, sumps, and flooded basements. The special design allows for pumping down to a very low standing water level; circulation to avoid putrefaction; feeding false rivulets and brooks.

 **Caution!**

The max. permissible fluid temperature is 96°F. Pumping liquids containing abrasives (such as sand) reduces the service life of the pump.

## 8. Technical Data

### Technical parameters

Model	ESU050PM	ESU100PM
Power	1/2 HP	1 HP
Max Flow	3159 GPH	4500 GPH
Max Head	26 ft	30 ft
Degree of Motor Protection	Class F	Class F
Protection Class	IPX8	IPX8
Ambient Temperature	23°F - 104°F	23°F - 104°F
Fluid Temperature	32°F - 95°F	32°F - 95°F
Max. Dia. of Particle	0.19"	0.19"
Min. Suction Water Level	0.6"	0.6"
Min. Residual Water Level	0.19"	0.19"

### ESU050PM:

Horsepower	Voltage	AMP	Discharge NPT(In)	Power cord lenght(ft)	GPH of Water @ Total Ft. of Head				Max. Head Ft
					5ft	10ft	20ft	25ft	
1/2 HP	115V	3	1-1/2 in	10	3159	2547	1107	299	26ft

### ESU100PM:

Horsepower	Voltage	AMP	Discharge NPT(In)	Power cord lenght(ft)	GPH of Water @ Total Ft. of Head				Max. Head Ft
					5ft	10ft	20ft	25ft	
1 HP	115V	3	1-1/2 in	10	4500	3807	1940	948	30ft

## 7. Trouble Shooting

Malfunction	Cause Investigation	Treatment Measures
The pump does not deliver water.	<ul style="list-style-type: none"> <li>The water inlet filter is clogged.</li> <li>The impeller is blocked or damaged.</li> <li>The installation head is higher than the pump lift.</li> <li>Air cannot escape as the pressure line is closed. (e.g. kinked pressure hose)</li> <li>Air locks in the suction base.</li> <li>Water height falls below the minimum water level.</li> </ul>	<ul style="list-style-type: none"> <li>Clear the blockage.</li> <li>Remove obstacles or replace the impeller.</li> <li>Install the more powerful pump.</li> <li>Open the pressure line.</li> <li>Wait for max. 60 seconds until the pump deaerates automatically over the vent valve. If necessary, switch it off and start it again.</li> <li>Submerge the pump deeper into the water.</li> </ul>
The water outlet valve does not start when it is closed and reopened period.	<ul style="list-style-type: none"> <li>Check whether the check valve is blocked.</li> </ul>	<ul style="list-style-type: none"> <li>Reinstall the check valve to ensure that there is no blockage.</li> </ul>
The flow becomes smaller.	<ul style="list-style-type: none"> <li>Partial blockage of the water inlet filter.</li> <li>The impeller is partially blocked.</li> </ul>	<ul style="list-style-type: none"> <li>Remove obstacles.</li> </ul>
In the state of the water level when the switch is turned on, the pump will stop after working for a period.	<ul style="list-style-type: none"> <li>The thermal overload protection device starts to stop the water pump automatically.</li> </ul>	<ul style="list-style-type: none"> <li>Check whether the fluid density is too high or the fluid temperature is too high, causing the motor to overheat.</li> </ul>
The motor does not start and there is no noise.	<ul style="list-style-type: none"> <li>No power.</li> <li>Check whether the plug connection is good.</li> </ul>	<ul style="list-style-type: none"> <li>Check the power and the plug.</li> </ul>
Pump runs, but the output suddenly decreases.	<ul style="list-style-type: none"> <li>Suction base is clogged.</li> </ul>	<ul style="list-style-type: none"> <li>Clean the suction base.</li> </ul>

If in doubt, please don't hesitate to contact Aquastrong Service Team by email.

## 3. Safety

### Specified Conditions of use

This pump must not be used to supply drinking water or for pumping foodstuff. Explosive, flammable, aggressive fluids or substances detrimental to health must not be pumped.

This equipment is not suitable for commercial or industrial use.

Any other use is not as specified. Use not as specified, alteration of the machine or use of parts that are not approved by the equipment manufacturer, can cause unforeseeable damage!

### General safety instructions

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

- Do not touch the plug with wet hands! To unplug always pull on the plug, not the power cable.
- The earthed outlet or the plug connection to an extension cable must be located in an area safe against flooding.
- The pump is to be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.
- Use only extension cables of sufficient lead cross section. Completely unroll cable reels.
- Do not buckle, squeeze, drag or drive over power cable and extension cables; protect from sharp edges.
- Place extension cable so that it cannot get into the fluid to be pumped.



#### Attention:

Children should be supervised to ensure that they do not play with the appliance.

Also, all local regulations pertaining to the safe operation of submersible pumps are to be observed.

The following residual risks do principally exist when operating submersible pumps and cannot be fully eliminated—even by employing safety devices.



#### Hazard generated by ambient conditions!

- Do not use the pump in hazardous locations or near inflammable liquids and gases!



#### Danger! Risk of electric shock!

- If the appliance or the supply cord is damaged, it must be repaired by manufacturer, its service agent or qualified person. Pollution of the liquid could occur due to leakage of lubricants.
- Unplug: prior to all servicing;



#### Danger! Risk of electric shock!

- Before each use check the pump, especially the power cable, plug and float switch for possible damage. Risk of fatal electric shock!
- A damaged pump must be workmanlike repaired before it can be used again.
- Do not attempt to repair the pump yourself! Only trained specialists are permitted to service or repair pumps.

## 4. Prior to Operation

### Installation

- The pump must not be submerged deeper into the water than 13ft (if the power cable is 19ft).
- Place the pump so that the suction Inlet cannot be blocked by foreign objects (stand on a base, if necessary)
- Ensure sufficient upright stability.



### Caution!

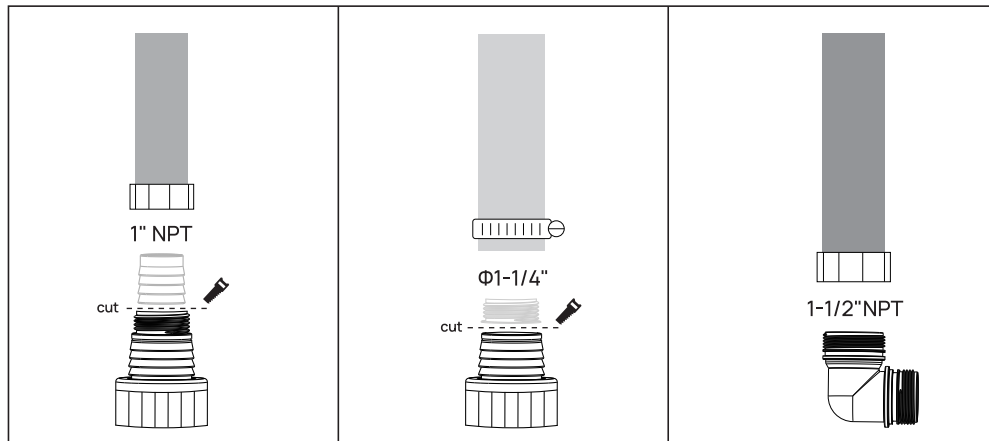
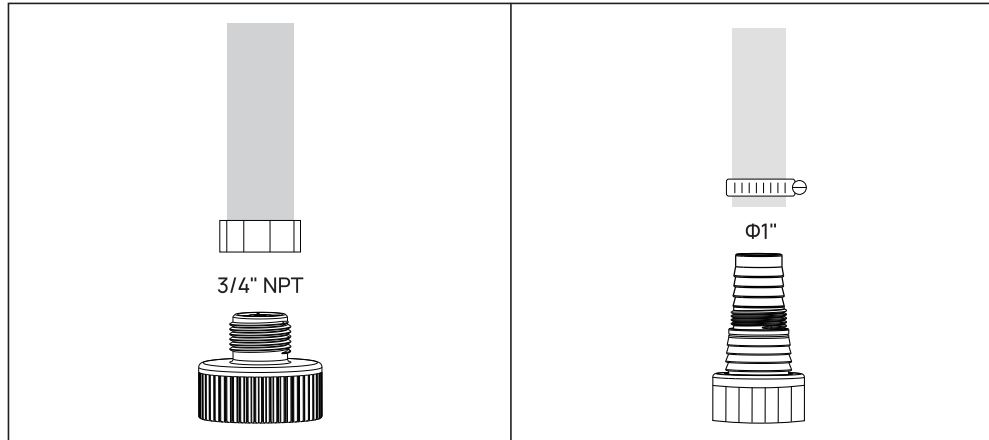
Do not lift the pump at the cable or discharge hose; both are not designed for the tensile load by the weight of the pump.

1. Submerge the pump at an angle to avoid an air cushion at the underside, which would prevent priming. Once the pump is submerged, it can be set into an upright position.
2. Lower the pump to the bottom of the fluid container. Use a strong rope, fastened to the cable eye, to lower the pump.
3. The pump can also be operated when suspended by a rope.

## 5. Installation

### Hose connections

**Note:** The larger the diameter of the connecting pipe, the greater the water flow.



## 6. Care and Maintenance



### Danger!

Prior to all servicing:

- Switch Off.
- Unplug.

Service and repair work other than that described here must be left to qualified specialists.

### Periodic maintenance

For the pump to function perfectly at any time periodic maintenance is required.

This also applies if the pump is used under heavy conditions, but does not run for extended periods of time (e.g. when used in well drains).

PS: In a permanent installation, the installation site must be cleared of sludge, pebbles, etc. before the pump is installed. We recommend that you place the pump on a solid base.

### Yearly service

1. Check the pump casing and cables for damage.
2. Rinse the pump with clear water. Remove persistent soiling, e.g. algae deposits, with brushes and dishwashing liquid.
3. To flush the inside of the pump, place it into a container filled with clear water and switch it ON briefly.

### Pump storage



### Caution!

Frost damages the pump and accessories, as both always contain water!

- When there is a danger of freezing, remove the pump and accessories and store them at a frost-proof location.

### Before maintenance



### WARNING!

Electric shock!

Risk of injury due to electric shock.

Disconnect the product from the mains before you do maintenance.