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› Aquastrong 1.2 HP Portable Shallow Well Pump Instruction Manual

## AQUASTRONG PGA120

# Aquastrong 1.2 HP Portable Shallow Well Pump Instruction Manual

Model: PGA120

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Aquastrong 1.2 HP Portable Shallow Well Pump. Please read this manual thoroughly before operating the pump and retain it for future reference.

## 2. SAFETY INFORMATION

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- Always disconnect the pump from the power supply before performing any maintenance or service.
- Ensure the power supply voltage matches the pump's specifications (115V AC).
- Do not operate the pump dry. Running the pump without water can cause severe damage.
- Protect the pump from freezing temperatures. Drain the pump completely if there is a risk of freezing.
- Keep children and unauthorized personnel away from the pump during operation.
- Use only approved extension cords that are rated for outdoor use and the pump's power requirements.
- The pump is equipped with automatic thermal overload protection to prevent motor overheating. If the pump shuts off, allow it to cool before restarting.
- This pump is not a self-priming pump and requires manual priming before initial use.

## 3. PRODUCT OVERVIEW

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### 3.1 Key Features

- **Powerful Motor:** 1.2 HP motor delivers water up to 147 feet.
- **High Flow Rate:** Maximum flow of 1209 GPH at 5 feet of head.
- **Durable Construction:** Stainless steel casing and aluminum motor housing for corrosion resistance.
- **Portability:** Easy-to-carry iron handle for convenient transport.
- **Safety Features:** Automatic dry-run shut-off and thermal overload protection.

- **Versatile Connections:** 1" NPT discharge and suction with a 3/4" garden hose adapter.
- **Efficient Sealing:** Carbon ceramic mechanical seal prevents water leakage.

### 3.2 Components

Refer to the diagram below for an identification of the main components of your pump.



**Image 1:** Labeled components of the Aquastrong 1.2 HP Portable Shallow Well Pump. Key parts include the motor, portable handle, 1" NPT outlet, 1" NPT inlet, matte stainless steel pump body, safety switch, and power cord.

### 3.3 Technical Specifications

Specification	Value
Model	PGA120
Horsepower	1.2 HP
Voltage	115 Volts (AC)
Maximum Flow Rate	1209 GPH (20 GPM)
Maximum Lifting Height (Head)	147 Feet
Max Well Depth (Suction)	26 Feet
Material	Stainless Steel
Product Dimensions (L x W x H)	14.5" x 8.5" x 8.9"
Item Weight	19 Pounds
Power Source	Corded Electric
Inlet/Outlet Size	1" NPT (with 3/4" garden hose adapter)

# Dimensions



**Image 2:** Dimensional drawing of the pump, indicating its length, width, height, and NPT connection sizes.

## 4. SETUP AND INSTALLATION

### 4.1 Site Selection

- Place the pump on a stable, level surface.
- Ensure the pump is protected from direct weather exposure and moisture.
- Position the pump as close as possible to the water source to minimize suction lift and maximize performance.

### 4.2 Connecting Hoses

1. Connect a suction hose to the pump's inlet (1" NPT). For optimal performance and to prevent debris from entering the pump, a foot valve with a strainer is highly recommended at the end of the suction hose submerged in the water source.
2. Connect a discharge hose to the pump's outlet (1" NPT). The included 3/4" garden hose adapter can be used for standard garden hose connections.
3. Ensure all connections are tight to prevent air leaks, which can affect pump performance.

## 4.3 Priming the Pump

This pump is not self-priming and requires manual priming before its first use and after any period of dry operation or maintenance where air may have entered the system. Follow these steps:

1. Ensure the suction hose is connected and the foot valve is submerged in the water source.
2. Locate the prime plug on the top of the pump casing. Remove the prime plug.
3. Slowly fill the pump casing with water until it overflows from the prime plug opening.
4. Replace the prime plug securely.
5. The pump is now primed and ready for operation.

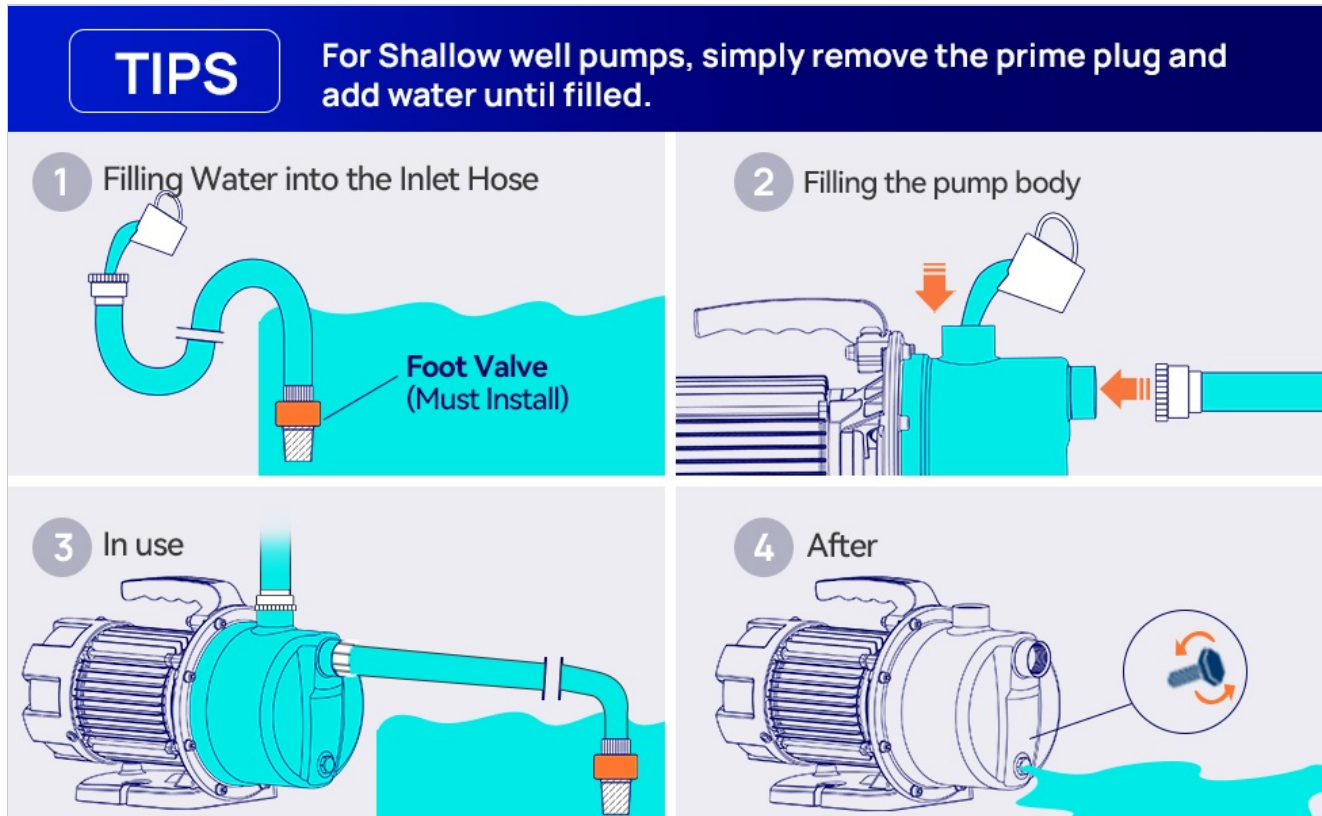


Image 3: Visual guide for priming the shallow well pump, including filling the inlet hose and pump body.

## 5. OPERATING INSTRUCTIONS

### 5.1 Starting the Pump

1. Ensure the pump is properly primed (refer to Section 4.3).
2. Verify all hose connections are secure and the suction hose is submerged in the water source.
3. Plug the pump into a grounded 115V AC power outlet.
4. Flip the ON/OFF switch to the "ON" position. The pump should start running and begin transferring water.

### 5.2 Stopping the Pump

- Flip the ON/OFF switch to the "OFF" position.
- Unplug the pump from the power outlet.

### 5.3 Automatic Safety Features

- **Dry-Run Protection:** If the water source runs out, the pump will automatically shut off to prevent damage.
- **Thermal Overload Protection:** The motor is equipped with a thermal protector that will shut off the pump if it

overheats. If this occurs, turn off the pump, unplug it, and allow it to cool down for at least 30 minutes before attempting to restart. Address any potential causes of overheating, such as restricted flow or prolonged operation.



Image 4: Illustration of the pump's temperature sensing and automatic overload stop features.

## 6. MAINTENANCE

### 6.1 Regular Checks

- Inspect hoses and connections regularly for leaks or damage.
- Check the foot valve strainer for blockages and clean if necessary.
- Ensure the pump's ventilation openings are clear of debris to prevent overheating.

### 6.2 Winterization (Storage)

To prevent damage from freezing, especially in colder climates, follow these steps for winter storage:

1. Disconnect the pump from the power supply.

2. Disconnect all hoses from the pump.
3. Remove the prime plug and the drain plug (if applicable) to completely drain all water from the pump casing and hoses. Tilt the pump to ensure all water is removed.
4. Store the pump in a dry, frost-free location.

## 7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Pump does not start or hums but does not pump water.	<ul style="list-style-type: none"> <li>◦ No power or incorrect voltage.</li> <li>◦ Pump not primed.</li> <li>◦ Air leak in suction line.</li> <li>◦ Motor overheated (thermal overload activated).</li> <li>◦ Impeller jammed or damaged.</li> </ul>	<ul style="list-style-type: none"> <li>◦ Check power connection and circuit breaker. Ensure 115V supply.</li> <li>◦ Re-prime the pump (Section 4.3).</li> <li>◦ Check all suction line connections for tightness.</li> <li>◦ Allow pump to cool down. Check for obstructions or restricted flow.</li> <li>◦ Contact customer service for assistance.</li> </ul>
Low or no water flow.	<ul style="list-style-type: none"> <li>◦ Pump not fully primed.</li> <li>◦ Air leak in suction line.</li> <li>◦ Suction lift too high or hose too long/small diameter.</li> <li>◦ Foot valve or strainer clogged.</li> <li>◦ Discharge hose kinked or restricted.</li> <li>◦ Water source depleted.</li> </ul>	<ul style="list-style-type: none"> <li>◦ Re-prime the pump.</li> <li>◦ Check and tighten all suction connections.</li> <li>◦ Relocate pump closer to water source or use larger diameter hose.</li> <li>◦ Clean foot valve and strainer.</li> <li>◦ Straighten discharge hose or remove obstruction.</li> <li>◦ Ensure adequate water supply.</li> </ul>
Pump runs continuously or cycles frequently.	<ul style="list-style-type: none"> <li>◦ Leak in discharge line or connected system.</li> <li>◦ Check valve malfunction (if installed).</li> </ul>	<ul style="list-style-type: none"> <li>◦ Inspect all connections and hoses for leaks.</li> <li>◦ Inspect or replace check valve.</li> </ul>

## 8. WARRANTY AND SUPPORT

The Aquastrong 1.2 HP Portable Shallow Well Pump comes with a **TWO-YEAR warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical assistance, or any questions regarding your pump, please contact Aquastrong customer service. Provide your model number (PGA120) and proof of purchase when contacting support.

You can find contact information for Aquastrong customer service on the official Aquastrong website or through your retailer.