

Acquaer SJS100

Acquaer 1 HP Portable Shallow Well Garden Pump User Manual

Model: SJS100 | Brand: Acquaer

1. INTRODUCTION

Thank you for choosing the Acquaer 1 HP Portable Shallow Well Garden Pump. This manual provides essential information for the safe and efficient operation, installation, and maintenance of your pump. Please read these instructions thoroughly before use and retain them for future reference.

This pump is designed for various applications including sprinkler systems, irrigation, general water transfer, and drawing water from shallow wells, ponds, lakes, rain barrels, and water tanks.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions could result in electric shock, fire, or serious injury.

- **Electrical Safety:** Ensure the power supply matches the pump's voltage (115V AC). Do not operate the pump with a damaged power cord or plug. Always connect to a grounded outlet. Avoid using extension cords unless absolutely necessary and ensure they are rated for outdoor use and the pump's power requirements.
- **Water and Moisture:** Never immerse the motor in water. Do not operate the pump in standing water. Keep all electrical connections dry.
- **Personal Safety:** Wear appropriate personal protective equipment. Keep children and unauthorized persons away from the operating pump.
- **Overheat Protection:** The pump features built-in automatic thermal overload protection to prevent motor damage from overheating or dry running. If the pump shuts off automatically, disconnect power, allow it to cool, and address the cause (e.g., lack of water) before restarting.

- **Priming:** This is not a self-priming pump. It requires filling with water before initial use. Ensure the foot valve is properly installed.
- **Operating Environment:** Do not use the pump to transfer flammable or corrosive liquids. Operate the pump on a stable, level surface.

3. PRODUCT OVERVIEW

The Acquaer 1 HP Portable Shallow Well Garden Pump (Model SJS100) is engineered for reliable and efficient water transfer. Its robust construction and thoughtful design ensure durability and ease of use.



Figure 1: Acquaer 1 HP Portable Shallow Well Garden Pump, showing its compact design and stainless steel housing.

Key Features:

- **Powerful Motor:** 1 HP motor provides high flow and pressure, with a maximum flow of 998 GPH and a maximum head of 131 ft.
- **Portable Design:** Stainless steel casing, aluminum motor housing, and an easy-to-carry iron handle for

durability and portability.

- **Safety Performance:** Built-in automatic thermal overload protector and a waterproof On/Off switch.
- **Premium Mechanical Seal:** Carbon ceramic mechanical seal prevents water leakage and ensures a long service life.
- **Easy Connections:** 1-inch NPT discharge and suction ports, includes a 3/4-inch garden hose adapter and PTFE tape for easy installation.



Figure 2: Detailed view of the pump, highlighting the portable handle, 1" NPT discharge, 1" NPT suction, 6' power cord, safety switch, and 3/4" NPT garden hose adapter.

4. SETUP

4.1 Unpacking

Carefully remove the pump and all accessories from the packaging. Inspect for any shipping damage. Retain packaging for future storage or transport.

4.2 Placement

Place the pump on a firm, level surface close to the water source and the area requiring water. Ensure adequate ventilation around the motor. The pump is designed for outdoor use but should be protected from extreme weather conditions.

4.3 Connections

1. **Suction Line:** Connect a suction hose (not included) to the 1-inch NPT suction port. For drawing water from a well or tank, a foot valve with a strainer is essential to prevent debris from entering the pump and to maintain prime. Ensure the suction line is airtight to prevent air leaks.
2. **Discharge Line:** Connect a discharge hose or piping to the 1-inch NPT discharge port. Use the provided 3/4-inch garden hose adapter and PTFE tape for garden hose connections. Ensure all connections are secure and leak-free.
3. **Electrical Connection:** Plug the pump into a grounded 115V AC electrical outlet.

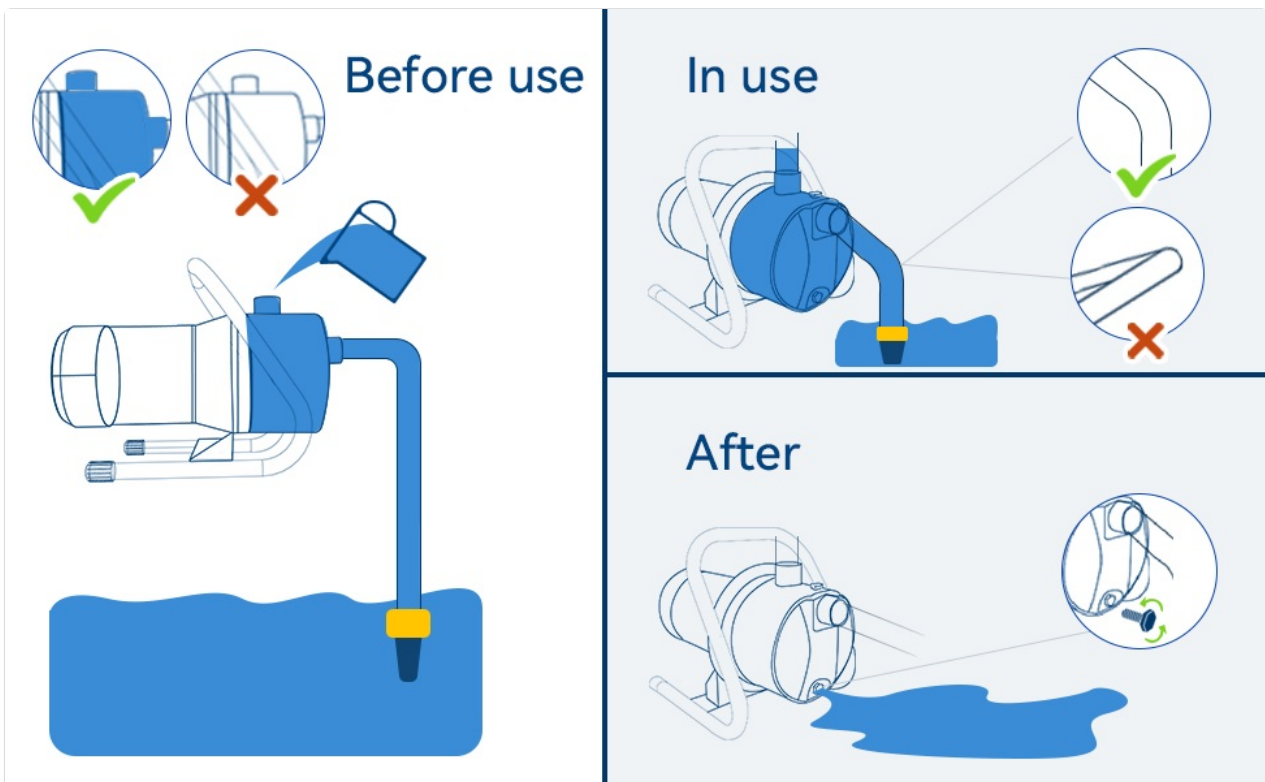


Figure 3: Illustration of pump setup, including priming before use, proper foot valve placement during use, and draining after use.

5. OPERATING INSTRUCTIONS

5.1 Priming the Pump

IMPORTANT: The pump must be primed with water before its first use and any time the water level in the suction line drops below the pump's inlet.

1. Ensure all connections are tight.
2. Locate the priming port (usually a plug on top of the pump housing). Remove the plug.
3. Slowly fill the pump housing and the suction line with clean water until it overflows from the priming port.

4. Replace the priming plug securely.

5.2 Starting the Pump

1. Ensure the pump is properly primed.
2. Turn on the waterproof On/Off switch. The pump should start running and begin to draw water.
3. Monitor the pump for the first few minutes to ensure it is operating smoothly and water is flowing as expected.

5.3 Shutting Down

To turn off the pump, simply switch the On/Off switch to the 'Off' position. If the pump will not be used for an extended period, disconnect it from the power source and drain any remaining water.



Figure 4: The Acquaer pump actively irrigating a garden, demonstrating its application in sprinkler systems.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Acquaer pump.

- **Cleaning:** Periodically clean the exterior of the pump with a damp cloth. Ensure the motor's cooling fins are free from dirt and debris to prevent overheating.
- **Foot Valve/Strainer:** Regularly inspect and clean the foot valve strainer to prevent blockages and ensure efficient water intake.
- **Connections:** Check all hose and pipe connections for leaks. Tighten as necessary.
- **Winterization:** If the pump will be exposed to freezing temperatures, it must be completely drained of water to prevent damage. Disconnect hoses, remove drain plugs (if applicable), and store in a dry, frost-free location.
- **Mechanical Seal:** The pump features a durable carbon ceramic mechanical seal designed for long service life. No user maintenance is typically required for the seal itself.

7. TROUBLESHOOTING

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause	Solution
Pump does not start	No power; Thermal overload tripped; Faulty switch.	Check power supply and connections; Allow pump to cool and reset; Inspect switch for damage.
Pump runs but no water flows	Pump not primed; Air leak in suction line; Foot valve clogged or stuck; Suction lift too high.	Prime the pump; Check all suction connections for leaks; Clean or free foot valve; Reduce suction lift or use a shorter hose.
Low flow or pressure	Partial air leak; Clogged impeller or discharge line; Worn components.	Check suction line for small leaks; Inspect and clean impeller/discharge; Contact customer service for worn parts.
Pump cycles on and off frequently	Small leak in discharge system; Pressure switch (if installed) setting issue.	Check for leaks in the discharge plumbing; Adjust pressure switch settings (if applicable).

8. SPECIFICATIONS

Technical details for the Acquaer 1 HP Portable Shallow Well Garden Pump (Model SJS100).

MODEL
SJS100

HP
1HP

VOLTAGE
115V

AMP
10.0A

DISCHARGE
1 inch NPT

MAX. HEAD
131ft

GPH OF WATER @ FT. OF HEAD

5ft	21ft	57ft	92ft	127ft
998	908	793	330	67

TECHNICAL SPECIFICATIONS



Figure 5: Technical specifications including model, horsepower, voltage, amperage, discharge, max head, and GPH at various head heights.

Specification	Value
Model Number	SJS100
Horsepower (HP)	1 HP
Voltage	115 Volts (AC)
Maximum Flow Rate	998 GPH (15.99 Gallons Per Minute)
Maximum Lifting Height (Head)	131 Feet
Maximum Suction Lift	26 Feet
Power Source	Corded Electric
Material	Stainless Steel
Product Dimensions (L x W x H)	14.57" x 10.83" x 11.61"
Item Weight	21.1 pounds
Included Components	Pump body, 3/4" garden hose adapter

9. WARRANTY AND SUPPORT

The Acquaer 1 HP Portable Shallow Well Garden Pump comes with a **Two-Years warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical assistance, or professional advice on installation and maintenance, please contact Acquaer customer service. Keep your purchase receipt as proof of purchase.

Acquaer Customer Service: Please refer to the contact information provided with your product packaging or visit the official Acquaer website for support.