

Acquaer CJE050-1

Acquaer CJE050-1 Shallow/Deep Well Jet Pump Instruction Manual

Model: CJE050-1

INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Acquaer CJE050-1 Shallow/Deep Well Jet Pump. Please read these instructions thoroughly before installation and retain them for future reference. This pump is designed for residential water supply from wells, irrigation, and other general water transfer applications.

SAFETY INFORMATION

Always observe basic safety precautions to reduce the risk of fire, electric shock, and personal injury. Failure to follow these instructions may result in serious injury or property damage.

General Safety

- Ensure the pump is installed on a stable, level surface to prevent vibration and movement.
- Do not operate the pump in an explosive atmosphere, such as in the presence of flammable liquids, gases, or dust.
- Keep children and unauthorized persons away from the pump during operation.
- Wear appropriate personal protective equipment (PPE) such as safety glasses and gloves during installation and maintenance.

Electrical Safety

- **Disconnect power before servicing.** Always ensure the power supply is disconnected before performing any maintenance or adjustments.
- The pump is designed for dual voltage operation (115V/230V). Ensure the voltage selector switch is set correctly for your power supply before connecting. The pump is factory-set for 230V.
- All electrical wiring must comply with local codes and regulations and be performed by a qualified electrician.
- Ensure the pump is properly grounded to prevent electric shock.

- Do not operate the pump with a damaged cord or plug.

PRODUCT OVERVIEW AND COMPONENTS

The Acquaer CJE050-1 is a convertible jet pump suitable for both shallow and deep well applications. It includes an ejector kit for deep well configurations.

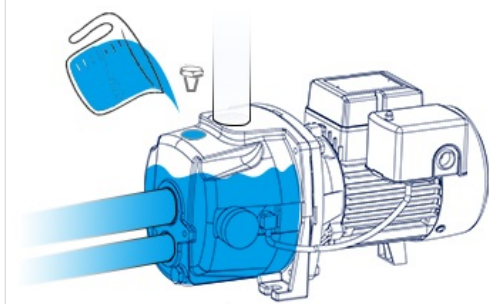


Figure 1: Dimensions of the Acquaer CJE050-1 Jet Pump and Ejector Kit. The pump measures approximately 14 inches long, 8.8 inches wide, and 8 inches high. The ejector measures approximately 6 inches long, 3.7 inches wide, and 3.9 inches high.

Key Components:

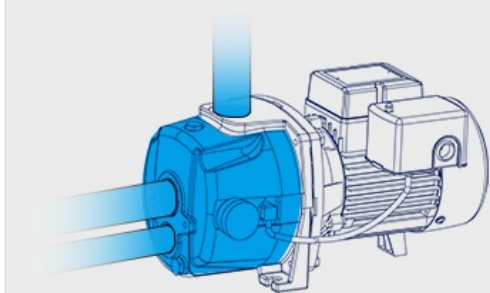
- **Pump Body:** Cast iron construction for durability.
- **Motor:** 1/2 HP electric motor, dual voltage (115V/230V).
- **Pressure Switch:** Automatic operation, factory set to turn on below 20 PSI and off above 35 PSI.
- **Ejector Kit:** Included for deep well installations.
- **Thermal Overload Protector:** Built-in safety feature to prevent motor overheating.

PRIME THE PUMP



Step 1

Unscrew the priming port and pour water into the cavity from the hole.



Step 2

Untill the cavity is fully filled with water, reinstall the cap and the pump is ready for startup.

Figure 2: Product Details highlighting the 1" NPT Discharge, 1-1/4" NPT Suction, 1" NPT Suction, Voltage Box, Power Box, and 1-1/4" Ejector.

TECHNICAL SPECIFICATIONS

Specification	Value
Model Number	CJE050-1
Brand	Acquaer
Horsepower	0.5 HP
Voltage	115V/230V AC
Material	Cast Iron
Maximum Flow Rate	18 GPM (1114 GPH)
Maximum Lifting Height	115 feet
Well Depth (Shallow)	0-25 feet
Well Depth (Deep)	26-90 feet
Product Dimensions (L x W x H)	14.9" x 12.9" x 10.4"
Discharge Port	1" NPT
Suction Port	



Figure 3: Technical Specifications and Performance Chart. This chart details the pump's performance (GPH) at different feet of head.

SETUP AND INSTALLATION

Proper installation is crucial for the pump's performance and longevity. Consult a qualified professional if you are unsure about any steps.

1. Choosing the Right Well Type

This pump is convertible for both shallow and deep well applications. The choice depends on your well's depth.

- **Shallow Well (0-25 ft):** Uses a single pipe system.
- **Deep Well (26-90 ft):** Requires the included ejector kit and a two-pipe system.

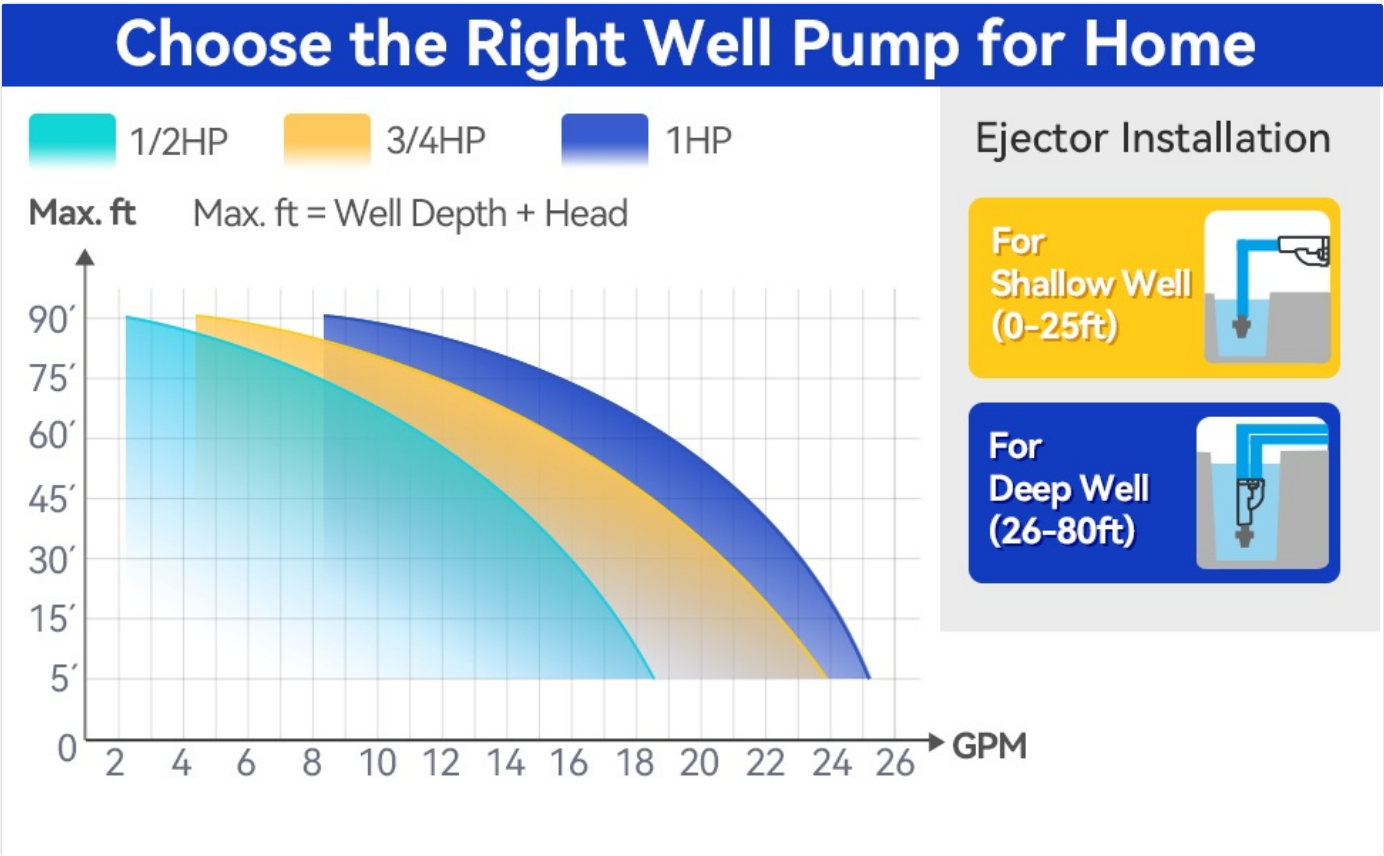


Figure 4: Well Depth and Ejector Installation Guide. This diagram helps determine the correct setup based on your well's depth.

2. Electrical Connection and Voltage Selection

The pump is factory-set for 230V. If your power supply is 115V, you must adjust the voltage selector switch located inside the power box.



Figure 5: Dual Voltage Selection. The switch is located within the electrical housing. Ensure power is disconnected before making any changes.

1. **Disconnect Power:** Ensure the pump is unplugged or the circuit breaker is off.
2. **Access Switch:** Open the cover of the power box.
3. **Select Voltage:** Locate the voltage selector switch. Move it to the appropriate position (down for 115V, up for 230V).
4. **Secure Cover:** Close and secure the power box cover.

CAUTION: Failure to select the correct voltage can damage the pump and void the warranty.

3. Plumbing Connections

- Use appropriate NPT fittings for the suction (1-1/4" and 1") and discharge (1") ports.
- Ensure all connections are airtight to prevent air leaks, which can affect pump performance. Use thread sealant tape or pipe dope.
- Install a check valve in the suction line to maintain prime.
- For deep well installations, connect the ejector kit according to the provided diagrams, ensuring the two pipes are correctly routed to the well.

OPERATING INSTRUCTIONS

1. Priming the Pump

Before initial startup or after the pump has been drained, it must be primed with water.



Figure 6: Priming the Pump. This visual guide demonstrates the two steps for proper pump priming.

1. **Locate Priming Port:** Identify the priming port on top of the pump housing.
2. **Unscrew Cap:** Carefully unscrew the priming port cap.
3. **Fill with Water:** Slowly pour clean water into the priming port until the pump casing and suction line are completely filled.
4. **Replace Cap:** Securely replace the priming port cap.
5. **Start Pump:** Connect power to the pump. The pump should begin to draw water.

2. Automatic Pressure Switch Operation

The integrated automatic pressure switch controls the pump's operation to maintain water pressure in your system.

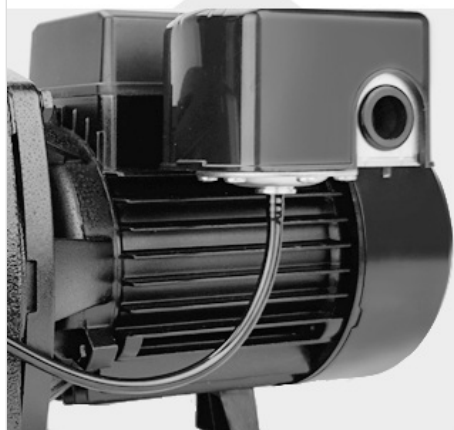
- The pump will automatically start when the system pressure drops below 20 PSI.
- The pump will automatically shut off when the system pressure reaches 35 PSI.
- This ensures consistent water supply without manual intervention.

3. Overheat Protection

The pump features a built-in automatic thermal overload protector. If the motor overheats due to prolonged use, low voltage, or dry running, it will automatically shut off to prevent damage. The pump will restart once it has cooled down.

Capacitor Motor

High efficiency with strong suction and high flow.



High Quality

Detailed installation manual & professional advice on installation and maintenance.

Caution

Please select the correct voltage for the first time using



Figure 7: Automatic Thermal Overload Protector. This feature safeguards the motor from damage due to excessive heat.

MAINTENANCE

Regular maintenance ensures optimal performance and extends the life of your pump.

1. General Care

- Keep the pump clean and free from debris.
- Periodically check all connections for leaks and tighten as necessary.
- Inspect the power cord for any signs of damage.

2. Winterization (for cold climates)

If the pump is installed in an area subject to freezing temperatures, it must be properly winterized to prevent damage.

1. **Disconnect Power:** Turn off the power supply to the pump.
2. **Drain Pump:** Open the drain plugs on the pump casing to completely drain all water.
3. **Drain Piping:** Drain all water from the suction and discharge piping.
4. **Store Ejector (Deep Well):** If using a deep well ejector, ensure it is also drained or removed if possible.
5. **Protect Pump:** Store the pump in a warm, dry location, or insulate it thoroughly if it must remain in place.

TROUBLESHOOTING

This section addresses common issues you might encounter with your jet pump.

Problem	Possible Cause	Solution
Pump does not start	No power; Incorrect voltage setting; Thermal overload tripped; Motor fault	Check power supply/breaker; Verify voltage switch setting; Allow motor to cool; Contact service
Pump runs but no water	Pump not primed; Air leak in suction line; Low water level in well; Clogged foot valve/ejector	Prime the pump; Check all suction connections for leaks; Check well water level; Inspect/clean foot valve/ejector
Low pressure or flow	Partial air leak; Clogged impeller/piping; Worn pump components; Incorrect pressure switch setting	Check for small air leaks; Clean impeller/piping; Inspect pump components; Adjust pressure switch (if applicable, consult manual)
Pump cycles too frequently	Water leak in system; Pressure tank issue; Incorrect pressure switch setting	Check for leaks in plumbing; Inspect pressure tank (air charge, diaphragm); Adjust pressure switch (if applicable, consult manual)
Pump is noisy	Air in pump/suction line; Cavitation; Loose mounting; Bearing wear	Bleed air from system/re-prime; Ensure adequate water supply; Tighten mounting bolts; Contact service for bearing issues

WARRANTY INFORMATION

Acquaer products are manufactured to high-quality standards. This pump typically comes with a 24-month warranty from the date of purchase, covering defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims.

The warranty does not cover damage resulting from:

- Improper installation or operation.
- Failure to follow maintenance instructions.
- Unauthorized repairs or modifications.
- Abuse, misuse, or neglect.
- Freezing or other environmental factors.

For specific warranty terms and conditions, refer to the documentation included with your product or contact Acquaer customer service.

CUSTOMER SUPPORT

If you require assistance with installation, troubleshooting, or warranty claims, please contact Acquaer customer service. Have your model number (CJE050-1) and purchase date ready when contacting support.

For more information and support resources, visit the official Acquaer website or refer to the contact details provided in your product packaging.

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