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› Goulds J10S Shallow Well Jet Pump Instruction Manual

## Goulds J10S

# Goulds J10S Shallow Well Jet Pump Instruction Manual

Model: J10S | Brand: Goulds

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Goulds J10S Shallow Well Jet Pump. Please read these instructions thoroughly before beginning any procedures.

The Goulds J10S is designed for reliable water transfer in applications such as homes, cottages, and booster service. Its compact design integrates a shallow well adapter, simplifying installation. The pump features a back pullout design for easy servicing and is constructed with corrosion-resistant materials for durability.

## 2. SAFETY INFORMATION

**WARNING: Electrical shock hazard. Always disconnect power before servicing the pump.**

- Ensure all electrical connections comply with local codes and regulations.
- Do not operate the pump without proper grounding.
- Keep hands and foreign objects clear of moving parts.
- The pump is designed for water only. Do not use with flammable or corrosive liquids.
- Maximum operating temperature for pumped liquid is 140°F (60°C).

## 3. PRODUCT OVERVIEW

The Goulds J10S Shallow Well Jet Pump is a robust unit engineered for performance and longevity. Key features include:

- **Compact Design:** Integral shallow well adapter eliminates the need for a separate component.

- **Serviceability:** Back pullout design allows pump disassembly for service without disturbing piping.
- **Motor:** NEMA standard, 60 Hz, 1 HP, 115/230 V capacitor start, single phase, 3500 RPM. Features built-in overload with automatic reset and a stainless steel shaft.
- **Impeller:** F.D.A. compliant, glass-filled Noryl, corrosion and abrasion resistant.
- **Diffuser (Guide Vane):** Bolt-down design for positive alignment, with a stainless wear ring for extended performance in abrasive conditions. Made from F.D.A. compliant, injection-molded, food-grade, glass-filled Lexan.
- **Tubing and Fittings:** F.D.A. compliant engineered plastic, corrosion and UV resistant.
- **Corrosion Resistance:** Electro-coated paint process applied inside and out, then baked on.
- **Protected Mechanical Seal:** Special diaphragm design retains water in the casing, preventing dry running.
- **Air Handling Ability:** Re-primers itself after initial priming, even if air enters the system.



Figure 1: Goulds J10S Shallow Well Jet Pump. This image shows the blue-colored pump unit with its motor and casing, highlighting the overall compact design.

## 4. SETUP AND INSTALLATION

Proper installation is crucial for optimal pump performance and longevity. Refer to local plumbing and electrical codes.

### 4.1. Location

Install the pump in a dry, well-ventilated area, protected from freezing temperatures and direct sunlight. Ensure adequate space for maintenance.

### 4.2. Piping Connections

- **Suction Connection:** 1.25" NPT. Ensure all suction line connections are airtight to prevent air leaks, which can cause loss of prime.
- **Discharge Connection:** 1" NPT.
- Use appropriate pipe dope or Teflon tape on all threaded connections.
- Avoid placing a check valve between the pump and the pressure tank if the pressure switch is

mounted on the pump, as this can cause rapid cycling.

### 4.3. Electrical Connections

- The pump operates on 115/230 V. Verify the motor is wired for the correct voltage before connecting power.
- Connect to a dedicated, properly fused electrical circuit.
- Ensure proper grounding according to national and local electrical codes.
- The motor rotation is clockwise when viewed from the motor end.

### 4.4. Priming the Pump

Before initial operation, the pump must be primed:

1. Remove the priming plug (if applicable) or fill port.
2. Fill the pump casing completely with water.
3. Replace the plug securely.
4. Open a faucet on the discharge side to allow air to escape.
5. Start the pump. It should begin pumping water within a few minutes. If not, turn off the pump, re-prime, and try again.

## 5. OPERATING INSTRUCTIONS

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Once installed and primed, the Goulds J10S pump is designed for continuous operation within its specified limits.

- The pump is equipped with an AS4 preset pressure switch (30-50 PSI).
- Monitor the system pressure to ensure it operates within the desired range.
- The pump has excellent air handling ability and can re-prime itself if air enters the system after initial priming, provided the water level rises above the foot valve.
- Avoid running the pump dry for extended periods, although the protected mechanical seal design helps prevent damage from brief dry runs.

## 6. MAINTENANCE

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Regular maintenance ensures the longevity and efficient operation of your pump.

- **Periodic Inspection:** Regularly check for leaks, unusual noises, or vibrations.
- **Nozzle Clean Out:** The pump case includes a nozzle clean out plug for easy access and cleaning of the nozzle.
- **Component Cleaning:** Corrosion-resistant engineered plastic tubing and fittings are easily removed for cleaning.
- **Winterization:** In areas subject to freezing, drain the pump and associated piping completely to prevent freeze damage.
- **Motor Maintenance:** The two-compartment motor allows easy access to wiring and replaceable components.
- **Service:** The back pullout design facilitates disassembly for service without disturbing the piping.

## 7. TROUBLESHOOTING

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This section addresses common issues you might encounter with your Goulds J10S pump.

### **7.1. Pump Does Not Start**

- Check power supply and circuit breaker.
- Verify electrical connections are secure and correct voltage is supplied.
- Inspect motor for signs of damage or overheating (built-in overload with automatic reset should trip if overheated).

### **7.2. Pump Runs But Does Not Deliver Water (or Low Flow)**

- Ensure the pump is properly primed. Re-prime if necessary.
- Check for air leaks in the suction line.
- Verify the foot valve is submerged and not clogged.
- Inspect impeller and diffuser for clogs or damage.
- Check for obstructions in the discharge piping.

### **7.3. Pump Cycles Too Frequently**

- Check for leaks in the plumbing system or pressure tank.
- Verify the pressure tank air charge is correct.
- Ensure no check valve is installed between the pump and pressure tank if the pressure switch is on the pump.

For issues not covered here, consult a qualified pump technician.

## **8. SPECIFICATIONS**

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Attribute	Value
Brand	Goulds
Model Number	J10S
Horsepower	1 HP
Voltage	115/230 Volts
Power Source	AC
Maximum Flow Rate	25 Gallons Per Minute
Pressure Switch Preset	30-50 PSI (AS4)
Suction Pipe Connection	1.25" NPT
Discharge Pipe Connection	1" NPT
Item Weight	50 Pounds
Product Dimensions (L x W x H)	18.75" x 9.88" x 8.75"
Material	Stainless Steel (shaft), Engineered Plastic (impeller, diffuser, tubing)
Maximum Temperature	140°F (60°C)
UPC	697666006370

## 9. WARRANTY AND SUPPORT

For warranty information and technical support, please contact Goulds Water Technology directly or refer to the documentation provided with your purchase. Keep your purchase receipt for warranty claims.

Note: Pumps are manufacturer tested and may contain water inside from such testing.