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SHURFLO 2088-594-154

SHURflo Industrial Diaphragm Water Pump User Manual

Model Number: 2088-594-154

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the SHURflo 2088-594-154 Industrial Diaphragm Water Pump. Designed for high flow and moderate pressure applications, this pump is suitable for various transfer and dispense-on-demand systems. Please read this manual thoroughly before installation and operation to ensure safe and efficient use.

2. PRODUCT FEATURES

The SHURflo 2088-594-154 pump incorporates several key features for optimal performance:

- Flow Rate: Approximately 3.3 Gallons Per Minute (GPM)
- Diaphragm Type: Positive Displacement 3 Chamber Diaphragm
- Valve & Diaphragm Material: Santoprene
- Housing Material: Polypropylene
- Pressure Switch: 45 psi Demand Switch
- Port Connections: 1/2" - 14 Male Parallel Thread Ports
- Self-Priming Capability: Up to 9 vertical feet
- Dry Run Capability: Can run dry without sustaining damage
- Backflow Prevention: Designed to prevent fluid backflow
- Electrical: 115 Volts, Corded Electric
- Certifications: UL Recognized Component, NSF and CSA listed

3. TYPICAL APPLICATIONS

This versatile pump is ideal for a range of applications, including but not limited to:

- Water delivery systems
- RV potable water systems
- General fluid transfer
- Dispense-on-demand systems

4. SETUP AND INSTALLATION

Proper installation is crucial for the pump's performance and longevity. The pump can be mounted in any position.

4.1 Unpacking and Inspection

Carefully remove the pump from its packaging. Inspect for any visible damage that may have occurred during shipping. Report any damage to your supplier immediately.

4.2 Mounting

Mount the pump in a dry, well-ventilated area. Ensure the mounting surface is stable and secure. The pump includes a metal base plate with rubber feet for vibration dampening. Secure the pump using appropriate fasteners through the mounting holes on the base.

4.3 Plumbing Connections

Connect 1/2" - 14 Male Parallel Thread fittings to the pump's inlet and outlet ports. Ensure all connections are tight to prevent leaks. Avoid overtightening. It is recommended to use flexible hoses to minimize vibration and noise transmission.

4.4 Electrical Connections

The pump operates on 115 Volts AC. Connect the pump to a suitable power source according to local electrical codes. The pump is supplied with ground wires. Ensure proper grounding for safety. If you are unsure about electrical connections, consult a qualified electrician.



Figure 1: SHURflo 2088-594-154 Industrial Diaphragm Water Pump. This image shows the pump from an angled perspective, highlighting its black pump head, silver motor housing with a blue and white label, and a metal mounting bracket with black rubber feet. Two blue protective caps are visible on the pump's ports.

5. OPERATING INSTRUCTIONS

Once properly installed, the SHURflo 2088-594-154 pump is designed for straightforward operation.

5.1 Priming the Pump

The pump is self-priming up to 9 vertical feet. To prime, ensure the inlet line is submerged in the fluid source and the outlet line is open to allow air to escape. Turn on the power. The pump will draw fluid and expel air until a steady flow is achieved.

5.2 Automatic Operation

The integrated 45 psi demand switch automatically turns the pump on when system pressure drops (e.g., when a faucet is opened) and off when the pressure rises (e.g., when a faucet is closed). This allows for on-demand operation without manual intervention.

5.3 Dry Running

The pump is designed to run dry without damage. However, continuous dry running is not recommended as it can lead to unnecessary wear and tear. Ensure a consistent fluid supply.

6. MAINTENANCE

The SHURflo 2088-594-154 pump is designed for easy maintenance. Regular checks can extend its lifespan.

- **Periodic Inspection:** Regularly check all plumbing and electrical connections for tightness and signs of wear.
- **Cleanliness:** Keep the pump exterior clean and free from debris.

- **Winterization (if applicable):** If the pump is used in an environment where freezing temperatures may occur, ensure it is drained and protected from freezing to prevent damage.
- **Diaphragm and Valve Checks:** While designed for durability, if flow or pressure issues persist, the diaphragm and valves may require inspection or replacement. Consult a qualified technician or SHURFLO service center.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

Problem	Possible Cause	Solution
Pump does not turn on	No power; Blown fuse/circuit breaker; Loose wiring; Faulty pressure switch	Check power supply; Reset breaker/replace fuse; Inspect and secure wiring; Test/replace pressure switch
Low flow or pressure	Clogged inlet filter; Air leak in inlet line; Restricted outlet; Worn diaphragm/valves; Low voltage	Clean filter; Check inlet connections for leaks; Clear any obstructions; Inspect/replace diaphragm/valves; Verify correct voltage supply
Pump cycles on and off rapidly	Small leak in system; Restricted outlet; Accumulator tank issues (if present)	Check for leaks in plumbing; Ensure outlet is not restricted; Inspect accumulator tank for proper charge/function
Excessive noise/vibration	Loose mounting; Air in system; Pump cavitating; Worn motor bearings	Tighten mounting screws; Bleed air from system; Ensure adequate fluid supply; Contact service for motor issues

8. SPECIFICATIONS

Specification	Detail
Brand	SHURFLO
Model Number	2088-594-154
Power Source	Corded Electric
Voltage	115 Volts
Maximum Flow Rate	3.3 Gallons Per Minute (GPM)
Pressure Switch Setting	45 psi
Port Size	1/2" - 14 Male Parallel Thread
Maximum Lifting Height (Self-Priming)	9 Feet
Item Weight	5.54 pounds
Package Dimensions	12.13 x 6.73 x 6.26 inches
Diaphragm Material	Santoprene
Housing Material	Polypropylene

9. WARRANTY AND SUPPORT

SHURFLO products are manufactured to high-quality standards. This pump typically carries a limited warranty, often one year from the date of purchase or two years from the date of manufacture, whichever comes first. Please refer to the warranty card included with your product or visit the official SHURFLO website for specific warranty terms and conditions.

For technical support, parts, or warranty claims, please contact SHURFLO customer service:

Phone: (800) 762-8094

Manufacturer: Shurflo, Elkhart, IN