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› SEAFLO 42 Series Diaphragm Pump Instruction Manual

SEAFLO SFDP1-030-055-42

SEAFLO 42 Series Diaphragm Pump Instruction Manual

Model: SFDP1-030-055-42

Brand: SEAFLO

1. INTRODUCTION

1.1 Product Overview

The SEAFLO 42 Series 12V 3.0 GPM 55PSI Continuous Duty Diaphragm Pump is engineered for reliable and efficient water transfer in various applications, including marine, RV, off-grid, and agricultural systems. Featuring an internal bypass for reduced cycling and a durable design, this pump ensures consistent and quiet operation.



Figure 1: SEAFL0 42 Series 12V Diaphragm Pump with included filter and fittings.

1.2 Key Features

- **High-Performance Continuous-Duty Operation:** Built for continuous use, delivering reliable performance over extended periods.
- **Self-Priming with Run-Dry Protection:** Can self-prime up to 6 feet (1.8 m) and safely operate dry without damage.
- **Internal Bypass Technology:** Reduces cycling and ensures consistent water flow for quieter and more efficient operation.
- **UL & CSA Certified:** Meets stringent safety and reliability standards for both freshwater and saltwater environments.
- **Durable and Quiet Design:** Constructed with high-quality EPDM valves and a Santoprene diaphragm, with a rubber mounting base to reduce noise and vibration.
- **Easy Installation:** Features an industry-standard mounting pattern and quick-connect fittings.
- **Versatile Applications:** Ideal for marine, RV, caravan, off-grid, and agricultural environments.
- **4-Year Warranty:** Backed by SEAFL0's 4-Year Limited Warranty for long-term reliability.



Figure 2: Diverse applications of the SEAFLO 42 Series pump.

2. SPECIFICATIONS

2.1 Technical Data

Specification	Value
Model Number	SFDP1-030-055-42
Voltage	12V DC
Open Flow	3.0 GPM (11.3 LPM)
Shut-off Pressure	55 PSI (3.8 BAR)

Priming Capability	Self-priming up to 6 feet (1.8 m) suction lift
Max Draw	7.0 A
Material (Valves / Diaphragm)	EPDM / Santoprene
Ports	1/2"-14 MNPT
Product Dimensions (L x W x H)	7.97" x 4.92" x 4.37"
Item Weight	4.81 Pounds
Included Components	51S01 Filter, 51F01 Fitting

DURABLE & CORROSION-RESISTANT MATERIALS

**HOUSINGS MATERIAL:
NYLON / POLYPROPYLENE**



**DIAPHRAGM MATERIAL:
SANTOPRENE**



**BUILT-IN
THERMAL PROTECTION,**



**VALVES/SEALS MATERIAL:
EPDM / VITON**



**WIRE CONNECTIONS:
2-PIN / LEADS**



**SCREWS:
STAINLESS-STEEL**





Figure 3: Durable and corrosion-resistant materials used in the pump.

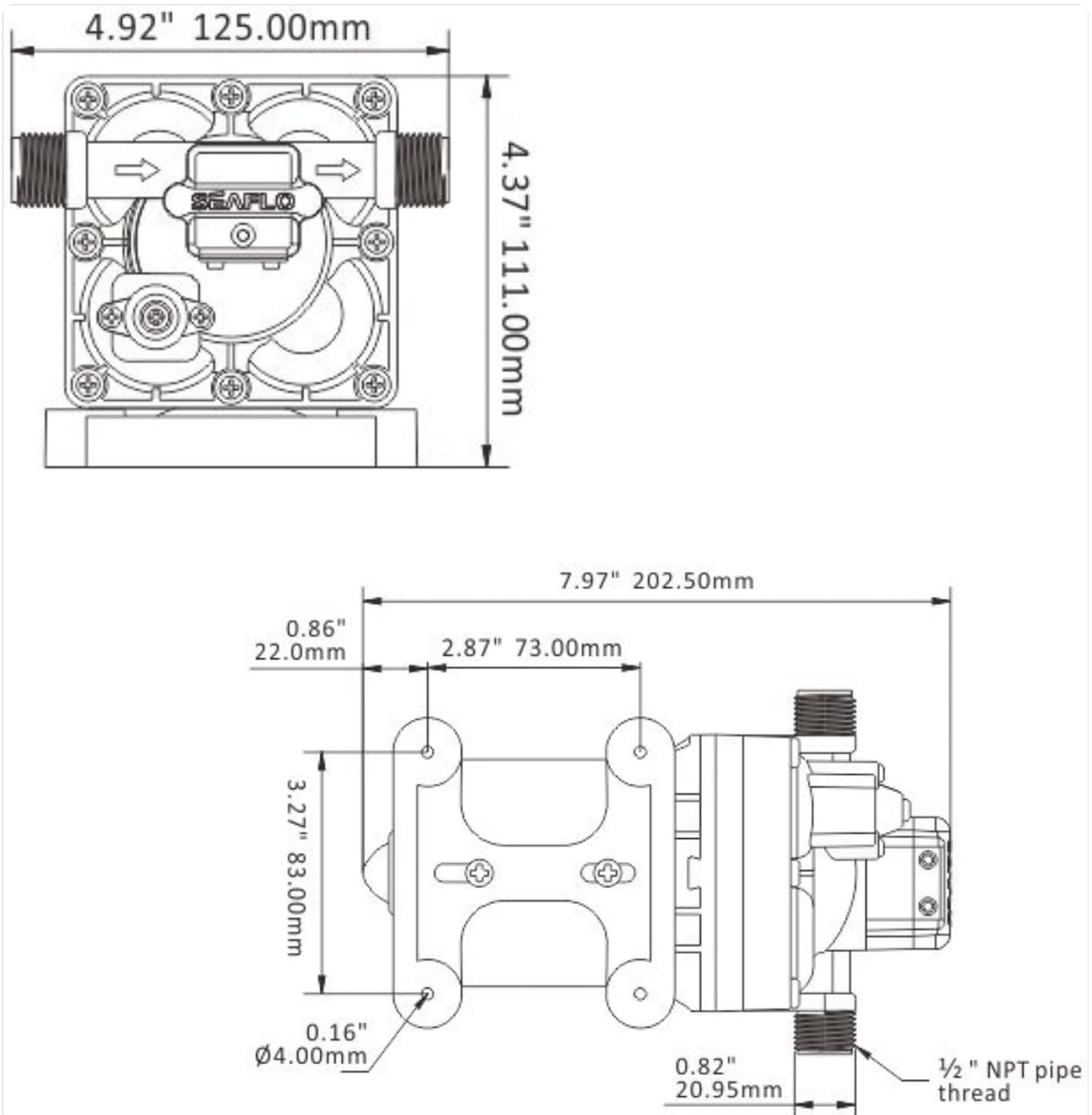


Figure 4: Detailed dimensional drawing of the pump.

3. SETUP AND INSTALLATION

3.1 Pre-Installation Checklist

- Ensure the pump is installed in a dry, well-ventilated area.
- Verify that the power supply matches the pump's voltage (12V DC).
- Use appropriate wiring gauge and fuse protection.
- Confirm all plumbing connections are secure and leak-free.

3.2 Mounting the Pump

Mount the pump in a location that allows for easy access for maintenance and inspection. The pump features a rubber mounting base to minimize vibration and noise. Ensure the mounting surface is stable.



Figure 5: Rubber mounting bracket base for noise and vibration reduction.

3.3 Plumbing Connections

Connect the inlet and outlet hoses to the pump's 1/2"-14 MNPT ports. Use the included 51F01 fittings for quick and secure connections. Install the 51S01 inline strainer filter on the inlet side to protect the pump from debris.



SEAFLLO[®]

42 Series

Included Accessories

1 x



51S01
1/2" x 1/2"

Inline Strainer Filter

2 x



51F001

**1/2"-14 FNPT x 1/2" Barb
Straight Pump Fitting**

Figure 6: Included accessories for plumbing connections.

3.4 Electrical Connections

Connect the pump to a 12V DC power source. Ensure proper polarity (red wire to positive, black wire to negative). It is recommended to install an appropriate fuse (e.g., 10A) in the positive line to protect the pump and electrical system.

Video 1: An overview of the SEAFLLO 42 Series pump installed in an RV, emphasizing its quiet operation and ease of upgrade from previous models.

4. OPERATING INSTRUCTIONS

4.1 Initial Startup

Before initial startup, ensure all connections are secure and the water source is available. Open a faucet in the

system to allow air to escape. Turn on the pump's power. The pump will self-prime and begin transferring water. Once water flows steadily from the faucet, close the faucet. The pump should build pressure and shut off automatically.

4.2 Flow and Pressure

The SEAFLO 42 Series pump provides a consistent flow of 3.0 GPM and a shut-off pressure of 55 PSI. The internal bypass technology ensures smooth operation even at low flow rates, minimizing rapid cycling and providing a steady water stream.

Video 2: This video demonstrates the consistent performance of the SEAFLO 42 Series pump compared to competitors, highlighting its steady flow without cycling.

5. MAINTENANCE

5.1 Regular Checks

- Periodically inspect all plumbing connections for leaks.
- Check the inline strainer filter for debris and clean as necessary.
- Ensure the pump's mounting is secure and the rubber base is intact.

5.2 Adjusting Pressure Switch and Bypass Valve

The pressure switch and bypass valve are factory-set for optimal performance. However, minor adjustments may be needed to fine-tune the pump's operation based on your specific system. Refer to the video below for detailed instructions.

Video 3: Detailed instructions on how to adjust the pressure switch and bypass valve on the SEAFLO 42 Series pump to optimize performance and eliminate cycling.

5.3 Winterization

In freezing conditions, the pump must be drained to prevent damage. Disconnect the inlet and outlet lines and allow all water to drain from the pump head. Store the pump in a dry, frost-free environment if possible.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Pump does not turn on	No power; Blown fuse; Loose wiring	Check power supply; Replace fuse; Secure connections
Pump runs but no water flows	No water in tank; Air leak on inlet side; Clogged strainer	Fill tank; Check inlet connections; Clean strainer

Pump cycles rapidly	Air in system; Leak in system; Bypass valve needs adjustment	Purge air by opening faucets; Check for leaks; Adjust bypass valve (refer to Section 5.2)
Low flow or pressure	Clogged strainer; Kinked hose; Low voltage	Clean strainer; Straighten hose; Check power supply
Pump does not shut off	Open faucet; Leak in system; Pressure switch malfunction	Close all faucets; Check for leaks; Inspect/replace pressure switch

7. WARRANTY AND SUPPORT

7.1 Warranty Information

The SEAFLO 42 Series Diaphragm Pump is backed by a 4-Year Limited Warranty. This warranty covers defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims.

7.2 Customer Support

For technical assistance, warranty claims, or product inquiries, please contact SEAFLO customer support. Visit the official SEAFLO website for the most up-to-date contact information and support resources.

Thank you for choosing SEAFLO. We are committed to providing high-quality products and excellent customer service.