SEAFLO SFDP2-030-045-33

SEAFLO 33 Series DC Diaphragm Pump

Model: SFDP2-030-045-33

Brand: SEAFLO

Introduction

The SEAFLO 33 Series DC Diaphragm Pump is a high-performance, self-priming pump designed for various water transfer applications, including marine, RV, and general water systems. This pump features a robust 3-chamber design, an automatic pressure switch for on-demand water supply, and is built with durable, corrosion-resistant materials to ensure long-lasting and reliable operation.



The SEAFLO 33 Series DC Diaphragm Pump, shown with its included inline filter and barb fittings.

Key Features

- **High-Performance 3-Chamber Design:** Delivers smooth and consistent water flow up to 3.0 GPM, ideal for moderate-pressure water systems.
- **Versatile Capacity:** Capable of supplying water to up to 4 fixtures simultaneously.
- **Self-Priming and Run Dry Safe:** Self-primes up to 6 feet (1.8 meters) and can run dry without damage, offering flexible installation.
- **Automatic Pressure Switch:** Automatically starts and stops the pump when a tap or fixture is opened or closed, providing on-demand water.
- **Quiet Operation:** Equipped with a rubber mounting base to minimize noise and vibrations.
- **Durable Construction:** Built with EPDM valves, a Santoprene diaphragm, and thermal overload protection for enhanced durability and safety.
- **Quality Materials:** Meets RoHS, SGS, and ISO standards, ensuring environmental safety and durability.



This image illustrates the pump's high-performance 3-chamber design, capable of delivering 3.0 GPM flow and self-priming up to 6 feet. It can effectively supply water to up to four fixtures simultaneously.

Included Components

The SEAFLO 33 Series DC Diaphragm Pump package includes the following items:

- 1x SEAFLO 33 Series DC Diaphragm Pump
- 1x 51S01 Filter (1/2" x 1/2" Inline Strainer Filter)
- 2x 51F001 1/2"-14 FNPT x 1/2" Barb Straight Pump Fittings
- Installation Instructions (refer to this manual)
- Warranty Information

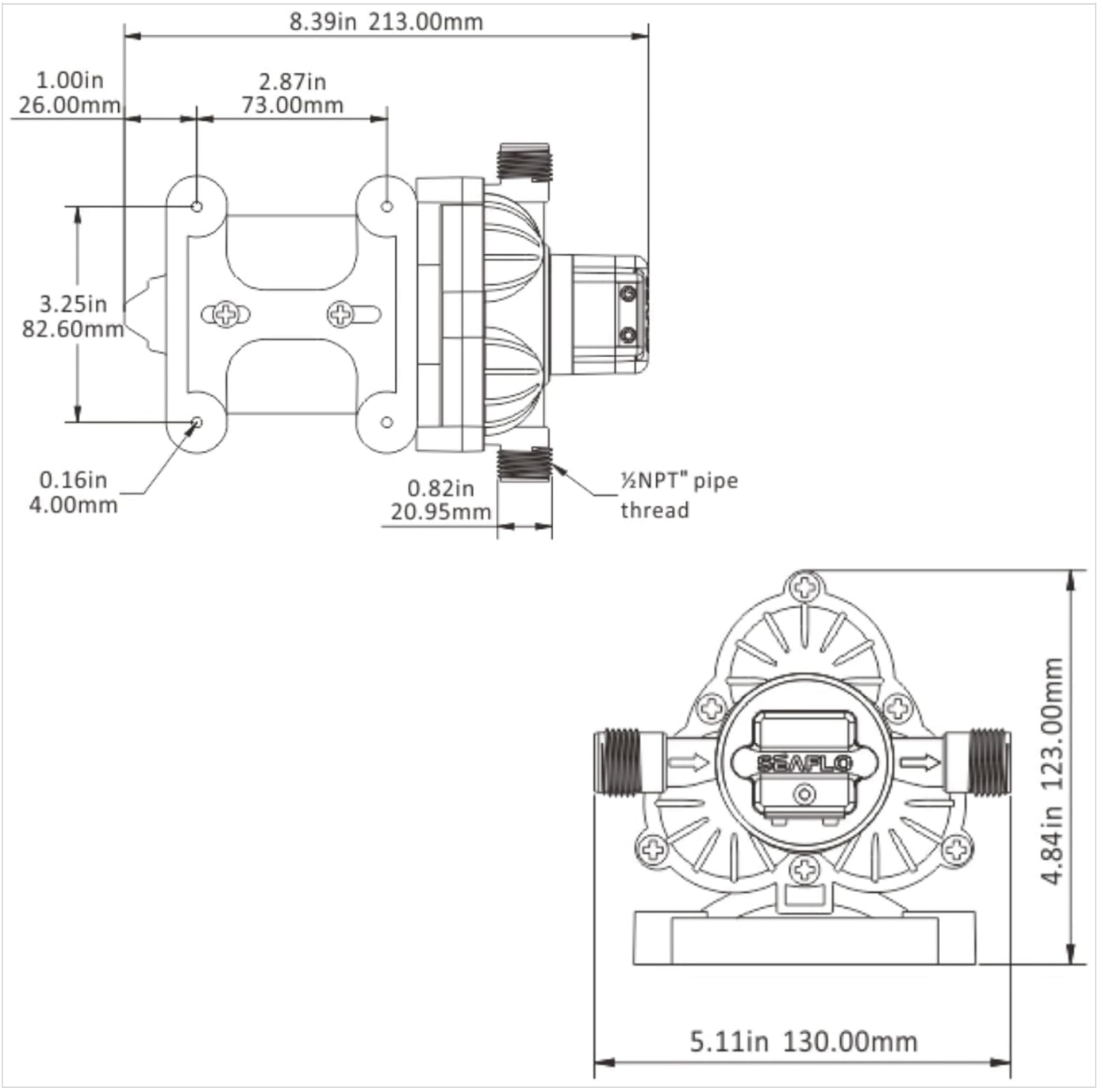


The pump comes with essential accessories for immediate use, including a 51S01 inline strainer filter to protect the pump from debris and two 51F001 barb straight pump fittings for easy connection to your water system.

Specifications

Specification	Value
Model Number	SFDP2-030-045-33
Voltage	24V DC
Open Flow	3.0 GPM (11.3 LPM)
Shut-Off Pressure	45 PSI (3.1 BAR)
Priming Capabilities	6 feet (1.8 meters) suction lift

Specification	Value
Max Recommended Temperature	140°F (60°C)
Material (Valves)	EPDM
Material (Diaphragm)	Santoprene
Ports	1/2"-14 MNPT
Item Weight	4.53 pounds
Package Dimensions	10.59 x 5.79 x 5.08 inches



A precise technical diagram providing all necessary dimensions of the pump, crucial for accurate installation and space planning.

Setup and Installation

Proper installation is crucial for the optimal performance and longevity of your SEAFLO 33 Series pump. Please follow these general guidelines. For detailed diagrams and specific instructions, refer to the included installation guide.

Mounting

The pump should be mounted in a dry, well-ventilated area, protected from direct sunlight and freezing temperatures. Utilize the integrated rubber mounting bracket base to minimize noise and vibration. Ensure the pump is securely fastened to a stable surface.



The pump features a rubber mounting bracket base that significantly reduces noise and vibrations during operation, ensuring a quiet environment. The image also provides key dimensions for installation planning.

Plumbing Connections

Connect the pump to your water system using the provided 1/2"-14 FNPT x 1/2" Barb Straight Pump Fittings. Ensure all connections are tight to prevent leaks. The pump has 1/2"-14 MNPT ports. Install the 51S01 inline strainer filter on the inlet side of the pump to protect it from debris and extend its lifespan.



Details of the pump's robust copper core motor for durability, the standard 1/2 inch NPT pipe thread for connections, and the adjustable pressure switch for automatic operation.

Electrical Connections

Connect the pump to a 24V DC power source. Ensure proper polarity (red wire to positive, black wire to negative). It is recommended to install an appropriate fuse or circuit breaker in the power line to protect the pump and electrical system.

Operating Instructions

The SEAFLO 33 Series pump is designed for automatic operation thanks to its built-in pressure switch.

- **Initial Start-up:** After installation, open a faucet in your system to allow air to escape. Turn on the power to the pump. The pump will begin to prime and push water through the system. Once water flows steadily and air is purged, close the faucet. The pump will build pressure and shut off automatically.
- **Normal Operation:** When a faucet or fixture is opened, the system pressure will drop, and the pump will automatically turn on to supply water. When the faucet is closed, the pressure will rise, and the pump will shut off.

- **Adjustable Pressure Switch:** The pressure switch is factory-set, but can be adjusted if needed. Consult the detailed installation instructions for guidance on adjusting the pressure range (typically 17-60 PSI).
- **Run Dry Capability:** The pump is designed to run dry without damage, which is beneficial if the water source runs out. However, continuous dry running is not recommended.

Maintenance

Regular maintenance helps ensure the longevity and efficiency of your pump.

- **Strainer Filter Cleaning:** Periodically inspect and clean the inline strainer filter (51S01) to prevent debris from entering the pump and affecting its performance. The frequency depends on water quality.
- **Winterization:** In climates where freezing temperatures occur, drain the pump and plumbing system completely to prevent damage from ice expansion.
- **General Inspection:** Regularly check all connections for leaks, and inspect the wiring for any signs of wear or damage.



An overview of the high-quality materials used in the pump's construction, ensuring durability and resistance to corrosion. This includes nylon/polypropylene for housings, Santoprene for the diaphragm, EPDM/Viton for valves/seals, and stainless steel screws.

Troubleshooting

This section provides solutions to common issues you might encounter. For more complex problems, please contact SEAFLO customer support.

Problem	Possible Cause	Solution
Pump does not turn on	No power, loose wiring, blown fuse/breaker, faulty pressure switch	Check power supply, inspect wiring connections, replace fuse/reset breaker, test/replace pressure switch.
Pump runs but no water flows	Air in system, clogged inlet filter, dry run, kinked hose, low water source	Purge air by opening faucets, clean inlet filter, ensure water source, check hoses for kinks.
Pump cycles on/off rapidly	Leak in system, restricted flow, faulty pressure switch, accumulator tank issue (if installed)	Check for leaks, ensure open flow, test/adjust pressure switch, inspect accumulator tank.
Low flow or pressure	Clogged filter, restricted inlet/outlet, worn diaphragm/valves, low voltage	Clean filter, check for obstructions, inspect internal components, verify voltage.

Warranty and Support

The SEAFLO 33 Series DC Diaphragm Pump is backed by a **4-Year Limited Warranty**, guaranteeing long-lasting, reliable performance and providing peace of mind for your water system needs.
For warranty claims, technical support, or any inquiries not covered in this manual, please contact SEAFLO customer service. You can find more information and contact details on the official SEAFLO website or through your point of purchase.
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