

SEAFLO SFDP1-030-045-33

SEAFLO 33 Series DC Diaphragm Pump Instruction Manual

Model: SFDP1-030-045-33

Brand: SEAFLO

1. PRODUCT OVERVIEW

The SEAFLO 33 Series DC Diaphragm Pump is engineered for reliable on-demand water delivery in various applications, including marine, RV, and general water systems. This self-priming pump features a built-in pressure switch for automatic operation, ensuring a consistent and convenient water supply.

Key Features:

- **Reliable On-Demand Performance:** Provides consistent water flow up to 3.0 GPM with a shut-off pressure of 45 PSI.
- **Self-Priming Capability:** Can self-prime up to 6 vertical feet (1.8 meters), allowing flexible installation.
- **Automatic Pressure Switch:** Starts and stops automatically when the tap or fixture is opened or closed.
- **Smooth and Quiet Operation:** Engineered with a rubber mounting base to minimize noise and vibrations.
- **Durable Design:** Constructed with EPDM valves and a Santoprene diaphragm for long-lasting performance.
- **Versatile Applications:** Ideal for marine, RV, potable freshwater systems, shower sub-pumps, irrigation, and other liquid transfer needs.



Figure 1: SEAFLO 33 Series DC Diaphragm Pump with included strainer and barb fittings.

2. SETUP AND INSTALLATION

2.1 Unpacking

Carefully remove all components from the packaging. Verify that all parts listed in the 'Included Accessories' section (Figure 2) are present and undamaged. If any items are missing or damaged, contact your retailer.

SEAFLO®

33 Series



Marine



Potable Freshwater Systems



Shower Sub-Pump



Irrigation



RV/ Motorhome



Salt/Freshwater Washdown



Off Grid/ Rain Collection



Other Liquid Transfer Applications

Figure 2: Included accessories: 1x 1/2" x 1/2" Inline Strainer Filter and 2x 1/2"-14 FNPT x 1/2" Barb Straight Pump Fittings.

2.2 Mounting

Mount the pump in a dry, well-ventilated area, protected from direct sunlight and freezing temperatures. The rubber mounting base (Figure 3) is designed to minimize vibration and noise, allowing for flexible installation on various surfaces. Ensure the pump is securely fastened using appropriate hardware.



Figure 3: The pump features a rubber mounting bracket base for quiet operation.

2.3 Plumbing Connections

Connect the pump to your water system using the provided 1/2"-14 MNPT ports. The pump is self-priming, but for optimal performance, ensure the inlet hose is as short and straight as possible. Install the inline strainer filter on the inlet side to prevent debris from entering the pump. Use appropriate hose clamps to secure all connections and prevent leaks.

**SEAFLLO®**

33 Series DC Diaphragm Pump – 12V, 3.0 GPM, 45 PSI

SEAFLLO®

MEMBER OF
NMMA™
National Marine
Manufacturers Association

MEMBER
ABYC®
Setting Standards for Safer Boating

Figure 4: Example installation of the SEAFLLO 33 Series pump in a water system, showing hose connections and the inline strainer.

2.4 Electrical Connections

The pump operates on 12V DC. Connect the red wire to the positive (+) terminal of your 12V power source and the black wire to the negative (-) terminal. It is recommended to install an appropriate fuse (e.g., 8.0 A max) in the positive line to protect the pump and electrical system. Ensure all electrical connections are secure and insulated.

SEAFLO®



New Copper Core Motor

Unrivalled durability and efficiency with excellent conductivity



1/2" NPT Pipe Thread



Adjustable Pressure Switch:

- Enjoy automatic start and stop functionality.
- When the tap/faucet is closed, the pump stops running, providing an experience similar to home water usage.
- Adjust the pressure value by turning the screw, pressure range is 17-60PSI.

Figure 5: Detail of the pump's electrical connections and adjustable pressure switch.

3. OPERATING INSTRUCTIONS

3.1 Initial Priming

Before first use, ensure the water tank is filled. Open all faucets in your system to allow air to escape. Turn on the pump. The pump will begin to draw water and self-prime. Once a steady stream of water flows from all faucets, close them. The pump will build pressure and shut off automatically.

3.2 Automatic Operation

The SEAFLO 33 Series pump is equipped with a built-in pressure switch. When a faucet or fixture is opened, the pressure in the system drops, and the pump automatically turns on to supply water. When the faucet is closed, the pressure builds up, and the pump automatically turns off. This provides an on-demand water supply similar to a home water system.

Video 1: Demonstration of the SEAFLO 33 Series 3.0 GPM Water Pressure Pump in operation, showcasing its automatic pressure switch functionality and consistent flow.

4. MAINTENANCE

4.1 Strainer Cleaning

Regularly inspect and clean the inline strainer filter (Figure 2) to prevent debris from entering the pump and affecting its performance. To clean, turn off the pump, relieve system pressure, unscrew the clear housing, remove and rinse the mesh filter, then reassemble.

4.2 Winterization (for RV/Marine applications)

If the pump will be exposed to freezing temperatures, it must be winterized to prevent damage. Drain all water from the pump and plumbing system. You may use RV antifreeze or blow out the lines with compressed air (ensure pressure is regulated and safe for your system components).

4.3 General Care

Periodically check all plumbing and electrical connections for tightness and signs of wear. Ensure the pump is free from excessive dirt or debris. The pump's internal components are designed for durability (Figure 6), but proper care extends its lifespan.

DURABLE & CORROSION-RESISTANT MATERIALS

**HOUSINGS MATERIAL:
NYLON / POLYPROPYLENE**

**DIAPHRAGM MATERIAL:
SANTOPRENE**

**BUILT-IN
THERMAL PROTECTION,**

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

**WIRE CONNECTIONS:
12V 16 AWG 4.5" Long**

**SCREWS:
STAINLESS-STEEL**



Figure 6: Internal components of the SEAFLO 33 Series pump, highlighting durable materials like Santoprene diaphragm and EPDM valves.

5. TROUBLESHOOTING

Problem	Possible Cause	Solution
Pump does not run	No power; Blown fuse; Loose wiring; Faulty switch	Check power supply; Replace fuse; Tighten connections; Test/replace switch
Pump runs but no water flow	No water in tank; Air in system; Clogged strainer; Inlet hose kinked/blocked	Fill tank; Prime pump (open faucets); Clean strainer; Check/clear inlet hose
Low flow or pressure	Clogged strainer; Partially closed valve; Low voltage; Worn pump head	Clean strainer; Open all valves; Check power supply; Inspect pump head for wear

Problem	Possible Cause	Solution
Pump cycles on and off rapidly	Leak in system; Pressure switch setting too low; Accumulator tank needed	Check for leaks; Adjust pressure switch (if applicable); Install accumulator tank
Excessive noise/vibration	Loose mounting; Air in system; Debris in pump	Tighten mounting screws; Bleed air from system; Inspect for debris

6. SPECIFICATIONS

Specification	Value
Model Number	SFDP1-030-045-33
Voltage	12V 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
Max Recommended Temperature	140°F (60°C)
Material (Valves / Diaphragm)	EPDM / Santoprene
Ports	1/2"-14 MNPT
Item Weight	4.2 Pounds
Power Source	Battery Powered
Manufacturer	SEAFLO

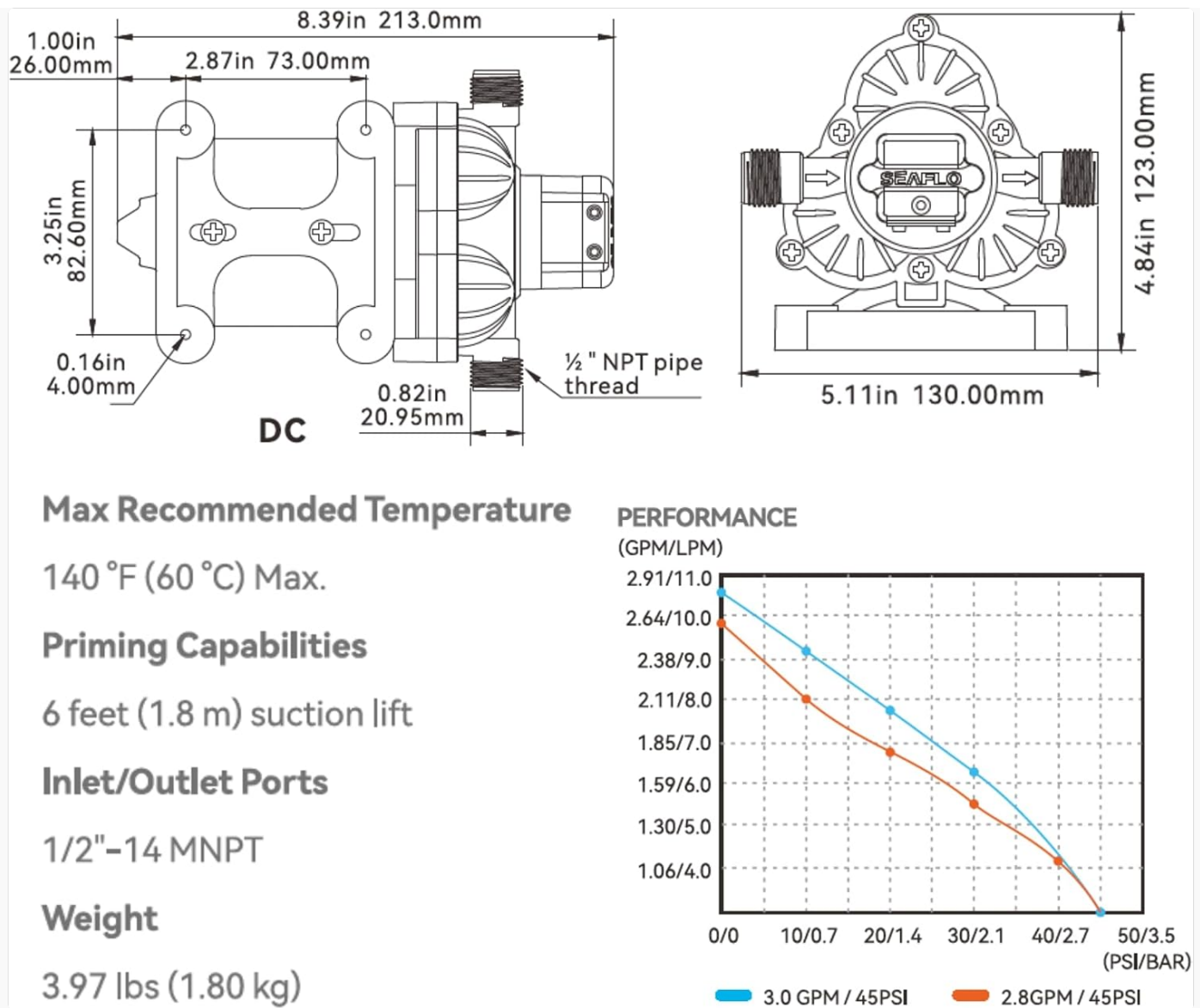


Figure 7: Detailed dimensions and performance curve of the SEAFLO 33 Series pump.

7. WARRANTY AND SUPPORT

7.1 Warranty Information

The SEAFLO 33 Series DC 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 replacement parts, please contact SEAFLO customer support through their official website or your authorized dealer. Provide your product model number and purchase details for efficient service.

© 2025 SEAFLO. All rights reserved.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question