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> SEAFLO 33W Series 12V DC Brushless Automatic Demand Diaphragm Water Pressure Pump Instruction Manual

SEAFLO SFDP1-030-045-33W

SEAFLO 33W Series 12V DC Brushless Automatic Demand Diaphragm Water Pressure Pump Instruction Manual

Model: SFDP1-030-045-33W

INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your SEAFLO 33W Series 12V DC Brushless Automatic Demand Diaphragm Water Pressure Pump. This pump is designed for reliable water transfer in various applications, including medical, sanitation, RV, marine, and off-grid systems. Its brushless motor technology ensures quiet operation, extended lifespan, and energy efficiency.



Figure 1: Front view of the SEAFLO 33W Series Water Pressure Pump.

SAFETY INFORMATION

- Read all instructions carefully before installation and operation.
- Ensure the power supply matches the pump's voltage requirements (12V DC).
- Do not pump flammable liquids.
- Protect the pump from freezing temperatures.
- Ensure proper ventilation to prevent overheating.
- Always disconnect power before performing any maintenance or service.
- This pump is certified to NSF/ANSI/CAN 61 & 372 (potable water safety), NSF 24 (RV plumbing), UL 778 (motor-operated pumps), CSA C22.2 No.108 (liquid pumps), and IAPMO TS-14 (RV-specific standard).



NSF, UL, & CSA CERTIFIED FOR YOUR SAFETY!



NSF[®]

**NSF/ANSI/CAN 61 & 372
(POTABLE WATER
SAFETY), NSF 24 (RV
PLUMBING)**



UL[®]

CERTIFIED

**UL 778 (MOTOR-
OPERATED PUMPS)**



**CSA C22.2 NO.108
(LIQUID PUMPS)**

Figure 2: The SEAFLO 33W Series pump is certified for safety and potable water use.

SPECIFICATIONS

Specification	Value
Model Number	SFDP1-030-045-33W
Voltage	12V DC
Flow Rate	3.0 GPM (11.3 LPM)
Shut-Off Pressure	45 PSI (3.1 BAR)
Priming Lift	6 feet (1.8 meters)
Max Liquid Temperature	140°F (60°C)
Materials (Valves)	EPDM
Materials (Diaphragm)	Santoprene
Materials (Pump Body)	Aluminum Alloy

Ports	1/2"-14 MNPT
Item Weight	3.64 lbs (1.65 kg)
Product Dimensions (L x W x H)	5.63" x 5.12" x 10.39"

INCLUDED COMPONENTS

The following components are included with your SEAFLO 33W Series pump:

- (1) Inline 50 Mesh Strainer (Model: 51S01)
- (2) 1/2" Barb Straight Fittings (Model: 51F001)
- (1) User Instruction Manual (this document)
- (1) 4-Year Warranty Card

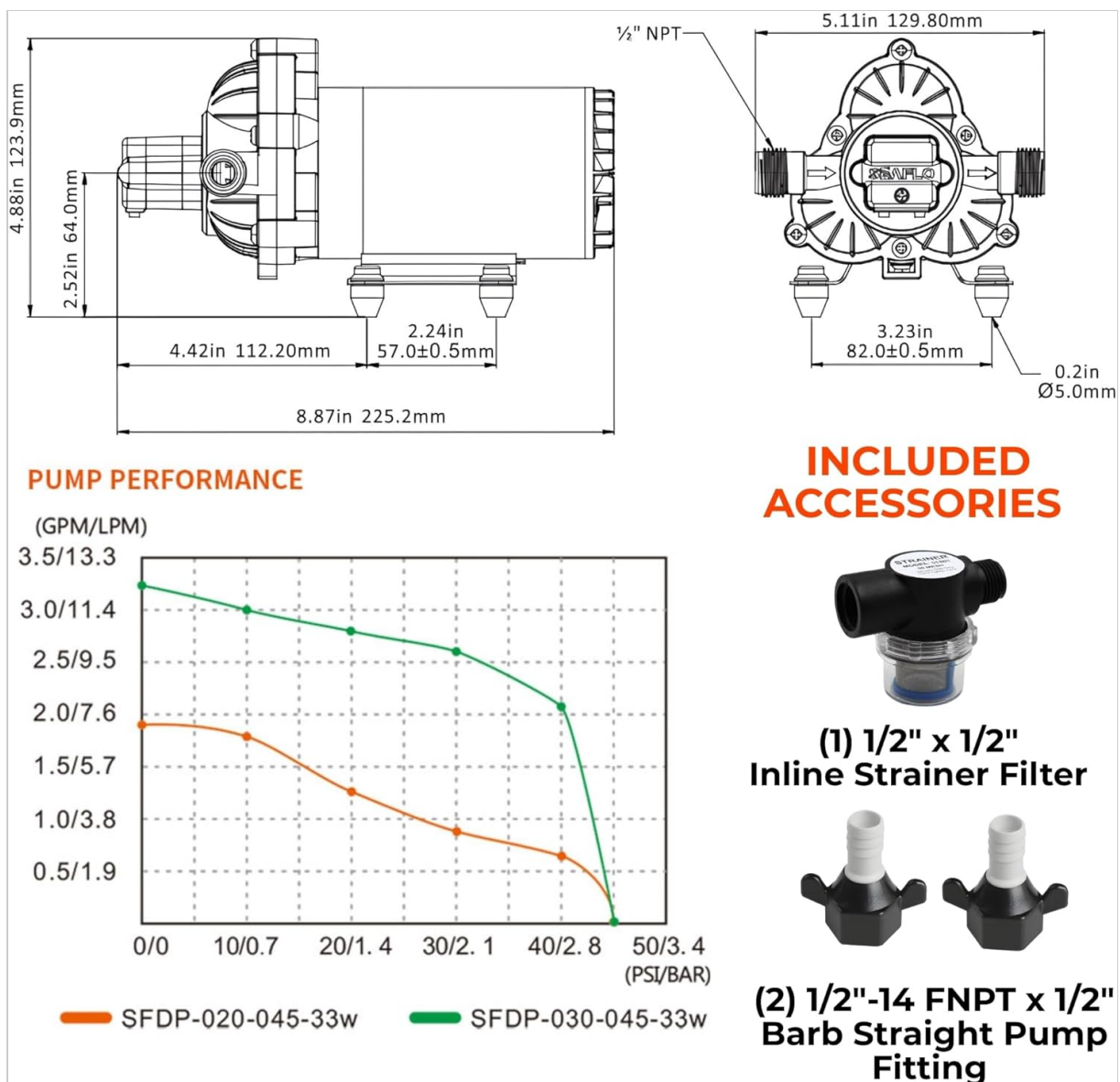


Figure 3: Pump dimensions and included accessories.

SETUP

1. Mounting

Mount the pump in a dry, well-ventilated area, protected from direct sunlight and freezing temperatures. Use the anti-vibration rubber mounts provided to secure the pump to a solid surface. Ensure there is sufficient space around the pump for air circulation and access for maintenance.

2. Plumbing Connections

Connect the inlet side of the pump to your water source and the outlet side to your water system using the 1/2"-14 MNPT ports. It is recommended to install the included 50 mesh inline strainer on the inlet side to prevent debris from entering the pump. Use appropriate thread sealant on all connections to ensure a watertight seal. The pump is self-priming up to 6 feet (1.8 meters).

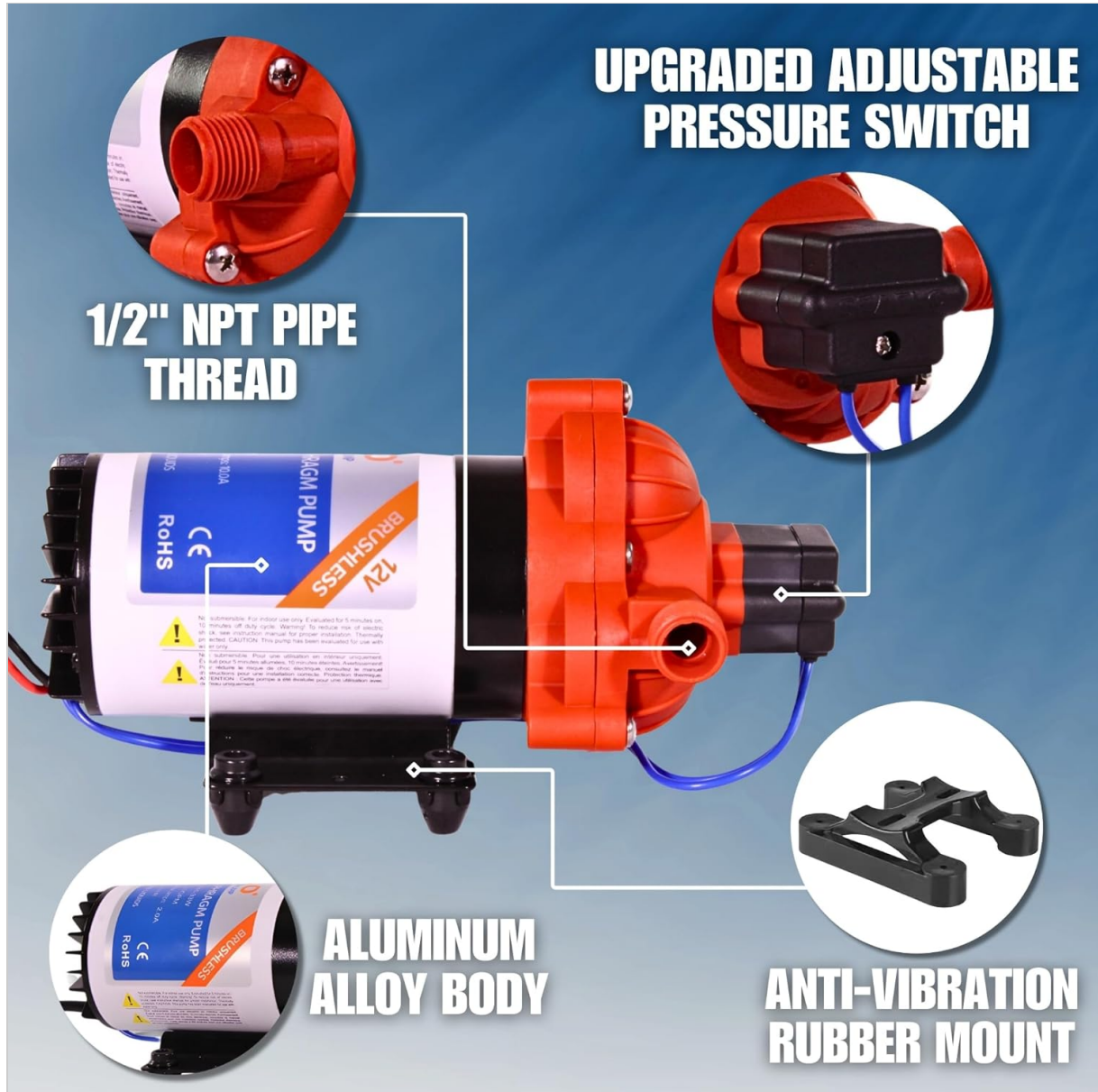


Figure 4: Key components and connection points of the pump.

3. Electrical Connections

Connect the pump to a 12V DC power source. Ensure the wiring is correctly polarized (red wire to positive, black wire to negative). Install an appropriate fuse or circuit breaker in the positive line, close to the power source, to protect the pump and wiring. Refer to the pump label for maximum amperage draw.

DURABLE & CORROSION-RESISTANT MATERIALS

SEAFLO®



Figure 5: Internal components and wiring details.

OPERATING INSTRUCTIONS

The SEAFLO 33W Series pump features an automatic pressure switch. This means the pump will automatically start when a faucet or fixture is opened and the system pressure drops, and it will stop when the faucet is closed and the pressure builds back up. This provides on-demand water flow and conserves energy.

The pump is designed with run-dry capability, meaning it can operate safely without damage even if the water source temporarily runs dry. However, continuous dry running is not recommended and should be avoided.

The advanced brushless motor technology ensures exceptionally quiet operation with minimal vibration, making it suitable for noise-sensitive environments.



Figure 6: The brushless motor ensures ultra-quiet operation.

For a visual demonstration of the pump's operation, please refer to the video below:

Video 1: Demonstration of the SEAFLO 33 Series Brushless Motor Water Pressure Pump in operation, showing its automatic demand feature.

MAINTENANCE

- **Regular Inspection:** Periodically check all connections for leaks and ensure the mounting is secure. Inspect the wiring for any signs of wear or damage.
- **Strainer Cleaning:** The inline strainer should be regularly inspected and cleaned to ensure optimal flow and prevent debris from entering the pump. To clean, unscrew the clear housing, remove the mesh screen, rinse it thoroughly, and reassemble.
- **Winterization:** If the pump is installed in an environment where freezing temperatures may occur, it must be properly winterized. Drain all water from the pump and plumbing system to prevent damage from ice expansion. Running RV antifreeze through the system is also an option.
- **Brushless Motor:** The brushless motor requires minimal maintenance compared to traditional brushed motors, offering a longer service life (over 10,000 hours).

TROUBLESHOOTING

Problem	Possible Cause	Solution
Pump does not turn on	No power, blown fuse/tripped breaker, loose wiring, faulty pressure switch.	Check power supply, replace fuse/reset breaker, tighten connections, test/replace pressure switch.
Low flow or pressure	Clogged strainer, air in system, restricted inlet/outlet, low voltage.	Clean strainer, bleed air from system, check for kinks in hoses, verify voltage.
Pump runs continuously or cycles rapidly	Leak in system, faulty pressure switch, air in system.	Check for leaks in plumbing, test/replace pressure switch, bleed air from system.
Noisy operation	Air in system, loose mounting, debris in pump head.	Bleed air, secure mounting, inspect pump head for foreign objects.

WARRANTY AND SUPPORT

The SEAFLO 33W Series 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 and the included warranty card for any claims.

For technical support, troubleshooting assistance, or warranty claims, please contact SEAFLO customer service through the official SEAFLO website or your point of purchase. Provide your model number (SFDP1-030-045-33W) and a detailed description of the issue to expedite service.