

[Manuals.plus](#) /

› [Little Giant](#) /

› Little Giant S900PT-20 Direct Drive Pump User Manual

Little Giant S900PT-20

Little Giant S900PT-20 Direct Drive Pump User Manual

Model: S900PT-20

1. PRODUCT OVERVIEW

The Little Giant S900PT-20 is a 115 Volt, 795 GPH stainless steel and bronze direct drive pump designed for quiet and reliable operation in both freshwater and saltwater environments. It is suitable for various applications including ponds, water gardens, large fountains, water displays, waterfalls, streams, and aeration. This pump can also be used in hot water applications up to 110°F (43°C).

The pump features an oil-less PSC motor, making it safe for fish and aquatic life. It is equipped with a 1/2-inch MNPT discharge, a 3/4-inch MNPT intake, and a 20-ft. power cord. An inlet filter is included to prevent debris from entering the pump, ensuring trouble-free use.

Key Features:

- **Premium Construction:** Stainless steel and bronze body for longevity and corrosion resistance in fresh or saltwater.
- **Built-in Flow Control:** Allows adjustment of water volume.
- **Inlet Filter:** Protects the pump from debris when submerged. Removable for inline use.
- **Oil-less Motor:** PSC continuous duty motor is safe for fish and aquatic life, and is thermally protected.
- **Versatile Use:** Can be used submerged or inline. Note: The pump is not self-priming and must be located below the water level if used inline.



Figure 1: Little Giant S900PT-20 Direct Drive Pump with included inlet filter.

2. SAFETY INFORMATION

Read all instructions carefully before installation and operation. Failure to follow these instructions may result in serious injury or property damage.

- **Electrical Safety:** Always disconnect power before servicing or installing the pump. Ensure the power supply matches the pump's voltage (115 Volt). Use a properly grounded outlet.
- **Water Temperature:** Do not exceed 110°F (43°C) water temperature.
- **Submersion:** Ensure the pump is fully submerged when operating in submerged mode to prevent overheating.
- **Chemicals:** Avoid pumping flammable, corrosive, or explosive liquids.
- **Cord Protection:** Do not run the power cord under carpets or other coverings. Do not use extension cords.
- **Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

3. SETUP AND INSTALLATION

The S900PT-20 pump can be installed either submerged or inline. Proper installation is crucial for optimal performance

and longevity.

Submerged Installation:

1. Attach the included inlet filter to the pump's intake.
2. Connect the discharge tubing (not included) to the 1/2-inch MNPT discharge port.
3. Place the pump in the desired location, ensuring it is fully submerged in water.
4. Route the power cord safely to a grounded 115V outlet.

Inline Installation:

This pump is not self-priming. For inline applications, the pump must be located below the water level of the source to ensure continuous water flow to the intake.

1. Remove the inlet filter if desired, or keep it attached for additional debris protection.
2. Connect appropriate plumbing to both the 3/4-inch MNPT intake and 1/2-inch MNPT discharge ports. Ensure all connections are watertight.
3. Position the pump below the water level of the water source.
4. Route the power cord safely to a grounded 115V outlet.

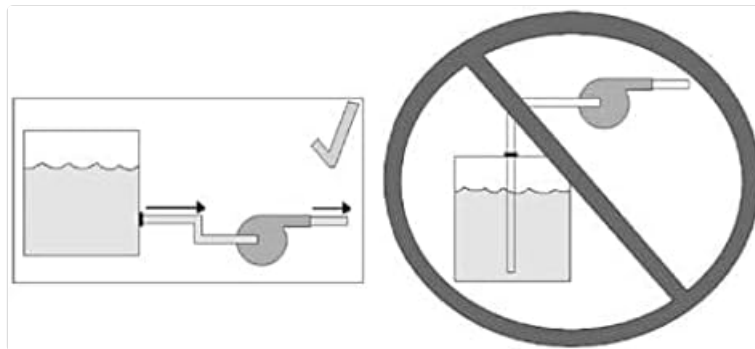


Figure 2: Correct (left) and incorrect (right) pump placement for inline operation. The pump must be below water level for inline use.



Figure 3: The S900PT-20 pump with the removable inlet filter attached, ready for submerged use.

Video: Little Giant S Series Direct Drive Pumps Overview

Your browser does not support the video tag.

This video provides a brief overview of the S Series Direct Drive Pumps, highlighting key components like the stainless steel and bronze body, flow control valve, and inlet filter. (Duration: 0:19)

4. OPERATING INSTRUCTIONS

Once the pump is properly installed and connected to a grounded power source, it is ready for operation.

1. Ensure the pump is correctly positioned for either submerged or inline use as described in the Setup section.
2. Plug the pump into a suitable 115V grounded electrical outlet. The pump will begin operating.
3. **Adjusting Flow:** The S900PT-20 features a built-in flow control valve. Rotate the valve to increase or decrease the water flow rate to suit your application.



Figure 4: The flow control valve allows adjustment of water output.

5. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your Little Giant S900PT-20 pump.

Cleaning the Inlet Filter:

The inlet filter should be inspected and cleaned periodically, especially if the pump's flow rate decreases. Accumulated debris can reduce efficiency and potentially damage the pump.

1. Disconnect the pump from the power source.
2. Remove the pump from the water or disconnect it from the inline plumbing.
3. Detach the inlet filter from the pump's intake.

- 4. Rinse the filter thoroughly under clean water to remove any debris. Use a soft brush if necessary.
- 5. Reattach the clean filter and reinstall the pump.

General Care:

- Periodically check the pump and connections for any signs of wear, damage, or leaks.
- Ensure the pump is not running dry, as this can cause damage to the motor.
- For winterization in cold climates, remove the pump from outdoor water features and store it in a frost-free location.

6. TROUBLESHOOTING

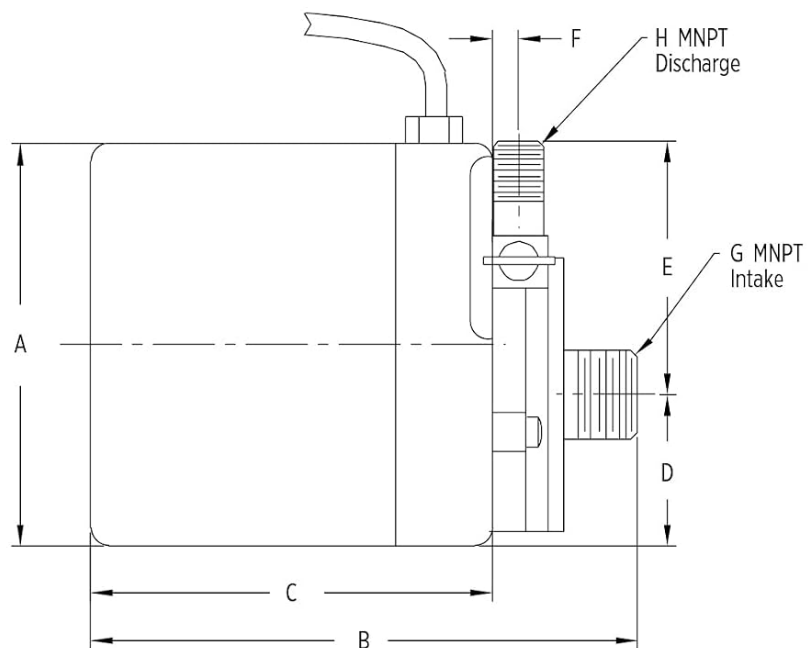
If your pump is not operating correctly, refer to the following common issues and solutions before contacting support.

Problem	Possible Cause	Solution
Pump does not run	No power; clogged impeller; thermal overload activated	Check power connection and circuit breaker; disconnect power, clean impeller area; allow pump to cool down and reset.
Low flow or no water output	Clogged inlet filter; kinked or blocked discharge hose; flow control valve closed; air in inline system (if not submerged)	Clean inlet filter; check and clear hose; open flow control valve; ensure pump is below water level for inline use.
Pump is noisy	Debris in impeller; pump running dry; worn components	Disconnect power and clean impeller; ensure pump is fully submerged or has adequate water supply; if noise persists, contact support.
Pump cycles on and off rapidly	Insufficient water supply; air in system	Ensure adequate water level; check for air leaks in inline setup.

7. SPECIFICATIONS

Detailed technical specifications for the Little Giant S900PT-20 pump.

ENGINEERING DATA



Model No.	A	B	C	D	E	F	G MNPT	H MNPT
S320PT-20	3.85"	5.4"	3.85"	2.10"	2.22"	0.40"	1/2"	1/4"
S580PT-20	4.45"	6.5"	4.75"	2.37"	2.75"	0.45"	3/4"	1/2"
S900PT-20	4.45"	6.5"	4.75"	2.37"	2.75"	0.45"	3/4"	1/2"
S1200PT-20	4.45"	6.5"	4.75"	2.37"	2.75"	0.45"	3/4"	1/2"

Figure 5: Engineering data and dimensions for S-series pumps, including the S900PT-20.

Feature	Detail
Model Number	517100003
Voltage	115 Volts
Running Amps	0.75 Amps
Watts	85 Watts
Maximum Flow Rate	795 GPH (13.25 Gallons Per Minute) at 1-ft. lift
Maximum Lifting Height (Shut-off)	15.6 Feet
Discharge Size	1/2-inch MNPT
Intake Size	3/4-inch MNPT
Cord Length	20-ft.
Material	Bronze, Stainless Steel
Product Dimensions (L x W x H)	6.5"L x 4.45"W x 4.45"H
Item Weight	8.2 Pounds
Power Source	Corded Electric
Included Components	Inlet filter, installation manual, pump with 20-ft. cord

8. WARRANTY INFORMATION

The Little Giant S900PT-20 pump comes with a **2-year manufacturer warranty**. This warranty covers defects in materials and workmanship under normal use.

Warranty Claims:

- For items purchased within 30 days, please refer to the retailer's return policy.
- After 30 days, if Amazon.com is the seller, your product is covered by the terms outlined in this manual. Please retain your proof of purchase.
- If a company other than Amazon.com is indicated as the seller, please contact that seller directly for warranty information.

9. SUPPORT

For further assistance with troubleshooting, installation, or any other product-related inquiries, please refer to the following resources:

- **Manufacturer Website:** Visit the official Little Giant website for additional product information and resources.
- **Customer Service:** Contact Little Giant customer service for direct support. Refer to the contact information provided in your original packaging or on the manufacturer's website.
- **Retailer Support:** If purchased from Amazon.com, their customer service may also assist with product inquiries and returns within their policy period.

© 2023 Little Giant. 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

Open the live page

<https://manuals.plus/asin/B0B75G6Q48>

More documents and user manuals: <https://manuals.plus/>