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› YAMATIC 7/8" Shaft Vertical Pressure Washer Pump 2500 PSI @ 2.2 GPM Replacement Pump for Power Washer, Compatible with Honda GCV160, Troybilt, Craftsman, Ryobi, Rear Facing Inlet/Outlet 2500PSI

YAMATIC 2500PSI

YAMATIC Vertical Pressure Washer Pump User Manual

Model: 2500PSI

1. INTRODUCTION

This user manual provides comprehensive instructions for the installation, operation, and maintenance of your YAMATIC 7/8" Shaft Vertical Pressure Washer Pump. Designed as a replacement pump, it is compatible with various power washer engines, including Honda GCV160, Troybilt, Craftsman, and Ryobi models. Please read this manual thoroughly before installation and operation to ensure safe and efficient use.

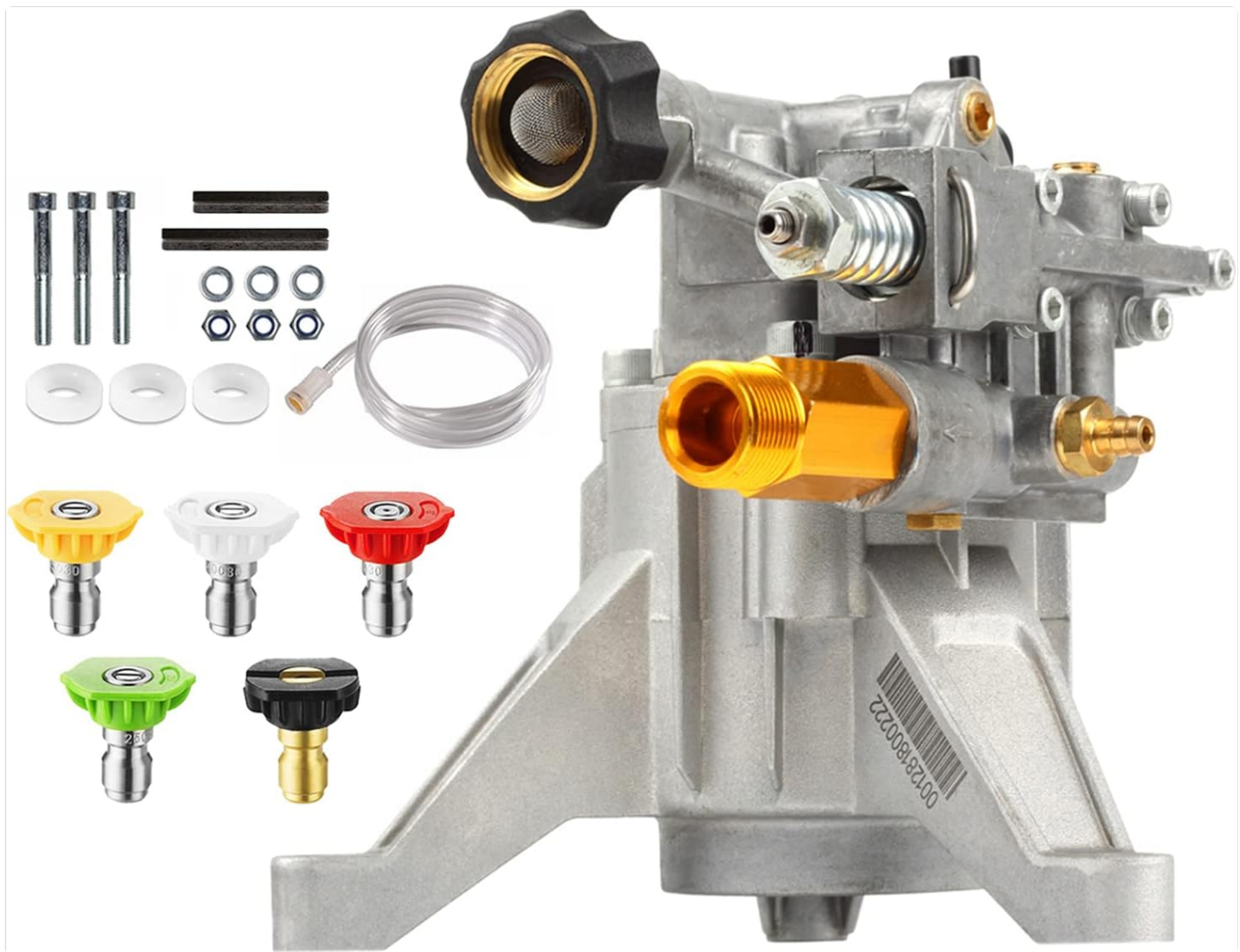


Image: YAMATIC Vertical Pressure Washer Pump with various accessories including bolts, nuts, washers, siphon tube, and spray nozzle tips.

2. SAFETY INFORMATION

Always observe basic safety precautions when installing, operating, or maintaining the pressure washer pump. Failure to follow these instructions could result in serious injury or property damage.

- **Read the Engine Manual:** Before installing this pump, thoroughly read and understand the instruction manual for your specific pressure washer engine.
- **Disconnect Power:** Ensure the engine is turned off and cooled down, and the spark plug wire is disconnected before performing any installation or maintenance.
- **Wear Protective Gear:** Always wear appropriate personal protective equipment, including safety glasses and gloves, during installation and operation.
- **Ventilation:** Operate the pressure washer in a well-ventilated area to prevent carbon monoxide poisoning.
- **Secure Connections:** Ensure all water and pressure hose connections are tight and secure to prevent leaks and accidental disconnections under pressure.
- **Thermal Relief Valve:** The pump is equipped with a thermal relief valve (TRV) to protect it from overheating. Do not tamper with this valve.

3. PRODUCT FEATURES AND COMPONENTS

The YAMATIC Vertical Pressure Washer Pump is designed for optimal performance and durability. Key features and components include:

- **High Performance:** Maximum 2500 PSI / 2.2 GPM / @3400 RPM.
- **Extended Durability:** Features a high-performance double seal system to prevent leakage and upgraded technical surfacing piston and bearing for over 150 hours of running time.
- **Adjustable Unloader:** Allows for pressure adjustment to better suit engine requirements.
- **Thermal Relief Valve (TRV):** Protects the pump from overheating during bypass mode.
- **Maintenance-Free Crankcase:** No need to change gasoline in the crankcase.
- **Easy Start:** Built-in mechanism for simple and quick cold starts, eliminating the need to release pressure before starting the engine.

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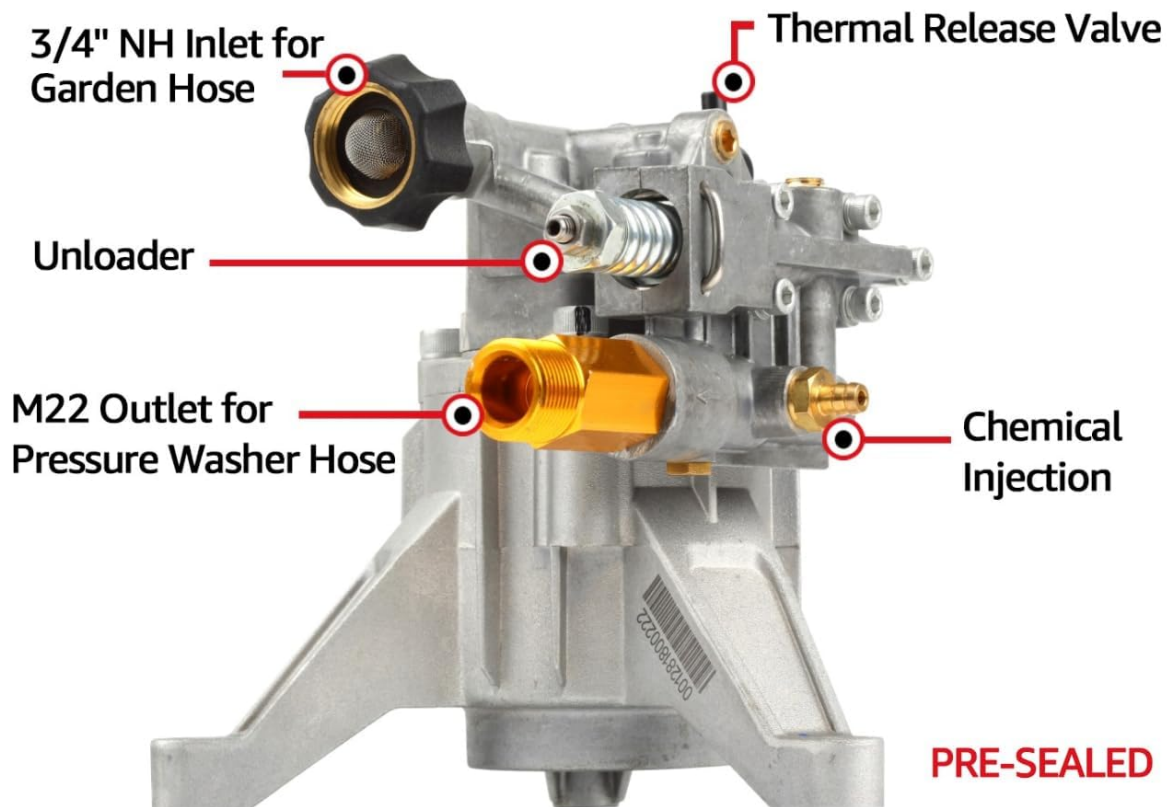


Image: Labeled diagram showing the 3/4" NH Inlet for Garden Hose, Unloader, M22 Outlet for Pressure Washer Hose, Chemical Injection port, and Thermal Release Valve.

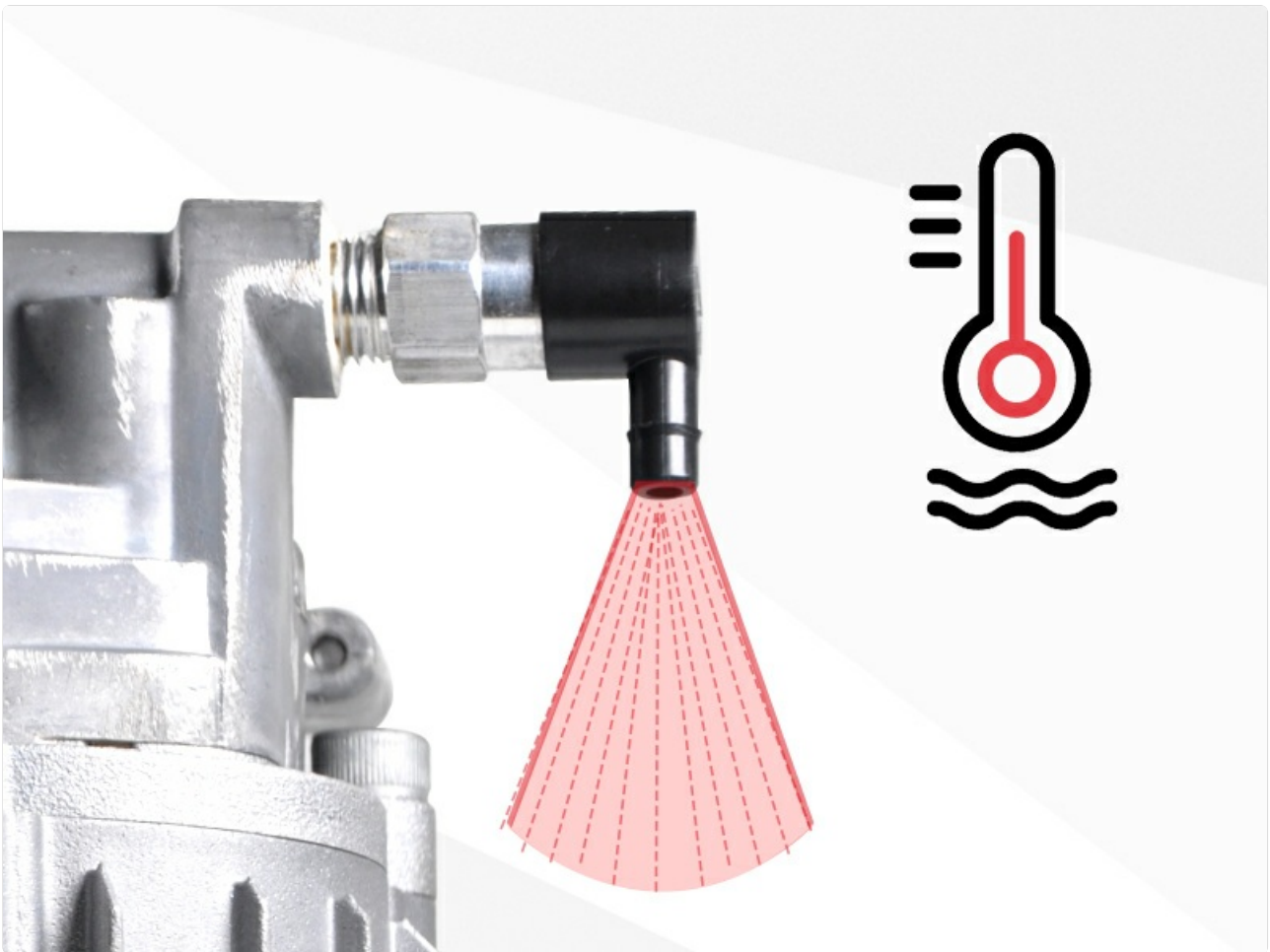


Image: Close-up view of the thermal relief valve, which prevents pump overheating.

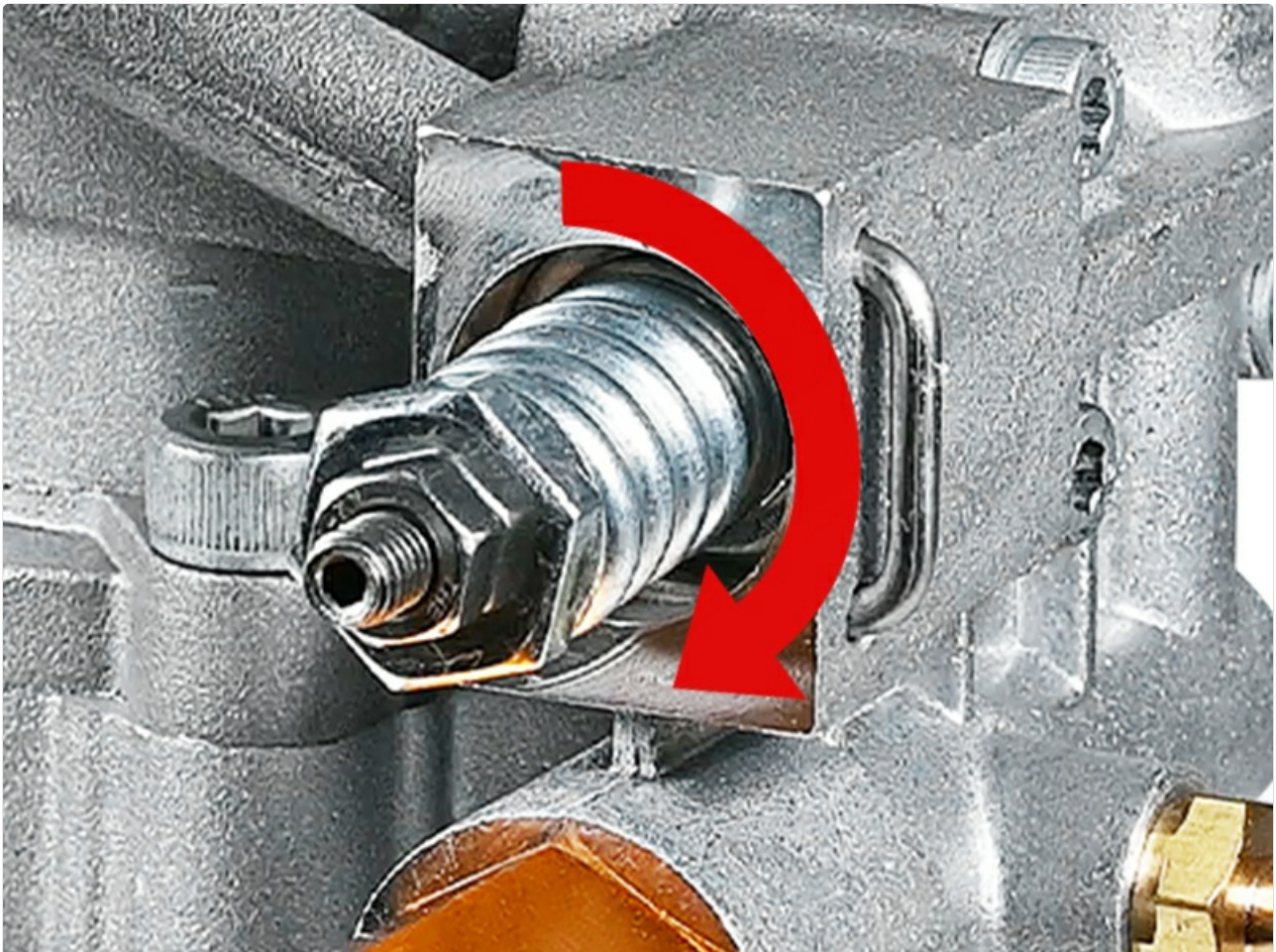


Image: Close-up view of the adjustable unloader, allowing users to fine-tune pressure output.

4. SETUP AND INSTALLATION

This pump is designed for vertical engines with a 7/8" shaft and is a replacement for most rear outlet 160-180cc at 5.5-6.5hp engines. It will not fit pressure washers with an idle down feature.

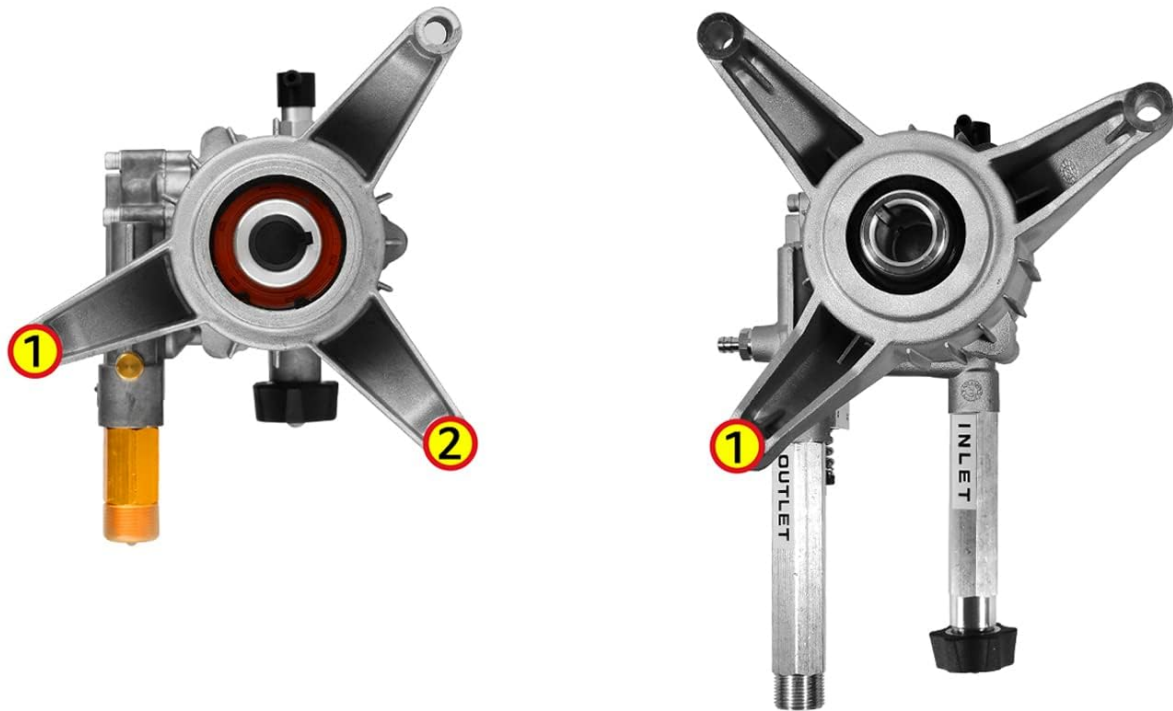
4.1 Compatibility Check

Verify your pressure washer's engine shaft size and mounting configuration. This pump is specifically for 7/8" vertical shafts. Ensure your current pump has a rear-facing inlet/outlet configuration for direct compatibility.



Image: Visual guide distinguishing between rear-facing and front-facing pump setups on pressure washers. This pump is compatible with rear-facing configurations.

REAR-FACING VS FRONT-FACING



If the pump has one bolt mount above the water connections, it's a front-facing unit; if two of the bolt mounts are above the water connections, it's a rear-facing unit.

Image: Detailed diagram illustrating how to identify a rear-facing unit (two bolt mounts above water connections) versus a front-facing unit (one bolt mount above water connections).

4.2 Required Tools and Included Components

Before you begin, ensure you have basic hand tools (wrenches, sockets) for removing and installing bolts. The pump kit includes:

- YAMATIC Vertical Pressure Washer Pump
- Siphon tube with filter
- Mounting bolts
- Shaft key
- Washers (for shimming if needed)
- Spray nozzle tips (various degrees)



Image: A visual representation of all included accessories: the pump, siphon tube, mounting bolts, nuts, washers, shaft key, and various spray nozzle tips.

4.3 Installation Steps

1. **Prepare the Engine:** Disconnect the spark plug wire. Drain any remaining water from the old pump and hoses.
2. **Remove Old Pump:** Loosen and remove the mounting bolts securing the old pump to the engine. Carefully slide the old pump off the engine shaft.
3. **Clean Shaft:** Clean the engine shaft thoroughly to remove any rust or debris. Applying anti-seize lubricant to the shaft is highly recommended to facilitate future removal.
4. **Install New Pump:** Align the keyway on the new pump with the shaft key on the engine. Slide the new pump onto the engine shaft.
5. **Add Washers (if needed):** If there is a gap between the pump boss and the engine bottom or flange, insert the provided washers into the gap between your original engine flange and pump boss. This is crucial for proper alignment and stability.
6. **Secure Mounting Bolts:** Insert the new mounting bolts and hand-tighten them.
7. **Align Pump:** Run the engine for a few seconds (without water connected) to help the pump and motor align perfectly. Then, fully tighten the mounting bolts.
8. **Connect Hoses:** Connect the garden hose to the 3/4" NH inlet and the pressure washer hose to the M22 outlet. Ensure all connections are secure.
9. **Connect Siphon Tube:** Attach the siphon tube with filter for chemical injection if desired.

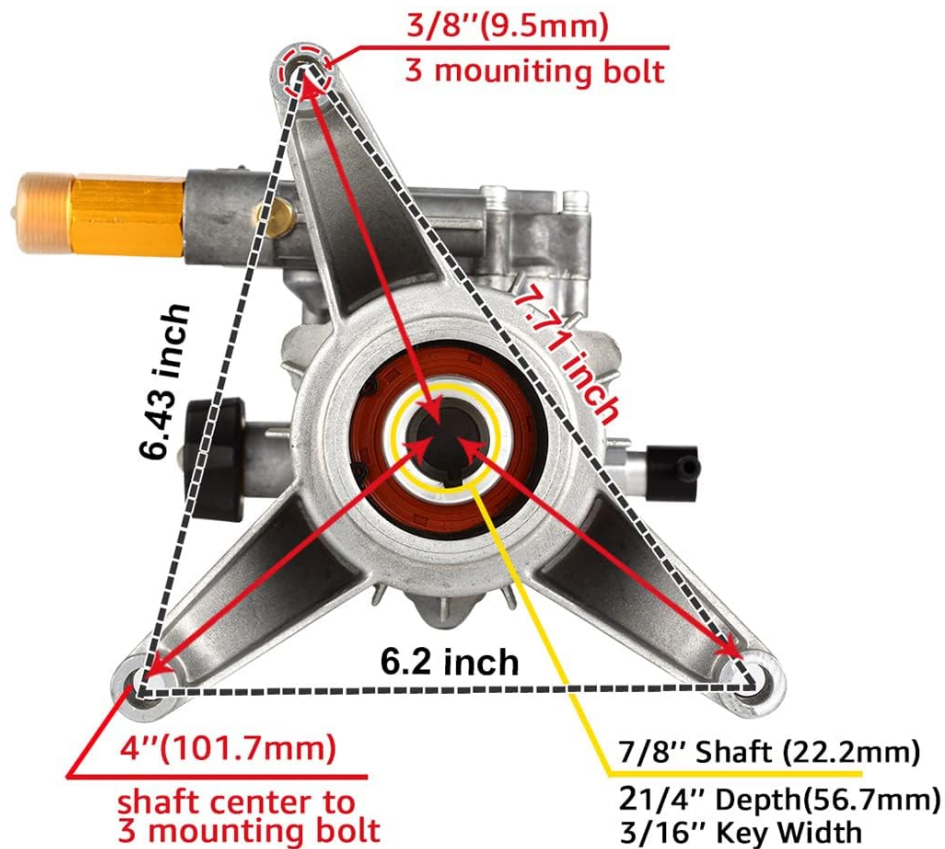


Image: Technical diagram detailing the mounting dimensions, including shaft center to 3 mounting bolt distances, shaft depth, and key width, essential for proper installation.

When your engine shaft length is longer from the engine flange (PTO) to the shaft end, when you set up the engine shaft and pump, you will find the gap between the pump boss and the engine bottom or flange. Then you need to put the washer into the gap, between your original engine flange and pump boss, then screw up the bolt for some engines, need washers for all three pump bosses.



Image: An illustration demonstrating the use of washers to shim the pump for correct alignment with the engine shaft, particularly when the engine shaft length differs.

Your browser does not support the video tag.

Video: An official YAMATIC video demonstrating the installation process for the vertical pressure washer pump. This video highlights key steps for proper setup and connection.

5. OPERATION

5.1 Starting the Pressure Washer

1. **Connect Water Supply:** Connect a garden hose to the pump's inlet and ensure the water supply is turned on fully.
2. **Purge Air:** Squeeze the trigger gun to purge air from the pump and hose until a steady stream of water emerges.
3. **Start Engine:** Follow your pressure washer engine's starting procedure. The YAMATIC pump features an easy start mechanism, so there is no need to release pressure before starting.
4. **Adjust Pressure (Optional):** If your application requires a specific pressure, use the adjustable unloader to fine-tune the output.

5.2 Using Spray Nozzle Tips

The included spray nozzle tips offer various spray patterns for different cleaning tasks:

- **Red (0°):** Pin-point stream for intense cleaning of small, tough spots. Use with extreme caution.
- **Yellow (15°):** Narrow fan for concentrated cleaning on hard surfaces.
- **Green (25°):** Medium fan for general cleaning of most surfaces.
- **White (40°):** Wide fan for gentle cleaning of delicate surfaces.
- **Black (Soap/Low Pressure):** For applying detergents at low pressure.

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your YAMATIC pump.

- **Maintenance-Free Crankcase:** The pump features a maintenance-free crankcase, meaning you do not need to change the oil.
- **Winterization:** Before storing the pressure washer in freezing temperatures, always drain all water from the pump and hoses. Use a pump saver or antifreeze solution to protect internal components from freezing and corrosion.
- **Clean Inlet Filter:** Regularly inspect and clean the inlet filter on the garden hose connection to prevent debris from entering the pump.
- **Inspect Hoses and Connections:** Periodically check all hoses and connections for wear, leaks, or damage. Replace any damaged parts immediately.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your pressure washer pump.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No pressure or low pressure	Insufficient water supply Air in the pump Clogged inlet filter Worn seals or valves Unloader valve setting	Ensure water supply is fully open and hose is not kinked. Purge air by squeezing trigger gun until steady water flow. Clean the inlet filter. Contact YAMATIC support for seal/valve replacement guidance. Adjust the unloader valve.
Pump overheating	Running in bypass mode for too long Insufficient water flow	Do not leave the pressure washer running in bypass mode for extended periods. Ensure adequate water supply.
Water leaking from pump	Loose connections Damaged O-rings or seals	Tighten all hose connections. Inspect and replace any damaged O-rings or seals.

8. SPECIFICATIONS

Technical specifications for the YAMATIC 7/8" Shaft Vertical Pressure Washer Pump (Model: 2500PSI).

Attribute	Value
Brand	YAMATIC
Model	2500PSI
Max Pressure	2500 PSI / 170 bar
Max Flow Rate	2.2 GPM
Type	Axial
Manifold Material	Aluminum Alloy
Crankcase Material	Aluminum Alloy
Bearing Type	Double Bearing
Lubrication	85W90 Pre-Sealed
Self Suction	No
Rated RPM	3400
Engine Type Compatibility	Vertical (7/8" Shaft)
Inlet Connector	3/4" NH Garden Hose

Attribute	Value
Outlet Connector	M22x1.5-14mm
Item Weight	7.09 pounds
Product Dimensions	2"L x 2"W x 2"H

TECHNICAL SPECIFICATION

OEM Power Washer Pump

Max Pressure (psi/bar)	2500/170
Max Flow Rate (gallon/min)	2.2 GPM
Type	Axial
Manifold	Aluminum Alloy
Crankcase	Aluminum Alloy
Bearing	Double Bearing
Lubrication	85W90 Pre-Sealed
Self suction	NO
Rated RPM	3400
Engine Type	Vertical
Inlet Connector	3/4" NH Garden Hose
Outlet Connector	M22x1.5-14mm
Unit Weight (lb)	5.95

* If you're not sure fit or not, just message us and we will confirm it for you!



INCLUDE



Pure Chemical Hose



Spray Nozzle Tips



Hardened Bolt & Washer



Keys Thicker Washer

Image: A table summarizing the OEM Power Washer Pump's technical specifications, including pressure, flow rate, materials, and connections.

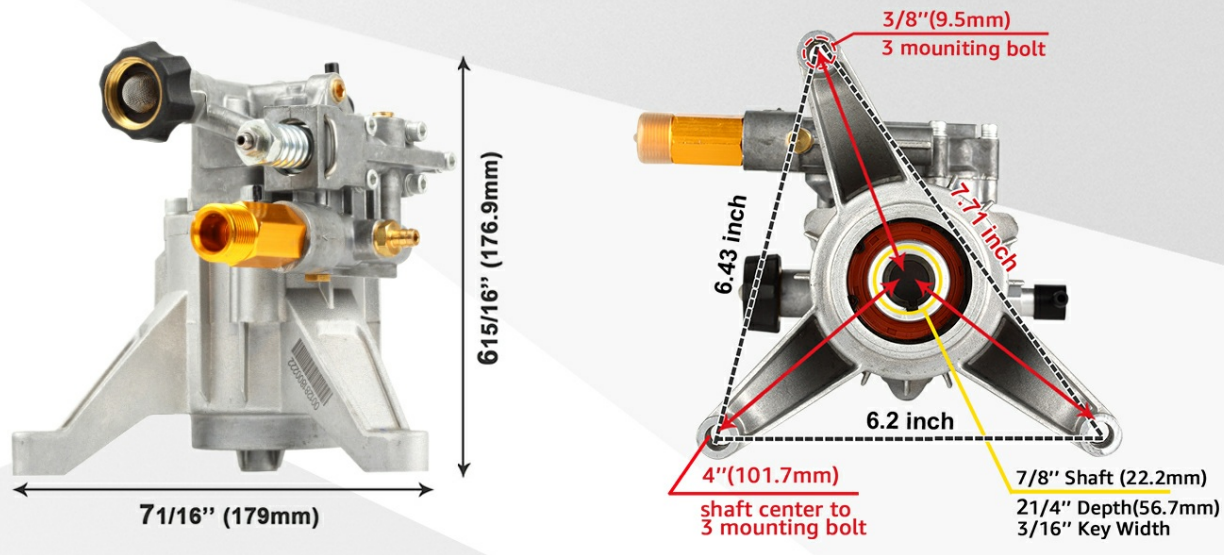


Image: Detailed dimensional drawing of the pump, showing overall height (6 15/16" or 176.9mm), width (7 1/16" or 179mm), and mounting bolt pattern (6.2 inch base, 7.71 inch height, 4 inch shaft center to bolt, 7/8" shaft, 2 1/4" depth, 3/16" key width).

9. WARRANTY AND SUPPORT

For warranty information, technical support, or replacement parts, please contact YAMATIC customer service. Refer to the original product packaging or the YAMATIC website for the most current contact details.

If you are unsure about compatibility or installation, it is recommended to contact YAMATIC support for assistance.

You can also visit the official YAMATIC store on Amazon for more products and support:[YAMATIC Store](#)

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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.

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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