General Pump 100722

General Pump 100722 Pressure Relief Valve Instruction Manual

Model: 100722

1. Product Overview

The General Pump 100722 Pressure Relief Valve is a critical component designed to protect high-pressure systems by automatically releasing excess pressure. This service assembly features a 1/2-14NPT connection and a hose barb, capable of handling pressures up to 6000 PSI and temperatures up to 195°F. Its durable construction, primarily of stainless steel for the valve body, ensures longevity and resistance to corrosion in demanding industrial applications. Key features include reliable pressure control, durable stainless steel construction, versatile 1/2 inch NPT and hose barb connections, and efficient automatic pressure relief.

Figure 1.1: Front view of the General Pump 100722 Pressure Relief Valve, showing the main body and threaded connection.

2. Safety Information

Always adhere to safety precautions when working with high-pressure systems. Failure to do so can result in serious injury or equipment damage.

- Ensure the system is depressurized before installation, maintenance, or removal of the valve.
- Wear appropriate personal protective equipment (PPE), including eye protection and gloves.
- Verify that the valve's pressure and temperature ratings are compatible with your system's operating conditions. This valve is rated for a maximum operating pressure of 6000 PSI and a maximum temperature of 195°F.
- Do not modify the valve. Use only genuine General Pump replacement parts.
- Ensure proper ventilation when working in enclosed spaces.

3. Specifications

Attribute	Value
Model Number	100722
Brand	General Pump

Attribute	Value
Material	Stainless Steel (Valve Body), Plastic/Rubber (Hose Barb)
Inlet Connection Type	1/2-14NPT
Outlet Connection Type	Hose Barb
Maximum Operating Pressure	6000 PSI
Maximum Operating Temperature	195°F
Dimensions (L x W x H)	4 x 4 x 4 inches
Item Weight	6.1 ounces
UPC	655726473210

4. Setup and Installation

Proper installation is crucial for the safe and effective operation of the pressure relief valve.

1. **Depressurize System:** Before beginning installation, ensure that the entire pressure system is completely depressurized and isolated from any power source.
2. **Select Location:** Choose a suitable location for the valve, typically downstream of the pump and before any sensitive components, where it can easily discharge excess pressure.
3. **Thread Connection:** Apply appropriate thread sealant (e.g., PTFE tape or pipe dope) to the 1/2-14NPT male threads of the valve. Carefully thread the valve into the corresponding female port on your system.
4. **Tighten Connection:** Use a wrench to tighten the valve securely. Do not overtighten, as this can damage the threads or the valve body. Refer to system specifications for recommended torque.
5. **Hose Barb Connection:** Attach a suitable hose to the barb connection for safe discharge of relieved fluid. Ensure the hose is rated for the fluid and pressure, and that it directs discharge away from personnel and equipment. Secure the hose with a clamp if necessary.
6. **Inspect:** Visually inspect all connections for proper seating and alignment.

Figure 4.1: Angled view of the valve, highlighting the 1/2-14NPT threaded inlet and the hose barb outlet for connection.

5. Operating Instructions

The General Pump 100722 Pressure Relief Valve operates automatically to maintain system pressure within safe limits.

- **Automatic Operation:** Once installed, the valve will automatically open to relieve pressure when the system pressure exceeds the valve's set point. It will close once the pressure drops to a safe level.
- **Pressure Adjustment:** The valve features an adjustable spring mechanism. To adjust the relief pressure, locate the spring set screw (often at one end of the valve, possibly under a cap). Turning the screw clockwise typically increases the relief pressure, while turning it counter-clockwise decreases it. *Always adjust pressure gradually and monitor system pressure with a gauge.*
- **Monitoring:** Regularly monitor system pressure during operation to ensure the valve is functioning correctly and maintaining the desired pressure.
- **Discharge:** Ensure the discharge path from the hose barb is clear and directs fluid safely away from the operating area.

Figure 5.1: End view of the valve, showing the hexagonal cap which may cover the pressure adjustment screw.

6. Maintenance

Regular maintenance ensures the longevity and reliable performance of your pressure relief valve.

- **Routine Inspection:** Periodically inspect the valve for any signs of leaks, corrosion, or physical damage. Check the hose barb connection and discharge hose for blockages or wear.
- **Cleaning:** If the valve or connections appear dirty, clean them with a damp cloth. Avoid using harsh chemicals that could damage the materials.
- **Functionality Check:** Periodically test the valve's functionality by intentionally increasing system pressure to its set point to ensure it opens and closes correctly. This should be done under controlled conditions with appropriate safety measures.
- **Seal Replacement:** Over time, internal seals may wear out. If the valve begins to leak or fails to hold pressure, internal seal replacement may be necessary. Consult a qualified technician or the manufacturer's service manual for specific instructions on disassembling and reassembling the valve for seal replacement.
- **Storage:** If the valve is to be stored for an extended period, ensure it is clean, dry, and stored in a cool, dry place away from direct sunlight and corrosive environments.

7. Troubleshooting

This section provides guidance for common issues encountered with pressure relief valves.

Problem	Possible Cause	Solution
Valve constantly leaks or drips	◦ Debris lodged in valve seat ◦ Worn or damaged internal seals ◦ Incorrectly set relief pressure (too low)	◦ Flush the system to clear debris. ◦ Replace internal seals (professional service recommended). ◦ Adjust relief pressure upwards (see Section 5).
Valve does not open at set pressure	◦ Valve stuck due to corrosion or debris ◦ Relief pressure set too high ◦ Internal spring damage	◦ Attempt to cycle the valve manually (if possible and safe). ◦ Adjust relief pressure downwards (see Section 5). ◦ Valve replacement may be necessary.
Pressure fluctuates excessively	◦ System instability ◦ Valve chattering or rapid cycling	◦ Consult system manufacturer for stability issues. ◦ Ensure proper sizing and installation.

If troubleshooting steps do not resolve the issue, contact General Pump customer support or a qualified technician.

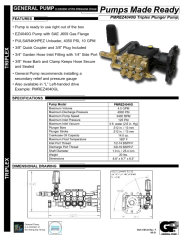
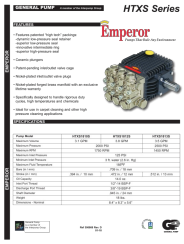
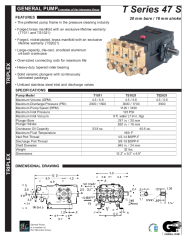
8. Warranty and Support

General Pump products are manufactured to high standards. For specific warranty information, please refer to the documentation included with your purchase or visit the official General Pump website. Typically, products are covered against defects in materials and workmanship for a limited period from the date of purchase.
For technical assistance, replacement parts, or further inquiries, please contact General Pump customer support. Have your model number (100722) and purchase details ready when contacting support.

General Pump Official Website: www.generalpump.com

Customer Service: Refer to the official website for contact numbers or email addresses.

Related Documents

	[General Pump PMREZ4040G Triplex Plunger Pump Specifications and Features] Detailed specifications, features, and parts list for the General Pump PMREZ4040G Triplex Plunger Pump, designed for high-pressure applications. Includes dimensional data and safety warnings.
	[General Pump HTXS Series Emperor Pumps - Technical Specifications and Installation Guide] Detailed information on General Pump's HTXS Series Emperor pumps, including features, specifications, installation recommendations, maintenance, and parts list. Covers models HTXS1810S, HTXS1812S, and HTXS1813S.
	[General Pump T Series 47 S Triplex Pump Specifications and Parts List] Detailed specifications, features, dimensional drawing, parts list, and torque specifications for the General Pump T Series 47 S triplex pump, available in models T1011, TS1021, and TS2021.
	[General Pump EP Series Triplex Plunger Pump: Features, Specifications, and Installation Guide] Detailed information on General Pump's EP Series Triplex Plunger Pumps, including features, technical specifications, installation recommendations, maintenance advice, and parts lists for models with a 1" hollow shaft.

Documents - General Pump – 100722

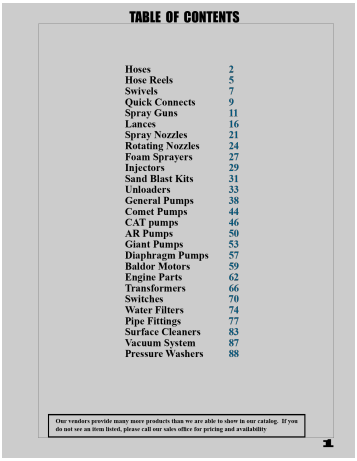


TABLE OF CONTENTS

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1

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