Eastman 60022

Eastman Thermal Expansion Tank 60022 User Manual

Model: 2 Gallon, 3/4 inch MIP Connection

1. Introduction

The Eastman Thermal Expansion Tank is engineered to safeguard residential water heating systems from the detrimental effects of thermal expansion. As water heats, it expands, increasing pressure within a closed plumbing system. This tank absorbs the expanded water, preventing excessive pressure buildup that can damage water heaters, pipes, and fixtures, thereby extending the service life of your water heating system.

2. Safety Information

WARNING: Installation and service of this product should be performed by a qualified professional. Failure to follow these instructions could result in property damage, personal injury, or death.

- Always turn off the water supply and drain the water heater before beginning installation.
- Depressurize the system before disconnecting any plumbing.
- Wear appropriate personal protective equipment, including eye protection and gloves.
- Ensure all connections are watertight to prevent leaks.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm (California Proposition 65).

3. Product Overview

The Eastman Thermal Expansion Tank, Model 60022, features robust construction designed for longevity and reliable performance. It incorporates a durable butyl rubber diaphragm and a 304 stainless steel system connection for corrosion resistance. The tank is factory pre-charged to 40 PSI, ready for installation.

Front view of the Eastman Thermal Expansion Tank, showing its white cylindrical body and top connection.

Diagram illustrating the internal components of the expansion tank, including the strong steel construction, water-tight

reservoir, thick butyl/EPDM diaphragm, and sealed air cushion. This design efficiently absorbs expanded water to protect your plumbing system.

4. Setup and Installation

Proper installation is crucial for the effective operation of your thermal expansion tank. This tank is designed for indoor installation and connects via a 3/4 inch MIP connection.

Pre-Installation Steps:

1. **Verify System Pressure:** Before installation, measure your household's static water pressure. The expansion tank comes factory pre-charged at 40 PSI. For optimal performance, the tank's air charge pressure should match your system's static water pressure. Adjust the tank's air pressure using a bicycle pump or air compressor via the Schrader valve located at the bottom of the tank.
2. **Turn Off Water Supply:** Locate the main water shut-off valve to your home and turn it off.
3. **Drain Water Heater:** Open a hot water faucet in your home to relieve pressure and drain some water from the water heater.

Installation Procedure:

1. **Select Location:** Install the expansion tank on the cold water supply line to the water heater, typically between the main shut-off valve and the water heater inlet. It can be installed vertically or horizontally.
2. **Apply Thread Sealant:** Apply appropriate thread sealant (e.g., PTFE tape or pipe dope) to the 3/4 inch MIP threads of the expansion tank.
3. **Connect Tank:** Thread the expansion tank onto the cold water inlet pipe of the water heater or a suitable tee fitting in the cold water supply line. Tighten securely with a wrench, but do not overtighten.
4. **Restore Water Supply:** Slowly open the main water shut-off valve to refill the system. Check for leaks at all connections.
5. **Bleed Air:** Open hot water faucets in your home to purge any air from the plumbing system.

Schematic diagram showing typical installation of the expansion tank with a water heater, water supply, and safety relief valve. The tank can be installed in various orientations on the cold water inlet line.

Image showing the Eastman Thermal Expansion Tank connected to a water heater system, emphasizing its compatibility for residential closed-loop water supply systems. This tank is recommended for use with 30 to 160 gallon water heater tanks.

For additional information and resources, scan this QR code: https://qrcodes.pro/rHVWPw

5. Operating Instructions

The Eastman Thermal Expansion Tank operates passively. Once correctly installed and pre-charged to match your system's static water pressure, it automatically accommodates the expansion of water as it heats. No manual operation is required during normal use.
The tank's butyl rubber diaphragm separates the air pre-charge from the system water. As water heats and expands, it pushes against the diaphragm, compressing the air in the tank. When hot water is drawn or the system cools, the compressed air pushes the water back into the system, maintaining stable pressure.

6. Maintenance

Regular inspection of your thermal expansion tank can help ensure its continued effectiveness.

- **Annual Pressure Check:** Annually, check the air charge pressure of the tank. Turn off the water supply to the tank, drain the water from the tank side (if possible), and use a pressure gauge on the Schrader valve to verify the pressure. Adjust if necessary to match your system's static water pressure.
- **Inspect for Leaks:** Periodically check the tank and connections for any signs of water leaks or corrosion.
- **Check for Waterlogging:** Tap the top and bottom of the tank. If both sound solid, the tank may be waterlogged, indicating a failed diaphragm. A properly functioning tank will sound hollow on the air side and solid on the water side.

7. Troubleshooting

Problem	Possible Cause	Solution
Water heater relief valve frequently discharges	Excessive system pressure due to thermal expansion; tank is waterlogged or improperly charged.	Check tank air charge pressure and adjust to match system pressure. If waterlogged, replace the tank.
Tank feels heavy and sounds solid when tapped	Diaphragm failure, tank is waterlogged.	Replace the thermal expansion tank.
Leaks at connections	Improperly tightened connection or insufficient thread sealant.	Turn off water, drain system, reapply thread sealant, and tighten connection.
Low water pressure fluctuations	Tank air charge too low or tank too small for system.	Adjust tank air charge. Consult a professional if tank size is suspected.

8. Specifications

- **Model:** 60022
- **Capacity:** 2 Gallons
- **Connection:** 3/4 inch MIP (Male Iron Pipe)
- **Factory Pre-charge:** 40 PSI
- **Maximum Working Pressure:** 150 PSI
- **Maximum Operating Temperature:** 210°F (99°C)
- **Construction:** Alloy Steel with Butyl Rubber Diaphragm and 304 Stainless Steel System Connection
- **Dimensions:** Approximately 8.3 inches (W) x 12.4 inches (H)
- **Weight:** Approximately 5.07 pounds
- **Compliance:** Complies with NSF-61 and Lead-Free Law UPC Approved

Close-up view of the top connection and air valve of the expansion tank, detailing its 3/4 inch MIP connection and maximum operating temperature/pressure ratings.

9. Warranty

The Eastman Thermal Expansion Tank Model 60022 is backed by a **6-year limited warranty**. This warranty covers defects in materials and workmanship under normal use and service. For specific terms and conditions, please refer to the warranty documentation included with your product or contact Eastman customer support.

10. Support

For technical assistance, replacement parts, or warranty claims, please contact Eastman customer support. Refer to the contact information provided on the product packaging or the official Eastman website.