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› Everbilt 4.5 Gallon Thermal Expansion Tank User Manual (Model EF-TET-4T)

Everbilt EF-TET-4T

Everbilt 4.5 Gallon Thermal Expansion Tank

USER MANUAL - MODEL EF-TET-4T

INTRODUCTION

The Everbilt 4.5 Gallon Thermal Expansion Tank is designed to protect your closed water system from excessive pressure build-up caused by thermal expansion. As water heats, it expands, and in a closed system, this expansion can lead to dangerously high pressures, potentially damaging water heaters, fixtures, and appliances. This tank utilizes a heavy-duty butyl diaphragm system to absorb this expanded water volume, maintaining safe operating pressures within your plumbing system. Installation of a thermal expansion tank is often required by local plumbing codes for residential closed water systems.

This manual provides essential information for the proper setup, operation, maintenance, and troubleshooting of your Everbilt Thermal Expansion Tank. Please read it thoroughly before installation and retain it for future reference.



This image shows the Everbilt 4.5 Gallon Thermal Expansion Tank. It is a cylindrical, off-white tank with a threaded connection at the top and a blue air valve cap at the bottom.

SETUP AND INSTALLATION

Proper installation is crucial for the safe and effective operation of your thermal expansion tank. If you are unsure about any steps, it is recommended to consult a qualified plumber.

Safety Precautions:

- Always shut off the main water supply and drain the system before beginning installation.
- Ensure the water heater is turned off and allowed to cool to prevent scalding.
- Wear appropriate personal protective equipment, such as safety glasses and gloves.
- Verify that the tank's pre-charge pressure matches your system's cold water static pressure. The factory pre-charge is 40 psig.

Installation Steps:

1. **Prepare the System:** Turn off the water heater and the main water supply. Drain a small amount of water from a nearby faucet to relieve pressure.
2. **Select Location:** Install the expansion tank on the cold water supply line to the water heater, between the main shut-off valve and the water heater inlet. It can be installed in any orientation (vertical, horizontal, or inverted) as long as it is properly supported.
3. **Check Pre-charge:** Using a pressure gauge, verify the air pre-charge pressure of the tank through the brass air charging port at the bottom. Adjust if necessary to match your system's cold water static pressure. The factory setting is 40 psig.
4. **Connect the Tank:** Apply pipe thread sealant (pipe dope or PTFE tape) to the 3/4 inch MIP (Male Iron Pipe) threads of the expansion tank. Thread the tank onto a suitable fitting on the cold water supply line. Ensure a tight, leak-free connection.
5. **Restore Water Supply:** Slowly open the main water supply valve. Check all connections for leaks.
6. **Restore Power:** Turn on the water heater.

Ensure the tank is adequately supported, especially if installed horizontally or inverted, to prevent strain on plumbing connections.

OPERATING PRINCIPLES

The Everbilt Thermal Expansion Tank operates passively to manage water pressure. When water in your water heater heats up, it expands. Since water is incompressible and your plumbing system is closed, this expansion would normally cause a significant increase in pressure. The expansion tank provides a space for this excess water volume to go.

Inside the tank, a butyl rubber diaphragm separates the system water from a pre-charged air cushion. As water expands, it pushes against this diaphragm, compressing the air cushion and allowing the excess water to enter the tank. When hot water is used and cold water enters the system, the pressure drops, and the compressed air pushes the water back out of the tank and into the plumbing system. This continuous process helps maintain system pressure below the maximum rating of 150 psi and protects your plumbing components.

The tank is designed to operate effectively within a maximum temperature rating of 200°F (93°C).

MAINTENANCE

Regular maintenance ensures the longevity and proper function of your thermal expansion tank.

- **Annual Pressure Check:** At least once a year, check the air pre-charge pressure of the tank. To do this, you must first shut off the water supply to the tank and drain the water from the tank side. Then, use a tire pressure gauge on the air valve at the bottom of the tank. The pressure should match the cold water static pressure of your system. Adjust with a bicycle pump or air compressor if necessary.
- **Visual Inspection:** Periodically inspect the tank for any signs of corrosion, dents, or leaks. Pay close attention to the connections.
- **Diaphragm Integrity:** If water comes out of the air valve when checked, it indicates that the butyl rubber diaphragm has failed, and the tank needs to be replaced.

TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
High water pressure in system (over 80 psi)	Tank pre-charge too low. Diaphragm failure (waterlogged tank). Tank too small for system.	Check and adjust air pre-charge pressure. Replace the expansion tank. Consult a plumber to assess system volume and tank sizing.
Water leaking from connections	Improperly sealed threads. Loose connection. Damaged threads on tank or piping.	Shut off water, drain, reapply pipe thread sealant, and tighten connection. Inspect threads for damage; replace tank or fitting if necessary.
Water leaking from air valve	Diaphragm failure.	Replace the expansion tank.
Unusual noises in plumbing (e.g., banging, creaking)	Excessive pressure fluctuations. Water hammer.	Check tank pre-charge and function. Ensure proper installation and support. Consult a plumber for system diagnosis.

SPECIFICATIONS

Feature	Detail
Brand	Everbilt
Model Number	EF-TET-4T
Capacity	4.5 gallons
Connection Type	3/4 inch MIP (Male Iron Pipe)
Factory Pre-charge	40 psig
Maximum Pressure	150 psi
Maximum Temperature	200°F (93°C)
Diaphragm Material	100% Butyl Rubber, lined with Polypropylene (PP)
Shell Material	16-Gauge Cold Rolled Steel
Certifications	cUPC, NSF 61 compliant
Color	Green (referring to the product color, though the image shows off-white)
UPC	883882104406

WARRANTY INFORMATION

Specific warranty details for the Everbilt 4.5 Gallon Thermal Expansion Tank are not provided in this manual. Please refer to the manufacturer's official warranty documentation included with your purchase or visit the Everbilt website

for the most current warranty terms and conditions.

CUSTOMER SUPPORT

For technical assistance, replacement parts, or further inquiries regarding your Everbilt Thermal Expansion Tank, please contact Everbilt customer service. Contact information can typically be found on the product packaging or the official Everbilt website.

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