



Energy 18-8 Inc.
Cleaner Water, Safer Water

WATER HEATER & THERMAL EXPANSION TANK INSTALLATION TO PROTECT THE PLUMBING SYSTEM AND THE WATER HEATER

1. Verify your Water Pressure

With the use of a pressure gage, verify the pressure in the plumbing system supplied by the city or artesian well pump. Too much pressure, in a closed system, can damage your water tank, plumbing and faucets.

2. Regulate the Water Pressure

Your water pressure should be 40 psi, the same is the thermal expansion tank requirement. If it's too high, install a water pressure regulator on the water main to ensure a maximum pressure of 40 psi.

3. Install a Check Valve

Make sure you have a "backflow preventer" valve (check valve) installed on your home's water pipes that allow water to flow in one direction but never in the opposite direction from your home to the city's water main. This creates a closed loop system or closed circuit.

If you do not have a check valve, you will need to have one installed.

4. Install the Thermal Expansion Tank

The thermal expansion tank is installed above the water heater on the cold water line before it enters the water heater. It is factory set to 40 psi.

The cold water in a standard 60-gallon water heater expands to 62 gallons when heated to 140 degrees Fahrenheit.

Why it's important?

A thermal expansion tank is an overflow receptacle that alleviates the pressure caused by the normal thermal expansion that happens when water is heated.

What size thermal expansion tank do I need for my water heater?

A 4.8-gallon thermal expansion tank is the adequate size for water heaters that are 40 to 60-gallons.

How much does a thermal expansion tank cost?

The price for a thermal expansion tank can go for less than \$200, depending on the size you need for your water heater.

What thermal expansion tank do you recommend?

For a 40-gallon or a 60-gallon, we recommend the FTTE-12 thermal expansion tank from Calefactio:

<https://www.calefactio.com/en/product/flow-through/>

For technical assistance, contact Calefactio.com at 1 (450) 951-0818

Should a professional plumber install a thermal expansion tank?

Installing a thermal expansion tank can be done by yourself if you have moderate to expert plumbing knowledge and experience. Otherwise, let a professional plumber do the job for you.

Reference

Quebec Construction Code (A-2.6.1.11)

EN: <https://nrc-publications.canada.ca/eng/view/ft/?id=705a1dff-4310-4d8d-8e94-4ef1a4e11628>