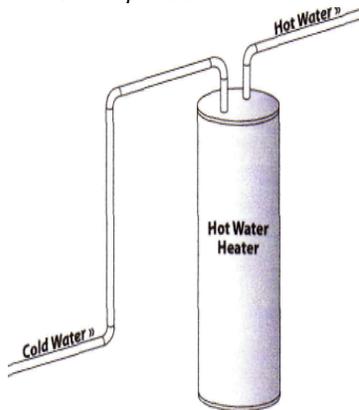


# Thermal Expansion

In order to protect our water from unknown contamination and maintain the water quality we have, we require the use of a backflow prevention device at the meter that does not allow water that has flowed past the water meter into a building to flow back out into the main water lines. This is called a closed system. In conjunction with the backflow prevention device a thermal expansion tank is required. The thermal expansion tank is a simple and efficient method to ensure that your system is safe.

A New Mexico licensed plumber should be able to take care of your thermal expansion needs. This will enable worry-free installation of your device, according to code. You can also choose to do-it-yourself. The tank is available for purchase at many of the local plumbing and hardware stores.

*Without Expansion Tank*



## Frequently Asked Questions:

**Q:** What is Thermal Expansion?

**A:** Thermal expansion refers to the characteristic of water to expand when it is heated. Unlike air, which can be compressed, water grows in volume, and must be accommodated.

**Q:** Why is Thermal Expansion occurring?

**A:** In a water heater, thermal expansion can create more pressure than the system can handle. When unchecked, this pressure can result in expensive leaks, as well as damage to the water heater, pipes, or other fixtures.

**Q:** When is a Thermal expansion device necessary?

**A:** Thermal expansion is necessary when any of the following occurs:

- A recent water meter replacement
- A water heater replacement
- The construction of a new home
- When a backflow preventer is installed on the water meter or a pressure reducing valve is installed on the service line.

**Q:** How do I resolve this Thermal Expansion problem?

**A:** Thermal expansion can be solved by installing an expansion tank to your system adjacent to your water heater. This tank will accept overflow from your water heater, alleviating the pressure building up in the heating tank.

expansion tanks are inexpensive and the most conservation-friendly solution.

**Q:** I have a Temperature and Pressure Relief (T&P) valve installed, isn't that enough?

**A:** No. A T&P valve is not a thermal expansion device, because the constant dripping of water from the valve can result in a mineral deposit that can create a blockage, causing the T&P valve to become ineffective. Plumbing standards and codes require that thermal expansion be properly addressed.

**Q:** Are there any building codes with requirements for resolving thermal expansion problems?

**A:** Yes. Section 505 of the 2006 Uniform Plumbing Code as adopted by the State of New Mexico.

**Q:** What if I cannot afford to install the Thermal Expansion tank at this time?

**A:** The City of Alamogordo offers a program that allows for the cost of the purchase and installation of the expansion tank to be added to your monthly water bill. For more information contact the Water Billing Dept at 439-4260.

**Q:** Is the tank required on all types of water heaters?

**A:** Any type of water heater that has a tank and stores the hot water is required to have an expansion tank. "On Demand" water heating units would not require a thermal expansion tank.

*With Expansion Tank*

