City of Gainesville Department of Water Resources

PRESSURE REDUCING VALVE, BACKFLOW DEVICE, AND THERMAL EXPANSION TANK

Note: This information is provided for assistance and informational purposes only.

Pressure Reducing Valve (PRV)

What is a Pressure Reducing Valve?

- A PRV is a valve that reduces the pressure from one side of the valve to the other side of the valve.
- If the pressure at the meter is 100 psi then the valve can reduce the pressure and keep the pressure inside your home at 55 psi.

Do I need a Pressure Reducing Valve?

- The National building code has required them to be installed since 2000.
- They are recommended but not required to protect your plumbing.
- In many areas of the county the pressure in the City's water main is over 100 psi for the purpose of distribution and fire flow protection.
- High water pressure can cause your pipes to leak or break and damage your home.
- High water pressure can cause faucets, spigots, and toilets to leak as they are not designed to handle high pressures.
- PRV's do go bad over time and need to be replaced periodically.

Where would one be in my house and what does it look like?

- In a box or buried in the ground on the house side of the water meter.
- In a box or buried in the ground just before the pipe goes under your house.
- In the crawl space under the house or just inside a basement wall where the your water line enters your house.
- Near your hot water heater

This is a picture of a typical PRV available at your local hardware store.

Backflow Device

Why does the City of Gainesville install dual check backflow devices?

- State and federal regulations require backflow devices be installed on water meters.
- To protect the public water system
    - They prevent potentially contaminated water from flowing back into the public water main once it has gone through a water meter.

What are they and what do they do?

A dual-check backflow device is a one-way valve that allows water to flow only in one direction. They are attached after the meter and will not allow any water to flow back from the customer's private plumbing through the meter.

Will it affect the plumbing in my house?

- If you do not have a thermal expansion tank on your hot water heater then it could affect the plumbing in your house.
- It is your responsibility as a home owner to take measures to protect your plumbing system starting at the back of the meter.
- See below under Thermal Expansion Tanks for more information.

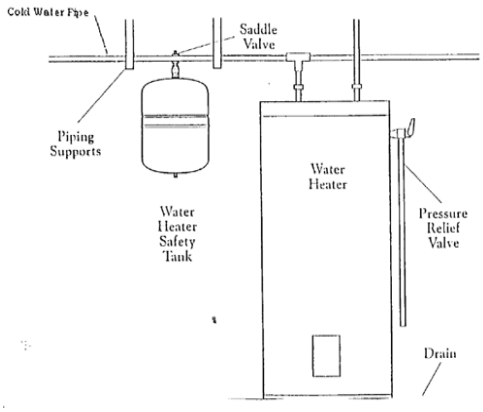
Thermal Expansion Tank

What does a Thermal Expansion Tank look Like?

Most thermal expansion tanks hold between 2 and 4 gallons of water and are a little larger than a basketball. There is a picture of a Thermal Expansion Tank on the right that is similar to ones available at your local hardware store.

How do I know if I have a Thermal Expansion Tank?

1. Hire a plumber to check your water system for a Thermal Expansion Tank and Pressure Reducing Valve.
2. Look for the Thermal Expansion Tank yourself.
    a. It should be located on the cold water side (intake side) of your hot water heater.
    b. See the diagram to the right for approximate location.



Why do I need a Thermal Expansion Tank?

In 1994 the National Plumbing code required all new homes to be equipped with an expansion tank. As water is heated by the water heater it expands to take up a half gallon to a gallon more space in your plumbing. This in turn can increase the pressure in your plumbing by as much as 40 psi. This extra pressure can cause your pipes to break and/or plumbing fixtures to leak.

How does it work?

The thermal expansion tank is filled with air. Inside the tank is a rubber bladder that keeps the air separate from the water. When the water pressure builds, the air compresses and the extra water fills the Thermal Expansion Tank.

How do I know if I need one?

- If your home was built prior to 1994 you may not have an "expansion tank".
- Homes built after 1994 should have a thermal expansion tank though there is no guarantee one exists.

Is the City requiring me to install a Thermal Expansion Tank?

The City of Gainesville Department of Water Resources **does not** require you to install an expansion tank and/or a pressure reducing valve. However, we would like you to be aware that these plumbing fixtures may or may not be part of your home's plumbing system and are advising you that some investigation on your part may be prudent to protect your home's plumbing.

Who do I call?

- Visit the yellow pages or the internet to find licensed plumbers that can check your system and/or install a PRV and Thermal Expansion Tank.
- Purchase supplies at a local hardware store and perform the work yourself.