

## What is a water meter setter and why are they being installed?

A meter setter is a pipe fitting device whose purpose is to facilitate the installation and removal of meters. The setter is typically housed in a meter box. When the City replaces old water mains on the street, a new service connection, a meter box, and a meter setter are installed for each property.

## What is the function of a check valve?

The check valve is a standard device with two basic functions:

1. It protects the integrity of public water system by preventing possible backflow contamination from private services. The City's Waterworks Bylaw Part 7 Section 39 states: No person shall allow water, waste water, or any other liquid or substance, to enter any part of the waterworks system, including any water service or any fire hydrant or standpipe.
2. Once meters are installed, it prevents incorrect readings caused by reverse flow.

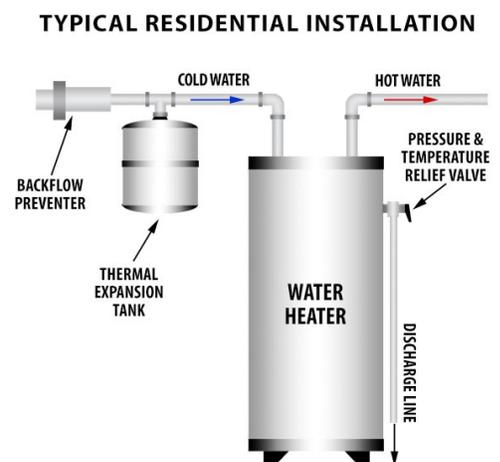
## Can the new setters impact my home's plumbing system?

When water is heated, it expands in volume creating a higher pressure in a home's plumbing system. If the pressure in a home's plumbing system exceeds the pressure in the City's supply main, there is the possibility that domestic water can flow back into the City's system and potentially contaminate the public system. The installation of meter setters (which typically have a check-valve) prevents this risk by creating a one-directional (or closed) water supply system.

As a new setter creates a one-directional system, there is a possibility that the water heater pressure from thermal expansion may cause damage or leaks in an internal plumbing system, particularly if the plumbing system is in poor condition or state of repair.

## What is a thermal expansion tank and how do I know if I have one?

A water heater thermal expansion tank serves as an overflow receptacle by absorbing excess water volume created when heating water, as well as absorbing fluctuations in the incoming water supply pressure. A typical residential thermal expansion tank is displayed to the right.



## **What is a thermal expansion control valve?**

A thermal expansion control valve is an alternative to a thermal expansion tank. It is essentially a pressure relief valve installed at a water heater to release excessive pressures in the closed water supply piping and water pressure tank. A thermal expansion control valve discharges water at a pressure setting that is below the setting of the water heater's temperature and pressure relief valve. It functions by opening and spilling water to relieve pressure and prevent plumbing equipment or piping damage. These devices should be piped to a suitable drain or discharge location.

## **Am I required to install a thermal expansion tank or a thermal expansion control valve?**

An expansion tank or expansion control valve is required for all new homes per the BC Building and Plumbing code. For older homes, it is recommended that homeowners consider installing either device as an added measure of protection.

## **Can an expansion tank or expansion control valve be installed at any time?**

Yes, an expansion tank or control valve may be installed at any time; however it is recommended that homeowners consider installation prior to installation and commissioning of a new meter setter for the above reasons.

## **How much does it cost to install an expansion tank or expansion control valve?**

A two gallon thermal expansion tank is needed for most residential installations, subject to the size of the water heater. A typical thermal expansion tank can be found at retail outlets for approximately \$36. Installation costs can vary from \$200 and above. Factors that affect installation prices include the type of water heater, accessibility, and whether it's electric or gas heated, etc.

A thermal expansion control valve can be found at retail outlets for approximately \$80 excluding installation cost. With installation, the thermal expansion control valve may still be a cheaper option.

A qualified plumber should be consulted to obtain a cost estimate for either option for your home.

## **Will the City cover any of the costs to have an expansion tank or expansion control valve installed?**

The City does not cover the cost of expansion tanks or expansion control valves which are components of private plumbing systems and borne by the homeowners.

## **More questions?**

Please contact Engineering Services at 604-527-4592 or [engpost@newwestcity.ca](mailto:engpost@newwestcity.ca)