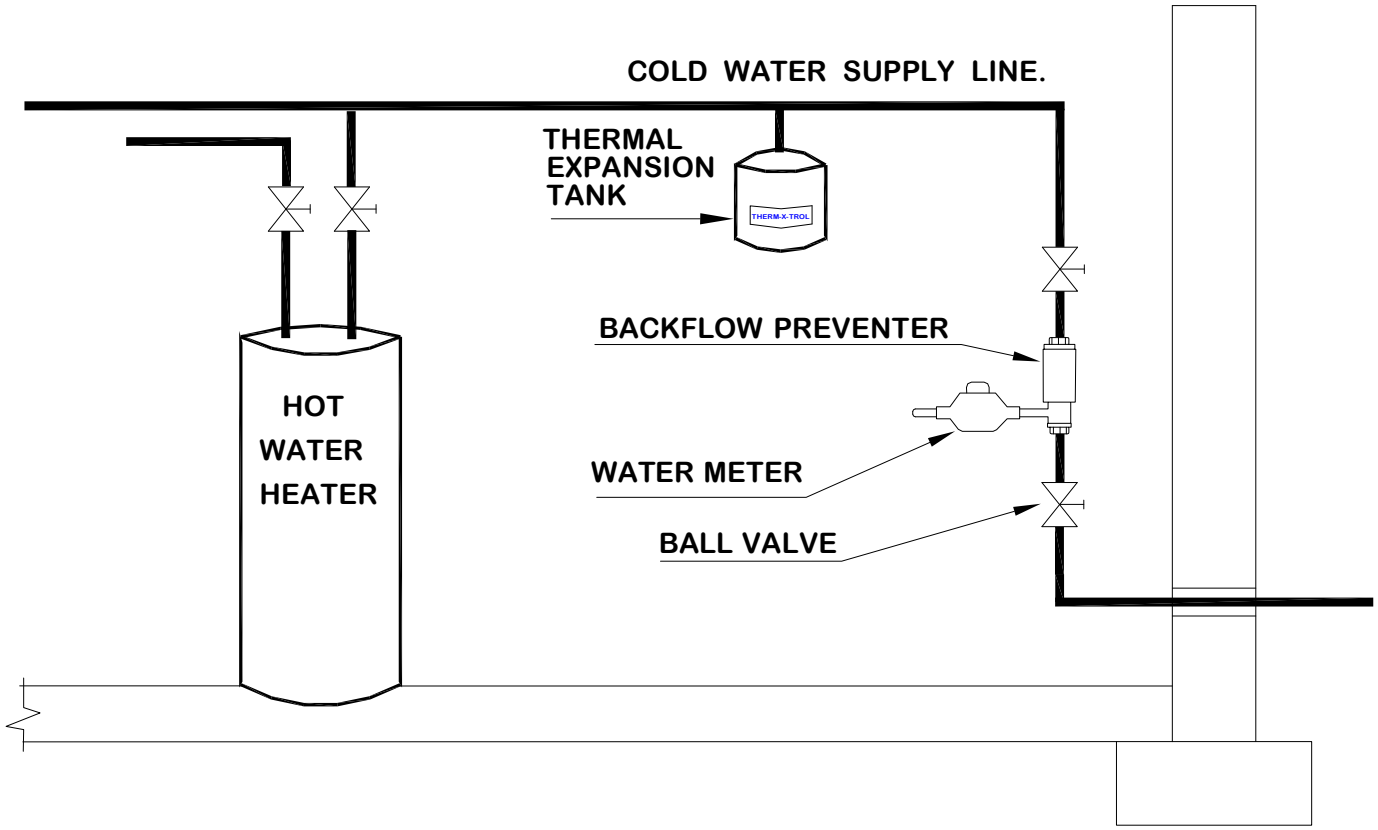
# THERMAL EXPANSION CONTROL

Plumbing Codes require that Thermal Expansion Control be addressed in plumbing systems to avoid damage to fixtures and appliances. The installation of a backflow device creates a " CLOSED " system that prevents heated/expanded water from being forced back into the public distribution system. Thermal expansion, if not controlled can damage or reduce the life of plumbing fixtures and appliances. Thermal Expansion may be evident by dripping or spurting water from faucets or intermittent discharge from the pressure relief valve on the hot water heater. Thermal Expansion can easily be controlled by use of a properly sized Thermal Expansion Tank installed on the cold water supply line, or a Watts Governor 80– M1 Toilet Tank Ball Cock Fill Valve or equal.

You are encouraged to have a licensed plumber inspect your plumbing system to determine if it is a " CLOSED " system.




Greater Augusta Utility District

# BACKFLOW PREVENTION AND THERMAL EXPANSION PROTECTION AT YOUR WATER METER

Greater Augusta Utility District

Water | Wastewater | Stormwater

12 Williams Street

Augusta, ME 04330

Phone: (207) 622-3701

Fax: (207) 622-4539

Email: PLamoreau@gaud.ws

# Class I Hazards

Class 1 is the lowest degree of cross connection hazard. It includes taste, odor, or color and no significant potential health effects. This generally includes:

- Residential homes;
- Apartment buildings with up to 4 units and no cross connections;
- Light Commercial Retail and Office Space buildings with no cross connections;

**Watts # 7 or equal**


This device is installed at the meter by the District during the routine meter replacement, unless plumbing modifications are required.

**The Dual Check Valve:**

- Is used for non–health hazard residential water system containment;
- Is installed immediately downstream of the water meter;
- Can be installed vertically or horizontally;
- Is available in sizes 3/8", ½", ¾", and 1"

# Class II Hazards

Class II represents a moderate degree of cross connection hazard. Class II includes anything that can create a significant change in the aesthetic quality of the water, but is otherwise non-toxic to humans. Common examples of Class II hazards include:

- Commercial Heating systems without chemicals
- Irrigation systems, without chemicals
- Ornamental Fountains
- Degreasing equipment
- Is installed immediately downstream of the water meter.

These devices are installed and tested by the owner. They must be permitted with the State and tested annually. GAUD processes these permits for a fee upon initial inspection and testing of the completed installation.

**Watts 007 Double Check Valve or Equal**

# Class III Hazards

Class III hazards include substances used by a customer that could cause illness or death if consumed by humans. These substances include chemical, biological or radiological substances. Common Class III hazards include:

- Hospitals, Mortuaries, Laboratories
- Medical / Dental Practices, Clinics
- Dry-Cleaners, Plating, or Chemical Plants
- Auto repair bays, Car wash bays
- Photographic development
- Food and Beverage processing plants
- Air conditioning cooling towers
- Is installed immediately downstream of the water meter.

These devices are installed and tested by the owner. They must be permitted with the State and tested semiannually. GAUD processes these permits for a fee upon initial inspection and testing of the completed installation.

**Watts 009 RPZ or Equal**

## MANDATORY FEDERAL & STATE LAW

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply.

Cross-connections between a potable water system and non-potable sources of contamination represent a threat to public health. This program is designed to maintain the safety and potability of the water in the supply system by preventing the introduction, by backflow, of any foreign liquids, gases or other substances into the supply system.

Public Water System – Is hereby incorporated by reference as defined in Chapter 22 M.R.S.A. § 2601 and 10-144 CMR 231 Section 2 in the State of Maine Rules Relating to Drinking Water.

The owner shall be responsible for ensuring the proper operation and maintenance of an anti-backflow device and the periodic regular testing of the device.

## COMPLIANCE

**Failure to comply with these Regulations either by refusal to install the proper device or repair a malfunctioning device may lead to termination of service.**