

## **PROTECT YOUR INVESTMENTS**

### **Don't Let Your Backflow Prevention Assembly Freeze**

Every winter there are nights when the temperatures dip below freezing. Inevitably, some backflow prevention assemblies freeze and are damaged beyond repair. Don't let this be your assembly when freeze protection can be easy and inexpensive.

A temporary method of freeze protection is to wrap a blanket or a towel around the assembly on cold days and remove it as needed for testing and repairs. Thermal protection bags, a covered enclosure such as an artificial rock, pipe insulation wrap, or electrical tape also protect assemblies against cold weather.

### **Guard Against Theft**

What's the chance that your backflow prevention assembly will disappear into thin air? Assemblies are being stolen more often than ever due to the increasing prices for scrap brass and copper. When your assembly is stolen, not only do you lose the assembly and potentially have damage to your plumbing system; the water is often left on, creating damage and a large water bill.

The most common way to protect your assembly is by placing it in a screened metal enclosure that is set on a concrete pad. There are also other types of locking devices available. Although none of these devices can ensure 100% protection against theft, they usually are effective deterrents to thieves.

### **Protect Your Hot Water Heater and Structures**

Owners and occupants of sites that have backflow prevention assemblies need to be aware that additional plumbing adjustments may be required to prevent thermal expansion damage. When a backflow prevention assembly is installed, a "closed" plumbing system is created. This means that any increased pressure caused by the expansion of heated water from the hot water tank or attic pipes heated by the sun has no where to escape. This can lead to serious consequences such as a ruptured or distorted hot water tank or a collapsed flue within the tank which can lead to the release of toxic gases, such as carbon monoxide.

A small tank, called a thermal expansion tank, is usually installed near the hot water tank. The thermal expansion tank has a built-in bladder that absorbs any excess pressure and then gradually releases it back into the plumbing system. The Uniform Plumbing Code requires all plumbing systems that are classified as "closed" systems to install thermal expansion tanks.

To ensure that your home is safe, ask a qualified plumber about thermal expansion protection.



For more information call 791-2650 or visit our website at [www.tucsonaz.gov/water/backflow](http://www.tucsonaz.gov/water/backflow)  
City of Tucson TTY#: 791-2639

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