



## Types of backflow

Back siphonage creates a vacuum as water drains toward the community water system. Water or fluid can be siphoned or pulled into the utility main water line.

Example: a garden hose with one end immersed in a pail of soapy water or a hose immersed in a swimming pool.

Back pressure can develop when irrigation well pumps are connected to drinking water for pump priming or blending drinking water with well water to reduce the “rotten egg” odor or driveway staining.

## Why are backflow preventers needed?

Backflow preventers are designed and installed to prevent the flow of water backwards through a pipe. Two commonly required backflow preventers are the Double Check Valve Assembly (DC) and the Reduced Pressure Zone Assembly (RP). Both of these protect your public utility drinking water system from backflow created by back siphonage and backpressure.

The RP backflow preventer is used for potential health hazards such as sewage, medical fluids and chemicals.

The double check or DC is used to protect the utility system from non-health hazards such as odor, color, and taste. These include well water, swimming pool water, or nontoxic industrial fluids such as dye or food products.

## Selection of a backflow preventer

The selection of a backflow preventer is based upon several factors. However, backflow preventers will be required if there exists an actual or potential hazard for cross-connection. Some of these hazards include:

- Irrigation systems
- Fire sprinkler systems
- Medical facilities
- Processing plants
- Well, lake, and reclaimed water sources

## Commonly asked questions

### What is a Backflow Prevention Program?

It is a program required by the State and Federal government to detect and prevent possible sources of non-drinking water from entering your public utility drinking water system.

### How can this happen?

Contamination of drinking water is usually the result of cross-connections of piping between your drinking water and some other source such as irrigation well or pond. The American Water Works Association (AWWA) estimates over 100,000 cross-connections occur each day – half of these from garden hoses.

### What is an indirect cross-connection?

This is a temporary cross-connection that may exist for a short time. A good example of an indirect cross-connection is a garden hose attached to an outside hose bib with the end of the hose submerged in a pail, swimming pool, or pesticide dispenser. Of additional concern is that some people use the garden hose to flush out sewers and drain pipes.

## Why does this backflow preventer need to be installed in the front of my house?

In order to protect the community water system as much as possible and meet state requirements, the backflow preventer needs to be installed as close to the water meter as possible.

## Can I cover or hide the backflow preventer?

Yes, there are several methods to cover and protect the backflow prevention assembly from weather, vandals, and lawn mowing equipment.

## Why do backflow preventers need to be tested every year?

The backflow preventer is a mechanical device that needs maintenance just like a car. The annual test indicates if the internal check valves and mechanics are working properly and protecting your water.

## My backflow preventer sometimes leaks water from the relief valve. Can I remove or plug the valve to prevent water loss?

The relief valve is installed to prevent water pressure from building up too high when the water in a water heater expands. The relief valve can be replaced with a small expansion tank that does not leak. Plugging or removing the relief valve could cause damage to your water heater or plumbing.

# BACKFLOW PREVENTION

