

Backflow Prevention Devices

Backflow Prevention Assemblies

Backflow prevention devices, if properly installed and maintained, allow water to flow in only one direction. Water can flow from the public water system to the customer's property, but not in the other direction.

The type of device that is suitable for your property is based on the degree of hazard your property presents to the public water system. The most common types of backflow devices used are:

High Risk -

Reduced Pressure Zone Assembly (RPZA) - must be tested annually

Moderate Risk -

Double Check Valve Assembly (DCVA) - must be tested annually

Low Risk -

Dual Check Value - not testable

Types of Backflow Prevention Devices

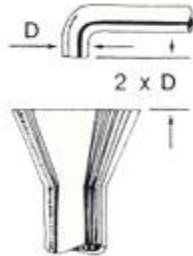
If you are required to install a backflow preventer, contact your plumber for recommendations on which preventer to install.



Dual Check Valve (DuC)

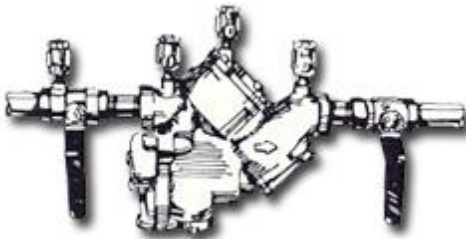
- Two independently acting, spring loaded check valves.
 - Usually does not have shutoff valves and may or may not be equipped with test cocks.
 - Should only be used to isolate non-health hazards and is intended for single family homes.
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Air Gap (AG)



- The vertical distance between the end of a water supply outlet (i.e. a hose, a tap) and the vessel or container the water is discharged into.
- Provides an adequate space between the contaminant and water supply.
- If well designed and properly maintained, is the best available protection against backflow.
- Can be used for extremely hazardous installations, in particular for the filling of tanks for chemical applications in the agricultural areas.

Reduced Pressure Zone Assembly (RPZA)*



- Two independently acting check valves separated by a reduced pressure zone.
- Installed as a unit between two shut off valves.
- Each check valve is fitted with a test cock for periodic testing.
- Can be used for health hazards (i.e. toxic material) and severely hazardous connections (i.e. medical/dental facilities, industrial plants and agricultural operations).

Double Check Valve Assembly (DCVA)*



- Two internally loaded check valves, force-loaded or internally weighted.
 - If one check valve fails to close the other will prevent backflow.
 - Each check valve is fitted with a test cock for periodic testing.
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- Can be used for all non-health hazards (non-toxic) connections (i.e. fire sprinkler, irrigation systems).



Hose Connection Vacuum Breaker (HCVB)

- A spring-loaded check valve seals against an atmospheric outlet when the water supply is turned on.
- The HCVB vents to atmosphere when it is turned off, protecting against backsiphonage conditions.

* Only the Reduced Pressure Principle Assembly (RPZA) and the Double Check Valve Assembly (DCVA) will be accepted for Premise Isolation.

Premise Isolation

Premise Isolation is having a backflow prevention device installed at the point where the water service enters a property, building or facility.

The following properties are required to have Premise Isolation at the property line:

1. Industrial
2. Commercial
3. Institutional
4. Agricultural

Already have Premise Isolation?

If your property already has Premise Isolation installed, you are required to provide the Utility workers access to assess buildings and or property for potential or actual cross connections.

Fixture Isolation

Fixture Isolation is having a backflow prevention device installed at the source of the potential contamination. This provides protection for only a section of the piping system.

Zone Isolation

Zone Isolation is having a backflow prevention device installed that protects the rest of a building from one particular area.

If your property **only has Fixture or Zone Isolation**, and you fall into the [high hazard category](#), you will need to update to Premise Isolation.