VIRGINIA
AMERICAN WATER

3- WAYS TO PROTECT FROM BACKFLOW

Air gap

Description: An approved air gap is a method of backflow prevention that means the physical separation between the end of the water supply pipe (example: faucet) and open vessel (example: sink).

Installation and testing requirements: The separation must be twice the supply pipe inside diameter but never less than one inch. An air gap or physical disconnection gives the highest degree of protection and shall be used whenever practical in high hazard situations subject to backpressure. Since the application of air gaps is limited, other backflow protection systems can be used

Reduced Pressure Zone Backflow Preventer

Description: The Reduced Pressure backflow preventer consists of two independent check valves and a differential pressure relief valve, which automatically relieves excess pressure

Typical use: The reduced pressure zone backflow preventer controls direct and indirect cross-connections it's also used to isolate potable water from non-potable water lines. Used for high hazard risks, the reduced pressure zone backflow preventer provides the highest level of protection.

Installation and testing requirements: Due to certain combinations of check valve failure and/or system backpressure cause the relief valve to discharge, the device must be mounted in a location where the drain will not become flooded. Annual testing is required.

Double check Valve Assembly

Description: The Double Check Valve (DC) assembly consists of two single independently acting check valves with water tight valves located at each end of the assembly.

Typical use: The double check backflow preventer can only be used in low hazards situations. The use of this type of device is to protect against back-siphonage or backflow caused by backpressure.

Installation and testing requirements: The Double check valve (DC) must be installed in an accessible location for annual testing, this device can be installed either horizontally or vertically.

Pressure Vacuum Breaker

Description: The Pressure Vacuum Breaker (PVB) is a device consisting of one independently operating spring loaded check valve.

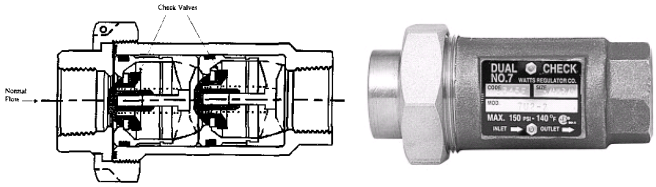
Typical use: Ideal for health hazards to protects against back-siphonage under continuous pressure such as irrigation systems and industrial process water systems where the water enters the equipment.

Installation and testing requirements: Commonly used in outdoor applications for protection in high or low hazard situations. Annual testing required

Residential dual check

Description: The Residential Dual Check (RDC) provides protection by closing two internal check valves whenever the water flow stops or reverses direction.

Typical use: The Residential Dual Check valve is designed for non-health hazard residential water systems.

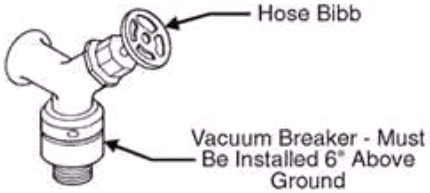


Installation and testing requirements: A Residential Dual check is installed immediately downstream of the residential water meters, this device needs to be rebuilt or replaced ever 5 years. There is no annual testing required.

Hose connection vacuum breaker (HVB)

Description: The spring-loaded check valve in the HVB does not allow drainage of water from between the hose bib and the upper part of the HVB. This device works to prevent backflow to the water supply by venting water to the atmosphere (onto the ground) when backflow conditions exist.

Typical use: The most common places HVB are installed, are sillcocks (where garden hoses connect), and laundry sink faucets.



Installation and testing requirements: A hose connection vacuum breaker, or HVB are installed on your outside faucets to prevent backflow of contaminated water into the water supply. No annual testing is required.