

What is a cross connection?

A cross connection is a permanent or temporary connection between potable drinking water and anything which can pollute or contaminate the water supply.

What is cross connection control?

Cross connection control is, simply a program that is designed to take the safeguards necessary to protect one of the worlds most essential assets.. water. Only through education and the combined cooperation, of the public and the water purveyor, can we insure a safe supply of drinking water. For further education information [ABPA](#)

What is backflow?

Water distribution systems are designed to keep the water flowing from the distribution system to our customer. However, when hydraulic conditions within the system deviate from the "normal" conditions, water flow can be reversed. When this backflow happens, contaminated water can enter the distribution system.

What causes backflow?

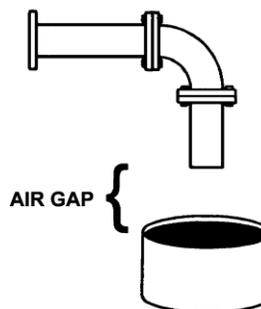
Backflow is possible in two situations, backsiphonage and backpressure. Backsiphonage occurs when there is a sudden reduction in the water pressure in the distribution system, such as during firefighting or when a water main breaks, water flow can be reversed. This can create a suction effect drawing the non potable substance into the potable water system. Backpressure is created when pressure in non-potable system, such as in a recirculation system containing soap, acid or antifreeze, exceeds that in the potable system pressure. This can force the potable water to reverse its direction of flow through the cross connection. Non-potable substances can then enter the potable water system.

How can backflow be prevented?

There are several types of backflow assemblies that prevent cross connection and backflow conditions. They are: air gap (AG) or a physical separation between the free flowing water to an open vessel, double check detector assembly (DCDA), reduced pressure detector assembly (RPDA), pressure vacuum breaker assembly (PVB) and the atmospheric vacuum breakers (AVB).

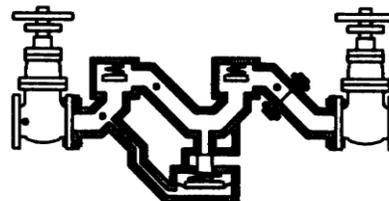
What is an air gap?

An air gap is a vertical, physical separation between the end of a water supply outlet and the flood-level rim of a receiving vessel. This separation must be at least twice the diameter of the water supply outlet and never less than one inch. An air gap is considered the maximum protection available against backpressure backflow or backsiphonage but is not always practical and can easily be bypassed.



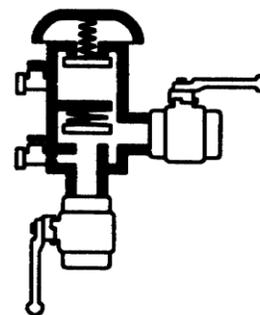
What is a reduced principle assembly (RP)?

An RP is a mechanical backflow preventer that consists of two independently acting, spring-loaded check valves with a hydraulically operating, mechanically independent, spring-loaded pressure differential relief valve between the check valves and below the first check valve. It includes shutoff valves at each end of the assembly and is equipped with test cocks. An RP is effective against backpressure backflow and backsiphonage and may be used to isolate health or non-health hazards.



What is a pressure vacuum breaker assembly (PVB)?

A PVB is a mechanical backflow preventer that consists of an independently acting, spring-loaded check valve and an independently acting, spring-loaded, air inlet valve on the discharge side of the check valve. It includes shutoff valves at each end of the assembly and is equipped with test cocks. A PVB may be used to isolate health or non-health hazards but is effective against backsiphonage only.





What is a double check valve assembly (DC)?

A DC is a mechanical backflow preventer that consists of two independently acting, spring-loaded check valves. It includes shutoff valves at each end of the assembly and is equipped with test cocks. A DC is effective against backpressure backflow and backsiphonage but should be used to isolate only non-health hazards.



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