

Alternatives For Your Backflow Prevention Assembly Single Family - Irrigation System Installation

Assembly Type	Assembly Description	Installation Requirements	Things to Consider	Testing Requirements
Reduced Pressure Principle (RP)	The RP is two spring loaded check valves separated by a pressure relief valve. Assemblies are made of brass or composite materials. Protects against backpressure and backsiphonage conditions	Must be installed 12" above ground over a concrete pad with an insulated enclosure (hot box). Chemical feed systems are allowed with an RP installation.	The RP is the most recommended protection and level required under the International Plumbing Code and most secure and reliable option. Brass assemblies can be expensive, but there are composite assemblies available which are less costly.	Annually
Double Check (DC)*	The DC is two spring loaded checked valves. Assemblies are made of brass or composite materials. Protects against backpressure and backsiphonage conditions.	Can be installed above ground inside an insulated enclosure or below ground inside an enclosure. Owner affidavit will be required. Chemical feed systems are not allowed with a DC installation	Provides above adequate protection. The footprint is smaller than other assemblies, can be installed in ground, can be expensive, but there are composite assemblies available which are less costly.	Annually
Pressure Vacuum Breaker (PVB)*	The PVB has a single check valve and a pressure vacuum breaker. Assemblies are brass. Protects against backsiphonage only.	Must be installed vertically above ground at least 12" above the highest downstream point on the system. Must be inside an enclosure. A survey of the entire plumbing system attached will be required to verify proper installation. Owner affidavit will be required. Chemical feed systems are not allowed with a PVB installation.	Provides adequate protection. The assembly will occasionally spray water. Installation requirements can mean that the assembly is raised significantly above the ground and requires system survey.	Annually. Periodic survey may be required to ensure proper installation.
Atmospheric Vacuum Breaker (ASVB)*	The AVB is a contained pressure vacuum breaker. Protects against backsiphonage only. Devices are plastic.	Must be installed vertically at least 6" above the highest outlet point and inside an enclosure. A survey of the entire plumbing system attached will be required to verify proper installation. Owner affidavit will be required. Chemical feed systems are not allowed with an AVB installation.	Provides a sub-adequate level of protection. Cannot be used under continuous pressure for more than 12 hours. The assembly must be replaced every five years. Susceptible to freezing. Requires system survey.	Non-Testable. Periodic survey may be required to ensure proper installation.

*-Assembly will require signed affidavit.