

PRESSURE VACUUM BREAKER ASSEMBLY (PVBA) SPILL-RESISTANT VACUUM BREAKER ASSEMBLY (SVBA)

The following installation practices are common to all pressure vacuum breaker assemblies and all spill-resistant vacuum breaker assemblies:

1. A PVBA shall only be installed in a vertical configuration a minimum of 12 inches above the highest downstream piping.
2. An SVBA shall only be installed in a vertical configuration a minimum of 12 inches above the highest downstream piping. The SVBA shall be treated the same as a PVBA because of the potential for the SVBA to be replaced by a PVBA.

When the SVBA is located inside a building, the concern is not as great about its installation in a location where the occasional spitting from the air inlet port could be a problem when the assembly is first pressurized. The SVBA is spill resistant, not spill proof. Spillage of water during testing and regular use should continue to be a concern.

The above noted installation requirements should be applied to PVBAs and SVBAs accepted by the water purveyor for or in lieu of premise isolation. Some plumbing codes may allow the installation of a SVBA with less than 12-inches above the highest downstream piping.

ATMOSPHERIC VACUUM BREAKER DEVICE (AVB)

The following installation practices are common to all atmospheric vacuum breaker devices.

1. An AVB shall be installed only in a vertical configuration, at least 6 inches above all downstream piping (highest point of use).
2. No control valve shall be installed on the downstream side of an AVB. The AVB shall be pressurized for more than 12 hours in any 24 hour period.

FREEZE PROTECTION

Backflow prevention assemblies are installed on all types of water services, so it is not always appropriate to shut down a system to drain the assembly to prevent freezing. All backflow prevention assemblies that are installed above ground level, or in shallow boxes or vaults, must have provisions for freeze protection in areas where freezing may occur. Table 7-1 provides test results that show how freeze protection affects the freezing time of pipes.

Experience has shown that freeze damaged assemblies are often damaged beyond repair, so they must be replaced. Therefore, it is a major consideration to provide freeze protection when initially installing an assembly. Freeze protection may be provided in two ways: provide a permanent heated location, or shut off and drain the service for winter.