

603.1 Approval of Devices or Assemblies. Before any device or assembly is installed for the prevention of backflow, it shall have first been approved by the Authority Having Jurisdiction. Devices or assemblies shall be tested for conformity with recognized standards or other standards acceptable to the Authority Having Jurisdiction. Backflow prevention devices and assemblies shall comply with Table 6-2, except for specific applications and provisions as stated in Sections 603.4 through 603.4.22.

Devices or assemblies installed in a potable water supply system for protection against backflow shall be maintained in good working condition by the person or persons having control of such devices or assemblies. Such devices or assemblies shall be tested at the time of installation, repair, or relocation and not less than on an annual schedule thereafter, or more often when required by the Authority Having Jurisdiction. If found to be defective or inoperative, the device or assembly shall be repaired or replaced. No device or assembly shall be removed from use or relocated, or other device or assembly substituted without the approval of the Authority Having Jurisdiction.

Testing shall be performed by a certified backflow assembly tester.

603.2 Backflow Prevention Devices, Assemblies, and Methods.

603.2.1 Airgap. The minimum airgap to afford backflow protection shall be in accordance with Table 6-3.

603.2.2 Atmospheric Vacuum Breaker (AVB). An atmospheric vacuum breaker consists of a body, a checking member, and an atmospheric port.

603.2.3 Hose Connection Backflow Preventer. A hose connection backflow preventer consists of two independent check valves with an independent atmospheric vent between and a means of field testing and draining.

603.2.4 Double Check Valve Backflow Prevention Assembly (DC). A double check valve backflow prevention assembly consists of two independently acting internally loaded check valves, four properly located test cocks, and two isolation valves.

603.2.5 Pressure Vacuum Breaker Backflow Prevention Assembly (PVB). A pressure vacuum breaker backflow prevention assembly consists of a loaded air inlet valve, an internally loaded check valve, two properly located test cocks, and two isolation valves. This device shall be installed indoors only if provisions for spillage are provided.

603.2.6 Pressure Vacuum Breaker Spill Resistant-Type Backflow Prevention Assembly (SVB). A pressure type vacuum breaker backflow prevention assembly consists of one check valve force-loaded closed and an air inlet vent valve force-loaded open to atmosphere, positioned downstream of the check valve, and located between and including two tightly closing shutoff valves and test cocks.

TABLE 6-3⁴
Minimum Airgaps for Water Distribution⁴

	When not affected by sidewalls¹	When affected by sidewall²
Fixtures	mm	mm
Effective openings ³ not greater than 15mm in diameter	25	40
Effective openings ³ not greater than 20mm in diameter	40	65
Effective openings ³ not greater than 25mm in diameter	50	80
Effective openings ³ greater than 25mm in diameter	2 times diameter of effective opening	3 times diameter of effective opening

¹ Sidewalls, ribs, or similar obstructions do not affect airgaps when spaced from the inside edge of the spout opening a distance exceeding 3 times the diameter of the effective opening for a single wall, or a distance exceeding 4 times the effective opening for 2 intersecting walls.

² Vertical walls, ribs, or similar obstructions extending from the water surface to or above the horizontal plane of the spout opening other than specified in Note 1 above. The effect of 3 or more such vertical walls or ribs has not been determined. In such cases, the airgap shall be measured from the top of the wall.

³ The effective opening shall be the minimum cross-sectional area at the seat of the control valve, the supply pipe or tubing that feeds the device or outlet. If 2 or more lines supply one outlet, the effective opening shall be the sum of the cross-sectional areas of the individual supply lines or the area of the single outlet, whichever is smaller.

⁴ Airgaps less than 25mm (1 in.) shall be approved only as a permanent part of a listed assembly that has been tested under actual backflow conditions with vacuums of 0 to 64cm (0 - 25 in.) of mercury.

SI: 1mm = 0.04 in