

Performance Requirements for Double Check Backflow Prevention Assemblies

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Double Check Backflow Prevention Assemblies ASSE Standard #1015-0001

Foreword

This foreword shall not be considered a part of the standard; however, it is offered to provide background information.

ASSE standards are developed in the interest of consumer safety. ASSE International considers product performance standards to be of great value in the development of improved plumbing systems. This standard does not imply ASSE International's endorsement of a product which conforms to these requirements.

Compliance with this standard does not imply acceptance by any code body.

There are two basic types of backflow, identified by the two conditions that cause it:

- 1) Back pressure backflow is a reversal of the normal direction of flow in the pipeline due to a condition which causes the pressure in the system being supplied to become greater than that in the supply line, the system pressure being always above atmospheric.
- Backsiphonage backflow is a reversal of the normal direction of flow in the pipeline due to a negative pressure (vacuum) being created in the supply line with the backflow source subject to atmospheric pressure.

Further, there are two basic and practiced methods for the protection of the potable water supplies:

- a) Protection by Containment: By suitable devices or means, of the system within the premises supplied, wherein may lie the source or sources of contamination, from the vendor's or public water supply system. Protection by containment protects the vendor's or public water supply only. It does not provide isolation protection within the premises supplied.
- b) Protection by Isolation of each individual outlet: The protection of each individual outlet by suitable devices or means, which within the premises served, may be a source of contamination.

This standard is a composite of the most practical and effective behavioral characteristics for a device of this type drawn on the experience of engineers, manufacturers, public health officials and others who are knowledgeable in this field and who have the responsibility of protecting our potable water supplies.

The type of occupancy of the premises, the design and construction of the system, and the manner in which it is used are major influences on the possible incidence of backflow. Consequently, the degree of the hazard to which persons may be exposed varies from discomfort and minor illness to fatal, if the backflow of contaminants into the potable water system is not completely prevented.

This standard is for assemblies that protect against low hazard pollutants. Typical installations are found in lawn irrigation systems, combi-boilers, domestic plumbing and rainwater harvesting systems.

This revision removes a previous category of devices referred to as Double Check Fire Protection Backflow Preventers, a type of lower pressure loss assembly that no manufacturer ever produced or offered into commerce. Fire sprinkler systems instead are almost universally protected by assemblies conforming to ASSE 1047 Reduced Pressure Detector Backflow Prevention Assemblies or ASSE 1048 Double Check Detector Backflow Prevention Assemblies.

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