Backflow Prevention Devices I-2

Basic Types of Testable Backflow Preventers

Reduced Pressure Zone (RPZ) Backflow Preventer

Purpose

For high hazard cross-connections and continuous pressure applications.

Description of Backflow Device

Two independent check valves with intermediate dumping relief valve, shut-off valves, and ball type test cocks.



Applications

Reduced Pressure Backflow Devices should be used whenever the non-potable source is more of a contaminant than a pollutant. Basically, they are applied as main line protection to protect the municipal water supply, but should also be used on branch line applications where non-potable fluid would constitute a health hazard, such as boiler feed lines, commercial garbage disposal systems, industrial boilers (see typical installations below).

Where to Use

Reduced Pressure Zone Devices may be used on all direct connections which may be subjected to backpressure or back-siphonage, and where there is the possibility of contamination by the material that does constitute a potential health hazard.

Typical Installations:

- Main Supply Lines
- Laboratory Equipment

Sewage Treatment

- Commercial Boilers Cooling Towers
- Waste DigestersCar Washes
- Hospital Equipment
- Processing Tanks



Testable Double Check Valve Assembly

Purpose

For low hazard cross-connections and continuous pressure applications.

Description of Backflow Device

Two independent check valves with shut-off valves and ball type test cocks.



Applications

Double Check Valve Assemblies may be used where the degree of hazard is low to intermediate, meaning that the non-potable source is polluted rather than contaminated. The degree of hazard is often determined by local Inspection Departments and therefore such departments should be questioned in order to comply with local regulations.

Where to Use

A Double Check Valve Assembly may be used as protection of all direct connections through which foreign material might enter the potable system in concentration and which would constitute a nuisance or be aesthetically objectionable, such as air, steam, food or other material which does not constitute a health hazard.

Typical Installations:

- Main Supply Lines
- Food Cookers
- Tanks and Vats
- Lawn Sprinklers
- Fire Sprinkler Lines

