



## **Back Flow Preventer**

A backflow preventer is installed to prevent backflow. Backflow is the undesirable reversal of the flow of water or mixtures of water and other undesirable substances from any source (such as used water, industrial fluids, gasses, or any substance other than the intended potable water) into the distribution pipes of the potable water system. Backflow occurs as a result of a “cross-connection” within the water system, which exists when there is any connection between a potable water system and any other source or system through which it is possible to introduce into the potable system any used water or other substance. There are many instances of cross-connection hazard. To explain the risk involved, imagine that one end of a garden hose is attached to your home’s water system and the other end is placed down into a bucket of insecticide. At the same time an abrupt loss of water occurs in the main water line serving your home (such as a water main break or large volumes of water released from a fire hydrant). The pressure drop causes a reverse flow in the water line and in a system with no backflow prevention insecticide from the bucket is sucked into your home’s drinking water and potentially into the main water line serving your community. The need for cross-connection control exists in all types of premises, whether industrial or residential. Backflow prevention devices help protect the public safety by preventing potable water contamination in such critical areas as municipal water systems, food processing plants, medical and dental water supplies, and many industrial applications. The Safe Drinking Water Act, signed into law in 1974, placed the responsibility of local governments and water authorities for drinking water protection.