



Cross Connection Control

The ParkUSA® BackFlo™ is a water cross connection prevention system designed to protect the public water supply from hazardous cross contamination.

Our modern community water supply system is designed to ensure that water flows to properties and buildings under pressure. A community water network contains many users. There is a risk to public health if a connection between the water supply and a contaminated source occurs. A cross-connection can occur where there is a pressure drop in the water main. This pressure drop causes a vacuum and siphons of entrainment water from end-users into the public water supply. The backflow preventer is generally located inside the property line of the end-user's facility and is installed in a concrete vault or on a concrete pad for protection and accessibility.

Municipalities around the country may require unique cross connection arrangements and specifications. Engineers rely on ParkUSA's code knowledge and technical expertise to specify the right equipment.



BACKFLO
WATER CROSS CONNECTION

Features

- Various models for different applications available
- Completely pre-assembled for easy installation
- Easy maintenance
- Precast concrete vault or pad and insulated enclosure
- Long-lasting and dependable service
- Only certified equipment used for construction



WD | BACKFLO
Standard



Model DDBP



Model DDBPPF



RPZ w/Enclosure



Model RPZ w/Cage

Types of Devices

Single Detector Checks: are used in the protection of potable water supplies from unauthorized water usages, or theft. This check valve device is not a backflow preventer, and should not be used for cross-connection control. In a non-flow condition, the check valves in the by-pass and mainline unit are closed. Flows from 0 to 10 GPM will flow through the metered bypass. The water meter will record the illicit water usage. This operation, at low flow rates, is accomplished by designing the differential pressure drop across the bypass line to be slightly less than the mainline check valves. Flows in excess of 10 GPM open the mainline check valve for normal flow.

Double Check Backflow Preventers (BP): are used in the protection of potable water supplies from backflow. In a non-flow condition, the check valves hold a 1 PSI minimum in the direction of flow. In a flow condition, the check valves are open proportional to the flow demand. In a backflow condition, the check valves close until the resumption of normal flow.

Double Detector Check Backflows (DDBP): are used in the protection of potable water supplies from backflow and unauthorized water usage. In a non-flow condition, check valves in the by-pass and mainline units are closed. Flows from 0 to 5 GPM will flow through the metered bypass. The water meter will record the illicit water usage. This operation at low flow rates is accomplished by designing the differential pressure drop across the bypass line to be slightly less than the mainline check valves. Flows in excess of 5 GPM open the mainline check valves for normal flow.

Reduced Pressure Backflow Preventers (RPZ): are used in the protection of potable water supplies from backflow, typically in high-hazard applications. In a flow condition, the check valves are open with the pressure between the checks, called the zone, being maintained at least 5 PSI lower than the inlet pressure, with the relief valve maintained closed. Should abnormal conditions arise under no flow or reversal of flow, the differential relief valve will open and discharge (to atmosphere) to maintain the zone at least 3 PSI lower than the supply. In resumption of normal flow, the zone's differential pressure will resume and the relief valve will close.

Visit backflo.parkusa.com for more information and design assistance.

To request a quote or catalog, visit request.parkusa.com.

How it Works

A backflow preventer is a check valve device that's installed on a potable piping system that allows water to flow in one direction, but never in the opposite direction. Its sole purpose is to prevent drinking water from being contaminated due to backflow.

Backflow of water is caused by the pressure differential between the upstream (water main) and the downstream of the backflow device.

Water pressure can be affected when:

- There is a break in the water main.
- Water is being pumped from the main water supply during a fire.
- A customer is using water at a higher pressure than the pressure supplied.
- Heavy water use downstream reduces water pressure upstream.
- The water outlet at the property is higher than the water main, causing constant back pressure.



Municipal



Commercial

APPLICATIONS



Industrial



Medical Facilities