



*Double Detector  
Check Valve*

## Backflo®

### Improve Security in Any Water Distribution System

Backflow prevention assemblies ensure that water flows in only one direction and protect potable water systems from contamination or pollution due to backflow. Each NWPX Park BackFlo® system includes a complete cross-connection control solution for all municipal, residential, commercial, and industrial projects. The assemblies are delivered on-site ready to plumb.

Our backflow prevention assemblies are manufactured in a variety of models to suit almost any building site. Some units include single detector check assemblies designed for fire protection systems, while others include double check valves for added security and enhanced features that continuously monitor water flow and detect any abnormal or unauthorized usage. If such usage is detected, it triggers an alarm, notifying personnel or monitoring systems of potential issues.



Full product  
catalog available at  
[nwpxpark.com/catalogs](http://nwpxpark.com/catalogs)

## Advantages

- Multiple models available for a variety of applications
- Components includes city-approved, name-brand check valves, detection meter, isolation valves, and pipe stub-out in precast vault
- An alarm notifies of unauthorized or unexpected flow and can alert building operations or fire department to respond to a potential fire emergency
- Redundant valves for backup protection
- Safe and secure access hatches or aboveground enclosures
- We utilize proven top name OEM components in our integrated valve assemblies
- Factory-built and hydrostatically tested prior to installation

## Applications

- Residential and commercial properties
- Industrial and manufacturing facilities
- Irrigation systems
- Municipal water systems
- Hospitals and healthcare facilities
- Water features and fountains

## How It Works

A backflow prevention assembly contains all parts within a precast concrete vault. The components vary depending on model, but the mechanics remain constant. Each assembly has an inlet and outlet. The inlet connects to the source of potentially contaminated water, while the outlet connects to the potable water supply system, usually a building. Water moves from the source through the inlet into the backflow assembly.

Check valves are a mechanical device that allows water to flow in one direction while preventing backflow in the opposite direction. A backflow prevention system contains multiple check valves for added security. Check valves are mechanical, spring-loaded, or pressure-sensing devices that close when there is a reversal of water flow. Under normal operation, the check valves remain open, allowing water to flow without restriction. If there is a reversal in water flow and a potential for backflow, the check valve will close, blocking the reverse flow.

## Available Models



### Single Detector Check Valve Assembly

Although not a certified backflow prevention system, single detector check valves are commonly used in fire protection systems to prevent backflow and monitor and record unauthorized use of water.

*(Note: A Single Detector Check Valve is not adequate for low- or high-hazard backflow prevention.)*



### Double Check Valve Assembly

Consists of two independent, spring-loaded check valves separated by a chamber. The second check valve acts as a backup if the first check valve fails to close completely or leaks.



### Double Detector Check Valve Assembly

Model includes an alarm system that can notify building operations of unexpected usage.



### Reduced Pressure Assembly

Combines a mechanical valve and a differential pressure sensing mechanism. A relief valve discharges water if pressure rises above the acceptable limits.



### Fire Department Connection

Specific connection installed on a building or freestanding in a vault structure to provide a link between the building's fire protection system and the fire department's water supply.

## System Components

### Precast Vault or Pad:

Most systems include a precast vault placed below grade that houses all internal components and includes a steel cover and access hatchway at grade. Aboveground units are anchored on a concrete pad and may be housed in a pre-engineered aluminum enclosure.

### Pipe Valves and Fittings:

Vary by model.

