



UNDERSTANDING CROSS-CONNECTIONS AND BACKFLOW PREVENTION

Protecting our drinking water starts with you. Learn more to find out how you can help!

What is a Cross-Connection? A cross-connection is a point in a plumbing system where the potable (clean, drinking) water supply is connected to a non-potable (unsafe) water source. These connections can be created by plumbing fixtures or equipment within the system. If not properly managed, pollutants and contaminants can enter the safe drinking water system through uncontrolled cross-connections, especially during backflow events.

What is Backflow? Backflow is the unwanted reverse flow of non-potable substances into the drinking water supply. This can happen due to two main conditions:

1. **Backsiphonage:** Caused by negative pressure in the water supply line, which can occur during waterline breaks, repairs, or when the water supply is shut off.
2. **Backpressure:** Occurs when the pressure in the potable water system is lower than that in a connected non-potable system. This typically happens when there are pumps, pressure vessels, or elevated plumbing involved.

Preventing Backflow: The Role of Backflow Preventers

Backflow preventers are mechanical devices that stop non-potable water from entering the potable water supply. However, these devices must be properly installed and maintained to ensure they function as intended.

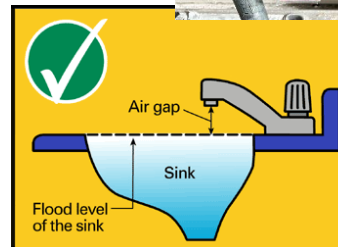
For a backflow preventer to work effectively, it must:

- Be suited to the specific backflow hazard it is protecting against.
- Be installed in compliance with state regulations.
- Be tested annually by a state-certified tester.
- Be repaired as needed to maintain optimal performance.

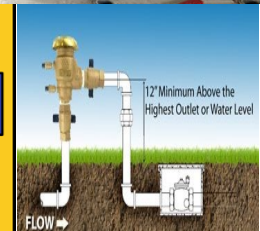
Common Types of Backflow Preventers

- **Reduced Pressure Backflow Assembly (RP)**
- **Air Gap (AG)**
- **Double Check Valve Assembly (DC)**
- **Pressure Vacuum Breaker Assembly (PVB)**
- **Spill-Resistant Vacuum Breaker Assembly (SVB)**
- **Hose Bibb Anti-Siphon Vacuum Breaker**

RP Image



Air Gap Illustration



PVB Illustration

Regulations and Resources

Every water system has cross-connection policies along with state drinking water regulations that require these connections be controlled using approved backflow prevention methods.

For more information on cross-connection control and backflow prevention, visit:

- [California State Water Resources Control Board](#)
- [U.S. Environmental Protection Agency](#) (search "cross-connection")