

Backflow Basics

What a leaking backflow assembly means

There are three basic types of backflow assemblies: The Pressure Vacuum Breaker (PVB), the Double Check (DC), and the Reduced Pressure Principle Backflow Assembly (RP).

Pressure Vacuum Breaker (PVB)

If you have visible leaking from a PVB, it will usually be from the top, coming out from underneath the canopy. This may be caused by a bad o-ring. The assembly needs to be disassembled, cleaned, and a new o-ring installed. It could be a bad air inlet disc, which needs to be cleaned or replaced. If you see a sudden discharge that stops after a few seconds, this is normal operation.



Double Check (DC)

A Double Check backflow assembly is a sealed assembly, and has no outlet for leaking. If a Double Check is leaking, it may be caused by a leaking o-ring on one of the caps, and can be repaired by a backflow tester. The leak could be caused by a pin hole or a crack in the body. If there's a pin hole or cracked body, the device must be replaced.



Reduced Pressure Principle Backflow Assembly (RP)

An RP has a relief valve and is designed to discharge water when a backflow condition or pressure fluctuations occur. Thus, if you see water discharge from the bottom of the RP in a quick burst that stops after the burst, it is most likely working correctly.



At times, you may see a steady drip, or a steady stream of water, or even a full-blown discharge (like a fire hose) from the bottom of the assembly. Sometimes water will discharge from the top of the assembly, or even the side.

All of these conditions can be addressed and the assembly can usually be repaired by a backflow tester. It is not necessary to replace the backflow assembly just because it is leaking. It is designed to discharge water and also designed to be repaired.

Things that you can do if you see a leak:

Make sure that the test cocks are in the closed position.

If the relief valve is leaking, do not attempt to tighten it and do not attempt to force it closed. This can cause damage to the assembly.

If the leak is slight, leave the assembly alone and call a backflow tester for service.

If the discharge is massive, turn off the water by closing the shutoff valves and call your backflow tester for immediate service.



Full relief valve discharge

If the leak is coming from a crack in the body, call your plumber and have a new backflow assembly installed. Be sure to follow local codes.

There are many different types of assemblies and numerous conditions that can cause leaking. This guide is for general information only and cannot cover all of the causes for a leaking backflow assembly. When you have a leak, call your backflow tester, who will be able to determine the cause of the leak and either fix it for you, or make recommendations as to the replacement of the assembly.