

New backflow assembly installations

It is common for a new backflow assembly to fail its initial test after installation. The reason is because when the shutoff valve is first opened to allow the flow of water into the backflow assembly, any debris (such as plastic particles, pipe dope, rocks, pebbles, landscape bark, rust particles, etc.) are swept into the assembly by the sudden rush of water.

The debris can be imbedded into the check disc, which prevents the check valve from closing with a complete seal, and thus it leaks. Once the piece of debris is removed, the indentation that is left in the disc prevents a perfect seal, and water leaks through it.

The picture below is of a brand-new check disc that was damaged by a piece of plastic that imbedded itself into the check disc. The picture on the right is of the indentation that was left in the check disc after the plastic piece was removed. In both cases, this check disc will leak and must be replaced.



To help reduce the chance of contamination to a new backflow assembly, great care must be taken when first introducing water to a new assembly. The following steps will be helpful:

- Before installing the assembly, flush the upstream pipe to help remove as much debris as possible.
- Once the backflow assembly is installed and you're ready to open the upstream shutoff valve, open it *very* slowly and just barely open it. This will load the assembly slowly and helps prevent the "rush" of water that can carry debris into the assembly.
- Open the test cocks to bleed the air from the assembly
- Once you've got water coming out of all of the test cocks, the backflow device will be full of water. Now you can close the test cocks and open the shutoff valve completely.

These procedures will help reduce the chance of initial failures, but are no guarantee, since it is impossible to determine and to control what debris might be present in the upstream pipe during initial installation and in the upstream pipe thereafter. And it is always possible for check valve fouling and leaking at any time.