

the Repair Guys



What's New in Backflow? Part 1 of 3

In our line of work, we field questions from contractors and technicians concerning repairs, installations, and general backflow prevention practices. We'd like to share some questions that we receive as well as our answers. Everyone has different opinions on these subjects and we would like to hear yours. Contact us with questions and ideas via email at: imark@backflowparts.com or mail us at American Backflow Products Co., PO Box 37025, Tallahassee, Florida 32315.

– Mark Inman and Jason Gregg

Question:

I have tested and repaired backflow preventers for many years. I can not remember a time when I have seen so many new models available. It seems like there are many new accessories as well. The good old assemblies seem to work just fine, so why are the manufacturers making so many changes? Can you give me an overview of some of these new products?



Mark:

At times it does seem like the equipment that we use in our industry is changing by the day. Yes, the old assemblies may work just fine, but the backflow industry must continue to develop new technologies so it can serve the customer better. As a backflow technician we must be familiar with the latest advancements so we can serve our customer better as well. We need a name for all these changes. The definition of "State of the Art" would be: The latest and most sophisticated or advanced stage of a technology, art or science. So in the next couple of articles we will take a look at some "State of the Art" backflow preventer features, installation and maintenance advancements, and the latest security products and/or accessories.



Jason:

A backflow prevention assembly consists of two independently operating check valves, two shut off valves, and maybe a hydraulically operated pressure differential relief valve. Simple enough, right? So how much can you advance that technology? Well, as the backflow industry grows, the manufacturers' get input from contractors, engineers, and municipalities as to what improvements they would like to have incorporated or changed with the equipment. Have you heard the saying "necessity is the mother of invention?" Each manufacturer has worked very hard to accommodate those requests, as well as, working to keep the cost down. Before we look at what is new, we will start with a brief look at what is old. Of course the term "old" is relative, but for this article we will consider "old" about 10 years or more



Mark:

With large assemblies (2 1/2inch -to-10inch) we were used to seeing assemblies that had big ductile or cast iron bodies. It was normal to have more than one access cover, not to mention many bolts and nuts that had to be removed. The check valve assemblies many times would be center stem guided with large springs. Of course, that means a very high pressure loss through the assembly. End connections were limited to ANSI flange pattern. The choice of shut off valves was almost exclusively No-Rising Stem (NRS) or Outside Stem & Yoke (OS&Y) gate valves. Many assemblies needed special tools for maintenance of the internal parts. There was very little flexibility when it came to the orientation of the assemblies and how they were installed.

Jason:

With the smaller backflow assemblies (3/4 inch -to- 2 inch) the changes have been more subtle. Many smaller assemblies are very popular and the manufacturers have continued to produce them just as they did 10 years ago. We are used to seeing a lot of brass in the bodies. Earlier units could be very difficult to repair because of many moving parts and the need for special tools. Sometimes check seats were not replaceable. Most manufacturers used Buna N as a standard elastomer for check discs.

I am sure that this brings back some "wonderful backflow memories" for some technicians. Many of these assemblies are still in service and some of that technology is still being produced today, but we are starting to see many new features being offered. We will look at some of those new features in next month's issue. ♡

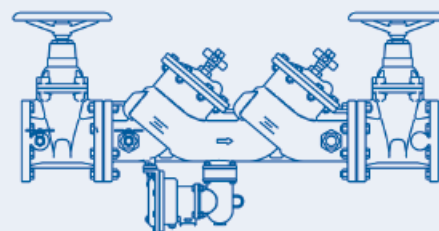


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