

the Repair Guys

Backflow Prevention Security Equipment

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:

Backflow preventer technology has advanced a great deal in the last ten years. I have seen many advancements in backflow related accessories as well. Can you give me some information on the latest security equipment that is available?

Mark:

Protecting the valves that protect our drinking water has become an important issue for most backflow technicians. It is like anything else, the customer has an investment in a piece of equipment, so he wants to protect that investment as best he can. As a technician, we need to be aware of the latest products available to help find a solution for any type of security problem. In this article, we will take a look at some "State of the Art" security products and accessories that are available. This would include: enclosures, test cock locks, flood protection, freeze protection, and tamper switches.

Jason:

When it comes to enclosures everyone's first thought is just freeze protection, but there are a few different options that are available. Of course, there are the standard fiberglass and aluminum insulated enclosures to help protect the assembly from freezing. Now there are many models of expanded metal enclosures or cages that will help to deter vandalism. There are rock enclosures available for concealing the assembly within the surrounding landscape.



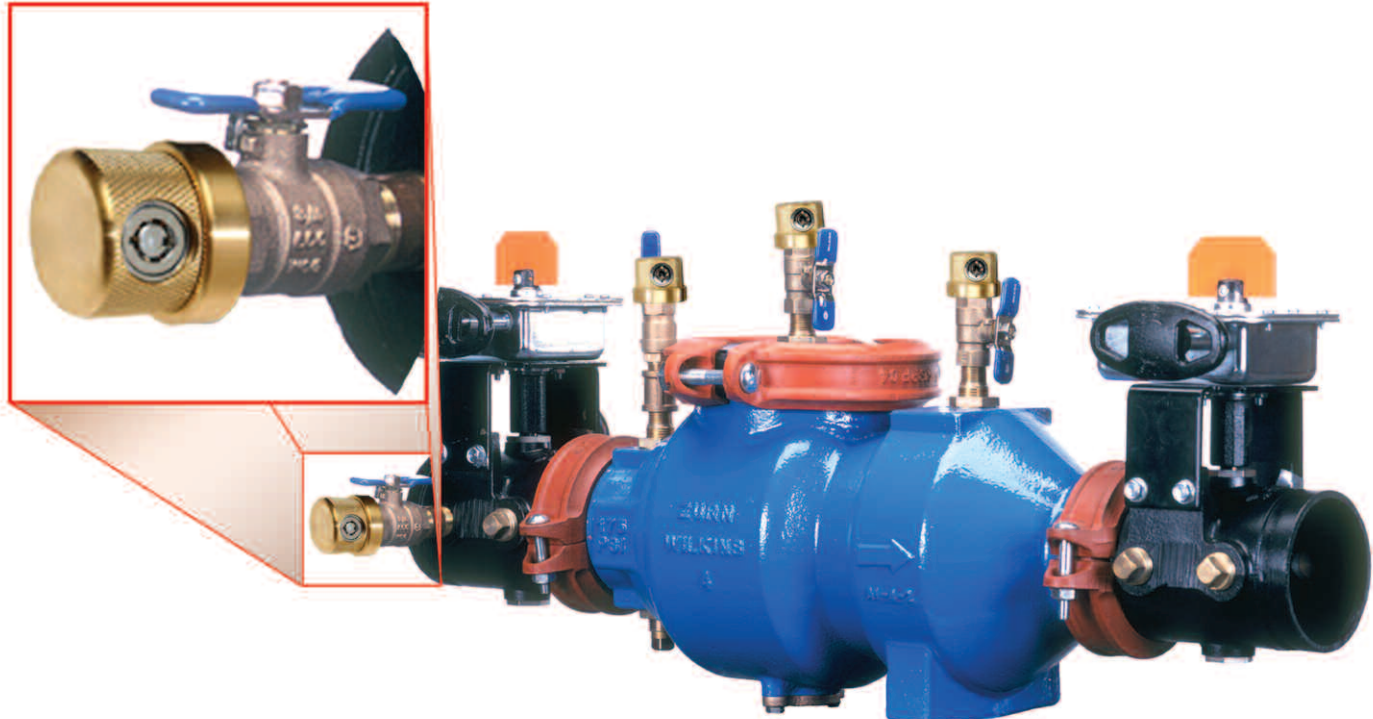
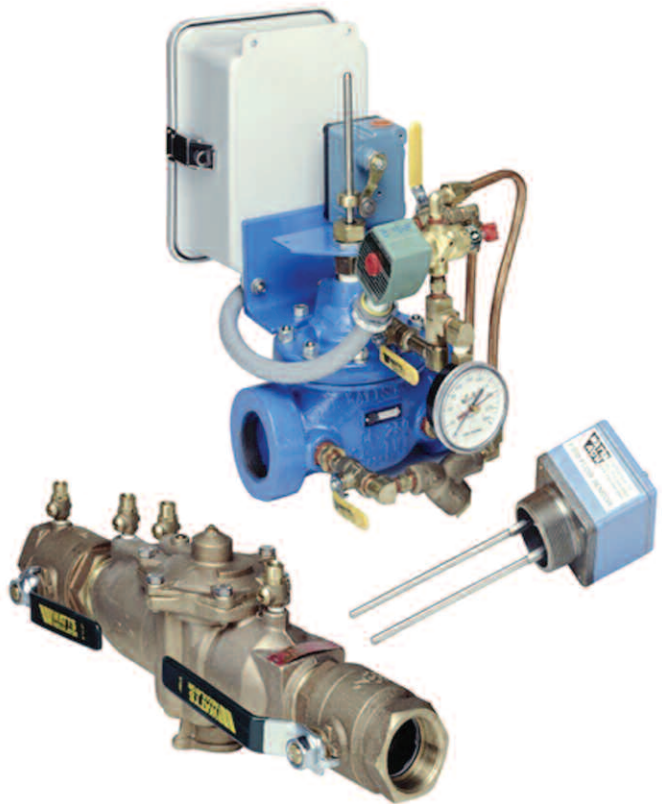


There are also products like insulated blankets that are cost effective and offer protection against frost or cold snaps.

Mark:

We have all seen test cocks used for everything except what they were designed for. Now there are lockable devices, called test cock locks that secure the outlet of the test cock. It is basically a lockable plug that is opened by a key.

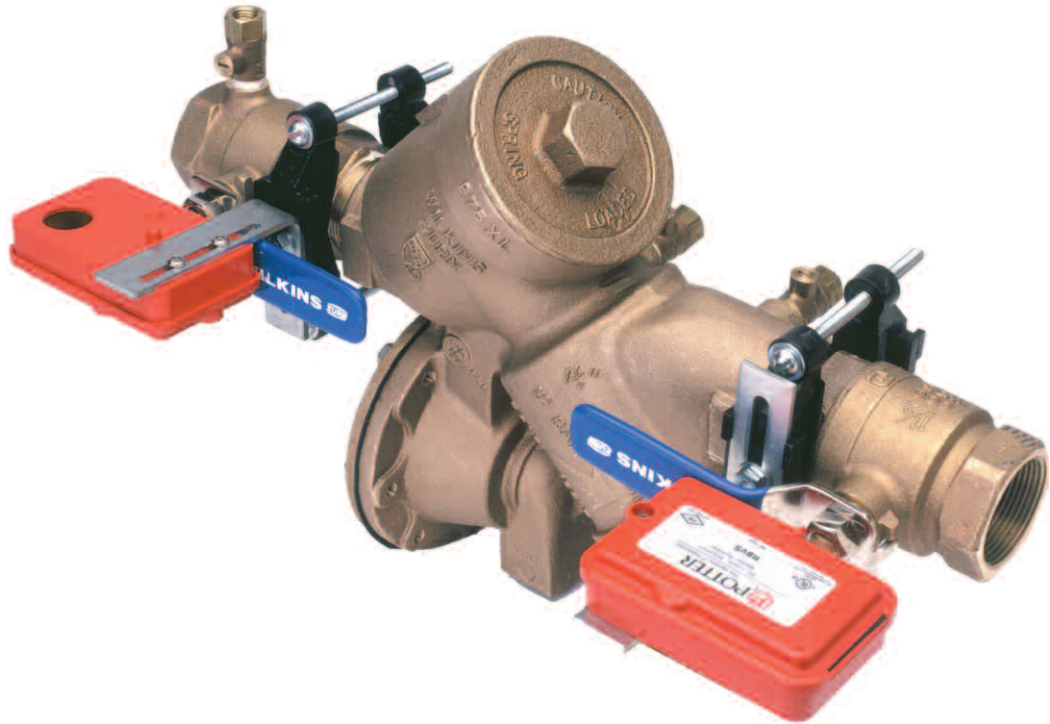
Next we can move on to flood protection for Reduced Pressure Assemblies (RPA). Undetected Relief Valve (RV) discharge is a big concern for anyone who has assemblies installed inside a building. A 2 inch RPA in full discharge can exceed more than 150 GPM and a 4 inch can exceed more than 500 GPM. Smaller assemblies 1/2 to 2 inch can come equipped with a relief valve monitor switch to warn a control panel or an alarm system. Larger assemblies 2 1/2 to 10 inch can use an automatic control valve and sensor to shut down the entire water system if it detects large amounts of discharge from the RV.



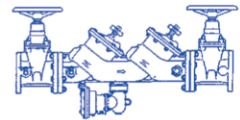
Jason:

Freeze protection valves are used as a back up means of freeze protection. That means they should be used with an enclosure, or in an area with only mildly cold weather. These valves install just down stream of the assembly and will automatically open at a set temperature and start draining water from the assembly. The valve will automatically close once the ambient temperature returns to the set point. The basic concept is that warmer water coming up from the meter will keep the assembly above the freezing point.

Finally we come to shut off valve protection. Obviously we want to know if someone is opening or closing shut off valves without authorization. Tamper switches can be attached to the valve and send a signal to a control panel to warn when the valve is actuated. Of course we are aware of the tamper switches for Outside Screw and Yoke (OS&Y) gate valves for fire applications, but now they are available for ball valves, so small assemblies can be monitored as well. There are also ball valve handle locks available. These allow you to padlock the shutoff valves for smaller assemblies. ▼



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