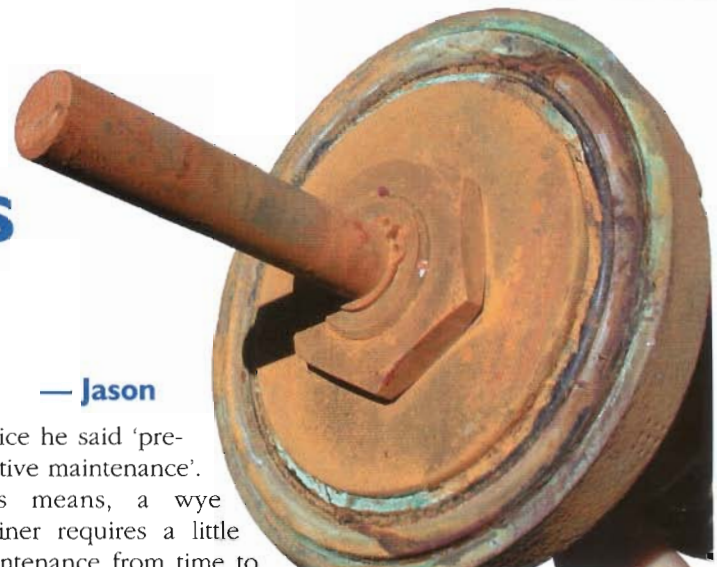


The Repair Guys



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

— Jason

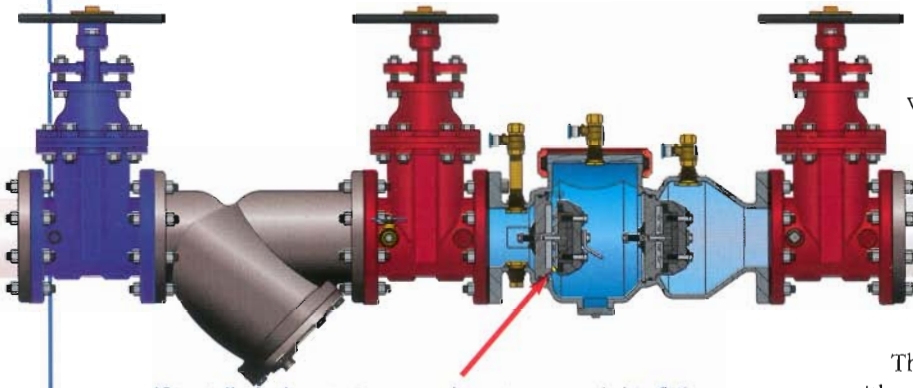
Notice he said 'preventive maintenance'. This means, a wye strainer requires a little maintenance from time to time. Any strainer must be cleaned and checked on a regular basis. A strainer is a filter and when it becomes saturated with debris it will cause restriction and flow problems for the customer.

QUESTION —

Wye strainers installed with a backflow preventer seems to be a good idea. Why don't we see them installed more often? Is there a reason that a wye strainer should not be used?

Mark —

There are some areas that require a wye strainer to be installed with the backflow preventer. In other areas you may not see them installed because they are an added expense to the installation. It can also increase the size of the installation which can also be an added expense. If you are lucky enough to be in an area with very little debris problems, you probably won't see many installed as well



ZURN WILKINS
Model 350 Double Check Valve Assembly

If installed, the strainer may have prevented this failure.

Mark —

Absolutely not. A wye strainer is a great form of 'preventive maintenance' for any assembly. We know that most problems with backflow preventers are caused by dirt and debris fouling check valves. If the debris can not make it to the device, you have already solved a big problem before it arises.

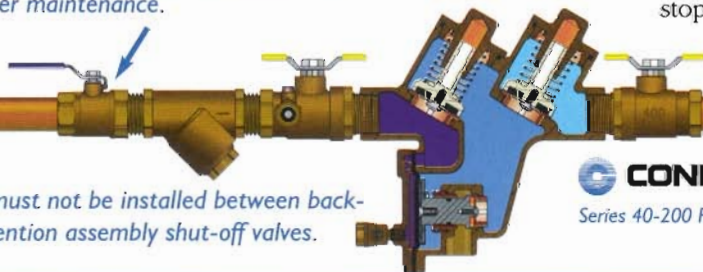
— Jason

They are not often installed after a water meter with an internal strainer or filter. In this case, there would be no reason to install another. If you are in an area with old water mains or debris problems, do not hesitate to install a wye strainer before the device. Just make sure the customer knows to clean and check it periodically. Be aware that a strainer does have some friction loss even when it is clean, so this could affect your hydraulic calculations.

Remember that isolation is necessary for strainer maintenance.

QUESTION —

I have a 1" Febco 825Y that I am trying to test. When I flush the number 2 test cock the relief valve opens at full discharge. When I close the number 2 testcock the discharge stops. I then connect the test kit and start bleeding the gauge and the same thing happens. Is there a problem with the relief valve?



Strainer must not be installed between backflow prevention assembly shut-off valves.

CONBRACO
Series 40-200 Reduced Pressure Principle Assembly

Mark —

I've been in similar situations and can testify the any device going into a full discharge for no apparent reason while you're kneeling beside it is enough to scare the P.S.I. out of any seasoned backflow technician. From what you describe, it could be the way you are flushing the testcocks. When you flush, be sure to open the testcock very slowly. Be extremely careful, you do not want to exercise the relief valve before you test it. This can cause a false reading for your relief valve opening point.

— Jason

Besides getting your feet wet, when the number 2 testcock is opened too quickly you take pressure away from the high pressure side of the diaphragm. The relief valve is going to

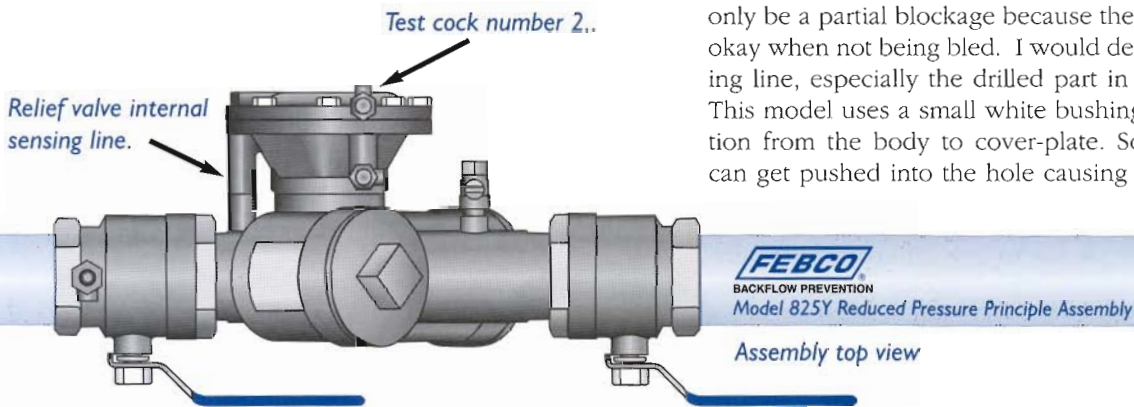
do what it was designed to do...open. Most testing facilities are teaching us to open the number 4 testcock and leave it running until we flush the other two or three. This would simulate water flowing through the device which would make it hard (not impossible) to open prematurely.

Mark —

You also mentioned that it did the same thing while bleeding your gauge. Now this sounds like it could be a sensing line problem. Look for corrosion or debris build up in or around the sensing line. The one-inch 825Y has an internal sensing line which can be easily inspected by removing the relief valve cover.

— Jason

I agree, it does sound like a sensing line problem. But it must only be a partial blockage because the device seems to work okay when not being bled. I would definitely check the sensing line, especially the drilled part in the relief valve cover. This model uses a small white bushing to make the connection from the body to cover-plate. Sometimes the bushing can get pushed into the hole causing a slight blockage.



AMERICAN BACKFLOW PRODUCTS

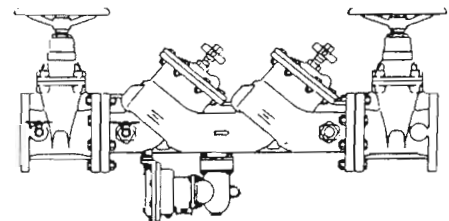
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