

# the Repair Guys

FLOMATIC VALVES

FEDERALLOY®  
61<5

*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 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](mailto:imark@backflowparts.com) or mail us at American Backflow Products Co., Post Office Box 37025, Tallahassee, FL 32315.*

- Mark Inman and Jason Gregg

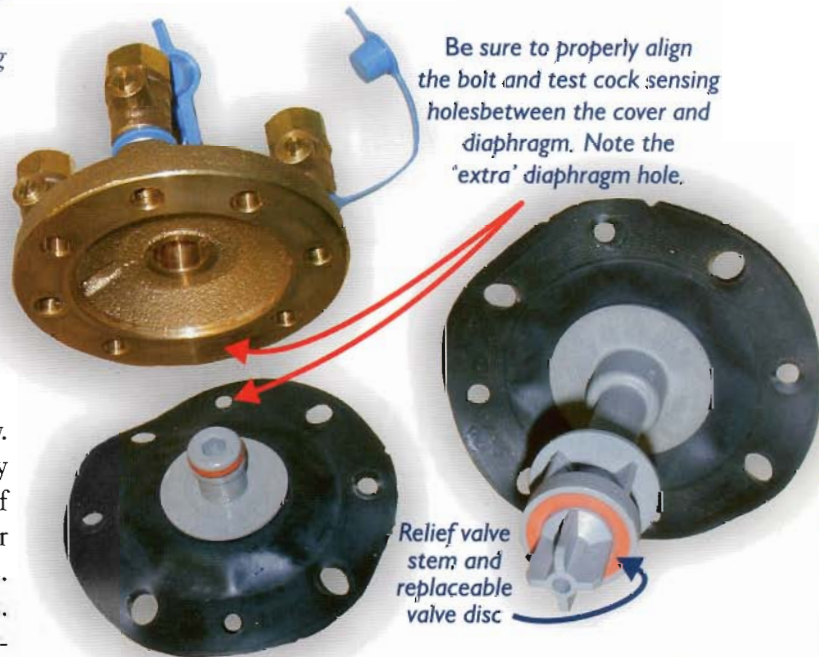
## QUESTION —

I have a 1-inch Flomatic model RPZ that needs service. I plan to install a complete rubber parts kit. I am not familiar with the Flomatic brand, and I am looking for general information about this assembly before I get started with the repair. Are there any tricks or special tools that I need to know of before I start on the repair?

Mark -

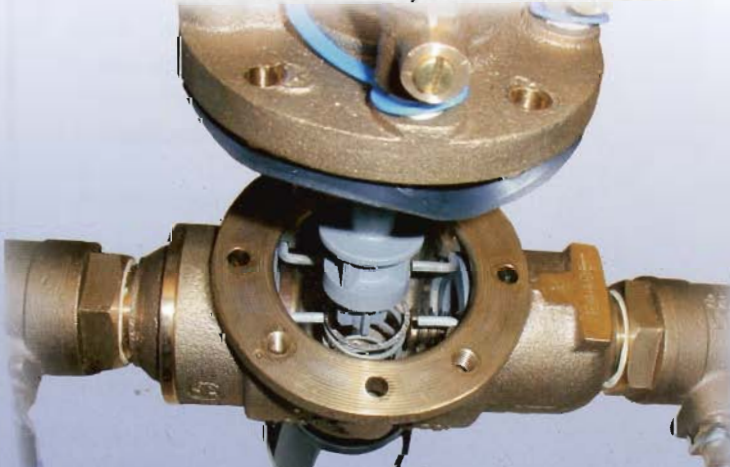
Flomatic is relatively new to the backflow industry. Flomatic began production of the RPZ series in the early 90's, so they may not be as prolific in your area as some of the other manufacturers are, but it is good to get familiar with the assembly, because you're likely to see more. First, let's go over some of the specifics for this device. The 1-inch model RPZ has a single access cover for service of the relief valve assembly and both check valve

assemblies. The access cover is sealed by the relief valve diaphragm. The check valves are modular in design and are held in place by retaining clips, and are sealed by the check seat O-ring. The check valve seats are plastic and replaceable. The check valve discs are silicone and the disc holders are brass. The relief valve stem is plastic and the relief valve seat is stainless steel.



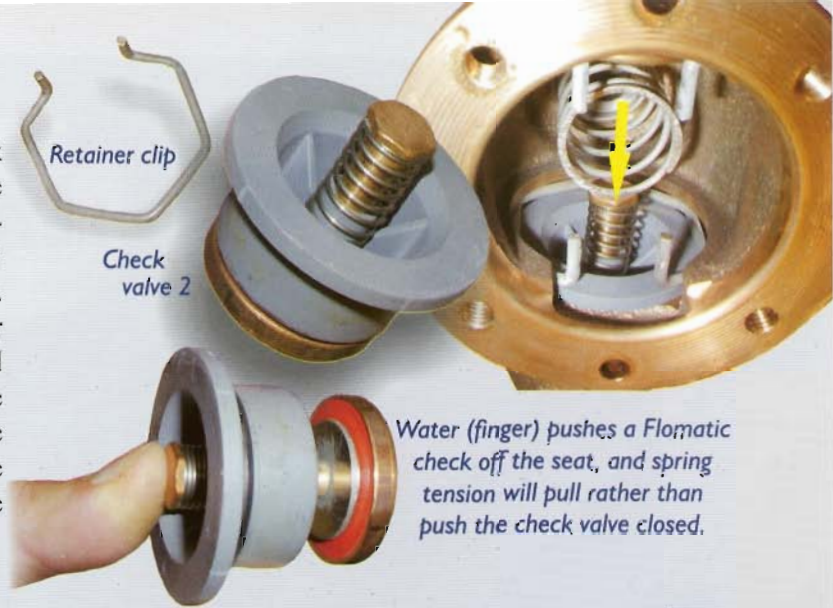
- Jason

Servicing the Flomatic RPZ is relatively straight forward, and no 'special tools' are required for repair. Let's start with the relief valve since it will be the first thing you will encounter after you remove the access cover. Be aware that the relief valve assembly is spring loaded, so hold the cover down firmly with one hand while removing the cover bolts. To replace the diaphragm you will need an Allen wrench to disassemble the top of the relief valve stem assembly. To replace the relief valve disc, you will need to unscrew the stem guide which is threaded into the bottom of the relief valve stem. The relief valve seat is pressed into the body and sealed with an O-ring. To change the seat, just pull it straight out of the body.



## Mark -

Now we can take a look at the first and second check valve assemblies. The Flomatic RPZ has a very unique check valve design. Both check valve assemblies are O-ring seated and use stainless steel spring clips (retainers) to hold the check valve assemblies into the device body. The check valve assemblies can be removed using a pair of groove joint pliers (channel locks) to squeeze and remove the clips. Some have told me that a pair of hose clamp pliers work just as well to remove these clips. Once the retainers have been removed, you can use flat blade screw driver to carefully pry the check valve from the body.



Water (finger) pushes a Flomatic check off the seat, and spring tension will pull rather than push the check valve closed.

- Jason

Once the check valves have been removed from the body, you can easily inspect the seal and seat for debris or damage. To disassemble the check valve, simply unscrew the check valve stem from the disc holder using a wrench or socket. Now you are able to replace the check valve disc. While the check assembly is disassembled, be sure to inspect the check seat for damage and replace if needed. When you reinstall the check valve assemblies, remember to use lubricant on the seat o-ring to help them slide back into the body. If the check valves are seated back into the correct position, the retaining clips will easily snap back into place.

dw&bp

Flow direction

Check valve 1

Note that the check valve modules are different shapes and the RP springs are visibly different.

Retainer clip



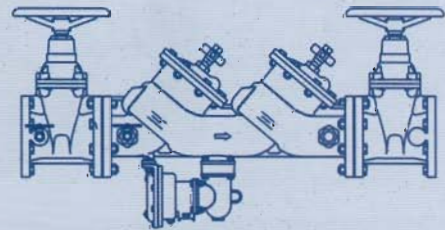
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