

The Repair Guys



Mark Inman



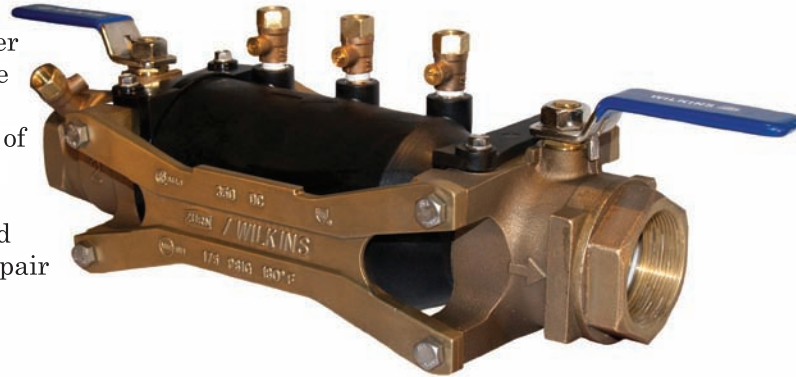
Doug Taylor

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.

Question:

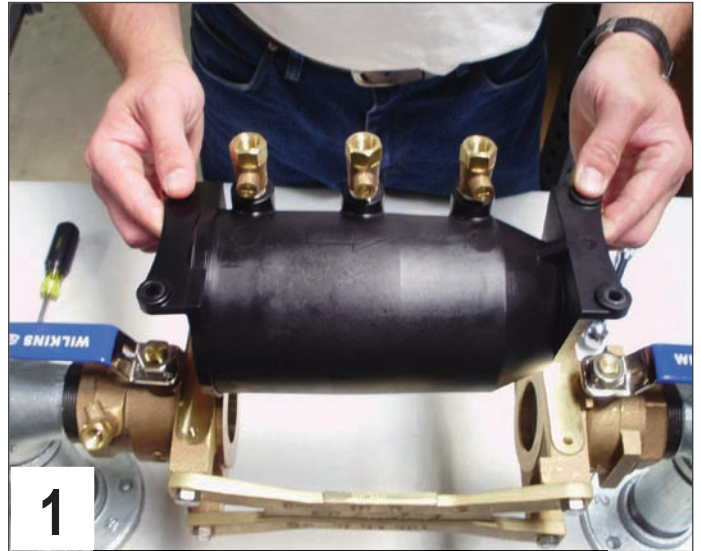
This month we are going to offer some repair instructions for the Wilkins 350 1 1/4"-2 inch sizes. This is Wilkins newest version of a double check valve assembly. We have fielded a few calls on these particular assemblies and just wanted to help with the repair procedures on this model.



Doug:

You might notice that the model 350 1 1/4"-2 inch sizes looks very different from anything that is on the market at this time.

The housing or vessel is made of an FDA approved reinforced black nylon. The vessel is o-ring sealed and is held in place within a pair of brass struts sometimes called a "cradle". The inlet and outlet ball valves are an integral part of the strut assembly. In order to repair or service this model, the vessel must be completely removed from the strut assembly. There are four 3/8" stainless steel bolts on the top side of the vessel that secure it to the strut assembly. Once the bolts are removed you can pull the vessel straight up and out. (1)



Mark:

The model 350 utilizes check valve modules that are located inside the vessel. The first and second check modules slide out through the inlet side of the vessel. First, be sure to open the three test cocks in order to remove any vacuum that has formed inside the vessel. (2)

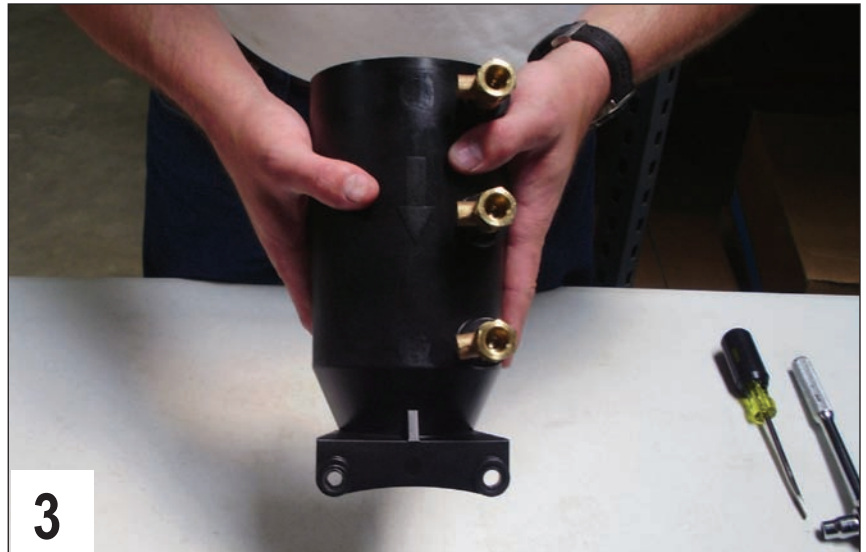
On the inlet side of the vessel you will notice that there is a closure sleeve that holds the modules in place. The closure sleeve is o-ring sealed and must be removed before



the check modules can slide out. To remove the closure sleeve, simply insert a flat head screwdriver into the slot on the under side of the vessel and gently pry it loose.

Doug:

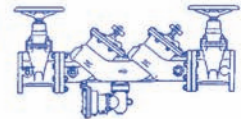
To remove the check modules, you must push on the spring retainer of the #2 check through the opening on the outlet side of the vessel. The check modules are o-ring sealed and may be a little difficult to push out by hand. A short blunt object such as a socket or a piece of wood can be placed on a flat surface. Then place the outlet side of the vessel over the object and push down until the modules slide out. (3)



The check valve modules are spring loaded. To disassemble the modules, twist the seat counter-clockwise about 1/4 turn. Once the module is apart you can inspect the seat and change the rubber disc. You may notice a visible difference between the #1 and #2 modules. The spring retainer on the #1 module has extensions that line up with the notches on the seat of the #2 module. This will be important when reinstalling the modules into the vessel. (4,5)



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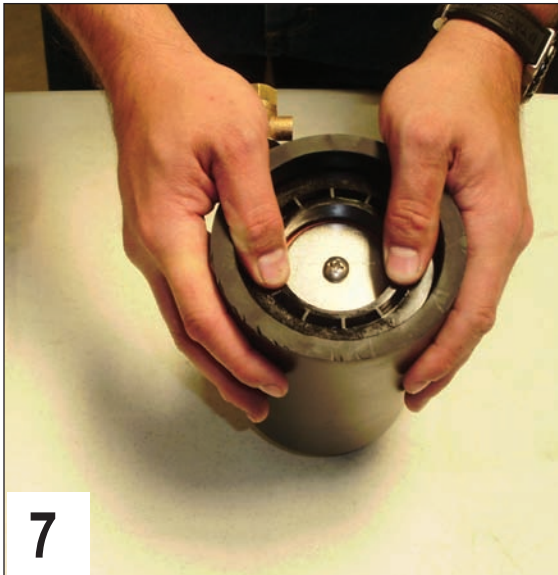
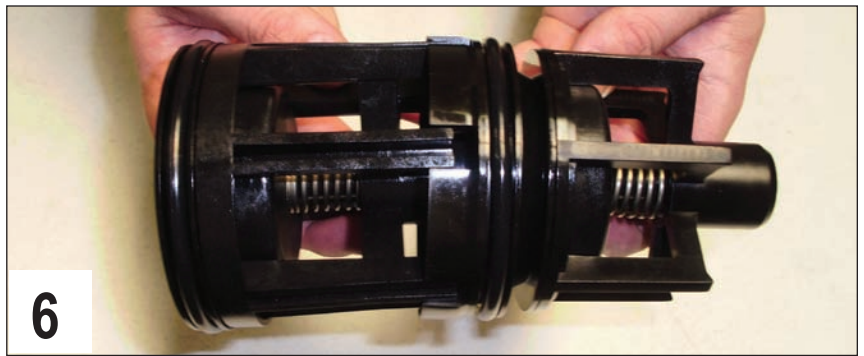
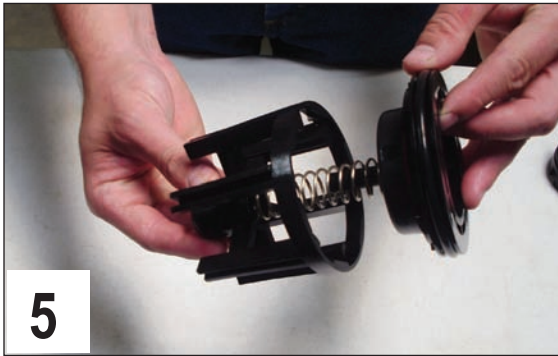


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Accepted



Mark:

Before reinstalling the checks, make sure to lubricate the check o-rings well. It is also very important to make sure you install the checks in the correct direction. First, insert the #2 check module into the vessel. Then insert the #1 check module in and turn it until the #1 spring retainer lines up with the notches on the #2 seat. (6)

Push both modules into the body. Lubricate the o-ring on the closure sleeve and insert against the checks. Place the closure sleeve on a flat surface and push down with a “rocking motion” until the sleeve seals with vessel. Now the vessel is ready to be placed in the cradle. (7,8)

Be sure to lubricate the vessel o-rings. Rock the vessel from side to side as it slides into position. (9)

Watch the o-rings on both ends so that they do not slide out of their groove. Make sure that the vessel is fully in position before replacing the retaining bolts.