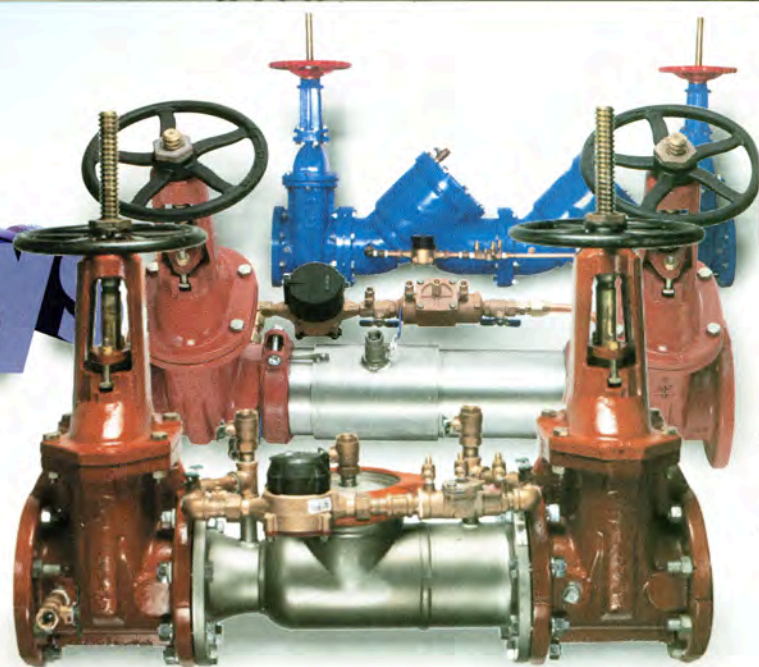


the Repair Guys



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 or mail us at American Backflow Products Co., Post Office Box 37025, Tallahassee, FL 32315.

— Mark Inman and Jason Gregg

QUESTION

My customer has a 6-inch double check valve assembly currently installed on his fire sprinkler system. Our local inspector has requested that he replace the existing assembly with a double check detector assembly. Do we have to replace the entire assembly, or can we just add a metered bypass to the unit?

Mark -

First, it is important that you ask that very question of your local inspector. He is the one that will ultimately approve or deny the modification or installation of the assembly. I would hate to see you go through a lot of work and expense just to be denied approval from your local authority. The reason I bring this up is because some water purveyors may or may not allow you to make this

kind of modification to an assembly. When you retrofit a device like this, you are actually creating a new device that may require a new model and serial number. The second thing to look at is if the manufacturer has the parts and will allow this type of modification as well.

- Jason

To make this modification, it is important to know what the differences are between a double check valve assembly (DCVA) and a double check detector assembly (DCDA.) The obvious difference is the metered bypass assembly that exists on the DCDA. The purpose of the bypass is to detect low flows through the assembly. The bypass consists of a meter that indicates the amount of flow and an additional DCVA that protects the cross connection that is created by the bypass. The not so obvious difference is the first and second check valve assemblies



For Ames, the authority must be advised of the change. A bypass manufactured by Ames must be used, and a factory authorized technician must perform the modification. The assembly must then be tested with the results forwarded to the factory. Once the field test results and old DCVA tag is received by the factory, a new tag will be sent and permanently fixed to the assembly. This modification only applies to older Ames models. The newer Colt series have the assembly information laser etched to the assembly body.

Watts Regulator does not recommend a field conversion and reminds you that such conversions are not approved by USC in Watts' Focus Bulletin No. 211. However, where situations warrant a conversion, Watts wants the conversion performed by a trained individual with the approval of the jurisdiction. The assembly must have a field test and when the work is completed, a new tag will be provided through the respective Watts agent. Watts also reminds us that the cast iron 709 will need to have the number 1 check spring assembly changed for the 709 DCDA conversion.



The Conbraco local representative advised that the factory only suggested conversions on its model 4S, cutaway is shown above.

in the mainline assembly. Some manufacturers use a heavier spring load in one or both of the check valves of the DCDA. This is done to direct low flows through the bypass.

Mark -

Be sure to consult the manufacturer or your parts supplier about what parts are needed to make this change properly. The meter that is used must be approved for that assembly. The bypass DCVA must also be approved and matched for use with the mainline assembly. The configuration and type of pipe fittings used on the bypass assembly is important to know as well. Brass or copper pipe and fittings are normally used to plumb the bypass assembly together. Do not forget to verify if the first or second check assembly must be replaced.

- Jason

Some manufacturers offer replacement parts and bypass kits to help retrofit your assembly. They may also offer replacement data plates that will update the model and serial numbers of the device. As you can tell, to modify a DCVA to a DCDA can be more involved than just simply adding a bypass. With the correct parts and knowledge, it can be done at a relatively low cost compared to replacing the entire assembly. Just remember to get approval from your local authority before you get started.

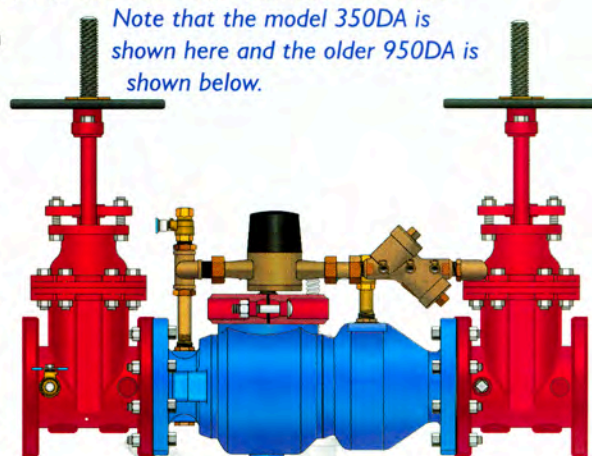
FEBCO[®] FEBCO's legal department has advised to not provide equipment or authorize modifications to DCDA's.

Wilkins provides its representatives part numbers for converting its models 350 and 450 to the respective detector assemblies. These parts include the number 1 and number 2 poppets, a control unit cover, the bypass assembly, a pitot tube assembly, the O-ring CU/cover and a tag. For additional information regarding these Wilkins assemblies, contact them at: 1747 Commerce Way, Paso Robles, CA 93446. Ph: 805-237-3828. Fax: 805-238-5766.

Remember in all cases:

- Use factory provided parts.
- Work done by a trained professional.
- Assembly is field tested.
- Notify the authority.
- Tag change.

Note that the model 350DA is shown here and the older 950DA is shown below.



ZURN / WILKINS

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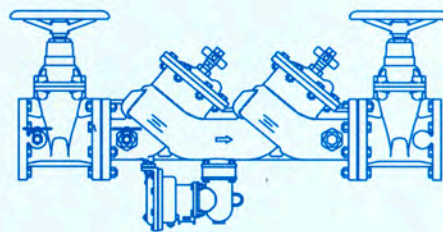
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