TEST GAUGE & BACKFLOW SUPPLY INC.

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Type II Detector Assembly Metered Bypass

Over the past couple of months, **Test Gauge & Backflow Supply** has been fielding a lot of questions in regards to the new Apollo Type II Bypass assemblies. The questions that we are being asked are: is it legal, how do you test the assembly, and what are approvals that allow the unit to be installed. After hearing all the above questions I reached out to John Stebbins from **Apollo Valves** and he has detailed the Type II Bypass assembly in his article below. The article covers ASSE approval, testing and how the unit works in comparison to the older bypass's that everyone is used to seeing.

If you have any questions pertaining to the Type II Bypass feel free to contact our office at 866-836-8692 and someone can assist you.

SUBJECT: Type II Detector Assembly Metered Bypass

A detector bypass assembly on a Double Check Detector or Reduced Pressure Detector Assembly is used to detect unwanted usage (system leaks) or unauthorized usage (intentional taps off of a sprinkler system) by a user customer to assure the water purveyor that a water line is only being used for the intended purpose, in this case, fire protection. It saves the expense of using compound water meters or having to charge a standby fee. The detector portion is designed to meter small amounts of flow before the higher fire flows occur and pass the fire flows with the lowest pressure loss through the mainline of the backflow preventer during a fire event.

The 2005 revision of ASSE 1047 (RPDA) and ASSE 1048 (DCDA) both allowed the use of a single check on the metered bypass as long as the bypass started after the first check of the mainline device and bypasses the second check of the mainline device. USC, FCCC&HR, Edition 10, 2009 (in revision since 1998) also recognizes the use of a single check in the metered bypass with the same installation as above. Both requirements call for a test cock before and after the single check to enable it to be tested. USC designates this bypass as a Type II bypass. The previous configurations for both agencies used a DC or RP on the bypass and the bypass connections were before the first check and re-entered after the second check.

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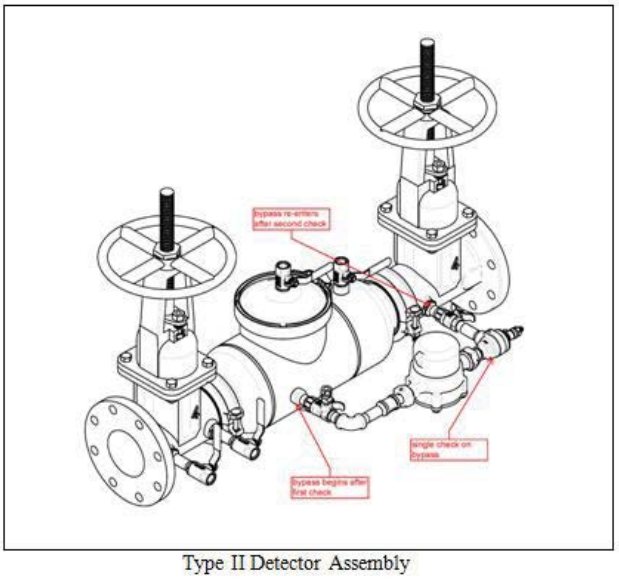
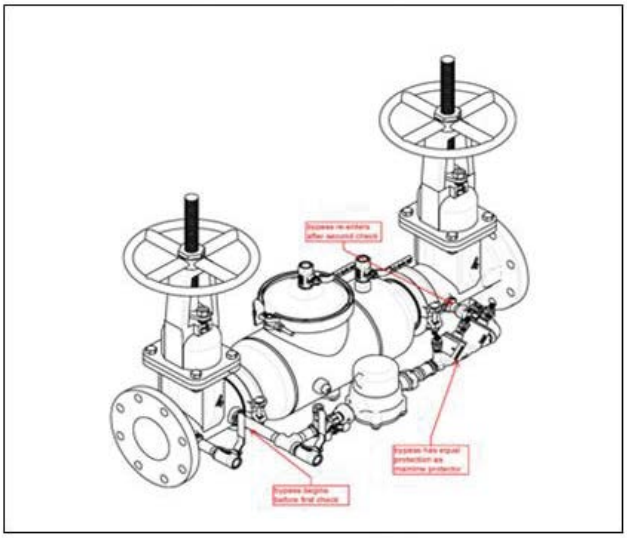
The reality of this change is that the same level of backflow protection (DC or RP) is provided with the Type II bypass configuration as the older configuration. For both types of backflow preventers, first check of the mainline unit is utilized as the first check of the bypass unit. The testing procedure is the same; only the reading for the first check obtained during the test should be recorded for both the mainline first check and as the bypass first check. The bypass single check valve has a model number and a serial number to be used on the test form as the bypass device serial number. For an RPDA, the reduced pressure zone for the mainline assembly is the RP zone for the bypass. The opening point is tested and recorded twice, once for the mainline and again for the bypass.

Below shows the physical layout of the bypass assemblies.



Type II Detector Assembly



Type I Detector Assembly

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