

## MID-WEST INSTRUMENT BACK FLOW TEST KIT

### 2 HOSE DOUBLE CHECK VALVE ASSEMBLY TEST PROCEDURE

**NOTE: IT IS THE TESTER'S RESPONSIBILITY TO DETERMINE IF THIS PROCEDURE IS ACCEPTED BY LOCAL AUTHORITIES.**

#### TEST SET UP:

1. Obtain permission to shut off the water supply.
2. Determine the direction of flow.
3. Identify and install appropriate adapters in all 4 test cocks. "Blow out" all 4 test cocks.
4. All test kit valves are closed.

#### TEST NO. 1 - IS SHUT OFF VALVE NO. 2 PRESSURE TIGHT?

1. Connect the red hose between test cock 2 and the high side connection on the test kit.
2. Connect the green hose between test cock 3 and the low side connection on the test kit.
3. Open test cocks 2 and 3.
4. Bleed the high side of the test kit.
5. Bleed the low side of the test kit.
6. Connect the black hose between test cock 4 and the bypass connection on the test kit.  
Open test cock 4.
7. Close the No. 2 shut off valve.
8. The gauge should read a minimum of 1 PSID.
9. Open the high control and bypass valves.
10. Close test cock 2.
11. •If the gauge reading holds steady, shut off valve No. 2 is recorded as TIGHT (proceed to Test No. 2).  
•If the gauge reading drops to zero, shut off valve No. 2 is leaking downstream.  
•If the gauge reading increases, shut off valve No. 2 is leaking under back pressure.
12. The check valves cannot be tested with this procedure unless a no-flow condition can be achieved through repair of shut off valve No. 2 or additional downstream shut-off.

#### TEST NO. 2 - IS THE STATIC PRESSURE DROP ACROSS CHECK VALVE 1 AT LEAST 1 PSID?

1. Close the high control and bypass valves.
2. Close test cock 4.
3. Disconnect the bypass black hose from test cock 4 and the test kit.
4. Open test cock 2.
5. Bleed the high side of the test kit.
6. Bleed the low side of the test kit.
7. Record the gauge reading. It should be 1 PSID or higher.
8. Close test cocks 2 and 3.
9. Disconnect hoses from test cocks.



**TEST NO. 3 - IS THE STATIC PRESSURE DROP ACROSS CHECK VALVE 2 AT LEAST 1 PSID?**

1. Connect high (red) hose to test cock 3.
2. Connect low (green) hose to test cock 4.
3. Open test cocks 3 and 4.
4. Bleed the high side of the test kit.
5. Bleed the low side of the test kit.
6. Record the gauge reading. It should be 1 PSID or higher.
7. Close all test cocks. Open No. 2 shut off valve. Remove all Test equipment. Drain test kit.

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