MID-WEST INSTRUMENT BACK FLOW TEST KIT
DOUBLE CHECK VALVE ASSEMBLY - TEST PROCEDURE

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

TEST SET UP:

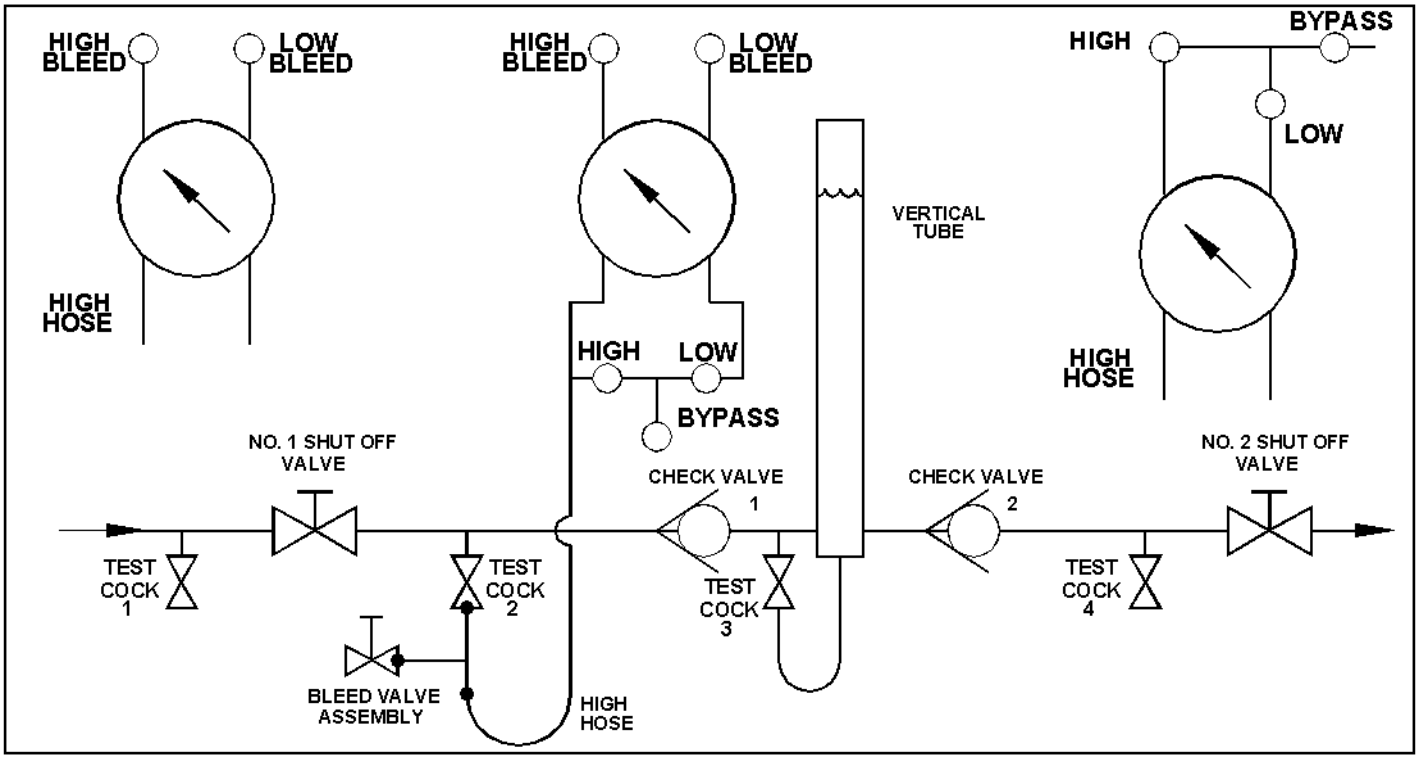
1. Obtain permission to shut off the water supply.
2. Determine the direction of flow.
3. Identify and "blow out" all 4 test cocks and install appropriate adapters in test cocks 2, 3 and 4.
4. All test kit valves are closed.

IMPORTANT: THE TEST KIT AND HOSES MUST BE HELD AT PROPER LEVEL.

****Note: The bleed valve assembly and vertical tube assembly are not included with the Test Kit.****

TEST NO. 1 - DETERMINE THE STATIC PRESSURE DROP ACROSS CHECK VALVE #1.
REQUIREMENT: #1 CHECK VALVE PRESSURE DROP SHALL BE AT LEAST 1.0 PSID.

1. Install a vertical tube to test cock 3 that rises above the check valve body unless test cock 3 is the highest point of the check valve body.
2. Attach a bleed valve assembly to test cock 2 and high hose of test kit to bleed valve assembly.
3. Open test cock 2 and bleed test kit by opening high side bleed valve. (High and by-pass valves on a 3-valve test kit) Close high side bleed valve. (High valve on a 3-valve test kit)
4. Open test cock 3 to fill the vertical tube or test cock, then close test cock 3.
5. Close # 2 shut off valve, then close #1 shutoff valve.
6. With the test kit and hoses at the same height as the water in the tube or test cock 3, slowly open test cock 3.
    a. Water stops running - record #1 check valve pressure drop. Proceed to step 8.
    b. Water continues to flow from test cock 3. Proceed to step 7.
    c. Water recedes from test cock 3. Lower the test kit to the centerline of the assembly and record #1 check valve pressure drop. Record #2 check valve and #2 shutoff valve as leaking.



7. Observe the test kit reading, then slowly open the bleed valve assembly:
    a. If the bleed valve assembly can be adjusted so there is a slight drip from test cock 3 and flow from the bleed valve assembly, then record the test kit reading as the #1 check valve pressure drop. Proceed to step 8.
    b. If the bleed valve assembly can not be adjusted to allow a slight drip from test cock 3, then the leaky #1 shutoff valve must be repaired before the test may be completed.
    c. If water does not continue to flow from the bleed valve assembly with water still flowing from test cock 3, record the test kit reading as the #1 check valve pressure drop. Record #2 check valve as leaking and #2 shutoff valve leaking under back pressure.

8. Close all test cocks, open #1 shutoff valve, and remove all test equipment.

TEST NO. 2 - DETERMINE THE STATIC PRESSURE DROP ACROSS CHECK VALVE #2.

REQUIREMENT: #2 CHECK VALVE PRESSURE DROP SHALL BE AT LEAST 1.0 PSID.

9. Install a vertical tube to test cock 4 that rises above the check valve body unless test cock 4 is the highest point of the check valve body.
10. Attach bleed valve assembly to test cock 3 and high hose of test kit to bleed valve assembly.
11. Open test cock 3 and bleed test kit by opening high side bleed valve. (High valve on a 3-valve test kit). Close high side bleed valve. (High valve on a 3-valve test kit)
12. Open test cock 4 to fill the vertical tube or test cock, then close test cock 4.
13. Close #1 shutoff valve.
14. With the test kit and hoses at the same height as the water in the tube or test cock 4, slowly open test cock 4.
    a. Water stops running - record #2 check valve pressure drop. Proceed to step 16.
    b. Water continues to flow from test cock 4 - proceed to step 15.
    c. Water recedes from test cock 4. Lower the test kit to the center line of the assembly and record #2 check valve pressure drop. Note #2 shutoff valve is leaking. Proceed to step 16.
15. Observe the test kit reading, then slowly open the bleed valve assembly:
    a. If the bleed valve assembly can be adjusted so there is a slight drip from test cock 4 and flow from the bleed valve assembly, then record the test kit reading as the #2 check valve pressure drop. Proceed to step 16.
    b. If water does not continue to flow from the bleed valve assembly with water still flowing from test cock 4, record the test kit reading as the #2 check valve pressure drop. Note the #2 shutoff valve is leaking under back pressure. Proceed to step 16.
    c. If it is not possible to adjust the bleed valve assembly to allow a slight drip at #4 test cock, check #1 shutoff to make sure it is closed tight. If a slight drip can not be obtained at test cock 4, AND test #1 passed, close the bleed valve assembly, and open test cock 2. Record the test kit reading as the #2 check valve pressure drop.
16. Close all test cocks and remove all test equipment.
17. Open #1 shutoff valve, then slowly open #2 shutoff valve.
18. Open all test kit valves and drain test kit.

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ARCO Engineering, Inc. SINCE 1954
www.arcoengineering.com
3317 Gilmore Industrial Blvd.
Louisville, KY 40213
Ph: (502) 966-3134
Fx: (502) 966-3135

6500 Dobry Drive • Sterling Heights, MI 48314 • Tel: 586-254-6500 • Fax: 586-254-6509