

TEST NO. 1

IMPORTANT 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 all 4 test cocks.
- 4. All test kit valves are closed.

3-VALVE TEST KIT TEST PROCEDURE

REDUCED PRESSURE PRINCIPLE ASSEMBLIES

DOES THE DIFFERENTIAL PRESSURE RELIEF VALVE OPERATE TO MAINTAIN THE "ZONE" BETWEEN THE TWO CHECK VALVES AT LEAST 2 PSI LESS THAN THE SUPPLY PRESSURE?



- Open the test cock 4 to establish flow through the RP. Flush test cocks taking care not to dump the relief valve; open test cock 3, SLOWLY open test cock 2, open test cock 1. Close test cock 1, 2, 3 and 4. Install appropriate adapters in all test cocks.
- 2. Connect the high (left) hose to test cock 2. Connect low (middle) hose to test cock 3.
- 3. Connect the yellow hose to the bypass (right) connection on the test kit. Fully open the bypass (right) valve.
- 4. Slowly open test cock 2. Bleed the low side through the bypass hose by opening the low (middle) valve.
- 5. Slowly open test cock 2. Bleed the high side by opening the high (left) valve.
- 6. Close No. 2 shutoff valve.
- 7. Close the high valves. After the gauge reaches the upper part of the scale close the low and bypass valves.
- 8. Observe the pressure drop across Check Valve 1. Should the pressure drop until the relief valve discharges continuously, check valve 1 is leaking and must be repaired before continuing.
- 9. Open the high (left) valve.

(continued on next page)



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3-VALVE TEST KIT TEST PROCEDURE

REDUCED PRESSURE PRINCIPLE ASSEMBLIES

DOES THE DIFFERENTIAL PRESSURE RELIEF VALVE OPERATE TO MAINTAIN THE "ZONE" BETWEEN THE TWO CHECK VALVES AT LEAST 2 PSI LESS THAN THE SUPPLY PRESSURE?



- 10. Open the low (middle) valve no more than one quarter (1/4) turn.
- 11. Watch the gauge drop slowly to the relief valve opening point, close the high and low valves and go to step 13.
- 12. Close the high and low valves and go to Test No. 2.
- No. 2 shutoff valve may be leaking. Reopen and close No. 2 shutoff valve to attempt a better shutoff. Repeat steps 9 through 11. If the relief valve does not open, a by-pass hose is required. (Large leaks may require a garden hose.)
- 14. Attach a hose (not supplied with Test Kit) to test cock 1. Bleed hose by opening test cock 1. Close test cock 1.
- 15. Connect the hose from test cock 1 to test cock 4.
- 16. Open test cock 1 to pressurize the hose.
- 17. Slowly open test cock 4. Repeat steps 9 through 11. If the relief valve does not open, the leaky No. 2 shutoff valve must be repaired.



TEST NO. 2

3-VALVE TEST KIT TEST PROCEDURE



IMPORTANT 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 all 4 test cocks.
- 4. All test kit valves are closed.

REDUCED PRESSURE PRINCIPLE ASSEMBLIES

IS CHECK VALVE 2 PRESSURE TIGHT AGAINST BACK PRESSURE?



NO BYPASS HOSE USED IN TEST 1.

- 1. Bleed bypass hose by opening the high (left) and bypass (right) valves. Close the bypass valve.
- 2. Attach the bypass (right) hose to test cock 4. Open test cock 4.
- 3. Loosen the low side hose at test cock 3 until the gauge reaches the upper part of the scale. Re-tighten the low hose at test cock 3.
- 4. Open the bypass (right) valve.

a.) If the differential pressure stabilizes above the relief valve opening point, check valve 2 is recorded as "tight" (Proceed to Test No. 3)

b.) If the reading falls to the relief valve opening point loosen the low hose at test cock 3 until the reading rises above the apparent No. 1 check valve pressure drop. Re-tighten the low hose.

> i.) If the reading stabilizes above the relief valve opening point, check valve 2 is recoreded as "tight" (proceed to Test No. 3)

ii.) If the reading falls to the relief valve opening point again, check valve 2 is noted as leaking and testNo. 3 cannot be completed.

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TEST NO. 2

3-VALVE TEST KIT TEST PROCEDURE



IMPORTANT NOTE:

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TEST SET UP:

- 1. Obtain permission to shut off the water supply.
- 2. Determine the direction of flow.
- 3. Identify all 4 test cocks.
- 4. All test kit valves are closed.

REDUCED PRESSURE PRINCIPLE ASSEMBLIES

IS CHECK VALVE 2 PRESSURE TIGHT AGAINST BACK PRESSURE?



BYPASS HOSE USED IN TEST 1.

- 1. Leave the bypass hose connected between test cocks 1 and 4.
- 2. Leave test cocks 1 and 4 open.
- 3. Open the low (middle) and bypass (right) valves allowing the pointer to reach the upper part of the scale. Close the low and bypass valves.
- If the differential pressure stabilizes above the relief valve opening point, check valve 2 is recorded as "tight". (Proceed to Test No. 3) If the reading falls to the relief valve opening point, check valve 2 is recorded as "leaking" and Test No. 3 cannot be completed.



TEST NO. 3

3-VALVE TEST KIT TEST PROCEDURE



IMPORTANT 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 all 4 test cocks.
- 4. All test kit valves are closed.

REDUCED PRESSURE PRINCIPLE ASSEMBLIES

IS THE STATIC PRESSURE DROP ACROSS CHECK VALVE 1 AT OR ABOVE 5 PSID?



NO BYPASS HOSE USED IN TESTS 1 AND 2.

- 1. Close the hight (left) and bypass (right) valves. Close the test cock 4 and disconnect the bypass hose.
- 2. Open the low (middle) and bypass (right) valves allowing the pointer to reach the upper end of the scale. Close the low and bypass valves.
- 3. Allow the gauge reading to stabilize. Record this reading as the static pressure drop across check valve 1.

BYPASS HOSE USED IN TESTS 1 AND 2.

- 1. Open the low (middle) and bypass (right) valves allowing the pointer to reach the upper end of the scale. Close the low and bypass valves.
- 2. Allow the gauge reading to stabilize. Record this reading as the static pressure drop across check valve 1.

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TEST NO. 3

IMPORTANT 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 all 4 test cocks.
- 4. All test kit valves are closed.

3-VALVE TEST KIT TEST PROCEDURE

REDUCED PRESSURE PRINCIPLE ASSEMBLIES

WRAP UP: Close all test cocks. Open the No. 2 shutoff valve. Remove all test equipment. DRAIN TEST KIT.



VALUES RECORDED FROM TESTS 1, 2, & 3

Test No. 1:

Relief Valve Opening Point = _____ Acceptable (2.0 PSID or Higher)

Test No. 2:

Check Valve No. 2 – Tight/ Leaking_____ Acceptable is Tight.

Test No. 3:

Check Valve No. 1 = _____ Acceptable (5.0 PSID or Higher)