MID-WEST INSTRUMENT TEST PROCEDURE – PRESSURE VACUUM BREAKER ASSEMBLIES

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 "blow out" test cocks and install appropriate adapters.
4. All test kit valves are closed.

IMPORTANT: THE TEST KIT AND HOSE MUST BE HELD AT THE SAME LEVEL AS THE PVB DURING TESTS 1 AND 2.

TEST NO. 1 – DOES THE AIR INLET VALVE OPEN WHEN THE PRESSURE IN THE BODY IS AT LEAST 1 PSI ABOVE ATMOSPHERIC PRESSURE? IS THE AIR INLET VALVE FULLY OPEN WHEN WATER DRAINS FROM THE BODY?

1. Remove air inlet valve canopy.
2. Connect a hose between test cock 2 and the high side connection on the test kit. Open test cock 2.
3. Bleed the high side by opening bleed high valve (high and bypass valves on a 3-valve test kit). Close the bleed high valve (high valve on a 3-valve test kit).
4. Close No. 2 shut off valve, and then close No. 1 shut off valve.
5. **SLOWLY** open the bleed high valve (high valve on a 3-valve test kit) no more than ¼ turn, dropping the pressure slowly. Record pressure reading when the air inlet valve opens. It should be 1 PSI or higher. If the air inlet valve does not open go to step 8.
6. Fully open the bleed high valve (high valve on a 3-valve test kit). Check if the air inlet valve is fully open. Close the bleed high valve (high valve on a 3-valve test kit).
7. Close test cock 2. Disconnect the high hose from test cock 2. Open shut off valve No. 1. Proceed to Test No. 2.
8. The No. 1 shut off valve is leaking. Open and close shut off valve No. 1 to attempt a better seal. Repeat step 6. If step 6 cannot be passed go to step 9.
9. **SLOWLY** open test cock 1 until the gauge reading starts dropping. Record the pressure reading when the air inlet valve opens. (It should be 1 PSI or higher.) Return to step 7. If test cock 1 is fully open and the air inlet valve has not opened, shut off valve No. 1 must be repaired or replaced.

TEST NO. 2 – DOES THE CHECK VALVE SEAL IN THE DIRECTION OF FLOW WHEN THE INLET PRESSURE IS 1 PSI ABOVE ATMOSPHERIC PRESSURE?

PRESSURE TIGHT NO. 1 SHUT OFF VALVE.

1. Connect high side hose to test cock 1. Open test cock 1.
2. Bleed the high side by opening the bleed high valve (high valve on a 3-valve test kit). Close the bleed high valve (high valve on a 3-valve test kit).
3. Close shut off valve No. 1, then open test cock 2.
4. Record the gauge reading when water stops draining from test cock 2. It should be 1 PSI or higher.
5. Close all test cocks. Open both shut off valves. Remove all test equipment. Replace air inlet valve canopy. Drain test kit.

LEAKY NO. 1 SHUT OFF VALVE

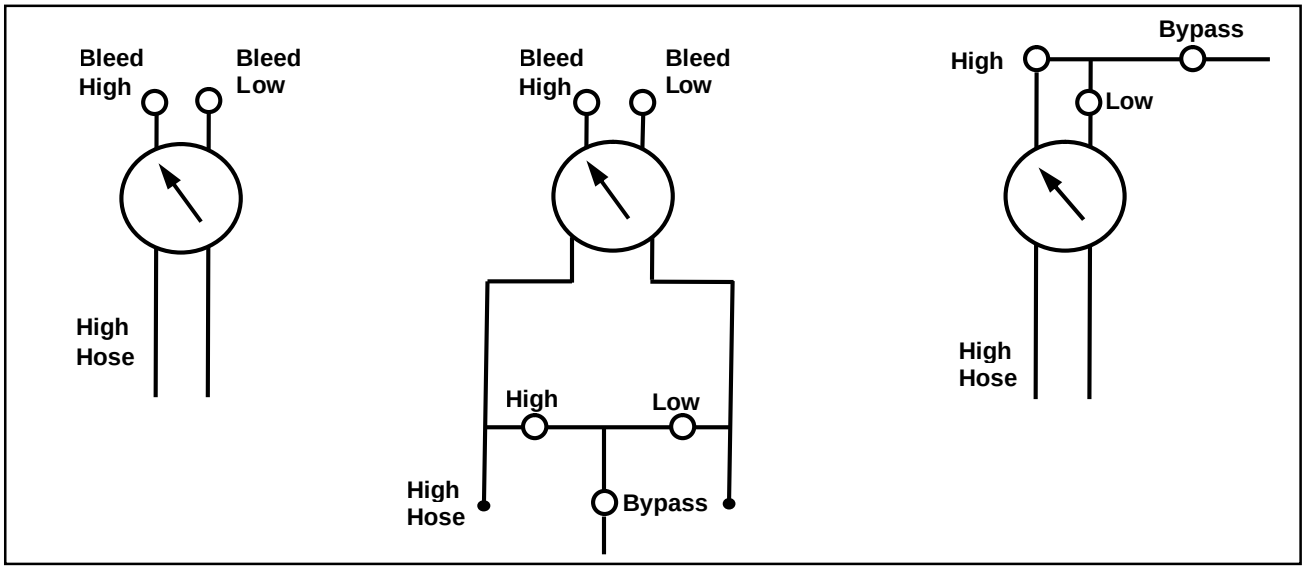
1. Connect a bleed-off valve assembly (such as Mid-West P.N. 830-0001, not included with test kit) to test cock 1.
2. Connect high side hose to the bleed-off valve. Open test cock 1.
3. Bleed the high side by opening the bleed high valve (high valve on a 3-valve test kit). Close the bleed high valve (high valve on a 3-valve test kit).
4. Close shut off valve No. 1, then open test cock 2.
5. Slowly open the bleed-off valve at test cock 1 until the water flow stops draining from test cock 2. Record the gauge reading. It should be 1 PSI or higher.
    - If the flow from test cock 2 cannot be stopped by opening the bleed-off valve, shut off valve 1 must be repaired or replaced.
6. Close all test cocks. Open both shut off valves. Remove all test equipment. Replace air inlet valve canopy. Drain test kit.

MID-WEST INSTRUMENT TEST PROCEDURE- SPILL-RESISTANT PVB ASSEMBLIES

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. "Blow out" test cock and vent valve and install appropriate adapter.
4. All test kit valves are closed.

IMPORTANT: THE TEST KIT AND HOSE MUST BE HELD AT THE SAME LEVEL AS THE SVB DURING TESTS 1 & 2



TEST NO.1 – DOES THE AIR INLET VALVE OPEN WHEN THE INLET PRESSURE IS AT LEAST 1 PSI ABOVE ATMOSPHERIC PRESSURE? IS THE AIR INLET VALVE FULLY OPEN WHEN THE INLET PRESSURE IS ATMOSPHERIC?

1. Remove air inlet valve canopy.
2. Connect a bleed-off valve assembly (such as Mid-West P.N. 830-0001 not included with test kit) to the test cock.
3. Connect a hose between the bleed-off valve and the high side connection on the test kit. Open the test cock.
4. Bleed the high side by opening the bleed high valve. (High and by-pass valves on a 3-valve test kit) Close the bleed high valve. (High valve on a 3-valve test kit)
5. Close No. 2 shut off valve, then close No. 1 shut off valve.
6. Open the vent valve on the SVB. (If gauge reading drops, record the reading if the air inlet valve opens.)
7. **SLOWLY** open the bleed high valve (high valve on a 3-valve test kit) no more than ¼ turn dropping the pressure slowly. Record the pressure reading when the air inlet valve opens. It should be 1 PSI OR HIGHER. If the inlet valve does not open, close the bleed high valve (high valve on a 3-valve test kit) and go to step 10.
8. Fully open the bleed high valve (high valve on a 3-valve test kit). Check if the air inlet valve is fully open. Close the bleed high valve. (High valve on a 3-valve test kit)
9. Close the vent valve on the SVB. **SLOWLY** open No. 1 shut off valve. Proceed to TEST NO. 2.
10. The No. 1 shut off valve is leaking. Open and close shut off valve No. 1 to attempt a better seal. Repeat step 7. If step 7 cannot be passed go to step 11.
11. Slowly open the bleed-off valve dropping the gauge reading to about 10 PSI. Repeat step 7. If step 7 cannot be passed when the bleed-off valve is fully open, the No. 1 shut off valve must be repaired or replaced.

TEST NO. 2 – IS THE STATIC PRESSURE DROP ACROSS THE CHECK VALVE 1 PSID OR HIGHER

1. Close No. 1 shut off valve. (If No. 1 shut off valve was leaking in TEST NO. 1 go to step 3.)
2. Open the vent valve on the SVB. Record the gauge reading when water stops draining from the vent valve. It should be 1 PSI or higher. Go to step 4.
3. Open the vent valve on the SVB. **SLOWLY** open the bleed-off valve until the water stops draining from the vent valve. Record the gauge reading. It should be 1 PSI or higher.
   - If the flow from the vent valve cannot be stopped by open the bleed-off valve, the No. 1 shut off valve must be repaired or replaced.
4. Close the test cock and vent valve. Open both shut off valves. Remove all test equipment. Replace air inlet valve canopy. Drain test kit.