

PRESSURE VACUUM BREAKER ASSEMBLIES

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

TEST SET UP:

- 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 ½ 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 lf step 6 cannot be passed go to step 9.
- 9. <u>SLOWLY</u> 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

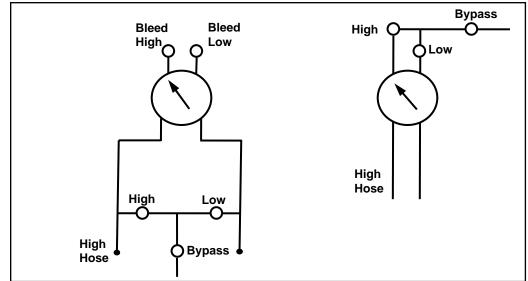
- 1. Connect a bleed-off valve assembly (not included with test kit) to test cock 1.
- 2. Connect high side hose to the bleed-off valve. Open test cock 1.
- 3. Bleed the high side by opening the bleed high valve (high valve on a 3-valve test kit). Close the bleed high valve (high valve on a 3-valve test 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 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.

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.
 - 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 (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.