

**MID-WEST INSTRUMENT 855 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. Close all test kit valves are closed.

**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. Close the bleed high valve.
4. With the test kit at the level of the air inlet, close No. 2 shut off valve, and then close No. 1 shut off valve.
5. **SLOWLY** open the bleed high valve **no more than ¼ turn, dropping the pressure slowly.**
6. When the **ΔP** drops below 15 PSID, slow the pressure drop and click “START CAPTURE”.
7. When the air inlet valve opens, click “STOP CAPTURE” to record the air inlet opening. A passing result is 1 PSI or higher. If the air inlet valve does not open, go to step 10.
8. Close the bleed high valve. Remove the high side hose from test cock 2 to drain water from the PVB body. Check and record if the air inlet valve is fully open, slide the toggle button from “Did not open” to “Opened”.
9. Close test cock 2. Open shut off valve No. 1. 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 5-7. If step 5-7 cannot be passed go to step 11.
11. **SLOWLY** open test cock 1 until the **ΔP** reading starts dropping. When the **ΔP** drops below 15 PSID, click “START CAPTURE”. When the air inlet valve opens, click “STOP CAPTURE” to record the air inlet opening. A passing result is 1 PSI or higher Return to step 8. 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. Close the bleed high valve.
3. With the test kit at the level of test cock 2, close shut off valve No. 1, then open test cock 2.
4. When water stops draining from test cock 2, click the “Check Valve” “CAPTURE” button to record the reading. A passing result is 1 PSI or higher.
5. Close all test cocks. Open both shut off valves. Remove all test equipment. Replace air inlet valve canopy.  
***OPEN ALL TEST KIT VALVES TO DRAIN TEST KIT.***

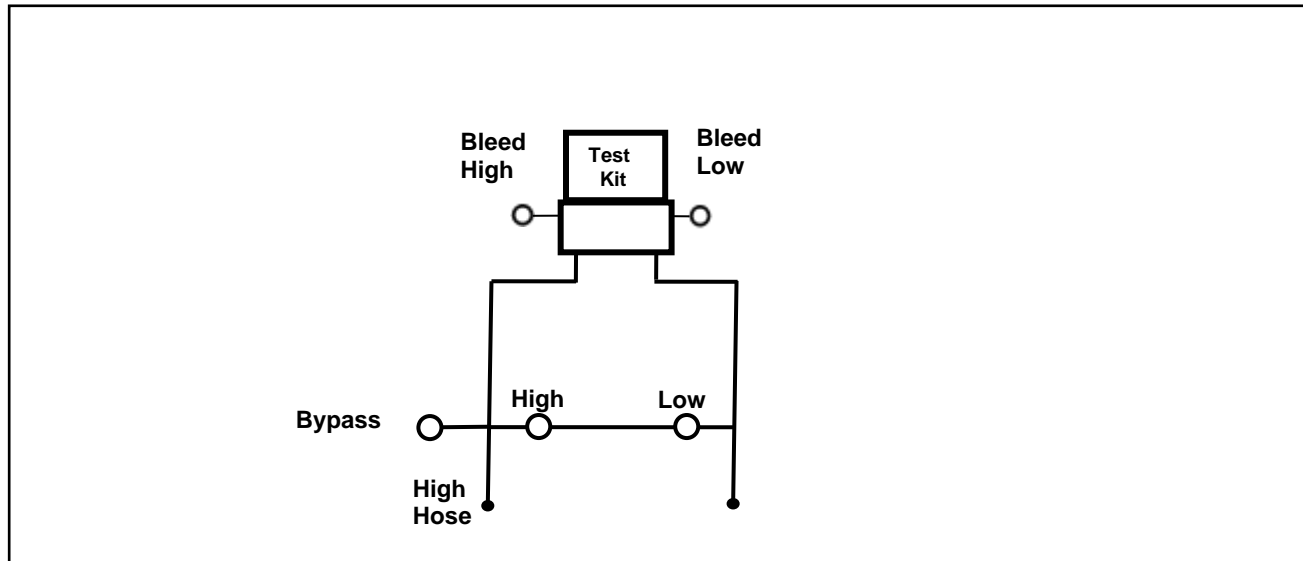
**LEAKY NO. 1 SHUT OFF VALVE**

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 the high side hose to the bleed-off valve. Open test cock 1.
3. Bleed the high side by opening the bleed high valve. Close the bleed high valve.
4. With the test kit at the level of test cock 2, 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. Click the “Check Valve” “CAPTURE” button to record the reading. A passing result is 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.  
***OPEN ALL TEST KIT VALVES TO DRAIN TEST KIT.***

## MID-WEST INSTRUMENT 855 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.



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

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. Close the bleed high valve.
5. With the test kit at the level of the vent valve, close No. 2 shut off valve. Close No. 1 shut off valve.
6. Open the vent valve or screw on the SVB. (If the air inlet valve opens, click the "Air Inlet Valve" "CAPTURE" button to record the reading.) When water stops draining from the vent valve or hole where the screw was removed, click the "Check Valve" "CAPTURE" button to record the reading. A passing result is 1 PSI or higher.
  - If water continues to flow from the vent valve more than a drip slowly open the bleed-off valve until the flow from the vent valve is no more than a drip. Click the "Check Valve" "CAPTURE" button to record the reading. A passing result is 1 PSI or higher.
  - If the flow from the vent valve cannot be stopped by opening the bleed-off valve, the No. 1 shut off valve must be repaired or replaced.

### **TEST NO. 2 – 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. Maintain the test kit at the level of the vent valve.
2. **SLOWLY** open the bleed high valve no more than ¼ turn dropping the pressure slowly. When the air inlet valve opens, click the "Air Inlet Valve" "CAPTURE" button to record the reading. A passing result is 1 PSI or higher.
  - If the test kit drops to 0 and the air inlet does not open, leave the toggle button as "Did not open".
3. Close the bleed high valve. Remove the hose from the bleed-off valve assembly to drain water from the SVB body. Observe and if the air inlet valve has opened fully, slide the toggle button from "Did not open" to "Opened".
4. Close the test cock and vent valve or vent screw. Remove all test equipment. Open shut off valve 1, then slowly open shut off valve 2. Replace air inlet valve canopy.

***OPEN ALL TEST KIT VALVES TO DRAIN TEST KIT.***