

**American Society of Sanitary Engineering  
Seal (Certification) Program**

**Laboratory Evaluation Report for:  
Atmospheric Type Vacuum Breakers**

**Tested under ASSE Standard #1001 • Revised: 2008  
Laboratory File Number**

**Manufacturer:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Model No.:** \_\_\_\_\_ **Serial No. :** \_\_\_\_\_

**Size:** \_\_\_\_\_

**Connections (screwed, flanged, etc.):** \_\_\_\_\_

General information and instructions for the testing engineer:

Within the text there may be items which are only advisory to conditions which experience indicates could be troublesome. It is not for evaluation related to acceptance of the product.

There may be other items for which the judgment of the test engineer will be involved. Should there be a question of compliance with that provision of the standard, a conference with the manufacturer should be arranged to enable a satisfactory solution of the question.

Should disagreement persist and compliance remain in question by the test agency, the agency shall, if the product is in compliance with all other requirements of the standard, file a complete report on the questionable items together with the test report, for evaluation by the ASSE Seal Board. The Seal Board will then review and rule on the question of compliance with the intent of the standard item involved.

Documentation of material compliance must be furnished by the manufacturer. He shall furnish to the testing agency, a bill of material which clearly identifies the material of each part included in the product construction. This identification must include any standards which relate thereto.

Product Name: \_\_\_\_\_

Model Number: \_\_\_\_\_ Size(s): \_\_\_\_\_

Date Submitted for Review: \_\_\_\_\_ Date Review Complete : \_\_\_\_\_

Were the test units production models?  Yes  No  
or prototypes?  Yes  No

**Section I**

**1.0 General**

**1.1 Application**

Is this device classified as an atmospheric type vacuum breaker?  Yes  
 No

**1.2 Scope**

**1.2.1 Description**

Does this device have a check valve member and an air vent that is normally closed when the device is pressurized and open when the inlet pressure is atmospheric?  Yes  
 No

**1.2.2 Sizes**

What is the inlet pipe size? \_\_\_\_\_ inches ( \_\_\_\_\_ mm).  
What is the outlet pipe size? \_\_\_\_\_ inches ( \_\_\_\_\_ mm).

**1.2.3 Working Pressure**

State the working pressure range as noted by the manufacturer:  
\_\_\_\_\_ to \_\_\_\_\_ psi ( \_\_\_\_\_ to \_\_\_\_\_ kPa).

**1.2.4 Temperature Range**

a) Cold Water Only Devices: \_\_\_\_\_ °F to \_\_\_\_\_ °F ( \_\_\_\_\_ °C to \_\_\_\_\_ °C).  
b) Hot/Cold Water Devices: \_\_\_\_\_ °F to \_\_\_\_\_ °F ( \_\_\_\_\_ °C to \_\_\_\_\_ °C).

**Section II**

**2.0 Test Specimens**

2.1 State the number of devices of each size and model submitted to the testing lab. \_\_\_\_\_

2.2 How many devices were utilized by the laboratory to conduct the tests? \_\_\_\_\_  
If more than one (1) device was used, please state why an additional device was utilized. \_\_\_\_\_

2.3 Were drawings and other technical information provided to the laboratory?  Yes  
 No  
Were these reviewed by the laboratory?  Yes  
 No

**Section III**

**3.0 Performance Requirements and Compliance Testing**

**3.1 Hydrostatic Test of the Complete Device**

What was the pressure used for this test? \_\_\_\_\_ psi ( \_\_\_\_\_ kPa).  
The test period was for \_\_\_\_\_ minutes.  
Were there any external leaks?  Yes  
 No

**3.2 Deterioration at Extremes of Manufacturer's Temperature and Pressure Range Test**

What was the temperature of the hot water used for this test? \_\_\_\_\_ °F (\_\_\_\_\_ °C).

What was the pressure used for this test? \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

The test period was for \_\_\_\_\_ days at \_\_\_\_\_ hours per day.

What was the temperature of the cold water used for this test? \_\_\_\_\_ °F (\_\_\_\_\_ °C).

The test period was for \_\_\_\_\_ hours.

After each eight (8) hour test period, did the air vent return to its fully opened position?  Yes  
 No

What was the supply pressure used for the hydrostatic test at the conclusion of the temperature range test? \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

What as the ambient water temperature used? \_\_\_\_\_ °F (\_\_\_\_\_ °C).

Were there any external leaks?  Yes  
 No

**3.3 Allowable Pressure Loss at Rated Flow Test**

What was the flow rate used for this test? \_\_\_\_\_ GPM (\_\_\_\_\_ L/m).

What was the supply pressure used? \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

What was the pressure loss across the device at the minimum flow rate for the size of the device on test? \_\_\_\_\_ psi (\_\_\_\_\_ kPa).

In compliance?  Yes  
 No

**3.4 Examination of Air Inlet Shield**

What was the clearance between the shield and the body of the device?

\_\_\_\_\_ inches (\_\_\_\_\_ mm).

In compliance?  Yes  
 No

**3.5 Air Flow Test**

3.5.2.1 Based on three (3) test runs, what was the average time to dissipate the vacuum from 25 to 5 inches of mercury (84.5 to 17 kPa) through the check valve orifice?

\_\_\_\_\_ minutes \_\_\_\_\_ seconds

3.5.2.2 Based on three (3) test runs, what was the average time to dissipate the vacuum from 25 to 5 inches of mercury (84.5 to 17 kPa) through the air port or ports

\_\_\_\_\_ minutes \_\_\_\_\_ seconds

Was the average time of the test run for 3.5.2.2. equal to or less than the average time of test run for 3.5.2.1?

Yes  
 No

In compliance?  Yes  
 No

**3.6 Backsiphonage Test**

State the size of the fouling wire used. \_\_\_\_\_ inches (\_\_\_\_\_ mm)

The device was fouled per figure number \_\_\_\_\_ .

A) For an instantly applied constant vacuum of 25 inches of mercury (85.7 kPa):  
Except for a deck mounted device, did any of the five (5) runs exceed a water rise of 3.0 inches (76.2 mm)?  Yes  
 No

For a deck mounted device, did any of the five (5) runs exceed a water rise of ½ inch (12.7mm)?  
 Yes  
 No

B) For an instantly applied intermittent vacuum of 2, 5, 10, 15 and 25 inches of mercury (7, 17, 34, 51 and 85.7 KPa):  
Except for a deck mounted device, did any of the five (5) runs exceed a water rise of 3.0 inches (76.2 mm)?  Yes  
 No

For a deck mounted device, did any of the five (5) runs exceed a water rise of ½ inch (12.7 mm)?  
 Yes  
 No

C) For slowly applied vacuum increasing in 3.4 inches (12.0 kPa) of mercury increments from 0 to 25 inches of mercury (0 to 85.7 kPa) and then slowly decreasing:  
Except for a deck mounted device, did any of the five (5) runs exceed a water rise of 3.0 inches (76.2 mm)?  Yes  
 No

For a deck mounted device, did any of the five (5) runs exceed a water rise of ½ inch (12.7 mm)?  
 Yes  
 No

In compliance?  Yes  
 No

**3.7 Evaluation of Female Threaded Connections**

When a nipple was threaded into the device, did the nipple restrict flow through the device or interfere with the working parts of the device?  Yes  
 No

Was the device on test in complete compliance with test Sections 3.1 through 3.7 of this 1001-2008 Standard?  Yes  
 No

**Section IV**

**4.0 Detailed Requirements**

**4.1 Materials**

4.1.1 Were either seat, valve disc or both of non –metallic materials?  Yes  
 No

4.1.3.1 Taper Pipe Threads shall be in compliance with Standard ANSI/ASME B1.20.1  Yes  
 No

4.1.3.2 Dry Seal Threads shall comply with ANSI/ASME B1.20.3.  Yes  
 No

**4.2 Marking of Devices**

List below the markings shown on the device:

- (a) Manufacturer's Name or Trademark: \_\_\_\_\_
- (b) Model Number: \_\_\_\_\_
- (c) Rated Working Pressure: \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)
- (d) Nominal Valve Size: \_\_\_\_\_
- (e) Direction of Water Flow: \_\_\_\_\_

(f) Critical Level: \_\_\_\_\_  
(g) "Deck Mounted" when tested per section 3.6 : \_\_\_\_\_  
(h) Other: \_\_\_\_\_  
How were these markings shown?

- Cast
- Etched
- Stamped
- Engraved
- Attached Label
- Other

Explain: \_\_\_\_\_  
Would these markings be visible in the installed positions?  Yes  
 No

### 4.3 Installation and Maintenance Instructions

#### 4.3.1 Packaging

Were installation instructions provided?  Yes  
 No

Did the instructions describe or show by drawings the correct installed position?  
 Yes  
 No

##### 4.3.1.1 Continuous Pressure

Was the following statement included in the installation instructions: "This atmospheric vacuum breaker shall not be subjected to a continuous pressure for more than twelve (12) hours?"  Yes  
 No

##### 4.3.1.2 Installation Instructions

Were the following statements included in the installation instructions?  Yes  
 No

- A) The device shall be installed in accordance with the requirements of the local plumbing code
- B) The device shall not be installed where the venting of water from the device during normal functioning causes damage
- C) The device shall be installed downstream of the last control valve.

#### 4.3.2 Critical Level

Was the critical level mark of the device shown or noted on the device?  Yes  
 No

The device shall be installed with its critical level (CL) not less than 6.0 inches (152.4 mm) above the flood level rim of the fixture or appliance served.

Deck mounted/equipment mounted AVB's shall be installed in accordance with the manufacturer's instructions with its critical level (CL) not less than 1.0 inches (25.4 mm) above the flood level rim of the fixture or appliance served.

#### 4.3.3 Repair

Is the device repairable in the field?  Yes  
 No  
If yes, were complete detailed instructions provided?  Yes  
 No

TESTING AGENCY

ADDRESS

PHONE:        FAX:

TEST ENGINEER(S)

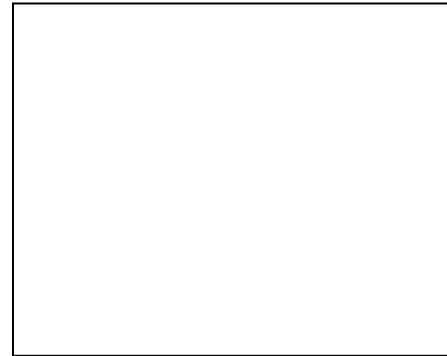
We certify that the evaluations are based on our best judgments and that the test data recorded is an accurate record of the performance of the device on test.

Signature of the official of the agency: \_\_\_\_\_

Title of the official: \_\_\_\_\_ Date: \_\_\_\_\_

Signature and seal of the Registered Professional Engineer  
supervising the laboratory evaluation:

\_\_\_\_\_  
Signature



Seal

**Comments:**