

**ASSE International  
Product (Seal) Listing Program**

**ASSE 1001-2017  
Performance Requirements for Atmospheric Type Vacuum Breakers**

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

**Contact Person:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

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

**Laboratory:** \_\_\_\_\_ **Laboratory File Number:** \_\_\_\_\_

**Model # Tested:** \_\_\_\_\_

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

**Additional models report applies to:** \_\_\_\_\_

**Additional Model Information (i.e. orientation, series, end connections, shut-off valves)**

\_\_\_\_\_

**Date models received by laboratory:** \_\_\_\_\_ **Date testing began:** \_\_\_\_\_

**Date testing was completed** \_\_\_\_\_

**If models were damaged during shipment, describe damages:**

\_\_\_\_\_

**Prototype or production sample?** \_\_\_\_\_

**Were all tests performed at the selected laboratory?**  Yes  No

**If offsite, identify location:** \_\_\_\_\_

**General information and instructions for the testing engineer:**

*The results within this report apply only to the models listed above.*

There may be 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 Control Board. The Seal Control Board will then review and rule on the question of compliance with the intent of the standard then involved.

Documentation of material compliance must be furnished by the manufacturer. The manufacturer 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.

**Section I**

1.0 General

1.2 Does this device conform to the scope stated in the standard?  
 Yes  No  Questionable

If no or questionable, explain \_\_\_\_\_

The device's size is: \_\_\_\_\_ NPS (DN \_\_\_\_\_ )

1.2.2 This device can be characterized as:  
 Pipe-applied  Flushometer-applied  Integrally-applied

If none of these, explain: \_\_\_\_\_

Is the device deck-mounted?  Yes  No  Questionable

If questionable, explain: \_\_\_\_\_

1.2.3 Minimum and maximum working pressures as stated by the manufacturer's specification sheet:

Minimum: \_\_\_\_\_ psi ( \_\_\_\_\_ kPa) Maximum: \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

1.2.4 This device is designed for:

Cold water service  Hot & cold water service  Questionable

If questionable, explain \_\_\_\_\_

1.3 Limitation on Design

Are female threaded pipe connections constructed such that it will not restrict flow or interfere with working parts?

Yes  No  Questionable  N/A

If no or questionable, explain \_\_\_\_\_

**Section II**

2.0 Test specimens

2.1 How many samples were received? \_\_\_\_\_

**Section III**

3.0 Performance Requirements and Compliance Testing

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

3.1.2 Procedure

Manufacturer's maximum rated temperature: \_\_\_\_\_ °F ( \_\_\_\_\_ °C).

Water temperature during test: \_\_\_\_\_ °F ( \_\_\_\_\_ °C).

Water pressure during test: \_\_\_\_\_ psi ( \_\_\_\_\_ kPa).

Did the air inlet valve return to its fully opened position when system returned to atmospheric pressure,

after hour 8,  Yes  No

after hour 16,  Yes  No

after hour 24,  Yes  No

after hour 32,  Yes  No

after hour 40,  Yes  No

after hour 48,  Yes  No

after hour 56,  Yes  No

after hour 64,  Yes  No

after hour 72,  Yes  No

after hour 80,  Yes  No

\_\_\_\_\_ minute(s) after the test, water at \_\_\_\_\_ °F ( \_\_\_\_\_ °C) was circulated for \_\_\_\_\_ hour(s).

Next, water at \_\_\_\_\_ °F ( \_\_\_\_\_ °C) was circulated.

Water pressure was increased to: \_\_\_\_\_ psi ( \_\_\_\_\_ kPa). It was maintained for \_\_\_\_\_ minutes.

### 3.1.3 Criteria

Any leaks or structural deformation observed?

Yes  No  Questionable

If yes or questionable, explain: \_\_\_\_\_

### 3.2 Allowable Pressure Loss at Rated Flow Test

The average flow rate through the device was: \_\_\_\_\_ gpm ( \_\_\_\_\_ L/sec)

The dynamic inlet pressure was: \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

The dynamic pressure loss through the device was: \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

In compliance?  Yes  No  Questionable

If no or questionable, explain: \_\_\_\_\_

### 3.3 Examination of Air Inlet Shield

When mounted per the manufacturer's instructions, does the air inlet shield extend to the bottom of the lowest air opening or lower?

Yes  No  Questionable

If questionable, explain: \_\_\_\_\_

What is the minimum clearance between the air inlet and the shield? \_\_\_\_\_ in ( \_\_\_\_\_ mm)

### 3.4 Air Flow Test

#### 3.4.2 Procedure

##### 3.4.2.1. Procedure for check valve

Was the check or moving member held fully open?

Yes  No  Questionable

If questionable, explain: \_\_\_\_\_

Was the air inlet valve held fully closed?

Yes       No       Questionable

If questionable, explain: \_\_\_\_\_

The vacuum in the tank was dissipated from: \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)

The time to dissipate the vacuum was:

Trial 1: \_\_\_\_\_ sec

Trial 2: \_\_\_\_\_ sec

Trial 3: \_\_\_\_\_ sec

These values shall be at least 10 seconds, or the test bench needs to be modified.

### 3.4.2.2. Procedure for air vent

Was the check or moving member held fully closed?

Yes       No       Questionable

If questionable, explain: \_\_\_\_\_

Was the air inlet valve held fully open?

Yes       No       Questionable

If questionable, explain: \_\_\_\_\_

The vacuum in the tank was dissipated from: \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)

The time to dissipate the vacuum was:

Trial 1: \_\_\_\_\_ sec

Trial 2: \_\_\_\_\_ sec

Trial 3: \_\_\_\_\_ sec

3.4.3 Is the device in compliance?       Yes       No       Questionable

If no or questionable, explain \_\_\_\_\_

## 3.5 Backsiphonage Test

### 3.5.2 Procedure

The wire diameter used for fouling was \_\_\_\_\_ in (\_\_\_\_\_ mm)

The type of check most closely resembles Figure \_\_\_\_\_ in the standard.

Describe any unique properties: \_\_\_\_\_

Describe how the fouling wire was placed: \_\_\_\_\_

Initial height from device's critical level to the fluid level in receptacle: \_\_\_\_\_ in (\_\_\_\_\_ mm)

Precision of measuring instrument (e.g. distance between graduations): \_\_\_\_\_ in (\_\_\_\_\_ mm)

### 3.5.2.1. Data collection

#### Trial 1

- a) Instantly applied constant vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec
- b) Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.
- c) Slowly apply vacuum from \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
and back to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa), over \_\_\_\_\_ sec.

Maximum rise of water column during any test: \_\_\_\_\_ in (\_\_\_\_\_ mm)

#### Trial 2

- a) Instantly applied constant vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec
- b) Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.
- c) Slowly apply vacuum from \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
and back to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa), over \_\_\_\_\_ sec.

Maximum rise of water column during any test: \_\_\_\_\_ in (\_\_\_\_\_ mm)

#### Trial 3

- a) Instantly applied constant vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec
- b) Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.
- c) Slowly apply vacuum from \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
and back to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa), over \_\_\_\_\_ sec.

Maximum rise of water column during any test: \_\_\_\_\_ in (\_\_\_\_\_ mm)

Trial 4

- a) Instantly applied constant vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec
- b) Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.
- c) Slowly apply vacuum from \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
and back to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa), over \_\_\_\_\_ sec.

Maximum rise of water column during any test: \_\_\_\_\_ in (\_\_\_\_\_ mm)

Trial 5

- a) Instantly applied constant vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec
- b) Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.  
Instantly applied vacuum of \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa) for \_\_\_\_\_ sec on and \_\_\_\_\_ sec off.
- c) Slowly apply vacuum from \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa)  
and back to \_\_\_\_\_ in-Hg (\_\_\_\_\_ kPa), over \_\_\_\_\_ sec.

Maximum rise of water column during any test: \_\_\_\_\_ in (\_\_\_\_\_ mm)

Were corrections made for test lab's elevation?  Yes  No

3.5.3 Is the device in compliance?  Yes  No  Questionable

If no or questionable, explain: \_\_\_\_\_

3.6 Evaluation of Female Threaded Connections

Does the device have female threaded connections?  Yes  No  Questionable

If questionable, explain: \_\_\_\_\_

Is the device in compliance?  Yes  No  Questionable  N/A

If no or questionable, explain: \_\_\_\_\_

3.7 Hydrostatic Test of the Complete Device

Device filled to a pressure of: \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

Pressure maintained for: \_\_\_\_\_ minutes

Is the device in compliance?  Yes  No  Questionable

If no or questionable, explain: \_\_\_\_\_

**Section IV**

4.0 Detailed Requirements

4.1 Materials

Are there any metal-to-metal sealing members on the device?

Yes       No       Questionable

If no or questionable, explain \_\_\_\_\_

4.2 Pipe Threads

Are taper threads in compliance with ASME B1.20.1

Yes     No     Questionable     N/A

If no or questionable, explain: \_\_\_\_\_

Are dryseal pipe threads in compliance with ASME B1.20.3

Yes     No     Questionable     N/A

If no or questionable, explain: \_\_\_\_\_

Are other connections to external components in compliance with their appropriate standards?

Yes     No     Questionable     N/A

If no or questionable, explain: \_\_\_\_\_

State the relevant standards: \_\_\_\_\_

4.3 Markings

Is the method of marking information on the product in compliance with the standard?

Yes     No     Questionable

If no or questionable, explain: \_\_\_\_\_

4.3.1 Marking of Pipe-Applied Devices

Section is:  Applicable     N/A

State the information given on the product:

Manufacturer's name or trademark: \_\_\_\_\_

Model number: \_\_\_\_\_

Rated working pressure: \_\_\_\_\_

Nominal valve size: \_\_\_\_\_

Direction of water flow: \_\_\_\_\_

Critical level:  Yes     No     Questionable     N/A

The words "Deck Mounted":  Yes     No     Questionable     N/A

4.3.2 Marking of Integrally Applied and Flushometer-Applied Devices

Section is:  Applicable     N/A

State the information given on the product:

Manufacturer's name or trademark: \_\_\_\_\_

Model number: \_\_\_\_\_

Critical level:  Yes     No     Questionable     N/A

The words "Deck Mounted":  Yes     No     Questionable     N/A

4.4 Installation and Maintenance Instructions

4.4.1 Included items within Installation Instructions

These items are a part of the installation instructions

Are drawings or sketches of proper installation included?

Yes    No    Questionable    N/A

If no or questionable, explain: \_\_\_\_\_

Are statements that describe that:

The device shall be installed in accordance with the requirements of the local plumbing code.

The device shall not be installed where the venting of water from the device during its normal functioning causes damage.

The device shall be installed such that it is not subjected to backpressure.

Included?                       Yes    No    Questionable    N/A

If no or questionable, explain: \_\_\_\_\_

Is the statement, "This atmospheric vacuum breaker shall not be subjected to continuous pressure for more than twelve (12) hours"

Included?                       Yes    No    Questionable    N/A

If no or questionable, explain: \_\_\_\_\_

4.4.4 Repair Instructions

Is the device capable of being maintained or repaired in the field?

Yes    No    Questionable    N/A

If no or questionable, explain: \_\_\_\_\_



LISTED LABORATORY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

TEST ENGINEER(S): \_\_\_\_\_

If applicable:

OUTSOURCED LABORATORY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

TEST ENGINEER(S): \_\_\_\_\_

Scope of outsourced testing: \_\_\_\_\_

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 listed laboratory: \_\_\_\_\_

Signature

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