

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

**Laboratory Evaluation Report for:
Anti-Siphon Fill Valves for Water Closet Tanks**

**Tested under ASSE Standard 1002 • Revised: 2008
(Separate reports shall be made for each size tested.)**

Laboratory File Number _____

Manufacturer _____

Contact Person _____

Address _____

Tel: _____ Fax: _____

Model No. _____

Size _____

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 Control Board. The Seal Control 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.

Date device was received at Laboratory: _____

Date testing began: _____ Date testing complete: _____

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

Were the test units free of observable damage? Yes No

Were all tests performed on site at the selected laboratory? Yes No

If off-site, identify location and testing: _____

Section I

1.0 General

1.1 Application

Did this device comply with the application portion of this standard?

- Yes
 No
 Questionable

If questionable, explain: _____

1.2 Scope

1.2.1 Description

Is this device an anti-siphon fill valve for use in a gravity water closet flush tank?

- Yes
 No

1.2.2 Working Pressure

What is the working pressure range as noted by the manufacturer? _____psi to _____psi
(_____kPa to _____kPa)

1.2.3 Capacity - Total Fill and Refill

Total Fill Capacity

Is this device for: Original equipment manufacturer?
 Retrofit use?

Original Equipment Manufacturer

What is the flow capacity of the fill valve supplied with the fixture? _____GPM
(_____L/M)

What is the required flow capacity of the ASME/ANSI Standard A112.19.2? _____GPM
(_____L/M)

Is the flow capacity equal to or greater than the required flow capacity of the ASME/ANSI Standard A112.19.2?

- Yes
 No

Retrofit Use

See Section 3.4.

1.2.4 Leakage and Spray Containment

Does the fill valve spray or leak water to the outside of the closet flush tank during operation? Yes
 No

1.2.5 Backflow Prevention
Is the device equipped with a means to prevent backflow due to backsiphonage? Yes
 No

Are the air inlet ports protected in order to reduce the risk of intake of foreign material into the device? Yes
 No

1.2.6 Refill Tube
Is the refill tube securely fastened in its installed position? Yes
 No

1.2.7 What are the dimensions as shown in Figure 1 of:
The Shank: (A) _____
(B) _____
(C) _____
(D) _____
(E) _____
(H) _____
The coupling nut (A) _____
(F) _____
The Locknut (A) _____
(B) _____
(G) _____

Section II

2.0 Test Specimens

2.1 Samples Submitted for Test

State the number of devices of each size and model provided for the laboratory evaluation. _____

2.2 Samples Tested

How many devices were utilized during the laboratory evaluation? _____

If more than one (1) device was used, state why an additional device was utilized. _____

2.3 Drawings

Were assembly, installation instructions and other technical data which are needed to determine compliance with this standard submitted to the laboratory?

Yes

No

Were these drawings and other data reviewed by the laboratory? Yes

No

2.4 Rejection

Failure of one (1) device shall be cause for rejection of that model and size.

Section III

3.0 Performance Requirements and Compliance Testing

3.1 Elevated Pressure and Temperature Test

What was the water supply temperature used for this test? _____ °F (_____ °C)

What was the static pressure? _____ psi (_____ kPa.)

How many cycles were utilized? _____

What was the duration of the test? _____ minutes

What was the flush volume per cycle? _____ gallons (_____ liters)

Following the cycle test the pressure in the device was raised to _____ psig (_____ kPa) at a water temperature of _____ °F (_____ °C) and maintained for _____ minutes

Was there any indication of leaks, distortion or damage to the device which would affect the device's performance?

- Yes
 No
 Questionable

If questionable, explain: _____

Did the refill tube remain securely fastened in its installed position during this test?

- Yes
 No

3.2 Cycle Test

What was the static pressure used for this test? _____ psi (_____ kPa)

What was the flowing pressure? _____ psi (_____ kPa)

What was the water temperature used for this test? _____ °F (_____ °C)

The device was operated for _____ cycles

What was the cycle time per cycle? _____ minutes

Following the cycle test the static pressure was raised to _____ psig (_____ kPa) for _____ minutes.

Did the refill tub remain securely fastened in its installed position during this test?

- Yes
 No

Was there any indication of leaks, distortion or damage to the device?

- Yes
 No
 Questionable

If questionable, explain: _____

3.3 Critical Level Marking and Backflow Prevention Test

The check valves, seats and checking members were fouled with a _____ inch (_____ mm) diameter wire.

At the start of this test, the water level was _____ inch (_____ mm) below the vacuum breaker air port(s) or water discharge openings (air gap type).

As the water level is lowered, the device was subjected to an instantaneous vacuum of _____ inches of mercury (_____ kPa) and then intermittent vacuums of _____, _____, _____, _____ and _____ inches of mercury (_____, _____, _____, _____ and _____ kPa) for _____ seconds on and _____ seconds off until no water appears in the sight glass.

Elevation height of line "BB" measured above the bottom of the test tank. _____ inches

(_____ mm)

For determining line "AA" the water level was set at _____ inches below line "BB".

As the water level is increased in increments of 0.125 inches (3.2 mm), the device was subjected to an instantaneous vacuum of _____ inches of mercury (_____ kPa) and then intermittent vacuums of _____, _____, _____, _____ and _____ inches of mercury (_____, _____, _____, _____ and _____ kPa) for _____ seconds on and _____ seconds off until water appears in the sight glass.

Elevation height of line "AA" measured above the bottom of the test tank. _____ inches (_____ mm)

The critical level (CL) was determined to be Line _____.

Where did the critical level (CL) marked on the device appear in relation to the critical level (CL) determined in the tests of Section 3.3.2? At or below
 Above

Did water fail to appear in the sight glass while performing the tests of Section 3.3.2?
 Yes
 No

If water failed to appear in the sight glass, hold all known check valves, seats and checking members fully open and seal off the air inlet ports and then the device was subjected to a vacuum of _____ inches of mercury (_____ kPa) while the device is completely under the water in the water closet tank.

Were all hidden check valves found and held open so that water would appear in the sight glass when the device was subjected to the vacuum test noted above?
 Yes
 No

If yes, repeat the tests of Section 3.3.2 to determine the critical level (CL) mark.

Was this device determined to be in compliance with Section 3.3?
 Yes
 No

3.4 Total Flow Test - Retrofit Devices Only

What was the flowing pressure used for this test? _____ psi (_____ kPa)

The flow was measured for _____ minutes.

The flow rate was _____ GPM (_____ L/m)

In compliance? Yes
 No
 Questionable

If questionable, explain: _____

3.5 Refill Capacity Test - Retrofit Devices Only

What was the flowing pressure used for this test? _____ psi (_____ kPa)
The flow was measured for _____ minutes.
The flow rate through the refill tube was _____ GPM (_____ L/m)
Was this flow rate through the refill tube at least 20% of the total flow rate determined in Section 3.4?

- Yes
 No
 Questionable

If questionable, explain: _____

Section IV

4.0 Detailed Requirements

4.1 Materials

Did any solder and fluxes or metal alloys in contact with the potable water supply exceed 0.2% or 8% lead content respectively?

- Yes
 No

4.2 Identification and Markings

List the following information as shown on the device:

- a) Manufacturer's name or trademark: _____
b) Model number: _____
c) Critical level (CL) marking: _____

Would the markings be visible in the installed position?

- Yes
 No

How were the markings applied? _____

Did the manufacturer indicate where, if approved by ASSE, the ASSE Seal and standard number will be marked on the device?

- Yes
 No

4.3 Installation Instructions

Were installation instructions provided with the packaged product?

- Yes
 No

TESTING AGENCY _____

ADDRESS _____

PHONE: _____ FAX: _____

TEST ENGINEER(S) _____

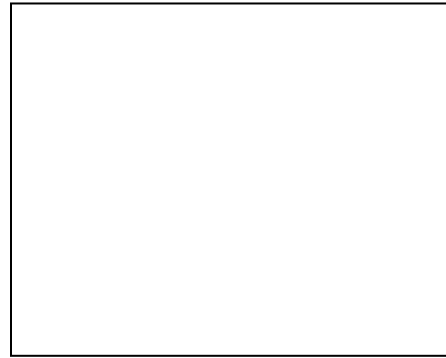
We certify that the evaluations are based on our best judgments and that the test data recorded is an accurate record of the performance of the device on test.

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