American Society of Sanitary Engineering
Seal (Certification) Program

Laboratory Evaluation Report for:
Backflow Preventer for Beverage Dispensing Equipment

Tested under ASSE Standard 1022 • ASSE: 2003 • ANSI: 2003

Laboratory File Number_____

Manufacturer_____

Model No. _____

Address_____

Serial No. _____

Other Identification Markings _____

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 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.

Product Name _____

Model Number _____ Size(s) _____

Date Submitted for Review _____ Date Review Complete_____

Section I

1.0 General

1.1 Application. Does this device, as stated by the manufacturer, comply with this section?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

1.2.1 Description. Does the device conform to the product classified as a backflow preventer?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

1.2.2 Minimum Flow. What is the minimum flow rate of the device at a maximum pressure of 15 p.s.i. (103.4 kPa)? _____ gpm (_____L/min.)

1.2.3 Inlet and Outlet Connections.

What is the inlet connection? _____ in. (_____mm)

What is the outlet connection? _____in. (_____mm)

1.2.4 Pressure Range. What is the maximum working pressure? _____p.s.i. (_____kPa)

What is the minimum working pressure? _____p.s.i. (_____kPa)
In compliance?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

1.2.5 Temperature Range. _____°F to _____°F (_____°C to_____°C)
In compliance?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

Section II

2.0 Test Specimens

2.1 How many devices of each size and model were submitted?_____

2.2 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 Were assembly drawings and other data provided? ☐ Yes ☐ No

Were these reviewed by the laboratory personnel? ☐ Yes ☐ No

Section III

3.0 Performance Requirements and Compliance Testing

3.1 Hydrostatic Pressure

What was the supply pressure at the inlet? _____ p.s.i. (_____ kPa)

The test period was for _____minutes.
Were there any external leaks or damage to the device?
☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

3.2 Hydrostatic Tests of Check Valves

What was the pressure applied to the downstream side of each check valve individually?

_____ p.s.i. (_____ kPa)

The test period was for _____ minutes.
Were there any leaks or rise in the water level of the sight glass? ☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

3.3 Atmospheric Port Leakage

Low Pressure:

What was the pressure shown on gauge #2? _____ p.s.i. (_____ kPa)

What was the flow rate? _____ gpm (_____ L/s)

The test period was _____ minutes

High Pressure:

What was the pressure shown on gauge #2? _____ p.s.i. (_____ kPa)

What was the flow rate? _____gpm (_____ L/s)

The test period was _____ minutes

Was there any leakage from the atmospheric port?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

3.4 Water Flow Test

What was the rated flow? _____gpm (_____ L/s)

What was the pressure drop? _____ p.s.i. (_____ kPa)

In compliance?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

3.5 Deterioration at Extremes of Manufacturer's Rated Temperature and Pressure Ranges

Hot water tested at _____ °F (_____ °C). How long was the test period? _____ hours.

What was the rated flow? _____ gpm (_____ L/s)

Supply Pressure: _____ p.s.i. (_____ kPa)

Cold water tested at _____ °F (_____ °C). How long was the test period? _____hours.

What was the rated flow? _____ gpm (_____L/s)

Supply Pressure: _____p.s.i. (_____ kPa)

In compliance?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

3.6 Check Valve Sealing Pressure

Upstream Check Valve:

The test period was _____minutes

Water column level? _____ in. (_____mm)
In compliance
☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

Downstream Check Valve:

The test period was _____ minutes

Water column level? _____in. (_____mm)
In compliance?
☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

3.7 Endurance and Cycle Testing

What was the pre-conditioning temperature? _____°F (_____ °C)

Submerged time was _____ minutes.

(a) What was the temperature for this portion of the test? _____°F (_____ °C)

What was the supply pressure? _____ p.s.i. (_____ kPa).

(b) What was the back pressure for this portion of the test? _____ p.s.i. (_____kPa)

At a two (2) seconds per cycle, what was the total cycles completed?

_____Cycles

Was there any leakage from the atmospheric port opening during the test? ☐ Yes ☐ No
Did the device comply with these sections?
☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

3.8 Atmospheric Port-Opening Pressure

Low Pressure:

What was the inlet pressure? _____ p.s.i. (_____kPa)

What was outlet pressure? _____ p.s.i. (_____ kPa)

At what differential pressure did the atmospheric port open? _____ p.s.i. (_____kPa)

Intermediate Pressure:

What was the inlet pressure? _____ p.s.i. (_____ kPa)

What was outlet pressure? _____ p.s.i. (_____ kPa)

At what differential pressure did the atmospheric port open? _____p.s.i. (_____kPa)

High Pressure:

What was the inlet pressure? _____ p.s.i. (_____ kPa)

What was outlet pressure? _____ p.s.i. (_____ kPa)

At what differential pressure did the atmospheric port open? _____p.s.i. (_____ kPa)

In compliance?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

3.9 Check Valve Leakage

Downstream Check Valves: Low Pressure

What pressure was applied to the outlet? _____ p.s.i. (_____ kPa)

The test period was for _____minutes.

Downstream Check Valves: Intermediate Pressure

What pressure was applied to the outlet? _____p.s.i. (_____ kPa)

The test period was for _____ minutes.

Downstream Check Valves: High Pressure

What pressure was applied to the outlet? _____ p.s.i. (_____ kPa)

The test period was for _____minutes.

Upstream Check Valves: Low Pressure

What pressure was applied to the outlet? _____ p.s.i. (_____kPa)

The test period was for _____minutes.

Upstream Check Valves: Intermediate Pressure

What pressure was applied to the outlet? _____ p.s.i. (_____ kPa)

The test period was for _____ minutes.

Upstream Check Valves: High Pressure

What pressure was applied to the outlet? _____ p.s.i. (_____ kPa)

The test period was for _____ minutes.
Were there any leaks? ☐ Yes ☐ No ☐ Questionable

If questionable, explain: _____

Section IV

4.0 Detailed Requirements

4.1 Materials and Toxicity

Do the polymers and elastomers that come in contact with potable water comply with any of the following:

a) US Code of Federal Regulations (CFR)

b) NSF Standard 61

c) Certified as non-toxic materials by independent approved testing agency.

☐ Yes ☐ No

4.2.1 Metal to Metal Seating. In compliance? ☐ Yes ☐ No ☐ Questionable

If questionable, explain: _____

4.2.2 Atmospheric Vent Port(s). In compliance? ☐ Yes ☐ No ☐ Questionable

If questionable, explain: _____

4.2.3.1 Pipe Threads. In compliance? ☐ Yes ☐ No ☐ Questionable

If questionable, explain: _____

4.2.33 Female Pipe Threaded Connections. Is the construction of the device such that it is impossible to run a pipe into the connections far enough to restrict the flow through the device or interfere with the working parts?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

4.3 Markings.

Identify the following markings on the device:

(a) Name of manufacturer of trademark _____

(b) Type and model number _____

(c) Maximum rated working pressure _____ p.s.i. (_____ kPa)

(d) Maximum rated water temperature _____ °F (_____°C)

(e) The direction of flow _____

Would these markings be visible in the installed position?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

How were the markings shown on the assembly? _____

4.4 Instructions. Were instructions furnished with the assembly that included illustrations, installation, operations and maintenance?

☐ Yes
☐ No
☐ Questionable

If questionable, explain: _____

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