

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

**ASSE 1055-2020  
Chemical Dispensing Systems with Integral Backflow Protection**

**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 Scope

Description

Does this device conform to the product stated in the standard?

Yes  No  Questionable

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

Pressure Range

What is the pressure range as indicated by the manufacturer?

Minimum: \_\_\_\_\_psi (\_\_\_\_\_kPa) Maximum: \_\_\_\_\_psi (\_\_\_\_\_kPa)

Temperature Range

Is this a cold water or hot water device?

Cold water  Hot water  Questionable

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

What is the temperature range as indicated by the manufacturer?

Minimum: \_\_\_\_\_°F (\_\_\_\_\_°C) Maximum: \_\_\_\_\_°F (\_\_\_\_\_°C)

#### 1.3 Mechanical Function

Does the device have an elastomeric gap that is normally closed under static conditions?

Yes  No  no elastomeric gap

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

Does the device have an air inlet that conforms to the scope? that is normally closed under static conditions?

Conforms  Does not conform  no air inlet

If air inlet is questionable, explain \_\_\_\_\_

## Section II

### 2.0 Test Specimens

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

What type of backflow protection is being used? \_\_\_\_\_

Does the device have a backflow assembly that conforms to any standards listed in section 2.5?

Yes (exempt from 3.4, 3.5, 3.6, 3.7)  No  NA

What standard does it conform to? \_\_\_\_\_

## Section III

### 3.0 Performance Requirements and Compliance Testing

#### 3.1 Tipping

Purpose

Is this dispenser a free standing device?

Yes  No  Questionable

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

**Criteria**

If yes, did the device return after each test to the upright position when tipped from all four directions?

Yes       No       Questionable

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

In compliance?

Yes       No       Questionable

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

**3.2 Pressure Tests**

**Procedure**

Flowing water pressure used for the test: \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

How many minutes was the test period? \_\_\_\_\_ minutes

**Criteria**

Were there any leaks or damage to the device?

Yes       No       Questionable

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

In compliance?

Yes       No       Questionable

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

**3.3 Deterioration at Extremes of Manufacturer's Rated Temperature and Pressure Ranges and Endurance Test**

**Procedure**

Temperature of water cycled through the device: \_\_\_\_\_ °F (\_\_\_\_\_ °C)

Water pressure during cycling: \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

What was the cycle "on" time? \_\_\_\_\_ seconds

What was the cycle "off" time? \_\_\_\_\_ seconds

How many total cycles were completed? \_\_\_\_\_ cycles

How many continuous hours per day was the device operated for after the cycling was completed? \_\_\_\_\_ hours

How many days was device operated for after the cycling was completed? \_\_\_\_\_ days

**Criteria**

Were there any failures?

Yes       No       Questionable

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

Was there any change in physical characteristics of the materials that would prevent compliance with the remaining requirements?

Yes       No       Questionable

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

In compliance?

Yes       No       Questionable

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

### 3.4 Backpressure

#### Purpose

Is this device intended for use with a discharge hose?

Yes       No       Questionable

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

#### Procedure

What was the initial backpressure when pressurized?

\_\_\_\_\_ inches of water column (\_\_\_\_\_ kPa)

What was the final backpressure after being increased incrementally?

\_\_\_\_\_ inches of water column (\_\_\_\_\_ kPa)

**Is this a handheld device?** (additional testing for handheld devices)

Yes       No

Tested horizontal orientation?

Yes       No

What was the initial backpressure when pressurized?

\_\_\_\_\_ inches of water column (\_\_\_\_\_ kPa)

What was the final backpressure after being increased incrementally?

\_\_\_\_\_ inches of water column (\_\_\_\_\_ kPa)

Tested vertical-up orientation?

Yes       No

What was the initial backpressure when pressurized?

\_\_\_\_\_ inches of water column (\_\_\_\_\_ kPa)

What was the final backpressure after being increased incrementally?

\_\_\_\_\_ inches of water column (\_\_\_\_\_ kPa)

Tested vertical-down orientation?

Yes       No

What was the initial backpressure when pressurized?

\_\_\_\_\_ inches of water column (\_\_\_\_\_ kPa)

What was the final backpressure after being increased incrementally?

\_\_\_\_\_ inches of water column (\_\_\_\_\_ kPa)

#### Criteria

Was there any indication of colored water in the transparent tube?

Yes       No       Questionable

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

In compliance?

Yes       No       Questionable

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

### 3.5 Air Inlet Valve Opening Test

Does the device incorporate an elastomer gap?

Yes       No, section 3.5 is NA

Trail 1:

Depth the discharge tube is submerged? \_\_\_\_\_ Inches (\_\_\_\_\_ cm)

Beginning upstream static pressure \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

Pressure once the discharge tube starts to drain. \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

Trail 2:

Beginning upstream static pressure \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

Pressure once the discharge tube starts to drain. \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

Trail 3:

Beginning upstream static pressure \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

Pressure once the discharge tube starts to drain. \_\_\_\_\_ psi (\_\_\_\_\_ kPa)

### 3.6 Backsiphonage

Does the device incorporate an elastomer gap?

Yes                       No, section 3.6 is NA

#### Procedure

Were all elastomers/seals fouled?

Yes                       No                       Questionable

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

Total number of chemicals that can be mixed (dispensing paths) \_\_\_\_\_

#### Chemical 1

Trial 1:

When the system was opened to the vacuum source, what was the pressure of the vacuum? \_\_\_\_\_ inches of mercury (\_\_\_\_\_ kPa)

How long was the vacuum held for? \_\_\_\_\_ minutes

Trial 2:

When the system was opened to the vacuum source, what was the pressure of the vacuum? \_\_\_\_\_ inches of mercury (\_\_\_\_\_ kPa)

How long was the vacuum held for? \_\_\_\_\_ minutes

Trial 3:

When the system was opened to the vacuum source, what was the pressure of the vacuum? \_\_\_\_\_ inches of mercury (\_\_\_\_\_ kPa)

How long was the vacuum held for? \_\_\_\_\_ minutes

#### Chemical 2 \_\_\_\_\_

Trial 1:

When the system was opened to the vacuum source, what was the pressure of the vacuum? \_\_\_\_\_ inches of mercury (\_\_\_\_\_ kPa)

How long was the vacuum held for? \_\_\_\_\_ minutes

Trial 2:

When the system was opened to the vacuum source, what was the pressure of the vacuum? \_\_\_\_\_ inches of mercury (\_\_\_\_\_ kPa)

How long was the vacuum held for? \_\_\_\_\_ minutes

Trial 3:

When the system was opened to the vacuum source, what was the pressure of the vacuum? \_\_\_\_\_ inches of mercury (\_\_\_\_\_ kPa)

How long was the vacuum held for? \_\_\_\_\_ minutes

#### Chemical 3 \_\_\_\_\_

Trial 1:

When the system was opened to the vacuum source, what was the pressure of the vacuum? \_\_\_\_\_ inches of mercury (\_\_\_\_\_ kPa)

How long was the vacuum held for? \_\_\_\_\_ minutes

Trial 2:

When the system was opened to the vacuum source, what was the pressure of the vacuum? \_\_\_\_\_ inches of mercury (\_\_\_\_\_ kPa)

How long was the vacuum held for? \_\_\_\_\_ minutes

Trial 3:

When the system was opened to the vacuum source, what was the pressure of the vacuum? \_\_\_\_\_ inches of mercury (\_\_\_\_\_ kPa)

How long was the vacuum held for? \_\_\_\_\_ minutes

Chemical 4-? If more than three chemicals, explain the additional testing completed.

\_\_\_\_\_

**Criteria**

Was there any indication of colored water in the sight glass?

Yes       No       Questionable

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

In compliance?

Yes       No       Questionable

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

**3.7 Air passage Comparative Areas**

Does the device incorporate an air gap as backflow protection?

Yes       No       Questionable

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

Procedure:

**Note: ASSE has issued an interpretation, the quick acting valve, vacuum, and vacuum tank should be connected to the outlet and the inlet of the device should be sealed in section 3.6**

In compliance?

Yes       No       Questionable

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

**Section IV**

**4 Detailed Requirements**

**4.1 Markings**

List the marking information shown on the device: \_\_\_\_\_

\_\_\_\_\_

How were these markings applied on the device? \_\_\_\_\_

**4.2 Instructions**

Which of the following (if any) were present with the device?

Installation instructions

- Operation instructions
- Drawings or sketches useful to the installer

Will the instructions be electronically available?

- Yes             No             Questionable

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

If yes, have the electronic instructions been verified?

- Yes             No             Questionable

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

Do the instructions state the following?

"Devices shall be installed in a vertical orientation."

- Yes             No             NA, Handheld device     Questionable

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

"A plumbed, dedicated line is preferred for installation. When a dedicated line is not available, installation shall ensure that no cross-connections between hot and cold water are created, and that atmospheric vacuum breakers integrated into the building water supply are not negatively affected by being under pressure for over 12 continuous hours.."

- Yes             No             Questionable

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

#### **4.3 Maintenance**

Which of the following (if any) were submitted with the device (check if present)?

- Maintenance of the device is not intended.
- Maintenance instructions
- Replacement Parts List

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: \_\_\_\_\_