

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

**Laboratory Evaluation Report for:  
Dual Check Type Backflow Preventer**

**Tested under ASSE Standard 1024 • Revised: February, 2004**  
Laboratory File # \_\_\_\_\_

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

**Model No.** \_\_\_\_\_

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

**Serial No.** \_\_\_\_\_

**Tel:** (\_\_\_\_\_) \_\_\_\_\_      **Fax:** (\_\_\_\_\_) \_\_\_\_\_

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

**Other Identification Markings** \_\_\_\_\_

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?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
or prototypes?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

## Section I

### 1.0 General

#### 1.1 Application.

Is the purpose of the device, as described by the manufacturer, as stated in this section?

- Yes  
 No  
 Questionable

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

#### 1.2 Scope

1.2.1 Description. Does the device conform to the product described in the standard?

- Yes  
 No  
 Questionable

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

1.2.2 Size. Did the product comply with the sizes stated?

- Yes  
 No

1.2.3 Working Pressure. The maximum working pressure as stated by the manufacturer. \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

1.2.4 Temperature Range.

(a) Cold water service range as stated by the manufacturer.

\_\_\_\_\_ °F to \_\_\_\_\_ °F ( \_\_\_\_\_ °C to \_\_\_\_\_ °C).

(b) Hot water service range as stated by the manufacturer.

\_\_\_\_\_ °F to \_\_\_\_\_ °F ( \_\_\_\_\_ °C to \_\_\_\_\_ °C).

In compliance?  Yes  
 No  
 Questionable

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

## Section II

### 2.0 Test Specimens

2.1 State the quantity of units provided for the evaluation. \_\_\_\_\_

2.2 How many units were utilized during the laboratory evaluation? \_\_\_\_\_  
If more than one (1) unit was used, explain: \_\_\_\_\_

2.3 Drawings. Were assembly drawings, installation drawings and other technical data which are needed to enable a testing agency to determine compliance with this standard submitted with the valve?

Yes  
 No

Were these drawings reviewed in the laboratory?  Yes  
 No

## Section III

### 3.0 Performance Requirements and Compliance Testing

#### 3.1 Connection Torque

What was the pressure used during the torque test? \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

What was the torque applied? \_\_\_\_\_ Lbs-inch ( \_\_\_\_\_ N•m)

The torque was applied for \_\_\_\_\_ minutes.

In compliance?  Yes  
 No  
 Questionable

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

#### 3.2 Hydrostatic Test of Complete Device

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

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

Were there any external leaks or other damage?  Yes  
 No

**3.3 Hydrostatic Leakage Tests of Check Valves**

What was the pressure applied to the downstream side of the upstream check valve individually? \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

What was the pressure on the upstream side? \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

What was the pressure applied to the downstream side of the downstream check valve? \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

What was the pressure on the upstream side? \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

The test period on each check valve was for \_\_\_\_\_ minutes.

Were there any leaks or rise in the water level of the sight glass?  Yes  No

**3.4 Flow and Pressure Loss**

What was the rated flow used? \_\_\_\_\_ GPM ( \_\_\_\_\_ L/s)

What was the maximum pressure loss observed up to and including the rated flow? \_\_\_\_\_ psi ( \_\_\_\_\_ kPa)

In compliance?  Yes  No  Questionable

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

**3.5 Drip Tightness of Check Valves**

**3.5.2 Drip Tightness of Inlet Check Valve**

What was the beginning level of the water in the sight glass? \_\_\_\_\_ inches ( \_\_\_\_\_ mm)

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

What was the final level of the water in the sight glass? \_\_\_\_\_ inches ( \_\_\_\_\_ mm)

In compliance?  Yes  No  Questionable

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

**3.5.3 Drip Tightness of Outlet Check Valve**

What was the beginning level of the water in the sight glass? \_\_\_\_\_ inches  
( \_\_\_\_\_ mm)

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

What was the final level of the water in the sight glass? \_\_\_\_\_ inches  
( \_\_\_\_\_ mm)

In compliance?

- Yes  
 No  
 Questionable

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

### 3.6 Deterioration at Extremes of Manufacturer's Temperature and Pressure

#### 3.6.2.1 Cold Water Devices.

What was the temperature of the test? \_\_\_\_\_ °F ( \_\_\_\_\_ °C)

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

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

In compliance?

- Yes  
 No  
 Questionable

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

#### 3.6.2.2 Hot Water Devices.

What was the temperature of the test? \_\_\_\_\_ °F ( \_\_\_\_\_ °C)

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

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

In compliance?

- Yes  
 No  
 Questionable

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

### 3.7 Check Valve Operation

In compliance?

- Yes  
 No  
 Questionable

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

**3.8 Dual Check Valve Integrity at Maximum Intermittent Rated Flow**

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

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

Were there any external leaks or other indications of damage?  Yes  
 No

Indicate the flow rate: \_\_\_\_\_ GPM ( \_\_\_\_\_ L/min)

After this test was completed, was the device retested to Section 3.5?  Yes  
 No

In compliance?  Yes  
 No

**Section IV**

**4.0 Detailed Requirements**

**4.1 Materials**

Did the solder and fluxes used contain more than 0.2% lead?  Yes  
 No

Did any metal alloys contain over 8% of lead?  Yes  
 No

4.1.1 Were non-ferrous cast parts in compliance?  Yes  
 No

4.1.2 Were bodies and non-cast parts in compliance?  Yes  
 No

4.1.3 Were springs in compliance?  Yes  
 No

4.1.4 Were flexible and non-metallic parts in compliance?  Yes  
 No

4.1.5 Were the metal to metal seating in compliance?  Yes  
 No

4.1.6 Are seat rings in compliance?  Yes  
 No

4.1.7 Are end connections in compliance?  Yes  
 No

4.1.7.1 Are tapered threads (if applicable) in compliance?  Yes  
 No

4.1.7.2 Are dryseal threads (if applicable) in compliance?  Yes  
 No

4.1.7.3 Are flange connections (if applicable) in compliance?  Yes  
 No

4.1.7.4 Other connections (if applicable)  
Do these connections comply with an industry approve standard?  Yes  
 No

#### 4.2 **Reparability**

(a) Are the internal parts of the device accessible?  Yes  
 No  
 Questionable

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

(b) Are all replaceable parts of the same size and model interchangeable with the original part?

Yes  
 No  
 Questionable

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

#### 4.3 **Instructions for Marking and Installations**

##### 4.3.1 Marking of Devices

4.3.1.1 List the markings found on the device:

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_
- f. \_\_\_\_\_
- g. \_\_\_\_\_

Are the markings visible in the installed position?

Yes  
 No

4.3.1.2 How were the markings applied?

\_\_\_\_\_

##### 4.3.2 Installation Instructions

4.3.2.1 Were complete instructions for installation and drawings or schematics, which are required for the correction installation packaged with the device?  Yes  
 No

4.3.2.2 Were field repair instructions submitted?  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:

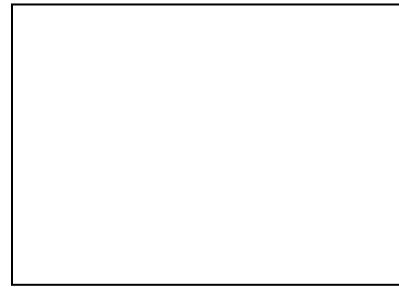
\_\_\_\_\_

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

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

\_\_\_\_\_

Signature



Seal