

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

**Laboratory Evaluation Report for:
Dual Check Backflow Preventer Wall Hydrant - Freeze Resistant Type**

Tested under ASSE Standard 1053 • Issued: 2004

Laboratory File Number _____

Manufacturer _____

Model No. _____

Address _____

Serial No. _____

Other Identification Markings _____

Size (Outlet) _____ **(Inlet)** _____

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 _____ |
| 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

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

- Yes
 No
 Questionable

If questionable, explain: _____

1.2 Scope

Does the device conform to the product classified as a dual check backflow preventer wall hydrant-freeze resistant type?

- Yes
 No
 Questionable

If questionable, explain: _____

1.2.1 Description.

Is this hydrant a Type 'A' or Type 'B' device?

- Type 'A'
 Type 'B'

1.2.2 Size Range.

1.2.2.1 Size of male hose threaded outlet: _____ inches _____ (mm).

1.2.2.2 Size of inlet: _____ inches _____ (mm).

1.2.4 Pressure.

What is the maximum working pressure as noted by the manufacture?

_____ psi (_____ kPa).

1.2.5 Temperature Range.

What is the temperature range as noted by the manufacturer?

_____ °F to _____ °F (_____ °C to _____ °C)

1.2.7 Atmospheric Port.

Is the atmospheric port a non-standard plumbing connection?

- Yes
 No

Section II

2.0 Test Specimens

- 2.1 Samples Submitted for Test.
How many devices of each type or model and size were submitted for testing? _____
What is the length of the hydrant? _____ inches (_____ mm)
Is this the smallest inlet and longest length of the hydrant series? Yes
 No
Were the test performed in the order as described in this standard? Yes
 No
- 2.2 Samples Tested.
How many devices of each type or model were utilized during the laboratory evaluation? _____
If more than one device was used, explain why: _____
- 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 devices? Yes
 No
Were the drawings reviewed in the laboratory? Yes
 No

Section III

Performance Requirements and Compliance Testing

- 3.1 Hydrostatic Pressure Tests
What was the test pressure? _____ psi (_____ kPa)
The test period was for _____ minutes.
In compliance? Yes
 No
- 3.2 Water Flow Capacity and Pressure Loss.
What was the supply pressure used for this test? _____ psi (_____ kPa)
At a 25 psi (172.4 kPa) pressure differential across the device, what was the flow rate?
_____ GPM (_____ L/s)
In compliance? Yes
 No
 Questionable
If questionable, explain: _____
- 3.3 Deterioration at Maximum Rated Temperature and Pressure.
What was the water temperature used for this test? _____ °F (_____ °C)
What was the supply pressure used for this test? _____ psi (_____ kPa)
Duration of test: _____ hours/day for _____ days
In compliance? Yes
 No
- 3.4 Life Cycle Test.
How many cycles were used for this evaluation? _____ cycles

What was the dwell time per cycle? _____seconds
In compliance? Yes
 No

3.5 Resistance to Bending.
Load applied _____ lbs.(_____ kg)
Supply pressure used for this test? _____psi (_____ kPa)
Duration of test: _____minutes
In compliance? Yes
 No

3.6 Self-Drain Capabilities
Did the Type 'A' device discharge 3.0 gallons (11.4 liters) of water after the base temperature was lowered to 0.0°F (-17.8°C) and the hose was removed?
 Yes
 No

Did the Type 'B' device discharge 3.0 gallons (11.4 liters) of water after the base temperature was lowered to 0.0°F (-17.8°C) and the hose and nozzle were left attached?
 Yes
 No

In compliance? Yes
 No
 Questionable

If questionable, explain: _____

3.7 Tightness of Outlet Check Valve.
Was the inlet check valve blocked open and were the atmospheric vents sealed close?
 Yes
 No
Beginning height of water in the sight glass: _____ inches (_____ mm)
Final height of water in the sight glass: _____inches (_____ mm)
Water was held in the sight glass for _____ minutes
In compliance? Yes
 No

3.8 Tightness of Inlet Check Valve.
Was the outlet check valve blocked open and were the atmospheric vents sealed close?
 Yes
 No
Beginning height of water in the sight glass: _____inches (_____mm)
Final height of water in the sight glass: _____inches (_____ mm)
Water was held in the sight glass for _____ minutes
In compliance? Yes
 No

3.9 Leakage from Vent Ports.
What was the supply pressure used for this test? _____ psi (_____ kPa)

Was there any leakage at the vent ports at full flow? Yes
 No
 Questionable

If questionable, explain: _____

- 3.10 Backflow Through Inlet Check Valve.
Was there any loss of water level in the sight glass or leakage through the inlet check valve?
At 6 inches (152.4 mm) water column? Yes
 No
Duration of test: _____ minutes
At 10 feet (3.0 meters) water column? Yes
 No
Duration of test: _____ minutes
In compliance? Yes
 No
- 3.11 Backflow Through Outlet Check Valve.
Was there any loss of level in the sight glass or leakage through the inlet check valve
At 6.0 inches (152.4 mm) of water column Yes
 No
Duration of test: _____ minutes
At 10.0 feet (3.0 M) of water column Yes
 No
Duration of test: _____ minutes
At 250 psi (1723.8 kPa) or two (2) times the manufacturer's maximum rated pressure, whichever
is greater? Yes
 No
Duration of test: _____ minutes
In compliance? Yes
 No
- 3.12 Backsiphonage.
Check valves were fouled by which method: _____
What was the size of the wire used to foul the check valves? _____ inches (_____ mm)
Was there any rise of water in the sight glass during sequence steps (1), (2), or (3) of Section
3.12.2? Yes
 No
In compliance? Yes
 No
- 3.13 Backsiphonage and Backpressure.
Inlet check valve was fouled by which method: _____
Was there any flow of water from the outlet into the inlet piping during sequence steps (1), (2) or
(3) of Section 3.13.2? Yes
 No
Outlet check valve was fouled by which method: _____
Was there any flow of water from the outlet into the inlet piping during sequence steps (1), (2) or
(3) of Section 3.13.2? Yes
 No
In compliance? Yes
 No

- 3.14 Relief of Intermediate Chamber Pressure.
 What pressure was used for this test? _____ psi (_____ kPa)
 Did the atmospheric vents open and dissipate the intermediate chamber pressure by discharging water when the inlet pressure dropped to atmospheric? Yes
 No
- In compliance? Yes
 No

Section IV

4.0 Detailed Requirements

- 4.1 Materials.
 Was the lead content in solders and fluxes 0.2% or less? Yes
 No
 Was the lead content in the metal alloys 8% or less? Yes
 No
- 4.1.1 Metallic Parts
 Do the metal parts except springs have a corrosion resistance equal to a copper alloy of not less than 58% copper? Yes
 No
- 4.1.2 Springs
 Do the springs have a corrosion resistance equal to chrome nickel stainless steel, series 300? Yes
 No
- 4.1.4 Metal to Metal Seating
 Do either the check valves or relief means venting have metal to metal seats? Yes
 No
- 4.2 Instructions for Markings.
 4.2.1 What markings appear on the device?

- 4.2.2 How are the markings applied?

- 4.3 Installation Instructions.
 Were installation instructions packaged with the device? Yes
 No

TESTING AGENCY _____

ADDRESS _____

PHONE: _____ FAX: _____

TEST ENGINEER(S) _____

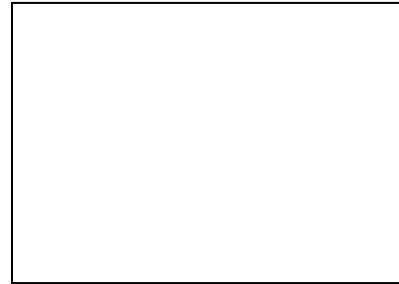
We certify that the evaluations are based on our best judgments and that the test data recorded is an accurate record of the performance of the device on test.

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