

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

**Laboratory Evaluation Report for:
Temperature Actuated Mixing Valves for Plumbed Emergency Equipment**

Tested under ASSE Standard 1071 - Issued: 2008

Laboratory File Number _____

Manufacturer _____

Model No. _____

Address _____

Serial No. _____

Other Identification Markings _____

Size _____

Connections _____

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? Yes No
or prototypes? Yes No

Section I

1.0 General

1.1 Application

Does this device comply with the application of this standard? Yes
 No
 Questionable

If questionable, explain: _____

1.2 Scope

1.2.1 Description

Does the device have a hot water inlet connection, a cold water inlet connection and a mixed water outlet connection? Yes
 No

Does the device have a temperature controlling element and a means for adjusting the mixed water outlet temperature while in service? Yes
 No

What provisions were made so that the temperature cannot be inadvertently adjusted? _____

1.2.2 Connections

Size and type of connections:
Inlets: _____
Outlet: _____

1.2.3 Maximum Working Pressure

What is the maximum working pressure as stated by the manufacturer? _____psi (_____ kPa)

1.2.4 Temperature Range

What are the hot water and cold water inlet temperature ranges as stated by the manufacturer? Hot Water: _____°F to _____°F (_____°C to _____°C)

Cold Water: _____°F to _____°F (_____°C to _____°C)

What is the outlet water temperature range as stated by the manufacturer?
_____°F to _____°F (_____°C to _____°C)

1.2.5 Did the manufacturer provide their by-pass flow rate at 30.0 psi (206.9 kPa) pressure differential?

Yes
 No

Section II

2.0 Test Specimens

2.1 Samples Submitted for Test

Was the proper production unit size and model furnished for the testing? Yes
 No
 Questionable

If questionable, explain: _____
How many assemblies of each size and model were submitted? _____

2.2 Samples Submitted for Test

How many units were utilized during the laboratory evaluation? _____

2.3 Drawings

Were assembly drawings and other data necessary to determine compliance provided and were these reviewed by the testing agency?

- Yes
- No
- Questionable

If questionable, explain: _____

Section III

3.0 Performance Requirements & Compliance Testing

3.1 Conditioning Test

- What was the water temperature as recorded at T3? _____ °F (_____ °C)
- What was the water pressure as recorded at P3? _____ psi (_____ kPa)
- What was the length of time that this conditioning test was run? _____ hours _____ seconds
- Was any design feature of this device disabled for the purposes of this test? Yes
 No
- Were there any visible leaks, distortion or damage from or to this device? Yes
 No
- Was this device in full compliance with Section 3.1? Yes
 No

3.2 Temperature Control Test

- What was the temperature of the water at the hot water inlet? _____ °F (_____ °C)
- What was the temperature of the water at the cold water inlet? _____ °F (_____ °C)
- Was the cold water supply temperature maintained within 3.0°F (1.7°C) throughout this test? Yes
 No
- Was it necessary to adjust the high temperature limit stop on this device? Yes
 No

After flowing water for 1 minute per Section 3.2.2a, what were the temperatures at:

- T1: _____ °F (_____ °C)
- T2: _____ °F (_____ °C)
- T3: _____ °F (_____ °C)

And pressures at:

- P1: _____ psi (_____ kPa)
- P2: _____ psi (_____ kPa)
- P3: _____ psi (_____ kPa)

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

After reducing the water flow per Section 3.2.2b, what were the temperatures at:

- T1: _____ °F (_____ °C)
- T2: _____ °F (_____ °C)
- T3: _____ °F (_____ °C)

And pressures at:

- P1: _____ psi (_____ kPa)
- P2: _____ psi (_____ kPa)
- P3: _____ psi (_____ kPa)

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

After increasing the temperature of the hot water supply per Section 3.2.2c, what were the temperatures at:

- T1: _____ °F (_____ °C)
- T2: _____ °F (_____ °C)
- T3: _____ °F (_____ °C)

And pressures at:

- P1: _____ psi (_____ kPa)
- P2: _____ psi (_____ kPa)
- P3: _____ psi (_____ kPa)

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

After reducing the water flow per Section 3.2.2d, what were the temperatures at:

T1: _____ °F (_____ °C)

T2: _____ °F (_____ °C)

T3: _____ °F (_____ °C)

And pressures at:

P1: _____ psi (_____ kPa)

P2: _____ psi (_____ kPa)

P3: _____ psi (_____ kPa)

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

After fully opening valve V2 per Section 3.2.2e, what were the temperatures at:

T1: _____ °F (_____ °C)

T2: _____ °F (_____ °C)

T3: _____ °F (_____ °C)

And pressures at:

P1: _____ psi (_____ kPa)

P2: _____ psi (_____ kPa)

P3: _____ psi (_____ kPa)

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

In each portion of this test, did the device comply with the permissible temperature variations for flows and pressure differentials as shown in Table 1? Yes

No

Did the device at any time exceed an outlet temperature of 100°F (37.8°C)? Yes

No

Did the device meet the manufacturer's rated flow at 30.0 psi (206.9 kPa) differential pressure?

Yes

No

Was the device in full compliance with Section 3.2?

Yes

No

3.3 Hot Water Shut-Off Test

After the device was adjusted to re-establish a 30.0 psi (206.9 kPa) pressure differential between the cold water inlet and the device's outlet per Section 3.3.2, what was the flow rate?

_____ gpm (_____ L/m)

Was this flow rate at least 90% of the manufacturer's stated by-pass flow at the 30.0 psi (206.9 kPa) pressure differential? Yes

No

Was the device in full compliance with Section 3.3?

Yes

No

3.4 Maximum Outlet Temperature Test

After initial test conditions were re-set as in Section 3.2.2 and valve V2 was opened, what were temperatures at:

T1: _____ °F (_____ °C)

T2: _____ °F (_____ °C)

T3: _____ °F (_____ °C)

What was the temperature at T3 after adjusting the device to its maximum limit setting?

T3: _____ °F (_____ °C)

Did the device at any time exceed an outlet temperature of 100°F (37.8°C)? Yes

No

3.5 Cold Water Shut-Off Test

When the cold water inlet supply was shut-off, did the outlet temperature at T3 ever exceed 100°F (37.8°C) prior to a reduction of the flow to the values listed in Table 1 for 'Maximum Allowable Flow with Cold Water Shut-Off'? Yes

No

What was the maximum temperature recorded prior to the flow reduction per Table 1?

_____ °F (_____ °C)

3.6 Cross Flow Test

Was there any leakage from the opposite port in excess of 0.013 gpm (50 cc/min.) when a water pressure of 5.0 psi (34.5 kPa) was applied to the cold water or hot water ports? Yes

No

3.7 Hydrostatic Pressure Test

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

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

Was there any leakage through the valve body? Yes
 No

Section IV

4.0 Detail Requirements

4.1 Installation and Maintenance Instructions

Were installation, adjustment, testing and maintenance instructions provided with the device?

Yes
 No

Did installation instructions include the following information:

- Inlet and outlet connection sizes
- Maximum working pressure
- Manufacturer's stated flow at 30.0 psi (206.9 kPa) differential pressure
- Manufacturer's stated cold water by-pass flow at 30.0 psi (206.9 kPa) differential pressure
- Manufacturer's minimum stated flow
- Procedure for setting the high temperature limit stop (if applicable)
- Manufacturer's maximum stated flow with cold water shut-off

Did the instructions indicate that the installation and field adjustments of the device are the responsibility of the installer?

Yes
 No

Did the instructions indicate that if shut-off valves are installed, provisions shall be made to prevent unauthorized shut-off?

Yes
 No

4.2 Identification and Markings

What markings were found on the device? _____

How were the markings applied? _____

TESTING AGENCY _____

ADDRESS _____

PHONE: _____ FAX: _____

TEST ENGINEER(S) _____

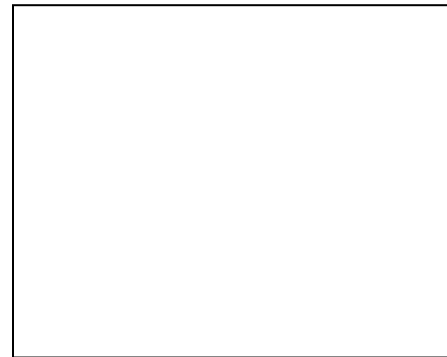
We certify that the evaluations are based on our best judgments and that the test data recorded is an accurate record of the performance of the device on test.

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