American Society of Sanitary Engineering
Seal (Certification) Program

Laboratory Evaluation Report for:
Temperature Actuated, Flow Reduction (TAFR) Valves for Individual Supply Fittings

Tested under ASSE Standard 1062 • Revised: 2006

Laboratory File Number _____

Manufacturer _____

Model No. _____

Address _____

Serial No. _____

Size of Inlet _____

Size of Outlet _____

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

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

If questionable, explain: _____

Is the device intended for use by people with disabilities? ☐ Yes ☐ No ☐ Questionable

If questionable, explain: _____

If yes, does it comply with ICC/ANSI Standard A117.1? ☐ Yes ☐ No

1.2 Scope

1.2.1 Description

Did the device comply with the description noted in this standard? ☐ Yes ☐ No ☐ Questionable

If questionable, explain: _____

1.2.2 Size Range: _____inches (_____DN)

1.2.3 Flow Rates Before Actuation

(a) If the device is to be integrated into a supply fitting, does the flow rate comply with ASME A112.18.1-2005/CSA B125.1-2005? ☐ Yes ☐ No

(b) If the device is not to be integrated into a supply fitting, but it is to be used with a supply fitting that has a specified minimum flow rate in the ASME A112.18.1-2005 /CSA B125.1-2005 standard, what is the flow rate prior to actuation? _____GPM (_____L/min)

Is the minimum flow rate prior to actuation greater than the 0.5GPM (1.9 L/min) requirement of ASME/ANSI A112.18.1-2005/CSA B125.1-2005? ☐ Yes ☐ No

In compliance? ☐ Yes ☐ No

Note: If the device is to be used with a fixture fitting that has a specified maximum flow rate, no other maximum flow rate requirement is necessary unless the device is used to limit flow.

1.2.4 Pressure Range

What is the operating pressure range of the device as noted by the manufacturer?

_____psi (_____kPa) to _____psi (_____kPa)

What is the working pressure range of the device as noted by the manufacturer?

_____psi (_____kPa) to _____psi (_____kPa)

In compliance? ☐ Yes ☐ No

1.2.5 Temperature Range

What is the working temperature range as noted by the manufacturer? _____ to _____°F (_____ to _____°C)

Section II

2.0 Test Specimens

2.1 State the number of units provided for the laboratory evaluation. _____

2.2 How many units were utilized during the laboratory evaluation? _____

2.3 Drawings

Were assembly drawings, installation instructions and other data furnished which are required to determine compliance with this standard? ☐ Yes ☐ No ☐ Questionable

If questionable, explain: _____

Were the drawings reviewed in the laboratory? ☐ Yes ☐ No

Section III

3.0 Performance Requirements and Compliance Testing

3.1 Hydrostatic Pressure Test

What inlet supply pressure was used for this test? _____psi (_____kPa)

Note: The pressure shall be twice the manufacturer's rated working pressure or twice the working pressure noted in the standard (whichever is greater).

What was the water temperature? _____°F (_____°C)

The test period was for _____minutes.

Was there any indication of leakage or evidence of damage? ☐ Yes ☐ No

In compliance? ☐ Yes ☐ No

3.2 Deterioration at Extremes of Manufacturer's Temperature and Pressure

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

What water pressure was used for this test? _____psi (_____kPa)

The test period was for _____minutes.

Was there any indication of leakage or evidence of damage? ☐ Yes ☐ No

In compliance? ☐ Yes ☐ No

3.3 Flow Rate Test

(a) Devices Integrated Into Fixture Fittings

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

What was the adjusted inlet water pressure? _____psi (_____kPa)

Was the inlet water pressure in accordance with the ASME A112.18.1-2005/CSA B125.1-2005 requirements? ☐ Yes ☐ No

What was the flow rate? _____GPM (_____L/min)

Was the flow rate in compliance with ASME A112.18.1-2005/CSA B125.1-2005? ☐ Yes ☐ No

In compliance? ☐ Yes ☐ No

(b) Devices Not Integrated Into Fixture Fittings

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

What was the adjusted inlet water pressure? _____psi (_____kPa)

Was the inlet water pressure in accordance with the ASME A112.18.1-2005/CSA B125.1-2005 requirements? ☐ Yes ☐ No

What was the flow rate? _____GPM (_____L/min)

Was the flow rate *greater* than 0.5 GPM (1.9 L/min) of the ASME A112.18.1-2005/CSA B125.1-2005 requirement? ☐ Yes ☐ No

3.4 TAFR Reduction and Reset Test

(See Table 1 for type of fixture supply and flow rates)

3.4.2 Was the mixing valve in the test set-up capable of making temperature changes within five (5) seconds? ☐ Yes ☐ No

Was the linear distance between the mixing valve and the device on test less than 24 inches (609.6 mm)? ☐ Yes ☐ No

(a) At an initial water temperature of 104.0°F ± 5.0°F (40.0°C ± 2.8°C):

What was the adjusted flow rate before reduction? _____GPM (_____L/min)

(b) After the inlet water temperature stabilizes at 104.0°F ± 5.0°F (40.0°C ± 2.8°C reset the mixing valve to 135.0°F (57.2°C) within five (5) seconds.

What was the water temperature at the inlet of the device on test _____°F (_____°C)

What was the supply pressure? _____psi (_____kPa)

When the temperature reaches 120.0°F(48.9°C) record the time it took for the flow to reduce to 0.25 GPM (1.0 L/min) per table 1. _____ seconds

What was the supply pressure after flow reduction? _____ psi (_____kPa)

(c) With the inlet temperature at 135.0°F ± 5.0°F (57.2°C ± 2.8°C), reset the mixing valve to 90.0°F (32.2°C) within five (5) seconds. When the temperature reaches 90.0°F + 5.0°F/-0°F (32.2°C + 2.8°C/-0°C) record the time elapsed for the device to automatically or manually reset. _____ seconds.

(d) After the inlet water temperature stabilizes at 104.0°F ± 5.0°F (40.0°C ± 2.8°C) reset the mixing valve to 125.0°F (51.7°C) within five (5) seconds. [Repeat tests 3.4(b) and (c) using 125.0°F (51.7°C) as the basis.]

What was the water temperature at the inlet of device on test? _____°F (_____°C)

What was the supply pressure? _____psi (_____kPa)

When the temperature reaches 120.0°F (48.9°C), record the time it took for the flow to reduce to 0.25 GPM (1.0 L/min) per Table 1. _____ seconds

What was the supply pressure after flow reduction? _____ psi (_____ kPa)

With the inlet temperature at 125.0°F ± 5.0°F (51.7°C ± 3.0°C), reset the mixing valve to 90.0°F (32.2°C) within five (5) seconds. When the temperature reaches 90.0°F +5.0°F/-0°F (32.2°C + 2.8°C/-0°C) record the time elapsed for the device to automatically or manually reset. _____ seconds

(e) After the inlet water temperature stabilizes at 104.0°F ± 5.0°F, (40.0°C ± 2.8°C) reset the mixing valve to 130.0°F (54.4°C) within five (5) seconds. [Repeat tests 3.4(b) and (c) using the 130.0°F (54.4°C) as the basis.]

What was the temperature at the inlet of the device on test? _____°F (_____°C)

What was the supply pressure? _____GPM (_____L/min)

When the temperature reaches 120.0°F (48.9°C), record the time it took for the flow to reduce to 0.25 PGM (1.0 L/min) per Table 1. _____ seconds

What was the supply pressure after flow reduction? _____ psi (_____ kPa)

With the inlet temperature at 130.0°F ± 5.0°F (54.4°C ± 3.0°C , reset the mixing valve to 90.0°F (32.2°C) within five (5) seconds. When the temperature reaches 90.0°F +5.0°F/-0°F (32.2°C + 2.8°C/-0°C), record the time elapsed for the device to automatically or manually reset. _____ seconds

(f) After the inlet water temperature stabilizes at 104.0°F ± 5.0°F (40.0°C ± 2.8°C) reset the mixing valve to 140.0°F (60.0°C) within five (5) seconds. [Repeat tests 3.4(b) and (c) using 140.0°F (60.0°C) as the basis]

What was the temperature at the inlet of the device on test? _____°F (_____°C)

What was the supply pressure? _____GPM (_____L/min)

When the temperature reaches 120.0°F (48.9°C), record the time it took for the flow to reduce to 0.25 GPM (1.0L/min) per Table 1. _____ seconds

What was the supply pressure after flow reduction? _____ psi _____ kPa

With the inlet temperature at 140.0°F ± 5.0°F (60.0°C ± 3°C), reset the mixing valve to 90.0°F (32.2°C) within five (5) seconds. When the temperature reaches 90.0°F + 5.0°F/-0°F (32.2°C + 2.8°C/-0°C) record the time elapsed for the device to automatically or manually reset. _____ seconds

3.4.3 Did the device automatically reduce the discharge flow as indicated in Table 1 within five (5) seconds after the water temperature at the inlet exceeded 120.0°F (48.9°C)?

☐ Yes
☐ No

Did the device automatically or manually reset to full flow within ten (10) seconds after the inlet water temperature was reduced to 90.0° + 5.0°F/-0°F (32.2°C + 2.8°C/-0°C)?

☐ Yes
☐ No

In compliance? ☐ Yes ☐ No

3.5 Life Cycle Test

Total number of cycles to which the device was subjected: _____

Cycle speed used: _____ cycles/minute

What was the temperature of the:

1) Warm water supply? _____°F (_____°C)
2) Cold water supply? _____°F (_____°C)
3) Hot water supply? _____°F (_____°C)

What was the pressure used on the hot water supply? _____ psi (_____ kPa)

Was the device retested to Section 3.4 after the conclusion of the life cycle test?

☐ Yes
☐ No

In compliance? ☐ Yes ☐ No

3.6 Hydrostatic Pressure Test

What hydrostatic pressure was used? _____psi (_____kPa)

How long was the test conducted? _____ minutes

Was there any indication of leakage through the device? ☐ Yes ☐ No

WAS THE DEVICE IN COMPLETE COMPLIANCE WITH ALL THE TEST CRITERIA OF THIS STANDARD? ☐ Yes ☐ No

Section IV

4.0 Detailed Requirements

4.1 Materials

Does the device meet the lead requirements of Section 4.1? ☐ Yes ☐ No

If intended for applications for dispensing water for human consumption, does the device meet the requirements of ASME A112.18.1-2005/CSA B125.1-2005, Clause 4.9.1? ☐ Yes ☐ No

4.2 Coatings

Do all coatings comply with the requirements of A112.18.1-2005/CSA B125.1-2005? ☐ Yes ☐ No

4.3 Markings

4.3.1 List the markings which appear on the device (for devices not integrated into a supply fixture):

(a) Name of manufacturer of trade mark: _____
(b) Model number: _____
(c) Maximum actuation temperature for which the device is designed: _____°F (_____°C)
(d) Other _____

4.3.2 List the packaging or installation instructions submitted (for devices not integrated into a supply fixture):

(a) Maximum rated working pressure: _____psi (_____kPa)
(b) Nominal device size: _____inches (_____mm)
(c) Direction of flow: _____
(d) Other _____

4.3.3 List the markings which appear on the installation instructions (for devices that are integrated into a supply fixture):

(a) Name of manufacturer of trade mark: _____
(b) Model number: _____
(c) Maximum actuation temperature for which the device is designed: _____°F (_____°C)
(d) Other _____

4.3.4 List the information marked on the packaging of the supply fitting (for devices that are integrated into a supply fixture):

(a) Was there an indication that the supply fitting contains a temperature actuated flow reduction valve? ☐ Yes ☐ No

(b) Was the maximum actuation temperature noted? ☐ Yes ☐ No

4.3.5 How were the markings applied to the device? _____

Were the markings clear, permanent and visible in the installed position? ☐ Yes ☐ No

4.4 Installation Instructions

Were the manufacturer's instructions for installation included? ☐ Yes ☐ No

Did they include the tested & approved installation position(s) of the device? ☐ Yes ☐ No

4.5 Maintenance

Were complete instructions for field maintenance and field repair included? ☐ Yes ☐ No

4.6 Field Testing

Were manufacturer's recommendations for field testing furnished? ☐ 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