

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

**ASSE 1085-2018
Performance Requirements for Water Heaters for Emergency Equipment**

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

1.1 Application

Does the device meet the application?

Yes No Questionable

If questionable, explain: _____

1.2 Scope

1.2.1 Description

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

Yes No Questionable

If no or questionable, explain _____

1.2.2 Maximum Working Pressure

What is the upper limit working pressure of the device? _____ psi (_____ kPa)

1.2.3 Inlet Temperature Range

What is the cold water inlet temperature range of the device? _____ °F to _____ °F
(_____ °C to _____ °C)

1.2.4 Outlet Temperature Range

What temperature range of supply water can the device provide to the emergency equipment? _____ °F to _____ °F (_____ °C to _____ °C)

1.2.5 Minimum Flow

What type of unit does the water heater apply to?

- Eyewashes
- Eye/Face Washes or Combination Units
- Emergency Showers

What is the minimum flow rate of the water heater? _____ GPM (_____ L/min)

Is the device capable of flowing at the manufacturer's rated minimum and maximum flow rate for a period of 15 minutes?

Yes No Questionable

If no or questionable, explain _____

1.2.6 Water Heater Standards

Does the device conform to the safety requirements of the applicable water heater standards?

Yes No Questionable

If no or questionable, explain _____

Do the electrical controls comply with the applicable requirements under UL 60730-1 and UL 60730-2-9, or UL 353 or UL 873?

Yes No Questionable

If no or questionable, explain _____

1.2.7 Maximum Time

Does the outlet water supply reach the set temperature within 60 seconds of flow through the water heater at all required flow rates?

Yes No Questionable

If no or questionable, explain _____

1.2.8 Water Heater Failure

Upon failure to heat the water, does supply water continue to flow through the outlet of the water heater at a minimum flow rate or greater?

- Yes No Questionable

If no or questionable, explain _____

Section II

2.0 Test Specimens and Test Laboratory

2.1 Samples Tested

How many samples were submitted by the manufacturer? _____

2.2 Drawings

Were assembly drawings, installation instructions, and other necessary data submitted with the device?

- Yes No Questionable

If no or questionable, explain _____

Section III

3.0 Performance Requirements and Compliance Testing

3.1 Maximum Flow and Conditioning Test

3.1.2 Procedure

2. What was the flowing pressure at P1? _____ psi (_____ kPa)
What was the supply water temperature? _____ °F (_____ °C)
3. What was the water heater's controls setpoint temperature adjusted to?
_____ °F (_____ °C)
4. What was the maximum flow rate? _____ GPM (_____ L/min)
What was the temperature at T1? _____ °F (_____ °C)
What was the temperature at T2? _____ °F (_____ °C)
What was the pressure at P1? _____ psi (_____ kPa)
What was the pressure at P2? _____ psi (_____ kPa)
5. How long was water flowed for this section of the test? _____ minutes
What was the temperature at T1? _____ °F (_____ °C)
What was the maximum temperature variation above the set point at T2?
_____ °F (_____ °C)
What was the maximum temperature variation below the set point at T2?
- _____ °F (- _____ °C)

3.1.3 Criteria

Were there any leaks or indication of change in the physical geometry of the materials?

- Yes No Questionable

If yes or questionable, explain _____

Is the device in compliance with this section?

- Yes No Questionable

If no or questionable, explain _____

3.2 Water Heater Temperature Test

3.2.2 Procedure

2. What was the supply water temperature? _____°F (_____°C)
What was the water heater's controls setpoint temperature adjusted to?
_____°F (_____°C)
3. What was the minimum flow rate set to? _____ GPM (_____ L/min)
5. What was the flow rate? _____ GPM (_____ L/min)
What was the temperature at T1? _____°F (_____°C)
What was the temperature at T2? _____°F (_____°C)
What was the pressure at P1? _____ psi (_____ kPa)
What was the pressure at P2? _____ psi (_____ kPa)
6. How long was water flowed for before turning off the energy source of the device?
_____ minutes

What was the maximum temperature variation above the set point at T2? _____°F (_____°C)
What was the maximum temperature variation below the set point at T2? - _____°F (- _____°C)

Repeat Section 3.2.2 at the manufacturer's maximum specified flow rate:

3.2.2 Procedure

2. What was the supply water temperature? _____°F (_____°C)
What was the water heater's controls setpoint temperature adjusted to?
_____°F (_____°C)
3. What was the minimum flow rate set to? _____ GPM (_____ L/min)
5. What was the flow rate? _____ GPM (_____ L/min)
What was the temperature at T1? _____°F (_____°C)
What was the temperature at T2? _____°F (_____°C)
What was the pressure at P1? _____ psi (_____ kPa)
What was the pressure at P2? _____ psi (_____ kPa)
6. How long was water flowed for before turning off the energy source of the device?
_____ minutes

What was the maximum temperature variation above the set point at T2? _____°F (_____°C)
What was the maximum temperature variation below the set point at T2? - _____°F (- _____°C)

3.2.3 Criteria

Is the device in compliance with this section?

- Yes No Questionable

If no or questionable, explain _____

3.3 Water Heater Temperature Test with Varying Inlet Water Temperature

3.3.2 Procedure

1. What was the hot supply water temperature? _____°F (_____°C)
What was the flow rate? _____ GPM (_____ L/min)
What was the temperature-controlling device set to? _____°F (_____°C)
2. What was the water heater outlet temperature setpoint set to? _____°F (_____°C)
4. After a period of 2 minutes, what was the water temperature increased to?
_____°F (_____°C)
Over what period of time was the water temperature increased? _____ minutes
5. How long was water run for after the water supply reached the temperature in
3.3.2.4? _____ minutes

What was the temperature at T1? _____°F (_____°C)

What was the temperature at T2? _____°F (_____°C)

When multiple flow rates are required for the water heater, complete this test for every flow rate.

3.3.3 Criteria

Prior to the inlet temperature reaching 85°F, what was the maximum temperature variation above the set point? _____°F (_____°C)

Prior to the inlet temperature reaching 85°F, what was the maximum temperature variation below the set point? -_____°F (-_____°C)

What was the maximum outlet temperature during the test? _____°F (_____°C)

Is the device in compliance with this section?

Yes No Questionable

If no or questionable, explain _____

Section IV

4.0 Detailed Requirements

4.1 Installation and Maintenance Instructions

Were instructions for installing, testing, adjusting, and maintaining the water heater included by the manufacturer?

Yes No Questionable

If questionable, explain _____

State the information given on the manufacturer's installation instructions except item c). For item c), state whether this was provided:

a) Inlet and outlet connection sizes: _____

b) Maximum working pressure: _____

c) Procedures for adjusting the setpoint temperature of the water heater: _____

d) Maximum flow rate at the minimum temperature rise and corresponding pressure drop: _____

e) Minimum flow rate at the maximum temperature rise and corresponding pressure drop: _____

Do the instructions indicate that the installation and temperature setting of the water heat are the responsibility of the installer and shall be carried out in accordance with the manufacturer's instructions?

Yes No Questionable

If no or questionable, explain _____

Do the instructions indicate that the installer shall verify that the flow rate of the water heater complies with the flow rates required for the emergency fixture being supplied with tepid water?

Yes No Questionable

If no or questionable, explain _____

Do the instructions indicate that the water heater shall be accessible for replacement and repair?

Yes No Questionable

If no or questionable, explain _____

4.2 Identification and Markings

Does the water heater conform to the labelling requirements of the applicable water heater standards?

Yes No Questionable

If no or questionable, explain _____

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: _____