

**ASSE Standard #1085-2018**

**ASSE Board Approved:** October 2018

**ANSI Approved:** October 2018

**ICS Code:** 91 140 65

## **ASSE International**

Performance Requirements for

# **Water Heaters for Emergency Equipment**

*An American National Standard*

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# Foreword

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This foreword shall not be considered a part of the standard; however, it is offered to provide background information.

ASSE standards are developed in the interest of consumer safety. ASSE International considers product performance standards to be of great value in the development of improved plumbing systems.

The working group that developed this standard was set up within the framework of the Product Standards Committee of ASSE International.

Recognition is made of the time volunteered by members of this working group and of the support of manufacturers who also participated in meetings for this standard.

This standard does not imply ASSE International's endorsement of a product which conforms to these requirements.

Compliance with this standard does not imply acceptance by any code body.

It is recommended that these water heaters be installed consistent with local codes by qualified and trained professionals.

This standard was promulgated in accordance with ASSE's procedures accredited by the American National Standards Institute (ANSI).

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# Performance Requirements for Water Heaters for Emergency Equipment

## Section I

### 1.0 General

#### 1.1 Application

This standard is for water heaters with precise setpoint controls under varying flow conditions.

#### 1.2 Scope

This standard is for water heaters supplying tepid water to emergency equipment, including eyewash, eye/face wash, emergency showers, and combination units. These water heaters heat the cold water supply to an acceptable tepid temperature within the intended range listed in ISEA Z358.1.

##### 1.2.1 Description

The water heaters shall consist of a cold water inlet connection, a means of heating the water and controlling the discharge temperature, and an outlet connection to supply tepid water to the emergency equipment. The water heater shall also have a means to limit the maximum outlet temperature under normal operating conditions. Provisions shall be made so that the temperature setting of the water heater cannot be inadvertently adjusted.

##### 1.2.2 Maximum Working Pressure

The water heater shall be designed to function at an upper limit working pressure of 100.0 psi (690 kPa) at minimum.

##### 1.2.3 Inlet Temperature Range

The water heater shall be designed for a cold water inlet temperature range that includes 40.0 °F to 70.0 °F (4.4 °C to 21.1 °C).

##### 1.2.4 Outlet Temperature Range

The water heater shall be capable of supplying the emergency equipment with a supply of water within the temperature range of 65.0 °F to 95.0 °F (18.3 °C to 35.0 °C) under normal operating conditions as defined by sections 1.2.2 and 1.2.3.

##### 1.2.5 Minimum Flow

*Note per ISEA Z358.1: Water heaters covered by this standard for eyewashes shall operate at a minimum flow rate of 1.5 GPM (5.7 L/min). Water heaters covered by this standard for eye/face washes or combination units shall operate at a minimum flow rate of 3 GPM (11.4 L/min). Water heaters covered by this standard serving only emergency showers shall operate at a minimum flow rate of 20 GPM (75.7 L/min).*