



**Summary of Substantive Changes
between the 2008 and 2012 editions of
ASSE 1071 “Performance Requirements for Temperature Actuated Mixing
Valves for Plumbed Emergency Equipment”
Presented to the IAPMO Standards Review Committee on January 7, 2013**

General: The changes to this standard will have an impact on currently listed products. The major changes are:

- The scope of the standard was limited to cover plumbed emergency equipment with a flow rate of 1.5 GPM (5.7 L/m) or more (see Section 1.2.3).
- The valves and the criteria for the hot water shut-off test were divided into two categories: one for devices rated at less than 20.0 GPM (75.7 L/m) and the other one for devices rated at 20.0 GPM (75.7 L/m) or higher (see Sections 1.2.6 and 3.3.3).
- The maximum outlet temperature test procedure was revised (see Section 3.4)

Section 1.2, Scope:

Section 1.2.2, Connections: The applicable standards for compliance were added, as follows:

[1.2.2.1 Tapered pipe threads shall comply with ASME B1.20.1.](#)

[1.2.2.2 Dry seal pipe threads shall comply with ASME B1.20.3.](#)

[1.2.2.3 Compression assemblies shall comply with SAE J 512.](#)

[1.2.2.4 Soldered connections shall comply with ASME B16.18 or ASME B16.22.](#)

[1.2.2.5 Push fit connections shall comply with ASSE 1061.](#)

Section 1.2.3, Minimum Flow: The scope of the standard was clarified as follows:

[Devices covered by this standard are for plumbed emergency equipment with a minimum flow rate of 1.5 GPM \(5.7 L/m\).](#)

Section 1.2.5.1, Inlet Water Temperature Range: The difference between the outlet water temperature setting and the cold water supply was changed as follows:

The cold water supply shall be at least [10.0 °F \(5.5 °C\)](#) ~~20.0 °F (11.0 °C)~~ lower than the outlet water temperature setting.

Section 1.2.6, Hot Water Failure: New requirements were added for valves rated at 20.0 GPM (75.7 L/m) or higher and revised for valves rated less than 20.0 GPM (75.7 L/m) as follows:

Upon hot water failure, [for valves rated less than 20.0 GPM \(75.7 L/m\)](#), the cold water shall continue to flow at [a minimum of 1.5 GPM \(5.7 L/m\)](#) or the manufacturer’s rated by-pass flow rate, [whichever is greater](#), at 30.0 psi (206.9 kPa) differential pressure.

[For valves rated at 20.0 GPM \(75.7 L/m\) or higher, the cold water shall continue to flow at a minimum of 15.0 GPM \(56.9 L/m\) or the manufacturer’s rated by-pass flow rate, whichever is greater, at 30.0 psi \(206.9 kPa\) differential pressure.](#)



Section 1.2.7, Cold Water Failure: The cold water failure requirements were clarified as follows:
Upon cold water failure, the outlet temperature shall not exceed 100.0 °F (37.8 °C) prior to the reduction of the flow to the values listed in Table 1 and, the hot water shall continue to flow at a rate not to exceed the values listed in Table 1.

Table 1: The minimum flow rate of 1.5 GPM (5.7 L/m) was added to the table.

Section 3.0, Performance Requirements and Compliance Testing: The following note was added:
NOTE: A failure due to dirt or debris is not cause for rejection. It is permissible to clean, but not replace fouled discs or seats during any test.

Figure 1, Piping Schematic for Valve Test: The figure was revised and a call-out for a “Flow Meter” was added to the figure.

Section 3.2, Temperature Control Test:

Section 3.2.1, Purpose: The test criteria were clarified as follows:

The purpose of this test is to verify that the outlet water temperature is automatically maintained within the tolerances shown in Table 1, the temperature does not exceed 100 °F (37.8 °C) and the manufacturer’s stated flow at 30.0 psi (206.9 kPa) differential pressure is met.

Section 3.3, Hot Water Shut-off Test:

Section 3.3.3, Criteria: The failure criteria were revised as follows:

~~*A flow less than 90% of the manufacturer’s stated by-pass flow at 30.0 psi (206.9 kPa) differential pressure shall result in a rejection of the device.*~~

For devices rated less than 20.0 GPM (75.7 L/m), a flow less than 1.5 GPM (5.7 L/m) or less than the manufacturer’s stated cold water by-pass flow at 30.0 psi (206.9 kPa) differential pressure, whichever is greater, shall result in a rejection of the device.

For devices rated 20.0 GPM (75.7 L/m) or higher, a flow less than 15.0 GPM (75.7 L/m) or less than the manufacturer’s stated cold water by-pass flow at 30.0 psi (206.9 kPa) differential pressure, whichever is greater, shall result in a rejection of the device.

Section 3.4, Maximum Outlet Temperature Test:

Section 3.4.2, Procedure: The test procedure was revised as follows:

a. With conditions set as recorded in Section 3.2.2, close V2 and open V1. ~~After one (1) minute, Open V2 within one (1) second~~ ~~After three (3) seconds, observe and record all temperatures for one (1) minute.~~ and flow water through the device for one (1) minute. At the conclusion of the one (1) minute period, record the temperatures at T1, T2 and T3.

b. Adjust the device to its maximum limit setting. After one (1) minute, observe and record the temperature at T3.