

Internal Use Only

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS

STANDARD FOR

BACKFLOW PREVENTERS AND RELIEF VALVES

IAPMO TS 8-2009

1. PURPOSE

- 1.1** The purpose of this standard is to establish an acceptable quality standard for minimum health and safety and for the installation of backflow preventers and relief valves on water lines in recreational vehicles. Its purpose is also to serve as a guide for producers, distributors, designers, engineers, installers, inspectors and users; to promote understanding regarding materials, manufacture and installation; and to provide for identifying backflow preventers and relief valves that conform to this standard.

The provisions of this standard are not intended to prevent the use of any alternate material or method of construction, provided any such alternate is at least the equivalent of this Standard and has been approved.

2. SCOPE

- 2.1** This standard covers the physical requirements and tests for toxicity, durability, proper design, together with method of marking and identification.
- 2.2** Backflow preventers and relief valves, covered by this standard, are intended for use in recreational vehicles when installed in accordance with all applicable code requirements and designed to be connected to a water distribution system which has a connection for an outside source of water supply.

3. GENERAL REQUIREMENTS

- 3.1** Threaded connections shall conform to ANSI/ASME B1.20.1.
- 3.1.1** Dryseal threads shall conform to ANSI B1.20.3.
- 3.2** Valves shall be permanently marked with an arrow indicating direction of flow to aid in

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correct installation of the valve, except valves that can only be installed in one direction. Only markings which are legibly stamped, etched or cast on the valve shall be considered as complying with this requirement.

- 3.3 Adjustments.** Relief valves shall be so constructed and factory set so that opening pressure cannot exceed 150 psi.
- 3.4 Corrosion Resistance.** Parts of valves which are constantly in contact with the water shall possess corrosion resistance equal to that of brass containing 60% copper.
- 3.5** All materials that come in contact with potable water shall be non-toxic and shall show compliance with IAPMO TS 31.

4. TESTING REQUIREMENTS

- 4.1** Relief valves shall comply with the testing requirements as listed in ANSI Z21.22.
- 4.2 Backflow Preventer Performance.** The backflow preventer shall be a self-seating type with an opening pressure not to exceed three (3) psi.
- 4.2.1** Leakage in the reverse direction through the backflow preventer shall be none at all water pressures between 1 psi and 200 psi.
- 4.2.2** The backflow preventer shall have a maximum pressure drop of 5 psi when flow is set at a rate of 5 gpm.
- 4.3** For backflow preventer which are to be installed on hot water lines, the valve shall comply with the elevated temperature testing in Section 3.6 of ASSE 1015.

5. MARKING AND IDENTIFICATION

- 5.1** All valves shall be legibly and permanently identified with the following:
- (a) Manufacturer's name or trademark;
 - (b) Part or model number or name; and
 - (c) Pressure rating in psi (relief valve set pressure).
- 5.1.1** When the valve has shown compliance with Section 4.3 of this standard, the valve shall then be marked with the maximum rated temperature.