

Internal Use Only

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS

STANDARD FOR

WATER PRESSURE REDUCING REGULATORS FOR USE IN RECREATIONAL VEHICLES

IAPMO TS 28-2006

1. PURPOSE

- 1.1** The purpose of this standard is to establish an acceptable standard for minimum health and safety protection for the performance of water pressure reducing regulators designed for use on recreational vehicles. The principal purpose of these regulators is to prevent damage to water systems in recreational vehicles due to high supply pressures or to pressure surges in the water supply hooked up to the vehicles in parks or other locations where a local water supply is connected to the vehicles, usually by means of a garden hose.
- 1.2** The purpose is also to serve as a guide for manufacturers, distributors, designers, engineers, installers, inspectors and users. It is intended to provide understanding about materials, manufacture and use of these devices. This standard is intended to provide a standard of comparison that can be used to judge devices of this type against devices of known performance, which have sufficient field service to provide confidence in obtaining expected performance.
- 1.3** The provisions of this standard are not intended to preclude the use of alternate materials or designs.
- 1.4** This standard also provides for identification of water pressure reducing regulators that conform to and have been properly tested as meeting this Standard.

2. SCOPE

- 2.1** This standard covers the physical requirements and tests for function, durability, suitability for use in potable water systems and for proper, safe operation in recreational vehicles.
- 2.2** Water pressure reducing regulators covered by this standard, are intended for use in recreational vehicles when installed per applicable code and manufacturer's installation instructions.

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3. GENERAL REQUIREMENTS

- 3.1 Pipe threads shall conform to ASME B1.20.1.
 - 3.1.1 Hose threads shall conform to ASME B2.4.
 - 3.1.2 Dryseal threads shall conform to ANSI B1.20.4.
- 3.2 Vehicle mounted regulators shall be furnished with a matching cap or plug to close the water inlet when it is not in use and shall be attached in a secure manner.
- 3.3 Metallic parts of the regulators that are normally in contact with potable water shall be at least as corrosion resistant as specified in ASTM B-584 as in alloy UNS # C86200. Stainless Steel shall be as corrosion resistant as ANSI type 300 series.
- 3.4 All components which come in contact with potable water shall be non-toxic and shall show compliance with IAPMO TS 31. Solders and fluxes with a lead content which exceeds two-tenths (0.20) of one (1) percent are prohibited in piping systems used to convey potable water.
- 3.5 Any strainers used in the regulators shall be removable without removing the regulator from the vehicle.
- 3.6 Regulators shall be permanently marked with an arrow indicating direction of flow, except regulators that can only be installed in one direction.
- 3.7 Regulated pressure shall not exceed 80 psi.

4. TESTING REQUIREMENTS

- 4.1 **Selection Of Samples**
 - 4.1.1 Testing for IAPMO listing shall be done on production units that are randomly selected from a production lot that reflects the latest configuration of the product.
 - 4.1.2 Six (6) randomly selected samples shall be furnished to the laboratory. One (1) sample selected by the laboratory shall be tested. If the sample fails, another two (2) samples shall be selected and tested from the same lot. If the second sample fails, reject the lot.
- 4.2 **Aging Of Plastic And Rubber Parts.** Regulators containing elastomeric or plastic parts shall be subjected to 140°F circulating air for twenty four (24) hours prior to all other tests.