

**INTERNATIONAL ASSOCIATION OF PLUMBING
AND MECHANICAL OFFICIALS**

IAPMO GUIDE CRITERIA

FOR

**IN-LINE SANITARY CONDITIONING SYSTEMS for FLUSHOMETER VALVE OPERATED
FIXTURES**

IAPMO IGC 152-99 (R2013)

1. PURPOSE

- 1.1** The purpose of this IGC is to provide the minimum design and performance criteria for an In-Line Sanitary Conditioning System for flushometer valve operated fixtures. This IGC is not intended to be a specification guide nor is it intended to restrict design.

2. SCOPE

- 2.1** This Interim Guide Criteria (IGC) applies to an In-Line Sanitary Conditioning System for Flushometer Valve Operated Fixtures. This IGC covers definitions, materials and finishes, general requirements, performance requirements, and marking for such products.

3. REFERENCE STANDARDS

- 3.1** The following reference standards are applicable to this document. Unless cited, the latest edition shall apply:

ASME B1.20.1	Pipe Threads (except Dry Seal)
ASME A112.18.1	Plumbing Fixture Fittings
ASSE 1001	Pipe Applied Atmospheric Vacuum Breakers
ASSE 1037	Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures
ASTM F 409	Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings

4. DEFINITIONS

- 4.1** In-line sanitary conditioning system for flushometer valve operated fixtures -a device which is designed to install within the flushometer valve tailpiece piping downstream of the vacuum breaker and which is designed to provide sanitary conditioning with each fixture flush.

5. GENERAL REQUIREMENTS

- 5.1 **Sizes.** The device shall be designed to connect within the 1-1/2" flushometer valve tailpiece.
- 5.2 **Threads.** Threads on the device shall comply with ASME B1.20.1.
- 5.3 **Finish.** The finish on the device shall comply with the finish requirements of ASME A112.18.1.
- 5.4 **Materials.** Plastic materials shall comply with ASTM D 3965 cell classification 4-4-2-2.
- 5.5 **Connection.** The device shall assemble to the flushometer valve tailpiece using the threaded components. No tapping or drilling of the tailpiece shall be required or permitted. The threaded assembly shall meet the torque requirements and burst strength requirements of ASME A112.18.1.
- 5.6 **Operational Components.** The operational components shall be battery powered and shall be secured from tampering. The device shall be capable of designating the time for replacement of the sanitary conditioning materials.
- 5.7 **Backflow Protection.** Vacuum breakers shall comply with the applicable requirements of ASSE 1001 and ASSE 1037. The top of the device shall be installed with the top of the unit below the outlet of the vacuum breaker.

6. TESTING REQUIREMENTS

- 6.1 **Assessment of the Backflow Protection**
 - 6.1.1 **Test Method.** The device shall be installed in the flushometer valve tailpiece per manufacturer's instructions. The bottom of the atmospheric vacuum breaker shall be above the top of the sanitary conditioning cartridge.
 - 6.1.2 **Performance Requirement.** Failure to meet the specified dimensional clearance shall be cause for rejection of the device.
- 6.2 **Cycle Testing**
 - 6.2.1 **Test Method.** The device shall be installed in the flushometer valve tailpiece per manufacturer's instructions and then connected to a flushometer valve and water closet. The device shall be cycle tested for a functional period commensurate with manufacturer's instructions for a single sanitary conditioning charge. The device shall indicate when the new cartridge is required per manufacturer's intended design.
 - 6.2.2 **Performance Requirement.** The device shall indicate when a replacement cartridge is required. Failure to provide this indication shall be cause for rejection of the device.

7. MARKINGS

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