

**INTERNATIONAL ASSOCIATION OF PLUMBING
AND MECHANICAL OFFICIALS**

**INTERIM GUIDE CRITERIA
FOR**

**EMERGENCY SHUT OFF DEVICE FOR
NON POTABLE WATER SYSTEMS**

IGC 206-2004 (R2014)

1. PURPOSE

- 1.1** The purpose of this standard is to establish an acceptable minimum standard for emergency shut off devices for use in non potable water system. Its purpose is to serve as a guide for producers, distributors, architects, engineers, contractors, installers, inspectors and users; to promote an understanding regarding materials, manufacture and installation.
- 1.2** The provisions of this standard are not intended to prevent the use of any alternate material or method of construction, provided any such alternate meets the intent and requirements of this document and changes are amended to this standard.

2. SCOPE

- 2.1** This standard covers the test methods and performance requirements applicable for emergency shut off devices for use on closed non potable water systems.

3. REFERENCE STANDARDS

- 3.1** All standards referenced herein shall be the current edition of that standard as published.

ASME B1.1	Unified Inch Screw Threads
ASME B1.13	Metric Screw Threads
ASME B1.20.1	Pipe Threads, General Purpose, Inch
ASTM A 240	Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
ASTM B 283	Copper and Copper-Alloy Die Forgings (Hot Pressed)
ASTM D 2000	Rubber Products in Automotive Applications
MIL-S-45180D	Sealing Compound, Gasket, Hydrocarbon Fluid and Water Resistant
NSF/ANSI 61	Drinking Water System Components-Health Effects

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4. DEFINITIONS

- 4.1 Emergency Shut Off Device.** An auxiliary device used to allow replacement of defective valve or installation of new valve downstream of installation on non potable hot or cold water and water systems without shutting off the water.
- 4.2 Emergency Shut Off Device Kit.** Kit should contain the following material to complete repair in a closed plumbing system: emergency shut off device with cutter, replacement valve with sweat end connections, two (2) test caps, sealant to ensure leak-proof installation and instructions.
- 4.3 Single Stem Design.** Shall be a design to when properly installed, the rotation of the stem shall cut the pipe and control the depth of the cutter.
- 4.4 Double Stem Design.** Shall be a design with one stem spinning the cutter to cut through the pipe in conjunction with a second stem that will control the depth of the cutter.

5. GENERAL REQUIREMENTS

- 5.1 Body Halves.** The body shall be constructed from machined alloy C37700 forging brass complying with the requirements ASTM B 283.
- 5.2 Bolts and Nuts.** The bolts and nuts which shall be 316 grade stainless steel complying with ASTM A 240. The stem packing nut shall be constructed from machined alloy C37700 forging brass complying with ASTM B283.
- 5.3 Threads.** Bolts, nuts, screws and other threaded parts used in covers, housings, casings and external mounting brackets shall have threads conforming to ASME B1.1 or ASME B1.13M. Pipe threads shall conform to ASME B1.20.1.
- 5.4 Stem Packing and Bottom Cleanout Cap.** The bottom clean out cap shall be constructed of alloy C37700 forging brass complying with ASTM B 283.
- 5.5 Stem Assemblies.** The stem assembly shall be a minimum 316 stainless steel complying with ASTM A 240.
- 5.6 Seals.** O-rings seals and gaskets shall be of such design and quality to assure leak-proof joints and be capable of providing satisfactory field service. O-ring and gasketed joints shall provide for external leak tightness up to the minimum burst pressure of the device and comply with the requirements of ASTM D 2000.
- 5.6.1** When supplied, gasket tape seal shall comply with ASTM F 36, F 37 and F 38. Gasket sealant shall comply with NSF/ANSI 61 and MIL-S-45180D.
- 5.7** The fittings manufactured in accordance with the dimensional and performance requirements referenced in this specification are expressly manufactured to be compatible with M, L, K type copper tubing sized ½ inch to 2 inches in diameter.

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