

MSS SP-80-2019

Bronze Gate, Globe, Angle, and Check Valves

Standard Practice
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BRONZE GATE, GLOBE, ANGLE, AND CHECK VALVES

PURPOSE

This MSS Standard Practice establishes requirements for bronze gate, globe, angle, and check valves in Classes 125 (PN 20), 150 (PN 20), 200, 300 (PN 50) and 350 for threaded and solder ends and Classes 150 (PN 20) and 300 (PN 50) for flanged ends. Nominal Pressure (PN) values are for reference only.

NOTE: Pressures identified in this Standard Practice are expressed as gauge pressure in pounds per square inch with SI (metric) references in Kilopascals. Hereafter the pressure will appear as psi (kPa).

1. SCOPE AND VALVE TYPES

1.1 *Scope*

This Standard Practice establishes requirements for bronze gate, globe, angle, and check valves for general purpose services and provides requirements for the following:

- a) Pressure-Temperature Ratings
- b) Materials
- c) End Connections (Design)
- d) Dimensions (Design)
- e) Markings
- f) Inspection and Testing

NOTE: Requirements for bronze gate, globe, angle, and check valves for plumbing and other purposes where a non-class, CWP and temperature rating is sufficient, are established in MSS SP-139.

1.2 *Valve Types*

1.2.1 *Gate Valves*

- a) Type 1A – Solid Wedge, Non-Rising Stem (NRS), External Stuffing Box for Stem Retention
(see Figure B1, Annex B)
- b) Type 1B – Solid Wedge, Non-Rising Stem (NRS), Internal Stem Retaining Nut for Stem Retention
(see Figure B2, Annex B)
- c) Type 2 – Solid Wedge, Inside Screw, Rising Stem (ISRS)
(see Figure B3, Annex B)
- d) Type 3 – Split Wedge (Double Disc), Inside Screw, Rising Stem (ISRS)
(see Figure B4, Annex B)
- e) Type 4 – Double Disc, Parallel Seat, Inside Screw, Rising Stem (ISRS)
(see Figure B5, Annex B)

1.2.2 *Globe and Angle Valves*

- a) Type 1 – Metallic Disc, Integral Seat
(see Figure B6, Annex B)
- b) Type 2 – Non-Metallic Disc, Integral Seat
(see Figure B7, Annex B)
- c) Type 3 – Metallic Disc, Removable Seat
(see Figure B8, Annex B)