

MSS SP-80-2008

Bronze Gate, Globe, Angle, and Check Valves

Standard Practice
Developed and Approved by the
Manufacturers Standardization Society of the
Valve and Fittings Industry, Inc.
127 Park Street, NE
Vienna, Virginia 22180
Phone: (703) 281-6613
Fax: (703) 281-6671
E-mail info@mss.hq.org



www.mss-hq.org

This MSS Standard Practice was developed under the consensus of the MSS Technical Committee 203 and the MSS Coordinating Committee. The content of this Standard Practice is the result of the efforts of competent and concerned volunteers to provide an effective, clear, and non-exclusive specification that will benefit the industry as a whole. This MSS Standard Practice is intended as a basis for common practice by the manufacturer, the user, and the general public. The existence of an MSS Standard Practice does not in itself preclude the manufacture, sale, or use of products not conforming to the Standard Practice. Mandatory conformance is established only by reference in a code, specification, sales contract, or public law, as applicable.

Unless otherwise specifically noted in this MSS SP, any standard referred to herein is identified by the date of issue that was applicable to the referenced standard(s) at the date of issue of this MSS SP. (See Annex C.)

U.S. customary units in this SP are the standard; the metric units are for reference only.

This document has been substantially revised from the previous 2003 edition. It is suggested that if the user is interested in knowing what changes have been made, that direct page-by-page comparison should be made of this document with the previous edition.

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Manufacturers Standardization Society of the Valve And Fittings Industry, Inc.

127 Park Street, NE • Vienna, VA 22180-4602 • 703-281-6613 • FAX 703-281-6671 • www.mss-hq.org • e-mail: info@mss-hq.org

EXECUTIVE DIRECTOR: Robert F. O'Neill

ERRATA SHEET FOR MSS SP-80-2008 (Bronze Gate, Globe, Angle, and Check Valves)

December 3, 2012

This "normative" 2012 errata correction applies only to MSS SP-80-2008 edition (current), involving *Bronze Gate, Globe, Angle, and Check Valves*.

NOTE THE FOLLOWING CORRECTIONS:

1. **Page 1, Section 1.2.3 (Check Valves), Item a).** Change to correctly read as "Type 1 – Horizontal and Angle Lift Check, Metal Disc to Metal Seat Figs. B9 & B10, Annex B."
2. **Page 3, Table 1 (Pressure-Temperature Ratings), Headings/Sub-Headings: Pressure – psi/Class 300/THD.** Change the footnote beside the heading "THD" to specify (e) instead of (c) and correctly read as "THD^(e)".
3. **Page 5, Table 2 (List of Material Specifications), Headings/Sub-Headings: Part Name – "Cap"/Valve Style – "Check"/Valve Type – "1 – 4"/Class – "125 (PN20) & 150 (PN20)".** Change the entry "ASTM B 62-C83600 – No" to correctly read as "ASTM B 62-C83600 – Note^(b)".
4. **Page 6, Table 2 – continued (List of Material Specifications), Headings/Sub-Headings: Part Name – "Seat Rings"/All Valve Styles and Types Listed/All Four Cells Under "Class" Heading.** Change the footnote beside all four instances of "300 Series Stn. Stl. Alloy" to specify (h) instead of (b) and correctly read as "300 Series Stn. Stl. Alloy – Note^(h)".
5. **Page 7, Table 2 "NOTES" Box.** Under footnote "(a)", change the text "ASTM B 62-083600" to correctly read as "ASTM B 62-C83600".

This Errata Sheet has been inserted into the 2008 Standard Practice. For those who obtained the Standard Practice before this errata correction was inserted or otherwise do not have this information, please include this official Errata Sheet within your existing 2008 edition of the Standard Practice.

Previous editions of SP-80 correspond with these errata corrections. A pending 2013 edition of this Standard Practice will include this corrected information.

PRESIDENT: G.M. Johnson – United Valve
VICE PRESIDENTS: M.A. Clark – NIBCO, Inc. • F. Washburn – Rotork Controls, Inc.
TREASURER: J. Barker – DeZURIK APCO, Inc.

"The Technical Voice of the Industry"

BRONZE GATE, GLOBE, ANGLE, AND CHECK VALVES

0. **PURPOSE**

This MSS Standard Practice establishes requirements for bronze gate, globe, angle, and check valves in Classes 125 (PN 20), 150, 200, 300 (PN 50) and 350 for threaded and solder ends and Classes 150 (PN 20) and 300 (PN 50) for flanged ends. Pressures in this Standard Practice are gauge pressure in pounds per square inch (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
- d) Dimensions
- e) Markings
- f) Testing and Inspections

1.2 **Valve Types**

1.2.1 **Gate Valves**

- a) Type 1A – Solid Wedge: Non-Rising Stem (NRS), External Stuffing Box for Stem Retention Fig. B1, Annex B.
- b) Type 1B – Solid Wedge: Non-Rising Stem (NRS), Internal Stem Retaining Nut for Stem Retention Fig. B2, Annex B.
- c) Type 2 – Solid Wedge: Inside Screw, Rising Stem (ISRS) Fig. B3, Annex B.

- d) Type 3 – Split Wedge (Double Disc): Inside Screw, Rising Stem, (ISRS) Fig. B4, Annex B.
- e) Type 4 – Double Disc: Parallel Seat, Inside Screw, Rising Stem (ISRS) Fig. B5, Annex B.

1.2.2 **Globe and Angle Valves**

- a) Type 1 – Metal Disc, Integral Seat Fig. B6, Annex B.
- b) Type 2 – Non-Metallic Disc, Integral Seat Fig. B7, Annex B.
- c) Type 3 – Metal Disc, Removable Seat Fig. B8, Annex B.

1.2.3 **Check Valves**

- a) Type 1 – Horizontal, Lift Check, Metal Disc to Metal Seat Figure B9, Annex B.
- b) Type 2 – Horizontal, Angle, and Vertical Lift Check, Non-Metallic Disc to Metal Seat Figs. B11 & B12, Annex B.
- c) Type 3 – Swing Check, Metal Disc to Metal Seat Fig. B13, Annex B.
- d) Type 4 – Swing Check, Non-Metallic Disc to Metal Seat Fig. B14, Annex B.

1.3 **Nominal Pipe Sizes**

- a) Threaded Ends – NPS 1/8-3 (DN 6-80)
- b) Solder Ends – NPS 1/4-3 (DN 8-80)
- c) Flanged Ends – NPS 1/2-3 (DN 15-80)