



Standard Specification for Envelope Dimensions for Bronze Globe Valves NPS $\frac{1}{4}$ to 2¹

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1. Scope

1.1 This specification provides standard dimensions for small bronze globe valves (NPS $\frac{1}{4}$ to 2) installed in shipboard piping systems.

1.2 This specification covers valves of a nominal pipe size from NPS $\frac{1}{4}$ to 2 with threaded and brazed end connections. The valves are in accordance with MSS-SP80, Class 200.

2. Referenced Documents

2.1 *ASTM Standards:*

B2.1 Pipe Threads (Except Dryseal)²

2.2 *Manufacturer's Standardization Society of the Valve and Fittings Industry Standard:*

SP80 Bronze Gate, Globe, Angle and Check Valves³

3. Materials and Manufacture

3.1 Threaded end connections shall be in accordance with ANSI B2.1. Brazed end connections shall be in accordance with Table 1.

¹ This specification is under the jurisdiction of ASTM Committee F25 on Ships and Marine Technology and is the direct responsibility of Subcommittee F25.11 on Machinery and Piping Systems.

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² Available from American National Standards Institute, 25 W. 43rd St., 4th Floor, New York, NY 10036.

³ Available from Manufacturer's Standardization Society of the Valve and Fitting Industry, 1815 N. Fort Myer Dr., Arlington, VA 22209.

TABLE 1 Brazed End Connection Dimensions

Valve Size – NPS	Depth of Socket, in. (mm)	Diameter of Socket, in. (mm)	
		Minimum	Maximum
$\frac{1}{4}$	$\frac{17}{64}$ (7)	0.540 (13.72)	0.543 (13.79)
$\frac{3}{8}$	$\frac{5}{16}$ (8)	0.675 (17.15)	0.678 (17.22)
$\frac{1}{2}$	$\frac{3}{8}$ (10)	0.840 (21.34)	0.843 (21.41)
$\frac{3}{4}$	$\frac{13}{32}$ (10)	1.050 (26.67)	1.053 (26.74)
1	$\frac{7}{16}$ (11)	1.315 (33.40)	1.318 (33.48)
$1\frac{1}{4}$	$\frac{1}{2}$ (13)	1.660 (42.16)	1.663 (42.24)
$1\frac{1}{2}$	$\frac{5}{8}$ (16)	1.900 (48.26)	1.905 (48.39)
2	$\frac{21}{32}$ (17)	2.375 (60.33)	2.380 (60.45)

4. Dimensions

4.1 Valve dimensions for both threaded- and brazed-type end connections are provided in Fig. 1.

5. Tolerances

5.1 A plus or minus tolerance of $\frac{1}{32}$ in. (0.8 mm) shall be allowed on all dimensions that do not have a maximum or minimum specified.

6. Keywords

6.1 brazed connection; bronze globe valve; envelope dimension; globe valve; marine technology; ship