# Copper Alloy Gate, Globe, Angle, and Check Valves for Low Pressure/Low Temperature Plumbing Applications

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> U.S. customary units in this Standard Practice are the standard; metric (SI) units are for reference only.
>
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# COPPER ALLOY GATE, GLOBE, ANGLE, AND CHECK VALVES FOR LOW PRESSURE/LOW TEMPERATURE PLUMBING APPLICATIONS

## PURPOSE

This MSS Standard Practice establishes requirements for copper alloy gate, globe, angle, and check valves used in applications with connections and connected to materials which will not support the pressures and temperatures of applicable ANSI-approved Class standards and the requirements of MSS SP-80.

## 1. SCOPE

1.1 ***Scope*** This Standard Practice establishes requirements for copper alloy gate, globe, angle and check valves for plumbing and other purposes where a non-Class, CWP pressure and temperature rating is sufficient. This Standard Practice provides requirements for the following:

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

1.2 ***References*** Standards and specifications adopted by reference in this standard and names and addresses of the sponsoring organizations are shown in Annex A. It is not considered practical to refer to a specific edition of each of the standards and specifications within the individual references herein. Instead, the specific edition references are included in Annex A. A product made in conformance with the edition reference applicable during the time of manufacture, and in all other respects conforming to this standard, will be considered to be in conformance even though the edition reference may be changed in a subsequent revision of this standard.

1.3 ***Description***

1.3.1 ***Gate Valve*** A valve with a closure member, such as a gate, wedge, disc, or double disc, which moves on an axis perpendicular to the direction of flow.

1.3.1.1 ***Inside-screw, non-rising stem*** A type of gate valve design in which the disc rises on the threaded part of the stem instead of the stem rising through the bonnet (the stem does not rise or descend as the stem is turned).

1.3.1.2 ***Inside-screw, rising-stem*** A type of gate or globe valve design in which the stem has both rotary and axial motion and rises as the stem is turned (the stem threads are between the stem seal and the closure member).

1.3.2 ***Globe Valve*** A valve with a closure member, such as a disc or plug, which moves on a axis perpendicular to the seat.

1.3.3 ***Angle Valves*** An angle pattern variant of the globe valve in which the body connection ends are at right angles.

1.3.4 ***Check Valve*** A unidirectional valve that is opened by the fluid flow in one direction and closes automatically to prevent flow in the reverse direction.

## 2. PRESSURE-TEMPERATURE RATINGS

2.1 ***Basis of Rating***

The pressure-temperature ratings for assembled valves shall be determined by the material of the body, seats, stem seals, end connections or any other component or type of construction that would be restrictive. Manufacturers should be consulted for exact ratings applicable for a particular material or type.

2.2 ***Cold Working Pressure (CWP)***

The cold working pressure rating of the valve shell and components is the maximum allowable non-shock pressure at 100°F. The maximum working pressure at any other temperature shall not exceed this rated pressure.