SECTION 400565.16 - GLOBE VALVES

Note that this section has only been edited for NYSOGS standardization and has not been technically edited. The designer shall make all technical edits specific to the project for this section.

This Section specifies globe valves for use in water and wastewater treatment plants.

Refer to Section 400551 for common work results for process valves, and to Section 220523 for general purpose valves for plumbing piping.

In the water and wastewater treatment industry, valving is typically specified by valve type. Valves may be detailed in a valve schedule that describes valve type and characteristics required for that system. A sample valve schedule is provided in Section 400551.

When selecting valve materials for corrosive fluids, consult with valve manufacturer and select materials based on specific application.

1. GENERAL
   * + 1. SUMMARY
          1. Section Includes: Globe valves.
          2. Related Requirements:

List other Sections directly related to or affecting Work of this Section. Include Sections specifying information expected to be found in this Section as well as Sections required to describe complete system or assembly requirements.

Section 220523 - General-Duty Valves for Plumbing Piping: Miscellaneous plumbing valves as required by Project.

Section 400551 - Common Requirements for Process Valves: Basic materials and methods related to valves commonly used for process systems.

* + - 1. DEFINITIONS

Limit list of definitions to terms unique to this Section and not provided elsewhere.

* + - * 1. OUTSIDE SCREW AND YOKE (OS&Y) VALVE: A valve in which the operating screw is driven by a threaded nut that is built into the handle.
      1. REFERENCE STANDARDS

List reference standards included within text of this Section, with designations, numbers, and complete document titles.

* + - * 1. ASME International:

ASME B16.1 - Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250.

ASME B16.5 - Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24 Metric/Inch Standard.

ASME B16.42 - Ductile Iron Pipe Flanges and Flanged Fittings: Classes 150 and 300.

* + - * 1. Manufacturers Standardization Society of the Valve and Fittings Industry:

MSS SP-80 - Bronze Gate, Globe, Angle and Check Valves.

MSS SP-85 - Cast Iron Globe & Angle Valves, Flanged and Threaded Ends.

Coordinate remainder of PART 1 requirements with Section 400551. Reference Section 400551 only, or include items not covered in Section 400551.

* + - 1. <**\_\_\_\_\_\_\_\_**>
         1. Section <**\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_**>: <**\_\_\_\_\_\_\_\_**>.
         2. As specified in Section 400551 - Common Requirements for Process Valves: Submittal requirements for compliance with this Section.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. <**\_\_\_\_\_\_\_\_**>.

1. PRODUCTS

Globe valves offer efficient throttling service, although some designs may result in significant drop of pressure as direction of flow changes within valve body. Globe valves have relatively short disc and stem travel, therefore they require fewer turns to open and close.

Globe valves are generally used for conditions requiring frequent operation or for throttling service.

* + - 1. GLOBE VALVES
         1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=12084&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

In following Subparagraph insert "State of New York Department of Transportation," "Municipality of \_\_\_\_\_\_\_\_ Department of Public Works," or other agency as appropriate.

Furnish materials according to <**\_\_\_\_\_\_\_\_**> standards.

Insert descriptive specifications below to identify Project requirements and to eliminate conflicts with products specified above.

Consider using a Buna-N disc for water, oil, and gas services. To avoid damage to wetted parts, bronze components should be used only when service fluid is free of sediment.

Globe valves are commonly available with three types of discs: composition, metal, or plug-type. A composition disc is not typically recommended for throttling service, but may provide positive shutoff for gas service. Likewise, a metal disc is not typically recommended for throttling service, but may provide positive shutoff for liquid service. A plug-type disc is typically recommended for throttling service.

Configuration of disc and seat may be modified to provide required flow characteristics. Valve manufacturers should be consulted to recommend proper configuration and materials to suit Project requirements.

* + - * 1. 2 Inches and Smaller:

Comply with MSS SP-80, Class [**125**] [**150**] <**\_\_\_\_\_\_\_\_**>.

Body and Trim: Bronze.

Bonnet: [**Threaded**] [**Union**].

Operator: Handwheel.

Disc: Buna-N composition.

End Connections: [**Soldered**] [**or**] [**threaded**].

* + - * 1. 2-1/2 Inches and Larger:

Comply with MSS SP-85, [**Class 125**] <**\_\_\_\_\_\_\_\_**>.

Body: Cast iron.

Trim: Bronze.

Operator:

Handwheel.

OS&Y.

Furnish gear operators for valves [**8**] <**\_\_\_\_\_\_\_\_**> inches and larger, and chainwheel operators for valves mounted over [**8**] <**\_\_\_\_\_\_\_\_**> feet above [**operating**] floor.

End Connections:

Flanged: Comply with ASME [**B16.1**] [**B16.5**] [**B16.42**].

* + - 1. SOURCE QUALITY CONTROL
         1. As specified in Section 400551 - Common Requirements for Process Valves.

1. EXECUTION

Coordinate remainder of PART 3 requirements with Section 400551. Reference Section 400551 only, or include items not covered in Section 400551.

* + - 1. <**\_\_\_\_\_\_\_\_**>
         1. Section <**\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_**>: <**\_\_\_\_\_\_\_\_**>.
         2. As specified in Section 400551 - Common Requirements for Process Valves: Submittal requirements for compliance with this Section.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. <**\_\_\_\_\_\_\_\_**>.

END OF SECTION 400565.16