



Standard Specification for Pressure-Reducing Valves for Steam Service¹

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1. Scope

1.1 This specification covers self-contained, internally operated, globe style, pressure-reducing valves for use in steam service. In these valves, the downstream pressure feedback is sensed by a spring-loaded diaphragm to position a pilot valve—the pilot valve uses the inlet steam pressure to position the main valve plug via an operating piston.

2. Referenced Documents

2.1 ASTM Standards:

- A 105/A 105M Specification for Carbon Steel Forgings for Piping Applications²
- A 182/A 182M Specification for Forged or Rolled Alloy-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service²
- A 193/A 193M Specification for Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Service²
- A 194/A 194M Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both²
- A 216/A 216M Specification for Steel Castings, Carbon, Suitable for Fusion Welding, for High-Temperature Service³
- A 217/A 217M Specification for Steel Castings, Martensitic Stainless and Alloy, for Pressure-Containing Parts, Suitable for High-Temperature Service³
- A 515/A 515M Specification for Pressure Vessel Plates, Carbon Steel, for Intermediate-and Higher-Temperature Service⁴
- A 516/A 516M Specification for Pressure Vessel Plates, Carbon Steel, for Moderate- and Lower-Temperature Service⁴
- A 547 Specification for Steel Wire, Alloy, Cold-Heading Quality, for Hexagon-Head Bolts⁵

2.2 American Society of Mechanical Engineers (ASME) Standards:⁶

- B1.1 Unified Screw Threads
- B16.5 Pipe Flanges and Flanged Fittings
- B16.34 Valves—Flanged, Threaded, and Welding End
- B18.2.1 Square and Hex bolts and Screws, Including Askew Head bolts, Hex Cap Screws, and Lag Screws

2.3 Federal Specification:⁷

FED-STD-H 28 Screw-Thread Standards for Federal Services

2.4 Military Standards and Specifications:⁷

- MIL-V-3 Valves, Fittings, and Flanges (Except for Systems Indicated Herein); Packaging of
- MIL-S-901 Shock Tests, H.I. (High Impact); Shipboard Machinery, Equipment and Systems, Requirements for
- MIL-R-2765 Rubber Sheet Strip, Extruded, and Molded Shapes, Synthetic, Oil Resistant
- MIL-P-15024 Plates, Tags and Bands for Identification of Equipment
- MIL-P-15024/5 Plates, Identification
- MIL-R-17131 Rods and Powders, Welding, Surfacing
- MIL-G-24716 Gaskets, Metallic-Flexible Graphite, Spiral Wound
- MIL-I-45208 Inspection Systems Requirements
- MIL-STD-167-1 Mechanical Vibrations of Shipboard Equipment (Type I—Environmental and Type II—Internally Excited)
- NAVSEA T9074-AQ-GIB-010/271 Nondestructive Testing Requirements for Metals
- NAVSEA S9074-AR-GIB-010/278 Fabrication Welding and Inspections and Casting Inspection and Repair for Machinery, Piping and Pressure Vessels in Ships of the United States Navy
- MIL-STD-798 Nondestructive Testing, Welding, Quality Control, Material Control and Identification and Hi-Shock Test Requirements for Piping System Components for Naval Shipboard Use

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² *Annual Book of ASTM Standards*, Vol 01.01.

³ *Annual Book of ASTM Standards*, Vol 01.02.

⁴ *Annual Book of ASTM Standards*, Vol 01.04.

⁵ Discontinued. See 1990 *Annual Book of ASTM Standards*, Vol 01.03.

⁶ Available from American Society of Mechanical Engineers, Headquarters, Three Park Ave., New York, NY 10016-5990. (Telephone: 212-591-7722, Telex: 710-591-5267, Fax: 212-591-7674)

⁷ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.