VALVE CODES AND STANDARDS

ANSI - American National Standards Institute
B16.34: "Valves - Flanged, Threaded, and Welding End"
- Design basis for all kinds of valves, including pressure-temperature ratings, dimensions, materials, and testing.
- Cast and forged flanged, threaded, and welding end valves.
- Class 150 thru Class 4500.
B16.10: "Face-to-Face and End-to-End Dimensions of Valves"
- Face-to-Face dimensions for flanged end valves and end-to-end dimensions for welding end valves.
- Gate, globe, angle, check, plug, and ball valves.
- Class 150 thru Class 2500.
B 16.5: "Pipe Flanges and Flanged Fittings"
- Design basis for all kinds of flanges such as raised face, ring joint face, tongue and groove face.
- Class 150 thru 2500, NPS (Nominal Pipe Size) 1/2” thru 24”.

API - American Petroleum Institute
600: "Bolted Bonnet Steel Gate Valve for Petroleum and Natural Gas Industries"
- Specific and detailed design requirements.
- 1”-24” Sizes, Class 150 thru 2500 flange and butt welding ends.
602: "Compact Steel Gate Valves - Flanged, Threaded, Welding, and Extended-Body Ends"
- Specific and detailed design requirements for compact gate valves.
- 2 1/2” and smaller, Class 800 and 1500, threaded and socket ends.
- 4” and small, Class 150 thru 1500, flanged and butt welding ends.
- Cast and forged, Carbon Steel and Stainless Steel.
598: "Valve Inspection and Testing"
- Pressure test requirements and acceptance criteria for shell, backseat, and closure tests.

MSS - Manufacturers Standardization Society of Valve and Fittings Industry
SP-61: "Pressure Testing of Steel Valves"
- Requirements and acceptance criteria for shell and seat closure pressure testing of steel valves.
SP-25: "Standard Marking System for Valves, Fittings, Flanges, and Unions"
- Requirements for marking on nameplate and valve body.
SP-55: "Quality Standard for Steel Castings for Valves, Flanges and Fittings, and other piping components. - Visual Methods"
- Reference photographs of casting surface irregularities.
SP-117: "Bellows Seals for Globe and Gate Valves"
- Reference requirements for design, materials, fabrication, installation, qualification and testing of bellows/assemblies for gate and globe valves.

ASME - American Society of Mechanical Engineers
ASME Boiler andPressure Vessel Code
Section IX: "Welding and Brazing Qualifications"
- Requirements for qualification of welders and procedures employed in welding.
ASME Code for Pressure Piping, B31
B31.3: "Chemical Plant and Petroleum Refinery Piping"
- Requirements for material, design, fabrication, and testing of piping, including valves and specialty components.

NACE - National Association of Corrosion Engineers
MR0175: "Standard Material Requirements-Sulfide Stress Cracking Resistant Metallic Materials for Oilfield Equipment"
- Material requirements for components exposed to sour environment (H2S-bearing hydrocarbon service)
- Selected material and limited hardness.