CODES, STANDARDS, AND SPECIFICATIONS REFERENCED IN TEXT

A-360 REFERENCED STANDARDS

Specific editions of standards referenced in this Section are shown in Table A-360. It is not practical to refer to a specific edition of each standard throughout the text, so edition references are centralized here. Table A-360 will be revised at intervals and reissued as needed.

TABLE A-360
CODES, STANDARDS, AND SPECIFICATIONS REFERENCED IN TEXT

01
A02
A03

ASME Standards	
B1.20.1-1983(R2001)	Pipe Threads, General Purpose (Inch)
B16.1-1998	Cast Iron Pipe Flanges and Flanged Fittings
B16.3-1998	Malleable Iron Threaded Fittings, Classes 150 and 300
B16.4-1998	Gray Iron Threaded Fittings, Class 125 and 250
B16.5-1996	Pipe Flanges and Flanged Fittings [Note (1)]
B16.9-2001	Factory-Made Wrought Steel Buttwelding Fittings
B16.11-1996	Forged Fittings, Socket-Welding and Threaded
B16.15-1985(R1994)	Cast Bronze Threaded Fittings, Class 125 and 250
B16.20a-2000	Ring-Joint Gaskets and Grooves for Steel Pipe Flanges
B16.24-2001	Cast Copper Alloy Pipe Flanges and Flanged Fittings
B16.25-1997	Buttwelding Ends
B16.28-1994	Wrought Steel Buttwelding Short Radius Elbows and Returns
B16.34-1996	Valves — Flanged, Threaded, and Welding End [Note (1)]
B16.42-1998	Ductile Iron Pipe Flanges and Flanged Fittings, Classes 150 and 300
B31.1-2001(a)	Power Piping [Notes (2), (3), (4), (5), and (6)]
B36.10M-2000	Welded and Seamless Wrought Steel Pipe
QAI-1	Qualifications for Authorized Inspection
ASTM	
A 126-1995	Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings
B 139-1995	Standard Specification for Phosphor-Bronze Rod, Bar, and Shapes
E 8-1998	Standard Test Methods of Tension Testing of Metallic Materials
E 125-63(R1997)	Reference Photographs for Magnetic Particle Indications on Ferrous Castings
E 186-98	Standard Reference Radiographs for Heavy-Walled [2 to 4½ in. (51 to 114 mm)] Steel Castings
E 280-98	Standard Reference Radiographs for Heavy-Walled [4½ to 12 in. (114 to 305 mm)] Steel Castings
E 446-98	Standard Reference Radiographs for Steel Casings up to 2 in. (51 mm) in Thickness
ASME Performance Test Code	
PTC 25-2001	Pressure Relief Devices
ASNT Specification	
SNT-TC-1A-2001	Recommended Practice for Nondestructive Testing Personnel Qualification and Certification
CP-189-2001	ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel
ACCP, Revision 3, November 1997	Central Certification Program

GENERAL NOTE: The issue date shown immediately following the hyphen after the number of the standard (e.g., B1.20.1-1983) is the effective date of issue (edition) of the standard.

NOTES:

(1) Saturated steam ratings and boiler feed and blowoff ratings for B16.5 flanges and B16.34 Standard Class valves of Material Group 1.1 are given in Table A-361. For other conditions, other materials, Special Class or Limited Class valves, or intermediate rating valves, see ASME B16.5 and ASME B16.34 for pressure–temperature limitations.

(2) Note 1 of Table A-1 of B31.1, Appendix A, applies to Electric Resistance Welded A-333, Grade 6 material.

(3) The weld end transition of Fig. PG-42.1 is also acceptable.

(4) The use of diverter valves under Section I reheater safety valves is prohibited.

(5) The minimum carbon content specified in paras. 124.2(d) and 127.2.1 and in Note (18) of Table A-2 of B31.1 shall only apply to low alloy steels whose nominal composition is $2^{1}/_{4}$Cr–1Mo.

(6) Paragraph 136.4.5 (A-5) is not applicable to Boiler External Piping.

TABLE A-361
MAXIMUM ALLOWABLE WORKING PRESSURE (MAWP) FOR THE USE OF ASME B16.5 PIPE FLANGES AND FLANGED FITTINGS AND ASME/ANSI B16.34 VALVES — FLANGED, THREADED, AND WELDING END (STANDARD CLASS)

	Maximum Allowable Working Pressure (MAWP), Except as Noted	
ASME B16.5 and B16.34 Class	Steam Service at Saturation Temperature, psi (ksi) [Notes (1), (4)]	Boiler Feed and Blowoff Line Service, psi (ksi) [Notes (1), (2), (4)]
150	205 (1 400)	170 (1 200)
300	605 (4 200)	490 (3 300)
400	785 (5 400)	640 (4 400)
600	1,135 (7 800)	935 (6 400)
900	1,635 (11 200)	1,430 (9 800)
1500	2,675 (18 400)	2,455 (16 900)
2500	3,206 (22 100) [Note (3)]	3,206 (22 100) [Note (3)]

NOTES:

(1) Adjusted pressure ratings for Steel Pipe Flanges and Flanged Fittings, for steam service at saturation temperature corresponding to the pressure, derived from Tables 1A and 2, using material group 1.1 of ASME B16.5. Adjusted pressure ratings for Steel Valves (Standard Class) for steam service at saturation temperature corresponding to the pressure, derived from Tables 1 and 2-1.1A, using material group 1.1 of ASME B16.34. For other materials or design temperatures exceeding saturation temperature, see ASME B16.5 and ASME B16.34 for pressure-temperature limitations. The pressure listed is rounded to the nearest 5 psi.

(2) Pressures shown include the factor for boiler feed and blowoff line service, corrected for line design temperature, as required by ASME B31.1. The pressure listed is rounded to the nearest 5 psi.

(3) Rating exceeds critical pressure of water.

(4) The pressure-temperature ratings provided herein apply to the flange and do not necessarily reflect the rating of the assembled flange joint. The pressure-temperature ratings provided apply to the gasketed and bolted flange joint only when the gasket and studs conform to the recommendations of ASME B16.5.