ASME/ANSI B16.1 - 1998 - Cast Iron Pipe Flanges and Flanged Fittings

ASME/ANSI B16.3 - 1998 - Malleable Iron Threaded Fittings

ASME/ANSI B16.4 - 1998 - Cast Iron Threaded Fittings

ASME/ANSI B16.5 - 1996 - Pipe Flanges and Flanged Fittings

ASME/ANSI B16.9 - 2001 - Factory-Made Wrought Steel Buttwelding Fittings

ASME/ANSI B16.10 - 2000 - Face-to-Face and End-to-End Dimensions of Valves

ASME/ANSI B16.11 - 2001 - Forged Steel Fittings, Socket-Welding and Threaded

ASME/ANSI B16.12 - 1998 - Cast Iron Threaded Drainage Fittings

ASME/ANSI B16.14 - 1991 - Ferrous Pipe Plugs, Bushings and Locknuts with Pipe Threads

ASME/ANSI B16.15 - 1985 (R1994) - Cast Bronze Threaded Fittings

ASME/ANSI B16.18 - 1984 (R1994) - Cast Copper Alloy Solder Joint Pressure Fittings

ASME/ANSI B16.20 - 1998 - Metallic Gaskets for Pipe Flanges-Ring-Joint, Spiral-Would, and Jacketed

ASME/ANSI B16.21 - 1992 - Nonmetallic Flat Gaskets for Pipe Flanges

ASME/ANSI B16.22 - 1995 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings

ASME/ANSI B16.23 - 1992 - Cast Copper Alloy Solder Joint Drainage Fittings (DWV)

ASME/ANSI B16.24 - 1991 (R1998) - Cast Copper Alloy Pipe Flanges and Flanged Fittings

ASME/ANSI B16.25 - 1997 - Buttwelding Ends

ASME/ANSI B16.26 - 1988 - Cast Copper Alloy Fittings for Flared Copper Tubes

ASME/ANSI B16.28 - 1994 - Wrought Steel Buttwelding Short Radius Elbows and Returns

ASME/ANSI B16.29 - 1994 - Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings (DWV)

ASME/ANSI B16.33 - 1990 - Manually Operated Metallic Gas Valves for Use in Gas Piping Systems Up to 125 psig

ASME/ANSI B16.34 - 1996 - Valves - Flanged, Threaded, and Welding End

ASME/ANSI B16.36 - 1996 - Orifice Flanges

ASME/ANSI B16.38 - 1985 (R1994) - Large Metallic Valves for Gas Distribution

ASME/ANSI B16.39 - 1986 (R1998) - Malleable Iron Threaded Pipe Unions

ASME/ANSI B16.40 - 1985 (R1994) - Manually Operated Thermoplastic Gas

ASME/ANSI B16.42 - 1998 - Ductile Iron Pipe Flanges and Flanged Fittings, Classes 150 and 300

ASME/ANSIB16.44 - 1995 - Manually Operated Metallic Gas Valves for Use in House Piping Systems

ASME/ANSI B16.45 - 1998 - Cast Iron Fittings for Sovent Drainage Systems

ASME/ANSI B16.47 - 1996 - Large Diameter Steel Flanges: NPS 26 through NPS 60

ASME/ANSI B16.48 - 1997 - Steel Line Blanks

ASME/ANSI B16.49 - 2000 - Factory-Made Wrought Steel Buttwelding Induction Bends for Transportation and Distribution Systems

The ASME - American Society of Mechanical Engineers - ASME/ANSI B16 Standards covers pipes and fittings in cast iron , cast bronze, wrought copper and steel.

ASME/ANSI B16.1 - 1998 - Cast Iron Pipe Flanges and Flanged Fittings

This Standard for Classes 25, 125, 250 Cast Iron Pipe Flanges and Flanged Fittings covers:

(a) pressure-temperature ratings,

- (b) sizes and method of designating openings of reducing fittings,
- (c) marking,
- (d) minimum requirements for materials,
- (e) dimensions and tolerances,
- (f) bolt, nut, and gasket dimensions and
- (g) tests.

ASME/ANSI B16.3 - 1998 - Malleable Iron Threaded Fittings

This Standard for threaded malleable iron fittings Classes 150, and 300 provides requirements for the following:

- (a) pressure-temperature ratings
- (b) size and method of designating openings of reducing fittings
- (c) marking
- (d) materials
- (e) dimensions and tolerances
- (f) threading
- (g) coatings

ASME/ANSI B16.4 - 1998 - Cast Iron Threaded Fittings

This Standard for gray iron threaded fittings, Classes 125 and 250 covers:

- (a) pressure-temperature ratings
- (b) size and method of designating openings of reducing fittings
- (c) marking
- (d) material
- (e) dimensions and tolerances
- (f) threading, and
- (g) coatings

ASME/ANSI B16.5 - 1996 - Pipe Flanges and Flanged Fittings

The ASME B16.5 - 1996 Pipe Flanges and Flange Fittings standard covers pressure-temperature ratings, materials, dimensions, tolerances, marking, testing, and methods of designating openings for pipe flanges and flanged fittings.

The standard includes flanges with rating class designations 150, 300, 400, 600, 900, 1500, and 2500 in sizes NPS 1/2 through NPS 24, with requirements given in both metric and U.S units. The Standard is limited to flanges and flanged fittings made from cast or forged materials, and blind flanges and certain reducing flanges made from cast, forged, or plate materials. Also included in this Standard are requirements and recommendations regarding flange bolting, flange gaskets, and flange joints.

ASME/ANSI B16.9 - 2001 - Factory-Made Wrought Steel Buttwelding Fittings

This Standard covers overall dimensions, tolerances, ratings, testing, and markings for wrought factory-made buttwelding fittings in sizes NPS 1/2 through 48 (DN 15 through 1200).

ASME/ANSI B16.10 - 2000 - Face-to-Face and End-to-End Dimensions of Valves

This Standard covers face-to-face and end-to-end dimensions of straightway valves, and center-to face and center-to-end dimensions of angle valves. Its purpose is to assure installation interchangeability for valves of a given material, type size, rating class, and end connection

ASME/ANSI B16.11 - 2001 - Forged Steel Fittings, Socket-Welding and Threaded

This Standard covers ratings, dimensions, tolerances, marking and material requirements for forged fittings, both socket-welding and threaded.

ASME/ANSI B16.12 - 1998 - Cast Iron Threaded Drainage Fittings

This Standard for cast iron threaded drainage fittings covers:

- (a) size and method of designating openings in reducing fittings
- (b) marking
- (c) materials
- (d) dimensions and tolerances
- (e) threading
- (f) ribs
- (g) coatings
- (h) face bevel discharge nozzles, input shafts, base plates, and foundation bolt holes (see Tables 1 and 2).

ASME/ANSI B16.14 - 1991 - Ferrous Pipe Plugs, Bushings and Locknuts with Pipe Threads

This Standard for Ferrous Pipe Plugs, Bushings, and Locknuts with Pipe Threads covers:

- (a) pressure-temperature ratings:
- (b) size;
- (c) marking;
- (d) materials;
- (e) dimensions and tolerances;
- (f) threading; and
- (g) pattern taper.

ASME/ANSI B16.15 - 1985 (R1994) - Cast Bronze Threaded Fittings

This Standard pertains primarily to cast Class 125and Class 250 bronze threaded pipe fittings. Certain requirements also pertain to wrought or cast plugs, bushings, couplings, and caps. This Standard covers:

- (a) pressure-temperature ratings;
- (b) size and method of designating openings of reducing pipe fittings;
- (c) marking;
- (d) minimum requirements for casting quality and materials;
- (e) dimensions and tolerances in U.S. customary and metric (SI) units;
- (f) threading.

ASME/ANSI B16.18 - 1984 (R1994) - Cast Copper Alloy Solder Joint Pressure Fittings

This Standard for cast copper alloy solder joint pressure fittings designed for use with copper water tube, establishes requirements for:

- (a) Pressure-temperature ratings;
- (b) Abbreviations for end connections;

- (c) Sizes and method of designating openings of fittings;
- (d) Marking;
- (e) Material;
- (f) Dimensions and tolerances; and
- (g) Tests.

ASME/ANSI B16.20 - 1998 - Metallic Gaskets for Pipe Flanges-Ring-Joint, Spiral-Would, and Jacketed

This standard covers materials, dimensions, tolerances, and markings for metal ring-joint gaskets, spiral-wound metal gaskets, and metal jacketed gaskets and filler material. These gaskets are dimensionally suitable for used with flanges described in the reference flange standards ASME/ANSI B16.5, ASME B16.47, and API-6A. This standard covers spiral-wound metal gaskets and metal jacketed gaskets for use with raised face and flat face flanges. Replaces API-601 or API-601.

ASME/ANSI B16.21 - 1992 - Nonmetallic Flat Gaskets for Pipe Flanges

This Standard for nonmetallic flat gaskets for bolted flanged joints in piping includes:

- (a) types and sizes;
- (b) materials;
- (c) dimensions and allowable tolerances.

ASME/ANSI B16.22 - 1995 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings

The Standard establishes specifications for wrought copper and wrought copper alloy, solder-joint, seamless fittings, designed for use with seamless copper tube conforming to ASTM B 88 (water and general plumbing systems), B 280 (air conditioning and refrigeration service), and B 819 (medical gas systems), as well as fittings intended to be assembled with soldering materials conforming to ASTM B 32, brazing materials conforming to AWS A5.8, or with tapered pipe thread conforming to ASME B1.20.1. This Standard is allied with ASME B16.18, which covers cast copper alloy pressure fittings. It provides requirements for fitting ends suitable for soldering. This Standard covers:

- (a) pressure temperature ratings;
- (b) abbreviations for end connections;
- (c) size and method of designating openings of fittings;
- (d) marking;
- (e) material;
- (f) dimension and tolerances; and
- (g) tests.

ASME/ANSI B16.23 - 1992 - Cast Copper Alloy Solder Joint Drainage Fittings (DWV)

The Standard establishes specifications for cast copper alloy solder joint drainage fittings, designed for use in drain, waste, and vent (DWV) systems. These fittings are designed for use with seamless copper tube conforming to ASTM B 306, Copper Drainage Tube (DWV), as well as fittings intended to be assembled with soldering materials conforming to ASTM B 32, or tapered pipe thread conforming to ASME B1.20.1. This standard is allied with ASME B16.29, Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV. It provides requirements for fitting ends suitable for soldering. This standard covers:

- (a) description;
- (b) pitch (slope);
- (c) abbreviations for end connections;
- (d) sizes and methods for designing openings for reducing fittings;
- (e) marking;
- (f) material; and

- (g) dimensions and tolerances.

ASME/ANSI B16.24 - 1991 (R1998) - Cast Copper Alloy Pipe Flanges and Flanged Fittings

This Standard for Classes 25, 125, 250, and 800 Cast Iron Pipe Flanges and Flanged Fittings covers:

- (a) pressure temperature ratings,
- (b) sizes and methods of designating openings for reduced fittings,
- (c) marking,
- (d) minimum requirements for materials,
- (e) dimensions and tolerances,
- (f) bolt, nut, and gasket dimensions, and
- (g) tests.

ASME/ANSI B16.25 - 1997 - Buttwelding Ends

- The Standard covers the preparation of butt welding ends of piping components to be joined into a piping system by welding. It includes requirements for welding bevels, for external and internal shaping of heavy-wall components, and for preparation of internal ends (including dimensions and tolerances). Coverage includes preparation for joints with the following.
- (a) no backing rings;
- (b) split or non continuous backing rings;
- (c) solid or continuous backing rings;
- (d) consumable insert rings;
- (e) gas tungsten are welding (GTAW) of the root pass. Details of preparation for any backing ring must be specified in ordering the component.

ASME/ANSI B16.26 - 1988 - Cast Copper Alloy Fittings for Flared Copper Tubes

This standard for Cast Copper Alloy Fitting for Flared Copper Tubes covers:

- (a) pressure rating;
- (b) material;
- (c) size;
- (d) threading;
- (e) marking.

ASME/ANSI B16.28 - 1994 - Wrought Steel Buttwelding Short Radius Elbows and Returns

This Standard covers ratings, overall dimensions, testing, tolerances, and markings for wrought carbon and alloy steel buttwelding short radius elbows and returns. The term wrought denotes fittings made of pipe, tubing, plate, or forgings.

ASME/ANSI B16.29 - 1994 - Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings (DWV)

The standard for wrought copper and wrought copper alloy solder joint drainage fittings, designed for use with copper drainage tube, covers:

- (a) Description,
- (b) Pitch (slope),
- (c) Abbreviations for End Connections,
- (d) Sizes and Method of Designating Openings for Reducing Fittings,
- (e) Marking,
- (f) Material,

- (g) Dimensions and Tolerances.

ASME/ANSI B16.33 - 1990 - Manually Operated Metallic Gas Valves for Use in Gas Piping Systems Up to 125 psig

General This Standard covers requirements for manually operated metallic valves sizes NPS 1.2 through NPS 2, for outdoor installation as gas shut-off valves at the end of the gas service line and before the gas regulator and meter where the designated gauge pressure of the gas piping system does not exceed 125 psi (8.6 bar). The Standard applies to valves operated in a temperature environment between .20 degrees F and 150 degrees F (.29 degrees C and 66 degrees C). Design This Standard sets forth the minimum capabilities, characteristics, and properties, which a valve at the time of manufacture must possess, in order to be considered suitable for use in gas piping systems.

ASME/ANSI B16.34 - 1996 - Valves - Flanged, Threaded, and Welding End

This standard applies to new valve construction and covers pressure-temperature ratings, dimensions, tolerances, materials, nondestructive examination requirements, testing, and marking for cast, forged, and fabricated flanged, threaded, and welding end, and wafer or flangeless valves of steel, nickel-base alloys, and other alloys shown in Table 1. Wafer or flangeless valves, bolted or through-bolt types, that are installed between flanges or against a flange shall be treated as flanged end valves.

ASME/ANSI B16.36 - 1996 - Orifice Flanges

This Standard covers flanges (similar to those covered in ASME B16.5) that have orifice pressure differential connections. Coverage is limited to the following:

- (a) welding neck flanges Classes 300, 400, 600, 900, 1500, and 2500
- (b) slip-on and threaded Class 300

- Orifice, Nozzle and Venturi Flow Rate Meters

ASME/ANSI B16.38 - 1985 (R1994) - Large Metallic Valves for Gas Distribution

The standard covers only manually operated metallic valves in nominal pipe sizes 2 1/2 through 12 having the inlet and outlet on a common center line, which are suitable for controlling the flow of gas from open to fully closed, for use in distribution and service lines where the maximum gage pressure at which such distribution piping systems may be operated in accordance with the code of federal regulations (cfr), title 49, part 192, transportation of natural and other gas by pipeline; minimum safety standard, does not exceed 125 psi (8.6 bar). Valve seats, seals and stem packing may be nonmetallic.

ASME/ANSI B16.39 - 1986 (R1998) - Malleable Iron Threaded Pipe Unions

This Standard for threaded malleable iron unions, classes 150, 250, and 300, provides requirements for the following:

- (a) design
- (b) pressure-temperature ratings
- (c) size
- (d) marking
- (e) materials
- (f) joints and seats
- (g) threads
- (h) hydrostatic strength
- (i) tensile strength
- (j) air pressure test
- (k) sampling
- (l) coatings
- (m) dimensions

ASME/ANSI B16.40 - 1985 (R1994) - Manually Operated Thermoplastic Gas

The Standard covers manually operated thermoplastic valves in nominal sizes 1.2 through 6 (as shown in Table 5). These valves are suitable for use below ground in thermoplastic distribution mains and service lines. The maximum pressure at which such distribution piping systems may be operated is in accordance with the Code of Federal Regulation (CFR) Title 49, Part 192, Transportation of Natural and Other Gas by Pipeline; Minimum Safety Standards, for temperature ranges of .20 deg. F to 100 deg. F (.29 deg. C to 38 deg. C). This Standard sets qualification requirements for each nominal valve size for each valve design as a necessary condition for demonstrating conformance to this Standard. This Standard sets requirements for newly manufactured valves for use in below ground piping systems for natural gas [includes synthetic natural gas (SNG)], and liquefied petroleum (LP) gases (distributed as a vapor, with or without the admixture of air) or mixtures thereof.

ASME/ANSI B16.42 - 1998 - Ductile Iron Pipe Flanges and Flanged Fittings, Classes 150 and 300

The Standard covers minimum requirements for Class 150 and 300 cast ductile iron pipe flanges and flanged fittings. The requirements covered are as follows:

- (a) pressure-temperature ratings
- (b) sizes and method of designating openings
- (c) marking
- (d) materials
- (e) dimensions and tolerances
- (f) blots, nuts, and gaskets
- (g) tests

ASME/ANSIB16.44 - 1995 - Manually Operated Metallic Gas Valves for Use in House Piping Systems

This Standard applies to new valve construction and covers quarter turn manually operated metallic valves in sizes NPS 1/2-2 which are intended for indoor installation as gas shutoff valves when installed in indoor gas piping between a gas meter outlet & the inlet connection to a gas appliance.

ASME/ANSI B16.45 - 1998 - Cast Iron Fittings for Sovent Drainage Systems

The Standard for cast iron drainage fittings used on self-aerating, one-pipe Solvent drainage systems, covers the following:

- (a) description
- (b) sizes and methods for designating openings for reducing fittings
- (c) marking
- (d) material
- (e) pitch
- (f) design
- (g) dimensions and tolerances
- (h) tests

ASME/ANSI B16.47 - 1996 - Large Diameter Steel Flanges: NPS 26 through NPS 60

This Standard covers pressure-temperature ratings, materials, dimensions, tolerances, marking, and testing for pipe flanges in sizes NPS 26 through NPS 60 and in ratings Classes 75, 150,0300, 400, 600, and 900. Flanges may be cast, forged, or plate (for blind flanges only) materials. Requirements and recommendations regarding bolting and gaskets are also included.

ASME/ANSI B16.48 - 1997 - Steel Line Blanks

The Standard covers pressure-temperature ratings, materials, dimensions, tolerances, marking, and testing for operating line blanks in sizes NPS 1/2 through NPS 24 for installation between ASME B16. 5 flanges in the 150, 300, 600, 900, 1500, and 2500 pressure classes.

ASME/ANSI B16.49 - 2000 - Factory-Made Wrought Steel Buttwelding Induction Bends for Transportation and Distribution Systems

This Standard covers design, material, manufacturing, testing, marking, and inspection requirements for factory-made pipeline bends of carbon steel materials having controlled chemistry and mechanical properties, produced by the induction bending process, with or without tangents. This Standard covers induction bends for transportation and distribution piping applications (e.g., ASME B31.4, B31.8, and B31.11) Process and power piping have differing requirements and materials that may not be appropriate for the restrictions and examinations described herein, and therefore are not included in this Standard.