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CAST COPPER ALLOY PIPE FLANGES AND FLANGED FITTINGS

CLASSES 150, 300, 600, 900, 1500, AND 2500

1 SCOPE

1.1 General

This Standard covers cast copper alloy threaded-joint pipe flanges and blind pipe flanges having rating class designations 150, 300, 600, 900, 1500, and 2500. This Standard also covers flanged fittings having rating class designations 150 and 300. It establishes requirements for

(a) pressure-temperature ratings

(b) size and method of designating openings for reduced fittings

- (c) markings (d) materials

1.4 References

Codes, standards, and specifications, containing provisions to the extent referenced herein, constitute requirements of this Standard. These reference documents are listed in Mandatory Appendix II.

1.5 Quality Systems

Guidelines relating to the product manufacturer's quality system programs are described in Nonmandatory Appendix A.

1.6 Service Conditions

- (e) dimensions
- (f) bolting and gaskets
- (g) tolerances
- (h) tests

This Standard also provides dimensional requirements for flanged ends of valves conforming to MSS SP-80.

Criteria for selection of material suitable for particular fluid service are not within the scope of this Standard.

1.7 User Accountability

This Standard cites duties and responsibilities that are to be assumed by the flange or flange fitting user in the following areas:



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June 5th, 2017 - ASME American Society of Mechanical Engineers is a 120-000 member professional organization focused on technical educational and research issues of the

Threaded Fittings General Definition and Details ASME.

June 4ds, 2017 - Threaded Fittings general Threaded joints probably represent the oldest method of joining piping spranne Like Socket Weld fittings threaded fittings are mainly

ASME Fittings ASME mechanical Code Issues Eng Tipe

June 5th, 2017 - ASME B16 11 chapter 4 under marking references the ASTM fitting specification material identification such as WP The provises paragraph lists the specifications

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Reply: No. Paragraph 6.1.1 specifies requirements for valves without qualification as to variety. Question (2): Where are the requirements for befect removal, repair, and post weld heat treatment other than Special Class Valves? 6.1.2 solely for the purpose of determining the requirements for B16.34. 1.2.2. Interpretation: 2-5 Subject: Paragraph 8.3.2.1; Ultrasonic or Radiographic Examination Date Issued: May 29, 1989 File: B16-89-005 Question: Is it intended that the distance of coverage for the Special Class Examination for forgings under para. Reply: No. Paragraph 8.3.2.1 requires that Interpretation: 1-13 Subject: Paragraph 5.1; Materials Date Issued: April 22, 1982 File: B16-82-028 Question: Does the ANSI B16 Committee have test data for ASTM A216 the full cylindrical section referenced be ultrasonically examined including any distance greater than dimension "A." WCA/WCB physical properties for ANSI B16.34 applications between -20°F and 32°F? F1.3 of ASME/ANSI B16.34-1988 a valve body minimum wall thickness requirement? Reply (1): No. Only the more frequently used materials have been considered. He explained that, in the table, the common carbon steel materials used for valves are forged material to ASTM A105 and the cast material to ASTM 216 grade WCB. Question (2): According to ASME/ANSI B16.34-1988 if a valve design incorporates an intervening element between the body and the bonnet or cover plate with said element forming part of the pressure shell while being retained by the body-bonnet or cover bolting, does the bolting have to meet all the requirements for body-bonnet cover bolting? The latter is an important restriction since the value of d determines the minimum wall thickness requirements for para. 6.4.3 are applicable. Your attention, however, is called to the fact that ASTM A216 WCA is not included in ANSI B16.34. In all cases however, para. Reply: This would depend upon the requirements of the B16.34 valve. Since the equation in para. The definition of inside diameter in para. 6.1.2 is solely for the purpose of establishing the wall thickness required by para. Reply (2): No. Question (3): Can new materials be added to Table 1? Question (2): May butt welding end valves, size NPS 2-1/2 and smaller be constructed in accordance with Annex G of ASME/ANSI B16.34-1988? 6.1.6 in B16.34-1988? diameter"? Annex F is explanatory only and is strictly limited to the materials of the Standard. See paragraph 1.2.2. COPYRIGHT ASME. 6.1.3), the local area considerations are applicable only in those instances when the thickness requirements of para 6.1.6(b) permit. The dimensional requirements of ANSI B16.25 include those for a weld preparation transition region which is defined as 2 times the pipe minimum thickness (see Fig. 6.1.2. COPYRIGHT ASME. The only pressure temperature ratings recognized for Special Class valves are those in Table 2. 5.1. Interpretation: 2-22 Subject: Minimum Wall Thickness Date Issued: April 2, 1992 File: B16-92-004 Question: In accordance with ASME/ANSI B16.34-1988, what basic inside diameter should be used when determining minimum required body wall thickness for a wafer style ball valve? Reply (1): Yes. 1.2.3. Interpretation: 09-2 Subject: B16.34-2004, Use of ASTM A694 for valve parts Date Issued: March 27, 2009 Record: 09-107 Question: May a valve be designated as being in conformance with ASME B16.34 if in its construction a material is used that is not listed in ASME B16.342004, Table 1, but said material has comparable chemical and mechanical properties to one that is listed? Reply: No. However, the responsible committees do have this material under advisement and considerations. In paragraph 6.4.1(b), Pc is defined as "the pressure rating class designation...(see Annex F, paragraph F1.3)". Reply (1): No. For conformance all of the requirements of reference specifications. This has caused some confusion, Anderson explained. and 295.7 mm. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 03-2 ject: B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2 Date Issued: July 11, 2003 Record: 02-4013 Question: In acco neck flange, a pipe nipple, a valve end enlarger, or a pipe reducer that the valve wall thickness, including the attachment, adhere to the wall thickness as specified in paragraphs 6.1.1 and 6.1.2? Reply: Yes. Reply: No. ANSI B16.34-1981 establishes basic requirements for valve design with safety as a major consideration. Question (2): In B16.34-1988 para. 8.4.2; Weld Repair Date Issued: May 29, 1989 File: B16-89-002 Question: Does B16.34 set limits on the extent of weld repair that may be performed on castings for new materials, Annex F of B16.34 requires allowable stress and yield strength data to be listed in one of the ASME Boiler and Pressure Vessel Code Sections shown therein. 6.1.1). MARKING The ASME B16.34 marking specification complies with Manufacturers Standardization Society (MSS) SP-25 standard-marking system for valves, fittings, flanges and unions. Interpretation: 4-15 Subject: B16.34-1996, para. 6 through 14? They may seem a nuisance because they lead down a long trail, but that trail is very important for knowing a material's limitations, he said. 6.1.1. It should also be recognized that ANSI B16.34 is not a design handbook. Reply (1): The bolting rule in para. 5.2.2 place an obligation on a user to specify service conditions when those conditions are in a range that dictate the need for compliance with special requirements for material processing or testing, such as those cited in the example of that paragraph? It should be noted that para. Interpretation: 4-5 Subject: B16.34-1996, Designation of B16.34 Identification on a Valve and Valve Sizing Date Issued: May 2, 1998 File: B16-98-009 Question (1): Under ASME B16.34-1996, is it permissible to apply a "B16.34" designation on the OR USED FOR OTHER THAN identification plate of a valve made of a material not listed in Table 1? 7.1 include an allowance for bonnet joint gasket leakages just as it does for stem packing leakage? 6.1.3 of ASME/ANSI B16.34-1988 prohibit a gate valve design using a rectangular body neck? "People may be tripped up by notes and references," Anderson said. Question (2): Under the rules of ASME B16.34-1988, is it permissible to use Table 3 to extrapolate minimum wall thickness for valves having pressure-temperature ratings less than class 150? Reply (2): Yes. Interpretation: 1-39 Subject: Paragraph 2.1.5(b); Valves Fabricated by Welding Date Issued: September 18, 1986 File: B16-86-003 Question: Does a fabricated valve conforming to the requirements of ANSI B16.341981 have to meet the requirements of assume the same piping loads as the valve and flanges? Question (3): In ASME B16.34-1996, para. 6.1.7 places responsibility for adequate metal thickness upon the valve manufacturer. Reply: No. Interpretation: 4-21 Subject: Paragraph 7.2, Valve Closure Test Date Issued: February 13, 2003 File: B16-02-03971 Question: Does ASME B16.34 (1996 Edition, a-1998 Addenda) require valve closure tests in addition to what is specified by para. Reply: For valve end flange requirements relating to tapped bolt holes, see ASME B16.34-2004, Clause 6.2.2. COPYRIGHT ASME. 2.1.1(g), 2.2, F1.2, and 7.1 Date Issued: Jan 14, 2000 File: B16-99-020 Question (1): For ASME B16.34-1996, do paras. 10 Date Issued: December 17, 1998 File: B16-98-027 Question: Figure 10 of ASME B16.34-1996 illustrates the radiographic film coverage for a plate-style flanged bonnet. Reply (2): No. Paragraph 1.2.3, ASME B16.34-1996 permits but does not require such updated certification. 6.7 Date Issued: August 31, 1998 File: B16-98-012 Question: Are the requirements of para 6.7 of ASME B16.34-1996, applicable to a flange design for the flanged body joint of a two-piece type ball valve body? 7.1, last sentence, is there a conflict between "leakage through the stem packing shall not be cause for rejection" during the shell test that is at a pressure 1¹/₂ times that of the cold working pressure and "however stem seals shall be capable of retaining pressure at least equal to the 100° F ratings without visible leakage" that corresponds to a pressure? Reply: Material groups are used to gather together materials having generally similar mechanical strength properties, in the applicable temperature range, for the purpose of assigning pressure-temperature ratings. BARBARA DONOHUE is Web editor at VALVE Magazine. 6.7, the responsibility for the determination of appropriate design rules is placed on the manufacturer. Are these tabular numbers correct? Observe that these are minimum requirements, and according to para. 6.1.7 requires that the manufacturer determine if additional metal is needed for shapes other than circular. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN prepared for the issuance of a metric standard. 8.4.2 apply to the repair of casting defects in Special Class value bodies? Reply: The coverage applies to the bonnet flange intersection. Paragraph F1.1 states that the procedures of Annex F were used in the determination of pressure-temperature ratings for the Standard Class or Special Class Those valves designated as Special Class must comply with all the requirements of Special Class including nondestructive examination requirements. 6.1.4), mark the valve appropriately (see para. 6.4.2, the equation limits bolt stress, based on a pressure equal to the pressure class rating designation, to 7000 psi. Interpretation: 4-6 Subject: B16.34-1996, para. It is critical that users pay close attention to those notes, Anderson said. What pressure units apply for 38 °C and what pressure units apply for 38 °C and what pressure units apply for 398 Question: In accordance with ASME B16.34-2004, clause 8.3.1.1, is it permitted to have a value of "A" for radiographic film coverage for a valve body end that is reduced when a valve body end contour has a permanent integral external collar (see clause 6.1.5) placed a distance less than the greater of either three times the required valve body minimum wall thickness or 70 mm from the valve body end? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-32 Subject: Paragraph 4.1.3; Rating, Identification Plate Date Issued: November 8, 1993 File: B16-93-014 Question (1): In ASME/ANSI B16.34-1988, para. 8.3.2.2) and liquid penetrant (see para. Interpretation: 2-37 Subject: Paragraph 8.3.1.1; Radiographic Examination Date Issued: June 21, 1994 File: B16-94-004 Question: In ASME/ANSI B16.34-1988, Fig. 8.3.1.1? Reply: No. Interpretation: 4-7 Subject: B16.34-1996, para. Interpretation: 1-10 Subject: Partial Compliance Date Issued: March 8, 1982 File: B16-81-017 Question: Does ANSI B16.34-1977 permit threaded end valves to be designated complying with selective requirements of the Standard, e.g. material, wall thickness, pressure rating? 6.1.5, require a minimum wall thickness of 0.77 tm in the nozzle transition zone that lies between 1.0 tm from the body neck and 1.33 tm from the end of the weld preparation? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-17 Subject: Materials Date Issued: April 19, 1991 File: B16-91-004 Question: Is a valve that uses ASTM A269-TP304 in the fabrication of the valve bonnet in conformance with ASME/ANSI B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-2 Subject: Paragraph 5.1; Materials Date Issued: April 1, 1981 File: B16-81-008 Question: For valves anufactured in accordance with ANSI B16.34-1977, what pressure-temperature rating can be used for ASTM A351, Grade CN7M, material? The B16 action cannot be completed until one of the reference Code Sections publishes the required data. Reply (1): No. Question (2): Is there a conflict between the requirements of para. Reply: No. Interpretation: 4-1 Subject: B16.34-1996 and 1998, Flange Thickness Requirements Date Issued: April 6, 1998 File: B16-98-006a Question: Are flanged valves that conform to the flange thickness requirements for PN 10 steel valves within the Scope of ASME B16.34-1996 or 1998? Anderson referred to Table 1 in the standard to explain those groupings. Furthermore, the paragraph F1.3, including its equation, is comparative information and does not impose any requirement. Reply (2): No. In order to assign a special class rating of all the requirements for special class must be met. Question (4): In ASME B16.34-1996, para. See, for example, the corresponding description in paras. STANDARDS CHANGING OVER TIME As with other standards, B16.34 is periodically updated and improved. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-46 Subject: Multiple Material Marking/Identification Plate Date Issued: April 6, 1998 File: B16-98-005 Question (1): When a valve body material meets all the requirements of two separate material specification grades listed in Table 1 of ASME B16.34-1996, may the valve body be marked with both material grade symbols in accordance with para. Reply (2): The requirements are those stipulated in the respective ASTM specifications as covered in Table 1. Reply: Paragraph 6.4.2 (a) applies. 6.4.2 that limits the bolt stress to 7000 is taken directly from ANSI B16.5, para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-11 Subject: Paragraph 6.1.2; Inside Diameter of flow passage, is the inside diameter of the ball, or the diameter of the ball, or the diameter of the ball, or the diameter of the body surrounding the ball? 6.2.1 which, as a standard, refers to ANSI B16.25. Reply: No. Paragraph 8.1 defines the applicability of examinations in Section 8 as being for Special Class Valves. 2.1.5(c). 6.1.2 Date Issued: October 20, 2009 Record: 09-1426 Question: In accordance with ASME B16.34-2004, is the wall thickness requirement, para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-28 Subject: Annex F; Pressure-Temperature Rating quality factor be applied to the applicable reference tabulated stresses when applying the rules of Annex F of ANSI B16.34-1981? 8.4.2 Date Issued: October 8, 1984 File: B16-84-007 Question (1): Shall a casting quality factor be applied to the applicable reference tabulated stresses when applying the rules of Annex F of ANSI B16.34-1981? 8.4.2 Date Issued: March 18, 2008 Record: 07-1182 Question: Does ASME B16.34-1996 para. Question (2): Why, in para. Interpretation: 03-1 Subject: B16.34 (1996 Edition, a-1998 Addenda); 6.3.1 Date Issued: July 11, 2003 Record: 02-4186 Question: Are the requirements of ASME B16.34 (1996 Edition, a-1998 Addenda), paragraph 6.3.1, requirements for auxiliary connections that are installed as part of valve manufacture or do they also apply to a valve purchaser having such additions made at an installation site or other site? Reply (2(a)): Yes. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-47 Subject: Minimum Wall Thickness Date Issued: April 6, 1998 File: B16-98-006 Question (1): Do the rules of para. Reply (1): Yes, see para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-13 Subject: Annex F; Special Class Rating Method Date Issued: January 21, 1991 File: B16-90-034 Question: Does Annex F, Special Class Rating Method, ANSI B16.34-1981, include requirements for determining hydrostatic shell test pressure? 6.1.3 through 6.1.6? Reply (2): Yes. Reply (1): No. Implementation may be required by reference, for example, in a Code specification, sales contract, or public law. Interpretation: 1-7 Subject: Paragraph 7.1, Shell Test Date Issued: August 31, 1981 File: B16-81-014 Question: In ANSI B16.34-1977 is the intent of para. (b) If so, is there an ASME flange standard that applies for Class 4500 valve end flanges? The required hydrostatic shell test pressure, for all valves, is as described in para. This, however, shall be done only by the original valve manufacturer since his name is included on the valve and identification plate marking. Reply (2): No. Question (3): Is a valve in conformance with ASME/ANSI B16.34-1988 if it does not have the applicable "B16.34" designation on the manufacturer's identification plate? But they are there to point out vital information. 8.3.2.2; Surface Examination Date Issued: May 30, 1990 File: B16-89-003 Question: Under ASME/ANSI B16.34-1988, para. Reply (1): Local areas are those areas in a valve body for which B16.34-1977 allows the body wall thickness to be less than the minimum wall thickness tm. THESE INTERPRETATIONS ARE FOR ASME COMMITTEE USE ONLY. Reply (1): The minimum diameter of the flow passage in this case would be the diameter of the flow passage in this case would be the diameter of the sale and the ball. Having met this requirement, is it permissible under B16.34 to use bonnet bolting material that may not be adequate for pressure ratings (see Section 2) at temperatures above 100° F? 8.2, after any required heat treatment. Weld preparation requirements are given in para. Reply: The diameter associated with the valve body inside circumference should be used. Question (4): Are the requirements of ANSI B16.34-1977 design requirements? In Fig. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-1 Subject: Paragraph 6.4.2; Bolting Date Issued: March 13, 1981 File: B16-81-010 Question (1): Is the bolting stress of 7000 psi given in para. For a hemispheric flanged bonnet, not illustrated in ASME/ANSI B16.34-1988, does the section dimension "A," when applied at the intersection of the stuffing box neck and the hemispherical junction satisfy the requirements of Clause 8.3.1.1(b)? 2.1.5(c)(1) and 2.1.5(c)(2) casting quality factors? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-19 Subject: Single Flange (Lug Type) Valve Body Date Issued: July 31, 1991 File: B16-91-009 Question: Does ASME/ANSI B16.34-1988 prohibit a single flange (lug type) valve body made from a plate material listed in Table 1 when the design is such that the body is loaded in tension from pressure and piping loads? Reply: No. Table F4 is an informative table that is presented only to illustrate how it was used in conjunction with the rules of Annex F in the establishment of the specific rating requirements on Table 2. The manufacturer of a valve fabricated by welding, wholly or in part, needs to meet all the requirements of ASME B16.34, including paragraph 2.1.5(a). Reply: The equation includes the 0.35 times allowable bolt stress expression because Table 1, Group 4, lists Interpretation: 08-8 Subject: B16.34-2004, Fabrication of a valve by welding Date Issued: November 14, 2008 Record: 08-1198 Question: In accordance with B16.34-2004, is it permissible to fabricate a valve by bolting materials that have allowable stress values less than 20,000 psi. welding? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-32 Subject: Paragraph 6.4.2; Bolt Stress Date Issued: February 22, 1985 File: B16-84-015 Question: In ANSI B16.34, para. 6.1.5 for the zone 1.33tm from the weld end and for zone tm from the body neck. When new materials are required for inclusion in ANSI B16.34, they require approval of the Committee. B1.11? Other valve body configurations, for example those described in the inquiry, may have a closed geometry that tends to assist in accommodating piping loads. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-41 Subject: On-Line Valve Modifications Dateed geometry that tends to assist in accommodating piping loads. Issued: January 16, 1994 File: B16-94-009 Question: Are on-line valve modifications, for example drilling and tapping into a packing chamber to add an auxiliary fitting, covered by ASME B16.34-1988? The standard covers pressure-temperature ratings, materials, marking, and other characteristics of cast, forged, and fabricated valves. See para. Is there a listing or method to calculate values for larger sizes or higher pressure classes? Annex F is not a design procedure and is not intended for derivation of pressure-temperature ratings of other materials. Interpretation: 1-20 Subject: Paragraph 6.4; Bolting Date Issued: June 13, 1983 File: B16-83-003 Question: May bolting with thread forms other than ANSI B1.1 be used for joining bonnet flanges for valves marked as meeting the requirements of ANSI B16.34? To help understand the standard, Mitchell Anderson, technical director for butterfly valves and engineering quality at Bray International Inc., presented a VMA Webinar overview for purchasers, specifiers and users of valves. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-8 Subject: Intermediate Ratings Date Issued: September 8, 1981 File: B16-81-015 Question: Is it permissible under ANSI B16.34-1977 to assign an intermediate Standard Class rating to a valve assembly fabricated by welding together a buttwelding end valve having the reference intermediate Standard Class rating? 1.1. Therefore, the valve would not require retest if the remachining was done either by or under the aegis of the valve Interpretation: 08-6 Subject: ASME B16.34-2004, bonnet wall thickness Date Issued: March 18, 2008 Record: 08-347 Question: Does ASME B16.34-2004 have requirements for bonnet wall thickness? For manufacturer. 6 through 15, that meets the intent of para. See paragraph 6.2.6. limitations imposed by codes and regulations, see para. 1.1 where the scope is defined as applying only to new valve construction. Reply (1): No. Question (2): Does ASME B16.34-1996 permit valve bonnets or cover Interpretation: 2-38 Subject: Standard Class Valve Date Issued: August 2, 1994 File: B16-94-005 Question (1): According to ASME/ANSI B16.34-1988, is the sold [sic] requirement for conformance as a standard class valve successful completion of a hydraulic test? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-18 Subject: B16.34-1996, Date for Implementation of Requirements Date Issued: January 13, 2000 File: B16.34, is there a mandatory date for its implementation? Question (2): When forgings or castings of an ASME/ANSI B16.34-1988 valve are weld repaired does the valve then merit a special class rating? Reply (1): No. Question (2): Does a valve with a valve body made of ASTM A 351-CG8M comply with the requirements of ASME/ANSI B16.34-1998? Interpretation: 2-2 Subject: Para. When a bonnet is of a hemispherical style, does the film coverage, dimension A, apply to the intersection of the stem hole projection and the spherical dome? F1.2, in the last sentence, do the words "other parts such as bonnet gaskets and bolting" include a valve actuator? Group 1 is carbon and low-alloy steels; Group 2 is stainless and duplex materials; and Group 3 is nickel and nickel alloys. Reply (4): No. The ASME does not approve, certify, or otherwise endorse products for any reason. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 08-7 Subject: ASME B16.34-2004, ASME B16.10 requirements Date Issued: March 18, 2008 Record: 08-348 Question: Does ASME B16.34-2004 require that end-to-end dimensions and face-to-face dimensions meet the requirements in ASME B16.10? Standards provide specifications for how equipment is designed and how to assure quality. COPYRIGHT ASME, 6.1. Ouestion (3): Under ASME/ANSI B16.34-1988, is valve design the responsibility of the manufacturer so long as the minimum wall thickness requirement is met? of surface area? Reply (1): No. While neither specifically identified in para. Paragraph 4.1.3 requires that valves bearing the designation "B16.34" conform to the Standard. Question (2): Is it permissible to apply the requirements of para. 6 through 15 illustrate the seat-body shell radiographic coverage that would be required for a valve body in the form of two intersecting mutually perpendicular cylinders, where one of the cylinders corresponds to the valve nozzles and the other to an upper and lower bonnet cavity? Reply: No. ASME B16.34-2004, para. Paragraph 8.3.2.1 sets requirements for the forged valve body sections for which ultrasonic examination coverage is required. 8.3.1.1 apply for a flanged end body valve? 6.3.6, are the listed auxiliary connection sizes applicable to all valve pressure rating designations (Classes)? 6.1.6 in ASME B16.34-1996 apply to local areas having less than the required minimum wall thickness resulting from manufacturing operations such as casting, forging, and machining, including grinding, milling, and drilling? 6.1.6 Date Issued: April 6, 1998 File: B16-98-006c Question: Do the rules of para. The scope section covers considerations such as pressure-temperature ratings, dimensions, tolerances, materials, nondestructive examination requirements, testing, and marking for certain types of valves made from steel, nickel-based alloys and some other materials listed in Table 1 under Group 4. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-21 Subject: Table 3; Wall Thickness Date Issued: July 15, 1983 File: B16-83-023 Question: What are the requirements of ANSI B16.34 for minimum wall thickness for the special case of a valve body made in the form of 2 torispherical or ellipsoidal halves bolted together with body run or nozzle ports offset from the center of each half, and having the inside diameter of the 2 halves greater than 1.5 times the nozzle port diameter? Question (2): For special cases, for example the attachment of a buttwelding end valve to thin walled pipe, is it permissible under ANSI B16.34-1981 to use a valve nozzle transition wall thickness less than the 0.77 tm valve required by para. Reply: No. The separation requirement applies equally to all alignments. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-24 Subject: Paragraph 2.1.5; Valves Fabricated by Welding Date Issued: May 12, 1992 File: B16-92-009 Question (1): Under ASME/ANSI B16.34-1988, is there a valve size above which both flanged end valves and Standard Class welding end valves that are fabricated by welding are required to meet the nondestructive examination requirements of ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, for welding? [sic] Reply: For all valves, the required minimum wall thickness is found in Table 3, utilizing the definition of inside diameter d of para. Paragraph F1.3 also defines Pc as "pressure rating class designation...". Neither paragraph 6.4.1(a) nor 6.4.2(a) is applicable to valve end flanges. 10 illustrates casting section radiographic examination film coverage requirements for a plate type flanged bonnet for a gate valve. 4.2.8? Reply (1): Yes. Question (2): Does ASME/ANSI B16.34-1988 require the applicable "B16.34" designation to be marked other than on the manufacturer's identification plate? WHAT B16.34 "focuses on design and quality. 6.4.1(a) and 6.4.2(a) Date Issued: October 22, 1998 File: B16-98-020 Question: In accordance with ASME B16.34-1996, are there conditions that permit the substitution of the bolting area requirements of 6.4.1(a) for those of 6.4.2(a)? Reply (1): See the Foreword and Scope of this Standard. 4.3 of ASME B16.34-1996 for a valve body that is marked with two material grade symbols designating material grades that have differing cautionary or specified temperature limits listed in the respective Table 2 Notes the option of the manufacturer? Reply (1): No. Question (2): Under ASME B16.34-1996, is it permissible to designate a valve as being in compliance with B16.34 when the valve is made of material not listed in Table 1 and whose pressure-temperature rating was calculated by the method in Annex F? F1.3, a near approximation to the values tabulated in Table 3. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-16 Subject: B16.34-1996, Fig. The dimension "g" should have been shown as an outer ligament dimension as described by the text. Reply (3): Yes, see Note (2). Several years ago some of the

ASTM specs for duplex materials were changed. The B16 Committee does not comment on design calculations. 6 through 15 of ASME B16.34-1996, may a composite that combines elements of several of these figs. Reply: No. See paras. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-14 Subject: B16.34-1996 Annex F, Table F4-A Date Issued: December 17, 1998 File: B16-98-025 Question: For ASME B16.34-1996, may the pressure rating ceiling values given in Table 2? 8.4.2(c) be met? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-34 Subject: Paragraph 6.4.2; Bolting Date Issued: February 22, 1985 File: B16-84-020 Question (1): In ANSI B16.34, para. It 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 Wafer or flanged-end valves, bolted or through-bolt types, that are installed between flanges or against a flange are treated as flanged-end valves. Reply: No. See para. 6.3, the requirements of para. Reply (2): The requiremen DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-36 Subject: Paragraph 6.1.2; Inside Diameter Date Issued: March 14, 1985 File: B16-85-002 Question: In ANSI B16.34 is it the intent of para. A schedule has not been COPYRIGHT ASME. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Reply (2): No. Except for the Interpretation: 1-31 Subject: Paragraph 6.1.2; Basic Inside Diameter Date Issued: February 15, 1985 File: B16-85-001 Question (1): In ANSI B16.34 para. Alternative rules for NPS 2½ and smaller valves are provided. If the purchaser requirements relating to end dimensions, para. chooses a pressure relief valve as the means then it is also the purchaser's responsibility to designate which codes or regulation; if any, apply to the installed valve and concomitantly to the pressure relief valve, see para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-19 Subject: Paragraph 6.7; Wafer Valves Date Issued: June 24, 1983 File: B16-82-025 Question: Under ANSI B16.34-1981, are the requirements for minimum wall thickness for butterfly valves applicable only to wafer or flangeless types as described in para. Paragraph 6.7 identifies requirements for a general valve body category, one that includes designs that are frequently furnished with an elastomer insert which spans the wafer body and also functions as a flange gasket. A key advantage of selecting a butterfly valve is the reduction of space and weight to a system compared with other options such as ball, check, globe or gate valves. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-31 Subject: Special Class Valves Date Issued: August 11, 1993 File: B16-93-013 Question: Does ASME/ANSI B16.34-1988 include requirements for Special Class Valves be given a shell test? See ASME B16.34-1996, paragraph 2.1(b) (and B16.342004 paragraph 2.1.1(b)). 6.4.2 of ANSI B16.341977 a design requirement or a flange bolt-up requirement? The venerable gate valve remains a primary choice for many service applications. 6.1.1 and to ensure that the applicable metal thickness requirements of para. 6.4.3, the valve manufacturer must determine if additional bolting is needed. Reach her at bdonohue@vma.org. When a purchaser assumes possession, he may elect to have such connections fabricated in accordance with a governing code or regulation applicable to his installation. Question (2): Is the selection of which of the two maximum or limiting temperatures to be shown on the identification plate required by para. We suggest that you look for a publication Interpretation: 2-33 Subject: Table 1 Date Issued: October 4, 1993 File: B16-93-015 Question: May valves be marked as being in compliance with ASME/ANSI B16.341988 when constructed of materials announcement in Mechanical Engineering magazine or ANSI's Standards Action. specified in ASME Boiler and Pressure Vessel Code Cases but which are not included in Table 1? This Code Case, now annulled, provided data only to 300° F. The Codes are the source for allowable strength, the data required to determine pressure-temperature ratings. Not shown, however, is a line that would illustrate a large "basic inside diameter." Thus for a welding end, the basic diameter may equal, be larger than, or be smaller than the dimension shown in Annex A. 7.1? Reply: No. Interpretation: 2-35 Subject: Table 1, Body-Bonnet and Cover Bolting Date Issued: February 1, 1994 File: B16-93-024 Question (1): According to ASME/ANSI B16.34-1988, if a valve design incorporates an intervening element between the body and the bonnet or cover plate with said element required to be of a material listed in Table 1, Group 1,2, or 3 and be retained by bolting of a material listed in Table 1 Group 4? 8.3.1.1, and found to have indications in excess of the Annex B2 acceptance criteria, may that casting be repaired by welding in accordance with para. 6.2.2 compel flange dimensions to be in accordance with ASME B16.5 which has no provision for radial drill holes. Reply (2): No. Interpretation: 2-44 Subject: Paragraph 6.1.2; Inside Diameter Date Issued: December 13, 1995 File: B16-95-008 Question: For socket-welding-end valves, does ASME B16.34-1988, by reference to ASME B16.11 in para. 5.1). 7.1. COPYRIGHT ASME. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 07-3 Subject: ASME B16.34-2004, Para. It does not extend the method to other materials. 8.3.2.3) methods? Reply: For all valves, the required minimum wall thickness, excluding body neck regions, is found in Table 3 of ANSI B16.34, utilizing the definition of inside diameter d of para. For example, for A352 Grade LCC, note 4 indicates that it should not be used over 650°F. Reply (5): No. COPYRIGHT ASME. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-4 Subject: Para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-12 Subject: B16-98-023 Question: For a new valve, constructed in accordance with the requirements of ASME B16.34-1996, are there ASME B16.34 requirements for subsequent disassembly, cleaning, reassembly, and testing? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-3 Subject: Paragraph 6.1.6; Local Stress Date Issued: May 13, 1981 File: B16-81-003 Question (1): In ANSI B16.34-1977, para 6.1.6 what is meant by local area? Alloy ASTM A351, Grade CN7M, is not presently covered by ANSI B16.34 and therefore cannot be assigned a B16.34 pressure rating. Reply (2): Since Code requirements may vary regarding conformance stipulations it is necessary that the applicable code be consulted. This can be done at the next revision or when an Addenda is prepared. 1.1 and Interpretation: 2-16 Subject: Minimum Wall Thickness Date Issued: April 10, 1991 File: B16-91-003 Question: Under ASME/ANSI B16.34-1988, are the rules for minimum valve body wall thickness also requirements for valve parts other than the valve body? A few highlights of what 5.1. he covered are included here. Question (5): For Special Class valves, does B16.34 have acceptance criteria for NDE of those areas beyond those delineated as requirements in Figs. 6 through 11, is it required that the ultrasonic examinations of the reference cylindrical sections of forgings be limited to only dimension "A"? 6.1.7 and the bolting requirements of para. Reply (2): No. Question (3): In the case of a B16.34 Standard Class valve which has been subsequently subjected to NDE, if the results are beyond the Section 8 acceptance criteria, can this be a reason for rejection as a Standard Class valve? 1 of ANSI B16.25). Interpretation: 1-35 Subject: Paragraph 6.4; Bolting Date Issued: February 27, 1985 File: B16-84-014 Question: Is it acceptable under the requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting when such bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting meets the chemical and physical requirements of ANSI B16.34 to use metric bonnet flange bolting me ANSI B1.1? Reply: No. Section 5 of ANSI B16.34 requires that ASTM materials be applied. Question (2): Do any of the Figs. 6.7(g) of ASME B16.34-1988? 2.1.1(g) and 2.2 imply that the pressure-temperature ratings apply only to the valve shell and not to the seating elements? para 5.2 notes that criteria for the selection of materials are not within the scope of the Standard and para. Question (2): Under ASME/ANSI B16.34-1988, when a flanged end valve that the valve again shall be tested? Question (6): When will ASME/ANSI B16.34-1988 be revised to provide for the used of metric bolting? Reply (1): Basic inside diameter is the inspection wall thickness (see para. The B16 Committee is currently considering the inclusion of ASTM A351, Grade CN7M, into the next edition of B16.34. Reply: For all valve types, the diameter d is determined as described in para. This table is one of the most important aspects of the standard, Anderson said, and it can be hard to understand. 6.2.2. COPYRIGHT ASME Interpretation: 1-18 Subject: Paragraph 7.1; Shell Test Date Issued: June 13, 1983 File: B16-82-024 Question: Is hydrostatic testing of individual pressure containing parts after final machining acceptable under ANSI B16.34-1981 if sections of the fully assembled valve body will not be initially exposed to the test pressure because the valve design incorporates a sleeve or lining? For the procedure for inclusions of new materials in the referenced Code Section I. Reply (1): ANSI B16.34 neither permits nor prohibits the conversion of a Standard Class buttwelding end valve to a Special Class buttwelding end valve by successful completion of the required nondestructive examination requirements and by complying with the appropriate marking requirements. Question (3): Annex A of B16.34-1996 lists sizes to NPS 30 and pressure classes to Class 2500. 8.3.2.2) be applied to forged austenitic materials. Reply: Yes, provided that the required examinations take place, as required by para. Interpretation: 1-9 Subject: Section 5; Materials Date Issued: October 8, 1981 File: B16-81-016 Question (1): Have all carbon steel materials been reviewed by ANSI B16/SC-N for application in valves? Paragraph 6.4 requires that the bolting be threaded in accordance with ANSI B1.1 COPYRIGHT ASME. This standard is to be used in conjunction with equipment described in other volumes of the ASME B16 Series of Standards as well as with other ASME standards, such as the Boiler and Pressure Vessel Code and the B31 Piping Codes. Reply (1): The 7000 psi stress is a minimum requirement for design purposes. Anderson began by explaining the different types of documents that apply to valves and their applications. For this reason, he considers this section one of the most important parts of any standard. Interpretation: 08-1 Subject: ASME B16.34-2004, Table VII-2-1.2 Date Issued: March 17, 2008 Record: 06-1609 Question (1): In accordance with ASME B16.34-2004, Table VII-2-1.2, is ASTM A 216 Gr WCC, heat treatment quench and temper included in the material listing? Reply 2: Yes Reply (4): It is included as background material since it provides, as explained in para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-29 Subject: Section 5; Materials Date Issued: January 12, 1985 File: B16-84-018 Question (1): May ASTM A743 or A744 materials be substituted for ASTM A351 materials for valves marked as complying with B16.34? Interpretation: 1-5 Subject: Section 5; Materials Date Issued: July 17, 1981 File: B16-81-012 Question: Is the material ASTM-A352-LCC covered by ANSI B16.34-1977? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Reply (2(b)): No, see Reply (1). The pressure temperature ratings for ASTM A351-CN7M in B16.34 were based on data published as ASME Boiler and Pressure Vessel Code case N214-2. Reply: Yes, see paragraph 2.1.6 of B16.34-2004. 6 through 11. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 09-3 Subject: B16.34-2004. 6 through 11. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 09-3 Subject: B16.34-2004. 6 through 11. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 09-3 Subject: B16.34-2004. 6 through 11. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 09-3 Subject: B16.34-2004. 6 through 11. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 09-3 Subject: B16.34-2004. 6 through 11. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 09-3 Subject: B16.34-2004. 6 through 11. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 09-3 Subject: B16.34-2004. 6 through 11. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN INTERPRETATION 2004, Cavity Relief in valves to avoid trapped pressure Date Issued: June 29, 2009 Record: 09-106 Question: Does ASME B16.34-2004, require that all valves be provided with center cavity pressure relief? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation 2-36 Subject: Paragraph 7.1; Shell Test Date Issued: April 5, 1994 File: B16-94-001 Question: According to ASME/ANSI B16.34-1988, are the requirements for valve shell pressure testing met when pressure retaining parts are separately tested in accordance with paragraph 7.1; Shell Test Date Issued: April 5, 1994 File: B16-94-001 Question: According to ASME/ANSI B16.34-1988, are the requirements for valve shell pressure testing met when pressure retaining parts are separately tested in accordance with paragraph 7.1; Shell Test Date Issued: April 5, 1994 File: B16-94-001 Question: According to ASME/ANSI B16.34-1988, are the requirements for valve shell pressure testing met when pressure retaining parts are separately tested in accordance with paragraph 7.1; Shell Test Date Issued: April 5, 1994 File: B16-94-001 Question: According to ASME/ANSI B16.34-1988, are the requirements for valve shell pressure testing met when pressure lower than the shell test pressure required by para. Reply (5): In para. Reply (2); No. However, it should be noted that ASME/ANSI B16.34 naterial because it is not listed in the ASME Boiler Pressure Vessel Code Sections referenced in B16.34, Annex F. Reply (2); No. However, it should be noted that ASME/ANSI B16.34-1988 applies to new valve construction, para. 16, may the hole illustrated with dimension "g" be repeated around the valve body periphery for the purpose of defining attachment flange bolt holes? Question (2): Will consideration be given to adding a sketch to ANSI B16.34-1981 in order to clarify the meaning of paras. Those two comparisons on the chart show the pressure temperature rating. Question (3): May thread end or socket weld end valves be designated or certified as complying with ANSI B16.34-1977? When a valve body flange acts also as a pipeline flange, the rules of para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-26 Subject: Paragraph 5.1.2; Investment Castings Date Issued: August 19, 1992 File: B16-92-013 Question (1): Does ASME/ANSI B16.34-1988 place limits on the size or pressure class for investment cast bodies, bonnets or cover plates? 6.7(e) requires that the sum of an inner and outer ligament shall not be less than tm, the required minimum thickness. Question (2): For intermediate ratings under ANSI B16.34-1977, are the nondestructive examination requirements the same as those for Special Class? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-27 Subject: Paragraph 7.1; Shell Testing Date Issued: August 25, 1992 File: B16-92-017 Question (1): Under ASME/ANSI B16.34-1988, when a flanged end valve body that had been shell tested has the end flanged gasket seating surface remachined to provide a different surface finish, is it required that the valve body again be shell tested? 7.2? Reply: No. Interpretation: 4-20 Subject: Paragraph 7.1, Shell Test Date Issued: November 8, 2002 File: B16-02-005 Question: In accordance with ASME B16.34-1998, if a valve shell test is performed at a temperature higher than 1.5 times the 100° F valve pressure rating, does this meet the requirements of para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-27 Subject: Paragraph 6.1.5; Contours at Weld Ends Date Issued: October 4, 1984 File: B16-84-006 Question: In ANSI B16.34-1981, para. 6.1.1, for quarter turn valves determined by using the inside diameter, d, requirements of para. 12 and 13, be constructed in order to satisfy the radiographic film coverage requirements detailed in para. Reply: Clause 1.2.5 requires that metric and customary units be applied separately and that application of combinations of units may constitute nonconformance. At the end of F1.3 a caveat for Pc apply for the equations appearing in paragraphs 6.4.1(a) and 6.4.2(a) and elsewhere? 8.3.1.1 Date Issued: October 22, 1998 File: B16-98-019 Question: For Special Class valves to be in accordance with ASME BPVC Section V be substituted for those of para. Reply: Yes, see para. 6.4.2) where the body joint includes an internal gasket whose placement isolates an internal end section of the body wall from the contained fluid, is it necessary that the entire body meet the minimum wall requirements of para. Annex F, para F1.1, notes that the procedures described apply to determination of pressure-temperature ratings for the Standard. Reply (2): Yes, Fig. Butterfly valve body designs having a flanged center body joint are required to meet the appropriate wall thickness requirements of Section 6. Question (3): in ANSI B16.34-1981, is it a requirement that valve seat diameters of Annex A? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-43 Subject: Separation Requirements Date Issued: August 11, 1995 File: B16-95-004 Question: In B16.34-1988, paras. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-4 Subject: Section 8; Special Class Valves Date Issued: May 13, 1981 File: B16-8-001 Question (1): Is it permissible under ANSI B16.34-1977 to convert a Standard Class valve to a Special Class valve by simply successfully completing the nondestructive examination required for Special Class? When a change is made to one standards or codes. 8.3.2.2, is it permissible, for Special Class valves to perform any or all of the required surface examinations either prior to or after machining? 6.1.2, for butt welding [sic] end valves, may the "basic inside diameter at the valve end" be taken as the inside diameter of the highest pipe Schedule Number applicable to the valve size and pressure class? Ratings for other materials are beyond the scope of B16.34-1977. Question (2): In regard to Table 3 of ANSI B16.34-1977, how are values to minimum thickness obtained for diameters intermediate to those for which tabulated values are given? Reply (2): The acceptance criteria for indications are stated in Annex D. Additional requirements included within the scope section address: Pressure and temperature at the time of purchase, manufacture and installation User accountability Selection of valve types and materials section is divided into groups of similar materials with common pressure-temperature ratings. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-25 Subject: Paragraph 2.1.5(2); Variances Date Issued: October 8, 1984 File: B16-83-011 Question (1): In para. 6.4.3 are accommodated. Paragraph 6.1.7 cites examples where additional thickness may be required and places the responsibility for assuring structural adequacy solely upon the individual manufacturer You'll see it doesn't address applications," Anderson pointed out. If its operating temperature is 750°F, the pressure-temperature rating is 95 psig. Reply (3): No. An actuator does not fit the "such as" restriction. See ASME B16.34-1996, paragraph 2.1.(b) or ASME B16.34-2004, paragraph 2.1.(b). 6.7 to the exclusion of butterfly valves having a flanged center body joint? In order to facilitate the inclusion of new materials, it is recommended that the requester provide the Committee with the data needed to establish pressure-temperature ratings as provided in Annex F. Reply (3): No. Question (4): In B16.34-1988, may para 6.7 be used to determine minimum wall thickness requirements for a multipiece valve body having blind holes parallel to the central body run (e.g., holes in a wafer type center piece) for assembly bolting? Interpretation: 1-22 Subject: Materials Date Issued: August 24, 1983 File: B16-83-012 Question: Why is AISI 1018 carbon steel material not included in ANSI B16.34 Table 1, List of Materials Specifications? Anderson gave an example of a change in the standard and how it could lead to confusion: Materials. Reply (1): ANSI B16.34 does not use the concept of relevant indications. Question (2): ASME B16.34-1996, paragraph 6.4.1, has equations to determine valve bonnet or bonnet cover joint minimum bolting thread shear area. Figure 2 shows some of those variations for indications. Other documents may have such requirements. 8.3.1.1 for a valve body shape not illustrated? 6.1.6). 6.1.7 places responsibility with the manufacturer to provide any additional thickness as may be required. In order to design a Class 4500 flanged end valve that is in accordance with ASME B16.34-1996 is there an ASME flange standard that applies? Reply (3): Yes. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 07-1 ject: ASME B16.34-2004, Corrosion Allowance in Wall Thickness Requirements Date Issued: January 26, 2007 Record: 06-1499 Question: Does ASME B16.34-2004 address corrosion allowance? Interpretation: 4-9 Subject: B16.34-1996, paras. Question (3): In B16.34-1988, Fig. Reply (3): No Interpretation: 08-4 Subject: ASME B16.34-2004, auxiliary connection Date Issued: March 18, 2008 Record: 07-1462 Question (1): Do the requirements of There are, however, user specification that require "full port" valves and reference Annex A as the definition for full port. Reply: No. ASME B16.34-2004 permit an auxiliary connection to be threaded or welded to the rim of a valve end flange using a radial drill hole between the flange bolt holes? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 08-5 Subject: ASME B16.34-2004, para. Question (2): Is the equation shown in para. Interpretation: 2-25 Subject: Paragraph 2.1.5; Valves Fabricated by Welding Date Issued: May 12, 1992 File: B16-92-010 Question: Are the factors 0.80 and 1.00 cited in paras. Reply: For the purpose of establishing pressure-temperature ratings, Annex F of B16.34 requires that allowable stress and yield strength be obtained from referenced ASME Boiler and Pressure Vessel Code documents. Interpretation: 2-14 Subject: Requirements for Special Class Valves Date Issued: January 21, 1991 File: B16-90-038 Question (1): For a Special Class valve in accordance with ASME/ANSI B16.341988, is it permissible to construct a composite area for radiographic coverage, based on Fig. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-8 Subject: Seal Welding Date Issued: April 9, 1990 File: B16-90-001 Question: Does ASME/ANSI B16.34-1988 include fabrication requirements for seal Interpretation: 1-15 Subject: Paragraph 6.1.2; Inside Diameter Date Issued: April 30, 1982 File: B16-82-030 Question: Under ANSI B16.34-1981, what method is used to determine welding of seat rings into valve bodies? Question (2): In accordance with ASME B16.34-2004, para. 4.1.8. the minimum wall thickness for the special case of a full ball valve body. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-12 Subject: Section 8; Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves Date Issued: March 8, 1982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves A, I982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves A, I982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves A, I982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves A, I982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves A, I982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves A, I982 File: B16-82-027 Question: In ANSI B16.34, Special Class Valves A, I982 File: B16-82-027 Question: In ANSI B16.34, Special Section 8 and may then assume higher pressure temperature ratings than Standard Class valves. The minimum wall thickness requirements are inspection limits placed on Special Class valves? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-34 Subject: Paragraph 8.3.1.1; Radiographic Examination Date Issued: October 4, 1993 File: B16-93-019 Question: If a valve casting is subject to radiography in accordance with ASME B16.34-1988, para. 2.1.5(a) and (b)? Do not combine units. Question (3): When a valve is used in conjunction with an ASME Code for Pressure Piping and is designated as a Special Class valve and is so marked on the valve identification plate, is it required that the post weld heat treatment provisions or para. F1.3 is not a wall thickness requirement of the Standard, why is it included? Reply (3): No. The Standard covers only flanged and buttwelding end valves. Reply: No. Paragraph 7.1 requires that "each valve shall be given a shell test." ANSI B16.34 does not prohibit shell testing of individual parts but does require a shell test." ANSI B16.34 does not prohibit shell testing of individual parts but does not prohibit shell test." ANSI B16.34 does not prohibit shell testing of individual parts but does not prohibit shell test." ANSI B16.34 d ASTM A36 for ASTM A216 WCB Date Issued: March 27, 2009 Record: 09-105 Question: May a valve be designated as being in conformance with ASME B16.342004, Table 1, but said material has comparable chemical and mechanical properties to one that is listed? The next Is it required that the transition taper be external? 16. Ouestion (5): May the revision is expected to be published later this year. COPYRIGHT ASME. Reply (2): Yes; however, there is a procedural problem. Each new version refers specifically to what changes have been made. 4.1.8 Minimum Wall Thickness Date Issued: April 6, 1998 File: B16-98-006b Question: Under the rules of B16.34-1998, is it permissible to use Table 3 to extrapolate minimum wall thickness for valves having pressure-temperature ratings less than class 150? 5.1, is that an identified with the ASME Boiler and Pressure Vessel Code, Section II may be used. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 08-3 Subject: ASME B16.34-1996, para. 5.3 cautions that the selection of materials for specific applications is not within the scope of the Standard. 2.1.5(b) include impact testing for high-alloy steels to be in conformance with ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, Part UHA-51? Question (2): When a valve manufacturer selects a bolting material from ASME B16.34-1988, Table 1, for a valve body joint and that material has an allowable stress greater than 20,000 psi, is it permissible to use that higher allowable stress when calculating the bolting area requirement in accordance with Clause 6.4.2(a)? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-10 Subject: Paragraph 6.1.2; Inside Diameter Date Issued: June 11, 1990 File: B16-90-015 Question: With reference to ANSI B16.34-1981, para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN COPYRIGHT ASME. 8.3.1.1 defines the cast valve body sections for which radiographic film coverage is required by the distance "A," illustrated typically in Figs. Reply (2): No. Paragraph 7.2 specifies a test of the closure structure independent of any requirement for closure tightness. 1-33 Subject: Paragraph 6.1.3; Inside Diameter Date Issued: February 22, 1985 File: B16-84-017 Question: In the case of a small, high pressure buttwelding end globe valve, how is the value of d determined for use in para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-39 Subject: Paragraph F1.3; Wall Thicknessure buttwelding end globe valve, how is the value of d determined for use in para. Date Issued: September 14, 1994 File: B16-94-007 Question (1): What is the purpose of American National Standard ASME/ANSI B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-8 Subject: B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-8 Subject: B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-8 Subject: B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-8 Subject: B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-8 Subject: B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-8 Subject: B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-8 Subject: B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-8 Subject: B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-8 Subject: B16.34-1988? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN INTERPRETATION INTO A SUBJECT OF THE SUBJE to 0.35 Sa but not to exceed 7000 psi, based on a pressure equal to the pressure rating class designation? 6.1.2, specify a permissible 10% reduction in flow passage diameter using the diameters listed in Annex A? Reply: ANSI B16.34 is limited to those materials specifically referenced therein (see para. Recommended practices provide guidelines and second s good engineering practices. However, the Standard is not a valve design handbook, as para.6.1.7 places responsibility with the manufacturer for design details and para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-6 Subject: Paragraph 2.3.3; Fluid Thermal Expansion Date Issued: October 5, 1989 File: B16-89-009 Question: If a pressure relief valve is used as the means of overpressure protection under para. Therefore, a judgment cannot be rendered as to the validity of pressure-temperature ratings for materials not included in the scope of ANSI B16.34-1977. Paragraph 2.3.3 assigns responsibility for providing means to assure that the pressure in the Interpretation: 2-11 Subject: Paragraph 2.1.5 (c); Valves Fabricated by Welding Date Issued: October 31, 1990 File: B16-90-020 Question: Does ASME/ANSI B16.34-1988 require nondestructive examination for Standard Class valve will not exceed that allowed to the purchaser. 1.2.2. Valves, NPS 6 and smaller, that are fabricated by welding? 6.7 applicable to all valves whose body category is wafer or flangeless? Question (2): For the fabrication welds regardless of size? Footnote 2 emphasizes that the closure leakage requirements are service related and therefore outside the scope of B16.34. 8.3.2.1 be the same as for castings? Note: Except for welding end valves, valves having Class designations larger than Class 2500 are not within the scope of the B16.34 standard. The ASME B16.34 standard also is referenced in many other standards and codes put out by other organizations, he added. 6.1.3 of ANSI B16.34? Reply (2): Yes, see Note (2). 7.3 COPYRIGHT ASME. Anderson warned webinar attendees to be aware that change is part of the process and to try to keep up to date. Reply (4): No. ANSI B16.34-1977 sets minimum requirements. This is scheduled for publication later this year. It is intended that magnetic particle inspection requirements (see para. It is the responsibility of the manufacturer to assure an adequate total valve design and at the same time satisfy ANSI B16.34-1977 minimum requirements for those valves listed to be in accord with the Standard. 6.4.2 assure that the bolting area rules for line flanges are met. Interpretation: 2-20 Subject: 6.2.2; Vale Flange Ends Date Issued: February 27, 1992 File: B16-91-016 Question: Is it a requirement of ASME/ANSI B16.34-1988, that valves with integral flanged ends meet the flange thickness requirements of ASME/ANSI B18.34-1988 for flanged fittings? Reply: No. Interpretation: 2-7 Subject: Paragraph 2.1.3; Limited Class Valves Date Issued: April 9, 1990 File: B16-89-011 Question (1): Does the expression "welding end" in ASME/ANSI B16.34-1988, para. Anderson pointed out that though i is sometimes difficult to keep track of all that happens with these standards, understanding them, including B16.34, is critical to providing valves that will operate successfully in the environment where they're put into action. 6.2.3 require that the inside diameter, d, defined in para. 8.3.1.1 Date Issued: October 22, 1998 File: B16-98-021 Question: When constructing Special Class valves that are of a configuration not specifically illustrated in Figs. 6.2 of ANSI 16.34 [sic] does not specify or place limits on flow passage diameters. 4.1.3), meet all other requirements of the Standard and designate an applicable intermediate rating, and the valve could be designated as meeting the requirement of ANSI B16.34-1981 Interpretation: 2-9 Subject: Paragraph 6.1.3; Valve Body Necks Date Issued: May 4, 1990 File: B16-90-07 Question: Does para. The intervening transition zoned is required to be gradual. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-23 Subject: Flanged-End Dimensions Date Issued: May 12, 1992 File: B16-92-004 Question: Under ASME ANSI B16.34-1988, what dimensions apply for flanges or flanged-end valves that are of a smaller size than those listed in ASME B16.5 are not covered by the scope of ASME B16.34-1998. Reply (2): No. Question (3): Are flanged valves that conform to the flange thickness requirements for PN 10 steel valves within the scope of either ASME B16.34-1988 or -1996? Reply: No, a transition, if used, may be either external or internal or a combination of both. Question (2): What is the ANSI B16.34 liquid penetrant examination acceptance standard for relevant indications in any 6 sq in. COPYRIGHT ASME. [sic] Subject: Paragraph 5.1; Bolting Material Question: For valve bolts, does ASME/ANSI B16.34-1988 have requirements for bolt head configuration? 1.1 apply to both socket welding and butt welding end valves? Reply (2): No. There is a printing error. 5.1 and 6.4. Within the context of these requirements, it is the manufacturer's responsibility to determine that the bolting material supplied is adequate for the assigned pressure-temperature rating and, if not, to follow the marking requirements of para. Careful application of these B16 standards will help users to comply with applicable regulations, while achieving the operational, cost and safety benefits to be gained from the many industry best-practices detailed within these volumes. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-10 Subject: B16.34-1996, para. Reply: No, see paras. diameter is 11.64 in. Metric dimensions are no longer used in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.25 for transition details.) Note that in B16.34. 6.1.2? Reply: Yes. (See ANSI B16.34. 6.1.2? Reply: Yes. (that have integral or welded flanges on one or both ends? PRESSURE-TEMPERATURE RATINGS B16.34 uses metric units with additional tables and information in U.S. units. ASME B16.34 includes the following sections: Scope Pressure-Temperature Ratings Pipe Size Marking Materials Dimensions Pressure Testing Special Class Valves Mandatory Appendices Non-Mandatory Appendices SCOPE Scope is the first consideration when reviewing any code, standard or recommended practice, Anderson said, because people have to understand this section to see if what they're trying to evaluate is covered by a particular standard. Reply: This sentence establishes the position of an imaginary plane separating the valve end weld preparation from the valve nozzle transition. 6.1.5? Reply (2): No. If, however, a valve manufacturer elects to use the valve nozzle transition. thickness based on this value, set pressure-temperature ratings accordingly (see para. 6.7(c) and Fig. Reply: No. There are no provisions in ANSI B16.34-1977 that permit selective designation for partial compliance. But currently, for castings, grade 4A is listed as CD3MN and 6A is listed as CD3MWCuN. The valve minimum wall thickness is approximately 1.5 times that which is required of connecting pipe (see Annex F1.3 of ANSI B16.34). There are, however, additional requirements placed on the determination of the inside diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basic diameter at the flanged end or welding that d shall not be less than 90% of the basi Name of manufacturer Materials of body, bonnets, cover plates Pressure rating Temperature Size In addition, if a valve complies with B16.34, it can be stamped "B16.34, it can be stamped "B16.34, it can be stamped addition, if a valve complex Discrete Size In addition, if a valve complex Discrete S October 28, 1983 File: B16-83-005 Question: In Material Group 3.1 of ANSI B16.34, why are austenitic materials and nonferrous materials listed together? Interpretation: 4-3 Subject: B16.34-1996, para. Question (2): Will ANSI B16/SC-N consider ASTM A696 Grade C as a candidate material for inclusion in ANSI B16.34? For those valve bodies, the bolting requirements of para. Reply: Yes, provided that the limiting design pressure-temperature rating conditions are marked on the valve as required by para. (For example, in API 600 the flow passageway would have a diameter not less than that specified in Annex A of B16.34.) The inside diameter is defined in para. Reply: Yes, for Standard Class flanged and buttwelding end valves unless other dimensions are agreed on by manufacturer and purchaser. 7.1? Reply: No. COPYRIGHT ASME. Reply: No. COPYR USED FOR OTHER THAN Interpretation: 1-16 Subject: Paragraph 2.1; Pressure-Temperature Ratings Date Issued: April 30, 1982 File: B16-82-031 Question: Paragraph 2.1; Pressure rating. 8.3.1.1? Reply: Yes. 8.4 and again be radiographed to determine acceptability? 2.1.5(2)(a) of ANSI B16.34-1977, do the requirements apply to both flanged and Standard Class buttwelding end valves? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 04-1 Subject: B16.34 (1996 Edition, a-1998 Addenda); 6.4.1(a) Date Issued: April 30, 2004 Record: 04-444 Question: In accordance with ASME B16.34 a-1998 Addenda - 1996 Edition, paragraph 6.4.1(a), may a manufacturer of a bolted bonnet or bolted cover valve identify the valve as being in accordance with ASME standard B16.34 when the bolting threads do not meet the requirements of ANSI B1.1? Reply: No. Interpretation 03-3 Subject: B16.34 (1996 Edition, a-1998 Addenda); 8.3.1.3, is it a requirement that, for a special class valve, when ultrasonic examination is used for a body or bonnet or cover plate in place of radiographic examination that the area to be examined includes all of those areas for that part as described in paragraph 8.3.1.1? Reply: Yes. Reply: No. Paragraph 6.7 is specific to wafer or flangeless valves. Interpretation: 4-17 Subject: B16.34-1996, para. Flange bolting requirements are given in paras. Reply (2): Bonnet or cover bolting can be permitted higher stress valves [sic] than pipeline bolting because these bolts are not required to allow for pipeline loads in addition to pressure load. 6.4.2(a) of ASME B16.34-1996 apply for the flanges of a bolted split-body valve? 6.4.1 of B16.34 is the bonnet or cover bolting on the same basis as in question (1) permitted to reach 9000? Reply (2): No. See para. Reply (3): No. Question, buying, maintenance, training of a Standard Class valve which has been subject to nonrequired NDE? Intended for manufacturers, owners, employers, users and others concerned with the specification, buying, maintenance, training of a Standard Class valve which has been subject to nonrequired NDE? Intended for manufacturers, owners, employers, users and others concerned with the specification, buying, maintenance, training of a Standard Class valve which has been subject to nonrequired NDE? Interpretation: 2-30 Subject: Paragraph 6.4.2; Body Joints Date Issued: October 19, 1993 File: B16-93-007 Question (1): With reference to ASME/ANSI B16.34-1988 para. B1.11 Date Issued: and safe use of valves with pressure equipment, plus all potential governing entities. Reply: No. December 17, 1998 File: B16-98-026 Question: In accordance with ASME B16.34-1996, is it permissible to substitute the radiographic sensitivity requirements of B16.34, para. Reply (3): Local area considerations are applicable over an entire valve body (see para. 7.1 Date Issued: May 20, 1998 File: B16-98-010 Question: Under ASME B16.34-1996, does para. 6.1.5, what is the reason for including the sentence, "In no case shall the thickness be less than 0.77 tm at a distance of 1.33 tm from the weld end? 6.9.6. This limitation is one that has been in use for decades for pipeline flanges. Reply (2): The boundary limits for local areas are calculated as described in para 6.1.6. Question (3): How do local area considerations apply to valve body necks? 2.3.2 for low-temperature service. They were originally listed as A351 then became ASTM 995. Reply (2): No. Interpretation: 1-24 Subject: Section 8; NDE Requirements Date Issued: October 31, 1983 File: B16-83-009 Question (1): What are the dimensions for an indication to be considered relevant under the acceptance standard for liquid penetrant examination of ANSI B16.34? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-1 Subject: Table 1; Materials Date Issued: May 17, 1990 File: B16-89-001 Question (1): is there an error in Table 1 in that ASTM A 351-CG8M is not listed? There are no provisions for separate pressure testing of valve component parts such as valve bodies. Question (3): In accordance with ASME B16.34-2004, Table VII-2-1.2, is ASTM A 216 Gr WCC, heat treatment quench and temper permitted to be used at a temperature over 650 °F? Reply (2): Paragraph F1.1 explains that the rating method is presented to explain how the pressure-temperature ratings for the Standard were derived. Is the dimension "g" correctly shown in the drawing? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-22 Subject: Manufacturer's new presented to explain how the pressure-temperature rating for the Standard were derived. Pressure-Temperature Rating Date Issued: Feb 13, 2003 File: B16-02-03902 Question: In accordance with ASME B16.34 (1996 Edition, 1998 Addenda) may a valve, of a specified pressure class, having a manufacturer's own pressure temperature rating, one that exceeds the published ratings in ASME B16.34, be identified as being in compliance with ASME B16.34? In effect, there is allowance for locally stressed areas in the valve body where the local membrane stress is limited to approximately 1.1 times the basic allowable stress. This weld preparation transition was established so that the validity of stress intensification factors listed in various piping codes (for example, APPENDIX D of ANSI/ASME B31.3 or ND-3000 of the ASME Boiler and Pressure Vessel Code, Section III, Subsection ND) is not compromised. Reply: No. The only exception, para. 6.1.7 applies, making it the responsibility of the manufacturer to determine when additional metal thickness beyond the minimum value is required. 6.1.2(c) of ASME B16.34-2009, would as the responsibility of the manufacturer to determine when additional metal thickness beyond the minimum value is required. 6.1.2(c) of ASME B16.34-2009, would as the responsibility of the manufacturer to determine when additional metal thickness beyond the minimum value is required. two-piece ball valve design qualify as being a multi-piece construction? 1.1 and 5.1 which require that materials be selected from those listed in Table 1. Reply (2): These limits restrict the use of the cited alternative material specification requirements when master heats are used for investment castings. 6.1.2, be the "bore diameter of fitting" as in ASME B16.11? Figure 2 shows an example of pressure-temperature ratings for materials in Group 1.2. The valve design temperature is selected from the left column and the valve pressure class is listed above. 8.3.1.3 for castings, whether powder fusion bonded or applied as liquid, are coating materials capable. of sealing against leakage, and application prior to the shell test is prohibited by the first sentence of para. Using ANSI B16.25 weld preparation transition region extends, from the valve weld ends, a distance of 2.2/1.5 or 1.33 times the valve minimum wall thickness. In the case of valve body necks (see para. When the Committee meets to consider future revisions, other materials will be considered. 2.1.5(b), Valves Fabricated by Welding Date Issued: February 17, 1999 File: B16-98-030 Question: For a weld-fabricated valve, constructed in accordance with the requirements of ASME B16.34-1996, do the requirements of para. Reply: No. Requirements are limited to new valves by the scope. Reply: No. Paragraph 6.4 of B16.34 specifies only ANSI B1.1 bolting. 4.1.3, is the reference identification plate the identification plate the identification plate provided by the manufacturer? 5.2.2 Date Issued: May 2, 1998 File: B16-98-008 Question: Does ASME B16.34-1996, para. (Note: Flanged end valves are Standard Class only.) Question (2): Does para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-38 Subject: Table 2; Pressure-Temperature Ratings Date Issued: November 7, 1985 File: B16-85-004 Question: Why does ANSI B16.34-1981 limit the ASTM A351-CN7M to a temperature rating of 300° F? Reply: No. The purpose of Annex F, see F1.1, is to record the rules that were used to determine the tabulated pressure-temperature ratings. 1.1 under Scope, does that include both socket welding end valves? The table is set up by groups of similar materials, but even within a group, variations and limitations to use exist, especially regarding operating temperatures. Reply Interpretation: 09-4 Subject: B16.34-2004, Inquiry, Para. Reply: No. The basic inside diameter is a valve specific dimensions. A B16 action to extend the temperature range cannot be undertaken until one of the (2): No Code Sections publishes the required data. The correct value is 11.87 in. Question (4): In accordance with ASME B16.34-2004, Table VII-2-1.2, for ASTM A 216 Gr WCC, heat treatment quench and temper does Note (4) apply? As ASME B16.34-2004, Table VII-2-1.2, for ASTM A 216 Gr WCC, heat treatment quench and temper does Note (4) apply? As ASME B16.34-2004, Table VII-2-1.2, for ASTM A 216 Gr WCC, heat treatment quench and temper does Note (4) apply? As ASME B16.34-2004, Table VII-2-1.2, for ASTM A 216 Gr WCC, heat treatment quench and temper does Note (4) apply? reference in paragraph 6.1. COPYRIGHT ASME. 16, under "Relationship," it is also noted that the sum of the dimensions "f" and "g" shall not be less than tm. Reply (1): No. Flanged end valves having Class designations larger than Class 2500 are not within the scope of the ASME B16.34 standard and therefore, cannot be brought into conformance with ASME B16.34. 7.2 require that the valve closure test be performed with the motor actuator in place and operable if the valve is so equipped? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-12 Subject: Paragraph 8.4; Defect Removal and Repair Date Issued: January 21, 1991 File: B16-90-030 Question (1): In ASME/ANS B16.34-1988, is Clause 8.4, covering defect removal and repair, a requirement only for Special Class valves? Reply: The requirements of paragraph 6.3 for auxiliary connections are specific to valve manufacture. Presently A743 and A744 are not listed in any of these Sections (nor are they listed in any of the B31 Piping Codes). Interpretation: 2-18 Subject: Special Class Valves Date Issued: August 2, 1991 File: B16-91-008 Question: In the case of a valve to be qualified for a Special Class designation under ASME/ANSI B16.34-1988 that is not of a type specifically illustrated in Figs. THEY ARE NOT TO BE ISED FOR OTHER THAN Interpretation: 2-3 Subject: Para. Reply (3): No. COPYRIGHT ASME. Until such a revision is completed and approved as an American National Standard, valves using metric bolting cannot be identified as being in conformance with B16.34 6.1.5, Tables 3 and G3, Annexes A and G Date Issued: May 21, 1990 File: B16-89-004 Question (1): Minimum wall thickness requirements are defined in ANSI B16.341981, para. 6 through 15, e.g. a weld end ball valve, may a composite, using for example elements of Figs. 8.3.2.1(a) and (b) that the entire cylindrical and ring sections be examined. 2.3.3 of ASME/ANSI B16.34-1988, is it required that the relief valve be manufactured and tested in accordance with one of the Sections of the ASME Boiler and Pressure Vessel Code, by a manufacturer holding the applicable Code Certificates? Class designation greater than Class 2500 is only permitted for a welding end valve. Reply (3): No. Question (4): The footnote to Clause 4.1.3 in ASME/ANSI B16.34-1988 permits, upon written conformation [sic] from the manufacturer, marking socket weld or threaded end valves as "B16.34" or "B16.34" manufacturer? Tables 2 (metric) and VII (U.S. customary units) give pressure-temperature ratings for each listed material. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-42 Subject: Paragraph 6.7; Wafer or Flangeless Valves Date Issued: August 11, 1995 File: B16-95-003 Question (1): In B16.34-1988, are the requirements of para. 6.4.1(a) and 6.4.2(a) Date Issued: November 17, 1998 File: B16-98-022b Question: Do the bolting requirements of para. Reply (1): No. Question (2): Are valves with end configurations other than those within the scope of B16.34-1988 permitted under ASME pressure vessel and piping Codes? Furthermore, there are a solution (2): Are valves with end configurations other than those within the scope of B16.34-1988 permitted under ASME pressure vessel and piping Codes? Furthermore, there are a solution (2): Are valves with end configurations other than those within the scope of B16.34-1988 permitted under ASME pressure vessel and piping Codes? Furthermore, there are a solution (2): Are valves with end configurations other than those within the scope of B16.34-1988 permitted under ASME pressure vessel and piping Codes? Furthermore, there are a solution (2): Are valves with end configurations other than those within the scope of B16.34-1988 permitted under ASME pressure vessel and piping Codes? may be construction details of which only the original valve manufacturer may have knowledge that could restrict the valve rating to that of Standard Class. Reply: No. These factors represent weld joint used, the degree of nondestructive examination required. C2.1(a), and D2.2(a), does the separation requirement for linear indications apply only to linearly aligned indications? Reply: No. Interpretation: 06-1 ject: ASME B16.5 and B16.34 related questions - Clarification of Valve Flange Date Issued: September 25, 2006 Record: 04-1106 Question: Can a valve flange have drilled and tapped bolt holes instead of through holes and still be considered an ASME B16.5 flange? For other valve body configurations, such as those for full port ball valve body configurations, such as those for full port ball valve body configurations. DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-14 Subject: Paragraph 8.3.11 [sic]; Radiographic Examination Date Issued: April 30, 1982 File: B16-82-029 Question: Under ANSI B16.34-1977, para. Note also the requirements of ASME B16.34, para. B16.34-1996, Requirements for Radiographic Examination of Flanged End Valves Date Issued: November 17, 1998 File: B16-98-024 Question: Does ASME B16.34-1996, include requirements for radiographic examination of flanged end valves? Paragraph 2.1.2 limits Special Class construction to valves having threaded or welding ends. Most people when they think of duplex materials think of grade 4A or 6A. 2.1(g) for material considerations limiting pressure ratings, and para. Question (2): In ANSI B16.34-1981, the minimum wall thickness tabulated for Class 4500 and 15 in. Reply (2): No. COPYRIGHT ASME. With reference to Figs. Reply (1): No. Question (2): To what extend do the limits on size and pressure class in para. In Annex F, paragraph F1.3 discusses required with "t". There are no area required with "t". There are no area required with "t". Interpretation: 2-28 Subject: Welding End Valves Date Issued: August 19, 1992 File: B16-92-018 Question: In ASME/ANSI B16.34-1988 penetrant requirements (see para. In the case of a buttwelding end, it is the diameter at the buttwelding end exclusive of the welding end transition. when reference is made to welding end valves, e.g., para. 6.1.1? Reply: Yes, taking due account that it is an obligation on the part of the manufacturer to identify the wetted surfaces that apply under para. Conformance with all requirements of the Standard is necessary in order to apply the pressure-temperature rating shown in the various tables Interpretation: 4-11 Subject: B16.34-1996, paras. Reply (1): No. A word of caution is in order. 5.1.2 apply? Since ASTM A193-B7 bolting has an allowable stress of 25,000 psi, why is the further requirement of 0.35 times the allowable bolt stress included? Reply: No Interpretation: 1-30 Subject: Paragraph 7.2; Valve Closure Test Date Issued: February 15, 1985 File: B16-84-013 Question (1): Does ANSI B16.34 para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-4 Subject: B16.34-1996, para. THEY ARE BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-21 Subject: Materials Date Issued: February 14, 1992 File: B16-92-003 Question: In accordance with ASME/ANSI B16.34-1988, is material ASTM A105 suitable for a valve body at a temperature of -25° C? THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-15 Subject: 6.1.1; Minimum Wall Requirements Date Issued: March 19, 1991 File: B16-90-041 Question: Under ASME/ANSI B16.34-1988, for a valve body of sectional construction (see para. Question (2): How are the boundaries for local areas calculated? 6.4.2, may a valve manufacturer use one of the bolting materials from Table 1 that has an allowable stress in excess of 20,000 psi for a valve body joint? Reply (4): Yes. Reply (2): No. The purpose of Annex F is to document the procedure used for Calculating the pressure-temperature values for Table. 6.1.2. this paragraph defines a minimum valve body flow passage diameter for this purpose and sets restrictions on its valve for venturi geometries so as to tend to accommodate for loads transmitted by attached piping. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-45 Subject: Para. 8.3.1.1 Date Issued: March 18, 2008 Record: 08-346 Question: Does ASME B16.34-2004 para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-17 Subject: Paragraph 6.1.5; Weld Ends Date Issued: May 25, 1982 File: B16-81-032 Question (1): Why does ANSI B16.34-2004, Table VII-2-1.2, does ASTM A 216 Gr WCC, heat treatment quench and temper have a service temperature limitation? 2.3.3 is an advisory clause that cites a user responsibility, see para. Ouestion (4): In ASME/ANSI B16.34-1988, Table 3 values relate to valve body required minimum wall thickness. Reply: No. COPYRIGHT ASME. ASME B16.5-1996 does not address or refer to any document that addresses dimensions for Class 4500 flanges. 6.7 Date Issued: August 11, 1997 File: B16-97-002 Question (1): Are multiple radial holes that penetrate the required minimum wall thickness of a valve body, e.g. holes for the purpose of securing an identification plate, permitted under the requirements of para. Question (2): May the pressure-temperature rating procedure described in Annex F of ANSI B16.34-1977 be used for rating bolting materials? Reply: No. This combination of components is not included in ANSI B16.34-1977. 7.2 and the explanatory footnote 2? Previous Next The content of American Society of Mechanical Engineers (ASME) Standard B16.34 is essential to those who deal with flanged, threaded, and welded-end valves. ASME B16.34 Valves - Flanged, Threaded, and Welding End Published Interpretations Interpretation: 10-1 Subject: B16.34-2009 Inquiry, Para 6.1 Date Issued: March 23, 2010 Record: 10-166 Question (1): According to para. Interpretation: 07-2 Subject: ASME B16.34-2004, Appropriate Application of Unit Systems for Pressure/Temperature Markings Date Issued: April 6, 2007 Record: 06-1577 Question: In accordance with ASME B16.34-2004, clause 4.3.2, the identification plate for Special Class designated valves, valves meeting all requirements of ASME B16.34 including those of Clause 8, shall be marked with the pressure rating at 38 °C (100 °F). Reply: No. It is a requirement of paras. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 1-26 Subject: NDE Requirements Date Issued: October 8, 1984 File: B16-84-003 Question (1): Does ANSI B16.34-1981 address internal discontinuities that may be expected in a forging or casting for a Standard Class valve which is subsequently subjected to nondestructive examination? Interpretation: 2-40 Subject: Inservice Material Deterioration Date Issued: January 16, 1994 File: B16-94-010 Question: Does ASME B16.34-1988 include requirements for inspection for inservice material deterioration and mandatory valve replacement? Reply: No. The reference source for material properties is the ASME B01er and Pressure Vessel Code as described in Annex F of ANSI B16.34. be used in order to meet the requirements of para. In all cases, however, para. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Question: For Special Class valves made to ANSI B16.34-1977, is it required that surfaces of forged bodies and bonnets be examined by both magnetic particle (see para. (For the procedure for inclusion of new materials in the Code see, for example, Appendix A-75 of ASME Boiler and Pressure Vessel Code Section I.) Interpretation: 1-37 Subject: Paragraph 7.3; Surface Protection Date Issued: July 16, 1985 File: B16-85-011 Question: Is it the intent of ANSI B16.34 to permit fusion bonded coatings to be applied to internal valve surfaces prior to the shell test? 8.3.1.1 for radiographic film coverage? 6.1.2 in conjunction with Table 3A or Table 3B or the equations shown in Mandatory Appendix VI of ASME B16.34-2009, do values of inside diameter greater than 1300 mm fall within the scope of ASME B16.34? Reply (1): Shell testing requirements apply to assembled valves. 1.2.2 for use of material at low-temperature, para. For example, if a valve is made from A106 Grade C and designed to Class 150, at an operating temperature of 200°F, the pressure-temperature of 200°F, the pressure-temperature at low-temperature at low-temperature at low-temperature of 200°F, the pressure-temperature at low-temperature at low-te one that is nonmandatory. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 08-2 Subject: ASME B16.34-1996 Date Issued: March 17, 2008 Record: 07-387 Question (1): ASME B16.34-1996, paragraph 6.2.2 refers to ASME B16.51996 for specific valve flanged end requirements. Reply (2): No. This is a misprint that has been corrected in ASME/ANSI B16.341988. Reply (1): No. Question (2): According to the inside diameters as required under para. ASME B16.34 Valves Flanged, Threaded and Welding End applies to new construction. Question (2): For valves in full conformance with ASME B16.34-1988, manufactured prior to January 31, 1997, the date of issuance of ASME B16.341996, is it required that prior to or upon installation after January 31, 1997, that such unused valves be certified by the manufacturer to ASME B16.34-1996? Reply: No. Requirements for flow passageway diameter are not included in B16.34.13, Sections X-X and Y-Y. Reply (6): Consideration is presently being given to adding metric bolting and other metric references to ASME B16.34. 2.1.5(2)(a) of ANSI B16.34-1977 prohibit values of size NPS 6 and smaller from being fabricated by welding? Reply (4): No. COPYRIGHT ASME. Reply (1): No. Question (2): Will the B16 Committee responsible for B16.34 consider including ASTM A743 and A744 in the materials (ASTM) specification and grade for common carbon steel. 6.1.2. This paragraph defines a minimum valve body flow passage diameter for this purpose and restricts its value for venturi geometries so as to tend to provide for loads that may be transmitted by the attached piping. Reply: Yes. ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 2-29 Subject: Scope Date Issued: January 6, 1993 File: B16-92-029 Question (1): Does the scope of ASME/ANSI B16.34-1988 include coverage for valve end configurations other than those related to flanged, butt welding, socket welding or threaded? This is because of COPYRIGHT ASME. Reply (1): No. Ouestion (2): Does ANSI B16.34 set situations such as this: at first glance, since the table goes up to 800°F, a user might assume all the materials could be used at that temperature, but the note warns that some of the materials must be limited to 650°F. maximum acceptable NDE indications which will approve the use of a Standard Class valve? 6.1.1 for inspection purposes. 6.1.2 to specify that a valve flow passage diameter be 90% of the basic inside diameter? Reply (3): yes. Interpretation: 1-6 Subject: Paragraph 8.3; NDE Requirements Date Issued: August 10, 1981 File: B16-81-013 Reply: No. During preparation of the 1977 edition, explanatory information contained in the 1973 edition was inadvertently omitted. THEY ARE NOT TO BE DUPLICATED OR USED FOR OTHER THAN Interpretation: 4-19 Subject: B16.34-1996, paras. Under these categories are 49 sub-groups.

Reply (3): No, the manufacturer is responsible for meeting all the applicable requirements of the standard. Reply (1): This requirement ensures that the nozzle transition can adequately support the maximum pressure-temperature rating associated with the minimum wall thickness used for the valve design.

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