

ASME B16.5-2020

SUMMARY OF CHANGES

Following approval by the ASME B16 Standards Committee and ASME, and after public review, ASME B16.5-2020 was approved by the American National Standards Institute on January 5, 2021.

In ASME B16.5-2020, the U.S. Customary tables formerly in Mandatory Appendix II have been relocated to the main text and redesignated with a "C" suffix, and U.S. Customary figures have been merged with SI figures. Former Mandatory Appendix II has been deleted, and the subsequent appendix redesignated. In addition, this edition includes the following changes identified by a margin note, **(20)**. The Record Numbers listed below are explained in more detail in the "List of Changes in Record Number Order" following this Summary of Changes.

<i>Page</i>	<i>Location</i>	<i>Change</i>
1	Section 1	Title revised (18-808)
1	1.1	Title and subpara. (b)(2) revised (18-808)
1	1.6	Revised (18-2734)
2	1.10	Added (18-808)
3	2.8.3	Revised (11-539)
4	4.2.2	Subparagraph (e) added (19-2978)
4	4.2.9	Added (18-808)
5	Table 1.1-1	(1) Redesignated from Table 1A (2) Revised A182 F91 to A182 F91 Type 1 (20-887) (3) Added A182 Gr. N08020 and A240 Gr. N08020 to Material Group 3.1, A182 Gr. N08800 and A240 Gr. N08800 to Material Group 3.6, and A182 Gr. N08810 and A240 Gr. N08810 to Material Group 3.15 (11-540) (4) Updated A479 Gr. N08904 to A182 Gr. N08904 (18-2777)
7	5.3.4	Revised (14-2169)
10	6.4.1	Revised (19-520)
10	6.4.3.2	Revised (19-520)
11	6.7	Revised in its entirety (19-918)
11	6.9.1	Revised (19-1820)
13	7.2	Subparagraphs (a) through (d) revised (19-520)
13	7.3	Subparagraphs (b), (c), and (e) revised (19-520)
13	7.4	Revised (19-520)
13	7.5	Paragraphs 7.5.1 through 7.5.3 revised (19-520)
14	7.6	Revised (19-520)
14	7.7	Paragraphs 7.7.1 and 7.7.2 revised (19-520)
17	Figure 6	Revised (19-520)
19	Figure 7	(1) Title revised (19-918) (2) Figure revised, General Note (1) deleted, General Note (d) added, and subsequent notes redesignated (14-2172)
20	Figure 8	(1) Title and figure revised (19-918) (2) General Notes added
22	Figure 11	Revised (19-520)

<i>Page</i>	<i>Location</i>	<i>Change</i>
22	Figure 13	Revised (19-520)
24	Table 2-1.1	Added A350 Gr. LF3, moved A537 Cl.1 under C-Mn-Si, and revised Notes 3 and 4 (errata) (19-629)
46	Table 2-1.15	(1) Revised A182 F91 to A182 F91 Type 1 (20-887) (2) Last three rows revised (20-887)
47	Table 2-1.15C	(1) Former Table II-2-1.15, revised A182 F91 to A182 F91 Type 1 (20-887) (2) Last three rows revised (20-887)
50	Table 2-1.18	Note (1) revised
74	Table 2-3.1	Revised A182 Gr. N08020 and A240 Gr. N08020 (11-540)
74	Table 2-3.1C	Former Table II-2-3.1, revised A182 Gr. N08020 and A240 Gr. N08020 (11-540)
81	Table 2-3.6	Revised A182 Gr. N08800 and A240 Gr. N08800 (11-540)
82	Table 2-3.6C	Former Table II-2-3.1, revised A182 Gr. N08800 and A240 Gr. N08800 (11-540)
88	Table 2-3.10	Revised (11-540)
88	Table 2-3.10C	Former Table II-2-3.10, revised (11-540)
89	Table 2-3.11	Updated A479 Gr. N08904 to A182 Gr. N08904 (18-2777)
89	Table 2-3.11C	Former Table II-2-3.11, updated A479 Gr. N08904 to A182 Gr. N08904 (18-2777)
90	Table 2-3.12	Revised (11-540)
90	Table 2-3.12C	Former Table II-2-3.12, revised (11-540)
94	Table 2-3.15	Revised A182 Gr. N08810 and A240 Gr. N08810 (11-540)
95	Table 2-3.15C	Former Table II-2-3.15, revised A182 Gr. N08810 and A240 Gr. N08810 (11-540)
101	Table 3	(1) Third column added (18-578) (2) Columns 2, 3, and 4 revised (19-520)
102	Table 3C	(1) Former Table II-3, third column added (18-578) (2) Columns 2, 3, and 4 revised (19-520)
103	Table 4	Revised (19-520)
108	Table 5	(1) Revised metric values (dimensions) to align with U.S. Customary values (dimensions) (19-520) (2) Below Notes, Tolerance for <i>P</i> revised
115	Table 5C	(1) Former Table II-5, for pages 120 and 121, rows rearranged by errata (20-2623) (2) Below table Notes, negative Tolerance for <i>E</i> revised
123	Table 6	In Example (1), flange dimensions revised (19-520)
124	Table 6C	(1) In Note (1), "(see Example B)" corrected by errata to "(see Example 2)" (19-520) (2) In Example (1), flange dimensions revised (19-917)
125	Table 7	Revised (19-520)
127	Table 8	(1) Threaded illustration updated (errata) (19-1957) (2) Table revised (19-520)
130	Table 8C	(1) Former Table II-8, threaded illustration updated (errata) (19-1957) (2) Table revised (19-520)
134	Table 9	Revised (19-520)
140	Table 9C	Former Table II-9, revised (19-1957)

<i>Page</i>	<i>Location</i>	<i>Change</i>
143	Table 10	Revised (19-520)
145	Table 11	Revised (19-520)
152	Table 12	Revised (19-520)
156	Table 12C	Former Table II-12, revised (19-1957)
159	Table 13	Revised (19-520)
161	Table 14	Revised (19-520)
165	Table 15	Revised (19-520)
167	Table 16	Revised (19-520)
171	Table 17	Revised (19-520)
173	Table 18	Revised (19-520)
177	Table 19	Revised (19-520)
179	Table 20	Revised (19-520)
183	Table 21	Revised (19-520)
185	Table 22	Revised (19-520)
191	Mandatory Appendix II	Former Mandatory Appendix III redesignated and reference list updated (20-983)
231	Nonmandatory Appendix F	Added (18-2734)

LIST OF CHANGES IN RECORD NUMBER ORDER

Record Number	Change
11-539	Revised para. 2.8.3 to clarify “B” dimension.
11-540	Revised Table 1.1-1 (former Table 1A); added materials to Tables 2-3.1, 2-3.6, 2-3.10, 2-3.12, and 2-3.15.
14-2169	Revised reference in para. 5.3.4 to include Nonmandatory Appendix B.
14-2172	Deleted the 1:3 max. slope and the 45-deg max. angle; set a maximum limit for the straight turn; revised values between SI and U.S. Customary units; added a taper (0 deg to 7 deg) for the straight turn; revised General Note (e) for Figures 7 and 8.
18-578	Added a column in Tables 3 and 3C (former Table II-3) to clarify the requirements between maximum depth and maximum radial projection.
18-808	Added paras. 1.10 and 4.2.9 to describe B16 Cases and their uses; revised titles of section 1 and para. 1.1.
18-2734	Added Nonmandatory Appendix F; revised para. 1.6 to reference Nonmandatory Appendix F.
18-2777	Revised Tables 1.1-1 (former Table 1-A), 2-3.11, and 2-3.11C (former Table II-2-3.11), and Mandatory Appendix II (former Mandatory Appendix III).
19-520	Revised paras. 6.4, 6.4.3.2, 7.2, 7.3, 7.4, 7.5, 7.5.2, 7.6, 7.7.1, and 7.7.2; Figures 6, 11, and 13; and Tables 3 through 22 to align metric dimension with the published U.S. Customary dimension in former Mandatory Appendix II.
19-917	Revised Tables 5C, 6C, 9C, and 12C (former Tables II-5, II-6, II-9, and II-12).
19-918	Revised paras. 6.7, 6.7.1, 6.7.2, and 6.7.3 to clarify text references to Figures 7 and 8; revised titles of Figures 7 and 8.
19-1820	Revised references in para. 6.9.1.
19-2978	Added para. 4.2.2(e) to indicate that when a manufacturer marks a product with the ASTM designation, it is certifying that the material meets all the requirements of the specification marked, including heat treatment.
20-887	Revised Tables 1.1-1 (former Table 1A), 2-1.15, and 2-1.15C (former Table II-2-1.15) to include a new ASTM nomenclature material, A182 F91 Type 1, to replace A182 F91.
20-983	Revised Mandatory Appendix II (former Mandatory Appendix III) to include ASTM Specifications A993, B163, B167, and B407.