



Standard Specification for Factory-Made Wrought Aluminum and Aluminum-Alloy Welding Fittings¹

This standard is issued under the fixed designation B361; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This specification covers only factory-made wrought aluminum and aluminum-alloy welding fittings in contrast to field-made fittings. The term “welding fittings” applies to butt-welding or socket-end parts, such as 45° elbows, 180° return bends, 90° short radius elbows, and other types made to the dimensional standards specified by ASME B16.9 and B16.11.

NOTE 1—Throughout this specification use of the term *alloy* in the general sense includes aluminum as well as aluminum-alloy.

1.2 For acceptance criteria for inclusion of new aluminum and aluminum alloys in this specification, see [Annex A1](#).

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1 The following documents of the issue in effect on date of material purchase form a part of this specification to the extent referenced herein:

2.2 ASTM Standards:²

[B209 Specification for Aluminum and Aluminum-Alloy Sheet and Plate](#)

[B210 Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes](#)

[B211 Specification for Aluminum and Aluminum-Alloy Rolled or Cold Finished Bar, Rod, and Wire](#)

[B221 Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes](#)

[B234 Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes for Condensers and Heat Exchangers](#)

[B241/B241M Specification for Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube](#)

[B247 Specification for Aluminum and Aluminum-Alloy Die Forgings, Hand Forgings, and Rolled Ring Forgings](#)

[B660 Practices for Packaging/Packing of Aluminum and Magnesium Products](#)

[B881 Terminology Relating to Aluminum- and Magnesium-Alloy Products](#)

[D3951 Practice for Commercial Packaging](#)

2.3 ANSI Standards:

[H35.1/H35.1\(M\) Alloy and Temper Designation Systems for Aluminum](#)³

2.4 ASME Standards:

[B16.9 Factory-Made Wrought Butt-Welding Fittings](#)⁴

[B16.11 Forged Fittings, Socket-Welding and Threaded](#)⁴

[Section VIII Boiler and Pressure Vessel Code](#)⁴

[Section IX Boiler and Pressure Vessel Code](#)⁴

2.5 AWS Standards:

[AWS D10.7M/D10.7 Recommended Practices for Gas Shielded-Arc Welding of Aluminum and Aluminum-Alloy Pipe](#)⁵

[2.6 Manufacturers' Standardization Society of the Valve and Fittings Industry:](#)

[MSS SP 25 Standard Marking System for Valves, Fittings, Flanges and Unions](#)⁶

¹ This specification is under the jurisdiction of ASTM Committee B07 on Light Metals and Alloys and is the direct responsibility of Subcommittee B07.03 on Aluminum Alloy Wrought Products.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from Aluminum Association, Inc., 1400 Crystal Drive Suite 430, Arlington, VA 22202, <http://www.aluminum.org>.

⁴ Available from American Society of Mechanical Engineers (ASME), ASME International Headquarters, Three Park Ave., New York, NY 10016-5990, <http://www.asme.org>.

⁵ Available from American Welding Society (AWS), 550 NW LeJeune Rd., Miami, FL 33126, <http://www.aws.org>.

⁶ Available from Manufacturers Standardization Society of the Valve and Fittings Industry (MSS), 127 Park St., NE, Vienna, VA 22180-4602, <http://www.mss-hq.com>.