ASME B16.26-2013
(Revision of ASME B16.26-2011)

Cast Copper Alloy Fittings for Flared Copper Tubes

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

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The American Society of Mechanical Engineers
Two Park Avenue • New York, NY • 10016 USA

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The next edition of this Standard is scheduled for publication in 2018.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Standard. Periodically certain actions of the ASME B16 Committee may be published as Cases. Cases and interpretations are published on the ASME Web site under the Committee Pages at http://cstools.asme.org/ as they are issued.

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The American Society of Mechanical Engineers
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FOREWORD

The development of a standard for brass fittings for flared copper water tubes was initiated by a subcommittee of the Copper Tube and Fitting Manufacturers Standardization Committee in 1929. When a general agreement had been reached, the draft of the proposed standard was submitted to Sectional Committee A40 on Minimum Requirements for Plumbing and Standardization of Plumbing Equipment, of the American Standards Association (ASA). Sectional Committee A40 was jointly sponsored by the American Society of Sanitary Engineering and The American Society of Mechanical Engineers (ASME).

Final ASA approval and designation as an American Standard, ASA A40.2-1936, was granted January 20, 1936.

The Standard remained unchanged and without reaffirmation until 1955 when this activity was transferred from Sectional Committee A40 to Sectional Committee B16 on Standardization of Pipe Flanges and Fittings, under the sponsorship of ASME, the Mechanical Contractors Association of America, Inc., and the Manufacturers Standardization Society of the Valve and Fittings Industry.

Subcommittee No. 9 B16 on Solder-Joint Fittings was instructed to develop a revised standard. The revised draft of this Standard was submitted to industry for criticism and comment. The final draft was approved by Sectional Committee B16 and its sponsors by letter ballot.

ASA approval and designation as ASA B16.26-1958 was granted on February 12, 1958. Beginning in 1965, consideration was given to reviewing the Standard in light of progress made in the production of these fittings. Subcommittee No. 9 completed its work by recommending the updating of referenced standards and thread specifications and including additional material. Following approval by the USA Standards Committee and Sponsors, the revision was approved by the new USA Standards Institute on April 21, 1967.

In 1982, American National Standards Committee B16 was reorganized as an ASME Committee operating under procedures accredited by the American National Standards Institute (ANSI). In the 1988 edition, metric units were omitted, and references to other standards were updated. Following approval by the B16 Main Committee and the ASME Supervisory Board, and after public review, the Standard was approved as an American National Standard by ANSI on August 23, 1988.

In the 2006 edition, metric units became the primary reference units while U.S. Customary units were maintained in either parenthetical or separate forms. SI values were positioned in the main text; U.S. Customary values were positioned in Mandatory Appendix I. The Scope was clarified, and a section on hydrostatic testing was added, along with a quality assurance recommendation in Nonmandatory Appendix B. Additional information concerning the design of the tube flare was also incorporated, in answer to user requests for such information, and was reported in Nonmandatory Appendix A. Following approval by the B16 Main Committee and the ASME Supervisory Board, and after public review, the Standard was approved as an American National Standard by ANSI on May 23, 2006.

In the 2011 edition, references to ASME standards were revised to no longer list specific edition years; the latest edition of ASME publications applies unless stated otherwise. Materials manufactured to other editions of the referenced ASTM standards have been permitted to be used to manufacture fittings meeting the requirements of this Standard as long as the fitting manufacturer verifies the material meets the requirements of the referenced edition. Following approval by the Standards Committee and the ASME Board on PTCS, the revision to the 2006 edition was approved as an American National Standard by ANSI on August 9, 2011 with the new designation ASME B16.26-2011.

In this 2013 edition, provisions have been included to recognize low lead alloys to comply with the U.S. Safe Drinking Water Act, which will be effective January 2014. Following approval by the ASME B16 Standards Committee, approval as an American National Standard was given by ANSI on July 29, 2013, with the new designation ASME B16.26-2013.

Requests for interpretations or suggestions for revisions should be sent to the Secretary, B16 Committee, The American Society of Mechanical Engineers, Two Park Avenue, New York, NY 10016-5990.

ASME B16 COMMITTEE
Standardization of Valves, Flanges, Fittings, and Gaskets

(The following is the roster of the Committee at the time of approval of this Standard.)

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CORRESPONDENCE WITH THE B16 COMMITTEE

General. ASME Standards are developed and maintained with the intent to represent the consensus of concerned interests. As such, users of this Standard may interact with the Committee by requesting interpretations, proposing revisions, and attending Committee meetings. Correspondence should be addressed to:

Secretary, B16 Standards Committee
The American Society of Mechanical Engineers
Two Park Avenue
New York, NY 10016-5990

As an alternative, inquiries may be submitted via email to: SecretaryB16@asme.org.

Proposing Revisions. Revisions are made periodically to the Standard to incorporate changes that appear necessary or desirable, as demonstrated by the experience gained from the application of the Standard. Approved revisions will be published periodically.

The Committee welcomes proposals for revisions to this Standard. Such proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent documentation.

Proposing a Case. Cases may be issued for the purpose of providing alternative rules when justified, to permit early implementation of an approved revision when the need is urgent, or to provide rules not covered by existing provisions. Cases are effective immediately upon ASME approval and shall be posted on the ASME Committee Web page.

Requests for Cases shall provide a Statement of Need and Background Information. The request should identify the Standard, the paragraph, figure or table number(s), and be written as a Question and Reply in the same format as existing Cases. Requests for Cases should also indicate the applicable edition(s) of the Standard to which the proposed Case applies.

Interpretations. Upon request, the B16 Committee will render an interpretation of any requirement of the Standard. Interpretations can only be rendered in response to a written request sent to the Secretary of the B16 Standards Committee.

The request for interpretation should be clear and unambiguous. It is further recommended that the inquirer submit his/her request in the following format:

Subject:	Cite the applicable paragraph number(s) and the topic of the inquiry.
Edition:	Cite the applicable edition of the Standard for which the interpretation is being requested.
Question:	Phrase the question as a request for an interpretation of a specific requirement suitable for general understanding and use, not as a request for an approval of a proprietary design or situation. The inquirer may also include any plans or drawings that are necessary to explain the question; however, they should not contain proprietary names or information.

Requests that are not in this format will be rewritten in this format by the Committee prior to being answered, which may inadvertently change the intent of the original request.

ASME procedures provide for reconsideration of any interpretation when or if additional information that might affect an interpretation is available. Further, persons aggrieved by an interpretation may appeal to the cognizant ASME Committee or Subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

Attending Committee Meetings. The B16 Standards Committee regularly holds meetings, which are open to the public. Persons wishing to attend any meeting should contact the Secretary of the B16 Standards Committee.

ASME B16.26-2013
SUMMARY OF CHANGES

Following approval by the B16 Committee and ASME, and after public review, ASME B16.26-2013 was approved by the American National Standards Institute on July 29, 2013.

ASME B16.26-2013 consists of editorial changes, revisions, and corrections identified by a margin note, **(13)**, placed next to the affected area.

Page	*Location*	*Change*
1	6	Revised in its entirety

CAST COPPER ALLOY FITTINGS FOR FLARED COPPER TUBES

1 SCOPE

This Standard establishes specifications for cast copper alloy fittings and nuts used with flared seamless copper tube conforming to ASTM B88 (water and general plumbing systems). Included are requirements for the following:

(a) pressure rating
(b) size
(c) marking
(d) material
(e) dimensions
(f) threading
(g) hydrostatic testing

2 GENERAL

2.1 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.

2.2 Convention

For determining conformance with this Standard, the convention for fixing significant digits where limits (maximum and minimum values) are specified shall be as defined in ASTM E29. This requires that an observed or calculated value be rounded off to the nearest unit in the last right-hand digit used for expressing the limit. Decimal values and tolerances do not imply a particular method of measurement.

2.3 Relevant Units

This Standard states values in both SI (Metric) and U.S. Customary units. These systems of units are to be regarded separately as standard. Within the text, the U.S. Customary units are shown in parentheses or in separate tables that appear in Mandatory Appendix I. The values stated in each system are not exact equivalents; therefore, it is required that each system of units be used independently of the other. Combining values from the two systems constitutes nonconformance with the Standard.

2.4 Quality Systems

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

2.5 Service Conditions

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

3 PRESSURE RATING

The fittings covered by this Standard are designed for a maximum cold-water service pressure of 1 200 kPa (175 psig).

4 SIZE

The sizes of the fittings shown in Table 1 (Table I-1) correspond to standard water tube size as defined in ASTM B88.

5 MARKING

Each fitting shall be marked with the manufacturer's name or trademark and other applicable markings as required by MSS SP-25. Marking of fittings less than nominal size $\frac{1}{2}$ is optional.

6 MATERIAL (13)

(a) Castings intended for use in applications up to 400°F (204°C) shall be of a copper alloy produced to meet

(1) the requirement of ASTM B62 Alloy C83600 or

(2) the chemical and tensile requirements of ASTM B584 Alloy C83800 or C84400 and in all other respects comply with the requirements of ASTM B62

(b) Castings intended for use in potable water applications, up to 200°F (93°C), shall be low lead (0.25% or less) and shall be

(1) of a copper alloy produced to meet the requirements of ASTM B584 Alloy C87850 or C89833 or

(2) of other cast copper alloys, provided the fittings produced meet mechanical and corrosion-resistant properties needed for potable water application

7 DIMENSIONS

7.1 Fitting and Nut

The dimensions and tolerances of fittings and nuts shall be as shown in Table 1 (Table I-1). Design of the sealing surfaces of the fitting and nut shall be at the discretion of the manufacturer.