



Designation: B 302 – 002

Standard Specification for Threadless Copper Pipe, Standard Sizes¹

This standard is issued under the fixed designation B 302; 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.

This standard has been approved for use by agencies of the Department of Defense.

¹ This specification is under the jurisdiction of ASTM Committee B05 on Copper and Copper Alloys and is the direct responsibility of Subcommittee B05.04 on Pipe and Tube.

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1. Scope *

1.1 This specification establishes requirements for threadless, seamless, deoxidized copper pipe (TP) in straight lengths, in all nominal or standard pipe sizes, for piping systems that are assembled with brazed-joint pipe fittings. The pipe shall be produced from either of coppers UNS Nos. C10300 or C12200.

1.2 The values stated in inch-pound units are the standard. The values given in parentheses are provided for information only.

1.3 The following safety hazard caveat pertains only to the test methods described Section 16 of this specification: *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 its use.*

2. Referenced Documents

2.1 *ASTM Standards:*

~~B 601 Practice 601~~ Classification for Temper Designations for Copper and Copper Alloys—Wrought and Cast²

B 846 Terminology for Copper and Copper Alloys²

E 8 Test Methods for Tension Testing of Metallic Materials³

E 18 Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials³

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁴

~~E 53 Test Methods for Chemical Analysis~~ Determination of Copper in Unalloyed Copper by Gravimetry⁵

E 62 Test Methods for Chemical Analysis of Copper and Copper Alloys (Photometric Methods)⁵

E 243 Practice for Electromagnetic (Eddy-Current) Examination of Copper and Copper-Alloy Tubes⁶

E 255 Practice for Sampling Copper and Copper Alloys for Determination of Chemical Composition⁵

3. Terminology

3.1 *Definitions*—Refer to Terminology B 846 for definitions of terms related to copper and copper alloys.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *threadless pipe (TP)*—seamless tube conforming to the particular dimensions commercially known as “Threadless Pipe (TP).”

4. Ordering Information

4.1 Orders for products under this specification shall include the following information:

4.1.1 ASTM designation and year of issue,

4.1.2 Copper UNS No. designation,

4.1.3 Nominal or standard size (Table 1), and

4.1.4 Total length, total weight, or number of pieces of each size.

² *Annual Book of ASTM Standards*, Vol 02.01.

³ *Annual Book of ASTM Standards*, Vol 03.01.

⁴ *Annual Book of ASTM Standards*, Vol 14.02.

⁵ *Annual Book of ASTM Standards*, Vol 03.05⁶.

⁶ *Annual Book of ASTM Standards*, Vol 03.03.

***A Summary of Changes section appears at the end of this standard.**