



Standard Specification for Seamless Copper Pipe, Standard Sizes¹

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

1. Scope *

1.1 This specification² covers seamless copper pipe in all nominal or standard pipe sizes, both regular and extra-strong, suitable for use in plumbing, boiler feed lines, and for similar purposes.³

1.2 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are provided for information purposes only.

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:

B 153 Test Method for Expansion (Pin Test) of Copper and Copper-Alloy Pipe and Tubing⁴

B 170 Specification for Oxygen-Free Electrolytic Copper—Refinery Shapes⁴

B 601 Practice for Temper Designations for Copper and Copper Alloys—Wrought and Cast⁴

E 8 Test Methods for Tension Testing of Metallic Materials⁵

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁶

E 53 Methods for Chemical Analysis of Copper⁷

E 55 Practice for Sampling Wrought Nonferrous Metals and Alloys for Determination of Chemical Composition⁷

E 62 Test Methods for Chemical Analysis of Copper and Copper Alloys (Photometric Methods)⁷

E 243 Practice for Electromagnetic (Eddy-Current) Exami-

nation of Copper and Copper-Alloy Tubes⁸

E 478 Test Methods for Chemical Analysis of Copper Alloys⁹

E 527 Practice for Numbering Metals and Alloys (UNS)¹⁰

3. Terminology

3.1 Definitions:

3.1.1 *lengths*—straight pieces of the product.

3.1.1.1 *standard*—uniform lengths recommended in a Simplified Practice Recommendation or established as a Commercial Standard.

3.1.2 *tube, seamless*—a tube produced with a continuous periphery in all stages of the operations.

3.1.2.1 *pipe*—a seamless tube conforming to the particular dimensions commercially known as Nominal or Standard Pipe Sizes.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *capable of*—as used in this specification, the test need not be performed by the producer of the material. However, should subsequent testing by the purchaser establish that the material does not meet these requirements the material shall be subject to rejection.

4. Ordering Information

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

4.1.1 Type of copper, if required,

4.1.2 Temper (see 6.1),

4.1.3 Pipe size, regular or extra-strong, (see 10.2),

4.1.4 Length (see 10.3),

4.1.5 Total length of each size,

4.1.6 If material is required to meet *ASME Boiler and Pressure Vessel Code*,

4.1.7 Certification, if required (see 18.1),

4.1.8 Mill test report, if required (see 20.1),

4.1.9 Hydrostatic test, if required, and

4.1.10 Pneumatic test, if required.

4.2 In addition, when material is purchased for agencies of the U.S. Government, it shall conform to the Supplementary

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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² For *ASME Boiler and Pressure Vessel Code* applications, see related Specification SB-42 in Section II of that Code.

³ The UNS system for copper and copper alloys (see Practice E 527) is a simple expansion of the former standard designation system accomplished by the addition of a prefix “C” and a suffix “00.” The suffix can be used to accommodate composition variations of the base alloy.

⁴ *Annual Book of ASTM Standards*, Vol 02.01.

⁵ *Annual Book of ASTM Standards*, Vol 03.01.

⁶ *Annual Book of ASTM Standards*, Vol 14.02.

⁷ *Annual Book of ASTM Standards*, Vol 03.05.

⁸ *Annual Book of ASTM Standards*, Vol 03.03.

⁹ *Annual Book of ASTM Standards*, Vol 03.06.

¹⁰ *Annual Book of ASTM Standards*, Vol 01.01.