



Standard Specification for Seamless and Welded Carbon Steel Water-Well Pipe¹

This standard is issued under the fixed designation A589/A589M; 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 U.S. Department of Defense.

1. Scope*

1.1 This specification covers four specific types of plain end or threaded and coupled carbon steel pipe for use in water wells.

1.2 Each type of water well pipe shall conform to the following methods of manufacture and grade as specified on the purchase order:

1.2.1 *Type I, Drive Pipe*—Seamless or electric-resistance-welded, Grades A and B.

1.2.2 *Type II, Water-Well Reamed and Drifted Pipe*—Seamless or electric-resistance-welded, Grades A and B, or furnace-butt welded.

1.2.3 *Type III, Driven Well Pipe*—Seamless or electric-resistance-welded, Grades A and B, or furnace-butt welded.

1.2.4 *Type IV, Water-Well Casing Pipe*—Seamless or electric-resistance-welded, Grades A and B, or furnace-butt welded.

1.3 The values stated in either inch-pound units or in SI units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values in each system are not exact equivalents; therefore, each system is to be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.

NOTE 1—The dimensionless designator NPS (nominal pipe size) and DN (Nominal Diameter) have been substituted in this standard for such traditional terms as “nominal diameter,” “size,” and “nominal size.”

2. Referenced Documents

2.1 *ASTM Standards:*²

A53/A53M Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless

A370 Test Methods and Definitions for Mechanical Testing of Steel Products

¹ This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee A01.09 on Carbon Steel Tubular 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.

A751 Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products

A865 Specification for Threaded Couplings, Steel, Black or Zinc-Coated (Galvanized) Welded or Seamless, for Use in Steel Pipe Joints

2.2 *API Standard:*

5L Specification for Line Pipe³

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *defect*—an imperfection of sufficient size or magnitude to be cause for rejection.

3.1.2 *imperfection*—any discontinuity or irregularity found in the pipe.

4. Ordering Information

4.1 Orders for material to this specification should include the following, as required to describe the desired material adequately:

4.1.1 Quantity (feet or number of lengths),

4.1.2 Name of material or type number (see 1.2),

4.1.3 Method of manufacture (furnace-butt welded, seamless, or electric-resistance-welded),

4.1.4 Grade (A or B for seamless or electric-resistance welded),

4.1.5 Finish (black or galvanized),

4.1.6 Dimensions (NPS or outside diameter and wall thickness, or both, for Types I, II, and III. Outside diameter and wall thickness for Type IV),

4.1.7 End finish (plain end or threaded and coupled),

4.1.8 Coupling class for Type III (standard pipe, line pipe, or reamed and drifted pipe coupling),

4.1.9 Coupling make-up (hand tight or power tight),

4.1.10 Length (required random range length or special lengths),

4.1.11 Specification designation, and

4.1.12 Special requirements.

³ Available from American Petroleum Institute (API), 1220 L. St., NW, Washington, DC 20005.

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