



Standard Specification for Stainless Steel Socket, Square Head, and Slotted Headless- Set Screws¹

This standard is issued under the fixed designation F880; 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 the requirements for austenitic grade stainless steel socket-set screws (SSS) sizes 0.060 through 1.000 in. square head set screws (SHSS) sizes 0.190 through 1.500 in., and slotted headless set screws (HSS) 0.060 through 0.750 in., in two conditions, AF and CW.

1.2 *Units*—The values stated in inch-pound units are to be regarded as standard. No other units of measurement are included in this standard.

NOTE 1—A complete metric companion to Specification F880 has been developed—F880M; therefore, no metric equivalents are shown in this specification.

1.3 The following hazards caveat pertains only to Test Method Section, Section 12 of this specification. *This standard does not purport to address (all of) the safety problems 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 ASTM Standards:²

- A262 Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels
- A342/A342M Test Methods for Permeability of Weakly Magnetic Materials
- A380 Practice for Cleaning, Descaling, and Passivation of Stainless Steel Parts, Equipment, and Systems
- A555/A555M Specification for General Requirements for Stainless Steel Wire and Wire Rods

¹ This specification is under the jurisdiction of ASTM Committee F16 on Fasteners and is the direct responsibility of Subcommittee F16.04 on Nonferrous Fasteners.

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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

A967 Specification for Chemical Passivation Treatments for Stainless Steel Parts

D3951 Practice for Commercial Packaging

E18 Test Methods for Rockwell Hardness of Metallic Materials

F593 Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs

F788/F788M Specification for Surface Discontinuities of Bolts, Screws, and Studs, Inch and Metric Series

F1470 Practice for Fastener Sampling for Specified Mechanical Properties and Performance Inspection

2.2 ASME Standard:³

B 18.3 Socket Cap, Shoulder and Set Screws, Inch Series

B 18.6.2 Slotted Head Cap Screws, Square Head Set Screws, and Slotted Headless Set Screws (Inch Series)

3. Classification

3.1 The designation of the alloy group and condition for the two materials and conditions of this specification shall be consistent with the stainless steel designations in Specification F593.

3.2 The austenitic stainless steel socket set screw shall be designated F880 Group 1 Condition AF (solution annealed) or F880 Group 1 Condition CW (cold worked).

4. Ordering Information

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

4.1.1 Quantity (number of screws);

4.1.2 Dimensions, including nominal thread designation, thread pitch, nominal screw length (inches) and point configuration. A standard part number may be used for this definition;

4.1.3 Name of the screw (SSS, SHSS or HSS);

4.1.4 Condition AF/CW;

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

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