



Designation: F 880M – 01a

METRIC

Standard Specification for Stainless Steel Socket Set Screws [Metric]¹

This standard is issued under the fixed designation F 880M; 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. Scope

1.1 This specification covers the requirements for austenitic grade stainless steel socket set screws (SSS), sizes M1.6 through M24, having Property Classes A1-50 and A1-70.

NOTE 1—This specification is the metric companion of Specification F 880.

1.2 The following hazard caveat pertains only to Section 11, the Test Method Section: *This standard does not purport to address 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:

- A 262 Practices for Detecting Susceptibility to Intergranular Attack in Stainless Steels²
- A 342 Test Methods for Permeability of Feebly Magnetic Materials³
- A 380 Practice for Cleaning, Descaling, and Passivation of Stainless Steel Parts, Equipment, and Systems²
- A 555/A555M Specification for General Requirements for Stainless Steel Wire and Wire Rods²
- A 751 Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products²
- A 967 Specification for Chemical Passivation Treatments for Stainless Steel Parts²
- D 3951 Practice for Commercial Packaging⁴
- E 3 Method of Preparation of Metallographic Specimens⁵
- E 18 Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials⁵

- E 92 Test Method for Vickers Hardness Metallic Materials⁵
- E 353 Test Methods for Chemical Analysis of Stainless, Heat-Resisting, Maraging, and Other Similar Chromium-Nickel-Iron Alloys⁶
- E 384 Test Method for Microindentation Hardness of Materials⁵
- F 738M Specification for Stainless Steel Metric Bolts, Screws, and Studs⁷
- F 788/F788M Specification for Surface Discontinuities of Bolts, Screws, and Studs, Inch and Metric Series⁷
- F 880 Specification for Stainless Steel Socket-Set Screws⁷
- F 1470 Guide for Fastener Sampling for Specified Mechanical Properties and Performance Inspection⁷
- 2.2 *ASME Standard:*
 - B 18.3.6M Metric Series Socket Set Screws R⁸

3. Classification

3.1 The designation of the property class for the two materials and conditions of this specification shall be consistent with the stainless steel designations in Specification F 738M.

3.2 The austenitic stainless steel socket set screw shall be designation F 880M A1–50 or F 880M A1–70.

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 (millimetres) and point configuration. A standard part number may be used for this definition,
- 4.1.3 Name of the screw (SSS),
- 4.1.4 Property Class A1-50 or A1-70,
- 4.1.5 Coating, if required. If a finish other than passivation is required, it must be specified on the order or product standard,

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 *Annual Book of ASTM Standards*, Vol 01.03.

³ *Annual Book of ASTM Standards*, Vol 03.04.

⁴ *Annual Book of ASTM Standards*, Vol 15.09.

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

⁶ *Annual Book of ASTM Standards*, Vol 03.05.

⁷ *Annual Book of ASTM Standards*, Vol 01.08.

⁸ Available from Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112.