



Designation: A276/A276M – 17

Standard Specification for Stainless Steel Bars and Shapes¹

This standard is issued under the fixed designation A276/A276M; 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 hot-finished or cold-finished bars except bars for reforging (**Note 1**). It includes rounds, squares, and hexagons, and hot-rolled or extruded shapes, such as angles, tees, and channels in the more commonly used types of stainless steels. The free-machining types (**Note 2**) for general corrosion resistance and high-temperature service are covered in a separate specification.

NOTE 1—For bars for reforging, see Specification **A314**.

NOTE 2—For free-machining stainless bars designed especially for optimum machinability, see Specification **A582/A582M**.

NOTE 3—There are standards covering high nickel, chromium, austenitic corrosion, and heat-resisting alloy materials. These standards are under the jurisdiction of ASTM Subcommittee B02.07 and may be found in *Annual Book of ASTM Standards*, Vol. 02.04.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard. The inch-pound units shall apply unless the “M” designation of this specification is specified in the order.

2. Referenced Documents

2.1 *ASTM Standards*:²

A314 Specification for Stainless Steel Billets and Bars for Forging

A370 Test Methods and Definitions for Mechanical Testing of Steel Products

A484/A484M Specification for General Requirements for Stainless Steel Bars, Billets, and Forgings

A582/A582M Specification for Free-Machining Stainless Steel Bars

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 **A01.17** on Flat-Rolled and Wrought Stainless Steel.

Current edition approved March 15, 2017. Published March 2017. Originally approved in 1944. Last previous edition approved in 2016 as A276/A276M – 16a. DOI: 10.1520/A0276_A0276M-17.

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

A1058 Test Methods for Mechanical Testing of Steel Products—Metric

E527 Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)

2.2 *SAE Document*:³

SAE J 1086 Recommended Practice for Numbering Metals and Alloys

3. Ordering Information

3.1 It is the responsibility of the purchaser to specify all requirements that are necessary for material ordered under this specification. Such requirements may include but are not limited to the following:

- 3.1.1 Quantity (weight or number of pieces),
- 3.1.2 Name of material: stainless steel,
- 3.1.3 Form (bars, angles, and so forth),
- 3.1.4 Condition (Section **4.1**),
- 3.1.5 Finish (Section 8 of Specification **A484/A484M**),
- 3.1.6 Surface preparation of shapes (Section 8 of Specification **A484/A484M**),
- 3.1.7 Applicable dimensions including size, thickness, width, and length, l,
- 3.1.8 Cross section (round, square, and so forth),
- 3.1.9 Type or UNS designation (**Table 1**),
- 3.1.10 ASTM designation and date of issue, and
- 3.1.11 Whether bars are to be rolled as bars or cut from strip or plate.
- 3.1.12 Test for magnetic permeability when specified by customer purchase order when ordering Types 201 and 205.
- 3.1.13 Choice of testing track from the options listed in Test Methods **A1058** when material is ordered to an M suffix (SI units) product standard. If the choice of test track is not specified in the order, then the default ASTM track shall be used as noted in Test Methods **A1058**.
- 3.1.14 Supplementary requirements, and
- 3.1.15 Additional requirements.

³ Available from Society of Automotive Engineers (SAE), 400 Commonwealth Dr., Warrendale, PA 15096-0001, <http://www.sae.org>.

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