



Designation: A 529/A 529M – 034

Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality¹

This standard is issued under the fixed designation A 529/A 529M; 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 carbon-manganese steel shapes, plates, and bars of structural quality for use in riveted, bolted, or welded construction of buildings and for general structural purposes.

1.2 Material under this specification is available in two grades:

Grade	Yield Strength, ksi [MPa]	Thickness
50 [345]	50 [345]	Plates to 1 in. [25 mm] thick to 14 in. [355 mm] wide Bars to 3½ in. [90 mm] Shapes with flange or leg thickness to 1½ in. [40 mm] inclusive
55 [380]	55 [380]	Plates to 1 in. [25 mm] thick to 14 in. [355 mm] wide Bars to 3 in. [75 mm] Shapes with flange or leg thickness to 1½ in. [40 mm] inclusive

1.3 When the steel is to be welded, it is presupposed that a welding procedure suitable for the grade of steel and intended use or service will be utilized. See Appendix X3 of Specification A 6/A 6M for information on weldability.

1.4 The values stated in either inch-pound units or SI units are to be regarded as standard. Within the text, the SI units are shown in brackets. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other.

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 A01.02 on Structural Steel for Bridges, Buildings, Rolling Stock, and Ships.

Current edition approved ~~May 10, 2003~~ April 1, 2004. Published ~~July 2003~~ May 2004. Originally approved in 1964. Last previous edition approved in 20023 as A 529 – 023.

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