



Designation: A302/A302M – 03 (Reapproved 2007)

Standard Specification for Pressure Vessel Plates, Alloy Steel, Manganese- Molybdenum and Manganese-Molybdenum-Nickel¹

This standard is issued under the fixed designation A302/A302M; 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 specification² covers manganese-molybdenum and manganese-molybdenum-nickel alloy steel plates intended particularly for welded boilers and other pressure vessels.

1.2 Plates under this specification are available in four grades having different strength levels as follows:

Grade	Tensile Strength, ksi [MPa]	Type
A	75–95 [515–655]	manganese-molybdenum
B	80–100 [550–690]	manganese-molybdenum
C	80–100 [550–690]	manganese-molybdenum-nickel
D	80–100 [550–690]	manganese-molybdenum-nickel

1.3 The maximum thickness of plates is limited only by the capacity of the chemical composition to meet the specified mechanical property requirements. The minimum thickness is limited to 0.25 in. [6.5 mm].

1.4 The values stated in either inch-pound units or SI units are to be regarded separately 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. Combining values from the two systems may result in nonconformance with the specification.

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 A01.11 on Steel Plates for Boilers and Pressure Vessels.

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² For ASME Boiler and Pressure Vessel Code applications, see related Specification SA-302/SA-302M in Section II of that Code.

2. Referenced Documents

2.1 ASTM Standards:³

[A20/A20M Specification for General Requirements for Steel Plates for Pressure Vessels](#)

[A435/A435M Specification for Straight-Beam Ultrasonic Examination of Steel Plates](#)

[A577/A577M Specification for Ultrasonic Angle-Beam Examination of Steel Plates](#)

[A578/A578M Specification for Straight-Beam Ultrasonic Examination of Rolled Steel Plates for Special Applications](#)

3. General Requirements and Ordering Information

3.1 Plates supplied to this product specification shall conform to Specification [A20/A20M](#), which outlines the testing and retesting methods and procedures, permissible variations in dimensions and mass, quality and repair of defects, marking, loading, and so forth.

3.2 Specification [A20/A20M](#) also establishes the rules for ordering information that should be complied with when purchasing plates to this specification.

3.3 In addition to the basic requirements of this specification, certain supplementary requirements are available where additional control, testing, or examination is required to meet end use requirements.

³ 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.

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