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## Standard Specification for Pressure Vessel Plates, Carbon Steel, Manganese-Silicon<sup>1</sup>

This standard is issued under the fixed designation A299/A299M; 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 reappraisal. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

Note—Grades A and B were added editorially to the entry for Carbon in Table 1 and the year date changed on Feb. 2, 2004.

### 1. Scope\*

- 1.1 This specification<sup>2</sup> covers manganese-silicon carbon steel plates for use in welded boilers and other pressure vessels.
- 1.2 Plates under this specification are produced in two grades. The specified minimum ~~the~~ yield strength decreases ~~on~~for thicknesses over 1 in. [25 mm].
- 1.3 The maximum thickness of plates is limited only by the capacity of the composition to meet the specified mechanical property requirements; however, current practice normally limits the maximum thickness of plates furnished under this specification to 8 in. [200 mm].
- 1.4 For plates produced from coil and furnished without heat treatment or with stress relieving only, the additional requirements, including additional testing requirements and the reporting of additional test results, of Specification A20/A20M apply.
- 1.5 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.

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>3</sup>

- A20/A20M [Specification for General Requirements for Steel Plates for Pressure Vessels](#)—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~~, which outlines the testing and retesting methods and procedures, permitted variations in dimensions and mass, quality and repair of defects, marking, loading, and ordering information.
- 3.2 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. The purchaser is referred to the listed supplementary requirements in this specification and to the detailed requirements in Specification A20/A20M ~~also establishes the rules for the 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.~~
- 3.4 ~~The purchaser is referred to the listed supplementary requirements in this specification and to the detailed requirements in Specification A20/A20M.~~
- 3.5 ~~Coils~~ 3.3 Coils are excluded from qualification to this specification until they are processed into finished plates. Plates

<sup>1</sup> 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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<sup>2</sup> For ASME Boiler and Pressure Vessel Code applications, see related Specification SA-299/SA-299M in Section II of that Code.

<sup>3</sup> 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.