This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Designation: A20/A20M – 20

Standard Specification for General Requirements for Steel Plates for Pressure Vessels[1]

This standard is issued under the fixed designation A20/A20M; 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 general requirements specification[2] covers a group of common requirements that, unless otherwise specified in the applicable product specification, apply to rolled steel plates for pressure vessels covered by each of the following product specifications issued by ASTM:

Title of Specification	ASTM Designation[A]
Pressure Vessel Plates, Alloy Steel, Nickel	A203/A203M
Pressure Vessel Plates, Alloy Steel, Molybdenum	A204/A204M
Pressure Vessel Plates, Alloy Steel, Manganese-Vanadium-Nickel	A225/A225M
Stainless Chromium Steel-Clad Plate	A263
Stainless Chromium-Nickel Steel-Clad Plate	A264
Nickel and Nickel-Base Alloy-Clad Steel Plate	A265
Pressure Vessel Plates, Carbon Steel, Low- and Intermediate-Tensile Strength	A285/A285M
Pressure Vessel Plates, Carbon Steel, Manganese-Silicon	A299/A299M
Pressure Vessel Plates, Alloy Steel, Manganese-Molybdenum and Manganese-Molybdenum-Nickel	A302/A302M
Pressure Vessel Plates, Alloy Steel, Double-Normalized and Tempered 9 % Nickel	A353/A353M
Pressure Vessel Plates, Alloy Steel, Chromium-Molybdenum	A387/A387M
Pressure Vessel Plates, Carbon Steel, High Strength Manganese	A455/A455M
Pressure Vessel Plates, Carbon Steel, for Intermediate- and Higher-Temperature Service	A515/A515M
Pressure Vessel Plates, Carbon Steel, Moderate- and Lower-Temperature Service	A516/A516M
Pressure Vessel Plates, Alloy Steel, High-Strength, Quenched and Tempered	A517/A517M
Pressure Vessel Plates, Alloy Steel, Quenched and Tempered, Manganese-Molybdenum and Manganese-Molybdenum-Nickel	A533/A533M
Pressure Vessel Plates, Heat-Treated, Carbon-Manganese-Silicon Steel	A537/A537M
Pressure Vessel Plates, Alloy Steel, Quenched-and-Tempered, Chromium-Molybdenum, and Chromium-Molybdenum-Vanadium	A542/A542M
Pressure Vessel Plates, Alloy Steel, Quenched and Tempered Nickel-Chromium-Molybdenum	A543/A543M
Pressure Vessel Plates, Alloy Steel, Quenched and Tempered 7, 8, and 9 % Nickel	A553/A553M
Pressure Vessel Plates, Carbon Steel, Manganese-Titanium for Glass or Diffused Metallic Coatings	A562/A562M
Pressure Vessel Plates, Carbon Steel, High Strength, for Moderate and Lower Temperature Service	A612/A612M
Pressure Vessel Plates, 5 % and 5½ % Nickel Alloy Steels, Specially Heat Treated	A645/A645M
Pressure Vessel Plates, Carbon-Manganese-Silicon Steel, for Moderate and Lower Temperature Service	A662/A662M
Pressure Vessel Plates, Carbon-Manganese-Silicon Steel, Quenched and Tempered, for Welded Pressure Vessels	A724/A724M
Pressure Vessel Plates, Low-Carbon Age-Hardening Nickel-Copper-Chromium-Molybdenum-Columbium (Niobium) Alloy Steel	A736/A736M
Pressure Vessel Plates, High-Strength Low-Alloy Steel	A737/A737M
Pressure Vessel Plates, Heat-Treated, Carbon-Manganese-Silicon Steel, for Moderate and Lower Temperature Service	A738/A738M
Pressure Vessel Plates, Alloy Steel, Chromium-Molybdenum-Vanadium	A832/A832M
Steel Plates for Pressure Vessels, Produced by Thermo-Mechanical Control Process (TMCP)	A841/A841M
Steel Plates, 9 % Nickel Alloy, for Pressure Vessels, Produced by the Direct-Quenching Process	A844/A844M
Pressure Vessel Plates, Alloy Steel, Chromium-Molybdenum-Tungsten	A1017/A1017M

[A] These designations refer to the latest issue of the respective specification which appears in the *Annual Book of ASTM Standards*, Vol 01.04.

1.1.1 This general requirements specification also covers a group of supplementary requirements that are applicable to several of the above product specifications as indicated therein. Such requirements are provided for use if additional testing or additional restrictions are required by the purchaser, and apply only if specified individually in the purchase order.

1.2 Appendix X1 provides information on coil as a source of plates for pressure vessels.

1.3 Appendix X2 provides information on the variability of tensile properties in plates for pressure vessels.

1.4 Appendix X3 provides information on the variability of Charpy-V-Notch impact test properties in plates for pressure vessels.

[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-20/SA-20M in Section II of that Code.

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

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