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Designation: A 781/A 781M – 01

An American National Standard

Standard Specification for Castings, Steel and Alloy, Common Requirements, for General Industrial Use[1]

This standard is issued under the fixed designation A 781/A 781M; 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.

1. Scope

1.1 This specification covers a group of requirements that are mandatory requirements of the following steel casting specifications issued by ASTM. If the product specification specifies different requirements, the product specification shall prevail.

ASTM Designation	Title of Specification
A 27/A 27M	Steel Castings, Carbon, for General Application
A 128/A 128M	Steel Castings, Austenitic Manganese
A 148/A 148M	Steel Castings, High-Strength, for Structural Purposes
A 297/A 297M	Steel Castings, Iron Chromium and Iron-Chromium-Nickel, Heat Resistant for General Application
A 447/A 447M	Steel Castings, Chromium-Nickel-Iron Alloy (25-12 Class), for High-Temperature Service
A 486/A 486M	Steel Castings, for Highway Bridges
A 494/A 494M	Castings, Nickel and Nickel Alloy
A 560/A 560M	Castings, Chromium-Nickel Alloy
A 743/A 743M	Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application
A 744/A 744M	Castings, Iron-Chromium-Nickel, Corrosion Resistant, for Severe Service
A 747/A 747M	Steel Castings, Stainless, Precipitation Hardening
A 890/A 890M	Castings, Iron-Chromium-Nickel-Molybdenum Corrosion-Resistant, Duplex (Austenitic/Ferritic) for General Application
A 915/A 915M	Steel Castings, Carbon and Alloy, Chemical Requirements Similar to Standard Wrought Grades

1.2 This specification also covers a group of supplementary requirements that may be applied to the above specifications as indicated therein. These are provided for use when additional testing or inspection is desired and apply only when specified individually by the purchaser in the order.

1.3 The requirements of the individual material specification, and this general specification shall prevail in the sequence named.

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. Inch-pound units are applicable for material ordered to Specification A 781 and SI units for material ordered to Specification A 781M.

2. Referenced Documents

2.1 *ASTM Standards:*

A 27/A27M Specification for Steel Castings, Carbon, for General Application[2]

A 128/A128M Specification for Steel Castings, Austenitic Manganese[2]

A 148/A148M Specification for Steel Castings, High Strength, for Structural Purposes[2]

A 297/A297M Specification for Steel Castings, Iron-Chromium and Iron-Chromium-Nickel, Heat Resistant, for General Application[2]

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products[3]

A 380 Practice for Cleaning, Descaling, and Passivation of Stainless Steel Parts, Equipment, and Systems[3]

A 447/A 447M Specification for Steel Castings, Chromium-Nickel-Iron Alloy (25-12 Class), for High-Temperature Service[2]

A 486/A 486M Specification for Steel Castings for Highway Bridges[2]

A 488/A 488M Practice for Steel Castings, Welding, Qualifications of Procedures and Personnel[2]

A 494/A 494M Specification for Castings, Nickel and Nickel Alloy[2]

A 560/A 560M Specification for Castings, Chromium-Nickel Alloy[2]

A 609/A 609M Practice for Castings, Carbon, Low-Alloy, and Martensitic Stainless Steel, Ultrasonic Examination Thereof[2]

A 743/A 743M Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion-Resistant, for General Application[2]

A 744/A 744M Specification for Castings, Iron-Chromium-Nickel, Corrosion Resistant, for Severe Service[2]

A 747/A 747M Specification for Steel Castings, Stainless, Precipitation Hardening[2]

[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 A01.18 on Castings.

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[2] *Annual Book of ASTM Standards*, Vol 01.02.

[3] *Annual Book of ASTM Standards*, Vol 01.03.

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