



Standard Specification for Common Requirements for Iron Castings for General Industrial Use¹

This standard is issued under the fixed designation A 834; 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 when used in conjunction with the following iron casting specifications issued by ASTM:

ASTM Specification²

A47
A48
A197
A220
A278
A319
A395
A436
A439
A 518
A 532
A536
A571
A 823
A 842
A 874
A 897

1.2 This specification also covers a group of supplementary requirements which may be applied to the above specifications as indicated herein. 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 inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:

- A 47 Specification for Ferritic Malleable Iron Castings²
- A 48 Specification for Gray Iron Castings²
- A 197 Specification for Cupola Malleable Iron²
- A 220 Specification for Pearlitic Malleable Iron²
- A 247 Test Method for Evaluating the Microstructure of Graphite in Iron Castings²

- A 278 Specification for Gray Iron Castings for Pressure-Containing Parts for Temperatures Up to 650°F²
- A 319 Specification for Gray Iron Castings for Elevated Temperatures for Non-Pressure Containing Parts²
- A 395 Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures²
- A 436 Specification for Austenitic Gray Iron Castings²
- A 439 Specification for Austenitic Ductile Iron Castings²
- A 518 Specification for Corrosion-Resistant High-Silicon Iron Castings²
- A 532 Specification for Abrasion-Resistant Cast Irons²
- A 536 Specification for Ductile Iron Castings²
- A 571 Specification for Austenitic Ductile Iron Castings for Pressure-Containing Parts Suitable for Low-Temperature Service²
- A 644 Terminology Relating to Iron Castings²
- A 802/A802M Practice for Steel Castings, Surface Acceptance Standards, Visual Examination²
- A 823 Specification for Statically Cast Permanent Mold Gray Iron Castings²
- A 842 Specification for Compacted Graphite Iron Castings²
- A 874 Specification for Ferritic Ductile Iron Castings for Low-Temperature Service²
- A 897 Specification for Austempered Ductile Iron Castings²
- A 919 Terminology Relating to Heat Treatment of Metals²
- E 8 Test Methods for Tension Testing of Metallic Materials³
- E 10 Test Method for Brinell Hardness of Metallic Materials³
- E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁴
- E 30 Test Methods for Chemical Analysis of Steel, Cast Iron, Open-Hearth Iron, and Wrought Iron⁵
- E 59 Practice for Sampling Steel and Iron for Determination of Chemical Composition⁵
- E 94 Guide for Radiographic Testing⁶
- E 165 Test Method for Liquid Penetrant Examination⁶
- E 351 Test Methods for Chemical Analysis of Cast Iron—All Types⁵
- E 689 Reference Radiographs for Ductile Iron Castings⁶
- E 709 Guide for Magnetic Particle Examination⁶

¹ This specification is under the jurisdiction of ASTM Committee A-4 on Iron Castings and is the direct responsibility of Subcommittee A04.01 on Gray Iron Castings.

Current edition approved Oct. 10, 1995. Published December 1995. Originally published as A 834 – 84. Last previous edition A 834 – 94.

² Annual Book of ASTM Standards, Vol 01.02.

³ Annual Book of ASTM Standards, Vol 03.01.

⁴ Annual Book of ASTM Standards, Vol 14.02.

⁵ Annual Book of ASTM Standards, Vol 03.05.

⁶ Annual Book of ASTM Standards, Vol 03.03.