



Standard Specification for Centrifugally Cast Ferritic/Austenitic Stainless Steel Pipe for Corrosive Environments¹

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1. Scope *

1.1 This specification covers centrifugally cast ferritic/austenitic steel pipe intended for general corrosive service. These steels are susceptible to embrittlement if used for prolonged periods at elevated temperatures.

1.2 Optional supplementary requirements are provided when additional testing may be required.

1.3 The values stated in either inch-pound units or SI units are to be regarded separately as standard. Within the text, SI units are shown in brackets. The values stated in each system are not exact equivalents; therefore, each system must be used independently of each other. Combining values from the two systems may result in nonconformance with the specification.

2. Referenced Documents

2.1 ASTM Standards:

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products²

A 488/A 488M Practice for Steel Castings, Welding, Qualification of Procedures and Personnel³

A 530/A 530M Specification for General Requirements for Specialized Carbon and Alloy Steel Pipe⁴

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁵

E 94 Guide for Radiographic Examination⁶

E 165 Test Method for Liquid Penetrant Examination⁶

E 186 Reference Radiographs for Heavy-Walled (2 to 4½-in. [51 to 114-mm]) Steel Castings⁶

E 280 Reference Radiographs for Heavy-Walled (4½ to 12-in. [114 to 305-mm]) Steel Castings⁶

E 340 Test Method for Macroetching Metals and Alloys⁷
E 426 Practice for Electromagnetic (Eddy-Current) Examination of Seamless and Welded Tubular Products, Austenitic Stainless Steel and Similar Alloys⁶
E 446 Reference Radiographs for Steel Castings up to 2 in. [51 mm] in Thickness⁶

2.2 *ASME Boiler and Pressure Vessel Code:*
Section IX Welding Qualifications⁸

2.3 *ASTM Adjuncts:*

Adjunct E 186 Reference Radiographs—Transparencies in Ringbinders, 3 Volumes⁹

Adjunct E 280 Reference Radiographs—Transparencies in Ringbinders, 2 Volumes¹⁰

Adjunct E 446 Reference Radiographs—Transparencies in Ringbinders, 3 Volumes¹¹

3. Ordering Information

3.1 Orders for material to this specification shall include the following, as required, to describe the desired material adequately.

3.1.1 Quantity (feet [metres] or number of lengths),

3.1.2 Name of material (centrifugally cast ferritic/austenitic steel pipe),

3.1.3 Grade (Table 1),

3.1.4 Size (outside or inside diameter and minimum wall thickness in inches [millimetres]),

3.1.5 Length (specific or random, Specification A 530/A 530M),

3.1.6 End finish of Specification A 530/A 530M,

3.1.7 Optional Requirements (S1 through S6),

3.1.8 Test report required (Section 12), and

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 01.03.

³ *Annual Book of ASTM Standards*, Vol 01.02.

⁴ *Annual Book of ASTM Standards*, Vol 01.01.

⁵ *Annual Book of ASTM Standards*, Vol 14.02.

⁶ *Annual Book of ASTM Standards*, Vol 03.03.

⁷ *Annual Book of ASTM Standards*, Vol 03.01.

⁸ Available from American Society of Mechanical Engineers (ASME International), Three Park Ave., New York, NY 10016-5990.

⁹ Available from ASTM International Headquarters. Request RRE018601 for Vol I, RRE018602 for Vol II, and RRE018603 for Vol III.

¹⁰ Available from ASTM International Headquarters. Request for RRE028001 Vol I and RRE028002 for Vol II.

¹¹ Available from ASTM International Headquarters. Request for RRE044601 Vol I, RRE044602 for Vol II, and RRE044603 for Vol III.