



Designation: A 426 – 92 (Reapproved 2002)

An American National Standard

Standard Specification for Centrifugally Cast Ferritic Alloy Steel Pipe for High-Temperature Service¹

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1. Scope

1.1 This specification² covers centrifugally cast alloy steel pipe intended for use in high-temperature, high-pressure service.

1.2 Several grades of ferritic steels are covered. Their compositions are given in Table 1.

1.3 Supplementary Requirements S1 through S12 are provided. The supplementary requirements provide for additional tests of an optional nature and when desired shall be so stated in the order (Section 4).

1.4 The values stated in inch-pound units are to be regarded as the standard.

2. Referenced Documents

2.1 ASTM Standards:

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products³

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

A 609/A 609M Practice for Castings, Carbon, Low-Alloy, and Martensitic Stainless Steel, Ultrasonic Examination Thereof⁵

E 44 Definitions of Terms Relating to Heat Treatment of Metals⁵

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 Castings^{5,6}

E 208 Test Method for Conducting Drop-Weight Test to Determine Nil-Ductility Transition Temperature of Ferritic Steels⁷

E 280 Reference Radiographs for Heavy-Walled (4½ to

12-in. (114 to 305-mm)) Steel Castings^{5,6}

E 446 Reference Radiographs for Steel Castings Up to 2 in. (51 mm) in Thickness^{5,6}

E 709 Practice for Magnetic Particle Examination⁶

2.2 ANSI Standard:

B46.1 Surface Texture⁸

2.3 ASME Boiler and Pressure Vessel Code: Section IX Welding Qualifications⁹

3. Ordering Information

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

3.1.1 Quantity (feet, centimetres, or number of lengths),

3.1.2 Name of material (centrifugally cast pipe),

3.1.3 Specification number,

3.1.4 Grade (Table 1),

3.1.5 Size (outside or inside diameter and minimum wall thickness),

3.1.6 Length (specific or random) (Section on Permissible Variation in Length of Specification A 530/A 530M),

3.1.7 End finish (Section on Ends of Specification A 530/A 530M),

3.1.8 Optional Requirements S1 through S12 and Section 14.1,

3.1.9 Test report required (Section on Certification of Specification A 530/A 530M),

3.1.10 Service temperature if over 1000°F (540°C) (Note 1), and

3.1.11 Special requirements or additions to specification.

4. General Requirements for Delivery

4.1 Material furnished under this specification shall conform to the applicable requirements of the current edition of Specification A 530/A 530M unless otherwise provided herein.

5. Materials and Manufacture

5.1 *Heat-Treatment*—The pipe shall be furnished in the normalized and tempered or liquid-quenched and tempered

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 For ASME Boiler and Pressure Vessel Code applications see related Specification SA-426 in Section II of that Code.

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

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

⁵ *Annual Book of ASTM Standards*, Vol 01.02.

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

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

⁸ Available from American National Standards Institute, 25 W. 43rd St., 4th Floor, New York, NY 10036.

⁹ Available from American Society of Mechanical Engineers (ASME), Three Park Ave., New York, NY 10016–5990.