



## Standard Specification for Centrifugally Cast Ferritic Alloy Steel Pipe for High- Temperature Service<sup>1</sup>

This standard is issued under the fixed designation A 426/A 426M; 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<sup>2</sup> 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 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 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 Products<sup>3</sup>

A 530/A 530M Specification for General Requirements for Specialized Carbon and Alloy Steel Pipe<sup>4</sup>

A 609/A 609M Practice for Castings, Carbon, Low-Alloy, and Martensitic Stainless Steel, Ultrasonic Examination Thereof<sup>5</sup>

E 44 Definitions of Terms Relating to Heat Treatment of Metals<sup>5</sup>

E 94 Guide for Radiographic Examination<sup>6</sup>

E 165 Test Method for Liquid Penetrant Examination<sup>6</sup>

E 186 Reference Radiographs for Heavy-Walled (2 to 4½-in. [51 to 114-mm]) Steel Castings<sup>6</sup>

E 208 Test Method for Conducting Drop-Weight Test to Determine Nil-Ductility Transition Temperature of Ferritic Steels<sup>7</sup>

E 280 Reference Radiographs for Heavy-Walled (4½ to 12-in. [114 to 305-mm]) Steel Castings<sup>6</sup>

E 446 Reference Radiographs for Steel Castings Up to 2 in. [51 mm] in Thickness<sup>6</sup>

E 709 Practice for Magnetic Particle Examination<sup>6</sup>

#### 2.2 ANSI Standard:

B46.1 Surface Texture<sup>8</sup>

#### 2.3 ASME Boiler and Pressure Vessel Code: Section IX Welding Qualifications<sup>9</sup>

### 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

<sup>1</sup> 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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<sup>2</sup> For ASME Boiler and Pressure Vessel Code applications see related Specification SA-426 in Section II of that Code.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 01.03.

<sup>4</sup> *Annual Book of ASTM Standards*, Vol 01.01.

<sup>5</sup> *Annual Book of ASTM Standards*, Vol 01.02.

<sup>6</sup> *Annual Book of ASTM Standards*, Vol 03.03.

<sup>7</sup> *Annual Book of ASTM Standards*, Vol 03.01.

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

<sup>9</sup> Available from American Society of Mechanical Engineers (ASME), Three Park Ave., New York, NY 10016-5990.

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