



Designation: A 266/A 266M – 99

Standard Specification for Carbon Steel Forgings for Pressure Vessel Components¹

This standard is issued under the fixed designation A 266/A 266M; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification² covers four grades of carbon steel forgings for boilers, pressure vessels, and associated equipment.

NOTE 1—Designations have been changed as follows:

Current	Formerly
Grade 1	Class 1
Grade 2	Class 2
Grade 3	Class 3
Grade 4	Class 4

1.2 Supplementary requirements are provided for use when additional testing or inspection is desired. These shall apply only when specified individually by the purchaser in the order.

1.3 The values stated in either inch-pound units or SI (metric) units are to be regarded separately as the standard. Within the text and tables, 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.

1.4 Unless the order specifies the applicable “M” specification designation, the material shall be furnished to the inch-pound units.

2. Referenced Documents

2.1 ASTM Standards:

A 275/A 275M Test Method for Magnetic Particle Examination of Steel Forgings³

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products⁴

A 788 Specification for Steel Forgings, General Requirements³

¹ This specification is under the jurisdiction of ASTM Committee A-1 on Steel, Stainless Steel, and Related Alloys and is the direct responsibility of Subcommittee A01.06 on Steel Forgings and Billets.

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² For ASME Boiler and Pressure Vessel Code applications, see related Specification SA–266/ SA–266M in Section II of that code.

³ *Annual Book of ASTM Standards*, Vol 01.05.

⁴ *Annual Book of ASTM Standards*, Vol 01.03.

E 112 Test Methods for Determining the Average Grain Size⁵

E 165 Test Method for Liquid Penetrant Examination⁶

E 381 Method of Macroetch Testing Steel Bars, Billets, Blooms, and Forgings⁵

2.2 Other Standard:

ASME Boiler and Pressure Vessel Code, Section IX, Welding Qualifications⁷

3. Ordering Information and General Requirements

3.1 In addition to the ordering information required by Specification A 788, the purchaser shall include with the inquiry and order a detailed drawing, sketch, or written description of the forging.

3.2 Material supplied to this specification shall conform to the requirements of Specification A 788, which outlines additional ordering information, manufacturing requirements, testing and retesting methods and procedures, marking, certification, product analysis variations, and additional supplementary requirements.

3.3 If the requirements of this specification are in conflict with the requirements of Specification A 788, the requirements of this specification shall prevail.

4. Materials and Manufacture

4.1 The steel shall be made in accordance with the Melting Process Section of Specification A 788. A sufficient discard shall be made to secure freedom from injurious pipe and undue segregation.

4.2 The material shall be forged as close as practical to the specified shape and size.

4.3 The finished product shall be a hot-worked forging as defined by Specification A 788.

⁵ *Annual Book of ASTM Standards*, Vol 03.01.

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

⁷ Available from the American Society of Mechanical Engineers, 345 East 47th St., New York, NY 10017.