



Designation: A 707/A 707M – 00a2

An American National Standard

Standard Specification for Forged Carbon and Alloy Steel Flanges for Low- Temperature Service¹

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1. Scope*

1.1 This specification covers forged carbon and alloy steel flanges intended primarily for petroleum and gas pipelines in areas subject to low ambient temperatures. Included are flanges to specified dimensions or to dimensional standards such as those MSS, ASME, and API specifications that are referenced in Section 2.

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

1.3 Eight grades, four yield-strength classes, and three different notch toughness levels are included.

1.4 The availability of a particular size of flange of a specific grade and class is limited only by the capability of the composition to meet the specified mechanical property requirements. However, current practice normally limits the following:

- (a) ~~(a)~~ Grade L1 to Classes 1 and 2,
- (b) ~~(b)~~ Grade L2 to Classes 1, 2, and 3,
- (c) ~~(c)~~ Grade L3 to Classes 1, 2, and 3,
- (d) ~~(d)~~ Grade L4 to Classes 1, 2, and 3,
- (e) ~~(e)~~ Grade L7 to Classes 1 and 2, and
- (f) ~~(f)~~ Grades L5, L6, and L8 are generally available in any class.

1.5 This specification is expressed in both inch-pound units and in SI units. However, unless the order specifies the applicable “M” specification designation (SI units), the material shall be furnished to inch-pound units.

1.6 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 the other. Combining values from the two systems may result in nonconformance with the specification.

2. Referenced Documents

2.1 In addition to those reference documents listed in Specification A 961, the following list of standards apply to this specification:

2.2 *ASTM Standards:*

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 A01.22 on Steel Forgings and Wrought Fittings for Piping Applications and Bolting Materials for Piping and Special Purpose Applications.

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