



ASTM A182/A182M-10

Standard Specification forged or Rolled Alloy and Stainless Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service¹

1. Scope :-

- 1.1 This specification covers forged low alloy and stainless steel piping components for use in pressure system. Included are flanges, fittings, valves, and similar parts to specified dimensional standards, such as the ASME specifications that are referenced in section 2.
- 1.2 For bars and products machined directly from bar (other than those directly addressed by this specification; see 6.4), refer to specifications A479/A479 M and A739 for the similar grades available in those specifications. Products made to this specification are limited to a maximum weight of 10000 lb [4540 kg]. For larger products for other application, refer to specifications A336/A336M and A965/A965M for the similar ferritic and austenitic grades, respectively, available in those specifications.
- 1.3 Several grades of low alloy steels and ferritic, martensitic, austenitic, and ferritic-austenitic stainless steels are included in this specification. Selection will depend upon design and service requirements. Several of the ferritic/austenitic (duplex) grades are also found in specification A1049/A1049M.
- 1.4 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.
- 1.5 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 SI units or inch-pound units are to be regarded separately as the standard. Within the text, the SI units are shown in brackets. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two system may result in non-conformance with the standard.

2. Referenced Documents :-

- 2.1 In addition to the referenced documents listed in specification A961/A961M, the following list of standards apply to this specification.
- 2.2 ASTM Standards :-
 - A262 practices for detecting susceptibility to inter granular attack in Austenitic Stainless Steels
 - A275/A275M Practice for magnetic Examination of Steel forgings
 - A336/A336M specification for alloy steel forgings for pressure and high-temperature parts
 - A370 test methods and definitions for mechanical testing of steel products
 - A479/A479M specification for stainless steel bars and shapes for use in boilers and shapes for use in boiler and other pressure vessels
 - A484/A484M specification for general requirements for stainless steel bars, billers, and forgings
 - A739 specification for steel bar, alloy, hot-wrought, for elevated temperature or pressure-containing parts, or both