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The SI (metric) units and U.S. customary units in this Standard Practice are regarded separately as the standard; each should be used independently of the other. Combining or converting values between the two systems may result in non-conformance with this Standard Practice.

Substantive changes in this 2012 edition are “flagged” by parallel bars as shown on the margins of this paragraph. The specific detail of the change may be determined by comparing the material flagged with that in the previous edition.

Non-toleranced dimensions in this Standard Practice are nominal, and, unless otherwise specified, shall be considered “for reference only”.

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FOREWORD

The subject matter of this Standard Practice was formerly a part of MSS SP-42, *Corrosion Resistant Cast Flanged Valves, Flanges and Flanged Fittings*. MSS SP-42 now covers valves only.

The 1978 revision of this Standard Practice was delayed beyond the normal review interval in consideration of extensive revisions being developed for SP-42. Following publication of the re-written SP-42-1978, in which the flange thickness for most sizes were made the same as those in ANSI B16.5 Class 150, it was determined that a commercial need remained for flanges and flanged fittings of reduced weight, and that this standard should continue to serve that need. The committee decided, however, that pressure-temperature ratings should be reduced to limit pressure stresses to levels consistent with those applied in ANSI B16.5 Class 150 flanges. While pressure stresses are generally less significant than bolting and piping stresses in these flanges, the new ratings, in combination with the gasket selection recommended herein, serve to limit the assembly bolting loads required. It is intended that the reduction in ratings should substantially reduce the likelihood of misapplication of these flanges and fittings.

The 1982 and 1986 revisions of this Standard Practice were required to update the referenced standards list in Section 2.

The 1991 revision of this Standard Practice was required to update the referenced standards list and delete the metric equivalents.

The 1995 reaffirmed edition of this Standard Practice was required to update the referenced standards list and reaffirm the document.

The 2000 revision of this Standard Practice was required to incorporate standard metric dimensions, include forged and plate materials for flanges, and update referenced standards.

The 2003 revision of this Standard Practice was made to incorporate larger sizes of flanges and fittings (NPS 14, 16, 18, 20, and 24) to accommodate the needs of the user community.

The 2007 revision of this Standard Practice was made to correct some dimensions and to update the referenced standards.

The 2012 revision of this Standard Practice was made to update the referenced standards (e.g., Section 7 and Annex A), clarify markings in Section 8.1(e), and various editorial and conforming changes.

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