ANSI/MSS SP-25-2018

Standard Marking System for Valves, Fittings, Flanges, and Unions

Standard Practice
Developed and Approved by the
Manufacturers Standardization Society of the
Valve and Fittings Industry, Inc.
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This MSS Standard Practice was developed under the consensus of the MSS Technical Committee 302, *Marking and Terminology,* and the MSS Coordinating Committee. In addition, this Standard Practice was approved by an ANSI/MSS Consensus Committee and ANSI as a revised American National Standard. The content of this Standard Practice is the resulting efforts of competent and experienced volunteers to provide an effective, clear, and non-exclusive standard that will benefit the industry as a whole. This MSS Standard Practice describes minimal requirements and is intended as a basis for common practice by the manufacturer, the user, and the general public. The existence of an MSS Standard Practice does not in itself preclude the manufacture, sale, or use of products not conforming to the Standard Practice. Mandatory conformance to this Standard Practice is established only by reference in other documents such as a code, specification, sales contract, or public law, as applicable. MSS has no power, nor does it undertake, to enforce or certify compliance with this document. Any certification or other statement of compliance with the requirements of this Standard Practice shall not be attributable to MSS and is solely the responsibility of the certifier or maker of the statement.

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For all MSS Standard Practices, the term "shall" means "must" and "shall not" means "must not".

In this Standard Practice, all text, notes, annexes, tables, figures, and references are construed to be "normative" and essential to understand the standard's message. All appendices, footnotes, or other information denoted as "supplemental", that may be included within this Standard Practice, DO NOT include mandatory or normative requirements.

U.S. customary units in this Standard Practice are the standard; the SI (metric) units are for reference only.

> **This Standard Practice has been substantively revised from the previous 2013 edition. It is suggested that if the user is interested in knowing what changes have been made, that a direct page by page comparison should be made of this document and that of the previous edition.**

Non-toleranced dimensions in this Standard Practice are nominal unless otherwise specified. For the purposes of this Standard Practice, the term "shall" means "must" and "shall not" means "must not".

Originally Approved: July 1934
Originally Published: July 1935
Current Edition Approved by MSS: July 2017
Current Edition Approved by ANSI: March 2018
Current Edition Published: September 2018

FOREWORD

The original publication of the Standard Marking System was developed by MSS in 1934. It stated the basic rules but was considered to need more details for general use. A second edition was therefore prepared with additional details and examples and was published in 1936.

The third edition, published in 1954, recognized the use of new materials, increased operating temperatures and pressures, and added more examples of markings for regular products.

In 1958, the fourth edition incorporated relatively minor changes and updates; including some additional marking examples.

For the fifth edition, published in 1960, the format was revised to permit the use of nameplates on valve bodies. In addition, this version added requirements for the marking of ductile iron products.

The sixth edition, published in 1964, broadened the scope of this marking standard and revised the examples and sections of the text to reflect changes in piping requirements.

The seventh edition, published in 1978, was substantially revised and re-written to simplify its cross references and to improve readability. This edition incorporated the marking features of pressure-temperature marking designations contained in existing American National Standards involving products and materials. It was also rearranged so that the General Rules were stated in Sections 1 through 11 and amplified in Sections 12 through 18; which gave specific rules and examples of marking requirements relating to various products and materials.

In 1993, the eighth edition incorporated relatively minor changes and updates; including minor revisions required to harmonize this document with then-current MSS Standard Practices.

The tenth edition, published in 2008, included revisions to ASME B16.34 example markings and mandatory MSS conformance markings, in addition to clarifications of other general requirements.

The eleventh edition, published in 2013, included new Annexes for Reference Tables and Marking Requirement Examples, the addition of laser marking techniques and country of origin marking, substantial revision and re-formatting to update the document text and tables, and other revisions to provide clarification as warranted. The 2013 edition was also approved as an American National Standard.

With this twelfth edition, published in 2018, SP-25 observes over 83 years of providing the industry with standardized marking guidance. This twelfth edition includes a new section involving products with rating designations which are constant throughout a specified temperature range; revised requirements involving the marking of a manufacturer's name, trademark, logo, or symbol; revised two material designation subsections involving standard references for marking nameplates and bodies; updated Tables 1 and 2 involving examples of common symbols for metallic/non-metallic materials; updated terminology; included supplemental material designations (e.g., Bismuth, Bismuth-Selenium, and Silicon) for certain non-ferrous flanges, flanged fittings, and flanged unions; updated Annex B to include many revised and new examples; updated and revised Annex C references; and other revisions to provide clarification as warranted. It was also agreed for the next revision to consider markings for MSS SP-44 flanges and ASME B16.36 orifice flanges. This 2018 revised American National Standard edition was ANSI-approved after being substantively revised, reformatted, and approved by MSS, then submitted unpublished to the ANSI balloting and approval process.

Manufacturers Standardization Society of the Valve and Fittings Industry, Inc.

"The Technical Voice of the Industry for Over 99 Years"

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ERRATA SHEET FOR MSS SP-25-2018 (*Standard Marking System for Valves, Fittings, Flanges, and Unions*)

March 21, 2023

This "normative" errata correction applies to MSS SP-25-2018 edition (current).

NOTE THE FOLLOWING CORRECTIONS:

- **Page 21, Annex B,** ***Marking Requirements for B13.7.3***. Correct the data for Material Designation, "F1, ASTM182, B16, or WP1" to read "F1, ASTM A182, or WP1".
- **Page 23, Annex B,** ***Marking Requirements for B14.1.2***. Correct the data for Material Designation, "WPB" to read "A105".
- **Page 23, Annex B,** ***Marking Requirements for B14.1.3***. Correct the data for Material Designation, "WPB" to read "A182 F1". No other corrections.

This Errata Sheet is intended for those who obtained the Standard Practice before the March 21, 2023 errata publication date indicated above or otherwise do not already have this information. Please include this Errata Sheet within your existing 2018 edition of the Standard Practice.

Future editions of this Standard Practice will include this corrected information.

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MSS Standard Practices (SPs) related to or referenced in this publication:

MSS SP-43	***Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation***
MSS SP-75	***High-Strength, Wrought, Butt-Welding Fittings***
MSS SP-83	***Class 3000 and 6000 Pipe Unions, Socket Welding and Threaded (Carbon Steel, Alloy Steel, Stainless Steels, and Nickel Alloys)***
ANSI/MSS SP-96	***Terminology for Valves, Fittings, and Their Related Components***
MSS SP-104	***Wrought Copper, Solder-Joint Pressure Fittings***
ANSI/MSS SP-114	***Corrosion Resistant Pipe Fittings Threaded and Socket Welding Class 150 and 1000***

American National Standards Published by MSS, an ANSI-accredited Standards Developer:

ANSI/MSS SP-25	***Standard Marking System for Valves, Fittings, Flanges, and Unions***
ANSI/MSS SP-44	***Steel Pipeline Flanges***
ANSI/MSS SP-55	***Quality Standard for Steel Castings for Valves, Flanges, Fittings, and Other Piping Components – Visual Method for Evaluation of Surface Irregularities***
ANSI/MSS SP-58	***Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation***
ANSI/MSS SP-96	***Terminology for Valves, Fittings, and Their Related Components***
ANSI/MSS SP-114	***Corrosion Resistant Pipe Fittings Threaded and Socket Welding Class 150 and 1000***
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About MSS

The Manufacturers Standardization Society (MSS) of the Valve and Fittings Industry is a non-profit technical association organized for development and improvement of industry, national and international codes and standards for Valves, Valve Actuators, Valve Modifications, Pipe Fittings, Flanges, Pipe Hangers and Supports, and Associated Seals. Since its establishment in 1924, MSS has been dedicated to developing standards for national and global applications, in cooperation with other standardizing bodies and regulatory authorities. **MSS is an American National Standards Institute (ANSI)-accredited standards developer.**

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