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.
127 Park Street, NE
Vienna, Virginia 22180-4602
Phone: (703) 281-6613
Fax: (703) 281-6671
E-mail: standards@mss-hq.org
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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 was published in 2008 and included revisions to ASME B16.34 example markings and mandatory MSS conformance markings, in addition to clarifications of other general requirements.

This eleventh edition, published in 2013, includes 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. This 2013 edition has been approved as an American National Standard.
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1. **SCOPE**

1.1 This standard marking system applies to valves, fittings, flanges, and unions used in piping connections which include (but are not limited to) flanged, soldered, brazed, threaded, or welded joints.

1.2 The markings specified within this Standard Practice serve to identify the manufacturer, the rating designation, materials of construction, and special service limitations imposed by the manufacturer. They are used for product identification and to assist in proper application.

2. **GENERAL MARKING REQUIREMENTS**

2.1 Each product, of a size and shape permitting legible marking, shall be marked in accordance with the provisions of this Standard Practice.

2.2 Markings shall be applied to the body of valves, fittings, and the nut of unions, or on an identification plate. For quarter-turn valves, markings shall be applied to the body, identification plate, or handle. Markings on covered quarter-turn valve handles may not be integral with the base handle material.

2.3 Markings shall consist of numerals, letters, or symbols that are cast, forged, stamped, electro-etched, vibro-etched, laser-etched, or otherwise made integral with the product, or as markings on an identification plate attached to the product, or both. Where stamping is used on pressure containing walls, low stress stamps which produce a round bottom impression shall be used; such low stress stamps are not required on flanged edges or on raised pads provided for marking purposes.

2.4 Markings indicating conformance with recognized documents, such as the ASME Boiler and Pressure Vessel Codes, or applicable API, FM, and UL conformance, testing, and/or certification requirements, may be applied only by authorized, licensed, or approved manufacturers.

Such markings shall be applied only to products fully conforming to the applicable qualification, conformance, and/or certification requirements and may be shown on the body or an attached plate, at the option of the manufacturer.

2.5 Manufacturers may apply markings indicating conformance with codes and standards such as API, ASME, ASTM, AWWA, and MSS, on products that fully conform to the standards. Certain codes and standards specify mandatory product conformance markings and methods. Such markings may be shown on the body, on an attached plate, or as otherwise specified.

2.6 International and Federal commerce laws may require marking of finished products with country of origin. When required, the markings shall be conspicuous and positioned to prevent concealment during use.

2.7 Flow or pressure indication shall be marked on unidirectional valves. Commonly used markings include arrows or the words “inlet” or “outlet” or “high pressure side” marked at an appropriate end.

2.8 Nothing in this Standard Practice shall be construed as prohibiting the use of additional markings such as catalog reference numbers, pattern numbers, patent numbers, dates, customer specification numbers, etc. Product markings that indicate special designs, particular requirements, or special limitations, should also carry additional special marking to distinguish them from regularly available and standard products. All additional markings shall be applied in such a manner as to avoid confusion with standardized symbols or markings.

3. **MANUFACTURER’S NAME OR TRADEMARK**

All valves, fittings, flanges, and unions shall be marked with the manufacturer’s (Mfr’s) name, trademark, or symbol, unless size or shape does not permit.