

MSS SP-55
2025 Edition



Quality Standard for Iron and Steel Castings for Valves, Flanges, Fittings, and Other Piping Components

Visual Method for Evaluation of Surface Irregularities

Inspection Version

Standard Practice developed and approved by
the Manufacturers Standardization Society of
the Valve and Fittings Industry, Inc.

The Technical Voice of the Industry®

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Manufacturers Standardization Society

OF THE VALVE AND FITTINGS INDUSTRY

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This Standard Practice has been substantially revised from the previous 2011 edition. It is suggested that if the user is interested in knowing what changes have been made, that direct page by page comparison should be made of this document and that of the previous edition.

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Foreword

The MSS SP-55, Quality Standard for Steel Castings for Valves, Flanges, Fittings, and Other Piping Components – Visual Method for Evaluation of Surface Irregularities, was originally adopted in 1961. It was developed for the purpose of providing the industry with a uniform means for identifying various types of casting surface irregularities.

A set of 60 reference photographs illustrating these casting surface irregularities is included in this Standard Practice to permit a visual comparison of an actual casting surface with the reference photographs for the purpose of establishing acceptable/unacceptable casting surface irregularities.

The format of this Standard Practice was revised in 1996 to be consistent with other MSS Standard Practices.

The 2006 revised edition included updates in the referenced standards, Annex A, to reflect current applicable dates and the updated addresses of the referenced publications organizations.

The 2011 revised American National Standard edition included updates to the applicable organizations and referenced standards, indicating current dates, names, and addresses of the referenced publications or organizations within this Standard Practice. In addition, an Annex B has been introduced that contains the pre-existing set of 60 reference photographs, along with various editorial corrections that include Section 5.

This 2025 revision is noteworthy and for the first time, cast irons have been included in the document. Due to idiosyncrasies in the lost-foam casting process, application of this document to iron castings made by that process must be agreed upon by both the manufacturer and the end-user.

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The Electronic (**PDF**) version is for **REFERENCE ONLY**.

Preface

Technical Committee Membership

The MSS Technical Committee 304, *Quality Standards*, has primary responsibility for this Standard Practice and included the following voting and non-voting members at the time of approval:

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In addition, the technical committee chair and MSS convey particular recognition to **Kim Burton**, *Burton Consulting*, for his distinct contribution and participation in the revision of this Standard Practice.

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Manufacturers Standardization Society of the Valve and Fittings Industry

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