

**MSS SP-58-2009**

# Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application, and Installation

Standard Practice  
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This MSS Standard Practice was developed under the consensus of the MSS Technical Committee 403 and the MSS Coordinating Committee. The content of this Standard Practice is the result of the efforts of competent and concerned volunteers to provide an effective, clear, and non-exclusive specification that will benefit the industry as a whole. This MSS Standard Practice 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 is established only by reference in a code, specification, sales contract, or public law, as applicable.

Unless otherwise specifically noted in this MSS SP, any standard referred to herein is identified by the date of issue that was applicable to the referenced standard(s) at the date of issue of this MSS SP. (See Annex C.)

U.S. customary units in this SP are the standard, the metric (SI) units are only for reference.

In this Standard Practice all notes, annexes, tables, and figures are construed to be essential to the understanding of the message of the standard, and are considered part of the text unless noted as "supplemental". All appendices appearing in this document are construed as "supplemental". Supplemental information does not include mandatory requirements.

This document has been substantially revised from the previous 2002 edition, INCLUDING THE ADDITION OF INFORMATION FROM ANSI/MSS SP-69, MSS SP-77, MSS SP-89, AND MSS SP-90. 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.

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## **FOREWORD**

This Standard Practice was developed by a cooperative effort of representatives of the pipe hanger manufacturers. It is based on the best practice current at this time and on the collective experience of the industry. There is a companion Standard Practice, MSS SP-127, which relates to the design, selection, and application of bracing for piping systems subject to seismic – wind – dynamic loading.

**TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>PAGE</u></b>
	ii
FOREWORD .....	ii
1 SCOPE .....	1
2 OBJECTIVE .....	1
3 MATERIALS.....	1
4 ALLOWABLE STRESSES, LOAD RATINGS, AND TEMPERATURES.....	3
5 PIPING SYSTEMS.....	7
6 GENERAL REQUIREMENTS .....	11
7 PRODUCT DESIGN .....	13
8 SPRING DESIGN.....	16
9 TOLERANCES.....	19
10 PROTECTIVE COATINGS.....	20
11 TESTING OF HANGER COMPONENTS .....	21
12 MANUFACTURE AND FABRICATION.....	22
13 PACKAGING, MARKING, SHIPPING, RECEIVING & STORAGE .....	28
14 HANGER INSTALLATION PRACTICES .....	29
15 INSPECTION .....	36

**TABLE**

1	Minimum Design Load Ratings for Pipe Hanger Assemblies .....	2
2	Load Ratings of Carbon Steel Threaded Hanger Rods .....	5
2M	Load Ratings of Carbon Steel Threaded Hanger Rods (Metric).....	6
3	Recommended Minimum Rod Diameter for Single Rigid Rod Hangers.....	8
4	Maximum Horizontal Pipe Hanger and Support Spacing.....	10
5	Spring Support Selection .....	12
6	Clamp Tolerances .....	19
7	Preheat and Post-Weld Treatment Requirements .....	25,27
7M	Preheat and Post-Weld Treatment Requirements (Metric) .....	26,27
8	Inspection Checklist.....	36
A1	Hanger and Support Selections .....	40-41
A2	Materials and Allowable Stresses.....	42-44
A2M	Materials and Allowable Stresses (Metric).....	45-47
A3	Type 40 Protection Shields for Insulated Pipe and Tubing.....	48

**FIGURE**

1	Solid Design Stress (Uncorrected) for Helical Hot Wound Quenched and Tempered or Helical Cold Wound Springs Tempered After Forming .....	17
2	Solid Design Stress (Uncorrected) for Cold Wound Compression Springs .....	18
3	Suggested Form for Hanger Record Sheet.....	34
A1	Type Chart .....	38-39
B1	Typical Hanger Location Plans.....	51
B1M	Typical Hanger Location Plans (Metric) .....	52

**ANNEX**

A	Reference Charts and Tables .....	37
B	Pipe Hanger Assembly Drawings.....	49
C	Referenced Standards and Applicable Dates .....	53

**APPENDIX**

X1	Contractual Relationships.....	56
X2	Guidelines on Terminology for Pipe Hangers and Supports .....	62

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Manufacturers Standardization Society of the Valve and Fittings Industry

## PIPE HANGERS AND SUPPORTS – MATERIALS, DESIGN, MANUFACTURE, SELECTION, APPLICATION, AND INSTALLATION

### 1. SCOPE

1.1 This Standard Practice establishes the material, design, fabrication, and inspection criteria to be used in the manufacture of standard types of pipe hanger components.

1.2 This Standard Practice establishes the allowable stress values for materials used in standard types of pipe support components and unique hanger design assemblies.

1.3 This Standard Practice establishes minimum design load ratings for rigid pipe hanger assemblies (see Table 1).

1.4 This Standard Practice presents the recommended practice for the selection and application of pipe hangers and supports for all service temperatures.

1.5 This Standard Practice establishes recommended procedures for detailing, fabrication, and installation of pipe hangers and supports.

### 2. OBJECTIVE

2.1 To serve as a “guide” for pipe hanger and support design, manufacture, selection, and installation.

2.2 To enable the user to specify a minimum level of acceptance for pipe hanger design and performance.

2.3 To define types of hangers and supports that are illustrated in the Type Chart, Figure A1. Hangers and Supports shown on the Type Chart indicate general types only and manufacturers’ other standard products shall be acceptable under this Standard Practice if they meet dimensional and load rating limitations set forth in this Standard Practice.

2.4 To serve as a pipe hanger and support specification for selection and application, by being referenced in whole or in part.

2.5 To serve as a guide to proven industry practice during engineering design and writing of job specifications covering the hanging, supporting and controlling the movement of piping systems.

2.6 To provide the erector with information on types of hanger and support components to be used for specific application and installations, where such information is not otherwise provided.

2.7 To serve as a companion document to MSS SP-127 which provides recommendations for the design, selection, and application of bracing for piping systems subject to seismic– wind – dynamic loading.

### 3. MATERIALS

3.1 Materials commonly used in manufacturing pipe hangers and supports are listed in Tables A2 and A2M.

3.2 Other materials may be used provided they comply with the allowable stress requirements of Sections 4.5 or 4.7.

3.3 Non-metallic materials can be used to transfer the compressive loading from the piping and equipment to the metallic components of a piping support. Material shall comply with requirements of Section 4.13.

3.4 The material in contact with the pipe shall be compatible with the piping material so that neither shall have a deteriorating action on the other.

3.5 Materials subject to corrosion or galvanic action shall be protected as specified by the engineering design and such protection shall be applied in accordance with the coating requirements of Section 10.