

ANSI/MSS SP-58-2009



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

Incorporates the Contents of:
ANSI/MSS SP-69-2003
MSS SP-77-1995 (R 2000)
MSS SP-89-2003
MSS SP-90-2000

Standard Practice
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FOREWORD

This Standard Practice was developed by a cooperative effort of representatives of pipe hanger manufacturers. It is based on “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.

This American National Standard edition, ANSI-approved and published in 2011, is substantively consistent with the currently available 2009 MSS-only edition and will utilize this 2009 year in its nomenclature. Substantive revisions will be applied to the next version that involves an accelerated revision cycle timeline, with a goal of having one unified and consistent ANSI/MSS Standard Practice.

Notice:

This SP-58-2009 “comprehensive” edition integrates the content of a revised MSS SP-58 with ANSI/MSS SP-69-2003, MSS SP-77-1995 (R 2000), MSS SP-89-2003, and MSS SP-90-2000 into a single source document; enabling the user to specify a minimum level of acceptance for pipe hanger design and performance, in addition to defining the types of hangers and supports. The aforementioned SP-69 will not be revised and SP-77, 89, and 90 were withdrawn in 2010.

This SP-58-2009 edition can officially be utilized and referenced in place of the aforementioned Standard Practices.

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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.