

MSS SP-79-2009

Socket Welding Reducer Inserts

Standard Practice
Developed and Approved by the
Manufacturers Standardization Society of the
Valve and Fittings Industry, Inc.
127 Park Street, NE
Vienna, Virginia 22180
Phone: (703) 281-6613
Fax: (703) 281-6671
e-mail: info@mss-hq.org



www.mss-hq.org

This MSS Standard Practice was developed under the consensus of the MSS Technical Committee 105 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.

Any part of this Standard Practice may be quoted. Credit lines should read 'extracted from MSS SP-79-2009 with permission of the publisher, the Manufacturers Standardization Society.' Reproduction prohibited under copyright convention unless written permission is granted by the Manufacturers Standardization Society of the Valve and Fittings Industry Inc.

Originally Approved March, 1974

Copyright ©, 1999 by
Manufacturers Standardization Society
of the
Valve and Fittings Industry, Inc.
Printed in U.S.A.

TABLE OF CONTENTS

<u>SECTION</u>		<u>PAGE</u>
0	PURPOSE	1
1	SCOPE	1
2	REFERENCES	1
3	RATINGS	2
4	SIZE	2
5	MARKING	2
6	MATERIAL	3
7	DESIGN AND CAPABILITY	3
8	DIMENSIONS AND TOLERANCES	3
9	TESTING	3
10	FINISH	3
11	CORROSION PROTECTION	3
12	CAUTIONARY NOTE REGARDING INSTALLATION OF SOCKET WELDED JOINTS	3

TABLE

1	Fitting Sizes/Pipe Correlation	4
2	Nominal Wall Thickness of Schedule 160 Pipe, 1/4" & 3/8"	4
3	Steel Socket Welding Reducer Insert Dimensions and Tolerances	5,6

FIGURE

1	Gap Recommendations	7
2	Welding Gap and Minimum Socket Wall Thickness	7

ANNEX

A	Referenced Standards and Applicable Dates	8
---	---	---

FOREWORD

This document establishes a Standard Practice for Socket Welding Reducer Inserts produced for a number of years by various manufacturers to varying dimensions although basically similar in principle. Users should note reducers furnished from existing stocks may have slightly different dimensions than shown in Table 3.

SOCKET WELDING REDUCER INSERTS

0. PURPOSE

To provide a Standard Practice establishing requirements for insert type fittings, which effectively, after welded installation, creates a socket welded reduced end fitting, such as Tee, 90 degree E11, Cross, 45 degree E11, Coupling, etc.

1. SCOPE

1.1 **General** This Standard Practice covers ratings, dimensions, tolerances, finish, marking and material requirements for socket welding reducer inserts for use with ASME B16.11, Class 3000 and 6000 socket welding fittings. Dimensions for these reducer inserts are shown in Table 3.

1.1.1 **Fitting Sizes/Pipe Correlation** Fittings covered by this Standard Practice are shown in Table 1, by class, size range and correlation to the schedule number or wall designation of pipe for calculation of ratings.

1.1.2 **Partial Compliance Fittings** Fittings with special dimensions and fittings made from non-standard materials may be designed and manufactured by agreement between the manufacturer and the purchaser, provided they are marked in accordance with the requirements for partial compliance fittings of Section 5.1.1 (e).

1.2 **Service Conditions** Criteria for selection of fitting type and materials suitable for particular fluid service are not within the scope of this Standard Practice.

1.3 **Welding** Except for the CAUTIONARY NOTE (Section 12) and the GAP RECOMMENDATIONS (Figure 1 and Figure 2), installation welding requirements are not within the scope of this Standard Practice. Installation welding shall be done in accordance with the applicable piping system into which the fittings are to be installed.

2. REFERENCES

2.1 **Referenced Standards** Standards and specifications adopted by this Standard Practice are shown in Annex A, which is part of this Standard Practice. It is not considered practical to identify the specific edition of each standard and specification in the individual references. Instead, the specific edition reference is identified in Annex A. A fitting made in conformance and conforming to this Standard Practice in all other respects will be considered to be in conformance to the Standard Practice, even though the edition reference may be changed in a subsequent addendum to or revision of the Standard Practice.

2.2 **Codes of Regulations** A fitting used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, the ASME Code for Pressure Piping, or a governmental regulation is subject to any limitation of that code or regulation. This includes any maximum temperature limitation, or rule governing the use of material at low temperature, or provisions for operation at a pressure exceeding the pressure ratings in this Standard Practice.