Socket Welding Reducer Inserts

Standard Practice
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The SI (metric) units and U.S. customary units in this Standard Practice are regarded separately as the standard; each should be used independently of the other. Combining or converting values between the two systems may result in non-conformance with this Standard Practice.

This document has been substantively revised from the previous 2009 edition. It is suggested that if the user is interested in knowing what changes have been made, direct page by page comparison should be made of this document and that of the previous edition.

Non-toleranced dimensions in this Standard Practice are nominal, and, unless otherwise specified, shall be considered "for reference only".

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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.

Table 3M has been added to this 2011 edition for (SI) metric dimensioned fittings. Other (SI) metric dimensions and the 2010 Errata Sheet have also been incorporated into this 2011 edition.

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SOCKET WELDING AND REDUCER INSERTS

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 a Tee, 90-degree Ell, Cross, 45-degree Ell, 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. U.S. customary unit dimensions for these reducer inserts are shown in Table 3 and (SI) metric dimensions are shown in Table 3M.

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).

1.1.3 ***Welding*** Except for the CAUTIONARY NOTE (see Section 12) and the GAP RECOMMENDATIONS (see Figures 1 and 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. GENERAL

2.1 ***Referenced Standards*** Standards and specifications referenced in this Standard Practice are shown in Annex A, which is a normative 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 with this Standard Practice, even though the edition reference may have changed in a subsequent addendum to or revision of the standard.

2.2 ***Codes of Regulations*** A fitting used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, the ASME B31 Codes 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.

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

2.4 ***Standard Units*** The values stated in either U.S. customary units or (SI) metric units are to be regarded separately as standard. Within the text, the metric units are shown in parentheses. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other. Combining values from the two systems may result in non-conformance with this Standard Practice.