

MSS SP-95-2000

# Swage(d) Nipples and Bull Plugs

Standard Practice  
Developed and Approved by the  
Manufacturers Standardization Society of the  
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## FOREWORD

This document establishes a Standard for Swage(d) Nipples and Bull Plugs produced for a number of years by various manufacturers to varying dimensions although basically similar in principle. Users should note Swage(d) Nipples, and Bull plugs furnished from existing stocks may have slightly different dimensions than shown herein.

## SWAGE(D) NIPPLES AND BULL PLUGS (a)

### 1. SCOPE

1.1 This standard covers dimensions, finish, tolerances, marking and material for carbon steel and alloy steel Swaged Nipples (male end reducing fittings), NPS 1/4 through NPS 12 and Bull Plugs (hollow or solid male closures) NPS 1/8 through NPS 12. These fittings are made with ends that are threaded, beveled, square cut, grooved, or any combination of these. Both concentric and eccentric swaged nipples are included.

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 4.1e.

### 2. PRESSURE RATINGS

2.1 The allowable working pressure for fittings designed in accordance with this standard practice shall be calculated as for straight seamless pipe of equal end preparation in accordance with the rules established in the applicable sections of the American National Standard Code for Pressure Piping, B31. The pipe wall thickness and type material shall be that for which the fittings have been ordered. Fittings shall be identified by pipe wall thickness and material grade in lieu of pressure rating.

2.2 The design of fittings may be established by mathematical analyses contained in nationally recognized pressure vessel or piping codes, or at the manufacturer's option, by proof testing in accordance with Section 9. Records of design or successful proof tests shall be available at the manufacturer's facility for inspection by the purchaser. Bull plugs shall meet the additional requirement that the minimum thickness of the head shall be at least 1.5 times the thickness of the corresponding pipe schedule. For bull plugs that are drilled and tapped, the minimum thickness of the head shall be increased to accommodate the minimum L2 thread length as specified in ANSI/ASME B1.20.1 - 1983 (reaffirmed 1992).

### 3. SIZE

3.1 Bull Plug size is identified by the "nominal pipe size" (NPS). Swaged Nipples are identified with the large end size listed first, followed by the small end size. (see Sec 4.1d)

### 4. MARKING

4.1 Each fitting shall have the prescribed information stamped or otherwise suitably marked in accordance with the following.

a) Manufacturer's name or trademark

b) Material Identification

- Fittings shall be marked with the material grade in accordance with the applicable ASTM Fittings Specifications A 234, A 403, A 420 (e.g. WPB)

- The material lot or heat number traceable to the material shall be part of the material identification

c) Schedule number or nominal wall thickness designation

d) Size: Nominal pipe size (NPS) of Bull Plug  
Nominal pipe size (NPS)–Large end X small end of Swage(d) Nipples – Example: 2 X 1

e) Product Conformance

Full compliance fittings shall be marked with the symbol SP95 to denote conformance with this Standard. Partial compliance fittings covered in 1.2 shall not be marked "SP95" and if marked with an ASTM designation, the marking shall include the number of the applicable "Supplementary Requirement" for special or non-standard fittings.

4.2 Where size and shape of fittings do not permit all the above markings they may be omitted in the reverse order given above.

4.3 Minimum permanent marking is manufacturer's name or trademark and material grade. At manufacturer's option, all other marking may be permanent or applied on a pressure sensitive label.

4.4 Where steel stamps are used, care should be taken so that marking is not deep enough to reduce wall thickness of the fitting below minimum allowed.