



SOUTHWEST GAS CORPORATION

® ENGINEERING STAFF

MATERIAL SPECIFICATION

Prepared By: Engineering Staff 

Approved By: Jerome T. Schmitz 

Section No:	MS E-8
Page No.:	1 of 7
Issue Date:	03/01/16
Superseded Date:	01/16/15

SERVICE CONNECTION FITTINGS

Riser, All-Steel

1. SCOPE

This specification covers both Schedule 40 and Schedule 80 all-steel risers for ¾-inch steel services. The primary intended use is for high-pressure services where plastic service lines and risers cannot be used. The Schedule 80 is for those instances in the mountain areas where heavy snow loading is unavoidable.

2. APPLICABLE DOCUMENTS

- 2.1 American National Standards Institute (ANSI) B-1.20.1, "Pipe Threads, General Purpose (Inch)."
- 2.2 ASTM International (ASTM) A-53, "Pipe, Steel, Black & Hot Dipped, Zinc-Coated Welded and Seamless."
- 2.3 Southwest Gas Design Standards (DS) D-2, "Meter Set Assemblies."
- 2.4 Southwest Gas Design Standards (DS) D-2b3, "Residential MSA-Delivery, 175 cfh to 315 cfh, (Big Bear & Lake Tahoe Only)."
- 2.5 Southwest Gas Material Specification (MS) B-10, "Fittings, Forged Steel, Threaded."
- 2.6 Southwest Gas Material Specification (MS) D-2, "Stopcocks."
- 2.7 Southwest Gas Material Specification (MS) H-6, "Pipe Threaded Compound."
- 2.8 Southwest Gas Material Specification (MS) E-13, "Riser, Anodeless."
- 2.9 United States Department of Transportation (DOT), Code Federal Regulations (CFR), Title 49, Part 192, "Transportation of Natural and Other Gas by Pipeline; Minimum Safety Standards."

NOTE: Unless otherwise specified, the editions of the above documents incorporated by DOT 49, CFR 192 are applicable. Documents not incorporated by DOT 49 CFR 192 will be the most recent edition.



SOUTHWEST GAS CORPORATION

® ENGINEERING STAFF

MATERIAL SPECIFICATION

Section No:	MS E-8
Page No.:	2 of 7
Issue Date:	03/01/16
Superseded Date:	01/16/15

Prepared By: Engineering Staff 

Approved By: Jerome T. Schmitz 

SERVICE CONNECTION FITTINGS

Riser, All-Steel

3. TERMINOLOGY

3.1 General

- 3.1.1 "Southwest Gas," "Southwest" or "SWG" wherever used in this specification and other related documents will refer exclusively to Southwest Gas Corporation.
- 3.1.2 The terms "approved," "as approved," "satisfactory," "as directed," "or equal" or other similar terms whenever used in this specification and other related documents will mean "as determined by Southwest Gas," unless specifically stated otherwise.
- 3.1.3 "Product Information Package" or "PIP" wherever used in this specification and other related documents will mean the required technical product information that a manufacturer must submit to Southwest to determine if the product is suitable for use by Southwest, unless specifically stated otherwise.

4. MATERIALS AND MANUFACTURING

- 4.1 Riser material shall be either Schedule 40 or Schedule 80 steel pipe made in accordance with ASTM A-53, either Type E or S, Grade B.
- 4.2 The pipe shall be cleaned and 100 % free of all rust, scale and other surface defects removed prior to coating. The bend of the riser shall be cold formed. The risers shall be internally free of paint, grit, sand and other debris.
- 4.3 The riser shall be coated with an 8 to 10 mil thick fusion bonded epoxy coating prior to bending. This coating shall not exhibit any windows, voids, holidays, inclusions, or other defects.
- 4.4 Pipe threads shall conform to the requirements of ANSI B-1.20.1 for NTP threads. The threaded end shall be reamed and the thread chamfered for approximately one-half thread. The threaded end shall be cleaned and provided with a thread protector.
- 4.5 When specified on the purchase order, stopcocks that meet Southwest's MS D-2 specification will be installed on the outlet using pipe thread compounds that complies with SWG's MS H-6. The stem of this valve will point in the same direction as the inlet of the riser. The open end of the stopcock will be plugged with a steel plug, which meets the requirements of Southwest's MS B-10.



SOUTHWEST GAS CORPORATION

® ENGINEERING STAFF

MATERIAL SPECIFICATION

Prepared By: Engineering Staff 

Approved By: Jerome T. Schmitz 

Section No:	MS E-8
Page No.:	3 of 7
Issue Date:	03/01/16
Superseded Date:	01/16/15

SERVICE CONNECTION FITTINGS

Riser, All-Steel

5. PERFORMANCE REQUIREMENTS

- 5.1 The material will conform to the tensile requirements of ASTM A-53, Grade B.
- 5.2 The coating will pass a jeep test approved by Southwest Gas.

6. DIMENSIONS AND TOLERANCES

- 6.1 The risers shall have a vertical height of 36 inches minimum and a horizontal length of 28 inches minimum as shown in Appendix A.
- 6.2 At no point on the bend shall the diameter deviate more than 15 % (either larger or smaller) from 1.050 inches.

7. INSPECTION

- 7.1 Successful review of the Product Information Package (PIP) as well as any future reference by Southwest to the seller's part number or internal code number in any future contract or purchase, will mean only that no conflict with the specification was found and will not relieve the seller from meeting all the requirements of this specification.
- 7.2 SWG retains the option to inspect the manufacture and testing of any and all materials, products or systems sold to Southwest at the manufacturer's facility.
- 7.3 SWG will make appropriate inspections and tests of any and all materials, products or systems supplied to this specification. SWG will have the right, at their option, to reject any material which fails to conform to this specification. Any such rejection may take place at the manufacture's facility; the supplier's warehouse or any subsequent delivery location, before or after SWG assumes possession. Notice of the rejection will be made promptly to the supplier by SWG. The defective product will be replaced or returned for credit at the manufacturer's expense.
- 7.4 Any changes in the manufacturing of previously approved materials under this document for sale to SWG's must be approved by SWG Engineering Staff. **Failure to obtain SWG's approval may be cause for rejection and disqualification as an approved supplier.**



SOUTHWEST GAS CORPORATION

® ENGINEERING STAFF

MATERIAL SPECIFICATION

Prepared By: Engineering Staff 

Approved By: Jerome T. Schmitz 

Section No:	MS E-8
Page No.:	4 of 7
Issue Date:	03/01/16
Superseded Date:	01/16/15

SERVICE CONNECTION FITTINGS

Riser, All-Steel

8. CERTIFICATION

The manufacturer's or supplier's certification will be supplied to Southwest. This certification will state that samples representing each lot have been manufactured, tested and inspected in accordance with this specification and that all requirements have been met. When requested or specified in the purchase order or contract, a report of test results will be provided.

Upon the request of Southwest, the certification of an independent third party indicating conformance to the specification may be considered at Southwest's expense.

9. SAFETY DATA SHEETS

In accordance with law, the Seller will supply Safety Data Sheets for all applicable items supplied under this specification to the following:

- 1) The Receiving Location
- 2) Engineering Staff
- 3) Southwest Gas Corporation
Corporate Safety
Mail Station LVA-120
P.O. Box 98510
Las Vegas, NV 89193-8510

10. PRODUCT MARKING

Risers will be marked with the manufacturers name, address, serial number and pipe schedule. The riser will have a red stripe marked "DO NOT BURY" or equivalent 12 inches below the top threads of the riser unless otherwise specified by SWG. This red stripe must be below the transition. All risers for SWG will be marked for use in elevated temperatures in accordance with ASTM D-2513 (i.e., CE).



SOUTHWEST GAS CORPORATION

® ENGINEERING STAFF

MATERIAL SPECIFICATION

Section No:	MS E-8
Page No.:	5 of 7
Issue Date:	03/01/16
Superseded Date:	01/16/15

Prepared By: Engineering Staff 

Approved By: Jerome T. Schmitz 

SERVICE CONNECTION FITTINGS

Riser, All-Steel

11. PACKAGING AND PACKAGE MARKING

Risers will be plugged to prevent the contamination of the pipe. Threads will have a protective cap to prevent them from damage in shipping. Risers will be securely packaged in a manner that protects the coating and threads from damage that may occur from sifting during transit. Packages will be marked with manufacturer's name, address, part number, purchase order number and riser size.

12. STOCK CLASSIFICATION DESCRIPTION

RISER, ALL-STEEL; ____ -INCH, _____ (PRODUCT NAME), _____ (MATERIAL)
"SCH ____ ALL-STEEL SCH ____ ALL-STEEL.