



SOUTHWEST GAS CORPORATION

ENGINEERING STAFF

MATERIAL SPECIFICATION

Prepared By: Engineering Staff

Approved By: Jerome T. Schmitz

Section No:	MS K-2
Page No.:	1 of 13
Issue Date:	03/01/16
Superseded Date:	02/20/15

REPAIR FITTINGS

Leak Repair Clamps

1. SCOPE

This specification covers leak repair clamps for steel and plastic pipe in sizes ½” to 12” and pressure ratings of at least 60 psig.

2. APPLICABLE DOCUMENTS

- 2.1 ASTM International (ASTM) A-167, “Specification for Stainless Steel and Heat Resisting Chromium-Nickel Steel Plate, Sheet and Strip.”
- 2.2 ASTM International (ASTM) A-240, “Specification and Heat -Resisting Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure.”
- 2.3 ASTM International (ASTM) A536, “Standard Specification for Ductile Iron Castings.”
- 2.4 ANSI B-1.1 “Unified Inch Screw Threads (UN & UNR Thread Form).”
- 2.5 United States Department of Transportation (DOT), Code of Federal Regulations (CFR), Title 49, Part 192, “Transportation of Natural and Other Gas by Pipeline; Minimum Safety Standards.”2.

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.

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 wherever 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.



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3. TERMINOLOGY (Cont'd)

3.1.4 The terms “pipe” or “tubing” will mean “pipe and tubing”, unless specifically stated otherwise.

4. MATERIALS AND MANUFACTURING

- 4.1 Leak repair clamps will be constructed with bands made from Type 302 or 304 stainless steel.
- 4.2 The bolts, nuts, washers and other components for securing the leak repair clamp to the pipe will be manufactured from corrosion resistant steel or stainless steel.
- 4.3 A gasket will be provided between the band and the pipe to seal the leak. The gasket will be manufactured from a material that is compatible with the constituents normally found in natural gas.
- 4.4 The pressure rating must be at least 60 psig.

5. PERFORMANCE REQUIREMENTS

- 5.1 The bolt-on sleeves covered by this specification will not leak when installed on a leaking pipeline at pressures up to and including the rated operating pressure when installed using the instructions provided by the manufacturer.
- 5.2 The bolt-on sleeves will be easily installed to secure the band and gasket to the pipe size specified using the installation instructions provided by the manufacturer...
- 5.3 The bolts and nuts will be of sufficient strength to withstand the rated working pressure and all other anticipated stresses.

6. DIMENSIONS AND TOLERANCES

Dimensions and tolerances will be in accordance with the information in Appendices A through D.



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7. INSPECTION

- 7.1 Successful review of the Product Information Package (PIP) as well as any future reference by SWG 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 referenced in this specification that are sold to SWG.
- 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 manufacturer'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, products or systems described in this material specification for sale to SWG, must be approved by SWG's Engineering Staff. **Failure to obtain Southwest's approval may be cause for rejection and disqualification as an approved supplier.**

8. CERTIFICATION

The manufacturer's or supplier's certification shall be furnished to Southwest. This certification shall 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.



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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

Each leak repair clamp will have the following markings on the sleeve:

- The product name
- Manufacturer
- Size
- Material specification and grade
- Pressure rating

11. PACKAGING

All products covered in this specification will be packaged in a manner to prevent damage during transportation and storage.

12. STOCK CLASSIFICATION DESCRIPTION

CLAMP, REPAIR, _____ -INCH X _____ - INCH, (MANUFACTURER NAME).