



RELI SLEEVE™
(A Reliable Group of Companies)



YEARS OF RELIABILITY
SINCE 1975.



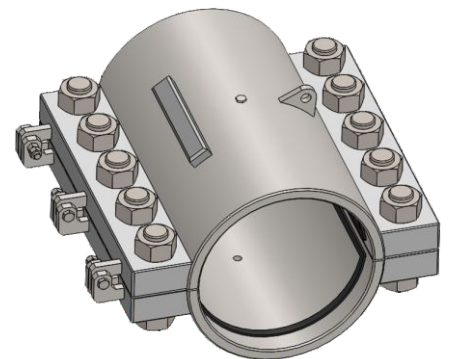
ISO 9001-2015
ISO 14001-2015
ISO 45001-2018
PED, GOVERNMENT RECOGNISED
EXPORT HOUSE CERTIFIED COMPANY



**Half Pipe Sleeve
Half Sole Repair Sleeve**

**Pre-Stressed Metallic Sleeve
Leak Defect Repair Sleeve
Split Sleeve**

Manufacturers of :



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GENERAL

Half Repair pipe Sleeves are designed to avoid a costly shut down. Existing lines can be cased without thru-put loss, because it is not necessary to shut down the carrier line to perform the required repair. A full scope of sizes, ASTM grades of steel plate (structural and pressure vessel quality), wall thickness and longitudinal edge options are available. Half Sole Repair Sleeves, also called split casing or half wrap, are custom-fabricated to your specifications, to assure a precision product and secure fit. There are four types of material available, two pressure-rated steels and two structural-grade steel. The pressure-rated steel sleeves can be used to repair leaking and non-leaking defects while the structural-grade steel sleeves can function as reinforcement for a defective area.



FEATURE

The steel repair sleeves can be used for internal and external corrosion, gouges, dents, grooves, arc burns, cracks, defective girth welds, laminations and leaks.

Pressure containing sleeves feature a wall thickness equal to or greater than required for the maximum allowable operating pressure or the full strength of the pipe being repaired. The steel Repair sleeve material is certified and the carbon equivalent will not exceed 0.45 percent. Each half-sole segment comes with one pre-crimped back-up strip.

Steel Repair Sleeves can be used as pads or cradles for above ground piping, drain tile supports and patches (segments in 90° and 180° arcs, from 6-inches to 10 feet in length are available as specials).

Each Steel Repair Sleeve has standard bevels with a back-up strip and material certifications. Sleeve ends are square cut. Back-up strip are not included with Standard Girth Weld Steel Repair Sleeves but are available as special order.

MATERIAL

Material used are structural quality carbon steel or pressure vessel quality carbon steel plates, which are to ASTM specifications, and in the following grades:

API 5L Gr B, X42, X46, X52, X56, X60, X65, X70 - PSL 1 - PSL2 (minimum yield 42000 / 52000 / 60000 / 65000 / 70000)

ASTM A36 (structural; minimum yield 36,000 psi)

ASTM A572 GR42, GR50, GR55, GR60, GR65 (structural; minimum yield 29,000 psi)

ASTM A516 GR55, GR60, GR65, GR70 (pressure vessel; minimum yield 38,000 psi)

ASTM A537 Class I, Class 2, Class 3 (pressure vessel; minimum yield 50,000 psi)

EN 10025 - S235, S275, S355, S450

The chemical composition does not exceed the percentages specified for the ASTM material ordered. Repair sleeves are fabricated from plate with low carbon equivalency for good weld ability.

The maximum allowable carbon equivalency (CE) quality carbon steel plates will be based on the heat analysis.

The maximum allowable carbon equivalency (CE) pressure vessel quality carbon steel plates will be based on the heat analysis, in most cases.

Note : The sleeve can be manufactured in any grade as per the application & client requirements.

MANUFACTURING

Half Repair Pipe Sleeve is formed by rolling, step braking, or die forming without the use of heat treating.

Longitudinal edges of the Half Sole are beveled for welding, if requested, at 30°. The bevel are a mechanical type and/or produced by plasma torch burning.

Half Repair Pipe Sleeve ends have sheared square edges for fillet welding, unless square end bevel is requested, and are available in maximum lengths as per clients requirements.

SIZE

For Pipe Size : 2" NB to 60" O.D.

Thickness 4 mm to 100 mm

TYPICAL APPLICATION

Repair, Permanent, Splits, Holes, Punctures, Corroded Areas, Inferior Welds, Gouges

TEST METHODS

- a) **Chemical Analysis Test**
The method for material chemical analysis is done as per ASTM A751. This is as per API 5L standard section 9.10 subsection one.
- b) **Tensile Test**
Our test Method for material tensile test is done as per ASTM A370. This is as per API 5L standard section 9.10 subsection two
- c) **Equipment Calibration**
This is done within 15 months according to ASTM E4 under API 5L standard section 9.10.2.2
- d) **Guided Bend Tests**
Shall be performed to conform to API 5L standard section 9.10.3 and within subsequent reference
- e) **Charpy Tests**
Shall be performed in accordance with ASTM A370 as per API standard section 9.10.4
- f) **Other tests**
Invalidation of Tests (as Per API 5L 9.11.1/2) , Retests (i) Recheck Analysis API 5L 9.12.1 (ii) Recheck Analysis API 912.2 , Flattening Tests (API 5L 9.12.3) , Bend Retest (API 5L 9.12.4) , Guided Bend Retest (API 5L 9.12.5) , Charpy Rest (API 5L 9.12.6) , Reprocessing (API 5L 9.13)

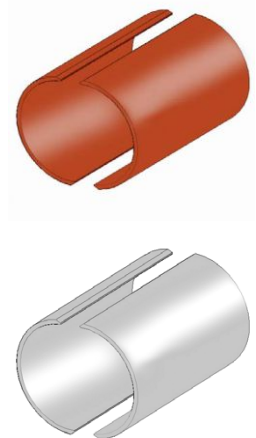
CARBON STEEL & STAINLESS STEEL WELD ON REPAIR SLEEVE

Carbon Steel Weld on Repair Sleeve and Stainless Steel Weld on Repair Sleeve are designed to repair and reinforce in-service steel pipelines without shutdown or service disruption. Weld on Repair Sleeves are suitable for repair of weak or leaking areas caused by external/internal corrosion, damage (dents, gouges), inferior welds, defective piping material and other problematic causes.

This can be furnished as full body repair sleeves or partial repair sleeves depending on the application need. Fittings are supplied standard beveled for welding (square cut sleeve ends) and welding back up strips are available. Pressure grade and Structural grade materials are available in both carbon steel and stainless steel.

Weld On Repair Sleeve feature :

- Immediate availability
- Built to exact pipe diameters for custom fit
- Material grades and thickness to application codes/requirements
- Restores host pipe to original & future expected service requirements
- Coatings for corrosion resistance



Beyond repair, Weld On Sleeves can be used to cradle, support, reinforce or pad pipelines in above ground piping systems.

PRE-STRESSED METALLIC SLEEVE

The pre-stressed sleeves are of full encirclement split type and are manufactured by a production process, that minimizes occurrence mill defects. Axial edges of the sleeves are beveled to form 60° weld angle on assembly for the horizontal butt joint. A recess on the inner side of each pair of half sleeves is machined (cut out) to accommodate a 3 mm thick by 18 mm wide backing strip along the horizontal joint. The backing strips are manufactured from the same material as the sleeves and supplied. Circumferential edges of the sleeves is pre-fabricated to form 90° lap joint with the pipe.

The internal diameter of the sleeves is designed and constructed so as to fit on the pipe without leaving a gap between the inner surface of the sleeve and outer surface of the pipe all around.

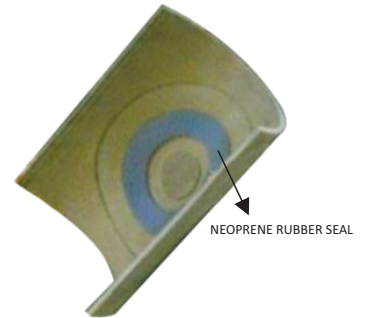
On assembly prior to welding, the maximum root gap shall be 3.0 mm on both horizontal joints. A 1.5 mm root face shall be allowed on both edges.

Both the horizontal and circumferential edges shall have a smooth finish.

The sleeve surfaces shall be protected from corrosion by a suitable method such as coating with corrosion resistant paint or other acceptable methods.

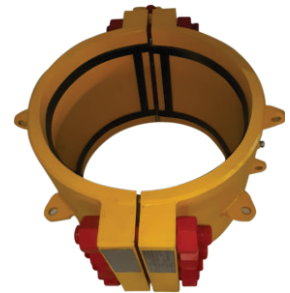
LEAK DEFECT REPAIR SLEEVE

Lightweight for easy handling and installation.
Eliminates costly downtime.
Minimizes repair costs.
Complies with CSA Z183 and ANSI B31.4 Standards.



SPLIT SLEEVE / SLEEVE REPAIR CLAMPS

Standard working pressure is 1000 psig. Fittings are available in longer lengths as 18", 24" and longer as well as higher working pressure such as 1500 psig or 2000 psig. If higher working pressures or longer length is needed, it can be designed and built to meet your requirements.



GALLERY

