

ROMACON® PETRO

PIPELINE REPAIR PRODUCTS FOR HIGH PRESSURE
PIPES IN THE OIL- GAS- AND PETROCHEMICAL INDUSTRY

Pipe Fit - Split Repair Sleeve

- ▶ for on shore installation
- ▶ for off shore installation, with zinc anodes and marine epoxy coating
- ▶ weldable, with heat insulating gaskets
- ▶ with girder rings, if required

▶ Split sleeves are widely used for making repairs to a variety of high or low pressure and high or low temperature pipelines, containing oil, water, gas, steam and chemical fluids.

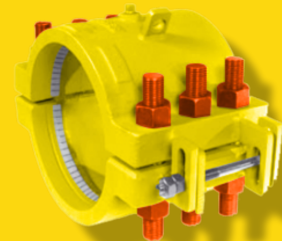
The clamp halves are joined by bolts to form a high integrity pressure vessel around the damaged or leaking pipe.

Sealing is provided by elastomer seals of the highest quality selected for compatibility with the pipeline fluid and operating temperature.

The Split sleeves may also be welded after installation to provide a permanent repair. It may be completely seal-welded with the pipe line in operation.



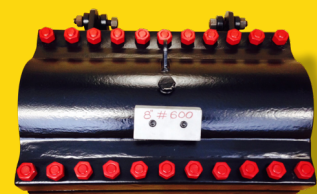
Standard, on shore type



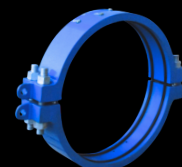
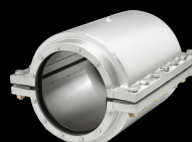
With girder rings



Weldable split sleeves



Off shore type, with zinc anode



► Design Features and Methods

Safety

The clamps are fully compensatory pressure vessels, hydrostatically tested to 1.3 times the rated working pressure (as per ASME Section VIII Div.1 clause UG-99)

All Clamps are equipped with a 1/2" or 1" NPT vent port depending on size and clients requirements.

Design Criteria and Industry Standards

All split sleeves are tested in accordance with the API Specification 6H, "Specification for End Closures, Connectors, and Swivels", ASME BOILER AND PRESSURE VESSEL CODE, Section VIII; and with ANSI standards B-31.3, B31.4, & B31.8, where applicable.

Certification: EN 10204 3.1

Ease of Installation and Maintenance

All split sleeves are designed to be installed with the most common tools available and are readily field repairable, including full seal replacement.

Economy

Split Sleeve Repair Clamps are designed utilizing the latest technology, allowing optimization of design techniques and materials, resulting in lower weight,

► Split Sleeves are suitable for sour environment

This type of split sleeve is designed to be used in hydrogen sulfide (H₂S) bearing hydrocarbon service.

For sour services, the body material will meet NACE MR0175

► Certification and Testing

Non destructive testing (NDT):

- 100 % magnetic particle inspection (MPI) for stiffener to shell weld (fillet)
- 100 % ultrasonic testing of vent plug welds
- 100 % MPI of hinge welds

Hydrotest as per ASME Section VIII Div.1 clause UG-99

► Split Sleeve Material Specifications

ANSI pressure classes 300, 400, 600, 900 and 1500

Design based on: ASME Sec. VIII, API 6H, ANSI B31.4, B31.8 and Split Sleeve Software 3S)

Design control and stress analysis with Finite Element Package

Body materials: A216 WCB, A216 WCC, A352 LCC, A516 Gr.70 (Suitable for normally corrosive services)

Stud material: A193 Gr. B7

Nut material: A 194 Gr. 2H

Coating: Yellow Epoxy Polyamide, standard or Marine epoxy

The highest quality NBR or VITON elastomer seal precisely compatible with the line fluid and ambient temperature will be installed into the split sleeves.

NBR temperature range is from - 20° C to + 80° C

HNBR temperature range is from - 20° C to + 150° C

VITON temperature range is from - 20° C to + 200° C

Gaskets are replaceable without any special tools.

Girder rings can be installed upon clients request.

Double Row Sealing (DRS) design is also available. This special design is more suitable for where probable

leakage is much costly or dangerous; such as gaseous services & offshore applications.

Weldable split sleeves

All clamps can be fully prepared for welding after installation (welding procedure is available on request).

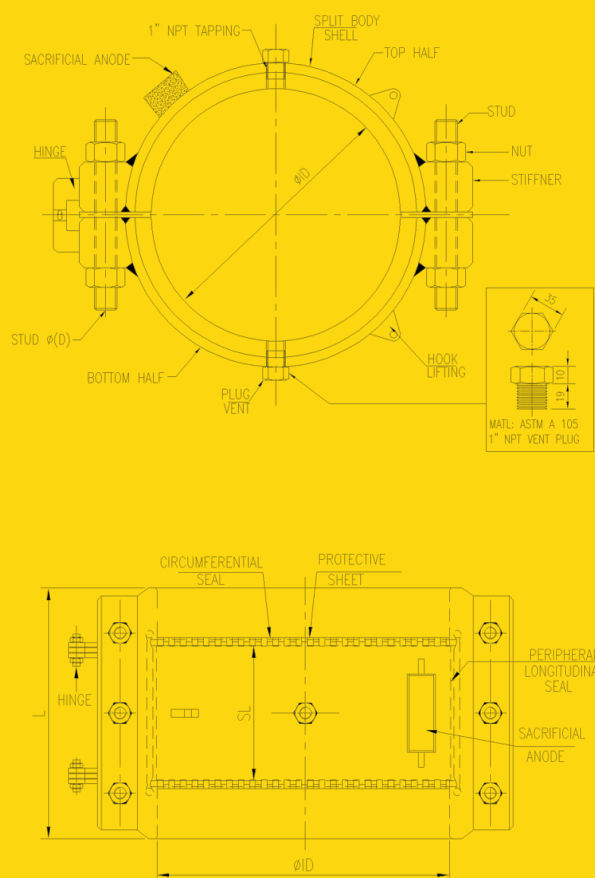
Heat insulators (parallel to the seals) protect the seals from heat during the welding of the sleeves to the pipe .

Clamps with longer lengths available on request.

Standard Sizes (others available on request)

API Pipe Size (inches)	Sealing length (inches)	Total length ansi 400/600 (inches)	Total length ansi 900 (inches)
4	5 1/2	9,25	9,25
6	5 1/2	9,25	11
8	5 1/2	9,25	11
10	5 1/2	11	11
12	5 1/2	11	11
14	8	14	12,5
16	8	14	14
18	8	14	14
20	8	14	14
22	8	14	14
24	8	14	15,75
26	8	15	15,75
28	8	15	15,75
30	8	15	17,25
32	8	15	17,25
34	8	15	17,25
36	8	16	17,25
38	8	16	19
40	8	16	19
42	8	17,5	19
48	8	17,5	20,5

general drawing for an off shore split sleeve with zinc anode and girder rings



Standard Clamp Components

Body (shell)	A516 Gr. 70
Stud Bolts	A193 Gr. B7
Nuts	A194 Gr. 2H
Gaskets	NBR or Viton
Coating	(Marine) Epoxy

Offices and factory:
Kerkdijk-Zuid 11a
5492 HW Sint Oedenrode
The Netherlands

T +31 88 765 44 50
F +31 88 765 44 51
E sales@romaconpetro.com