

# Riserpipe Corrosion Protection

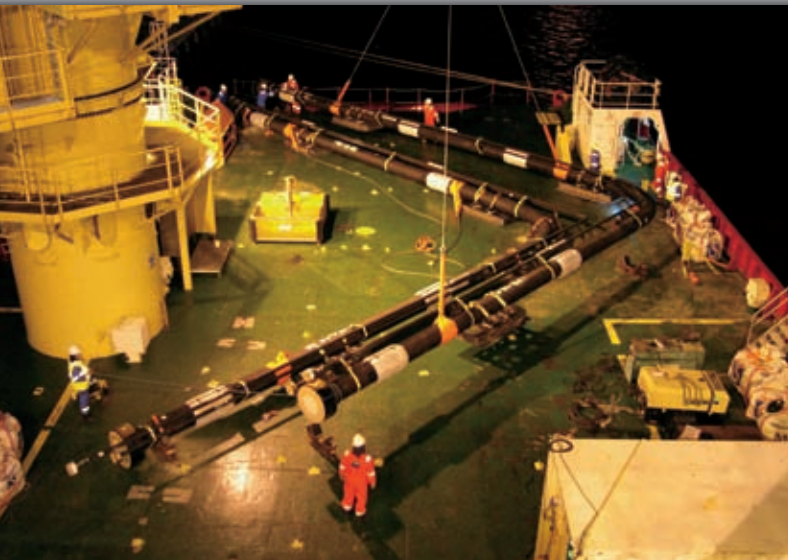
Trelleborg Ridderkerk BV



## Introduction

In the Oil & Gas Industry, corrosion is a significant cause of high repair costs. Premature component replacement is often caused by the degradation of steel due to attack by chemicals, gasses and vapours.

Rubber is a perfect material to coat riser pipes and clamps in a demanding environment, such as the splash zone, where good protection is essential for reliability and durability. Trelleborg Ridderkerk BV has several decades' experience as specialists in the application of rubber coating and lining of structural parts for the Oil & Gas industry.



## Design

Compared to other coating systems such as paint for example, rubber's high flexibility easily accommodates deformations caused by large temperature differences. It is also extremely impact and abrasive resistant and impermeable to sea water. Rubber has excellent bonding properties to carbon steel, Duplex and Super Duplex stainless steels.



## Materials

Trelleborg Ridderkerk BV has developed a polychloroprene (PCP) rubber compound for coating and lining applications, having excellent properties with high resistance to ultra violet radiation and Ozone. The riser pipe coating can also be provided with an anti-fouling system, called Cupro-prene. Every batch of rubber is tested to verify compliance with the specification and ensure reliability in service.

## Testing

The applied PCP coating and lining system is always verified by visual inspection, hardness test, dimensional checks, holiday test and a hammer test. The holiday test involves the application of a high-voltage spark to determine the presence of contaminations and voids within the coating. In addition to the non-destructive tests we also perform adhesion tests to determine the cohesive strength of the coating system. When required, a Pre-Qualification Test (PQT) will be performed. The PQT can consist of the following tests: abrasion, saltwater absorption, cathodic disbondment and ozone cracking.



## Services

Most of the lining work is applied in our factory in Ridderkerk, near Rotterdam. After the pipes and bends have been welded, the exposed steel surfaces should be coated on site. These so-called field joints will have the same high quality and will be made flush with the original factory coating.



## Policy quality, environment, safety and health

The policy of Trelleborg Ridderkerk BV is to design, produce and deliver rubber products which are in accordance with the customers' requests, needs and expectations. Our policy is based on the Trelleborg Group policy statement 'Code of Conduct', which is presented on the website [www.trelleborg.com](http://www.trelleborg.com).

During the development of products and processes the environment, safety and health are integral to the process.

Trelleborg Ridderkerk BV is using an integrated management system which complies with international standards such as ISO 9001, ISO 14001 and SCC\*\* 2008/05 Petrochemical.



Riser of Leman 'A' platform, Shell UK. Source Fabricom.



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Trelleborg Ridderkerk BV is a member of the Product Area Infrastructure with companies in the Netherlands, Spain, Russia and China.