Primus Line®
Flexible technology for the trenchless rehabilitation of oil pipelines

Crude oil
Refined oils
Fuel oil
Fuel
Oil slag
Application

Primus Line® is an innovative technology for the trenchless rehabilitation of pressure pipelines for different media such as oil, water and gas.

The process is based on a flexible high-pressure hose and a connecting technology, which has been developed specifically for this system. The oil industry is facing new challenges as a result of damage to steel pipelines caused by internal corrosion. Possible leakages might cause significant environmental damage; they also mean increased costs or even loss of reputation for network operators. Primus Line® is suitable for the renovation of oil pipelines due to the medium-specific inner layer, and acts as a corrosion barrier between the transported fluid and the host pipe.

Features

- Inner layer: Media-specific based on TPU
- Primus Line® connector with flange
- Outer layer: Abrasion-resistant PE sheath
- Kevlar fabric: Seamless aramid fibre (one- or two-layer) fabric

Advantages

High Strength and Quality
- Life span of at least 50 years
- High abrasion and cut resistance of the outer coating
- No corrosion of Primus Line®

High Performance
- Minimum cross-section loss due to low wall thicknesses of 6.0 or 8.0 mm
- Improved flow properties of the pipe
- Pressure increase for existing pipeline

Underwater diesel pipeline, Italy:

An underwater pipeline in the Mediterranean, which transports diesel from a coastal docking station to a mainland fuel depot, was in need of renovation. In order to address the advanced corrosion process caused by saltwater, the pipeline operator opted for the Primus Line® system as the maintenance method.

As the works had to take place underwater, a solution was sought that required as little equipment as possible for the installation process. In addition, the renovation had to be as quick as possible so that the pipeline could be swiftly returned to operation.

- Transported medium: Gas
- Diameter of the host pipe: DN 250
- Material of host pipe: Steel pipe
- Operating pressure: PN 10 bar
- Primus Line® system: DN 250 PN 19 bar
- Total length: 830 m
- Bends: Two 45° bends and 30° bend
- Number of construction sections: 1 installation section
- Longest installation section: 830 m

Primus Line® across the world

As an international company with increasing levels of global activity, the Rädlinger primus line GmbH does not just work from its headquarters in Germany; it also has a branch office in the USA.

Primus Line® - the flexible system for trenchless pipe rehabilitation – has proven itself in numerous projects across the world, and has already demonstrated its many benefits in the most wide-ranging fields of application.

References in the field of oil

Global activities by Rädlinger primus line GmbH

As an international company with increasing levels of global activity, the Rädlinger primus line GmbH does not just work from its headquarters in Germany; it also has a branch office in the USA.

Primus Line® - the flexible system for trenchless pipe rehabilitation – has proven itself in numerous projects across the world, and has already demonstrated its many benefits in the most wide-ranging fields of application.

Industrial Pipe Solutions Worldwide

As an international company with increasing levels of global activity, the Rädlinger primus line GmbH does not just work from its headquarters in Germany; it also has a branch office in the USA.

Primus Line® - the flexible system for trenchless pipe rehabilitation – has proven itself in numerous projects across the world, and has already demonstrated its many benefits in the most wide-ranging fields of application.

Own branch office in the USA

Headquarters in Germany

Numerous projects worldwide
### Transport pipeline for crude oil in Poza Rica, Mexico:

A damaged steel pipeline had to be repaired and protected against corrosion. The pipeline is situated in a difficult to access jungle and was laid at a depth of up to 10 m below ground level. After just a few years of operation, the existing pipeline started leaking as a result of internal corrosion.

The company Petroleos Mexicanos opted for the innovative Primus Line® technology for this renovation project. The 1,030 m long pipeline was replaced in three sections, and all works were completed within just one week.

- **Transported medium:** Crude oil
- **Diameter of the host pipe:** DN 200
- **Operating pressure:** PN 16 bar
- **Primus Line® system:** Flexible pressure pipe DN 200 PN 25 bar
- **Total length:** 1,030 m
- **Bends:** Several vertical and horizontal bends of up to 30°
- **Number of construction sections:** 3 installation section
- **Longest installation section:** 680 m

### Wet oil transport pipe in Meppen, Germany:

The existing wet oil pipelines DN 250 and DN 300 run straight through the oil field in the district of Meppen. As they are situated in moorland, they can only be accessed via narrow access roads.

Besides the small number of interventions in the landscape and the reduced amount of machinery required, it was mainly the short construction period and the fast recommissioning that stood for the Primus Line® system.

Unlike open pipeline construction or stainless steel pipelines, cost savings of up to around 70% could also be achieved.

- **Transported medium:** Wet oil
- **Diameter of the host pipe:** DN 250 and DN 300
- **Operating pressure:** PN 32 bar
- **Primus Line® system:** Flexible pressure pipe DN 250 PN 32 bar, DN 200 PN 32 BAR
- **Total length:** 2,200 m
- **Bends:** Several bends of up to 45°
- **Number of construction sections:** 7 installation section
- **Longest installation section:** 540 m

ScanTech proactively addresses both quality and environmental concerns from component manufacturing to installation. ISO 9001 and ISO 14001 standards are the basis for the manufacture of all parts in pipe components and systems delivered by ScanTech.