



FUTURE PIPE INDUSTRIES B.V.

Glassfiber Reinforced Pipe Systems

Line pipe project for PDO in Oman

Location

Saih Nihayda - Saih Rawl
and
Natin - Fahud

Date

2002 - 2002

End User

PDO Oman
(Shell related company)

Contractor

Toco Oman



Description

Replacement of a corroded steel pipeline system into an GRE line pipe system.

Scope

Our scope included:

- Engineering and system design
- Fabrication
- Installation supervision

Pipe System

The total length of both Epoxy pipe systems were as follows;

- 26 Km, design pressure 35 bar at 90°C (hydrostatic test pressure 52,5 bar).
- 32 Km, design pressure 40 bar at 65°C (hydrostatic test pressure 60 bar)

The pipe– and fitting connection for both systems are based on a adhesive bonded system, with an integral taper bell end and an tapered spigot end. Standard pipe length 10 mtr.

Average installation time per day 1.000 and 1.200 mtrs.

Advantages

The long term safety behaviour and low maintenance costs of GRE were important factors for the use of GRE in this project. The actual installed steel pipes were heavily corroded and needed to be replaced, due to leakage's in the field.

Other benefits were:

- No need for cathodic protection
- No X-ray testing
- Due to the smooth wall (inner liner), saving energy and very low or no paraffin build up
- System allows pigging activities (using soft foam pigs)
- Fast installation time
- Low life cycle costs