



Taper/Taper adhesive-bonded Joint



## 350 psig Gas Flow lines - Bondstrand® pipe and fittings with gas-tight designed piping and joints

The purchase order was received from Al-Hassan Engineering for PTT Exploration and Production PCL in Thailand for Shams project in Shams Gas Field – Oman.

The 5km - 8 inch - 40 bar pipe for this project were produced on our MMM winder in Singapore in record time, inspection was done immediately after manufacturing and shipment was made two weeks ahead of the schedule agreed with the contractor.

NOV Fiber Glass Systems proven track records for gas application and short delivery time was instrumental to the successful project implementation.

Composite pipelines present a very cost effective corrosion resistant solution for transporting raw natural gas for low operating pressures below.

NOV Fiber Glass Systems is proud to pioneer GRE gas applications in Oman. In recognition of achieving the quality expectations, Bondstrand 2400.

### Containment Features

Gas applications are designed differently than less critical liquid applications (such as produced water or crude oil). The concerns for permeability of the gases and the high level of potential energy stored in compressed gas pose higher level engineering challenges. Bondstrand 2400 Gas Series is designed to handle gas applications with gas-tight containment features:

- **Reinforced Resin Matrix Inner Line**  
A heavy-duty corrosion resistant liner is incorporated for gas containment. This matrix is manufactured using aromatic amine cured epoxy and reinforced using C-veil.
- **Taper/Taper bonded, High Pressure Joints**  
Joints principles are based on bonded connections as per ASME 31.8. The Taper/Taper bonded joint is non-permeable, using a heat-cured epoxy adhesive system for pipe-to-pipe and pipe-to-fittings connections. To ensure high reliability, the joint connection is designed to be stronger than the pipe laminate.

### Location

Shams Gas Field – Oman

### Client

(PTT – Exploration & Production) - Oman

### Project location

Shams Gas Field – Oman

### Pipe system

Bondstrand 2440

Diameter: 8 inch

### Working conditions fluid

350 psig at ambient temp.

Natural Gas (4.7% CO<sub>2</sub>, H<sub>2</sub>S 3000 ppm)

### Installation year

Early 2006

### Specifications

ISO 14692