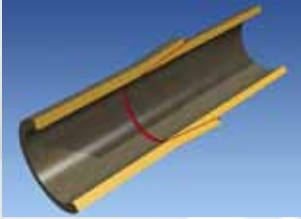


Quick-Lock® adhesive-bonded joint



Taper/Taper adhesive-bonded joint



Bondstrand® Glassfiber Reinforced Epoxy (GRE) pipe systems for USGIF platforms

Located about 460 km from Bangkok, in the Gulf of Thailand, the Platong Oilfield is a rich source of natural gas. Currently, a gas and two oil central processing platforms are operating in this shallow water field. To meet the increasing demand for gas in Thailand, Chevron engaged PTI McDermott to design and build Platong Gas II.

This massive development consist of:

- a Gas Central Processing Platform
- a Living Quarters platform
- a Flare Tower
- Connecting Bridges

Project Management and planned execution is key and differentiates NOV FGS from other suppliers. NOV FGS's on-time delivery and systematic spool production enabled PTI McDermott to meet the fast track 10-month construction duration of this project.

Scope

Glassfiber Reinforced Epoxy pipes and fittings were selected for the Firewater System as well as the Seawater and Drainage Systems. NOV FGS was appointed to provide the scope of engineering, stress & surge analysis and supply of Glassfiber Reinforced Epoxy pipe and fittings for the complete GRE systems.

<i>supplier</i>	NOV FGS	Manufacturer of Bondstrand pipe systems
<i>contractor</i>	PTIM	EPC Contract for Chevron
<i>specification</i>	JRM	Bondstrand 2000M, 2020 & PSX-JF pipe systems
<i>approval</i>	IMO	According to IMO A753 L3 standard.

Advantages

- Reduction in installation cost and time
- Reduction in pumping cost
- Expected long term service life 30 years
- Corrosion resistant
- Reduced marine growth
- Maintenance free
- Light weight material

Project

A PTTEP PLATONG GAS II - Umm Shaif Gas Injection Facilities (USGIF) is located in the shallow waters of the Gulf of Thailand

Shipyard

Jay Ray McDermott Asia Pacific (JRM) – Singapore
PT McDermott (PTIM) - Indonesia

Client

Chevron Corporation

Pipe system

Bondstrand 2000M, 2020 and PSX-JF. Diameter: 2-36 inch (50-900 m) with Quick-Lock and Taper/Taper adhesive-bonded joints for:

- Firewater (wet)
- Firewater (dry)
- Servicewater
- Deck Drains

Operating conditions

	A9	A10	A12
Operating pressure	16 bar	20 bar	16 bar
Operating temperature	93 °C	93 °C	93 °C
Design pressure	up to 16 bar	up to 20 bar	up to 16 bar
Design temperature	10-93 °C	10-93 °C	10-93 °C
Test pressure	24 bar	30 bar	24 bar

Installation date

Mid 2010