

40 years and counting

Bondstrand glass fiber-reinforced epoxy piping systems continue to perform in the Dutch North Sea.

Background

In the early 1980s, most piping systems on offshore oil and gas drilling rigs and production platforms were made from steel. While using glass fiber-reinforced epoxy (GRE) piping was not new, Unocal 76, the operator at the time, chose our Bondstrand™ piping systems for three offshore platforms, including Helm, the first in the Dutch North Sea.

Solution

The operator selected Amerplastics (one of our distributors) to design, fabricate and supply our Bondstrand 2000M piping systems for the Helm, Helder, and Hoorn platforms because they are lightweight, less expensive to build, easier to install, corrosion-resistant, durable, require minimal maintenance, and reduce the total cost of ownership. We provided GRE piping systems for sewer, open and closed drains, cooling water, oil/water skimmers, and riser pipe applications on all three platforms, as well as potable water on Helder.

Results

The operatorship of the platforms has transferred from Unocal to Chevron to Petrogas E&P Netherlands, but our GRE piping systems have delivered proven and reliable performance for more than 40 years. While other pumps, vessels, equipment, and parts on the living quarters and kitchen blocks were replaced, repaired, and renewed due to the harsh and corrosive environments, our original Bondstrand piping has remained throughout the lifetime of these platforms. Our Bondstrand piping systems were later installed on the Haven and Halfweg Sand platforms in the Dutch North Sea.

Case study facts

Location: Dutch North Sea

Rig or customer: Petrogas E&P Netherlands B.V.

Products:

- Bondstrand 2000M pipe in 1, 1.5, 2, 3, 4, 6, 8, and 10 in. diameters with Quick-Lock™ adhesive-bonded joints

Time frame:

- 1980 to present

Innovation bullet statements/results:

- Bondstrand piping systems are still operating on these platforms after more than 40 years.

CAPEX Benefits:

- Lightweight, typically 75% lighter than steel
- Fast installation
- High strength

OPEX Benefits:

- Minimal maintenance
- Excellent corrosion resistance
- Non-sparking, no earthing
- Proven durability
- Enhanced safety

