

The background of the advertisement is a black and white photograph of an offshore oil rig. The rig is a complex structure of steel beams, pipes, and platforms, situated in the middle of the ocean. Several tall, cylindrical smokestacks are visible, and a large crane is positioned on the right side of the rig. The sky is filled with clouds, and the water is visible in the foreground.

“With the combined technology of Polyflow and Teijin Aramid, gas- and oil-field services can keep running smoothly.”

Jay Wright, President at Polyflow LLC

Twaron[®]

Extending the lifetime of oil and gas pipelines

The high strength of the Twaron® aramid fibers allows for a pull-length of over ten kilometers, and the rehabilitation can be completed in a matter of hours. The result is a rehabilitated pipeline with the strength of new steel without the concerns of future corrosion. From the offshore pipelines in the Middle East to the sweet and sour lines in Texas and New Mexico, Polyflow's Thermoflex® pipe rehabilitation has provided a secure and long-term solution, reducing costs and downtimes to a fraction of their previous amounts.

Global success

Founded in 2002 in Philadelphia, Polyflow LLC designs, manufactures and markets reinforced thermoplastic pipes (RTP) for the oil and natural gas tubing industry. By reinforcing various polymers with Teijin Aramid's Twaron®, Polyflow created an exceptionally high-quality type of tube. After two years of laboratory and field tests, the product was commercialized in 2004, and the business began to grow. Now in its second decade, the company operates across the globe, manufacturing submersible and surface tubing, and rehabilitating onshore and offshore pipelines.

Teijin's vision

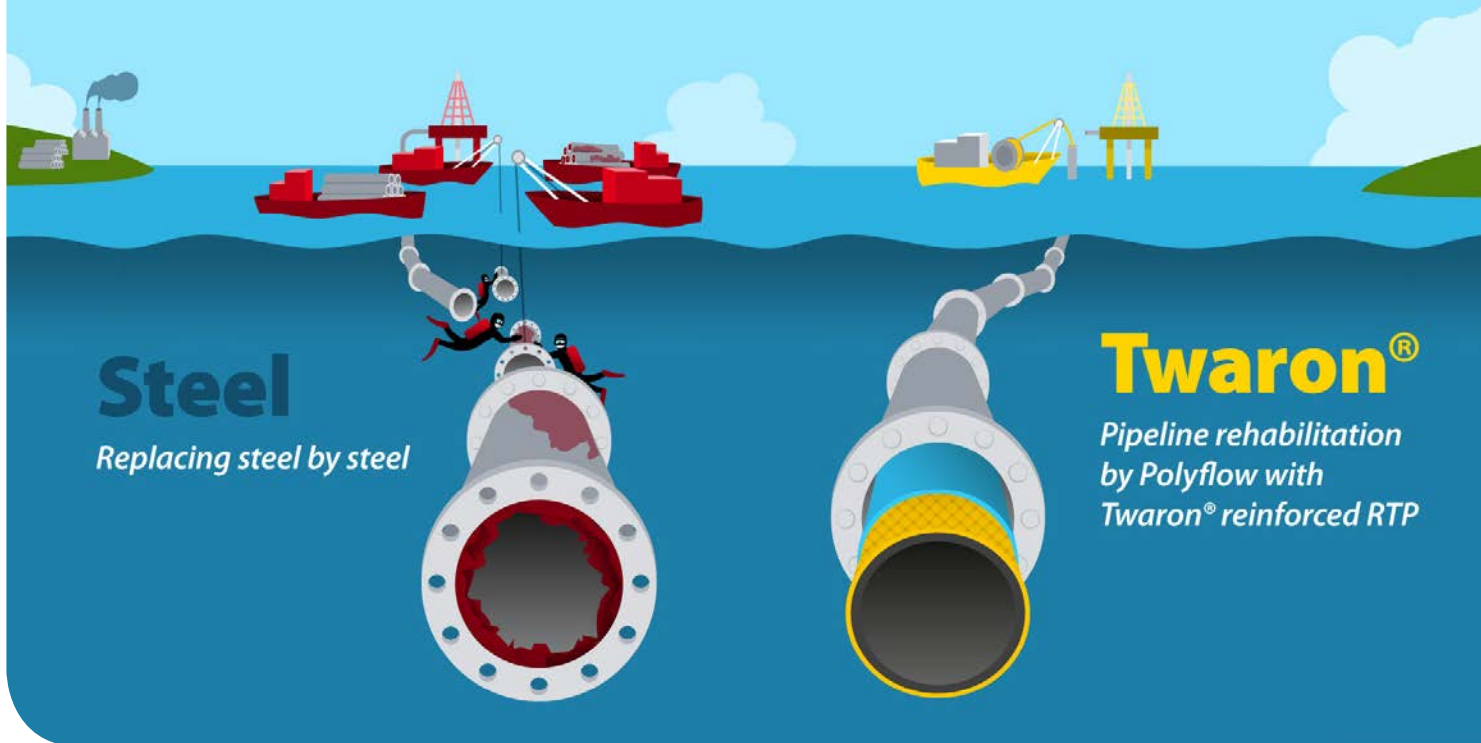
With the dramatic growth of the oil and gas markets since the early 2000s, Teijin Aramid's relationship with Polyflow has proved highly successful. Jay Wright, President at Polyflow LLC, highlights the foresight of Teijin Aramid's CEO, Gert Frederiks:



Key benefits of Twaron® for piping solutions:

- > Lower weight and higher strength
- > Longer pipe lifetimes and durability
- > Superior chemical and heat resistance
- > Adjustable to specific applications
- > Easy to integrate into production

Twaron®



Steel

Replacing steel by steel

Twaron®

Pipeline rehabilitation by Polyflow with Twaron® reinforced RTP

“Teijin understood early on the opportunity of what we could offer, and supported Polyflow right from its infancy. Teijin’s trust in Polyflow has been well founded, and both companies have benefited from the dramatic growth in the oil and gas markets.”

Pipes within pipes

In particular, Polyflow has been able to transform the field of pipeline rehabilitation. With its superior corrosion resistance, higher-pressure capacity and improved flow characteristics compared to steel, Polyflow’s Thermoflex® tubing has proved ideal for the harsh environment of the hydrocarbon transport industry. When the more conventional steel piping becomes corroded or damaged, Polyflow can quickly and easily prevent further damage and downtime by inserting an inner tube with the PullThru process. “The cyclic loading environments of oilfields place a high demand on the conveyance system,” says Jim Medalie, CEO of Polyflow. “That’s why having chemically resistant tubing is crucial. With the combined technology of Polyflow and Teijin Aramid, gas- and oil-field services can keep running smoothly.”

Growth is in the pipeline

“Analysts agree that the global demand for liquid hydrocarbons will continue to grow,” says Jay. “With reinforced thermoplastic piping and our pipeline rehabilitation system gaining greater acceptance within the industry, the future looks bright for our

“Twaron® enables superior corrosion resistance, higher-pressure capacity and improved flow characteristics compared to steel.”

relationship with Teijin. Another interesting development is that oil companies are drilling at deeper and deeper depths, meaning that our products are exposed to increasingly higher temperatures. That’s why we’ve recently also started to use Teijin’s heat-resistant material Technora.” In short, it seems clear that further market growth is in the pipeline!

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