

Bondstrand Composite Pressure Vessels

We design and manufacture premium quality Fiber Reinforced Polymer (FRP) composite pressure vessels which are the perfect fit for demanding offshore applications.

Our pressure vessels use the same material, and filament wound manufacturing process as Bondstrand™ piping, which has been extensively used in offshore applications for the last 50 years. Manufactured using high quality glass and epoxy resin, and available from from 4 to 60 in. diameter, our FRP composite pressure vessels provide a lightweight and corrosion resistant alternative to metallic pressure vessels.

Using a combination of our unique Advanced Design and Advanced Manufacturing (ADAM) capabilities, and the outstanding reputation for quality that Bondstrand piping has; we can manufacture FRP pressure vessels to client specified design codes, including ASME X.

In-house capabilities in cutting-edge design and innovation, specialist fabrications, and a comprehensive range of engineering services allows our team of experts to provide high quality and tolerance, advanced automated manufacturing equipment and processes, as well as an all-inclusive solution, from offshore surveys, Finite Element Analysis (FEA), Computer Aided Design (CAD), through to manufacture and installation.

CapEx Benefits

- Low weight, typically ⅔ weight saving over steel
- Cost effective compared to high grade metallics such as titanium, lined carbon steel, and super duplex
- Fast installation
- Meets offshore fire reaction requirements

OpEx Benefits

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

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Vessel type 1



Vessel type 2



Vessel type 3

Vessel Type	Description	Typical Applications	Design Codes
Vessel type 1	Small diameter, high pressure, up to 8 in. diameter, pressure up to 1200 psi (85 barg), up to 9 metres long.	Reverse Osmosis (RO)	ASME X (PED requirement for Europe)
Vessel type 2	Large diameter, low pressure, using existing range of Bondstrand pipe, up to 60 in. diameter, pressure up to 145 psi (10 barg), up to 11 metres long.	Seawater filtration including ultrafiltration, cartilage filtration, multimedia filtration and coarse filtration, fresh water, chemical injection, utility and supply systems.	ASME X and DNVGL-ST-C501
Vessel type 3	Large diameter, low pressure, using existing range of Bondstrand pipe with filament wound domed ends. Pressures up to 360psi (25 barg) for diameters up to 24 in., 290psi (20 barg) for diameters 26 in. to 36 in. and 145psi (10 barg) for diameters 40 in. to 60 in., up to 11 meters long.	Seawater filtration including ultrafiltration, cartilage filtration, multimedia filtration and coarse filtration, fresh water, chemical injection, utility and supply systems.	ASME X and DNVGL-ST-C501

Contact details:

17115 San Pedro Ave.
Suite 200
San Antonio, TX 78232 USA
fgspipe@nov.com
+1 (210) 477-7500

Pipex Ltd, 1 Belliver Way
Roborough, Plymouth,
Devon, UK PL6 7BP
fgssales@nov.com
+44 (0) 1752 581200