

Fiberglass Piping Systems and Tanks for Lithium Extraction



Proven composite solutions for a rising market.

The supply and demand disparity for lithium continues to challenge the global market. The demand for lithium is projected to increase more than 40 times in the next 20 years as renewable energy technologies become more ubiquitous. NOV's Fiber Glass Systems entered the lithium extraction market more than 25 years ago in the Salton Sea in southern California and has continued worldwide.

Lithium extraction is challenging, and only the toughest equipment can handle the job. Our proven and customizable corrosion-resistant solutions have been used in a variety of applications, including brine and lithium chloride handling, settlers, clarifiers, tanks and vessels for various chemical services, and ion exchange vessels.

Our fiberglass-reinforced plastic (FRP) tanks and piping systems are lightweight, reduce maintenance, and eliminate the need for exotic alloys, providing lower project costs and the long-term performance needed in lithium extraction processes. Our trusted brands include Red Thread, Green Thread, Bondstrand, STAR, Centricast, Ershigs, Belco, and Fibra.

Tanks and Vessels

For us, there is no vessel too big or too small. Our FRP tanks come in a wide assortment of shapes and capacities to meet virtually any storage and processing need. Shop tanks can be made up to 20 feet in diameter. For tanks beyond 20 feet in diameter, we can field assemble or field wind on your project site. We have been

field winding FRP tanks since 1972 and are the only company that can assemble tanks up to 120 ft (37 m) in diameter.

We design, manufacture, inspect, test, and stamp FRP shop and field tanks in accordance with ASME RTP-1.

Our tanks and vessels are designed for your lithium extraction process and constructed to your site requirements. The large diameter field tanks are manufactured via:

- **Field Assembled:** Tank shell sections are produced at our manufacturing facility, compressed or obliterated if needed to a truck shipping dimension, delivered to your job site, and field assembled by us.
- **Field winding:** We erect specialized field winding equipment on your job site, filament wind the large FRP shells, and assemble the tanks on the final foundation or at a centralized job site assembly area.
- **Pressure Vessels:** We are an ASME Section X certified fabricator for Class 1 and 2 pressure vessels.
- **Dual Laminate Vessels:** Our FRP dual laminate tanks are tailor made to your service with liner options such as PVC, CPVC, PP, PVDF, and ECTFE.

Piping systems

With more than 60 years of FRP experience, our global manufacturing footprint and capabilities are unmatched. Our extensive line of products has grown to include the leading brands in the market, creating a superior worldwide offering to battle corrosion and lower lithium project lifecycle costs with a maintenance-free solution. We offer engineering and design support, prefabrication, field service, turnkey installation, and training to ensure your FRP piping systems are installed on time, efficiently, and safely.

Our standard piping systems range from 1 in. up to 42 in. in low and high pressure classes (up to 207 bar). Their inherent corrosion resistance and high temperature capabilities makes them ideal for handling tough applications such as brine transport, harsh chemicals, and a variety of water services. Additionally, we also have abrasion resistant systems for services that contain a higher concentration of solids.

If your project requires diameters beyond our standard sizes, we can custom fabricate piping systems to your project needs.

Fiber Glass Systems products are backed by the reliability and responsiveness of our Services and Aftermarket group. From installation and commissioning to repairs, upgrades, certification, and training, our highly trained and ASME B31.3 certified field service technicians are available to safely handle on-site needs.



Custom Engineering & Manufacturing

Our specialized expertise is proven in the ability to fabricate and construct to unique customer requirements which do not lend themselves to standard designs, existing tooling or standard manufacturing practices. We enjoy the challenge of combining a customer's great idea with our composite design and/or manufacture capabilities to produce a superior composite product.

