INDUSTRIAL SOLUTIONS

LARGE DIAMETER FRP TANKS & VESSELS









When it comes to Large Diameter FRP Composite Tanks and Vessels, Ershigs develops unique solutions for achieving your project objectives from start to finish.



Call On The Industry Pioneers For Your Large Diameter FRP Tanks & Vessels

When it comes to containing and conveying corrosive fumes and fluids, Ershigs is experienced in designing and manufacturing FRP Composite equipment for a multitude of technologies and processes. Excelling in large diameter on-site winding and assembly of FRP tanks and vessels – we are the industry pioneers in large diameter FRP field tanks and have been since 1972. Our expertise in the design and construction of FRP field tanks has no boundaries. We continue to deliver solutions worldwide to various industries including: Power and FGD, Metals & Mining, Chemical Processing, Pulp & Paper, Industrial Water, Waste Water and Semiconductor.

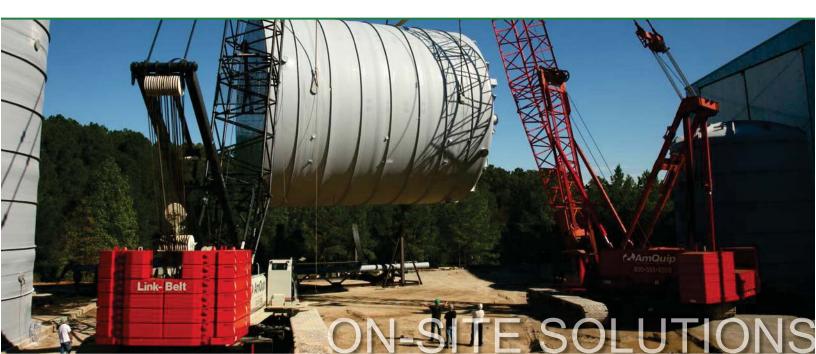
Distinguished by an experienced team of engineering, manufacturing and construction professionals – you can count on Ershigs to deliver on every aspect of your project objectives. Recognized as a leading Specialty Contractor, Ershigs evaluates each project and understands each jobsite is unique – and we implement unique solutions for the success of your field tank project.

Ershigs covers the spectrum of solutions for manufacturing large diameter field tanks to include these options:

- Ring E-blation™: tank shell sections are produced at Ershigs manufacturing facility and compressed or "oblated" to a truck shipping dimension, delivered to your jobsite and assembled by Ershigs Construction
- Barge Delivery: FRP vessels are manufactured and completely assembled at one of our two Ershigs facilities which have waterway access, loaded onto barges and delivered to your jobsite landing
- **Field Winding**: Ershigs Construction erects specialized field winding equipment on your jobsite, filament winds the large FRP shells and assembles the tanks on the final foundation or at a centralized jobsite assembly area

One or more of the above solutions may be recommended to provide you with a project approach that best solves your needs and schedule, while also providing the lowest overall installed cost. Likewise, the most appropriate resin and reinforcement materials are selected to meet your individual corrosion resistant requirements and project specifications. Ershigs works closely with premium grade resin and reinforcement suppliers. We manufacture only with qualified and tested raw materials. Bisphenol and Novalac Epoxy Vinylesters, both fire retardant and non-fire retardant, are the dominant resins used due to the superior corrosion resistance, heat resistance and tensile elongation properties. The corrosion barrier can also be made abrasion resistant by incorporating Ershigs Stopline-G2™ materials.

To complete your project, Ershigs supplies a wide range of tank components to include agitator supports, ladders, platforms, handrails, heat tracing, level gauges and vessel internals.



EXCELLENCE IN ENGINEERING AND DESIGN

Designing with FRP requires a unique knowledge of composite materials, environmental conditions, chemical properties, ASTM and ASME specifications and familiarity with specialized fabrication and construction practices. At Ershigs, we have an abundance of knowledge, tools and talent. Our team utilizes design by rules approach and modern software programs such as ANSYS FEA, Inventor Solid Modeling, Caesar II, Tri-Lam III, CaePipe and AutoCAD to develop the structural designs and drawings to meet your specifications. Ershigs is one of the few FRP companies that can design, manufacture, inspect, test and stamp FRP Field Tanks in accordance with ASME RTP-1.



RING E-BLATION™

- Diameters: 16 to 57 feet
- · Minimized field construction
- · Cost effective
- · No site environmental air permits needed
- Short project schedules



BARGE SHIPPING

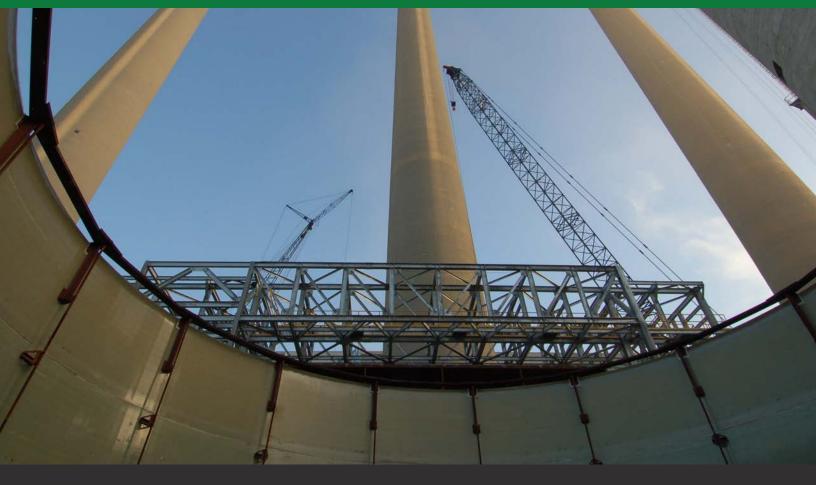
- Diameters: 16 to 50 feet
- Vessels completely assembled in Ershigs' shop
- · No FRP field construction
- · Lower customer construction management cost
- Eliminates site environmental air permit considerations
- · Eliminates site assembly space consideration
- · Shortest project schedule



FIELD WOUND TANKS

- Diameters: 16 to 120 feet
- · Numerous tanks with common diameter
- · Vessels taller than 50 feet
- Vessels too thick for Ring E-blation™
- Minimizes shell joints
- Environmental air permit typically required
- Project schedule must include time to set-up mobile winding equipment.

With our proprietary technology, Ershigs has the ability to manufacture systems in our plant then transport them safely to your site – and for larger installations we have the unique ability to build on-site, to your exact specifications.



USE OUR EXPERIENCE TO YOUR ADVANTAGE



ERSHIGS IS A SUBSIDIARY OF DENALI INCORPORATED

Founded in 1995, Denali Inc. is a privately held company, operating industrial design, manufacturing and specialty construction operations in the United States and Canada. Denali leads the industry in the manufacture and construction of FRP equipment used in storing and handling critical fluid and fumes. Products include: Above ground and below ground FRP tanks, vessels, stacks, chimney liners, scrubbers, piping systems, duct systems, dampers, manholes and oil/water separators.

Meet Our Other Companies:



Containment Solutions, Inc. (CSI) manufacturer of fiberglass composite and steel storage tanks. CSI specializes in a full line of above ground and below ground storage tanks and compartment tanks for petroleum, automotive fluids, chemical and water storage; oil/water separators for storm water discharge; leak detection and monitoring equipment, and Flowtite® fiberglass manholes, rehabilitation manholes and wetwells for the wastewater industry.



An FRP custom design and manufacture company providing a wide scope of products including tanks, vessels, piping, ductwork, dampers, scrubbers, stacks and manholes. Industries served include: Water/ Wastewater, Metal & Mining, Semiconductor and Power/FGD.



Fabricated Plastics Ltd., a global leader in the design and manufacture of thermoplastic lined FRP, unlined FRP and thermoplastic assemblies for corrosion applications. Serving industries: Pulp & Paper, Metals & Mining, Chemical Processing, Food & Drug, Semiconductor, and Power — with a wide range of engineered products including: scrubber system process design and supply, tanks, piping, ductwork, stacks, acid cooling towers and scrubber internals.



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Visit our website: Ershigs.com

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