

# FRP COMPOSITE PRODUCTS FOR

Water and Wastewater  
Infrastructure

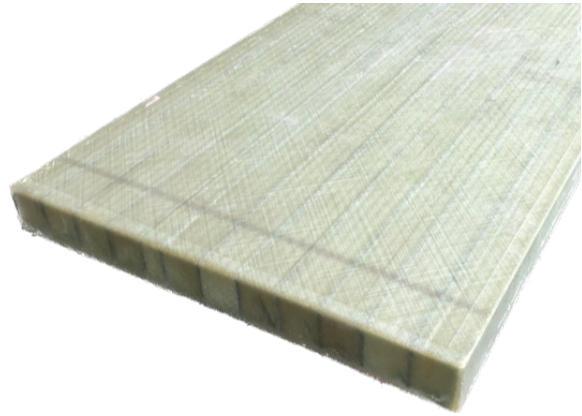




# TECHNOLOGY

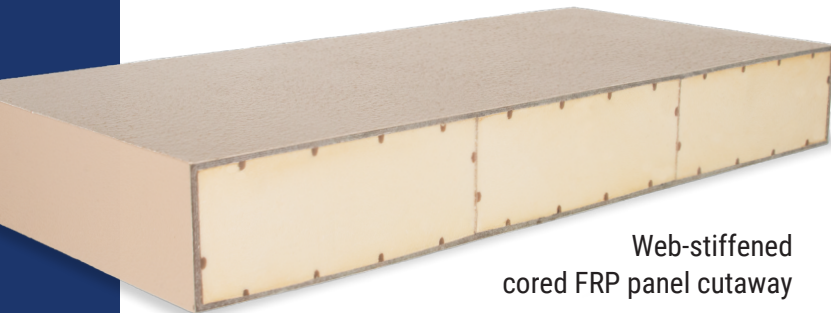
## Vacuum Infusion

Orenco Composites products are vacuum infused: a process commonly used to build aerospace parts, wind turbine blades, and luxury yachts. Vacuum infusion creates high-performance fiber-reinforced polymer (FRP) structures capable of withstanding significant loads and providing long-term durability. It's ideal for complex shapes that are difficult to produce with other manufacturing methods. Our standard vacuum-infused laminates have a tensile strength exceeding 50,000 psi, rivaling many metals. Orenco Composites' vacuum infusion process minimizes waste and meets the EPA's Maximum Achievable Control Technology (MACT) for air emissions.



## Web-Stiffened Structures

Orenco Composites has further optimized the vacuum infusion process to produce web-stiffened, cored structures. While many FRP laminates are similar to steel in terms of tensile strength, they aren't nearly as stiff. We overcome this by molding in structural webs and low-density foam cores between two FRP skins, essentially creating a continuous series of I-beams. This produces structures that are very stiff, seamless, and integrally insulated.



Web-stiffened  
cored FRP panel cutaway

## KEY BENEFITS OF FRP COMPOSITES



**High strength-to-weight ratio**



**Superior corrosion resistance**



**Long-term durability**



**UV-stable finishes**



**Simple, fast installation**



**Low maintenance needs**

# DURAFIBER® BUILDINGS

Fiber-reinforced polymer (FRP) DuraFiber buildings from Orenco Composites protect your equipment, electronics, and chemicals from extreme weather and temperatures – a uniquely rugged, fast, and affordable solution.



## APPLICATIONS

- Chemical distribution and storage systems
- Booster pump stations
- Motor control centers
- Lift stations
- Process automation

## Super Strong, Lightweight, Insulated

Our DuraFiber buildings are designed for strength and durability as well as ease of installation and turnkey operation of your specified internal equipment. Seamless one-piece construction and integral insulation provide a high degree of dependable environmental control. Our buildings feature a wide range of standard and custom sizes as well as optional equipment to meet your application's exact needs.





# RECTANGULAR TANKS

Our rectangular tanks are vacuum infused in one piece from corrosion-resistant materials, providing a high-strength, seamless vessel. The unique foam-core structural wall is integrally insulated (R24 or greater), stiff, and strong – and can either be buried or placed above ground.



## APPLICATIONS

- **Industrial wastewater processes**
- **MBR, MBBR, and SBR processing tanks**
- **Equalization tanks**
- **Storage tanks**
- **Oil/water separators**

Our rectangular tanks are customizable for a wide range of temporary or permanent applications, including various water and wastewater processes. Pumping systems with slide rails, aeration grids and systems, tank baffles, weirs, sloped floors, access hatches, and other accessories help customize our fiberglass rectangular tanks for your specific needs.





## DURAFIBER COVERS

Orenco Composites offers large, prefabricated FRP DuraFiber covers, custom designed for both new and existing tanks. Our molded covers are integrally insulated, sandwich structures that greatly simplify installation by eliminating unnecessary joints and fasteners. Our covers also feature an optional built-in truss system.

### APPLICATIONS

- Odor control
- Treatment process control
- UV protection
- Algae barriers
- Storage tanks



## BASINS & WET WELLS

Orenco Composites basins come in 10-ft and 12-ft (3-m and 3.7-m) diameters, up to 35 ft (10.7 m) tall. Sloped bases, base studs, inlet baffles, and a variety of other options are available. Our vacuum-infused basin walls feature extreme strength and exceptional uniformity.

### APPLICATIONS

- Wastewater lift stations
- Stormwater lift stations
- Valve enclosures
- Flow meter enclosures
- Underground storage





# LEADERS IN FIBERGLASS COMPOSITE MANUFACTURING



## ABOUT US

Orenco Composites is a division of Orenco Systems®, Inc., headquartered in Oregon, USA. Orenco has been manufacturing strong, water-resistant fiberglass products for more than 30 years; our company's engineers are nationally recognized experts in the fields of fiberglass product development and manufacturing. Research, design, product development, and sales support are handled out of our 26-acre (10.5-hectare) facility in Sutherlin, Oregon. Our three state-of-the-art production facilities include over 400,000 square feet (37,000 square meters) of manufacturing space.

## OUR BUSINESS PARTNERS

We manufacture FRP products, including buildings, tanks, basins, and covers, for some of the largest industry OEMs as well as dozens of utilities and municipalities.

## OUR PRODUCTS

- **Lightweight**
- **Durable**
- **Corrosion resistant**
- **High strength-to-weight ratio**

They don't rot, rust, or absorb water, making them ideal for a wide range of water and wastewater industry applications.



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