

A Superior Composites Solution for Water and Wastewater Needs

ANGEL OF THE WINDS RV PARK, WASHINGTON

DuraFiber Buildings Eliminate Extra Hassle

The 180-site Angel of the Winds RV Resort in Washington State needed a wastewater treatment system. Experts from Orenco Water™, a division of Orenco Systems, recommended an AdvanTex® AX-Max™ system, along with on-site buildings to protect the infrastructure investment and provide a sheltered place for operation and maintenance staff to complete their duties.

The design team hired by the resort's owner chose both the AdvanTex AX-Max system from Orenco Water and DuraFiber fiberglass structures from Orenco Composites™, another division of Orenco Systems.

Orenco Composites manufactures a variety of fiber-reinforced polymer (FRP) products, including buildings, tanks, basins, and covers. These FRP products are lightweight, tough, and corrosion resistant, with a high strength-to-weight ratio. They don't rot, rust, or absorb water, making them ideal for a wide range of water and wastewater applications.

Using a vacuum-infusion manufacturing process, Orenco Composites creates high-performance Durafiber FRP structures that are strong and durable. Orenco's standard vacuum-infused laminates have a tensile strength exceeding 50,000 psi (344,738 kPa), rivaling many metals. So DuraFiber buildings were just what the Angel of the Winds project needed.



Weighing 12,000 pounds and 10,600 pounds (5443 and 4808 kg), the two DuraFiber buildings were installed in just four hours: lifted by crane, set on concrete, and attached with anchors.

Water & Wastewater Market

PROJECT OVERVIEW

ARLINGTON, WASHINGTON



Wastewater Utility Building

- 40 ft long, 12 ft wide, 10 ft high (12.2 x 3.7 x 3.1 m)
- Vacuum-infused FRP structure
- Provides shelter for the pump control panel, UV units, chemical feed plumbing, and flow meters

Features

- One regular exterior door and one overhead exterior door
- Interior and exterior lighting
- Ventilation
- · Floor-mounted pump control panel

Water Utility Building

- 40 ft long, 14 ft wide, 9 ft high (12.2 x 4.3 x 2.7 m)
- Vacuum-infused FRP structure
- Provides shelter for chemical feed and storage, booster pumps, and controls

Features

- Two rooms
- One double-wide exterior door and one overhead exterior door
- Interior and exterior lighting
- Ventilation
- Preinstalled electrical panels and wiring

Installation Date

• April 2024

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"We ended up with two large-scale buildings on the project: the wastewater treatment building for the AX-Max system and the clean-water building for the pumps, controls, and chemical feed for the water system," says Darren Simmie, Orenco Composites sales manager.

The wastewater utility building measures 40 feet long, 12 feet wide, and 10 feet high ($12.2 \times 3.7 \times 3.1$ meters). It features an overhead door, lighting, and ventilation. The UV units, plumbing, and valving came preinstalled, as did the chemical feed plumbing and flow meters.

This structure also tapped into Orenco Systems' third division, Orenco Controls $^{\text{M}}$, for the floor-mounted control panel, which came ready-to-go. All Orenco's products are integrated and function seamlessly together.

The water utility building is slightly larger at 40 feet long, 14 feet wide, and 9 feet high ($12.2 \times 4.3 \times 2.7$ meters). It, too, has an overhead door, lighting, and ventilation. But this building has two rooms: one for chemical feed, booster pumps, and controls, and the other for chemical storage. Rounding out the package are preinstalled wiring and electrical panels that operate pump skids and chemical feed equipment.



Like all of Orenco's FRP products, this DuraFiber building is corrosion resistant, durable, and relatively lightweight, with a high strength-to-weight ratio. It won't rot, rust, or absorb water, as other products may.

Crews installed the structures in just four hours. Weighing 12,000 pounds and 10,600 pounds (5443 and 4808 kg), respectively, the buildings were lifted with a crane, set on concrete, and attached with anchors. Done and done!

Choosing a manufacturer that could provide both an energy-efficient wastewater treatment system and super durable buildings to house controls and other equipment saved the property owner both time and money.

All product and performance assertions are based on proper design, installation, operation, and maintenance according to Orenco's current published documentation.

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The UV units, plumbing, and valving came preinstalled in the wastewater utility building, along with the chemical feed plumbing and flow meters.



The two-room water utility building has preinstalled wiring and electrical panels that operate pump skids and chemical feed equipment.

For more information, contact Orenco Composites $^{\mathsf{TM}}$.



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