

CASE STUDY

Water and Wastewater

Project Specs

Location: Los Angeles, California

Application: FRP Cover for the Large Screw Pumps in Water Reclamation Plant

Product: VEFR Molded Grating, Fiberplate, and Dynaform Structural Shapes

Overview

Water reclamation plants have a very strict selection process when it comes to the materials they will use at their facilities. A plant located on the outskirts of Los Angeles, California, needed covers for their large screw pumps used to transport raw sewage into the plant, and Fibergrate Composite Structures was able to provide an effective and efficient solution.

Problem

The client needed a product that would act as odor protection, was resistant to the tough demands of the plant, and would allow staff to easily remove the covers to perform maintenance on the pumps. Fibergrate made sure the materials used for this project were:

- **Corrosion Resistant** – Metal corrodes quickly, specially at a water reclamation plant, where the environment is extremely corrosive. This can lead to the client having to invest a significant amount of time and money in maintenance and replacements.
- **Impact Resistant** – The physical demands at a water reclamation plant are very strict.
- **Lightweight** – Due to the placement of the application, the covers for these raw sewage transporting pumps have to be removed for maintenance from time to time.
- **Strength** - Materials able to endure the weather and the daily activities in the area were necessary.
- **Odor Control** – While all of the requirements mentioned above are very important, the main requirement for this project is odor control, without it, people in surrounding areas as well as employees can complain to the local government, causing facilities such as this one to breach regulations and face fines.

Solution

Fibergrate created fiberglass reinforced plastic covers made of dark gray VEFR molded grating, fiberplate, and additional structural shapes that attached to the main structure of the pumps using stainless steel hinges. This application not only looks good, but it meets the client's requirements:

- **Corrosion Resistance** - FRP is corrosion resistant and can withstand the corrosive gases found in a water reclamation plant. It will help decrease maintenance and replacement costs.
- **Impact Resistance** - The impact resistance of FRP makes these gratings extremely durable.
- **Lightweight** - The lightweight properties of FRP make it convenient for applications such as this one where covers will be moved from time to time for maintenance.
- **Strength** - FRP is strong enough to endure the weather conditions and daily activities at the water screw pumps in this water reclamation plant.
- **Odor Control** - FRP products have the ability to contain odor.

Past successful projects using Fibergrate FRP products and services were the reason why Fibergrate Composite Structures was chosen for the job. Throughout the process, the project manager went above and beyond to make sure the right hardware was used on these doors. The teamwork through the local Fibergrate territory manager and project manager resulted in a very effective solution for this water reclamation plant and an extremely happy customer.

