

CASE STUDY

Chemical

Project Specs

Location: Altamira, Tamaulipas, Mexico

Application: Platforms and Safety Ladders at Chemical Plant

Product: Dynaform® FRP Structural Shapes, Fibergrate® Molded Grating, and Dynarail® Ladder and Guardrail Systems

Overview

Located in Altamira, Mexico, a chemical plant that manufactures raw materials for tires needed a way to access their control valves for routine maintenance. The components of this application needed to withstand the corrosive conditions of the chemical facility and the salty air from the nearby Gulf of Mexico.

Problem

Before this project, the maintenance staff used steel scaffolds to climb five meters to the top of the towers where the control valves are located. In highly corrosive environments, steel structures require intensive maintenance and often deteriorate relatively quickly. Maintaining and replacing scaffolds regularly can be very expensive, not to mention time-consuming, especially for a chemical plant. Furthermore, management determined it is not good practice to use scaffolding as a permanent structure.

Solution

Fibergrate's fiberglass reinforced plastic (FRP) products are ideal for chemical facilities. FRP offers benefits such as corrosion resistance, increased safety for the employees, slip resistance, long service life, and low maintenance. The local territory manager suggested replacing the steel scaffolds that the plant was using with platforms made with Dynaform FRP structural shapes and molded grating. The structural shapes used Fibergrate's ISOFR resin system which is designed for corrosive environments such as this one and provides a low flame spread rating of 25 or less for additional safety. Corvex® resin system was used to make the molded grating, an ideal choice for the type of corrosive atmosphere found in most industrial, chemical processing, and water treatment applications. Dynarail ladders were attached to the platforms to facilitate access to the control valves. Dynarail guardrails were installed to protect workers working at height. All of the platforms were test assembled before they were brought to the job site to verify fit. Because fiberglass reinforced plastic is lightweight and can easily be assembled with simple tools, it took the contractor only one day to install each platform. The client was extremely pleased with Fibergrate's service and materials and is discussing future modifications to their facilities with their local Fibergrate territory manager.



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