

CASE STUDY

Utilities and Power



Project Specs

Location: An Electric Company in South Carolina

Application: Electric Facility Upgrade

Product: Dynaform® Structural Shapes for Frame Construction

Overview

This electric company in South Carolina is a key player in advancing energy management and automation solutions, contributing significantly to the region's technological and industrial landscape. The company offers cutting-edge solutions in electrical distribution, industrial automation, and building management.



Problem

The structure required a unique design tailored to the company's specific needs. The facility required a specialized structure to improve the efficiency and safety of their equipment handling processes. The structure needed to:

- Could not conduct electricity to ensure safety
- A sliding gate/door was needed to allow easy access for large equipment
- Meet a minimum height requirement of 10 feet.
- Provide a wide opening (20 feet) for equipment to move smoothly.



This electric facility needed a material that was lightweight, non-conductive, and easy to work with – eliminating the need for heavy equipment and welding. Also, the project needed to be fabricated and installed within a tight schedule to minimize disruption to Schneider Electric's operations.

Solution

Fibergrate's fiberglass reinforced plastic (FRP) proved to be the best choice to meet all these requirements. FRP was selected due to its non-conductive properties, lightweight nature, and ease of handling. The key products used were Dynaform® Structural Shapes with square tubes to construct the frame. Another vendor provided the LEXAN™ Panels that were used for the non-conductive and transparent sections of the structure.

- The non-conductive property of FRP ensured safety for all operations within the structure.
- The lightweight and easy installation reduced the need for heavy equipment and complex assembly processes.

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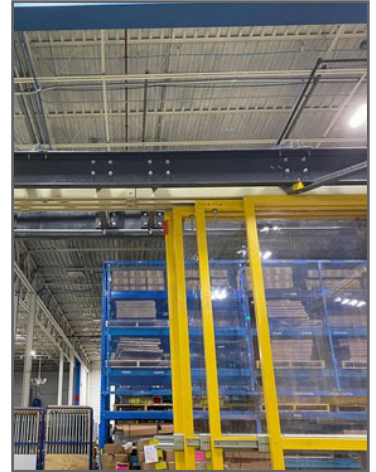
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- The innovative design provided a custom solution that met all the specific requirements of the client.

The design and engineering teams at Fibergrate collaborated to develop a unique structure from the ground up. The final structure measured 10 feet in height and approximately 15 by 18 feet in footprint. The sliding glass doors were engineered to open up to 20 feet wide, providing ample space for equipment movement. The fabrication of the FRP structure took approximately 8 weeks and the installation was completed within 3 weeks. The project was executed within 12 weeks, from initial design to final installation.

The client was extremely satisfied with the project. The structure simplified the movement of large equipment, eliminating the need for slow overhead cranes and allowing engineers to use pull trucks. This significantly increased the efficiency and speed of operations. This project showcases Fibergrate's ability to deliver custom, innovative solutions tailored to specific industrial needs. By leveraging the unique properties of FRP and a collaborative design approach, the project was completed successfully, improving operational efficiency and safety for the client.



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