

STRONGWELL

APPLICATION PROFILE

FRP REPLACES METAL IN TRICKLING FILTER

The City of Cape Girardeau, MO, turned to fiberglass when it came time to renovate its wastewater treatment facility.

Years of exposure to chemicals had left a trickling filter at the city's waste water treatment plant the worse for wear. The chemicals had eaten away at the metal structural members and bracing components inside the trickling filter, and the corroded parts needed to be replaced. In addition, the unsightly building panels on the outside of the trickling filter were splitting and needed replacement as well.

Strongwell's fiberglass structural components, with the help of Strongwell Representative Westfall Company, Inc., gave the city a solution to its corrosion problem. As recognized corrosion experts, the staff at Westfall Company, Inc., helped select materials that would not deteriorate in the harsh environment of the trickling filter. Strongwell's corrosion resistant EXTREN® wide flange beams, plate and angles were chosen to replace the corroded metal structural members and bracing components, while Strongwell's high-strength, aesthetic and UV-resistant COMPOSOLITE® building panel system was chosen for the exterior of the trickling filter.

A structure that is 100' long, 60' wide and 45' tall can require a lot of effort to maintain, especially in such a corrosive environment. That was a key consideration for P. K. Mathai of Jacobs Civil, Inc., the St. Louis-based firm responsible for engineering the project, and a major reason why Mathai chose to use fiberglass.

Jim Baylor, the Chief Operator at the wastewater treatment plant, is pleased with the engineering firm's choice of materials. "I like that fiberglass is strong and requires very little maintenance," said Baylor. "I want it to be put in place and then I want to be able to forget about it."

The facility was built by Robinson Construction Company. The company's project superintendent, Scott Brown, had not worked with fiberglass before but has no reservations about using it again. "Because it was so lightweight, it was very easy to work with," he said.



TECHNICAL DATA

Product:	FRP Support Structure and Siding Panels for Trickling Filter
Process:	Pultrusion, Fiberglass Fabrication
Materials:	EXTREN® Series 525 Structural Shapes COMPOSOLITE® Series 525 Structural Panels, Toggles and 3-Way Connectors
Size:	EXTREN® Shapes Used: 12" x 1/2", 6" x 1/4" Wide Flange Beams 1/4", 3/8", 1/2" Plate 6" x 1/4", 2" x 1/4", 3" x 1/4", 3" x 3/8", 4" x 3/8", 4" x 1/2" Angle
For:	City of Cape Girardeau, MO



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