

CORROSION MANAGEMENT IMPLEMENTED ON INDUSTRIAL ROOFTOP STRUCTURE



A chiller support frame with an adjoining platform was recently designed and installed for a premiere manufacturer of carbon steel tubing in the Midwest. This manufacturing facility houses multiple tube mills, cutting equipment, and an annealing furnace to supply domestically sourced steel tubes across multiple industries.

In many manufacturing facilities, chillers are required to dissipate waste heat. In this particular application, the company expanded its machine shop footprint and capabilities, which required the addition of a rooftop chiller. Advantic, LLC designed the chiller support frame and access platform. Since the chiller is water-cooled, the end-user requested a lightweight, corrosion resistant structure. Advantic's design utilized EXTREN® Series 525 for structural support and DURADEK® I-6500 for walking surfaces, both of which provided UV and corrosion resistance from the natural elements. Persistent condensation from the chillers had corroded previous steel platforms, so the end-user also requested that a material be used which avoided the need for hotworks to ensure no damage was done to the existing roof.

Even with those design challenges in play, Advantic, LLC was able to quickly design and fabricate an easy-to-assemble modular support platform. The platform was fabricated offsite and assembled at the worksite in easy-to-lift segments for a simple, drop-in installation.

The platform and access points were fabricated with DURADEK® I-6500 pultruded grating and EXTREN® Structural Shapes: channels, plates, wide flange beams, I-Beams, and equal leg angles.

To ensure fixed climbing access to the tanks, the pigmented OSHA safety yellow SAFRAIL™ ladder system was installed on multiple levels complete with side rails and rungs.

Originally installed in May 2018, the customer has reported that both the design and fiberglass products have outperformed their expectations in ease of installation, corrosion resistance, and overall performance. ●

TECHNICAL DATA

Product:	Chiller Support Frame and Platform
Process:	Pultrusion, Fabrication
Materials & Sizes:	EXTREN® Series 525 Structural Shapes: - Channel: 10" - I-beam: 10" & 8" - Wide flange beam: 8" & 6" - Angle: 3" & 4" - Plate: 1/2" DURADEK® I-6500 1.5" Pultruded Grating SAFRAIL™ Industrial Railing and Ladder Systems
For:	Advantic, LLC
User:	Midwest carbon steel tubing manufacturer



Bristol Location
400 Commonwealth Ave.
Bristol, VA 24201 USA
(276) 645-8000
www.strongwell.com