

CHAMPION STRUT'S STRENGTH, DURABILITY SUPPORT A PIER PROJECT



Proper lighting is crucial to a safe and successful landing approach in an urban airport setting. For airports near rivers and coasts, lighting sometimes extends to piers. When Washington Metropolitan Area Transit Authority (WMATA) scheduled an upgrade to existing approach lighting at Reagan National Airport, it required an upgrade to electrical conduit systems including support and framing structures holding conduit in place along a Potomac River pier.

Challenge

Installations near water pose a number of challenges. Water, especially the brackish water found in this environment, can promote deterioration of support structures. Additionally, the sun triggers intense weathering. Also, these scenarios require a support and framing system that is strong and durable for stability to keep the conduit system intact and to protect against impact.

Further, installations often occur from a raft or boat. Careful thought must go into material weight and logistics of how materials will be transported to the project site.

Solution

This project necessitated a framing and support system strong enough to resist corrosion caused by saltwater and a damp environment. Metal support systems would be prone to degradation and rust. But not Champion Strut™.

In manufacturing, Champion Strut's pultrusion process where components are internally reinforced with permanently bonded continuous glass fibers offers ultimate tensile strength, compressive strength, flexural strength, short beam shear strength and impact strength. Additionally, Champion Strut features a broad range of corrosion resistance to many chemicals and saltwater, providing durability to withstand the briny nature of brackish water.

In addition, Champion Strut's fiberglass channels incorporate UV inhibitors and a surfacing veil which improves weatherability and inhibits degradation from the sun's rays.

When it came time to install along the pier, workers on small rafts appreciated the lighter strut materials that were easy to handle and maneuver into place. Plus, Champion Strut proved easy to field cut and drill, facilitating a smoother, faster installation.

Results

For this project, Champion Strut offered durable, corrosion-resistant framing and support for piping and conduit in a pier/coastal setting. As a composite material manufactured for stability, fiberglass strut is lightweight, strong, and engineered to handle loads and conditions found in caustic coastal environments. Corrosion resistant to many chemicals, Champion Strut™ provided durability to withstand the briny nature of brackish salt water.

Installation progressed smoothly, due to light weight and easy field handling and cutting of Champion Strut.

Finally, significant cost savings over metal strut systems, were realized when costs came in at a fraction of the price of metal strut systems.

QUICK FACTS

PROJECT NAME

Airport Runway Pier

APPLICATION

Port Authority & Coastal

CHAMPION FIBERGLASS PRODUCT(S)

[Champion Strut™](#)

- > Extreme corrosion resistance and strength for a saltwater environment
- > Lightweight for easy installation
- > Cost savings over metal strut systems



[FIND A REP](#)

DO MORE.

6400 Spring Stuebner Rd, Spring, TX 77389 Main: 281.655.8900 Fax: 281.257.2523
CHAMPIONFIBERGLASS.COM