

Case study: Successful partnerships



HOFFMAN

CONNECT AND PROTECT

System integrator in Florida partners with nVent HOFFMAN engineering team to meet flood-zone protection needs

LOCATION

Coral Gables, Florida

SOLUTION

CCT tapped nVent HOFFMAN engineers to create a customized NEMA 4X Stainless Steel Free-stand Enclosure to be used in a submersible application.

SITUATION

CCT, a leading system integrator in Florida serving municipalities, aimed to create a solution to better protect critical equipment in flood zones.

RESULTS

The UL-verified submersible enclosure has helped the city save maintenance time and costs, while providing city officials and residents peace of mind that water pumps will stay up and running to protect them against flood damage.



SITUATION

As the head of a leading system integrator and custom control panel shop in southeast Florida, Gerry Gallo, vice president and chief operating officer for Custom Controls Technology, Inc., often considered ways to keep city infrastructure systems up and running and safer for residents and surrounding properties.

The water pump systems relied on to minimize flooding during heavy rainfalls presented an opportunity for Gallo and the extended CCT team.

A water pump system's electrical control panels typically are housed outside, often placed atop long leg stands to keep controls above high levels of water. In unpredictable winds and torrential downpours, however, these panels remained at risk for water ingress. If the critical controls inside got wet, the electrical components would fail and the water pumps would stop working, resulting in catastrophic flood damage to the affected area. Plus, the tall leg stands made lacked aesthetic appeal for the residents and passersby who take pride in their communities.

"Concrete infrastructure that are tall enough to avoid floods can be extremely costly to construct and are eyesores," Gallo explained. "We had the idea to create a more reliable and cost-effective enclosure protection solution for water pump systems to be more resilient to floods and to look nicer."

To begin, the CCT team called upon the high quality of the nVent HOFFMAN engineering team and UL-certified lab resources to collaborate on creating a submersible enclosure protection solution for a water pump system in Coral Gables, FL



Testing for submersible application of nVent HOFFMAN Freestand enclosure at CCT

SOLUTION

Together, the CCT and nVent HOFFMAN teams considered the range of application requirements to meet the submersible, wind-resistant needs of the southeast Florida environment. Based on these requirements, they knew they could begin with a standard nVent HOFFMAN Universal Stainless Steel Free-stand Enclosure rated for Type 4X and IP66, and enhance its durability for extreme weather.

Designed for flexibility, the Universal Free-Stand portfolio enables system integrators to start with simplified base enclosures and customize with accessories and modifications as needed. The portfolio is robust, bayable and has multiple type ratings with accessories focused on safety and component mounting density to enable faster design, modification and assembly, while improving control panel safety.

The nVent HOFFMAN engineering team performed wind-load testing and limited submersion testing on the enclosure. Then, CCT conducted further testing to earn UL verification that the enclosure can withstand up to 72 hours submerged under water. The customized enclosure passed the extra tests.

RESULTS

Now installed in Coral Gables, the free-standing enclosure is verified to be able to keep the water pump system dry and intact during catastrophic situations, resulting in reduced operational and maintenance costs.

In addition, city officials and residents can rest assured their water pump systems will remain up and running during inclement weather, and day-to-day appreciate its more aesthetically pleasing look. They also can take pride in knowing the solution contributed to the city earning an Envision certification for sustainable infrastructure practices.

“Hopefully, all the other municipalities in the county are able to install a solution like ours,” said Jorge Acevedo, chief for the City of Coral Gables Utilities Division. Gallo added: “We love to work with nVent – the No.1 reason is the quality and the engineering support they give us. In addition, the company offers considerable resources, including a UL-certified lab, and is very pleasing to work with.”



nVent HOFFMAN Free Stand Enclosure in a municipality facility in Coral Gables, FL



Our powerful portfolio of brands:

CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER