Eaton’s IFS Switchboards Help Maximize New OCC Building Utilization

Customer
Manufacturing Facility

Markets Served
Commercial

The flexibility and innovative design of IFS™ switchboards significantly enhances Eaton’s PowerChain Management Solutions. Key benefits of the total solution concept include:

**Greater Reliability**
Maintain vital operations with steady, high-quality power every minute of every day.

**Effective use of capital**
Put your capital to work faster, and keep it working longer with electrical designs that require less equipment and space, services that extend equipment life and pre-assembled equipment that can be installed faster.

**Risk mitigation**
Reduce the risk of construction delays and cost overruns with a coordinated approach to power system design, procurement, installation and maintenance.

Background
Orange County Choppers (OCC), recognized as one of the world’s premier builders of custom motorcycles, planned a 100,000 square foot multi-purpose building at its headquarters in Newburgh, New York.

The two-story structure would house OCC manufacturing, a two-tiered retail store, and a studio where its show, American Chopper, is filmed for presentation on the Discovery Channel.

A combination of stone, steel and glass construction with curved-line exterior design, the building would become the focal point of the OCC headquarters location.

Challenge
The original electrical layout, using a traditional equipment design, included the majority of transformers being installed in the basement area. The design required excessively long runs to the panelboards located throughout the facility.

The configuration, combined with the entire system consisting of three switchboards, five transformers and 14 panelboards, made IFS™ (Integrated Facilities Systems) a formidable option.

OCC also was concerned with the space constraints for the electrical equipment in the studio area.

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Solution

Eaton proposed IFS switchboards, a major element in its PowerChain Management solution, which typically can save a customer as much as 50% in floor space. Sales engineer Carmine Costanzo, working with the electrical contractor Jeff Heck of JH Electrical Enterprises, revised the initial layout using the Eaton Bid Manager design tool.

Costanzo and the contractor made an on-site visit to verify details relating to the conversion and met twice with OCC construction manager Henry Kroll to review drawings and address customer questions.

The converted lineup eliminated the run from the basement transformers, placing it next to the panelboards they were feeding. The solution was reduced to a pair of basement switchboards, four IFS switchboards installed on the first and second floors as well as in the studio and manufacturing areas, and three stand-alone panelboards that are wall mounted.

The IFS configuration solved the space issue in the studio, fulfilling OCC’s desire for a compact, streamlined appearance of the distribution equipment. While the solution itself helped to shorten the construction period, Eaton contributed in another way with an accelerated delivery schedule made possible by the capability of its Hartford (Connecticut) Satellite Center.

Responsible for manufacturing all of the electrical equipment on the OCC project, the Hartford facility built and shipped the main 2500 amp switchboard within two weeks, facilitating the utility service for incoming power and connection of the HVAC lines. The Satellite met one-week schedules for each of the four pre-assembled IFS structures.

Results

The conversion to IFS for the OCC project freed up precious retail and manufacturing space that would not have been available using the stick-built design. In addition to the construction time saved, IFS became a quick resolution to the customer’s demand for an enhanced electrical package.

Initially, the customer intended to discuss options with Eaton and three major competitors, but concluded its search after hearing the IFS presentation. Because of its efficient solution offering, Eaton helped OCC gain a LEED (Leadership in Energy and Environmental Design) certification for the new building.

Mikey Teutul of OCC helped assemble one of the IFS switchboards at the Hartford satellite facility.