

LARGE ELECTRICAL CONTRACTOR EXPERIENCES SAFE, SUCCESSFUL FIBERGLASS CONDUIT INSTALLATION INCLUDING PREFABRICATION FOR A DATA CENTER CUSTOMER



Challenge

A large data center project in Virginia's Data Center Alley required miles of electrical conduit, including duct banks that needed to be installed on a tight, strict timeline. In addition to time, the data center customer insisted on performance materials and cost efficiency.

The contractor, Rosendin Electric, is an expert in below-ground data center installation, but this was the first time installing large quantities of fiberglass conduit. Specs for the comprehensive installation included 25 miles of 4", 5" and 6" heavy wall 90s for medium voltage telecom and house transformer duct banks.

Solution

The data center customer evaluated fiberglass and PVC conduit for the project. Fiberglass was preferred over PVC for the following reasons:

- 66% less weight
- Lighter weight saved installation time. And because there was less time in the trench, installation was safer for installers
- At the time, fiberglass conduit materials cost almost 50% less than PVC, and labor savings was even greater
- Lead time was about 25% shorter, which helped the project stay on schedule

Results

Many advantages were realized for this project including less man-power, smaller equipment and safer installation due to the conduit's lighter weight, fault resistance and increased distance between supports. Additionally, prefab assembly by Champion Fiberglass® helped shorten the installation process tremendously.

Pre-assembled duct banks were delivered, then the lightweight duct banks were easily placed into the trench with a forklift, something that would not have been possible with heavier PVC conduit.

This project also involved a high level of customer support. Champion Fiberglass provided installation guidance for the contractor to become familiar with fiberglass conduit for installation. Champion Fiberglass regularly goes the extra mile for customers, and there were many touchpoints including conference calls, samples and customizations.

The project concluded with these results:

- Total labor savings was 60%
- A 63% increase in productivity over PVC
- The project was completed on-time and on-budget

QUICK FACTS

PROJECT NAME

Tech Company
Data Center

APPLICATION

Data Center

CHAMPION FIBERGLASS PRODUCT(S)

[Champion Duct®](#)
[Champion Elbows](#)



BENEFITS

- > Lighter weight promoted an easier, safer installation
- > Pre-fabricated duct banks helped the project meet installation deadlines
- > Materials and labor were budget-friendly

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