

20' EMT Enables Fast, Accurate Build-outs at State-of-the-art Data Center in Texas

As the T5@Dallas data center expands, the project team depends on 20' EMT to span long runs fast and bend easily around existing MEP systems.

T5 Data Centers builds, owns and operates business-critical data centers across the United States. Its newest baseline Tier III data center, T5@Dallas, supports N+1 electrical and mechanical topology in a facility built to withstand 220 mph winds. The center currently contains four independent data halls and will expand with two more by 2015.

Challenges of Initial Construction and Ongoing Expansion

When construction began, the primary challenge was installing the MEP systems with complete accuracy. But as each data hall was commissioned and the next hall's build-out began, the real challenge became more about installing the new electrical systems without impacting existing operations. The electrical team also needed to work quickly because customers were eager to begin using the space.

The 20' Solution

The project team initially assumed they'd build out each electrical system with 10' conduit, since it was all they'd ever used—but then they found out about Wheatland Tube's 20' EMT, which installs twice as fast. Working together, the distributor and Wheatland Tube's local team suggested the product to Aaron Henson, senior superintendent at Walker Engineering. Henson then met with Vick Cook, VP at Walker, and the men agreed the longer product supported their goals of speed, accuracy and safety on the job.

Shortly thereafter, Henson and the project engineer reviewed usage of the specified 3" EMT, but in 20' lengths. The distributor then worked with Wheatland Tube to handle all the logistics. The initial 10 tons of 20' EMT arrived at the job site within the week. At first, Henson's crew was hesitant about bending the long lengths, but they quickly discovered that it was easy to work, just like the 10' lengths they had grown accustomed to. And the time saved was significant. When building out the fourth data hall, a crew of eight electricians installed 12,000 feet of 3" 20' EMT and wire in four weeks instead of the estimated 10 weeks.

T5@Dallas Data Center at a Glance

As of 2014

- 300,000 sq. ft.
- 22.5 MW
- 80,000 ft. of 3" 20' EMT

Project Team

Owner: T5 Data Centers

Engineer: Syska Hennessy

Electrical Contractor: Walker Engineering

20' EMT Manufacturer: Wheatland Tube



T5@Dallas, the state-of-the-art data center in Texas.



20' EMT, exclusively from Wheatland Tube.

To learn about using 20' EMT on your next project, contact Wheatland at **800.257.8182**

“When I saw the value of using the 20' EMT lengths, I wished I'd been using it for years!”

Aaron Henson, Senior Superintendent, Walker Engineering

Benefits of 20' EMT

Faster Installation

20' EMT spans long runs much easier than 10', and installs twice as fast. Contractors may think it's hard to handle, but it's not. Crews already use PVC conduit, strut and cable trays in 20' lengths, and handling 20' EMT is no different—so there's no learning curve.

Lower Connection Costs

Because 20' EMT requires up to 50% fewer couplings than 10' conduit, it reduces a project's coupling costs.

Simplified Bends

It's much easier to bend one 20' piece twice than two 10' pieces once each. It's also easier to hang a 20' bent section than two 10' bent sections. Plus, bending 20' EMT reduces the need for elbows and couplings—further reducing costs and simplifying the installation.

Reduced Risk of Snagging Wire

When conduit is joined with a coupling or elbow, there may be a small gap or bump at the connection site. This irregularity sticks up slightly and may snag wires as they are pulled through the steel raceway. Because 20' EMT requires half as many couplings as 10' conduit, this risk is cut in half.

Looking Ahead

By summer 2015, the project team plans to build two new data halls at T5@Dallas, which will require another 10–15 MW in uninterruptible power. Henson is already planning to use 20' EMT from Wheatland Tube.



20' EMT installs twice as fast as 10' conduit.



20' EMT installs straight for easy equipment hookups.



See the team bend 20' EMT at wheatland.com/20

20' EMT bends easily around existing MEP systems.

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About Walker Engineering

Founded in 1981, Walker Engineering is one of the largest and most qualified electrical construction companies in Texas, with offices in Dallas/Fort Worth, Houston, Austin and San Antonio. Our revenues have surpassed \$3.4 billion from projects ranging from service calls to hospitals and data centers. For more information, visit www.walkertx.com

About Wheatland Tube

Wheatland Tube produces a broad spectrum of electrical conduit, including hot-dip galvanized steel rigid metal conduit (RMC), steel intermediate metal conduit (IMC), steel electrical metallic tubing (EMT), a full line of steel and aluminum elbows and nipples, and steel couplings. We also supply rigid aluminum conduit and couplings. For more information, visit wheatland.com