



Power Generation

OKLAHOMA DATA CENTER PUTS ROLLS-ROYCE POWER SYSTEMS TO THE TEST

Who MIDCON Recovery Solutions
What Two MTU 6R1600 DS250 generator sets with MTU automatic transfer switches
Where Oklahoma City, Oklahoma, USA

Tucked away in a remote location in northwest Oklahoma City—where elevated tornado and seismic activity is common—a compact, F5 tornado-proof concrete bunker stores confidential data for a variety of businesses. This bunker is one of three operated by MIDCON Recovery Solutions, a full-service document management and storage business responsible for supplying IT providers with critical data protection. The sensitive data bunker ensuring MIDCON’s customers’ data stays online and secure is protected by generator sets from Rolls-Royce, provided by authorized distributor United Engines.

“Our already established relationship with United Engines and Rolls-Royce made the decision to work together again easy. We’ve worked with both companies for more than 12 years, and the results from previous projects speak for themselves,” said Mark Catalano, data center design and operations manager at MIDCON Recovery Solutions. “We put our trust in the MTU brand and products, and they deliver.”



Located in a concrete bunker designed to withstand 265 mph winds, two MTU 6R1600 DS250 generator sets keep MIDCON's customers' sensitive data secure.

MIDCON's Oklahoma City bunker was created specifically for the backup power units. The full system contains three compartments, running three independent power sources with two MTU 6R1600 DS250 generator sets, 150-gallon sub-base day tanks, a 3,000-gallon main tank, two 400-amp MTU automatic transfer switches and OmniMetrix cellular monitoring. The non-continuous rated generator sets have the ability to run 72 hours non-stop.

Secure and remote data storage

Designed to withstand winds up to 265 mph, the entire infrastructure—a five-foot-deep, five-foot-wide, two-foot-thick setting—is encased in concrete and sits on a five-foot bed of gravel. Fuel lines running to the generator are buried underground to avoid natural disaster impact.

The system is also outfitted with remote management, including cameras, giving operators the ability to take control of the generators while offsite. Users do not need to leave the room to start, stop or isolate generators, this can all be done from the remote-controlled electrical compartment.

Poised for future expansion

"This unit is a one-stop shop—excluding the doors, all controls are purchased through Rolls-Royce," said Catalano. "Two out of three MIDCON operated data centers utilize MTU systems like this one and we are confident as sales continue to grow at this location that we have reliable backup power capable of supporting future growth."

United Engines designed, installed and commissioned the units, and will also support all ongoing maintenance. System installation was completed in March 2017, which was extremely fortunate because before they could even be commissioned, the generator sets were needed. Just two days after installation, the utility power went down and MIDCON had to put the units to the test to pick up the load. During the outage, the units had to withstand 120° F temperatures and restricted airflow, which they did without incident. Since then, the system has been load bank tested in the same conditions and has performed flawlessly.

Rolls-Royce provides world-class power solutions and complete lifecycle support under our product and solution brand MTU. Through digitalization and electrification, we strive to develop drive and power generation solutions that are even cleaner and smarter and thus provide answers to the challenges posed by the rapidly growing societal demands for energy and mobility. We deliver and service comprehensive, powerful and reliable systems, based on both gas and diesel engines, as well as electrified hybrid systems. These clean and technologically advanced solutions serve our customers in the marine and infrastructure sectors worldwide.