

PRECISION ELECTRIC COIL WINDS IN NEW SALES WITH ISO ASSISTANCE

ABOUT PRECISION ELECTRIC COIL. Located in Birmingham, Alabama, Precision Electric Coil is a U.S. industrial service company dedicated to the manufacturing and rebuilding of component products for rotating electrical machines up to 13.8 kV. Their core business is from coil manufacturing and associated services for AC and DC electric motors and generators.

THE CHALLENGE. Precision Electric Coil initially engaged with ATN by requesting assistance with an internal audit of their ISO Quality Management System. Precision Electric Coil is certified to the ISO 9001-2015 international quality management standard and one of the requirements for certification is to conduct an internal audit of the company's processes. With this certification they demonstrate and document the ability to consistently provide products and services that meet the requirements of their customers. Secondly, ATN was asked to help diagnose an issue occurring with a large AC electric motor that was used to drive each set of wheels on a piece of large-scale earth moving equipment.

MEP CENTER'S ROLE. ATN performed an internal audit of Precision Electric Coil's quality management system, where opportunities for improvement were identified and brought to leadership's attention. As a result, Precision Electric Coil was able to accurately grade its performance and conformance to its own processes. ATN's internal audit helped Precision Electric Coil to be successful with their certification to the ISO 9001-2015 international quality management standard which led to increased and retained sales that could have been lost had they not maintained their certification.

ATN utilized finite element analysis to investigate the cause of failure in the earth moving equipment's original AC motors. Models showed that the electric motors were failing due to stress induced by the heavy copper rings at each end of the motor rotating at high speeds and incurring large accelerations with insufficient support to withstand the forces that it experienced. With this information, the engineering staff at Precision Electric Coil were able to make necessary adjustments to the original equipment manufacturer's AC motor design to prevent future failures.

"We engaged the center to perform our internal audit. The ATN team built an audit agenda, and they gave us the feedback we needed. The audit team was fast and efficient, and they did not disrupt our normal flow of business. With the help of ATN, we successfully re-certified to ISO 9001-2015 with our third-party auditor this year."

-Chase Fell, Vice President of Engineering

RESULTS



\$1,000,000 in increased sales



\$250,000 in retained sales

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