

Power Provider Series Test Sets

Staco Energy Aids A.O. Smith Motor Labs in Earning NVLAP Certification

A.O. Smith Electrical Products Company recently joined an exclusive group of 18 test facilities worldwide to be accredited by the National Voluntary Laboratory Accreditation Program. The accreditation demonstrates that the company's motor testing labs meet NVLAP's rigorous standards for accuracy and accountability.

NVLAP accreditation supports the U. S. government's Energy Policy Act of 1992 (EPAcT) that mandates minimum energy efficiency standards for general-purpose and integral horsepower electric motors. NVLAP-accredited test facilities may certify that their motors meet or exceed EPAcT efficiency standards. NVLAP is part of the National Institute of Standards and Technology, a division of the U. S. Department of Commerce.

A.O. Smith recently concluded a major lab expansion project that more than doubled the size of its product engineering facilities. The project included building a new dynamometer test area with state-of-the-art equipment, as well as expanding its sound and vibration, pump testing, and hermetic motor test labs. As part of the project, the product engineering group developed a proprietary system to acquire test data as part of the NVLAP certification process. Staco Energy Products Co. worked closely with the A.O. Smith lab supervisor, Jim Kinninger, to provide the electrical test sets used with the in-house designed test lab.

Kinninger said, "Our product line is so diverse and with the range of torques, horsepower, and frame sizes we encounter, we couldn't use conventional data-gathering products to meet our needs. NVLAP covers quality, calibration, testing protocols, and preventive maintenance, and the standards are very strict. Instrumentation, for example, must be calibrated to 1/10th of one percent. Our staff had to review and verify procedures and standards for all of our performance testing labs prior to the inspection," Kinninger noted.

A NVLAP inspector began the evaluation process in December 2002 at A. O. Smith's motor testing facilities in Tipp City, Ohio. The inspector reviewed motor designs, math models, evaluated performance test procedures, monitored the calibration and accuracy of test equipment, and examined all documentation related to motor testing, according to Kinninger.

"Earning NVLAP accreditation demonstrates our ongoing commitment to our customers," Dan Beckman, vice president-global product engineering, noted. "Given the scope of A. O. Smith's electric motor product line and the range of products we test in our facilities, this accreditation is a significant accomplishment for our product engineering group."

"Now, when we test customer products, we can assure them that the efficiency of the motor we're applying has already been approved. This will help speed the product development process and reduce the time needed for our customers to obtain regulatory approvals."

A. O. Smith Electrical Products Company is a leading manufacturer of alternating current (A/C) and direct current (D/C) fractional horsepower motors, hermetic motors for air conditioning and commercial refrigeration compressors, and integral horsepower motors. The company has facilities in the U. S., Mexico, England, Ireland, Hungary, and China, and serves customers worldwide.

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