Reliability centered motor services

Repair, proof testing, diagnostic testing, installation and field support services of electric motors with operating voltages up to 4160 volts. Rewinds of electric motors from NEMA frame up to 4500 horsepower.



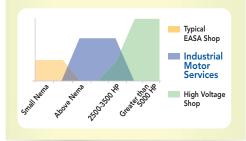
Longer run life and lower costs

We increase run life and lower costs. Our practices add years of run life to your motor, and our diagnostic services protect your investment from application stresses. How much could one extra year of run life on every motor repaired save you? 14% if you are averaging 6 years, which will add up to thousands. You can achieve measurable results using our program services, and we can show you how.



A balance of quality and costs

We service from small NEMA through 4500 HP medium voltage. Our best value range is 300 to 3500 HP, where we offer the best price and quality combination. Every shop must balance value and costs around a target range to offer the best balance between each. Our investments are strategically designed to service this range of motors. Why buy capacity that you do not need?



Repair Services

Induction, Wound Rotor, Synchronous & DC

Industries Served

- Power Gen
- Chemicals
- Tire and Rubber
- Pulp and Paper
- Steel
- Wood Products

Inspection and Acceptance Testing

Our procedures are written from the best standards, including IEEE, API, EPRI, and EASA.

Testing is performed with calibrated machines certified to ISO standards.



Precision Machine Work and Balancing

Precision, multi-point fits are taken with bore gauges. Rotors are pre-

cision balanced in machines certified by procedures defined in ISO 1940.



Rewind Program

Compatible materials, regular epoxy testing, defined proce-

dures and precision controlled ovens combine to produce high quality windings.



Program Services

Flat annual fee based agreements invoiced monthly.

Laser Alignment, Balancing, Installation, & Emergency Support

Daytime, nighttime, anytime, our field team is ready. From troubleshooting to on-site emergency repairs, our experienced team will do what it takes to get you running.

In-Service Warranty & Storeroom Maintenance

With our in-service warranty program, your warranty begins when you put the motor in service. This is offered at a flat annual fee, invoiced monthly, and can be bundled with other services.

Diagnostic Testing

Stop expensive problems long before they occur with our diagnostic testing program. Define your installed motors by criticality and protect them using the best static and dynamic test equipment. This is also offered on a flat annual fee, invoiced monthly, and can be bundled with other services.



Richmond VA 804.915.4705 • Raleigh NC 919.754.5106 • Augusta GA 706.826.7608



Audit Us

We welcome an open audit from any customer or potential customer.

Warranty

Two year standard on rewinds, one year standard on mechanical repairs. Extended warranty is available.

Quality Management

This program is led by our Reliability and Quality Program Manager and implemented through independent Quality Assurance Coordinators. Our goal is to provide accurate repair services in accordance with defined standards, while ensuring the safety of everyone involved. Our program is designed around areas of Specification Management, Knowledge Management, Evaluation, and Safety. Each facility is audited regularly by three separate teams.

Certifications

Each of our facilities is qualified to perform UL repairs. Certification numbers are:

Richmond E68680
Raleigh E59844
Augusta E184676

Richmond and Augusta locations have each achieved Advanced Energy PEV Certification

Motor Sales and Sourcing

Over \$350K in motor inventory

- Toshiba
- Baldor
- Siemens

1000 and 1500 HP 300 RPM Chipper cores in stock Aftermarket sourcing and re-designs

Standard Electrical Testing (prior to quote)

- 1. Insulation Resistance, corrected to 40°C (per IEEE-43)
- 2. Initial Test Run (If possible)
- 3. Winding Resistance Imbalance
- 4. Comparative Surge Testing (Per IEEE 522)
- 5. DC Step Voltage or Overvoltage Test, condition permitting (per IEEE 95)
- 6. Single phase rotor tests. (Per EASA AR100)
- 7. Inter-laminar Insulation or Core Loss tests (Per IEEE 432 and EASA Tech Note 17)
- 8. Application specific testing as required for squirrel cage rotors, armature windings, shunt, series, inter-pole, compensating, and synchronous rotor windings.

Standard diagnostic equipment:

Baker AWA static testing PdMA MCE Max static and dynamic testing CSI 2130 vibration analysis Ludecca laser alignment







Rewind Program

Our insulation system was developed by VonRoll and is built around 74035 epoxy. We employ 8' VPI tanks and 8' Steelman, part-temperature controlled ovens. The program is audited regularly, covering material shelf life, epoxy sampling, procedures and is organized in the following areas:

- Stator Core Management
- Coil Design and Construction
- Insulation Testing and Curing
- Quality Testing
- Process Maintenance

