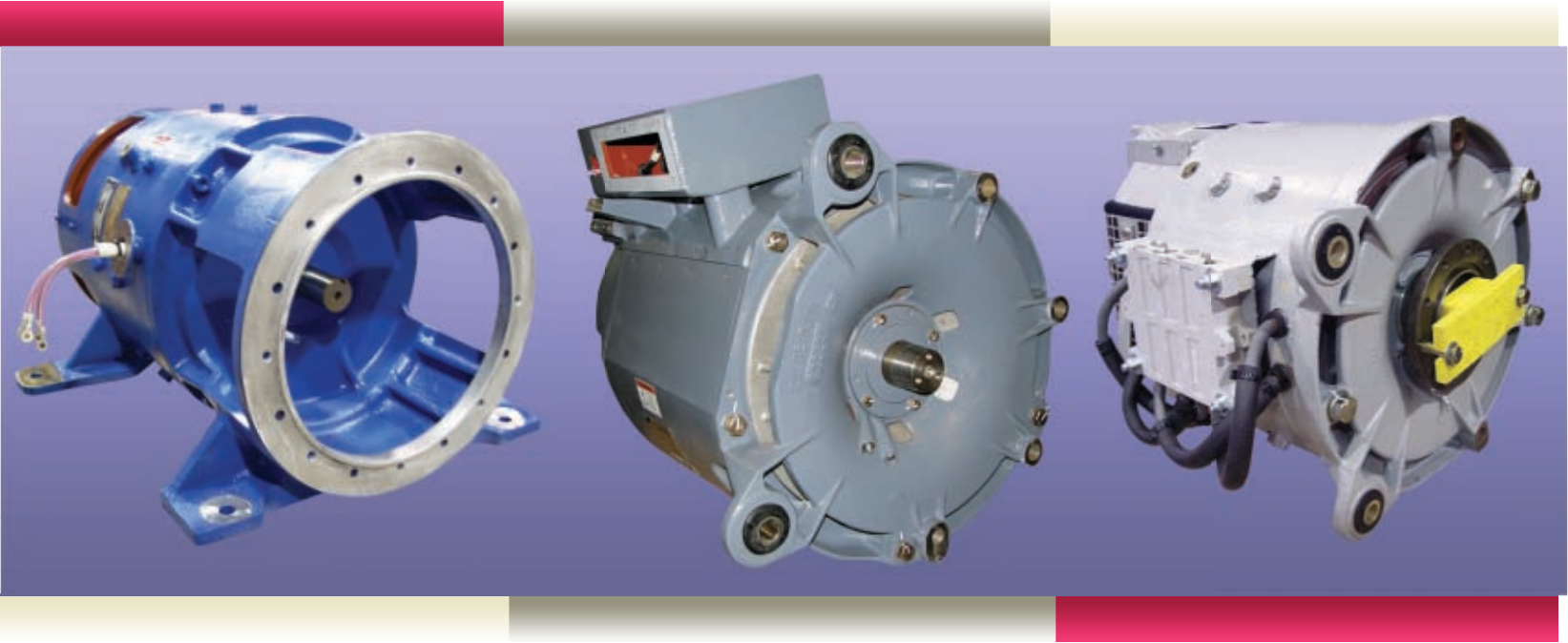


MOTOR AND GENERATOR CAPABILITIES



Swiger Coil Systems
A **Wabtec** Company

Motor and Generator Capabilities

- New AC / DC Motor and Generator Manufacturing
- AC / DC Traction Motor Remanufacturing
- On-Site VPI Capabilities
- On-Site Testing Equipment
- Over 30 Years Experience
- Any Quantity (1 to 1,000's)
- Worldwide Customer Base
- References Available



Swiger™ Coil Systems, LLC is America's leading supplier of traction motors, traction motor remanufacturing, traction motor parts, equipment and services. Traction motors manufactured and remanufactured by Swiger Coil, operate passenger rail cars and locomotives in the United States, Canada, Australia, Europe, Africa and Asia. We also manufacture generators and generator components for International OEM's which are powering communities throughout North America.



Traction Motor & Generator Manufacturing for OEMs

Swiger Coil Systems manufactures new motors and generators for International OEMs. We manufacture hundreds of motors and generators per month used in:

- Hybrid Electric Vehicles
- Mining
- Power Generation
- Transportation
- Wind Generators



All motors and generators are built and tested to OEM designs and specifications. We do not design our own motor's, we build motors to OEM specifications. We can assist in new motor design projects as a manufacturing engineer to assist you in the design of an efficient and cost-effective motor or generator.

Traction Motor Remanufacturing Service

Swiger Coil Systems is America's Leading provider of traction motor remanufacturing. We call our service remanufacturing because we repair / rebuild traction motors to OEM specifications so it is equivalent to acquiring a new motor directly from the OEM. Over 10,000 traction motors were remanufactured in the past 5 years using our expert experience and methodical electric motor repair process. Swiger Coil's remanufacturing process has continually improved to provide customers with flawless service and execution. Our 30 plus years of experience has allowed us to search out and qualify the finest component suppliers in the world. Our extensive experience combined with the best component suppliers has enabled us to become the premier traction motor service center in North America.

Repair Processes

Basic DC Overhaul Steps:

- Disassemble motor
- Clean all parts
- Inspect all metal parts for distortion and wear
- Electrical test the armature and field coils
 - Surge Test
 - Ground Test
- Core loss test the armature
- VPI the armature and frame in one of our 3 VPI resins
- Turn, undercut and balance the armature
- Test the armature and field coils after VPI
- New brushes
- New bearings
- Rebuilt brush holders
- New seals and gaskets
- New hardware
- Run test the motor under no load condition
 - Load testing is not standard, but is available for an additional cost if required
- Check the running vibration on the assembled motor
- Paint the motor



Basic AC Overhaul Steps:

- Disassemble motor
- Clean all parts
- Inspect all metal parts for distortion and wear
- Electrical test the stator coils
 - Surge test
 - Ground test
- Mechanical testing
- Rotor inspection, visual
 - NDT, die penetration is available for an additional cost if required
- VPI the armature and frame in one of our 3 VPI resins
- Test the stator coils after VPI
- New bearings
- New seals and gaskets
- New hardware
- Run test the motor under no load condition
 - Load testing is not standard, but is available for an additional cost if required
- Check the running vibration on the assembled motor
- Paint the motor

Testing Capabilities

- VFD (variable frequency drive) for AC motor testing
- Power / Dynamometer load testing
- DC Load Testing
- AC / DC HiPot testing
- Resistance testing
- DC Spin-Seasoning
- Core-Loss Testing for armature, stators and rotors
- Thermo graphic imaging
- Surge testing
- Balancing



Quality Systems & Certifications

Swiger Coil has been an ISO certified company since 1994. We currently hold ISO 9001-2008 and AAR (American Association of Railroads) certification. These certificates are proof of Swiger's commitment to quality.

Other Motor / Generator Components

- Armature Coils
- Stator Coils
- Field Coils (Main and Interpole)
- Edgewound Coils (Main and Interpole)
- Winding Kits
- Lead sets
- Commutators
- Teflon bands
- Lead cleats
- Power connections
- Brush Holder Blocks
- Labyrinths
- Baffle ring
- Pole pieces
- Replacement brush holders (new)
- Thrust collars
- Terminal boxes
- Drip guards
- Shafts
- Vent Guards



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