

TURBINE GENERATOR SERVICE AND REPAIR

Single-source on-site and in-shop solutions

NORTH AMERICAN COVERAGE

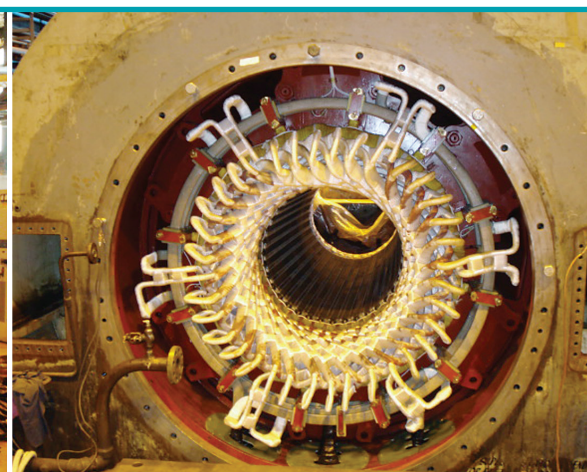


UNITED STATES www.ips.us

Beaumont, TX	888-868-9475
Birmingham, AL	800-978-2212
Chicago, IL	800-978-4559
Cincinnati, OH	800-998-8447
Cleveland, OH	800-433-7801
Corpus Christi, TX	361-459-2600
Denver, CO	800-448-0899
Detroit, MI	800-992-9466
Des Moines, IA	515-608-8215
Dothan, AL	334-699-8080
Erie, PA	724-479-9066
Evansville, IN	812-665-4400
Folcroft, PA	484-498-4848
Houston, TX	800-221-3698
Indiana, PA	800-537-0097
Lake Benton, MN	507-368-4015
Litchfield, MN	888-694-6200
Philadelphia, PA	800-451-5718
Portland, OR	800-366-4951
Rock Hill, SC	800-868-3702
Shreveport, LA	800-366-6030
Sulphur, LA	409-833-9477
Sweetwater, TX	325-933-4274
Washington, PA	800-441-2553

CANADA www.ips.ca

Regina, SK	306-586-0000
Saskatoon, SK	306-651-0400
Winnipeg, MB	204-237-6066



Before and after an on-site rewind of a 22 MW, 13.8 kV, 3600 RPM generator with IntegraCoil™ B-stage hard coils

IPS offers single-source service and repairs for steam and gas turbine generators, along with the related motors, pumps, fans and compressors used in power generation. Our regional service centers give us North American coverage, while allowing us to respond quickly with more technicians and resources for emergency outages and short lead times.

Our dedicated field service specialists offer industry-specific experience in on-site and in-shop rewinds and repairs. We also provide predictive and preventive maintenance services, identifying early-stage generator problems so that scheduling can drive maintenance, rather than catastrophic failures.

IPS offers IntegraCoil™, a B-stage, resin-rich stator coil for rewinding stators up to 15 kV. We have extensive in-shop experience with large-scale projects, plus the lifting capacity and equipment to handle big jobs. We also offer complete machining services for generator and turbine components.

To learn more about increasing your generator's reliability with our proven single-source solutions, talk to your regional IPS sales representative or visit www.ips.us.

- On-site generator rewinds
- Refurbishment of stators and rotating fields, including re-wedging and insulation repairs
- Collector ring repair and replacement
- Repair/replacement of stator and rotor leads
- Dynamic balancing of generator and turbine rotors
- Complete machine shop capabilities for generator and turbine components
- Predictive and preventive maintenance services:
 - Vibration analysis
 - Generator cleaning, including cryogenic "dry ice" cleaning
 - MCE, Doble, Partial Discharge, EL CID and corona probe testing
- Big job capabilities on-site and in-shop



On-site inspection and recondition of 44 MW generator

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INTEGRATED POWER SERVICES

www.ips.us
www.ips.ca

Single-source capabilities with one documented standard for quality, safety and repairs—coast to coast.

As the industry's leading provider of power services, IPS has locations throughout North America maintaining long-term relationships with major operators in continuous process industries — power generation, petroleum, chemicals, steel, mining, paper, aggregates and cement.

IntegraCoil™ – High-Voltage B-Stage Coils

IntegraCoil™ is our B-Stage hard coil rewind for high-voltage AC motors and generators from 6.6 kV to 15 kV. It is our standard rewind technology for all on-site high-voltage rewinds, or when a stator is too big to fit into our largest 14' diameter VPI tank. IntegraCoil is designed to provide the reliability and performance you need from demanding industrial applications while supporting a 25+ year design life. Developed over 25 years ago and proven with more than 500 installations, the IntegraCoil rewind consists of experienced B-Stage winding technicians, optimized technologies, processes and materials which yield performance and durability that lead the industry.



IPS technicians perform an IntegraCoil B-stage hard coil rewind on a high-voltage stator too large to VPI

Field services

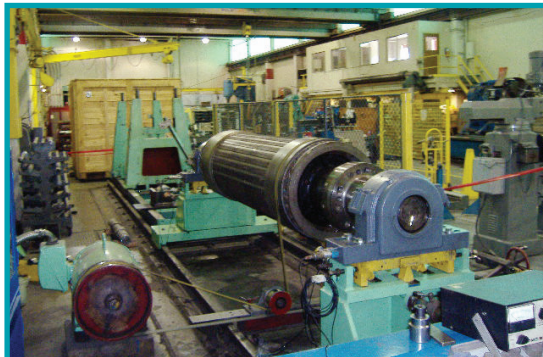
Our service centers give you local responsiveness, backed by massive regional and national resources. IPS field service technicians conduct electrical tests, vibration analysis and other predictive and preventive services for generators. We offer complete disassembly and repair of generators, including on-site stator and rotor rewinds.



6 MW, 4160 V, 3600 RPM — generator stator cleaning



10 MW, 13.8 kV, 3600 RPM — generator rotor rewind



10 MW, 13.8 kV, 3600 RPM — generator rotor balancing



Dynamic balancing of a 10 MW turbine rotor