

REFINER MOTORS

Making reliability a part of the process

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



- ABB
- Andritz
- Bauer
- Beloit
- Black Clawson
- Bolton
- Emerson
- Euro
- Hett
- Jones
- Krümmel
- Metso
- Pilao

As refiner motor capacity has increased over the last thirty years, fewer motors are doing more work. This trend, plus the fact that the optimum condition for these motors is in running mode, makes reliability more important than ever. So the IPS coast-to-coast network of locations combines experienced refiner motor specialists and the resources to service a wide range of OEM units.

Because refiner motor rewind technologies play a key role in improving and maintaining reliability, we offer three VPI engineered insulation systems with extended warranties up to five years. We also offer B-stage rewinds, in-shop or on-site throughout our network. In addition, we provide a complete line of repair services and field services, with design and upgrade capabilities for refiner motors. We document our work and invite our customers to audit our QA processes.

We also offer comprehensive predictive services, such as Vibration & Modal Analysis, and preventive services such as cryogenic "dry ice" cleaning. Over the years, we've compiled extensive trending data, to help coordinate maintenance and repairs with scheduled outages, and upgrades that reduce production losses, maintenance costs and energy usage.

Over time, we can help you define your baselines, identify trends and shape effective strategies to deliver the reliability you need from your refiner motors. For 24/7 service or more information, call your IPS service center or visit www.ips.us.



Additional IPS Network Capabilities

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IN-SHOP REPAIR

Motor and Generator Repair

- In-shop capabilities—
 - AC up to 15,000 VAC or 80,000 HP
 - DC up to 1,000 VDC or 10,000 HP
- On-site capabilities—
 - AC > 15,000 VAC or 80,000 HP
 - DC > 1,000 VDC or 10,000 HP
- 14 ft. VPI—100% solids epoxy resin
- 145-ton lifting capacity
- Dynamic balance stand up to 100,000 lbs.
- UL® and CSA® certification
- Stator and rotor restacking
- AC & DC motor redesign

Rewind Technologies

- VPI Insulation Systems
 - MegaSeal™ HV (up to 15 kV) with 5-year warranty
 - PowerSeal™ MV (up to 7.2 kV) with 5-year warranty
- IntegraCoil™ B-stage stator coils up to 15 kV

Motor and Generator Testing

- Full load testing up to 4,500 HP
- No load testing up to 37,500 HP
- Run testing up to 15,000 VAC/1,000 VDC
- Motor Circuit Evaluation (MCE)
- Doble and Partial Discharge
- IEEE 1776-2008 Water Immersion
- IEEE 1043 Voltage Endurance
- Computerized Core Loss up to 500kVA
- Electromagnetic Core Imperfection Detection (EL CID)
- Vibration analysis (Spectral)
- Thermography
- Polarization Index Test
- Resistivity, Hi-Pot (AC & DC), Meggar, Surge test

Authorized Warranty Repair

- ABB
- Baldor/Dodge/Reliance
- Sicomotori
- Siemens
- WEG

FIELD SERVICE

Predictive Maintenance

- Vibration and modal analysis
- Motor Circuit Evaluation (MCE)
- Doble testing
- Partial discharge testing
- Electromagnetic Core Imperfection Detection (EL CID)
- Operational Deflection Mode Shape (ODMS)
- Finite Element Analysis (FEA) software
- Synchronous rotor diagnostics
- Current analysis trending
- Thermography
- Ultrasonic testing
- Oil analysis

Preventive Maintenance

- Precision laser alignment
- Cryogenic "dry ice" cleaning
- On-site balancing
- Commutator and slip ring service
- Filter replacements
- Lubrication programs
- Equipment inspections

On-site Commissioning and Repair

- Equipment installation/removal
- Emergency and outage support
- Mechanical machining and repair
- AC & DC motor and generator repair
- Stator and armature rewinding

DISTRIBUTION

CNC Precision Machined Parts

- Shafts up to 16" dia. and 60" long
- Milling up to 20" x 40" plate
- Hole drilling and tapping
- Flats and hex parts milling
- Keyways machining
- Cutting multiple parts in sizes up to 16" dia.
- Digital bore gauges
- 3D CAD/CAM

AC & DC Motors—NEMA, Above NEMA

- ABB
- Baldor/Dodge/Reliance
- General Electric
- Leeson
- Marathon Electric
- Siemens
- Toshiba
- TECO Westinghouse
- U.S. Electric
- WEG