

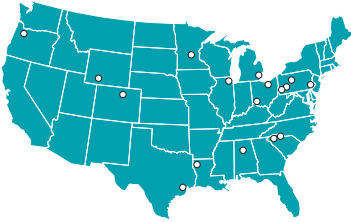


Reliability. Delivered.

# AIR SEPARATION POWER SERVICES

*A coast-to-coast network designed to perform under pressure.*

## COAST-TO-COAST COVERAGE



### SERVICE CENTERS

**Birmingham, AL**

800.978.2212

**Chicago, IL**

800.978.4559

**Cincinnati, OH**

800.998.8447

**Cleveland, OH**

800.433.7801

**Denver, CO**

800.448.0899

**Detroit, MI**

800.992.9466

**Glassport, PA**

800.394.7366

**Houston, TX**

800.221.3698

**Indiana, PA**

800.537.0097

**Litchfield, MN**

888.694.6200

**Philadelphia, PA**

800.451.5718

**Portland, OR**

800.366.4951

**Rock Hill, SC**

800.868.3702

**Rock Springs, WY**

866.256.4798

**Shreveport, LA**

800.366.6030

**Washington, PA**

800.441.2553

### HEADQUARTERS

**Greenville, SC**

864.451.5600



- Air Separation (ASU)
- N<sub>2</sub>O Nitrous Oxide
- Vacuum Swing Absorption
- HPN—High Purity N<sub>2</sub>
- Gas O<sub>2</sub>
- Cogeneration
- Steam Methane Reformers
- Hydrogen
- Carbon Dioxide

The IPS coast-to-coast network is designed to meet the unique requirements of your operations, whether you run multiple plants or individual locations. Our sixteen regional service centers have sixty-plus certified field technicians who know your motors, generators and mechanical power transmission components. They give you the 24/7 dependability you need.

As your single source for repair services, field services and new product sales, we can do more than respond to emergencies. We handle medium-, large- and extra-large motor and generator repairs, with turnkey reconditioning and rewinding. IPS maintains the industry's largest product inventory, so we can ship motors, mechanical components and parts to get you back on line fast.

IPS field services draw on technical resources that far exceed the scope of most independent service operations. Our predictive and preventive services, engineering, embeds, equipment commissioning and teardowns are available as managed programs or integrated with your in-house resources. Either way, we deliver reliability to help reduce plant costs and power consumption, while increasing uptime and productivity.

Over time, we can help you define your baselines, identify trends and shape effective strategies for increased electrical and mechanical reliability. To learn more about IPS services and support for your operations, and the return on investment we offer, contact your regional IPS sales representative or visit [www.integratedps.com](http://www.integratedps.com).

# AIR SEPARATION POWER SERVICES

## REPAIR SERVICES

### Motor and Generator Repair

- In-shop capabilities—
  - AC up to 15,000 VAC or 39,000 HP
  - DC up to 1,000 VDC or 10,000 HP
- On-site capabilities—
  - AC > 15,000 VAC or 39,000 HP
  - DC > 1,000 VDC or 10,000 HP
- 14 ft. VPI—100% solids epoxy resin
- 75-ton crane capacity
- Dynamic balance stand up to 100,000 lbs.
- UL® and CSA® certification
- Stator and rotor restacking
- AC and DC motor redesign

### Rewind Technologies

- VPI Insulation Systems
  - MegaSeal™ HV (up to 15kV) with 5-year warranty
  - EnduraSeal® MV to HV with 5-year warranty
  - EnduraLok™ MV (up to 5kV) with 3-year warranty
- IntegraSeal™ 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 429 Water Immersion
- IEEE 1043 Voltage Endurance
- Computerized Core Loss up to 500kVA
- Vibration analysis (Spectral)
- Thermography
- Polarization Index Test
- Resistivity, Hi-Pot (AC & DC), Meggar, Surge test

### Authorized Warranty Repair

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

### Mechanical Repair

- Gear reducers
- Compressors
- Pumps—centrifugal/submersible/vacuum
- Gear motor
- Clutches and brakes
- Fans and blowers
- Heat exchangers
- Mechanical adjustable-speed drives
- Bearing reballing

### Machining Capabilities

- Lathe up to 76" x 564" and 126" x 384"
- Vertical boring mill up to 84" table
- Horizontal boring mill up to 72" x 100"
- Pressing up to 600 tons
- Submerged Arc/MIG/TIG welding
- Flame spray metallizing

## FIELD SERVICES

### Predictive Maintenance

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

### 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

### Performance Improvement Services

- Disaster assessment/recovery programs
- Motor, pump, gearbox management
- Maintenance assessments
- Preventive and predictive maintenance programs
- Condition monitoring
- Motor efficiency studies
- Contingency planning
- Reliability engineering
- Training programs
- CMMS setup
- Power services analysis
- Inventory management
- Project management

## PRODUCT SALES

### AC & DC Motors—NEMA, Above NEMA



### 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—Coils and Armatures

- AC stator coils
  - LV, MV and HV (up to 15 kV)
  - B-stage hard coils, sealed coil systems and VPI
- AC rotating fields—edge and wire wound
- DC armature coils
  - VPI, dip and bake and sealed coil systems
- DC field coils
  - Shunts, Series, Compound
  - Rotor Bars, I-Poles, Pole Face Bars
- Specialty coils (brake, transformer, etc.)

To integrate our single source repair services, field services and product sales with your operations, visit [www.integratedps.com](http://www.integratedps.com) or talk to your regional IPS sales representative.