MegaSeal™
High-Voltage VPI Rewind for AC Motors & Generators
MegaSeal™ is our premium engineered insulation system for high-voltage AC motors and generators operating in severe, dynamic conditions. It’s designed to provide the reliability and performance you need for the most demanding high-voltage applications.

Developed with extensive laboratory and material testing, the MegaSeal engineered insulation system consists of technologies, processes and materials which yield performance and durability beyond “good as new.”

MegaSeal handles ratings up to 15 kV and stator dimensions up to fourteen feet in diameter. Each MegaSeal rewind comes with an industry leading five-year limited warranty, which is up to five times longer than many others.

Like all IPS engineered insulation systems, MegaSeal is available through and backed by the North American network of IPS regional service centers. For more information, talk to your regional IPS sales representative or visit us at www.ips.us.

Environmental controls for optimum materials performance

All MegaSeal rewinds are conducted in a clean, temperature- and humidity-controlled environment to ensure optimum materials performance and rewind integrity. These environmental controls help prevent dirt or moisture contamination throughout the process.

Coil testing before and after insertion

We surge test coils before and after insertion in the stator core, according to IEEE 522 standards. We also perform in-process proof tests on the entire winding for added assurance of winding integrity. Sample coils undergo IEEE 1043 high-voltage endurance testing.

Quality Assurance

Documented and ready for verification

IPS conducts complete inspections and testing on every motor and generator we receive for a MegaSeal rewind. Your rewind comes with the following documentation:

- Megger® test
- Core loss test
  - Max. 500 kVA up to 30,000 HP
- Surge test
  - Per IEEE 522 specification
- Polarization index
- Oven cycle reports
- Full VPI process documentation
  - Capacitance
  - Pressure
  - Vacuum
  - Temperature
  - Cycle time
- Design parameter verification

We also offer these special tests:

- IEEE 1776-2008 water immersion test
- IEEE 1043 voltage endurance test
- Doble® testing
- Partial discharge testing
- Corona (TVA) Probe
- Blackout test
Rewinding for maximum structural integrity

With the coils inserted into stator slots and top sticks in place, IPS technicians lash the coils to metallic- or epoxy-impregnated surge rings, then block the coil heads by lashing Dacron® mat and polyester laminate. This ensures negligible coil movement in severe-duty applications, such as plug reversals or across-the-line starts.

Lower vacuum—higher pressure eliminates voids

Every stator undergoes computer-controlled vacuum pressure impregnation—ensuring a homogenous fill and void-free insulation for maximum durability, maximum structural integrity and maximum resistance to abrasion, chemicals and moisture.

Reliability. Delivered.

We performance-match all MegaSeal materials and processes to deliver the reliability you need from your rewind. We offer optional testing such as IEEE 1776-2008 Water Immersion to validate our MegaSeal VPI engineered insulation system. Pictured above is a nuclear circulating water pump stator (3,500 HP / 13.8 kV / 327 RPM) undergoing the underwater AC hi-pot test at 15,870 Volts AC.

Oven curing for improved durability

We oven cure stators after each VPI cycle. This reinforces the previous steps of lashing the coils, blocking the coil heads and vacuum pressure impregnation, to turn the winding into a solid, rugged system.
Your Single Source for Repair Services, Field Services and Distribution Sales

IPS is a power services company, providing premium-quality motor, generator and mechanical services on all OEM brands to a wide range of customers. We’re also an authorized reseller and distributor for leading OEMs.

IPS regional service centers give you 24/7 dependability, with trained professionals offering years of experience in your industry. They’re backed by unmatched technical resources and capabilities, plus a network for North American coverage and documented standards for workmanship and materials.

To learn more about how we deliver component and systems reliability, talk to your regional IPS sales representative or visit us at www.ips.us.