Generator stator components consist of tens of thousands of individually insulated steel laminations. Precision stacking and compression are critical to generator operation and maintenance. Core replacements are possible at your site without turning the stator vertical by using bonded core packs manufactured at the Charlotte Energy Hub.

**Robotic Core Stacking**

The Siemens Charlotte Energy Hub offers Robotic Core Stacking services that help decrease cycle time and increase performance.

We manufacture stator cores utilizing precision instruments in tandem with an experienced workforce to safely produce quality components for our customers.

Specific services offered range from inspection and cleaning stator cores to complete rewinds. We offer new stator cores as replacements for legacy units in the fleet.

**Performance Capabilities Include:**

- (3) Robot Stacking Cells with (6) Fanuc Robots
- Handling 0.020in [0.50mm] or 0.026in [0.65mm] thick laminations
- Accommodate Core Diameters up to 134.0in [3400mm]
- Stacking capabilities up to 11.8in [300mm] in height of core packs per robot cell
- Lifting capabilities up to 23000lbs [10400kg] of core packs from each robot cell
- Able to accommodate different core stacking patterns:
  - Half-overlap
  - Third-Overlap

Capacity to handle most projects with varying specifications
Core Stacking capabilities include:
- (5) Core Stacking Stands
- Ergonomic access to core for alignment of core packs
- Accommodating core assemblies with component diameters up to 142in [3600mm]
- Maximum platform working height of 264in [6700mm]
- 250ton maximum crane capacity for lifting and turning completed core from vertical to horizontal

Core Electrical Testing capabilities include:
- Dedicated Electrical Testing area
  - Secure area with interlocking doors to ensure safety during testing
- Capable of performing High Potential Electrical Test, Thermographic and EL CID Inspections to ensure product integrity of stator cores and wound stators

Core Consolidation capabilities include:
- Multiple Intermediate Hydraulic Pressing Assemblies to accommodate new manufactured product lines
- Custom Hydraulic Pressing Assembly capabilities for Service Units
- Heated consolidation via an automated induction system
  - Capable of heating up to 284°F [140°C]

Bonded Core Capabilities include:
- Robotically stacked, VPI, core packs for installation into the frame at your site
- Applicable to any OEM equipment
- Enables rapid stator rebuild during your outage

The Charlotte Advantage
The Siemens Charlotte Energy Hub has the capacity to manage large and complex projects with service being our differentiator. With the ability to manufacture and service components for gas turbines, steam turbines, and generators, we strive to serve as the primary service center for gas turbine, steam turbine and generator equipment for the Americas. All functions necessary for a seamless process – from initial bidding to transport for delivery – are located on site. Our extraordinary depth of skill and experience enable us to service not only the Siemens fleet, but also components originally designed and manufactured by all large equipment manufacturers.

We continually focus on the next generation of power plant management through innovative product and process development and skilled workforce development.