



Rotating Machines Modification & Upgrade Services

Refreshing your Synchronous and Induction Machines

ELECTRIC MOTORS & GENERATORS ARE CRUCIAL TO YOUR OPERATION

Having supplied the world with large electrical machines for well over a century, GE appreciates your equipment was a considerable investment that may be nearing its initial life. Keeping it well maintained and replacing critical parts, will prolong its life even further, but what if you want more?

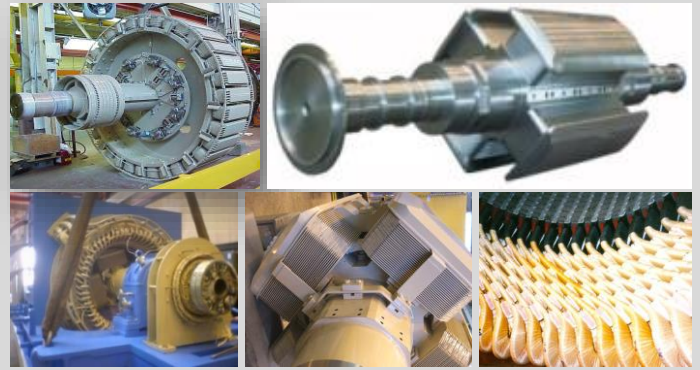
- More efficiency, more output for your process needs, or different starting requirements
- More reactive power to accommodate demand
- Improved reliability and reduced operating costs
- Regulatory Standards compliance on existing equipment
- Or a mix of the above and more, tailored to your needs

PERFORMANCE AUDITING

Understanding the health of your equipment lets you plan maintenance; equipment upgrades and modifications to meet productivity objectives. A GE Equipment Performance Audit will provide a comprehensive review of your unit and its ability to maintain performance levels.

UPGRADE OPTIONS

Assembly	Typical Options	Key Benefits
Stator	Proven & robust insulation system for replacement stators and rewinds	Extended life Improved Reliability Low partial discharge
Rotor	Salient solid pole Laminated rotor Strip or wire wound	Inherently robust High power density High efficiency
Field Excitation	Rotating or static, based on customer needs	Extended life & reliability
Frame	Retain the footprints	Avoid unnecessary retrofit costs
Heat Exchangers	Air cooled, Water cooled or liquid cooled	Increased heat dissipation
Bearing	Sleeve	Increase reliability
Accessories	Temp. & Vibration Detectors/system, Monitor Partial Discharge	Trend monitoring helps prevent failures and downtime



Already considering replacing your unit? As an OEM, GE can go beyond your expectations by proposing an engineered solution, update your unit with the latest technology and designs enhancements, while maintaining key interfaces. Together we can explore the replacement of one or more of assemblies or components of your rotating machines to restore or enhance the efficiency or power available to you.

ROTOR MODIFICATION/UPGRADE

By utilizing the latest technology in rotor replacement, we can aim for higher efficiency, higher active or reactive power rating, different starting requirements. Technology advances over the years have resulted in the rotor designs to improve its reliability and longevity.

Rotor replacement is a more straightforward option. Using GE's proven technology, replacement of a rotor can be completed quickly at a planned outage. The bearings can also be renewed or upgraded at that time.

STATOR MODIFICATION/UPGRADE

Stators influence highly on overall performance of the rotating machines. The stator and rotor replacements can be combined for added benefits like revised output power, higher efficiency or both. Stator technology enhancements include new insulation systems and the cooling, all of which will improve your unit performance, over legacy designs.

GE can provide a turn-key stator rewind or a complete stator assembly, to fit your refurbishment or upgrade needs and thus accelerate your return on investment. Onsite rewind is also an option.