

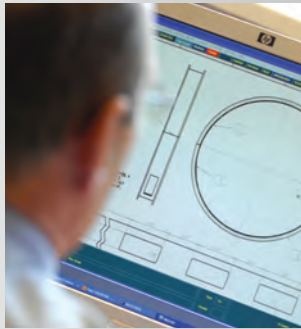
## Long-term service agreements (LTSA's)

- Lifetime care and maintenance packages
- Performance-based contracts
- 24/7 support service
- Immediate breakdown response



## Design & machine engineering

- Design / redesign of all electrical machines, cores & windings
- Protection system design
- Feasibility studies
- Excitation and Automatic Voltage Regulation (AVR) system design and supply
- Providing solutions to inherent design issues for rotating machines



## Excellence in Electrical Engineering

Quartzelec Ltd is a leading engineering service provider delivering design, manufacturing, installation & maintenance solutions to customers over a broad range of sectors.

As a Quartzelec customer you'll benefit from a smart, proactive approach, quality which befits the lifecycle of the project and service which meets or exceeds your expectations.

Underpinned by a pedigree of expertise, experience and innovation inherited from companies from which we have grown - all highly respected names in electrical engineering: GEC Large Machines, Alstom, AEI, BTH, English Electric and Cegelec to name but a few.

From the integrity of an electrical installation in a hospital to the reliability of a motor rotating continuously at 3,000 rpm, you can rely on Quartzelec to continue delivering robust, cost-effective services.



## Rotating Machines Quartzelec in Action



- Site service
- Major overhauls
- Repair & refurbishment
- Installation & commissioning
- Long-term service agreements
- New equipment & spares supply
- Design & machines engineering
- Diagnostics & life assessment testing

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## Major overhauls

- Site or workshop based
- Winding and insulation
- Shafts, bearings, oil and hydrogen seals, couplings and retaining rings
- Rotor and stator components



## Installation & commissioning

- New machines
- Repaired/refurbished machines
- Protection systems
- Ancillary control and instrumentation equipment, excitation systems
- On-site equipment commissioning



## Diagnostics & life assessment testing

- Troubleshooting
- Recalibration
- In-situ balancing and laser realignment
- Remnant life assessments
- Condition monitoring (online and offline)



## Repair & refurbishment

- Repair, rewind and retrofit of rotating electrical equipment, from 415V to 22kV
- Static and rotating mechanical plant repair
- Workshop engineering and on-site diagnosis
- Winding and re-insulation of electric motors
- Cryogenic decontamination
- In-situ installation of replacement components and ancillary equipment
- On-site machining, including commutator skims



## New equipment & spares supply

- Design, manufacture and reverse-engineering to OEM specifications
- Sourcing of replacement machines and associated parts
- Authorised stockist of leading LV/HV motor manufacturers
- Supply and management of capital spares and machine components
- Spares manufacture to OEM design and standard
- Stockholding and management for maintenance contracts
- Manufacture of certified terminal boxes



## Site Service

- Electrical maintenance (with or without unit shutdown)
- Non-destructive testing (electrical & mechanical)
- Site safety
- Condition-based maintenance
- Value system maintenance and automation
- Operator and maintenance training

