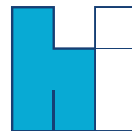




ELECTRO MECHANICAL INNOVATION IN
Power Generation



Houghton International
Electro mechanical innovation



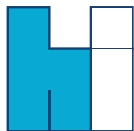
Houghton International

Ronnie Mitten Works,
Shields Road, Newcastle upon Tyne,
NE6 2YL, United Kingdom.

T: +44 (0)191 234 3000

E: info@houghton-international.com

W: www.houghton-international.com



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Electro mechanical innovation

ELECTRO MECHANICAL INNOVATION IN

Power Generation

Houghton International improves the performance of electro mechanical assets around the world. We use our technical expertise to work with customers to solve their problems offering a high-quality monitoring, maintenance, repair and life extension service for motors, generators, pumps and all electrical rotating equipment.

We work with power producers around the globe, providing monitoring, maintenance, repair and life extension services to enhance operational performance and improve reliability of power generation assets in a safe, reliable and cost-effective way.

More than a standard overhaul, as standard...

Houghton International is a leading provider of repair, maintenance and life extension services of rotating electrical machines for the power generation industry. Covering both conventional and renewable based plants including coal and gas fed power stations and renewable energy sources such as wind and hydro plants - up to 50MW in size and up to 100MW for turbo alternators.

Services include mechanical and electrical repairs to a broad range of equipment including generators, steam and gas turbines, associated pumps, motors, fans and auxiliary equipment.

We provide in situ inspection, testing and fault diagnostics including air gap checks and partial discharge testing and in other condition monitoring services to enable maintenance to be planned in line with pre-arranged shut downs and reduce any unexpected downtime.

From standard overhauls and stator and rotor refurbishment projects to full generator rewinds and pump performance upgrades, all work is carried out by our team of experienced, multi-skilled engineers.

Our IECEx and Achilles category B2 accredited workshop has the latest facilities to accommodate large machines

including a up to 40 tonne crane and dynamic testing capabilities and we can provide full load testing as required to guarantee performance after the work has been undertaken.

With in house coil manufacture facilities and one of the largest burn off stoves in the UK, we offer planned maintenance during shut downs and 24/7 emergency outage support, with absolute control over quality and lead-times. Our multi service approach allows us to provide a fast and efficient service for all rotating equipment on site and customers benefit from having one point of contact and a more efficient service.

Independent of the large OEMs, we work flexibly with customers to solve problems and improve performance in a safe and cost effective way. In addition to sourcing OEM approved parts and spares, we also have reverse engineering and 3D design capabilities to address obsolescence and can support the commissioning and decommissioning of equipment on site as required.

Get in touch to find out more about how we can support you to maximise power generation by improving performance and reducing downtime.



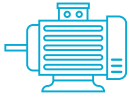
KEY INFORMATION

- Fully equipped, large machine repair facility
- Range of dynamic and load testing capabilities
- Site services - installation and removal, in situ testing and condition monitoring
- 24/7 emergency repair service, 365 days a year
- Maintenance contracts and emergency repairs
- Life extension and obsolescence management expertise
- HV coil manufacture and winding capabilities



Megger

Our services



Electric Motors

Our electric motor repair and motor rewind services cover a wide range of AC and DC electric motors, including random wound stators and armatures, and non-standard soft coil and preformed high voltage coils for a range of applications.

From standard to more specialist motors, we have experience in the repair, overhaul and life extension of industrial electric motors, including hazardous area equipment (Ex), both in our workshop and in situ, up to 50MW and 40 tonne.



Generators

We offer mechanical and electrical repairs to a broad range of generators including induction generators, slip ring generators, synchronous - salient pole generators, steam or combustion turbines and generators for industrial application, up to 50MW or 100MW for turbo-alternators.

Our site services include, inspection, testing and fault diagnostics including air gap checks and partial discharge testing, equipment removal and generator installation and commissioning.



Pumps

We have a team of experts in pump repair and maintenance to help extend the life of pumps and associated ancillaries for industrial use.

Our engineers excel on complex projects where obsolescence is an issue and can reverse engineer failing pump parts, restoring and often improving the performance of aged machines to increase efficiency and reduce running costs. All pumps are fully tested, providing performance analysis and pump curves as required for added assurance.



High Voltage Coils

Manufactured in house, we offer a range of resin rich and global VPI insulation systems for industrial, power generation and specialist applications. With absolute control over quality, we manufacture stator, armature, field and rotor coils for all types of motors and generators up to 15kV, in diamond and concentric designs.



24 Hour Emergency Repair

We operate a 24 hour call out 365 days of the year and offer an emergency repair service, with engineers working around the clock to restore functionality of critical motors.

We understand time is money for our customers and we work alongside them to solve their problems, efficiently and effectively in the shortest timescale possible.



Gearboxes

Utilising a comprehensive range of in house machining facilities, our mechanical fitters provide maintenance, repair and refurbishment services for gearboxes and associated equipment. From fault diagnostics to the removal, reconditioning and refitting of the complete power transmission system. We overhaul and upgrade all types of industrial gearboxes including bearing and seal replacement and the manufacture of new shafts and gears.



Electro Mechanical Site Services

Our engineers carry out on-site essential maintenance services including brush and bearing changes, motor replacement, mechanical and electrical installation work, laser alignment, dynamic balancing and condition monitoring to support our customers maintenance requirements.



Other Electrical and Mechanical Services

Making use of our fully equipped machine shop, 3D CAD and design capabilities, range of specialist equipment and highly skilled staff, we support industrial and manufacturing engineers by offering reverse engineering of obsolete parts, tool making, dynamic balancing, VPI and welding.



Working with Houghton International

We work collaboratively with customers in the power generation industry to improve performance and reliability by solving complex engineering problems and extending the life of electro mechanical assets in their facilities.

As specialists, we have invested in industry-leading technologies and patented solutions to eliminate failures, improve reliability, increase lifespans, and significantly reduce cost and frequency of unplanned maintenance activities.

Innovation drives our business and we are committed to continuous improvement both to internal processes and customer service. We aim to solve our customers problems and add value through innovation.

Quality Assurance

Houghton International operates in sectors where quality procedures and the safety of equipment are critical. As such, we have developed a rigorous quality policy with processes and procedures to ensure that everything we do is of the highest standard.

These policies and procedures are reviewed across all areas of our business on an on-going basis, which reflects our culture of continuous improvement. We continuously invest in our plants and machinery and the training of our staff to guarantee a high-quality process.

Contact us on +44 (0)191 234 3000 to find out more or visit www.houghton-international.com



"The work was completed to time, to budget and to the right quality standard."

Senan Haddad

Electrical, Control and Instrumentation Engineer, RWE.



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