

The experts in power, process, and heavy engineering

For more information about our services Call: 01268 766788 or Visit: www.emcelite.com





Who are EMC?

EMC Elite Engineering are the experts in power, process, and heavy engineering.

Having emerged from the Power sector, our highly skilled personnel are able to support all your business needs, from frontline problem-solving, to maintenance, repairs, installations, and engineering consultancy services.

We can also help to project manage your large work scopes, providing resources and organisational support during high activity shutdowns. Our experts work efficiently to produce project plans and quality documentation, reporting to include witness and hold points at critical stages.

Our field services and workshop staff pride themselves in maintaining high standards of safety, with practical and technical solutions to ensure our client down time is minimised.







EMC Commitment to Safety

EMC has a structured Health & Safety plan which requires our employees to meet key KPI directives such as near misses, site inspections, detailed RAMS, PPE inspections, and toolbox talks, encouraging interaction with our clients to help further improve our systems.

ALIG

The Health & Safety of our workforce and clients is the primary objective to the board of Directors at EMC, which seeks independent professional advice to provide an ongoing improvement to our staff.

Our philosophy; EMC are committed to all our staff, clients and shareholders in ensuring Health & Safety is our number-one priority. Through our work we intend to demonstrate an ongoing commitment to improve standards to ensure all remain safe.

We will lead industry by promoting best practises. For instance, all our staff are empowered to stop work to improve or prevent safety situations.

All EMC staff are trained and experienced to the highest standards, with an in-depth understanding of Health & Safety hazards and risks that may affect our business.



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Product Services

- Electro-Mechanical
- LV & HV Electrical Services
- Generator Specialists
- Turbo-Machinery Rotating Plant
- Pumps, Gearboxes, Valves and Coolers
- Plant Decommissioning

Industries

- Power Generation
- Oil & Gas
- Aggregate Mining & Quarry
- Utilities
- Food & Pharmaceuticals



Utilities



Power Generation



Aggregate



Oil & Gas

Mechanical Services



Our services include:

- EMC provide maintenance on an array of rotating equipment; repairs, installation, alignment and commissioning.
- Inspection & Repairs; Mechanical seals, bearing labyrinth seals, thrust and journal bearing inspections/ repair motor, gearboxes and pump refurbishment and major overhauls.
- Maintenance can be performed on a wide array of plants, such as LP/HP Boiler Feed and Circulating systems, Condensate Extraction, Main and Auxiliary Cooling Systems and general Balance of Plant/ Auxiliaries.
- General maintenance and support activities, including valve overhaul, repairs and repacks, pipe work, Filter/ Strainer refurbishment and cleaning, Plate Heat Exchangers, Tube bundle maintenance, and hydro testing and installation.
- HRSG/ Boiler tube leak detection, location and coordination of repair scopes.
- Lifting operations and rigging to facilitate overhauls and repairs, plant relocation 'lift and manoeuvre equipment as necessary'. Inclusive of contract management and coordination of CP Lift operations.

Outages

- EMC can provide a variety of resources to support all mechanical aspects, such as statutory inspection required under PSSR, vessel and boiler entry, in addition to assistance and coordination in inspection strategies.
- We supply Gas and Steam turbine outage scopes to support BI and EBI inspections, fitment and management of turning fixtures, third stage bucket sweeps, preparation for boroscope inspections- casing plugs, IGV's, Inlet and Exhaust plenum entries etc.

- We provide resources for valve overhauls, inclusive of coordination and management of third party contractors for hot and cold trevi-testing.
- Management and coordination of weld and NDT crews to support outage needs.

Projects

- EMC can provide installation of pumps, motor and piping systems 'general' package equipment, inclusive of skid relocation as necessary.
- We offer conceptual design, supply, installation and testing of steel structures and platforms, through coordination and management of third party contractors.
- Specialist paint and coating requirements, selection and application through coordination and management of third party contractors.

Condition Based Monitoring (Manage operational risks .M.T.B.F)

- We provide personnel to carry out vibration analysis and oil sampling.
- Rotating equipment; periodic inspections, installations and removals along with coordination third party refurbishments.

The Specialists – Electrical and Mechanical Heavy Engineering

Maintenance

EMC are dedicated to supporting our clients in meeting their maintenance requirements, working to comply with regulations, legal obligations, and condition monitoring. We provide a workforce to conduct your regular planned and defect maintenance tasks, by a process of thorough reporting and technical feedback.

Project management

In our experience, projects tend to be high-volume activities, with constraints on both money and time. There are also always Health and Safety priorities which need to implemented and executed in order to meet management and business expectations. EMC can help to navigate you through these challenges through our project management activities.

Electrical Services



Our services include:

- Battery maintenance & testing, combined with SG [Specific gravity] analysis and reporting.
- Trace heating installations, repairs and testing with electrical installation to BS 7671.
- Actuator install and set-up, including power and control cabling to BCS or other PLC control systems.
- LV periodic inspection and testing of lighting and small power distribution systems.
- HV & LV motor inspection, testing & age analysis and risk basis for maintenance or service requirements.
- Electrical fault finding on LV and HV systems.
- Generator consultancy for generator end winding inspections, overhauls, maintenance requirements, and faults.
- LV switchgear inspections and maintenance activities up to and including 6.6kv devices.
- Cable installations.
- House load cost reduction analysis.

Outages

- Labour resource to remove, install, test and lead requirements throughout an outage for intensive periods of activities.
- Planning, supervision, quality assurance documentation throughout outage scopes, supplying clients with updates, budgets, reports, to support large work scopes.
- Generators and all types of electrical maintenance or project scopes. We can supply personnel and a project manager to oversee work scopes, provide MS project plans, or advice on technical issues to deliver programmes and exceptional standards in both safety and quality.

- Actuator removal and installation along with commissioning during outage or inspection periods on boilers & auxiliary plant systems.
- Switchgear minor or major inspections along with bus bar testing.
- Trace heating testing and installation of defects found during down time periods.
- Installation of power and control cabling for projects or defects to BS 7671.
- Motor inspections, testing, removal, replacement along with alignments.

Projects

- Any electrical project requirements such as LV & HV cabling, installation of HV projects, Decommissioning.
- Energy efficient lighting assessment and implementation, reducing financial and environmental implications.

Condition monitoring

- We provide personnel to carry out transformer oil sampling and provide analysis.
- Motor inspections / testing to provide risk base maintenance or replacement reports.
- Generator risk evaluation and maintenance advice.
- Thermography inspections along with reports and risk evaluation.
- Motor testing can be conducted on site, along with periodic inspections, installations and removals along with third party refurbishments.

We can provide the following project and management activities for our clients:

- Project plans
- Financial cost tracking and budgets
- Project progression monitoring
- Technical management and supervision
- QA documentation

Consultancy

- Gas and Steam Turbines
- Generators
- Classifier vertical mills

- HRSGS and pressure systems
- Pumps, conveyors, motors, gearboxes
- Electrical

Plant Decommissioning

- Draining and dewatering site cooling systems
- Vent and purge gas systems
- Removal or disposal of heavy plant installations
- Electrical isolations, tracing cables, testing dead and physical separation

Plant preservation

 Gas or Steam turbines, generators, boilers, balance of plant, pumps, motors, vessels etc



I was introduced to EMC elite through a third party and asked them in to quote on a large bearing exchange. From the outset I was impressed with their attitude towards the job and their flexibility with different solutions I was considering. They offered constructive advice and agreed a defined plan for how and when the work was to be carried out. On site their professionalism and interaction with all parties involved was excellent and the safety aspects such RAMS, permits and Lock off were all faultless. The job was seen right through to completion, commissioning and field service report all at the same excellent standard. Would I use EMC again...definitely!

Hanson Civil Marine U.K



I was very impressed with the way in which EMC site personnel and management team conducted themselves, I found them both professional, and with great work ethic, also safety culture and quality of workmanship was to a very high standard indeed. In short this was a breath of fresh air to actually find a company who can work with only minimal supervision and get the job done, both safely and on time! Well done to the EMC team!

Thames Power Services





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