POWER PLANT SERVICES
Wide Array of Solutions
Field Services

MHPS offers field services for all major power generation assets including gas turbines, steam turbines, generators, and boilers.

This all-inclusive service covers both planned and unplanned outages delivered by our highly experienced and local workforce that can be deployed at short notice. Our technical advisors can be sent to site where customers have their own field service teams. We plan and execute outages according to our customers’ operating regime and diverse requirements ensuring their power generating assets are optimised and utilised to their full extent.

FIELD SERVICES

- Balancing and tuning
- Condition monitoring
- Emergency support
- Comprehensive rotor inspection
- Outage spare parts
- Specialized outage tooling
- Turnkey outage delivery

ON-SITE SUPPORT CAPABILITIES

MECHANICAL
- Gas turbines
- Steam turbines
- Generators
- Boilers

ELECTRICAL
- Electric motors
- Generators
- Transformers
- Electrostatic precipitators

PROCESSES
- Actuators and valves
- Fittings, piping and vessels
- Heat exchangers
Component Assessment and Repair

ADVANCED REPAIR TECHNOLOGIES

MHPS with workshops in the UK, Italy, Abu Dhabi and Saudi Arabia, carries out state-of-the-art repairs on components of gas turbines, steam turbines, generators and some auxiliary components. Our service is dedicated to longer lifespan and increased reliability of parts addressing today’s challenging market conditions.

HOT GAS PARTS REPAIR TECHNOLOGIES

MACHINING
- Bridgeport
- Computational Numerical Control (CNC)
- Electro discharge machining
- Plunge and hole drilling

WELDING
- Elevated temperature welding
- Manual TIG welding
- Laser welding

COATING
- CNC shot peening
- Robotic HVOF plasma
- Robotic APS plasma

CAPABILITIES
- Hot Gas Path parts repair – combustor and turbine
- Gas turbine rotor repair including comprehensive rotor inspection
- Generator repair including rewinding
- Steam turbine repair including rotor welding
- Compressor repair
- High speed balancing

PROCESSES
- Braze crack repair
- Blending
- Grid blast
- Heat tint
- Surface and vacuum heat treatment

INSPECTION AND TESTING
- Airflow testing
- Fluorescent penetrant inspection
- Frequency scanning
- Eddy current testing
- Ultrasonic testing
- X-Ray
Long Term Service Agreements (LTSA)

PARTS
We constantly aim to supply state-of-the-art and upgraded hot gas path parts to our customers to keep their power assets competitive in today’s demanding market conditions. Cutting-edge repair technologies provide longer overall lifetime and peace of mind between inspection intervals. The miscellaneous hardware in toolkit containers is provided at each outage for seamless assembly of components and commissioning of plants after outages.

SERVICES
Our expert technical advisors and certified and experienced workforce ensure comprehensive on-time outage completion. Our on-site program managers and remote monitoring service aim to prevent forced outages and provide quick response.

FLEXIBILITY
Our LTSA contracts are tailored to best suit our customer’s needs in terms of operating regime, maintenance timing and parts requirements. We strive to offer not only the best coverage for today’s market conditions but also flexible options for future challenges.

MAJOR BENEFITS TO CUSTOMERS

- Enables our customers to accurately forecast their budgets and plan for the maintenance of the covered equipment with peace of mind.
- Ensures the most up to date, technologically advanced parts are installed to meet changing market conditions in terms of flexibility, lifetime, performance and quality.
- Excellent care of your power equipment based on decades of Mitsubishi and Hitachi service experience.
- Guaranteed swift response to any unplanned incident via remote monitoring and dedicated on-site staff.
- Ensures the highest possible availability, reliability and performance needed for profitable operation in today’s and tomorrow’s market challenges.
Looking for OEM quality and warranty on your reverse engineered components? MHPS offers reverse engineering with short turnaround time, superior quality and performance.

A WIDE VARIETY OF PARTS
- Blades
- Valve seats
- Valve heads & spindles
- Seals
- Bolting

COMPONENT REPRODUCTION
- Scanning & material analysis
- Model production
- 2D model production (if necessary)
- Sourcing material
- Component manufacture

ADDITIONAL APPLICATIONS
- On-machine verification
- Machined part inspection
- Fixture positioning
- CAD-to-part comparison
- Part alignment and setup
- In-process quality checks
- Digitization
- Build and inspect

MHPS supplies an array of upgraded, state-of-the-art spare parts to ensure your power plant assets respond to every market condition with high performance and reliability.

MHPS holds a large stock of spare parts in Europe that can be rapidly delivered to customer sites for replacement, repairs and outages. The delivery of parts is always supported by installation and commissioning, performed by our dedicated service personnel.

QUALITY
MHPS Europe supplies parts that are manufactured to the highest level of quality and rigorously tested to their limits ensuring highest performance and reliability.
MHPS offers a comprehensive array of services for modernization of power plants in different designs and sizes. Our know-how extends to various types of firing systems for all conventional, bio, waste and alternative fuels.

**THESE INCLUDE**

- Boilers
- Combustors
- Flue gas cleaning
- Mills

Given its extensive expertise in boiler technology dating back more than 100 years, MHPS also delivers customer-oriented service and refurbishment for steam generators and components such as mills, burners and firing systems, coal feeders and conveyors.

MHPS has an experienced team offering comprehensive solutions for fossil-fired power plants and industrial boilers including parts as well as steam generators. We provide support for all necessary work and planning steps, starting with a feasibility study which extends from engineering through to production, supply, installation and commissioning. To ensure that implementation complies with all applicable regulations, the individual steps are monitored by our quality management team.

**MHPS SKILLS & EXPERTISE**

- Technical consulting and studies
- Concept, basic and detail engineering
- Design review, e.g. thermal/process calculation
- Failure diagnosis/troubleshooting
- Increase in power, efficiency and availability
- Lifespan extension measures
- Optimisation and replacement of parts
- Conversion/switching i.e. fuels, components
- Refurbishment and modernization
- Retrofit, modification and upgrading
- Overhaul
- Shut down planning
- Inspection, revision, repair
- Maintenance (scheduled and unscheduled)
- Supervision
- Procurement, manufacturing, construction, and commissioning
- Spare and wear parts (OEM and non-OEM)
- Commissioning
Industrial Boiler and Stoker Firing Systems

MHPS is not only a leading provider of services for the core of many power plants – the steam generator – but also supplies components for industrial power plants. Our company has extensive service expertise in providing firing systems, burners, stoker firing systems, components for firing systems and spare parts.

Any industrial thermal utilization needs a custom-built firing system in addition to a suitable steam generator, especially for fuel recovery. Customer-oriented solutions are based on MHPS’s comprehensive and experienced engineering know-how. In addition to engineering, we supply and deliver systems, and perform assembly and commissioning worldwide.

**FIRING SYSTEMS / BURNERS FOR**
- Natural gas/light and heavy fuel oil
- Blast furnace gas/lean gas/CO gas
- Waste water and waste gas
- Thermal residue disposal
- GT gas in combination with natural gas (CCPP process)
- Sulphur extraction (Claus Plants)

**STOKER FIRING SYSTEMS**
- Waste heat boiler
- After burning grate
- Roller grate
- Moving grate
- Grate bars
- Ash/Slag extractor
- Ignition/Support firing
Power for a Brighter Future