Excellent service for industrial gas turbines
GE LM2500™, LM5000™ and LM6000™
MTU Maintenance Berlin-Brandenburg, an affiliate of MTU Aero Engines, ranks among the globally leading companies engaged in the maintenance, repair and overhaul (MRO) of aircraft engines and industrial gas turbines (IGTs). At the Ludwigsfelde location to the south of Berlin, gas turbines have been repaired and overhauled for over 30 years. Today, MTU Maintenance Berlin-Brandenburg is MTU’s center of excellence for the repair of industrial gas turbines.

**Global service network**
The company is an authorized service provider for all types of General Electric LM2500™, LM5000™ and LM6000™ gas turbines. Its customers hail from power generation, marine propulsion and compressor station applications, on- and off-shore.

A unit of the MTU group, MTU Maintenance Berlin-Brandenburg benefits from a global repair and service network and moreover from a broad knowledge base in the development, manufacturing and repair areas. It closely cooperates with the shops at MTU’s Hannover, Munich and Kuala Lumpur (Malaysia) locations.

**Always a reliable partner**
In its role as a reliable partner, the company offers its international clientele a unique combination of technical expertise, outstanding quality standards and an unusually highly qualified, service-oriented workforce. The MTU specialists can draw from the entire spectrum of highly advanced repair techniques. In the process, it achieves globally unique levels of restoration that help extend the life of gas turbines.

For each customer, the company separately develops customized service packages from its comprehensive services portfolio for new dimensions in the support of gas turbines in the shop and on-site.
Compelling capabilities

MTU Maintenance Berlin-Brandenburg provides MRO services for all versions of the following gas turbines:
- LM2500™ (incl. DLE)
- LM2500+™ (incl. DLE)
- LM5000™
- LM6000™ (incl. DLE)

To date, MTU has handled almost 900 gas turbine shop visits. More than 120 engines are being maintained under long-term service agreements.

Experience

Repair

About 80 percent of the component repair work is carried out within MTU Maintenance, which results in lower costs and shorter turn-around times.

Testing

At MTU's test cell center, LM2500™ and LM6000™ gas turbines are tested under real load conditions without any restrictions in terms of synchronization to the grid or availability of test slots.

Call upon us for assistance

The dedicated professionals at MTU Maintenance Berlin-Brandenburg will be glad to tailor maintenance and repair schedules to suit your very needs.

Be it in the company's Ludwigsfelde shop or on site at the customer’s: MTU’s experts work with clockwork precision.
Excellence in on-site services

The Ludwigsfelde specialists are on call around the clock 365 days a year to serve their customers. If things get ugly, a hotline service takes calls 24 hours a day all year round to organize the action on-site. The company has long-term agreements with some customers and if so requested handles the entire maintenance management for them. Its services range from removal and recommissioning, on-site repair, periodic inspection, remote monitoring and vibration analyses all the way to engineering consulting and customer training. MTU Maintenance makes sure customers are optimally supplied with all MTU services, spare parts and leased gas turbines. Thanks to MTU’s regional presence in the Americas and Asia the technicians of its mobile, flexible field service will reach any location outside Europe within 24 hours.

Capabilities:
• Periodic inspections, Level 1 and 2 on-site maintenance
• Individually scheduled preventive maintenance
• MTU uses the Alert™ system by Cogsys Limited
• Rotable units, tooling management, spare parts supply/management
• Remote monitoring and trend analysis
• Vibration surveys, trim balancing, laser alignment, DLE mapping
• Engine control services
• Training

World-class customer service

Capable shop services
For over two decades, MTU Maintenance has leveraged its aircraft engine experience also for the maintenance, repair and overhaul (MRO) of industrial gas turbines. This benefits customers most of all. For the gas turbine MRO activities borrow heavily from the quality level associated with the maintenance of aircraft engines, a level that necessarily satisfies the most stringent of requirements. The company has turned its shop into a highly advanced maintenance line along which gas turbines are torn down, inspected, repaired, and built up. In all of this, the team of repair specialists have their sights set on the one goal of smartly moving the turbines through the shop so their operators can cycle them back into revenue service with a minimum of delay.

Capabilities:
• Dedicated module shops
• Electronic piece parts tracking system (on-log/off-log system)
• MTU proprietary stringent rotor stacking procedure
• Latest balancing technology
• Hot section replacement
• Engineering support for every gas turbine type
• Quality system based on FAA-approved flight engine system–minimal tolerances and highest quality standards
**Repair beats replacement**
The facility near Berlin uses innovative high-tech repair techniques that help its customers save money without sacrificing quality. The MTU experts are performing 80 percent of all component repairs in-house, true to their motto “repair beats replacement”. For customers, repair costs less than a new part. The quality and reliability of a repaired part matches that of a virgin part. Extensive exchange of experience and know-how among the MTU shops helps continuously develop and improve repair techniques to optimize the availability and reliability of the gas turbines.

MTU in-house repairs:
- Trirex™ state-of-the-art grinding machine: grinding of entire HPC/HPT stator modules for minimal tip clearances
- High-speed grinding machine for HPT rotor machining
- Various thermal barrier coatings (TBC) available
- Customized repair development

**World-class testing**
MTU Maintenance Berlin-Brandenburg sports one of the world’s largest and most advanced IGT test cells. It is one of the only two test cells available anywhere that are able to accommodate LM2500™ and LM6000™ gas turbines in true service environments. LM5000™ turbine test runs are conducted on an aero engine test bed. That indeed permits thorough testing to be conducted on often highly-stressed components and ensures that maintenance quality is an optimum.

Capabilities:
- Natural gas supply
- Emission measuring capabilities for testing of DLE gas turbines
- Extensive combustor mapping capabilities
- Slave power turbine for LM2500™ gas generator only testing available
- LPC booster trim balancing capabilities
- Spectrum analysis capabilities for measuring vibrations
- Digital data recording of all relevant gas turbine parameters

**Quality, a prime priority**
MTU safeguards its high quality standard through an integrated management system that monitors its environmental protection effort as well as the quality of its products and services and the effectiveness of its occupational health and safety effort. The processes and systems involved are regularly audited and certified by internal and external auditors.

Approvals:
- GE-authorized shop
- FAA-approved repair station
- EASA-/LBA-approved maintenance and production organization
- DIN ISO 9000 and 9001:2000 quality management certification
- DIN ISO 14001 environmental management certification
- Registered supplier in Achilles and First Point Assessment Ltd. (FPAL) databases
- SCC-approved field service staff

**IGT test facility.**

**Highly qualified employees ensure professional support of the heavy-weights.**

**Center of Excellence: IGT assembly and teardown line at MTU Maintenance Berlin-Brandenburg in Ludwigsfelde.**