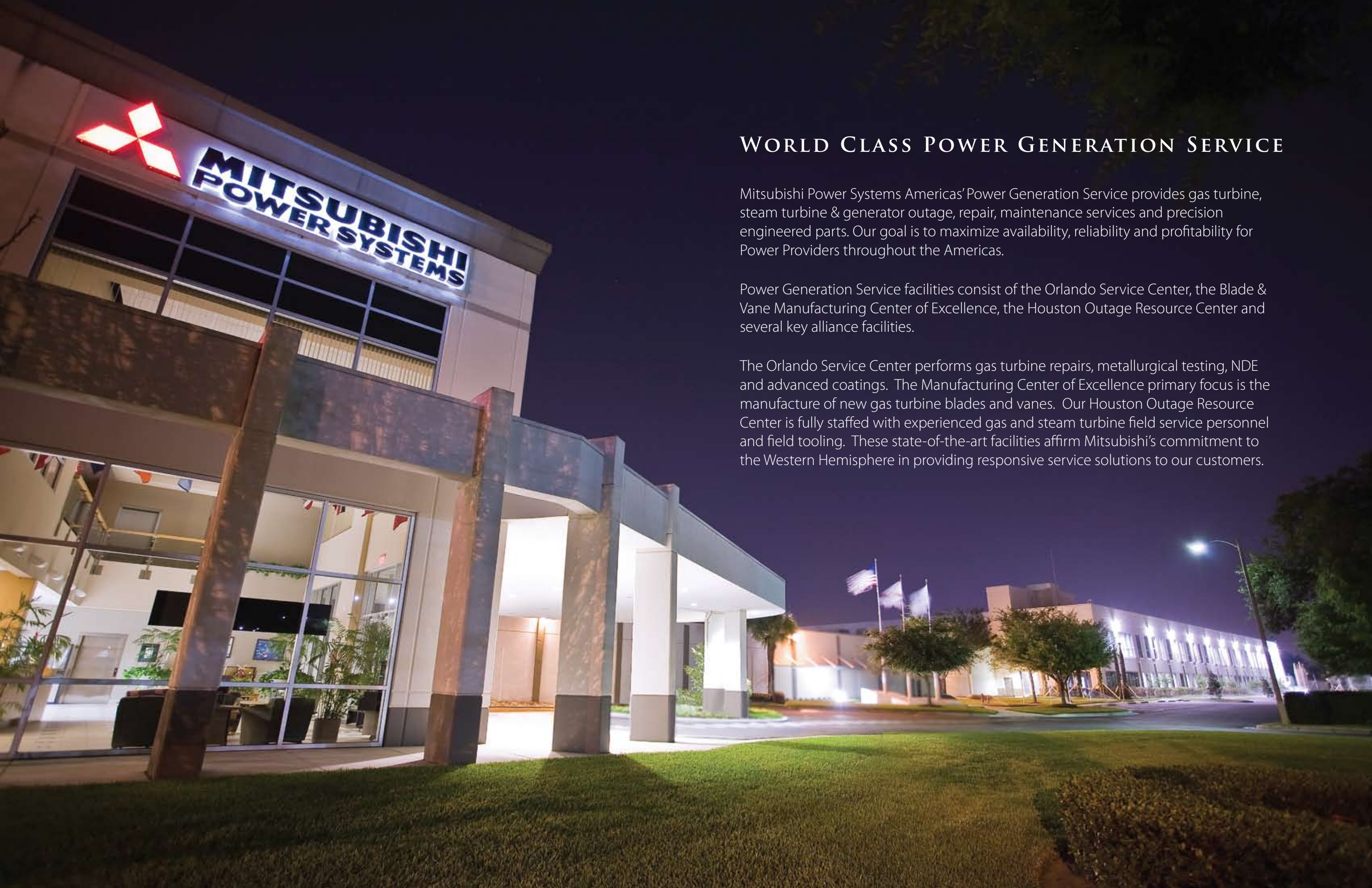


PROACTIVE AND RESPONSIVE SOLUTIONS



POWER GENERATION SERVICE





WORLD CLASS POWER GENERATION SERVICE

Mitsubishi Power Systems Americas' Power Generation Service provides gas turbine, steam turbine & generator outage, repair, maintenance services and precision engineered parts. Our goal is to maximize availability, reliability and profitability for Power Providers throughout the Americas.

Power Generation Service facilities consist of the Orlando Service Center, the Blade & Vane Manufacturing Center of Excellence, the Houston Outage Resource Center and several key alliance facilities.

The Orlando Service Center performs gas turbine repairs, metallurgical testing, NDE and advanced coatings. The Manufacturing Center of Excellence primary focus is the manufacture of new gas turbine blades and vanes. Our Houston Outage Resource Center is fully staffed with experienced gas and steam turbine field service personnel and field tooling. These state-of-the-art facilities affirm Mitsubishi's commitment to the Western Hemisphere in providing responsive service solutions to our customers.

CENTER OF PERFORMANCE

Power Generation Equipment Focus

MPS provides a complete line of services for power generation equipment throughout the Americas:

Gas Turbines
Steam Turbines
Combined Cycle Installations
Electric Generators
Auxiliary Systems
Nuclear Turbines, Generators and Auxiliary Equipment
Boiler Equipment and Services
Regional Capability for Large Stationary and Rotor Repair

Facilities

MPS's state-of-the-art centers of excellence are designed to meet the specialized needs of power generators:

High-Efficiency Process Flow

PGS's custom-designed work flow plan & lean manufacturing techniques minimize equipment handling, transfer time and turnaround.

225,000 sq ft Combined Facilities

The Orlando-based centers of excellence are strategically located to support your outage and service manufacturing needs throughout the Americas.

Advanced Equipment

All PGS workcenters feature the most modern and versatile tooling and apparatus, including advanced CNC and robotic machine platforms.

Plant-Wide Integrated QA Program

PGS is fully certified to ISO 9001:2000. In addition, all manufacturing and repair operations are carried out in strict compliance with Mitsubishi's Quality Assurance Program.

On-Site Metallurgy Lab

MPS has a fully-staffed and equipped lab performing all metallurgical tests.

In-House Manufacturing

PGS provides complete manufacturing capabilities for many types of replacement components:

Gas Turbine Components

Including baskets, transitions, blades, vanes and ring segments for M501/M701 F and G Series.

Custom Parts and Components

We can manufacture new Mitsubishi and non-Mitsubishi parts to precise specifications.

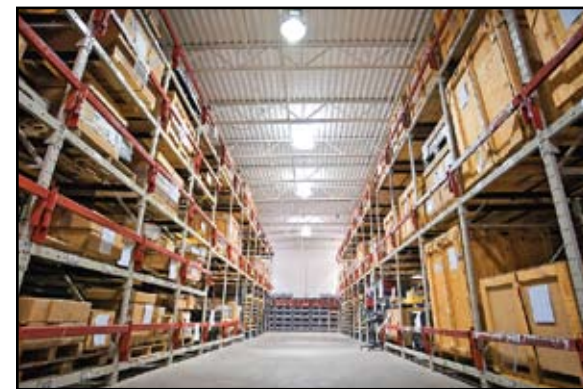
Installed Machining Capabilities

- 5-Axis CNC Horizontal Boring Mill
- CNC Horizontal Turning Lathe
- CNC Vertical Turning Lathe
- Electrical Discharge Machining (EDM)
- Continuous Dress Creep-Feed Grinding

Critical Parts

MPS maintains an extensive inventory of power system replacement parts, to ensure ready availability:

- Combustor and Turbine Rotating/Stationary Components
- Open-Close Consumable Parts Kits
- Instrument and Controls Spares
- Generator Spare Parts
- Foreign Trade Zone Status



Parts Inventory Management

Automated central warehousing, tracking and purchasing management of individual customer's "most needed" and specialty replacement parts.

Turbine Component Repair Services

Mitsubishi's core competence in evolutionary turbine design is reflected in PGS's comprehensive range of life-extending and performance-enhancing repair technologies:

Inspection

- Dimensional Inspection
- Penetrant, Eddy Current & Ultrasonic
- Radiographic/Thermographic
- Flow Check

Blade, Vane & Ring Segment Repair

- Automated Chemical Cleaning Line
- Automated Ultrasonic Cleaning
- Weld Repair
- Vacuum Brazing, Solution & Aging
- Automated APS and HVOF Coating (MCrAlY, TBC and Hard Surface)
- Directionally Solidified Component Repair
- Flow Check
- Tap (Frequency) Testing
- Moment Weighing



Combustion System Components

- Automated Abrasive Cleaning and APS Coatings
- Weld Repair
- Vacuum Heat Treating
- Flow Check

Fuel Nozzle

- Repair and Flow Check

Field Services

Wherever you are in the US, Canada or Latin America, MPS brings comprehensive and responsive OEM-qualified service direct to your site. And whatever the need—from turnkey planned maintenance, specialized field diagnostics support, custom designed specialty tooling and equipment to emergency outage services—our mobile service teams of experienced Mechanical, Electrical and Controls technicians provide the support you need when you need it, helping you minimize down time and lost productivity while accelerating a reliable return to service:

- Turnkey Projects
- Project Management
- Resident Engineers
- Technical Advisors
- Labor Supervisors
- Turbine Mechanics and Mechanical Technicians
- Non-Destructive Examination (NDE)
- Start-Up/Commissioning/Tuning Support
- Controls and Diagnostics
- Balancing and Vibrational Analysis



ENHANCING PERFORMANCE AND PROTECTION

Turbine Upgrades/Modifications

Beyond routine equipment repair and restoration, PGS can also enhance turbine performance through engineered current-technology upgrades and modifications that enhance fuel efficiency, output, performance and service life... including upgraded rotors and inner/outer cylinders:

GAS TURBINES

Compressor

Replace IGV, blades and diaphragms with advanced air foil CDA blading for increased output and efficiency.

Combustor

Upgrade to Low-NOx combustion system.

Turbine

Replace vanes with 3-D air foils and directionally-solidified blades featuring superalloys and advanced heat-resistant coatings to improve output, efficiency and life.

Secondary Air System

Install improved air separator to eliminate fretting fatigue and improve shaft vibration characteristics.

STEAM TURBINES

- Inspection Services
- Integral Shroud Blading
- Enhanced Root and Groove Geometries
- Active Clearance Control Seals
- Fully 3D Reaction Blades
- Steam Path Upgrades
- Rotor Repair

Comprehensive Services

Consistent quality of planned and predictive maintenance over time is essential to achieving superior equipment availability, performance and lifetime ownership cost. PGS offers a variety of ongoing service and support programs to help ensure that fleet owners have the operating data, parts and cost-structure they need to make informed maintenance decisions... today, and tomorrow:

Extended Service Programs

Tailored, multi-year service agreements providing flexible service scope and cost structures to suit customer needs.

Engineering Studies

Expert review and analysis of installed power decks, performance benchmarks and service requirements/upgrade opportunities.



Remote Monitoring

Continuous Internet-based monitoring and historical trending for practically limitless operating parameters.

