



OVERVIEW

Mechanical Dynamics & Analysis provides power generators around the globe with a full-service OEM alternative for services, parts, and repairs. Through 35 years, our commitment to excellence has earned customer trust for all turbine-generator needs. We focus on delivering consistent quality and value with fast response, superior communications, and innovative solutions.

MD&A is easy to work with. We provide immediate access to expert help when you need it, where you need it. Around the corner or around the globe, we ensure prompt, thorough communication and follow-through. For every repair job, large or small, the speed and effectiveness of our response team is matched only by the depth and breadth of our engineering expertise. Find out today why so many power generators use MD&A to maximize operational effectiveness.

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19 British American Blvd., Latham, New York 12110

All MD&A Divisions 24 Hr. Hotline: 800-999-4632
More Information: www.MDAturbines.com

SERVICES

OUTAGE SERVICES

+1 518-399-3616 | [Latham, NY](#)

- New Unit Installations
- Steam & Gas Turbine Overhauls
- Industrial Turbine Maintenance & Overhaul
- Computerized Scheduling
- Total Job Planning & Project Management
- Subcontract Coordination & Administration
- Experienced Supervision & Craft Labor
- Labor Relations
- Standard Maintenance Tool Sets
- Topless Laser Alignment

FIELD ENGINEERING

+1 518-399-3616 | [Latham, NY](#)

- Outage & Maintenance Planning
- Project Management
- Field Engineering & Technical Direction
- Vibration Analysis
- Training Programs
- Start-Up Engineering
- Performance Testing

MD&A CONTROL SYSTEMS

+1 970-224-2223 | [Fort Collins, CO](#)

- Turbine Control & Excitation Services
- Turbine Control Retrofits
- Excitation Retrofits
- Hydraulic System Retrofits
- Legacy Turbine Control Parts & Services
- Training
- Consulting

PARTS

MD&A PARTS

+1 518-885-3199 | [Clifton Park, NY](#)

- Advanced Design Stationary Seal Systems
 - Guardian Packaging Ring®
 - Vortex Shredder Tip Seal®
 - On-Site Installation Services
- Steam Turbine Replacement Parts
 - Valve Components/Accessories
 - Conventional Seals & Packings
 - Stationary & Rotating Components
- Gas Turbine Replacement Parts
 - Combustion Components Systems
 - Hot Gas Path Components
 - Honeycomb Seals
- Reverse Engineering Capability
- Bolting & Fasteners

MD&A BEARINGS, SEALS & HYDRAULICS

+1 440-946-0082 | [Euclid, OH](#)

- Tapered Land Thrust Bearings
- Tilt Pad Thrust & Journal Bearings
- Hydrogen Seal Repairs & Replacement
- Oil Deflectors
- MHC Operating Governors
- Mechanical Overspeed Governors
- RR Hydraulic Actuators
- Steam Seal Regulators
- Water Seal Impellers
- Helix Seal Rings
- Accessory Starting Equipment

GAS TURBINE COMPONENT REPAIRS

+1 210-256-5000 | [San Antonio, TX](#)

- Combustion
- Hot Gas Path
- Compressor Blading
- Upgrades

GAS TURBINE ROTOR REPAIRS

+1 314-880-3000 | [St. Louis, MO](#)

- Rotor Stack/De-stack
- Bucket Replacement/Repair
- Compressor Blade Blending & Replacement
- Turbine Wheel Repair & Replacement
- Compressor Disk Repair & Replacement
- Full Rotor NDE & Analysis
- End of Life Evaluations
- Rotor & Coupling Machining
- Casing & Housing Repairs
- Turbine Rotor High Speed Balancing

REPAIRS

MACHINING SERVICES

+1 314-880-3000 | [St. Louis, MO](#)

- Low Stress Weld Repairs
- Engineered Stress Relief Methods
- Proprietary Distortion Correction
- Engineered Shell & Valve Body Repairs
- Eroded Surface Restoration
- Automated Bore Welding
- Finite Element Analysis
- Remaining Life Analysis
- Crack Growth Rate Analysis
- Failure Analysis
- Stress Monitoring Systems
- Mobile Machine Shops & Field Machining
- Valve Inspections
- Rotor Welding

GENERATOR ENGINEERING & REPAIRS

+1 314-880-3000 | [St. Louis, MO](#)

- Major Component Replacement
- Complete Inspections & Electrical Testing
- Repairs to All Generator Components & Auxiliaries
- Stator & Field Rewinds
- HV Bushing Repair & Manufacture
- Wedge Systems
- Leak Repairs to Liquid Cooled Stator Bars
- Diagnosis of Operational Problems
- Excitation & Voltage Regulator Controls
- HIT Skid Testing
- Generator Field High Speed Balancing

STEAM TURBINE ROTOR & STEAMPATH ENGINEERING & REPAIRS

+1 314-880-3000 | [St. Louis, MO](#)

- Steampath Audits & Inspections
- Steampath Engineering
- Steampath Upgrades
- Bucket & Cover Replacement/Repair
- Diaphragm & Nozzle Repairs
- Failure Analysis
- Mobile Lathe Equipment
- Turbine Rotor High Speed Balancing

STEAM TURBINE RETROFITS

+1 518-399-3616 | [Latham, NY](#)

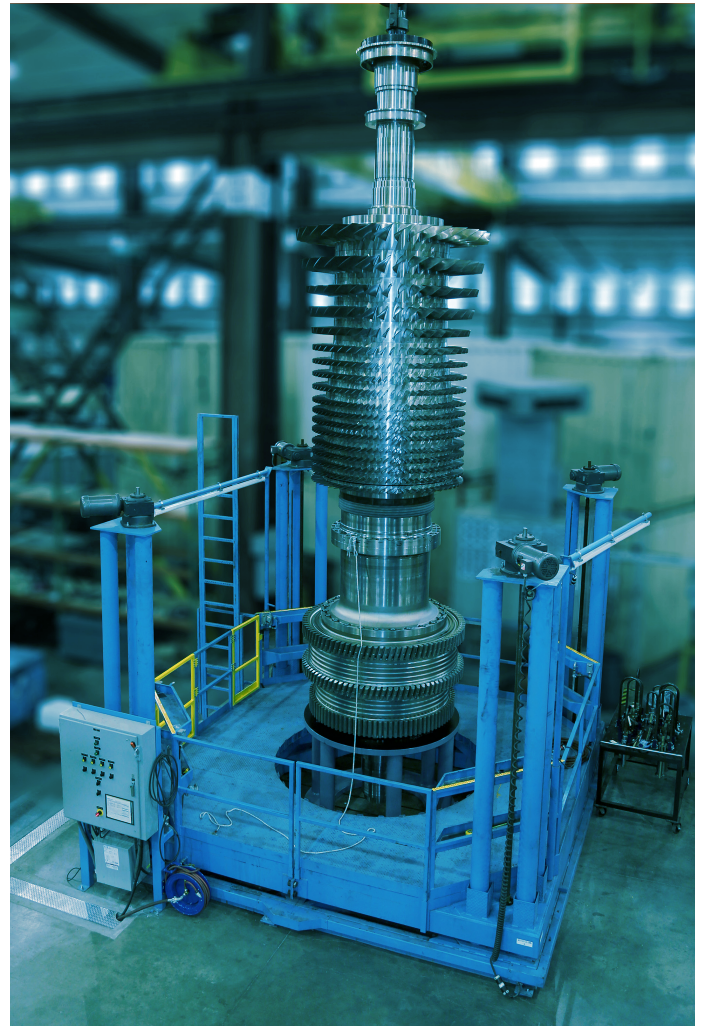
GAS TURBINE SERVICES

When Knowledge & Experience Matter

Power plant owners and operators have entrusted their turnkey turbine-generator overhauls to Mechanical Dynamics & Analysis for over three decades. Our project managers and technical directors are seasoned professionals with a broad range of experiences whose skill sets cover both common and unique makes and models of turbo machinery from around the world. Our reputation for providing objective advice, effective project management and high quality repairs has enabled MD&A to become one of the most recognized and trusted names in the power generation industry.

An abbreviated list of services provided by our Gas Turbine Services team includes:

- Combustion, Hot Gas Path & Major Inspections
- Generator Inspection and Repair
- New and Used Capital Components
- Hot Gas Path, Combustion and Compressor Repairs
- Technical Direction, Consultation & Controls Engineers
- Labor & Supervision
- Control System Upgrades
- Full Suite of Specialty Services



Fleet Support for:

Alstom®: GT 8, 11, 13, 24, 26

General Electric®: Frame 3, 5, 6B, 6FA, 7EA, 7FA, 9E, 9FA

Siemens®: V84, V94

MECHANICAL DYNAMICS & ANALYSIS

For more information on this product or service please contact MD&A at 518-399-3616

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GAS TURBINE SPECIALIZED SERVICES



Gas Turbine Rotor Repairs

MD&A's Turbine-Generator Repair Facility offers full capabilities for your gas turbine rotor maintenance and end of life assessment. It also has an elevator system to perform a full gas turbine rotor and compressor unstack and restack.

Component Repairs

MD&A's San Antonio Service Center is an industry leader in gas turbine component repair and manufacturing with proven expertise on multiple frame gas turbine hot gas path and combustion components. Our enhanced gas turbine new parts use proprietary advanced technology.

Generator Repairs

MD&A's Generator Division can perform all repairs on gas turbine generators, including field and stator rewinds, with new or existing copper. It has two new generator clean rooms to accommodate multiple field rewinds at a time.

Gas Turbine Internal Alignment

MD&A's Alignment Division has a wealth of experience on gas turbine casing and bearing alignment activities. MD&A can assess the internal alignment, and realign all gas turbines to their design conditions.

Vibration Analysis and Balance

MD&A's team of Vibration Specialists can assess gas turbine and generator imbalance, and recommend placement of correction balance shots. MD&A's new High Speed Balance facility can handle all gas turbine and generator rotors.

Gas Turbine and Generator Bearings

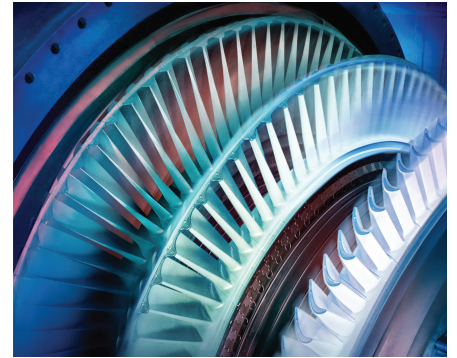
MD&A's Bearings, Seals & Hydraulics Division supports all makes and models of gas turbines with expedited bearing repairs, and a stock of replacement bearings.

Capital and Consumable Parts

MD&A's Parts division is a premier worldwide supplier of capital and consumable parts for gas turbines.

Plant Performance Testing and Analysis

The MD&A Performance Testing group provides full analysis capabilities for Combined Cycle and Simple Cycle plants. The experienced team can identify performance and output shortfalls, and make specific recommendations to resolve.



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