Micro Tech Group
Products and Services 2015
Micro Tech CMI offers the following Products and Services for Process and Automation

<table>
<thead>
<tr>
<th><strong>Description</strong></th>
<th><strong>Details</strong></th>
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<tr>
<td>FFFR Compliance (Fossil fuel firing regulation)</td>
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<td>Base line testing (Thermal efficiency, Boiler optimization)</td>
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<td>Heat Rate (Turbine efficiency*)(*=In the near future)</td>
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<td>Air flow &amp; Temperature (Pri, Sec, ID, FD, Aux, Flue gas)</td>
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<td>Coal particle size analysis (PSA)</td>
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<tr>
<td>Mill performance on line (PSA, Mass Flow, CBM)</td>
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<td>Fly ash assessment on line (UBC)</td>
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<tr>
<td>PF Mass flow and balancing (Coal)</td>
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<tr>
<td>Air heater leakage and efficiency measurement</td>
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<td>Oxygen measurements and flow trimming dampers</td>
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<td>Multi V probe (Temp, velocity, O₂)</td>
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Micro Tech CMI offers the following Products and Services for Boiler and Furnace monitoring

- Boilerwatch ® MMP-II-SSX
- Power Plant and Refinery Application
- Combustion Performance
- Noise/Leak Detection
- Soot Blower Control
- Start Up Temperature Control
- Ash hopper blockage detection
- Air Register Control
- Delay Coker Furnace
- Visbreaker Furnace
- Hydrogen Reformer
- Crude Unit
Micro Tech CMI offers the following CBM for Transformers

- Temperature Measurement Devices
- Direct Mount Thermometers
- Remote Mount Thermometers
- Winding Temperature Simulation
- Pressure Controls, Gauges, and Relays
- Pressure Relief Devices
- Pressure Controls
- Rapid Pressure Rise Relays
- Pressure Accessories
Micro Tech CMI offers the following CBM for Transformers

- Intelligent Transformer Monitors
- Direct Winding Transformer Monitors
- Direct Winding Transformer Monitor Accessories
- Portable Fiber Optic Thermometers
- Localized Oil Level Indicators
- Vertical Oil Level Indicators
- Remote Oil Level Indicators
- Flow Indicators
- Gas accumulation indicators
Micro Tech CMI offers the following CBM for Transformers

- Dissolved gas analysers
- SF6 Gauges and Controls
- On-line Breaker Condition Monitors
- Multifunction Recorders
- Extreme Multifunction Recorders
- Traveling Wave Fault Locators
- Phasor Measurement Units
- Fault Recording and Fault Location – Upgrades
- Power quality monitoring, Partial Discharge Monitoring
- Sequential Event Recording, Alarm Annunciator
- Master Station Software
Micro Tech CMI offers the following CBM for Motors & Generators

- Turbo-generator thermal efficiencies, heat rate and acceptance testing
- High, intermediate and low pressure overall and blading cylinder efficiencies
- Pump and pipeline characteristic curves
- Cooling tower thermal efficiencies
- Air compressor performance
- Cooling systems and heat exchangers performances
- Reports on performance test, evaluations, analysis, schedules and graphic representations
- Conclusions and recommendations
Micro Tech CMI offers the following Fluid management

- High efficiency filtration solutions for;
- Bulk fuels and oils
- Turbines
- Mills, Crushers, Gearboxes and Hydraulics
- Mobile equipment

- Vacuum dehydration and oil purification
- Automated water detection and auto dump
- High efficiency breather systems with desiccant gel
- Lubrication Engineers range of lubricants
- Heavy duty lubrication for open gears and draglines
- Lubrication system design and manufacturing
- OilSafe - Oil handling and distribution
- Seal Saver hydraulic cylinder protection
- Wire rope lubrication and servicing
- Low pressure gear pumps 380/525V and 24V
- High efficiency oil cooling solutions
Micro Tech CMI offers the following construction and fabrication in partnership:

- Mills and reject line
- Boilers and auxiliaries
- Valves
- Fabrication
- Ducting
- Air heaters
- Splash plates and dipper plates
- Ash hoppers
- Dust handling plant
- Fuel oil pipeline
- General turbine
Micro Tech CMI offers the following Operational planning:

- Workforce planning
- Production planning
- Project planning
- Offshore planning
- Machine planning
- Assembly planning
Micro Tech CMI offers the following Electrical & Mechanical engineering:

- Supply Elect Mot complete with Gearbox, Pump or Fan Unit
- Repair Service and Refurbish Elect Mot, Gearbox, Pumps & Fan Units
- Design and Manufacture Sub-Station Ventilation Systems
- Supply Manual Valves, Control Valves, Valve Actuators, Valve
- Position Monitors, Valve Position Controllers, Ball Valves, Butterfly
- Valves, Knife Gate Valves, Lined Corrosion Resistant Valves,
- Recirculation Valves
- Supply and Install Variable Speed Drives, Soft Starters, Direct on Line Starters, Chokes for Low, Medium and High Voltage
- Supply Power Packs for Conveyor Systems
Micro Tech CMI offers the following Electrical & Mechanical engineering

- Tail-end Pulleys, Head Pulleys and Lagging
- Portable Drives and Conveyor Structures
- Supply and Repair of Flameproof Panels and Non-Flameproof Panels
- Supply and Repair of Transformers – Flameproof and Non-Flameproof
- Supply and Repair of Generators
- Supply and Repair of Welding Machines
- Supply and Repair of Chutes
- Vibrator Bed to perform Load Testing up to a 26kW motor.
- Centrifugal load testing motors up to 250 000 Newton
- A 24-Hour Breakdown service, manned by our skilled team.
Micro Tech CMI offers the following Maintenance services

- Installation of Pulleys
- Installation of Bearings
- Levelling & Training of belts
- Sweeping belts from rib side
- Monitoring, inspection and replacement of belts
- Cleaning and stone-dusting of tail ends & belt drives
- Maintaining dust suppression systems at belt drives
- Assist with the work on the trunk belts executed by the employer
- Changing of idlers, belt structures,
- Conveyor Splicing and Splice Management
- Install and maintain belt scrappers
Micro Tech CMI offers the following Services

- Gimbal solutions for any type of aircraft
- Thermal imaging inspections
- Vibration analysis (online, routine, fault finding, ODS)
- Oil analysis
- Motor Circuit Analysis
- Power Quality Analysis
- Laser Alignment and Balancing
- NDT (UT-MPI-DPI- and X-Ray)
- Lubrication & Fluid Management
- Partial Discharge & Corona Detection
- Inspect Trend and Tracker RMS CMMS
- Energy Management (CEM)
- Training (IR-VIB-OIL-MCA-PQ-NDT-COR)
Micro Tech CMI offers the following Surveillance equipment

- Sight archer TSA
- Monocular archer TMA
- Goggles archer TGA
- Review camera TVC
MT CMI is the Authorised Distributor for the following Range of Equipment

- Promicon - Germany (Power generation process instruments)
- Qualitrol - USA (Transformer Condition based maintenance)
- SeiSpain – Spain (Boilerwatch, Leak/Noise detection, Temp Mapping)
- InfoBoard - Germany (Planning, Maintenance, Projects, etc.)
- KC Cottrell – Korea (Environmental technology)
- Filter Focus – RSA (Filtration solutions incl. specialized lubricants)
- Construction - RSA (Fabrication and construction)
- Electrical Motors - RSA (Motors, Trf, Switchgear, Sales & Services)
- Archer tvt Thermal – UKN (Military and security thermal imagers)
- Lavender Moon – RSA (Maintenance teams and labor hire)
- Impact – USA (Asset management software)
- Polaris labs – USA (Oil analysis as per ISO 17025)
- Harvard boiler & Lloyds of London – UK & USA (Insure)
MT CMI is the Authorised Distributor for the following Range of Equipment

- FLIR-USA (Infrared Cameras)
- Ofil Systems (UV cameras for Corona Detection)
- FLIR Polytech (Gimbals, IR, UV, Arial Surveys)
- BJM Corporation-USA (All Test Pro Motor Circuit Analyzers)
- Logos-USA (Inspectrend, Web manager, Tracker RMS Software)
- Ningi Services-SA (On Line Motor Protection Relays)
- Ansys-SA (Rail, Rope, CMMS)
- ATS-Canada (Fully Automated Lubricators)
- Fluke-USA (Power Quality Analyzers, Test & Measure Instruments)
- Extech-Germany (Test & Measure Instruments)
- Energy Management & Audits-SA (Energy Cybernetics CEM)
- Power Watch-SA (Live monitoring of Energy use)
Training facilities in Witbank