

combustion efficiency

and

environmental emissions monitoring



LAND
instruments international

Combustion & Environmental Monitoring

combustion & environmental monitoring

company profile

Land Instruments International specialises in the design and manufacture of flue gas analysers for combustion efficiency and environmental emissions monitoring. Land Instruments International has been a leading supplier of industrial instrumentation for over 50 years. Land Instruments International operates throughout the world.



product range

- Combustion efficiency monitors
 - Oxygen probes
 - Carbon monoxide monitors
 - Acid dewpoint temperature monitors
- Environmental emissions monitors
- Dust and opacity monitors
- Portable flue gas analysers
- Data acquisition and reporting systems
- Gas turbine blade temperature monitoring



environmental emissions monitoring



NO
NO₂
NO_x
SO₂
CO
CO₂
O₂
HCl
HF
NH₃
H₂O
CxHy

The FGA series of emission analysers uses advanced dual sensor technology (ADST) to measure pollutant levels in flue gases. This unique technique, ensures stable long-term operation with high accuracy, no drift and low maintenance.

Every instrument can be customer configured for optimum performance. Instrument calibration can be conducted manually or triggered automatically using the internally controlled microprocessor system.

FGA analysers can function as stand-alone units or as part of a fully integrated continuous emissions monitoring system (CEM).

LGA and THA range of analysers further expand the CEM capability.

Emerald is a highly flexible and fully configurable data acquisition and reporting system for continuous emissions monitoring systems.

portable flue gas analysers

The Lancom range of portable flue gas analysers are ideal to assess any plant's efficiency or environmental status.

Small, lightweight and fully portable they are easily carried around any plant. Simple to setup, easy to use - practical results and analysis are available after a short time, with optional integral reporting system. All sample gases are measured not calculated. A wide range of sample probes and other options are available

Also available the LAND duo - CO and O₂ analyser.

NO **NO₂** **NO_x**
O₂ **CO** **CO₂**
SO₂ **H₂S** **CxHy**



combustion efficiency monitoring

carbon monoxide monitors

The Series 9000 range of in-situ, infrared carbon monoxide monitors are proven for high accuracy, performance and ease-of-use. Complete instrument configuration gives flexibility to satisfy a wide range of applications.



coal mill fire detection

Millwatch comprises a specially designed sample probe and analyser unit, which responds to changes in carbon monoxide levels to give early warning of the onset of fires in pulverizing coal mills.

oxygen analysis

Genesis is a range of flue gas oxygen analysers. The breakthrough 'stand-alone system' is the world's first truly fully-integrated oxygen analyser.

The range includes: stand-alone systems; remote control systems; high temperature; hazardous area and multi-point systems options.



acid dewpoint monitoring

Acid dewpoint monitoring allows the plant operator to work to minimum flue gas temperature, thus improving overall combustion efficiency, also reducing acid corrosion and pollutant emissions. The instruments use a direct measurement technique to monitor the acid dewpoint temperature.

A portable analyser is available for periodic measurements; a fixed system for continuous monitoring.



turbine blade temperature monitoring

A high speed, accurate non-contact temperature measurement system for monitoring gas turbine blade temperatures.

dust, opacity, smoke and particulates monitoring

LAND has a range of dust, opacity, smoke and particulates monitors which are the most technologically advanced, using patented dual LED technology to give high accuracy. The instruments measure with no moving parts, giving highest possible reliability and very low maintenance.

The Model 4500 MkII⁺ is designed specifically for environmental compliance monitoring applications. LAND leads the field in the experience available through a large installed instrument base and associated applications knowledge.



The Model 4200 is a more compact design, whilst benefitting from the same advanced measurement technology. It is aimed at both cost sensitive applications and requirements to monitor multiple ducts on a single plant.

The Model 4500 Premier is the most sensitive monitor in the range, aimed at very low dust applications. It gives a lowest measuring range of 0 - 10 mg/m³.



safety, efficiency and compliance

Further Information

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Applications

Boiler Combustion Efficiency
Low NOx Burner Performance
Burner Performance Monitoring
Process Control
Precipitator Protection
Boiler Corrosion
Pollution Control
Emissions Control
Excess Air Measurement
SCR Control
Atmosphere Monitoring
Fire Detection
Burner Flame Control
Turbine Blade Temperature Monitoring

Industries

Power Generation
District Heating
Combined Heat and Power
Combined Cycle Gas Turbine Generators
Petrochemicals
Chemicals
Process Industries
Pharmaceuticals
Incineration
Cement
Glass
Steel
Pulp and Paper
Road Tunnels
Furnaces
Hospitals

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Selected products in our range meet and exceed both US EPA performance standards and carry TÜV type testing approval.

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Approval applies to products designed and manufactured in the UK