



PONOS SUPPORT

SERVICES LIMITED

Leader in Nigeria's Industrial and Engineering Growth

Oil in Water Analyzer | Oil in Water Monitor | Point Transmitters

Natural Gas Analyzer | Oxygen Analyzer

PONOS SUPPORT SERVICES LIMITED

A Leader in Nigeria's
Industrial and Engineering
Growth.

Incorporated in 2010 with RC NO: 871893, PONOS SUPPORT SERVICES LIMITED was founded with the mission of driving Nigeria's industrialization forward. The company's primary focus is to support the rapid industrial growth of the nation by providing expert technical and procurement services, using its vast engineering and management resources.

As a 100% Nigerian-owned enterprise, PONOS is not only positioned to play a key role within the country but also in the global oil and gas sectors. Registered with the Nigerian National Petroleum Corporation (NNPC) under SAP No. 70025059, the company has earned a place as a key player in the nation's energy landscape.

PONOS is a fully integrated engineering and construction firm with a remarkable track record of successful projects. The company is known for its expertise in construction works and offers top-tier project management services across the engineering spectrum. Its team of highly skilled professionals ensures that every project is executed with precision and quality, further strengthening the company's reputation in the industry.

Specializing in delivering efficient services to Nigeria's oil and gas industries, as well as the broader energy sector, PONOS has invested strategically in its products, services, and people. This commitment has allowed the company to establish itself as a trusted and reliable partner for both local and international clients.

PONOS has diversified its operations over the years, offering a wide range of services, including engineering expertise, maintenance, procurement of machinery and spare parts, installation, and commissioning. The company operates both onshore and offshore, consistently delivering on its promise of excellence in project execution.

Looking to the future, PONOS SUPPORT SERVICES LIMITED is poised for further growth and innovation. The company is actively seeking strategic partnerships with approved engineering firms to expand its project capabilities and continue contributing to the industrial and economic development of Nigeria. With its strong foundation, PONOS is set to remain a key player in the nation's industrial and energy sectors for years to come.

Water Pollution and the Role of Ponos in Providing Solutions

Water is an essential resource for all forms of life, as well as for the functioning of machines, industrial processes, and daily human activities. In sectors like oil and gas, water plays a critical role in production processes, and factories often generate wastewater as a byproduct. Unfortunately, when this wastewater is discharged into rivers, oceans, and other bodies of water, it leads to pollution that threatens public health and the environment.

Water pollution is a pressing global issue, contributing to more human fatalities each year than violence or war. As less than 1% of Earth's freshwater is easily accessible, the growing demand for this resource makes it crucial to protect it from contamination. By 2050, global freshwater demand is expected to increase by one-third, further exacerbating the need for proper water management.

Water is especially vulnerable to pollution because it has the ability to dissolve more substances than any other liquid. This makes it susceptible to contamination from toxic chemicals originating from farms, cities, and industrial sites like refineries and gas plants. Once pollutants dissolve into the water, they mix and spread, resulting in widespread water pollution that is difficult to reverse.

One of the most harmful pollutants is oil, which is released into water systems through oil spills, leaks, and runoff from land-based sources such as factories and cities. When oil contaminates water bodies, it renders the water unsafe for drinking, disrupts ecosystems, and harms marine life. Beyond surface contamination, oil and other chemicals that dissolve into water can travel through the system, making industrial and domestic water sources unusable.

The Need for Oil-Free Industrial Water

In industries such as oil and gas, the purity of water is critical. Volatile Organic Compounds (VOCs) dissolved in process water must be removed to ensure safety and efficiency. One effective solution for managing oil-contaminated water is the use of an oil-in-water analyzer. This device detects the presence of oil and other pollutants in water, providing real-time data that can help prevent further contamination.

Ponos Support Services Ltd. has positioned itself as a key player in providing solutions for water pollution in Nigeria. As the sole representative and distributor of Multisensor Systems Ltd. and PST (Michell), Ponos offers a range of high-tech products designed to detect and minimize water contamination. Their flagship product, the Multisensor System Analyzer, has been tested in over 70 countries, including Nigeria, where it is currently installed at the Warri Refinery and Petrochemicals facility.

Multisensor Systems Ltd.: A Leader in Water Monitoring Solutions

Multisensor Systems Ltd., based in the United Kingdom, specializes in water and gas monitoring technologies. Their advanced products, such as oil-in-water monitors, hydrocarbon detectors, and THM (Trihalomethanes) analyzers, are designed to help industries manage water pollution effectively.

These instruments offer several key benefits:

- **Protection of Water Treatment Facilities:** By detecting contaminants early, these devices help prevent pollutants from entering water treatment systems.
- **Pollution Control:** They can monitor water bodies such as rivers, wells, and reservoirs, providing vital data to prevent large-scale pollution.
- **Energy and Chemical Reduction:** By gathering real-time process control data, these systems help industries reduce their energy consumption and chemical use during water treatment.
- **Drinking Water Monitoring:** The instruments can also ensure the quality of drinking water in distribution networks, protecting public health.
- **Emission Monitoring:** They help measure emissions from industrial, agricultural, and commercial sites, providing vital data to mitigate environmental impact.

The sensitivity of these devices enables users to quickly detect pollution events and respond in real-time, minimizing environmental damage. With low maintenance needs and an easy calibration process, these instruments provide long-term solutions at a low cost.

Ponos Support Services: Bringing Innovation to Nigeria's Industrial Sector

Ponos Support Services Ltd. has established itself as a trusted partner in Nigeria's oil and gas sector. By offering innovative water monitoring solutions through its partnership with Multisensor Systems, Ponos is helping industries mitigate water pollution and ensure compliance with environmental regulations.

The company's commitment to customer service is evident in the technical support, product training, and on-site assistance they offer to ensure clients maximize the benefits of their systems. As Nigeria continues to industrialize, Ponos Support Services is playing a key role in protecting the nation's most valuable resource—water—from the harmful effects of pollution.

Through strategic partnerships, technological innovation, and a commitment to environmental sustainability, Ponos is poised to be a leader in solving Nigeria's water pollution challenges while supporting the nation's economic growth.

1. **The MS2000 is a Total Trihalomethane Analyzer**

The MS2000 is a Total Trihalomethane on-line monitor which provides measurements of THMs at low concentrations in water.

Regulations limiting the levels of Disinfection By-Products (DBPs) such as Trihalomethanes (THMs) in drinking water have made the ability to measure DBP levels throughout the distribution network essential. Multisensor's THM monitor provides that facility, efficiently and accurately.

Measuring Total THMs with a high accuracy, the MS2000 provides the confidence that is needed in a process control instrument which is vital in meeting regulatory and legal requirements. It is designed to:

Applications

- **Analyze THMs post treatment.**
- Monitor THMs in the distribution network.
- Monitor THMs post-chlorination for enhanced process control.
- Calculate THM Formation Potential (Optional).

Features and Benefits

- No sensor contact with water: **low maintenance, no sensor cleaning.**
- **NO REAGENTS: low running costs.**
- The most cost effective solution.
- High sensitivity: ideal for **potable water.**
- Alarms to SCADA and other communication interfaces.

Trihalomethanes (THM) are a group of four chemicals that are formed along with other disinfection by products when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water.

The THMs are **Chloroform (CHCl₃)**, **Bromodichloromethane (CHCl₂Br)**, **Dibromochloromethane (CHClBr₂)**, and **Bromoform (CHBr₃)**. National regulatory bodies set limits for the level of THMs in drinking water which, in most countries, are tested on a regular basis at the customer's tap.



They are Cancer Group B carcinogens (shown to cause cancer in laboratory animals). Chloroform is by far the most common in most water systems. Dibromochloromethane is the most serious cancer risk, (0.6 µg/l to cause a 10⁻⁶ cancer risk increase) followed in order by Bromoform (4 µg/l), and Chloroform (6 µg/l).

THM levels tend to increase with pH, temperature, time, and the level of "precursors" present. Precursors are organic material which reacts with chlorine to form THM's. One way to decrease THM's is to eliminate or reduce chlorination before the filters and to reduce precursors. There are more precursors present before filtration, so it is best to reduce or eliminate the time chlorine is in contact with this water.

The US EPA, for example, has indicated that the best available technology for THM control at treatment plants is removal of precursors through "enhanced coagulation". Enhanced coagulation refers to the process of optimizing the filtration process to maximize removal of precursors. Removal is improved by decreasing pH (to levels as low as 4 or 5), increasing the feed rate of coagulants.



Oil in Water Monitor
MS1200



The MS1200 is an on-line monitoring system which provides low level measurements of Hydrocarbons (PAHs, aliphatic and aromatic hydrocarbons), Oil in Water and VOCs (Volatile Organic Compounds) concentrations in water.

The MS1200 is an Oil in Water Monitor designed for surface and ground water monitoring applications. It utilises a contactless measurement technique, sensing headspace gases or volatiles in the headspace of the sampling system, and provides a measurement system with very low maintenance requirements.

Applications

- Monitor water abstraction points such as raw river water, boreholes and reservoir water.
- Monitoring for oil in water contamination.
- Detect VOC contamination in industrial wastewater.
- Monitor drain and stormwater systems for flammable liquids.
- Surface water systems for fuel pollution.
- Offer a monitoring solution for air, land remediation and industrial applications.
- Detect VOC breakthrough in carbon beds.
- RO membrane protection.
- Measurement of VOCs in process water.

Features and Benefits

- No sensor contact with water: low maintenance, no sensor cleaning.
- No reagents: low running costs.
- Measures both Polycyclic Aromatic Hydrocarbons (PAHs) and VOCs.
- Electronic Nose: not affected by turbidity.
- High sensitivity: ideal for potable water.
- Can be calibrated for specific substances: used to monitor known spills.
- Catches VOC chemical spills not just hydrocarbons.
- Alarms to SCADA and other communication interfaces.

The Oil in Water Monitor to detect oil spills


Oils and hydrocarbons in general are, very often, the main components of a wide range of products, going from fuels to solvents to many of the chemicals used in the industry during their treatment processes.

In industrial production it is possible that some of these hydrocarbons, oils and solvents leak into drains, or worse, directly into the environment.

Similarly domestic and agricultural fuel storage can result in accidental spills into water courses and aquifers.

This can be a real and huge problem for water supplies and, in the worst case, threaten the water security of whole communities. Often, these accidents result into huge fines and expensive cleaning-up operations.

An Oil in Water Analyzer can make the difference, by giving an early warning when a problem arises.

 <p>VOC Monitor MS1800</p>	<h3>Industrial effluent monitoring</h3> <p>The MS1800 VOC gas monitor is used to monitor the industrial effluent from factories and business premises to ensure that they are complying with environmental regulations. Discharge of VOCs into wastewater is an endemic problem in chemical processing and other industrial processes. For this reason, many industrial facilities have purification plants to remove the bulk of these contaminants from the water before it's discharged. However, spills can overrun the treatment capacity and lead to illegal discharges, pollution, fines and PR disasters.</p> <p>When this happens, it is likely that the environmental agency will ask for expensive on-line TOC analyzers to be installed, which require a lot of reagents and are an additional cost. By installing an MS1800 VOC analyzer at the effluent, you can be notified as soon as the values start to increase and take appropriate actions, avoiding all the problems associated with unexpected pollution events.</p>
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The MS1800 is a VOC / Hydrocarbon Concentration Monitor

The MS1800 is a VOC / Hydrocarbon Concentration Monitor designed for measuring gases in drains and outflows from industrial facilities. The instrument senses gases or volatiles providing a measurement system with very low maintenance requirements. Taking a measurement every 2 seconds, the MS1800 is accurate from less than 1 ppm to 1,000 ppm concentrations, dependent upon the target gas, and its wide dynamic range allows it to be used in a wide variety of environments.

A user programmable Alert threshold can be set, connecting to relay outputs and indicators on the front panel. This allows connection to other peripheral equipment such as isolation valves, pumps, samplers or audio-visual alarms. A 4 – 20 mA output is available for connection to a PLC or SCADA system.

Applications include:

- **Monitoring of drains and effluent discharges**
- Detection of explosive gases
- Oil and Fuel Leak Detection
- Odour Control
- Land Remediation

Benefits:

- Low operating and maintenance costs
- High reliability
- No reagents
- Field proven technology

4. The MS1900 is an on-line Oil in Water analyzer



VOC Monitor
MS1900

The MS1900 is an on-line Oil in Water analyzer designed to provide continuous measurement of VOCs in industrial and trade effluent discharge points. Regulations on the quality of effluents from trade premises and factories are getting stricter and stricter and VOCs are now in the spotlight.

Applications

- Monitor water abstraction points such as raw river water, boreholes and reservoir water.
- Monitoring for oil in water contamination.
- Detect VOC contamination in industrial wastewater.
- Monitor drain and stormwater systems for flammable liquids.
- Surface water systems for fuel pollution.
- Offer a monitoring solution for air, land remediation and industrial applications.
- Detect VOC breakthrough in carbon beds.
- RO membrane protection.
- Measurement of VOCs in process water.

Features and Benefits

- No sensor contacts with water: low maintenance, no sensor cleaning.
- No reagents: low running costs.
- Measures both Polycyclic Aromatic Hydrocarbons (PAHs) and VOCs.
- Electronic Nose: not affected by turbidity.
- High sensitivity: ideal for potable water.
- Can be calibrated for specific substances: used to monitor known spills.
- Catches VOC chemical spills not just hydrocarbons.
- Alarms to SCADA and other communication interfaces.

For more information on the principle of operation, click on the FAQs tab.

Industrial Effluent: The Problem

Discharge of VOCs into wastewater is an endemic problem in engineering, chemical processing, food and beverage production and other industrial processes.

Spills can lead to illegal discharges, pollution, fines and PR disasters.

For this reason, some industrial facilities have purification plants to remove the bulk of these contaminants from the water before it is discharged, but even these suffer from failures and can be over run.

The cost of not monitoring your effluent

When spills happen large fines can be issued by the Environmental Agency and local, national and social media can turn an accident into a PR disaster with long-term implications.

Additionally, it is likely that regulatory bodies will ask for expensive on-line TOC analyzers to be installed, which require a lot of reagents and maintenance at a very high additional cost.

The Solution

By installing a VOC **Industrial Effluent Discharge Monitor** at the effluent, you can be notified as soon as the values start to increase and take appropriate action, avoiding all the problems associated with unexpected pollution events.

The VOC **Industrial Effluent Discharge Monitor** is used to check the industrial effluent from industrial facilities and business premises to ensure that it is complying with environmental regulations.

Its contactless measurement technique means that:

- **It does not need reagents.**
- Requires little or no maintenance between services.
- It's robust and reliable.
- It is cost effective.

Thanks to this analyzer you can monitor your **effluent discharge** and make sure that you detect promptly any problem, avoiding expensive fines and PR disasters. The system comprises the analyzer and the sampling system. As the water goes through the sampling tank, VOCs dissolved in the water move into the gas phase.

Multisensor's sampling system helps the VOCs to get in the gas phase. This gas is then continuously analyzed and the VOCs concentration in the water is determined.

For applications where drains are being monitored the MS1800 can be used to directly sample gases on the drain. This provides a lower cost solution but reduces absolute accuracy.

5. **MS1700 is an on-line oil in water monitor**

The MS1700 is an **on-line oil in water monitor** designed to detect and measure hydrocarbon concentrations in water up to 100 mg/l in industrial processes, refineries and petrochemical complexes.

Using a state-of-the-art contactless technology the MS1700 provides a solution that is **not affected by turbidity** and can detect all the volatile hydrocarbons independently from their fluorescence properties.



Applications

- Oil detection in Cooling Water.
- Oil detection in produced water.
- Detection of phenols in discharge water.
- Effluent monitoring.
- Pre-filtration monitoring.
- Oil in wastewater.
- Filter protection.

Features and benefits

- No sensor contact with water: low maintenance, no sensor cleaning.
- Measures both Polycyclic Aromatic Hydrocarbons (PAHs) and VOCs.
- Electronic Nose: not affected by turbidity.
- Can be calibrated for specific substances: used to monitor known spills.
- Catches fluorescent and non-fluorescent compounds.
- Alarms to SCADA and other communication interfaces.

The MS1700 oil in water monitor is designed to detect concentrations of up to 100 mg/l and it's used in a variety of applications such as:

Oil in cooling water

Hydrocarbons are an ever present class of compounds in industrial processes, factories and industrial plants of all sorts. A leaking piece of equipment, a corroded heat exchanger, a leaking diesel pump or simply an accidental spill can mean that cooling water gets contaminated with hydrocarbons. When this happens an oil in water analyzer, like the MS1700, can help to detect contamination in the cooling water early on before it creates major issues.

Phenols

Phenols are widely used in industry as one of the starting material to produce plastics, explosives and drugs, however, they can be harmful for the environment and companies that deal with phenols need to comply with very strict emission limits.

Influent water

Wherever water and hydrocarbons get mixed together in a process (refineries, petrochemical processes etc) there is a need to treat this water before it's used further down in the process or discharged into the environment. This influent water has usually got high levels of hydrocarbon and, depending on the incoming level, the treatment can be optimised.

PST PRODUCTS

1. Industrial Dew-Point Transmitters

Easidew Transmitters Industrial Dew-Point Transmitters Simple to install and maintain, the Easidew transmitter series measures dew point and moisture content and is available with a range of process connections and electrical connectors.



Highlights

- Measurement ranges -110 up to +20 °Cdp (-166 up to +68°Fdp).
- Dew point or ppmV moisture content output.
- 2-wire loop power connection • Accuracy ± 2 °Cdp (± 3.6 °Fdp).
- Traceable calibration certificate.
- Easidew I.S. IECEx, cQPSus, ATEX and UKCA approvals.
- Low cost of ownership and easy maintenance with sensor exchange program.
- 316 Stainless steel sensor and sample blocks.
- 5/8" UNF, 3/4" UNF, G 1/2" process connections • KF40 Glove Box flange.
- MiniDIN 43650, M12 electrical connectors.
- Oxygen Service cleaned.

Applications

- Compressed air Class 1 to Class 6 dryers
- Breathing air Hydrogen coolant
- Inert and bulk gases
- Glove boxes
- Welding gases
- Hazardous areas
- Oxygen purity



2. Moisture in Natural Gas Analyzer

Moisture in Natural Gas Analyzer

The next-generation TDLAS analyzer for automatic online measurement of moisture in variable compositions of natural gas and biomethane.

The OptiPEAK TDL600 Tuneable Diode Laser Analyzer employs the latest techniques in laser absorption spectroscopy and signal processing power to offer a robust high-performance analyzer, designed specifically for the measurement of moisture in natural gas. This non-contact technology requires minimal maintenance, even in demanding applications such as changing methane concentrations or sour gas.

The analyzer is fully hazardous area certified and delivers class-leading measurement performance, stability and detection sensitivity

Highlights

- D-MET system: Factory ready for varying gas compositions e.g. after stream blending, in shale gas or biomethane
- Operating range down to 1 ppmV
- Sour gas compatible
- Simple installation and setup
- Low maintenance
- ATEX, IECEx, UKCA and cQPSus certified
- Integrated sample handling
- Proven Michell Instruments quality: 40 years of expertise in moisture measurement built into the design

Applications

- Natural gas glycol dehydration
- Natural gas transmission monitoring
- Custody transfer
- Natural gas storage
- Offshore export pipeline natural gas
- LNG receiving / re-gasification plants
- Vaporized NGL
- Biomethane
- Suitable for use with natural gas containing up to 20% hydrogen with no further modification required

4. SIL2-capable Oxygen Analyzer



Highlights

- Market-leading solution for SIL-capable oxygen measurement
- Inbuilt analyzer and galvanic isolation barrier in one device
- Ease of integration for OEM applications
- Analog 4...20 mA output
- Sensor design for installation in Zone 0 hazardous area

Applications

- Additive Manufacturing
- Inerting of glove box and containment solutions
- Inerting control in API pharmaceuticals
- Powder handling
- Gas generation
- H2 electrolyzers.

5. Oxygen Analyzers in Safe or Hazardous Areas

Oxygen Analyzers in Safe or Hazardous Areas A range of linear and stable thermo-paramagnetic analyzers for measurement of oxygen in a variety of applications with background gases such as Nitrogen, Carbon Dioxide, Methane and Hydrogen. The stainless-steel sensor is housed in either a wall-mounted IP55 case suitable for indoor use (XTP501) or a rugged IP66 casing (XTP601), making it suitable for a wide range of applications. The XTP601 analyzer can be supplied with flame arrestors making it explosion-proof and suitable for use with flammable gases and/or installation in hazardous areas.

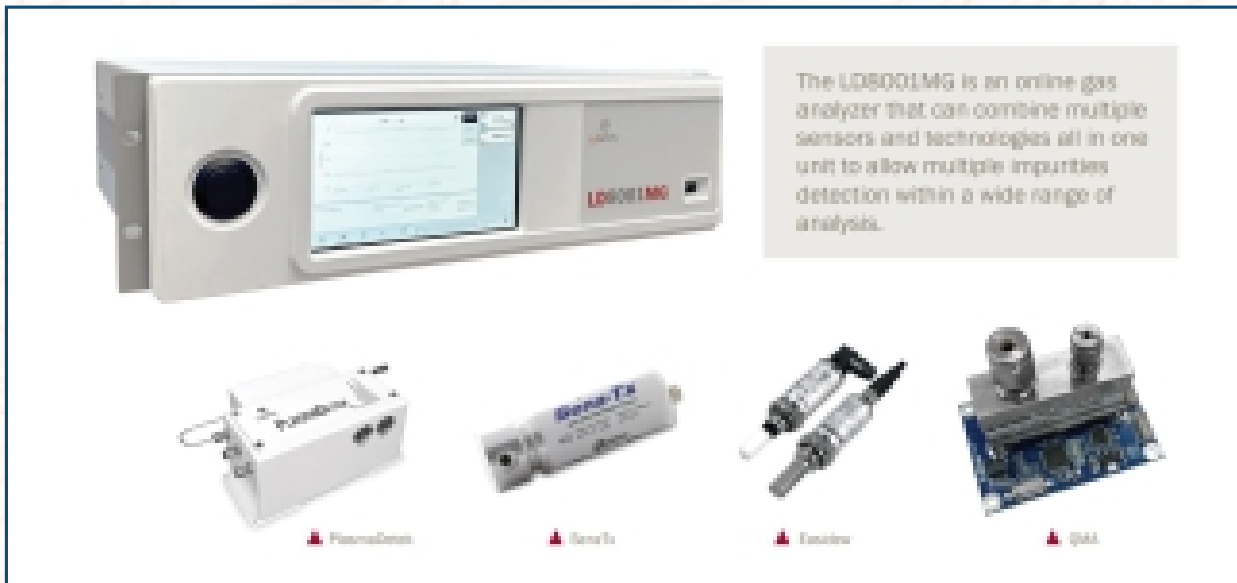


Highlights

- ATEX, IECEx, UKCA, TR CU Ex & cQPSus rated (XTP601)
- XTP601 can be supplied meeting the requirements of IEC 61508 (SIL2 Capable).
- Touch-screen display allows calibration or adjustment without a hot works permit (XTP601).
- Low cost of ownership due to minimal maintenance.
- Measurement ranges from 0...0.5 % to 0...50 % O₂ and 20/80/90...100 % O₂.
- Accuracy of better than $\pm 1\%$ full scale ($\pm 0.2\%$ O₂ between 80 and 100 %).
- IP55 or IP66 enclosure options Light guide to NAMUR 44 standard (XTP501 only).
- 2 x 4...20 mA outputs and Modbus RTU over RS485 as standard.

Applications

- Monitoring inert blanketing gases for hydrocarbon processing
- Inert gas for pharmaceutical or chemical industries
- Biogas, waste, landfill and digester plants
- Furnace gas control in steel industry
- N₂ generators
- O₂ generators



Features

- Compact rackmount enclosure (3U) to cover up to four measurements (N₂, O₂, H₂O, CnHm)
- Bootloader integrated for software update via Ethernet Ultra high purity electronic flow controllers for sample flow control
- Large measurement scale
- Touchscreen 7" HDMI TFT Display
- 4-20 mA output per impurity
- Range Identification & alarm status & calibration contacts
- Alarm historic
- LAN/Web control
- Low sample consumption

Applications:

- Industrial gas applications
- Inert and bulk gases
- Air separation unit
- Helium cryogenic installation
- Cryogenic truck loading station
- Process control
- Helium liquification plants
- Steel industry
- Chemical plants
- Gas generation
- Additive manufacturing
- Glove box purge and leak detection
- Research centers and laboratories

6. XZR500 Combustion Control Analyzer

XZR500 Combustion Control Analyzer The XZR500 oxygen analyzer from Michell Instruments is designed to determine the excess air required for optimum combustion. It uses advanced zirconium oxide technology to measure levels of oxygen in boilers, incinerators and furnaces. It provides fast, accurate readings taken in the harshest of conditions.

Highlights

- Reliable and repeatable measurements
- Simple to maintain and calibrate
- Robust design
- Quick and easy to install
- Virtually no chance of thermal shock to sample cell
- Long-life zirconia cel

Applications:

- Combustion and control efficiency in boilers
- Crematoria
- Waste and industrial incinerators
- Coal-fired power plants
- Annealing and galvanizing furnaces
- Auxiliary marine boilers

BC 871893



CORPORATE AFFAIRS COMMISSION
FEDERAL REPUBLIC OF NIGERIA

Certificate of Incorporation

I hereby certify that

PONOS SUPPORT SERVICES LIMITED

*is this day incorporated under the COMPANIES AND ALLIED MATTERS
ACT 1990 and that the Company is Limited By Shares.*

*Given under my hand at Abuja this Twenty-Fourth day of
February, 2010*



A handwritten signature in black ink, appearing to read 'Bello Mabmud', located in the lower-right quadrant of the certificate.

BELLO MABMUD

329390

Registrar - General





PONOS SUPPORT

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