Enviro
Technology Services Ltd
part of CuraTerrae

MCERTS Continuous Emission Monitoring Systems (CEMS)

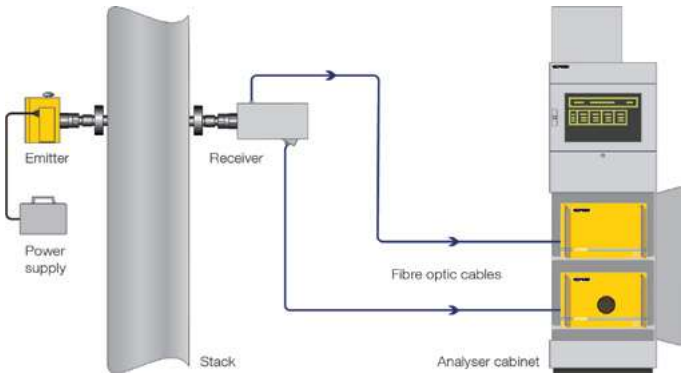
World-leading environmental monitoring solutions

OPSIS DOAS CEM systems

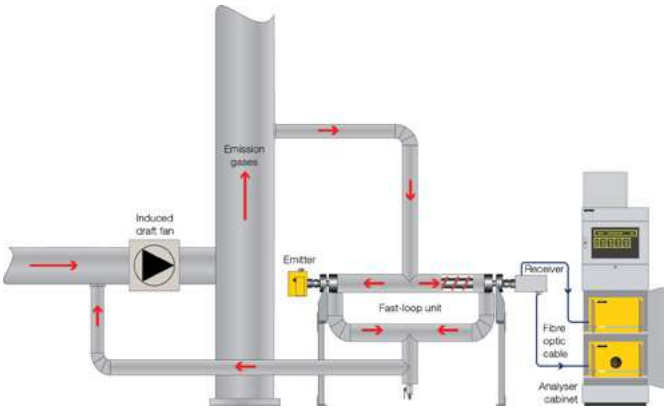
System 400 - One system, three solutions

Based on non-contact DOAS measurement technology.

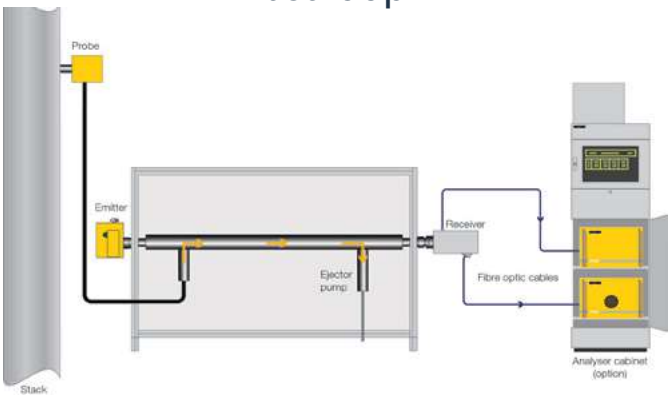
- Simplified maintenance, lower operating costs, lower power consumption.
- Applications include: power generation, energy from waste, cement, and glass.
- Multi-gas, and multi-path measurement. Gases include: NO, NO_2, SO_2, NH_3, CO, CO_2, CH_4, H_2O, HCl, HF and many more.
- MCERTS approved



Cross-duct



Fast loop



Hot / wet extraction

CEM System Integration and Project Management

In our experience, no two CEMS projects are exactly alike. The specific process monitoring requirements, location and local site requirements all have a bearing on overall CEM system design and integration.

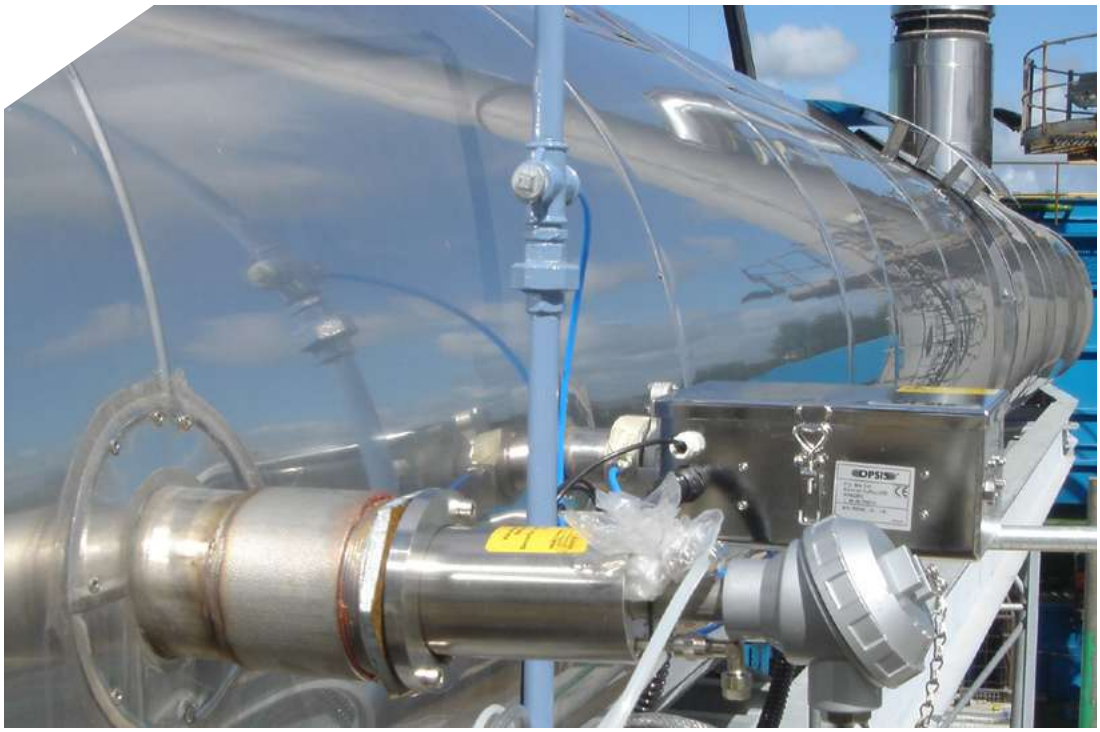
As one of Europe's leading Air Pollution System Integrators and Service Providers, ET offers a full and comprehensive systems integration and project management service.

We can in fact, "tailor" our CEM systems to our clients precise requirements including recommendations and advice based on our long-standing, professional understanding and experience of system integration and overall system design. ET have an Integrated Management system that is accredited to ISO 45001:2018 for H&S; ISO 9001:2024 for Quality and ISO 14001:2015 for Environmental Management.

Quality is very much at the heart of everything that we do, from sales, application support, system design and build, project management, installation and ongoing customer support.

APPLICATIONS INCLUDE

Power Generation, Waste Incineration, Energy from Waste Carbon Capture Oil & Gas, Cement, Glass, Mineral Wool, Aluminium and smelting Pulp & Paper, Process Optimisation, and many others.



ISO 9001 ISOQAR

ISO 14001 ISOQAR

ISO 45001 ISOQAR

MCERTS

Enclosures and Housings

We can supply a wide range of enclosures and housings to both fully protect and maximise performance of our CEM systems.

Our enclosures offer a high security, temperature controlled environment which meets health & safety obligations and can even be designed to meet ATEX requirements.

Enclosures range from small, discrete housings for smaller CEMS installations through to larger, "walk-in" enclosures that offer space and convenience for the equipment, operators and service engineers.

Our enclosures can be designed to withstand the harshest environments and the most aggressive site conditions possible, for example sulphuric/nitric acid plants and even desert, equatorial and tundra climates where external temperature variation may be as much as +/- 40°C, or regions of high RH and rainfall where intelligent and well thought out enclosure design is vital for the overall success of the project.

It is this attention to detail and our wealth of knowledge and experience built up after nearly 30 years that makes us the first choice for many clients.

Particulate Measurement

ET works with some of the World's leading manufacturers of particulate, dust and opacity monitoring technology.

Rather than partner with just one manufacturer, our philosophy is to work with all manufacturers so that we can offer our CEMS clients the most applicable particulate monitoring technology for their specific application.

There is no such thing as "one size fits all" with CEMS and even more so for particulate monitoring. Particulate monitoring technology from ET includes Light Scattering and Electro-Dynamic products that have proven to be reliable, cost-effective and can be fully integrated with ET's CEM systems.

O_2 and Process Measurements

In addition to continuous measurement of gases and particles, ET can also provide and integrate sensors for the measurement of O_2, Temperature, Pressure and Volumetric Flow for automatic normalisation of data to process conditions.

Our standard O_2 monitor is based on Zirconia Oxide sensor technology and is MCERTS approved whilst offering high reliability, accuracy and rugged build quality.

For volumetric flow measurement we can offer a choice of technologies depending on the process, stack geometry and process conditions including cross-duct, non-contact ultrasonic technology as well as probe based differential pressure/annubar designs.

O2000 Oxygen Analyser

Mercury CEMS

ET proudly integrates OPSIS CEMS technology to deliver exceptional Mercury Continuous Emission Monitoring Systems (CEMS) for both Environmental Agency compliance and precision process control.

Our Mercury CEMS are designed to meet the needs of a wide range of industries, including power generation, energy from waste, cement, and glass manufacturing.

What sets our solution apart is its ability to measure Total Mercury (THg) alongside all other critical waste incineration gases within a single system. This all-in-one capability offers significant advantages over bolt-on mercury monitors, which do not offer the same level of integration and flexibility. Whether you require a standalone mercury-only solution or a comprehensive multi-gas system, ET can tailor our Mercury CEMS to meet your exact requirements.

Our systems also offer future-proof flexibility. If your plant currently utilises a different CEMS, you can easily upgrade to our integrated mercury and multi-gas system when the time is right. This ensures that your facility remains compliant and efficient without needing to overhaul your entire monitoring infrastructure. For plants considering the benefits of an additional CEM system on standby, our flexible upgrade paths provide a practical and cost-effective solution.

ET's Mercury CEMS are MCERTS certified and deliver high reliability, accuracy, and low maintenance, ensuring you are equipped with the best technology to monitor emissions now and in the future.

Dioxin Sampling

Our advanced Dioxin Sampling systems are engineered for robust and automatic sampling, designed to meet the stringent requirements of EN 1948 for the long-term monitoring of dioxins.

These systems are not only reliable and easy to install but also offer a cost-effective solution with minimal maintenance.

ET's Dioxin Sampling technology can be enhanced with an optional CO_2 determination feature, enabling the analysis of biogenic and non-biogenic CO_2 ratios—crucial for accurate carbon emissions reporting. This makes our system ideal for industries committed to reducing their environmental impact while ensuring compliance with international standards.

Process Control and Special Gases

ET can offer a wide range of systems and analysers to measure gases for process control; we can also draw upon a selection of advanced analytical technologies for more unusual and exotic gases and specialist applications.

Leading our Process Control analyser range is the cross duct LD500 Tuneable Diode Laser system which can be used for numerous applications including scrubber control and ammonia injection. These applications normally have a positive effect on plant efficiency leading to increased profitability with a fast payback by saving money on dosing and scrubber materials.

Utilising optical laser technology, the LD500 gives a fast response in seconds, making it ideal for safety monitoring for example ESP CO monitoring.

The cross-duct design allows the LD500 to be used at very high temperatures and with its multiplexing capability we can offer a system, measuring up to 8 paths in temperatures up to 1400°C.

This is an ideal solution for the steel and glass industries for slab re-heating mills and float glass manufacture. It allows the customer to control their energy consumption and realise big financial and CO_2 savings. The OPSIS DOAS CEMS can also be used for similar process control applications including Sulphuric Acid plants and CO_2 capture facilities. Both of these applications present a very harsh monitoring environment with extremes of temperatures and pressures and very corrosive gases.

The cross-duct, non-contact nature of the LD500 and OPSIS DOAS CEMS make it easier to deal with these monitoring challenges; giving our customer longer analyser life, lower running costs and reduced maintenance requirements.

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