



Nordic Environmental Monitoring

Together we create solutions that shape the future



ecotech.com/nordic

ACOEM Environment

ACOEM Environment is a special division of the ACOEM Group, a global enterprise committed to sustainable development and helping companies and public authorities limit their environmental impact.



The division brings together two respected leaders in the fields of environmental monitoring - ECOTECH and o1dB - creating the first globally integrated offering of products and services across noise, vibration, air, dust and water pollution monitoring.

ECOTECH

Pioneers of innovative solutions in environmental monitoring for 40 years, ECOTECH is a global leader in the design, manufacture, operation and maintenance of air, water, gas, meteorology, blast, fine particulate and dust monitoring systems to internationally recognised standards.

o1dB

Experts in noise and vibration monitoring, o1dB helps smart cities; ground and air transportation networks; public works; industrial and construction sectors; wind power and leisure industries comply with regulations and develop sustainable strategies.

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- ACOEM ENVIRONMENT
ECOTECH OFFICES
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- DISTRIBUTORS
- 
- MANUFACTURING
FACILITIES
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- ACOEM
OFFICES



Local Knowledge, Global Expertise

ACOEM AB has been serving customers in the Nordic region for years with its FIXTURLASER and ONEPROD brands.

In 2018 ACOEM Environment joined the suite to better meet the needs and expectations of ECOTECH customers across Denmark, Finland, Iceland, Norway and Sweden.

Select ECOTECH products, including its range of Serinus® gas analysers, have been available in the Nordic region for over 20 years.

Mikael Ramström, ACOEM Environment Nordic Business Manager ensures that customers throughout the region now have access to the complete range of ECOTECH products and services, backed by the global resources of ACOEM Group and Mikael's 30+ years of Nordic environmental monitoring expertise.

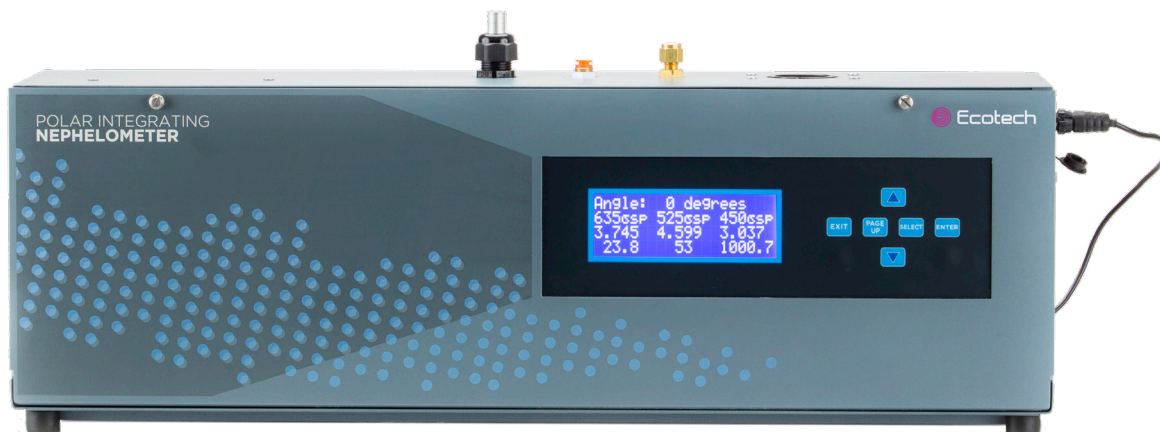
WORKING WITH INDUSTRY & THE RESEARCH COMMUNITY

With extensive research and development capabilities, ECOTECH develops, manufactures, supplies and maintains a diverse range of state-of-the-art monitoring systems. A trusted brand synonymous with precision and sustainability, we work with industry and the research community in 80+ countries, creating environmental monitoring solutions to support:

- Environmental protection agencies
- Universities & environmental research institutes
- Environmental consultants
- Power plants
- Port authorities
- Engineering companies
- Gas manufacturing industry
- Agricultural industry
- Mining industry
- Road transport authorities
- Cement sector.

World-Class Aerosol Monitoring & Measurement

ECOTECH AURORA™ INTEGRATING NEPHELOMETERS



Atmospheric scientists and environmental agencies around the world rely on ECOTECH's range of Aurora™ integrating nephelometers.

From the entry-level single wavelength Aurora™ 1000 & 2000 to the three wavelength Aurora™ 3000 and the best-in-class Aurora™ 4000 Polar three wavelength integrating nephelometer (pictured above), the Aurora™ offers total remote control including calibration.

Aurora™ integrating nephelometers measure the light scattering coefficient of ambient aerosol particles with high sensitivity and time resolution, in a wide range of monitoring and research applications related to air pollution and climate. Monitoring visibility in haze, smog, dust, sand storms and bushfires, the Aurora™ also correlates well with PM_{2.5} mass measurement to monitor industrial and automotive pollution caused by diesel emissions in the air.

AURORA™ INTEGRATING NEPHELOMETERS Aerosol Monitoring & Atmospheric Research

- Remote calibration & checks
- Proven capability in remote, unattended locations for long term monitoring
- Easy to maintain in the field
- Low cost of ownership
- Simultaneous measurement across 3 wavelengths
- Wide measurement range (0.1 to 20,000 Mm⁻¹)
- Correct for truncation angle errors
- Aurora™ Polar (up to 17 angles).



ECOTECH ACS 1000 AEROSOL CONDITIONING SYSTEM

ECOTECH's Aerosol Conditioning System (ACS) 1000 studies the hygroscopic properties of aerosol particles to provide insights into their effect on the earth's radiative balance.

It can be used with most aerosol monitoring instruments, adjusting relative humidity with minimal particle loss to measure the effect of water uptake on the properties of aerosols. ACS 1000 (pictured left) simultaneously controls differing relative humidity levels in two sample channels, allowing real-time measurement by parallel instruments for comparison.

AEROSOL CONDITIONING SYSTEM Characterising Aerosol Hygroscopicity

- Compatible with most aerosol monitoring instruments to control relative humidity
- Sample RH controllable between 40 - 90 % with minimal particle loss
- Simultaneously controls differing relative humidity levels in two sample streams
- Real-time measurement by parallel instruments for comparison
- Measure the effect of water uptake on the properties of aerosols
- Customisable flow configuration & humidograms.

ACOEM Environment Nordic

NORDIC EXCLUSIVE DISTRIBUTOR

As part of our commitment to providing customers with complete solutions to all their environmental needs, in addition to selling ECOTECH products, ACOEM Environment is also the exclusive Nordic distributor for a range of complementary environmental monitoring instruments.

By partnering with some of the world's most respected environmental instrument manufacturers, we offer a desirable selection of monitoring solutions. Our partners include:

- Palas®
- Magee Scientific
- Brechtel Manufacturing Inc
- 2B Technologies
- Cooper Environmental.



PALAS®

Germany

Palas® is a market leader in the design of optical aerosol spectrometers and the Fidas® 200 series of fine dust monitoring systems. Fidas® uses the recognised measurement technology of optical light scattering of single particles and is equipped with a white LED light source with a high intensity, highly stable output and long lifetime.

The patented T-aperture technology and digital signal processing guarantee optimally accurate particle measurement with a high time resolution, even at high concentrations.

Palas® Fidas® 200S



MAGEE SCIENTIFIC

USA

With a background in aerosol physics and chemistry research, Magee Scientific is the originator of the Aethalometer®, the most widely used instrument for the real-time measurement of Black Carbon aerosol particles in the atmosphere, and the Total Carbon Analyser, Model TCA-o8, a revolutionary scientific instrument that measures the Total Carbon Content (TC) of suspended aerosol particles in near-real time.

Magee Scientific's Aethalometers are installed on all continents, from cities in China to the South Pole, the Sahara Desert to the Amazon Basin.



Magee Scientific Aethalometer®

BRECHTEL MANUFACTURING INC USA

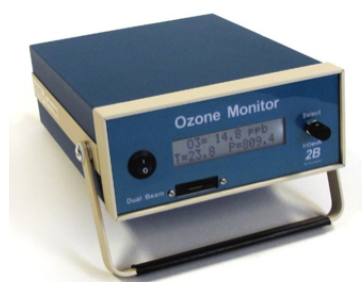
Brechtel designs and manufactures aerosol measurement products for sizing, counting and determining the chemical composition of particulate matter. They have developed and commercialised numerous devices to facilitate research on climate change and monitor air quality, including:

- Aircraft and Ground-based Counterflow Virtual Impactor Inlet Systems
- Isokinetic Inlet System
- Pumped Counterflow Virtual Impactor
- Flow Splitters
- Aerosol Charge Neutraliser
- Aerosol Generation System
- ACCESS (Aerosol Counting, Composition, Extinction and Sizing System).

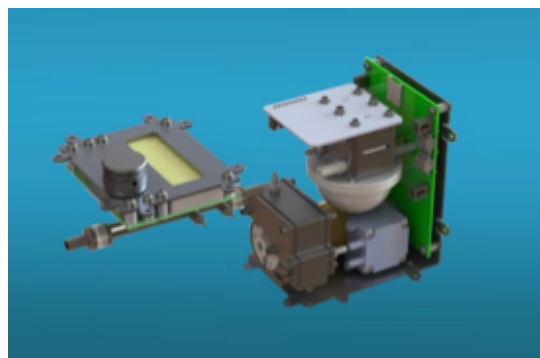
2B TECHNOLOGIES USA

2B Technologies has developed and commercialised a range of analytical instruments for atmospheric and environmental measurements. They specialise in miniaturised instruments for measurements of ozone, nitric oxide, nitrogen dioxide, mercury and other chemical species in air.

Their small, lightweight, low-power products are used for atmospheric measurements at sites including Antarctica, the Galapagos Islands, the Greenland ice sheet, the summit of Mont Blanc, the Amazon rainforest, on buoys in the Arctic Ocean, on commercial airliners and at numerous other locations around the world.



2B Technologies' Model 205 Ozone Monitor



Brechtel ACCESS Single Channel Tricolor Absorption Photometer

COOPER ENVIRONMENTAL USA

Cooper Environmental is a recognised leader in continuous metals monitoring. Their core technology, an automated energy dispersive X-Ray fluorescence analysis module, combines laboratory level detection limits with a patented automated QA/QC system that keeps the operator informed of the quality of every sample taken.

This technology has been incorporated into monitors for measuring ambient air, stack gases, and water, including the Xact® 640 CEMS Stack Monitor, the Xact® 640 Quantitative Aerosol Generator and the Xact® 625i, designed for high time resolution multi-metals monitoring of ambient air, with detection limits that rival those of laboratory analysis.

Cooper Environmental XACT® 625i



Aethlabs Black Carbon Monitors



MICROAETH® AE51

The AETHLABS microAeth® AE51 uses real-time analysis by measuring rate of change in absorption of transmitted light due to a continuous collection of aerosol deposits on filter.

Measurement at 880 nm is interpreted as a concentration of Black Carbon (BC).



MICROAETH® MA200

Allowing up to 2-3 weeks of continuous measurement thanks to the 15 sampling location automatic filter tape advanced system, the AETHLABS microAeth® MA200 is a real-time, compact and wearable 5-wavelength UV-VIS-IR Black Carbon monitor.

Designed for on-person, mobile applications, the MA200 enables multi-day and multi-week, low power operation measurement campaigns.



MICROAETH® MA300

The microAeth® MA300 is a real-time 5-wavelength UV-VIS-IR Black Carbon Monitor. Taking environmental conditions and settings of the instrument into account, long-term continuous sampling of higher concentrations can be enabled for up to a year. This advanced system allows 3-12 months of continuous measurements.

Providing insight into composition of light absorbing carbonaceous particles, the spectrum measurement also helps to differentiate the optical signatures of sources of combustion such as tobacco, biomass, diesel and woodsmoke.



MICROAETH® MA350

Housed in an outdoor rated case, the microAeth® MA350 is a real-time 5-wavelength UV-VIS-IR Black Carbon Monitor. Multi-month, extended measurement campaigns are the result of the network node design of the MA350, enabling installation along fence lines and street poles in outdoor settings.

Taking environmental conditions and settings of the instrument into account, long-term continuous sampling of higher concentrations can be enabled for up to a year thanks to the 85 location filter tape cartridge.



Gas Analysers



The ECOTECH range of Serinus® gas analysers have been designed using our experience and knowledge gained from operating large air quality monitoring networks for more than 40 years.

SERINUS® 10

**Ozone Analyser
(O₃)**

SERINUS® 30

**Carbon Monoxide Analyser
(CO)**

SERINUS® 40

**Oxides of Nitrogen Analyser
(NO, NO₂, NO_x)**

SERINUS® 44

**Ammonia Analyser
(NO, NO₂, NO_x, NH₃)**

SERINUS® 50

**Sulfur Dioxide Analyser
(SO₂)**

SERINUS® 51

**Sulfur Dioxide &
Hydrogen Sulfide Analyser
(SO₂, H₂S)**

SERINUS® 55

**Hydrogen Sulfide Analyser
(H₂S)**

SERINUS® 56

**Total Sulfur Analyser
(TS)**

SERINUS® 57

**Total Reduced Sulfur Analyser
(TRS)**

SERINUS® 60

**Nitrogen Dioxide Analyser
(NO₂)**



AQMesh™

HYPERLOCAL SMALL SENSOR AIR QUALITY MONITORING SYSTEM

The world's finest reference quality gas analysers have teamed up with the best of breed small sensor Air Quality Monitoring System (AQMS).

Combining AQMesh with ECOTECH's superior range of gas analysers is transforming the way smart cities and progressive thinking organisations use the power of collective environmental monitoring to measure, report and adhere to air quality standards and regulations.



SCALABILITY

When multiple AQMesh pods are added together they deliver localised real-time air quality data that supports initiatives to reduce air pollution and its risk to human health.

It's this ability to easily add, subtract, or relocate individual AQMesh pods where and when required that provides environmental professionals with a level of monitoring flexibility and scalability not possible with fixed-site reference quality AQMS alone.

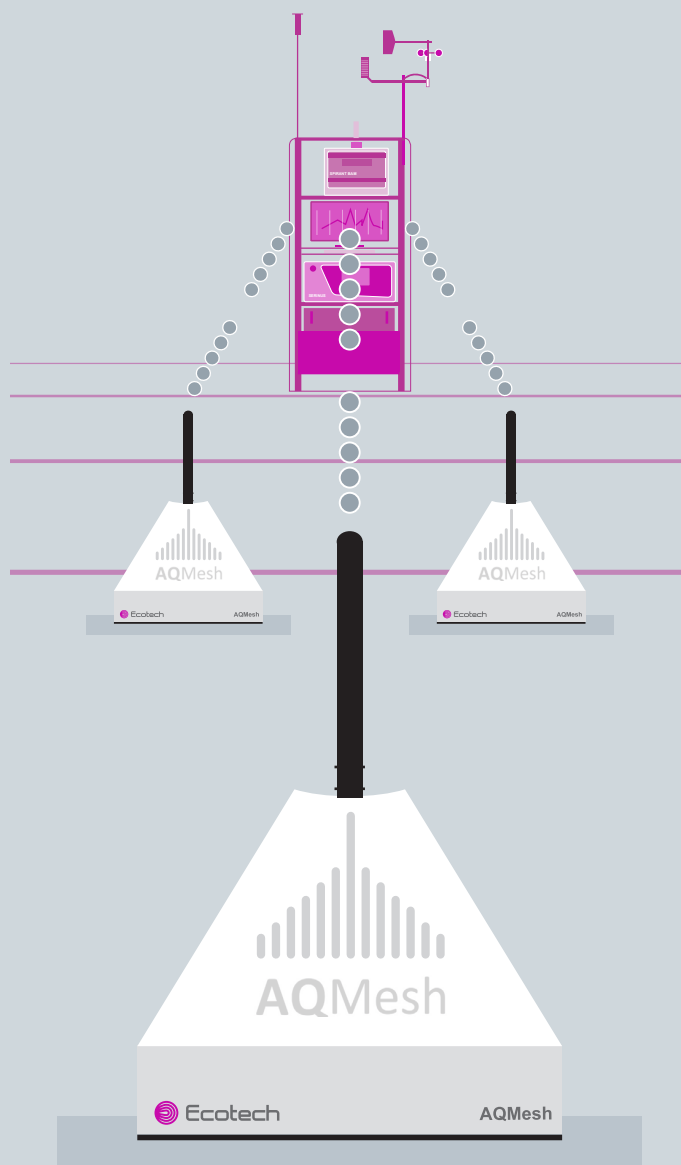
ONE TO MANY

Strategically placing a high number of AQMesh pods around and between a low number of reference quality AQMS stations delivers hyperlocal monitoring results.

However, small sensor technology is not a direct substitute for reference quality instruments, especially for mandatory or regulatory purposes.

That is why when AQMesh is used as a complementary source of information to augment and enhance existing reference quality AQMS networks, environmental professionals are rewarded with increased spatial resolution of air quality data.

Increased spatial resolution of air quality data dramatically multiplies the opportunity for better understanding, insight and action.



Congrego® Data Logger

TOTAL DATA CONTROL & LOGGING FOR AIR QUALITY & CONTINUOUS EMISSION SYSTEMS

Generic data loggers weren't good enough for ECOTECH, so they shouldn't be good enough for you.

When ECOTECH began its pioneering work in the environmental monitoring industry 40+ years ago, there wasn't an off-the-shelf data logger available we could rely on to accurately capture environmental sensor and instrument data to our satisfaction.

The level of precision and reliability ECOTECH required did not exist in the logger market.

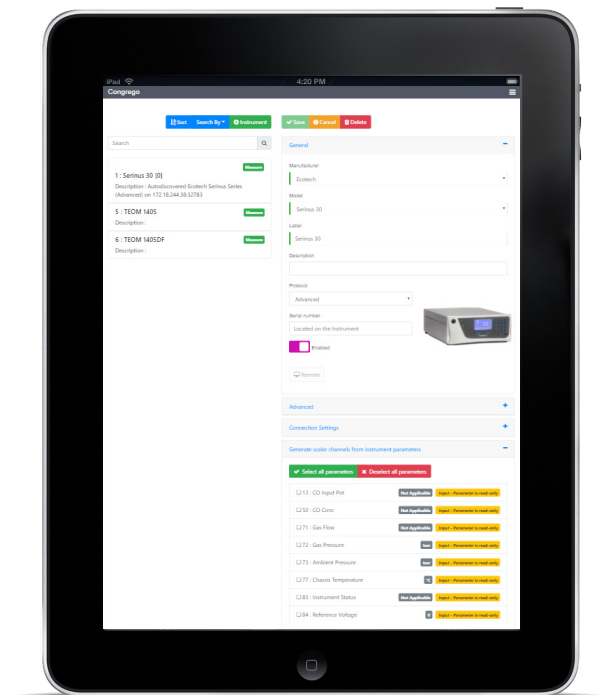
So ECOTECH developed its own range of data loggers, always focussing on ways to make environmental monitoring simpler and more efficient for our customers.

Harnessing operational insight that only comes from decades of extensive field experience, ECOTECH accomplished what very few companies could – to research, design and manufacture data logging systems that were tailor made for the environmental monitoring sector.

From the first-generation ECOTECH 9200 microprocessor and DOS-based 9400DAS data loggers in the 1980s, through to the WinAQMS Data Acquisition System (DAS) with digitally-integrated remote-access capabilities in the early 2000s, ECOTECH has always strived to find answers to the unique challenges faced by environmental monitoring professionals around the world.

WHY CONGREGO® ?

- Designed specifically for air quality & continuous emissions systems by environmental monitoring experts
- Simple set-up & easy to install
- Intuitive & customisable user interface
- Compatible with a wide range of analogue & digital monitoring instruments from different equipment manufacturers
- Fulfils the “traceability of records” requirement of ISO 17025
- Remote control of monitoring instruments
- Automated alarms & alerts on user interface
- Works with & without a live internet connection
- Solid-state drive (SSD) reduces the risk of data loss from mechanical knocks
- Secure platform with enhanced security features
- Seamless integration & configuration with Airodis™ data collection, validation & reporting software
- Used & endorsed by ECOTECH in ECOTECH and non-ECOTECH designed & manufactured AQMS stations around the world.



ABOUT ACOEM ENVIRONMENT:

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ECOTECH is a pioneer of innovative solutions in environmental monitoring, designing, manufacturing and operating air, water, gas, meteorology, blast, fine particulate and dust monitoring systems in 80+ countries. 01dB is a world leader in the noise and vibration monitoring industry, smart cities; ground and air transportation networks; public works; industrial and construction sectors; wind power and leisure industries comply with regulations and develop sustainable strategies. The ACOEM Group's 700 employees innovate in the measurement, analysis and control of environmental parameters through the 01dB, ECOTECH, ONEPROD, FIXTURLASER, VIBRALIGN, MEAX and METRAVIB brands. For more information visit acoemgroup.com

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