

Particulate Monitoring Solutions

A range of award winning particulate monitors suitable for environmental monitoring and process control applications.



ENVIRONMENTAL
MONITORING
SOLUTIONS

About Us

Our specialist team are committed to providing you with excellent customer service. We listen and offer expert advice to provide you with cost effective solutions that meet the needs of your business.

**COM
MIT
MENT**

Dedication and hard work enable us to meet our customers' expectations

**EX
PERT
ISE**

We leverage knowledge of legislation and enabling technology to provide innovative solutions focused on customer requirements.

EMS have worked in partnership with Auburn Systems since 2012, distributing the range of award winning triboelectric particulate monitors with confidence to our clients.

Our commitment to quality and to the environment are demonstrated through our ISO 9001 and ISO 14001 certifications and industry recognised awards.

PRO
FESSIO
NAL
ISM

We forge excellence through competence, knowledge, resourcefulness and attitude.

M
ORA
LE

We create a positive ethos and cohesive environment to deliver excellence for our clients and each other.

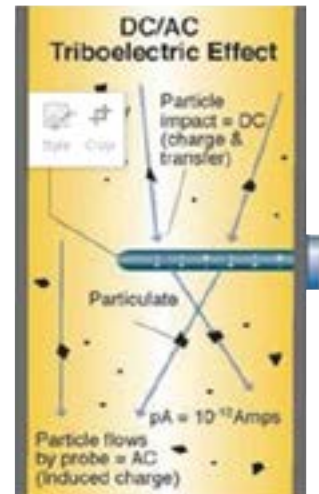
The Technology

What are the Benefits?

The benefits of using triboelectric technology are that it provides you with a cost-effective solution for emissions and process monitoring and effective dust collection system maintenance.

This core technology provides you with a reliable, highly accurate and industry accepted method of monitoring for today's manufacturing requirements including food and beverage, pharmaceuticals, chemical, cement, plastics, steel, foundries and galvanising,

Triboelectric technology is based on the fundamental physics principle, termed the 'triboelectric effect'. An important advance in this range of products is that the DC impaction and AC induction component of the signal is unified. This provides you with a stable signal, electrical interference resistance and superior accuracy



Applications

Flexible, cost-effective solutions for environmental monitoring and process control.

Process Control

Optimise performance, minimise downtime and reduce product loss



Environmental Monitoring

Meet and maintain environmental compliance and regulations.



Process Control

Optimise performance, minimise downtime and reduce product loss

Monitoring for process performance and optimisation

This range of award-winning particulate monitors is ideal for use in process control applications. This can enable you to improve process efficiency, minimise downtime and optimise performance.

This range of particulate monitoring solutions is proven, reliable and easily integrable into data acquisition systems and SCADA. This provides you with an easy to maintain solution for process engineering challenges. This includes, particle velocity monitoring, flow/no flow detection and more flow/less flow detection.



Environmental Monitoring

Meet and maintain environmental compliance regulations

Monitoring for Environmental Compliance

Cost-effective solutions for a range of environmental monitoring applications to help you stay compliant with regulatory emissions limits.

The product range provides you with a reliable method to record and track particulate emissions for regulatory compliance, filter leak and bag burst detection.

Triboelectric technology is industry proven, reliable and provides a cost-effective method to monitor emissions. This includes applications with high temperatures, vibration and where multiple emissions points need to be monitored simultaneously.



Auburn Systems U3600 Quantitative Particulate Monitoring System



The award winning U3600 displays live quantitative particulate levels on its easy-to-read colour screen. The U3600 is equipped with 4-20 mA and optional digital outputs allowing for integration into data acquisition systems and SCADA. The advanced monitoring system also features two independent, programmable SPDT relays designed for triggering local alarms.

A range of probes are available including ceramic sensors for high temperature applications and jacketed probes where fouling or contamination is a problem.

Key Features:

- Simple to set up and use with minimal maintenance
- Easy-to-read LED display showing quantitative real time emissions levels
- 4-20mA and digital output for integration into data acquisition systems and SCADA
- Automatic probe contamination check
- Password protection for user settings
- Superior signal filtering eliminates electrical noise interference for stable measurement
- Unified AC/DC signal processing for continuous, accurate measurement

Auburn Systems U3600 QAL1 TÜV & MCERTS Particulate Monitoring System



This state-of-the-art particulate monitoring system is certified to Air Quality standard EN 15267-1 by TUV and MCERTS.

Simple to use and maintain, this product produces robust data for a range of different applications. The numerical LED display allows you to instantly see real-time emissions levels and a user configurable alarm will alert you if your selected threshold level is reached.

This innovative particulate monitor is ideal for dust collector compliance and maintenance applications. It can also be used for process flow applications with flexible scaling and alarm features.

Key Features:

Certified by TUV and MCERTS to conform with EN 15267-1 requirements

Continuous 4-20mA or digital output, compatible for integration with data acquisition systems and SCADA

LED display showing quantitative real-time emissions levels

Alarm with selectable threshold level and delay

Automatic probe contamination check, minimal maintenance required

Password protected user settings

Wide dynamic range, can be used to monitor flow/emissions applications

Auburn Systems

U3300 Particulate Monitoring System



The U3300 is designed to offer you a cost-effective method of continuous emissions monitoring. The RS-485/MODBUS output makes the U3300 ideal for integration into your SCADA and data acquisition systems.

The U3300 is available as both remote and integral models. The remote option is designed for use in high temperature applications and separates important electronic components from the probe to provide maximum protection in hazardous environments.

Key Features:

Simple integration with minimal maintenance

RS-485/MODBUS-RTU field bus communication for integration with SCADA and data acquisition systems

Monitors can be 'daisy-chained' providing cost effective multiple point measurement

Automatic probe contamination check

Available as integral and remote units for high temperature and hazardous monitoring applications

Superior signal filtering eliminates electrical noise interference for stable measurement

Unified AC/DC signal processing for continuous, accurate measurement.

Auburn Systems

U3400 Particulate Monitoring System



Unlike other particulate monitors, the U3400 is available in integral and remote models ideal for low and high temperature and hazardous monitoring applications.

The U3400 is designed for integration into your SCADA, data acquisition or other control devices. The U3400 is also equipped with an automatic probe contamination check which alerts you to the build-up of any contaminants on the surface of the probe.

Key Features:

Simple integration with minimal maintenance

Continuous 4-20mA output

Automatic probe contamination check

Available as integral and remote units for high temperature and hazardous applications

Unified AC/DC signal processing for continuous, accurate measurement

Superior signal filtering for stable emissions monitoring

Auburn Systems

U3200 Particulate Detection System



The Auburn Systems U3200 is intended for tracking baseline emissions and to respond to abnormal dust leakage from a bag burst or filter leak.

The U3200 makes it easy for you to maintain compliance and stay alert of threshold breaches by providing two programmable warning indicators. The independent relay outputs mean you can programme these levels to trigger at thresholds specific to your application. Similar to other products in the Auburn Systems family, the U3200 can be specified with a number of probe lengths to suit a range of duct sizes.

Key Features:

Simple to install and maintain

Superior technology without breaking the bank

Advanced detector for dust emissions and process flow applications

Easily selectable alarm threshold level

Numerical LED display showing real time signal level

The U3200 is also available as an integral particulate detector. The U3200 integral is an advanced and economical particulate detector intended to monitor fabric filter baghouses, cartridge filters, cyclones and all types of dust equipment.

It is designed to detect flow/no flow and high or low flow in pneumatic conveying, injection or gravity fed process flow applications.

The simple to install system makes it easy to maintain dust compliance with a selectable alarm for threshold level and time delay.

Case study



Turnkey particulate extraction and monitoring systems for leading independent distillery.

Summary

Auburn Systems U3600 particulate monitors were installed at two leading independent Scottish distillery sites. John Morfield were asked to include continuous emissions monitoring within their system as a turnkey solution. Auburn Systems U3600 particulate monitors were integrated with John Morfield's filtration solutions to provide continuous particulate monitoring in line with their client's permit requirements.



Client Benefits

The Auburn Systems U3600 particulate monitor provided a cost-effective solution for the monitoring requirements of a leading independent Scottish distillery.

The Challenge

The end client was a leading independent Scottish distillery who specified new filtration systems at several sites around the UK including St Helier, Jersey and Girvan, Scotland. John Morfield were contracted to provide the filtration systems and ducting required for each distillery's new production lines. Both of these sites required to monitor their particulate output on a continuous basis to satisfy the output limit requirements of their environmental permits.

The Solution

The Auburn Systems U3600 particulate monitor was the ideal solution providing continuous particulate readings and alarm events on a local display. When fitted with a datalogger the solution enabled the client to download their emissions data quickly and efficiently to demonstrate compliance to their regulatory inspectors.

The installation in Jersey required effective liaison with the end client and their engineering main contractor, to ensure that the installation was completed within a very tight time frame



Case study

Speciality Steel Castings provided with a technical solution for challenging particulate monitoring requirement

Summary

UK based speciality steel castings business were provided with a technical solution to a challenging particulate monitoring requirement. They are now able to accurately record particulate emissions data at a single monitoring point with variable flow speeds.

Client Benefits

After the installation of the new system, monitoring of Local Exhaust Ventilation (LEV) extraction booths at Goodwin Steel Castings Ltd is now always correctly calibrated.



GOODWIN STEEL CASTINGS

The solution was designed to be able to integrate new monitoring equipment in the future and is fully extensible to include a cloud-based data acquisition system.

The Challenge

Goodwin Steel Castings Ltd required Local Exhaust Ventilation (LEV) monitoring for three



independent extraction booths. Dust from each booth is extracted into a single shared channel, which then feeds into a baghouse for filtration. Extraction is performed by a single, variable speed drive-controlled fan positioned downstream of the booths.

The design of the extraction system allowed for only a single monitoring point after the extraction booths and before the baghouse. Using a single particulate monitor to record the emissions from each extraction booth created a challenge.

The Solution

Monitoring one point subject to three different levels of particulate flow required a monitoring solution capable of actively switching between three independent calibrations. An Auburn Systems U3400 unified particulate monitor was specified to monitor the emissions between the LEV booths and the baghouse. To solve the challenge of variable particulate flow, the Auburn Systems U3400 particulate monitor was integrated into a data acquisition system. This enabled different calibrations to be applied depending on the number of booths in operation using just one particulate monitor.



What Our Clients Say



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“On a recent project to supply dust extraction systems with emission monitoring equipment we worked to provide an integrated solution for our client. The installations consisted of stainless steel ductwork, dust collection unit and emission monitoring equipment. Both installations were successfully completed at two very different locations in the UK. The result was minimal inconvenience to the client allowing the projects to be completed within the desired timescale.”

Kevin English – John Morfield Ltd



“We had a requirement to have continuous quantitative emissions monitoring on three extraction booths venting via one stack point, where the number of booths running could change at any one time. We further needed to log data including warning and emission limit alarms. The monitoring system automatically copes with the multiple calibration factors required and gives us clear emissions information.”

Ian Martin – Goodwin Steel Castings Ltd

Our Experts



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Specialist Areas:

Continuous Emissions Monitoring Systems (CEMS)
Dust monitoring solutions
Stack emissions monitoring
Environmental Data Acquisition Systems – eDAS



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Specialist Areas:

Software and hardware integration
Environmental Data Acquisition Systems – eDAS
Project Management
Installation & Commissioning



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Specialist Areas:

Instrumentation
Installation & Commissioning
Air and emissions monitoring
Project management



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Specialist Areas:

Environmental Data Acquisition Systems – eDAS
Dust monitoring
Installation and commissioning
Equipment maintenance