PARTICULATE CEMS MONITORS





- The transceiver houses the optical and electro-optic components. - Flood LED used for highest levels of accuracy & stability
- A homogeneous pulsed LED source
- Automatic in-situ zero & span check

 Opacity (%)
 PM

 STACK 710
 0-10 / 0-100
 0-15 mg/m³

QAL 991

ElectroDynamic[™] Probe Electrification technology

The QAL 991 is ideally suited to low emission monitoring with high quality with its patented technology.



- Suitable for bag-filter applications with ELV of 10 mg/m³ (Incineration) & 30 mg/m³ (Co-incineration)
- Upgradeable to include control for up to 16 sensors plus additional 16 calculated channels (e.g. Mass)
- Advanced sensor design includes zero, span & unique contamination checks (QAL 3)
- Rugged operation and advanced diagnostics capability for managing the operation of bag-filter arrestment plant

QAL 260 / QAL 360

Backward ProScatter™ technology

A non-intrusive particulate monitor series used for dust concentration measurements in combustion, incineration and other industrial stacks (Power, Cement & Metal Smelting Processes).





Audit Unit and Attenuator (Optional)

- With single side stack installation, it can be used at low or high dust levels
- Automatic Functionality check: fully interrogates optical systems
- Designed to operate in non-condensing stack environments and to overcome acid & dew point issues
- Laser Backscattering technology (light backscattering); detection limit <1 mg/m³

	PM
QAL 260	0 - 500 mg/m ³
QAL 360	0 - 500 mg/m ³

		PM
QA	L 991	0 - 1 000 mg/m ³

MERCURY, DIOXINS, FURANS & BIOGENIC CO, SAMPLERS



AMESA-D[®]

Dioxins & Furans

The AMESA-D utilizes the water cooled probe method with Isokinetic sampling system coupled with XAD-II adsorbent cartridge for Long-term sampling of dioxins (PCDD), furans (PCDF) and other persistent organic contaminant (POPs).

- Isokinetic sampling by a built-in Pitot tube on the sampling probe
- Automatic continuous sampling from 4 hours to 6 weeks (programmable)
- Adsorption on exclusive XAD-II cartridge
- Dioxins of all 3 phases (gaseous, solid and liquid bounded) are collected in one cartridge
- High efficient dust filter
- Fully automated and sampling operating conditions storage
- Cooled probe composed of different materials and lengths to fit the application

I-TEQ (TÜV) 0 - 0.5 ng/m³



Control unit

AMESA-B[®]

Continuous monitoring of Biogenic CO₂ emissions

The AMESA-B uses a CO_2 sampling method on an adsorber cartridge filled with Ascarite or soda lime, to determine the biogenic fraction of CO_2 emissions.

Biogenic or carbon-neutral stack CO₂ gas can be deductible from any company's greenhouse gas inventory which is required for reporting under various regulations.

- Sampling period between several hours and 1 month
- Allows to determine the ratio of biogenic and fossil-derived CO₂ by C¹⁴ dating measurement

Applicable to waste-to-energy, electricity generation, coal co-firing, steel, cement and lime processes to quantify their biogenic CO_2 emissions as CO_2 neutral, for regulatory compliance:

- Cost savings for operator
- CO₂ emission trading
- Helps governments demonstrate green energy policy



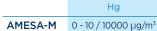
AMESA-M[®]

Mercury Sorbent Trap System

The AMESA-M's independent stand-alone design is based on experience gained with the AMESA-D dioxin sampler. It uses similar technology with a smaller, simplified design that is more cost-effective for Mercury Monitoring.

- Sorbent Trap Monitoring System (STMS according to US-Environmental Protection Agency (EPA) performance standard 12B
- Extracts a part of the flue-gas through a heated sampling probe
- Sampling of mercury on paired sorbent traps (for QA purposes, as required by regulations)
- Fully automatic sampling between 30 minutes and 4 weeks
- Storage of operating data protocol
- The AMESA-M system has a fully functional HMI at the probe.
- All system parts are installed in an IP54 enclosure (wall-mounted / cabinet version)

Available in 2 formats



AMESA-B

0 - 100 %

pMC (percent Modern Carbon)

17