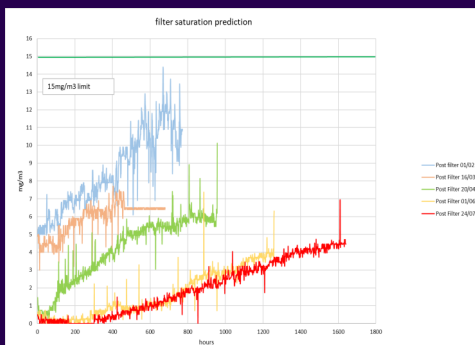


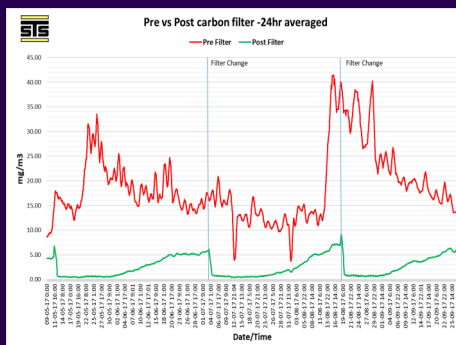
Validation & Sensitivity

Measurement Range & Calibration

Measurement	Range	Accuracy	Calibration	Sampling Interval
Total Siloxanes	1.0 to 200mg/m ³	+/- 10%	Direct Injection of 20µl D5	~ once per hour ,24/7



Filter saturation trends & lifetime



Pre filter vs Post Filter analysis



www.siloxanemonitoring.com

STS PORTABLE SILOXANE MONITOR

Siloxanes are a class of organic chemicals

containing silicon, which burn in CHP engines, producing silica, in effect sand, which is highly damaging to engines and results in major, frequent engine damage and hence overhauls. The solution is to remove the damaging siloxanes in the Biogas or Landfill gas before they reach the CHP engine, this is achieved by using either an activated carbon filter or a regenerative filter. The problem however arises that carbon filters have a finite life span and are relatively expensive to change and that regenerative processes can be energy intensive dependent on the regeneration cycle.

The Siloxane Monitor is designed to

quantify siloxanes in biogas using NDIR technology. The instrument contains a pump which draws the biogas into the system, a concentration

Instant access to real time data reporting on carbon filter saturation

section and a gas cell which allows very low level detection.

The outputs of the instrument are a 320*240pixel LCD display showing operating parameters and current siloxane value and recent measurement data; an SD card port for data download; and an

optional 4-20mA output or telemetry communications service. Instrument control is by an alphanumeric keypad.

Calibration is required at 12 monthly intervals and is achieved via an injection system.

Control over gas quality entering engines and resultant potential for reduced maintenance burden and cost

By monitoring the gas flow post

filter the total siloxane load can be seen and a trend graph produced to show when carbon filter failure is likely or when a regenerative process should be started.

The STS Siloxane Monitor constantly measures the filter output putting the operator in possession of accurate and understandable data on which to make an informed decision on plant optimisation.



Siloxane Monitor Application

✓ **Biogas from sewage AD production**

✓ **Landfill gas**

✓ **Food Waste gas**

✓ **Optimisation of Carbon Filters**

✓ **Control of regenerative filter systems**

✓ **Monitoring of Gas to Grid plants**

Contact us at:

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Mobile: +44 (0) 7887 518725
E-mail: sales@safetrainingsystems.com

Specification

- Size: 978 x 625 x 467mm
- Weight: ~37KG
- Power 110V or 230V supply
- Data output via gsm to website
- Sampling interval ~ once per hour
- 2 sample lines with Bulkhead connectors for rapid deployment
- Operating temperature: 0°C to +40°C
- 180 x120mm LCD display
- Waterproof Package with gas sampling system, Telemetry, forced ventilation and water traps.
- Detection limit of 1.0mg/m3 total siloxanes



www.siloxanemonitoring.com



Control carbon filter costs



Online & onsite data access



Low Maintenance design



24/7 –365 unmanned operation



Pre packaged ready for install

STS Portable-Siloxane Monitor



Optimisation of siloxane removal systems and reduction of gas engine maintenance

