



cem solutions

CONTINUOUS EMISSIONS MONITORING

IMPROVED SERVICE SUPPORT LEADS TO RENEWED CONFIDENCE IN DUST / PARTICULATE CONTINUOUS EMISSION MONITORING SYSTEM



Technical article

Introduction

A leading Metal Castings' manufacturer based in the UK were experiencing reliability problems with Dust/Particulate Devices consistently across all their manufacturing sites. Site operatives were losing confidence in the dust readings on their Bag Filter Plants.

Furthermore, the control unit, as part of the emissions monitoring system, was difficult to operate and more importantly was not able to generate suitable reporting files needed to meet the local regulatory requirements.

As they could not get a satisfactory response from their existing service provider, they decided to contact CEM Solutions (UK) Ltd for assistance, after a referral from an independent stack test house.



The Challenge

After initial discussion with the customer to establish the current issues, understand their challenges and establish their expectations, we arranged for a service visit to carry out a Site Inspection. We carried out a visual appraisal of all the devices and shared our findings. Essentially, the dust/particulate measuring devices were poorly installed, some of their locations were compromising the performance of the devices and additionally, wiring issues were identified which needed to be addressed.

As the site runs continuously, our challenge was to ensure timely restoration of the existing dust measuring devices prior to scheduling the more thorough installation improvements that were required, all without affecting the overall process operation.



Dr. Födisch

Umweltmesstechnik AG



The Solution

After servicing and calibrating the existing serviceable dust/particulate probes, we agreed on an Improvement Plan for the Dust Emission Monitoring System as a whole, including:

- **Replacement** of the faulty Dust/ Particulate devices with Dr Foedisch PFM Particulate Filter Monitoring probes to restore a reliable measurement.
- **Installation** of new wiring to improve the robustness of the complete system.
- **Upgrade** their unreliable control unit with our CEMWare Data Acquisition and Handling System (DAHS) giving them local audible and visual alarms.
- **Implementation** of a Service Contract to maintain and calibrate all the devices regularly to ensure optimal performance is achieved.

The Result

CEM Solutions (UK) Ltd worked closely with the customer to prioritise the work which needed to be completed. Within a short space of time the performance of the Dust Monitoring System improved considerably. This enabled a renewed confidence in the devices and data handling was no longer a negative experience. With its user-friendly interface, operators can now use the data generated with confidence, running reports as and when required.

- Having exceeded initial expectations in 2018, the customer asked us to help them to improve their other sites in the UK.
- We now have **Service Contracts** for all the UK Sites looking after their Dust Monitoring Systems and ensuring maximum performance from their **Bag filter Plants**.

Solution Summary

We developed a Tailored Dust Emission Monitoring Solution to meet the specific needs of our customer by providing excellent service support and using the following products:

Dr Fodisch PFM -Particulate Filter Monitoring Devices

KEY FEATURES:

- Low initial outlay
- No consumables
- Compact device
- Simple commissioning
- Low maintenance
- TUV / Mcerts (option)



CEM Solutions CEMWare Data Acquisition and Handling System (DAHS)

KEY FEATURES:

- 17" Touch screen display
- View live and historical trend data
- Remote options by local network or Mobile App
- Export logged data to Excel, .csv or text file
- Flexible input/output selection
- Audible/Visual Alarms

