

Foundry

A forward-thinking strategy aimed at minimizing downtime and maintaining compliance

"Needed a reliable BLDS system, easy to install and use, to monitor multiple emission points in each of their foundries"

Challenge

A prominent foundry group headquartered in Indiana, operating across multiple facilities statewide, sought a dependable Bag Leak Detection System (BLDS). They desired a solution that was not only easy to install and operate but also capable of monitoring numerous emission points within each foundry. Their primary objective was to detect any upticks in dust emissions before surpassing environmental thresholds outlined in their plant operating permits. This proactive approach aimed not only to avoid fines or shutdowns but also to facilitate preemptive maintenance of their baghouses, supporting compliance and minimizing unexpected downtime.

Solution

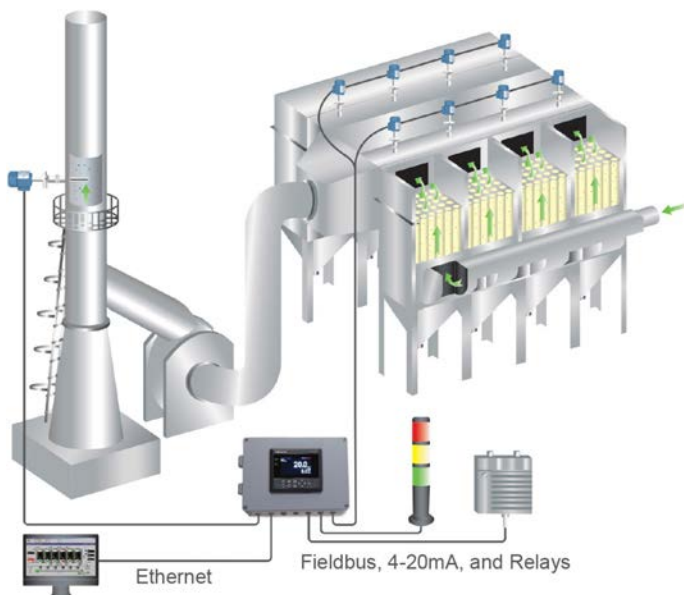
The company has adopted the BLDS compliant PM 100 PRO multi-channel particulate monitor across all its locations. Utilizing Auburn's innovative non-contact charge transfer sensor technology, this instrument enables the monitoring of multiple filters (up to 16) from a central controller. Its easy-to-fit, rugged sensors require minimal maintenance and eliminate the need for ancillary services such as purging air, resulting in a cost-effective solution. Unaffected by probe contamination and featuring a unique layered probe for damp applications like sand knockout plants, the PM 100 PRO offers a robust solution for monitoring low dust levels associated with fabric filters.

When used alongside Auburn's cloud based industrial IoT INSIGHT software package, which provides remote access to all measurement points across all locations with cellular connectivity, environmental and maintenance staff receive instant notifications of alarm events, EPA or shift reports and access to live and historical filter emissions data.

Plant QEHS Director said this about his monitoring solution,

"Having to prove compliance with the use of Auburn's BLDS and remote monitoring has dramatically reduced potential downtime and unexpected out of compliance events. By implementing the Auburn products, we have minimized the impact on operation of our plants. Remote monitoring and automatic alarm notification and EPA report generation alleviated what had been keeping me awake at night, being out of compliance and not knowing about it".

As particles flow over a sensing probe, charge is induced into the probe creating small currents in the picoamp (pA) range. The signal is processed into an output proportional to mass.



Benefits

The PM 100 PRO is a top-tier solution for industrial bag leak detection systems (BLDS), offering robust protection against hazardous particulates and quickly identifying process leaks across various production stages.

Integrated with Insight Remote Monitoring Software, it enables continuous monitoring of particulate emissions, allowing users to address potential dust emission issues proactively. Its advanced sensors eliminate the need for manual inspections and remain unaffected by dust, moisture, and heat, maintaining consistent performance. Automatic EPA self-checks and compliance with US EPA MACT guidelines provide regulatory peace of mind, while adherence to NAMUR 107 standards provides reliability and accuracy in diagnostics. Certified fieldbus protocols support seamless integration and operation within existing systems, enhancing efficiency and usability.

Insight Software

A digital solution for resource optimization, increased productivity, and cost reduction while simplifying compliance and safety.



- HMI/SCADA
- Event Handling
- Analytics
- Reporting
- Enterprise-grade Access Control and Security

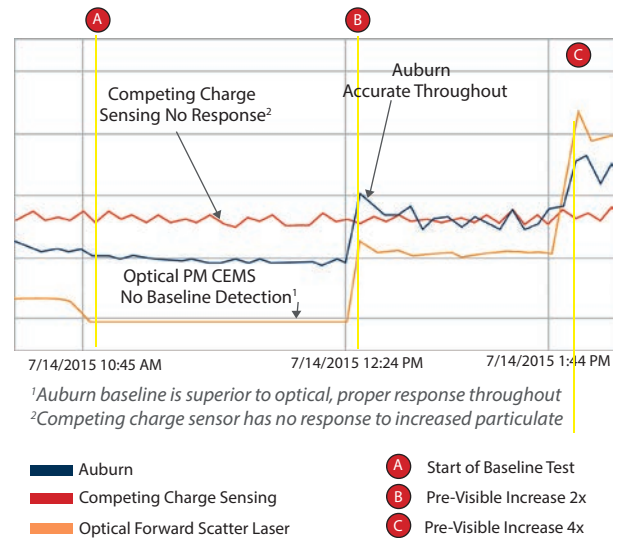


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sales@auburnfs.com | +1 978.927.4304
www.auburnfs.com

Reliable Results

Figure 1 – Low-Level Response Testing



“The PM 100 PRO, coupled with Insight software, delivers seamless monitoring and actionable insights for enhanced operational efficiency”

