CASE STUDY

PROCESS

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KNOWLEDGE IN ACTION

Avoidance of hazardous dust concentrations through continuous monitoring

APPLICATION

A well-known food manufacturer in Germany measures the dust value in mg/m³ in its exhaust air upstream of the fan in order to switch it off before a hazardous dust concentration is reached. The ignitable mixture of its dust is 30 g/m³. By calibrating to mg/m³, the desired switching point to turn off the system can be stored exactly. This way, the customer can be sure that the system is shut down before a hazardous dust concentration is reached.

PROCESS DATA

Customer:	Food manufacturer (Germany)
Material:	Sugar dust
Installation:	Clean gas side in front of the blower / Safety shutdown to protect the fan
Function:	Reliable measurement of the dust content

SOLUTION

The ProSens sensor provided the solution to the application described which is used to continuously measure the concentration of the clean gas side after filters. The ProSens uses ElectroDynamic technology and through its robust and durable construction, provides a measurement solution to almost any application.
A measurement is therefore possible with duct diameters of up to DN 2000 without any problems.
The stainless steel measuring electrode is optionally available with a Teflon or ceramic coating, so even sticky and abrasive dusts can be measured.

ProSens

If dust should nevertheless accumulate on the sensor, a rinsing connection is available for cleaning the electrode. The sensor is attached to the duct by means of a TriClamp connector. This makes it easy to pull it out of the duct during the annual inspection and to clean it in a simple way. In addition, the measurement has numerous self-checking functions, which offers the customer the security of a functioning measurement.
In the mentioned application, 20 ProSens systems are already in use now.

CUSTOMER BENEFITS

- Early avoidance of hazardous conditions
- Reliable and continuous dust measurement in mg/m³
- Low maintenance
- Output of the dust content as a trend or as an absolute measured value

Monitoring for Powder, Dust & Gas

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