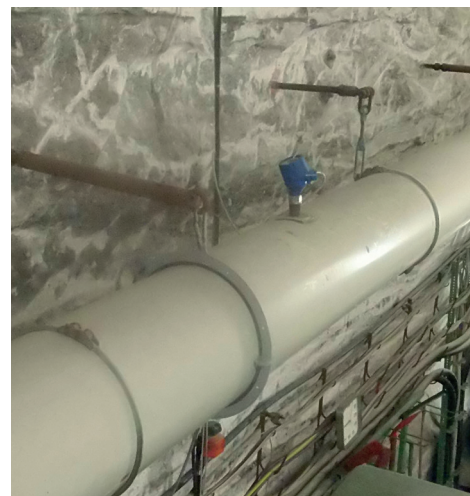


Application

An international mining company extracts minerals under ground for the fabrication of fertilizers. For the long term improvement and safety of the structure stability fillings and binders (dry bulks) with defined recipes are injected locally into former mining cavities.

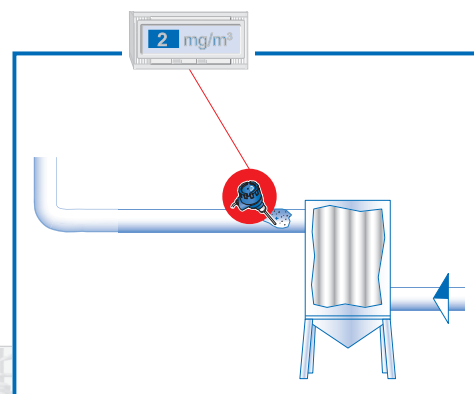
These materials are delivered above ground, stored in silos and afterwards transported in a closed-pipe pneumatic conveying system to storage silos below ground. There the fillings and binders are mixed with a salt solution, pumped to the cavities and eventually harden. The silos used for the intermediate storage are under negative pressure for safety reasons. They are equipped with a silo vent filter (main filter) and a downstream security filter (secondary filter).

This assures the air purity according to legal regulations, which is measured constantly after the security filter. When a specified limit value is reached, an alarm should be transmitted to the control room.



Process Data

Customer:	Raw materials company (Germany)
Product:	Fillings and binders
Material humidity:	2 mg/m ³
Installation place:	Exhaust air pipe, clean gas side after security filter
Function:	Monitoring of exhaust air particulates



Solution

The ProSens was specially developed to carry out reliable dust measurement on clean sides after filters.

The measuring device provides measurement values for dust concentration either as a trend signal or as absolute values (after calibration) for emission measurement.

In the described application the ProSens measures exhaust air of underground storage silos on the clean side after safety filters.

This helps to comply with limit levels, given by law and to assure safe air quality underground.

Customer benefit

- Dust measurement in large channel diameters
- Assurance of safe air quality below ground
- Compliance with legal requirements



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