

PROCESS

Mass flow measurement for exact dosing for flue gas desulphurization

APPLICATION

In a waste incineration plant, hydrated lime is used in the dry sorption process for flue gas desulphurization (SO₂ binding). The amount of hydrated lime is to be measured and water is to be added to bind the SO₂. Since the throughput had not been measured so far and thus the incorrect amount of water added, the lime-water mixture in the collection tank clumped together. As a result, the tank had to be opened regularly to carry out the laborious process of removing the clumped material, resulting in downtimes.

PROCESS DATA

Customer:	Incineration plant (Germany)
Material:	Hydrated lime
Installation:	Insulated free fall shaft downstream of a screw conveyor
Function:	Optimization of the lime hydrate-water dosing



SOLUTION

The SolidFlow 2.0 with extended sensor shaft (insulation) is used to measure and monitor the amount of hydrated lime actually pumped.

The sensor continuously measures solids of up to 20 t/h in free fall or pneumatic conveying.

In the application described, the sensor is inserted directly into the free fall line, downstream of a screw conveyor.

This allows the transported quantity in the process to be determined and monitored in order to optimize the hydrated lime-water dosing and reduce maintenance.



SolidFlow 2.0

CUSTOMER BENEFITS

- Improved process control of flue gas desulphurization
- Avoidance of under- or overdosing
- Non-intrusive installation in the conveying stream
- Reduced maintenance

Monitoring for Powder, Dust & Gas