

Mass flow measurement of aluminium oxide at
Trimet Aluminium AG



Market:

Aluminium production

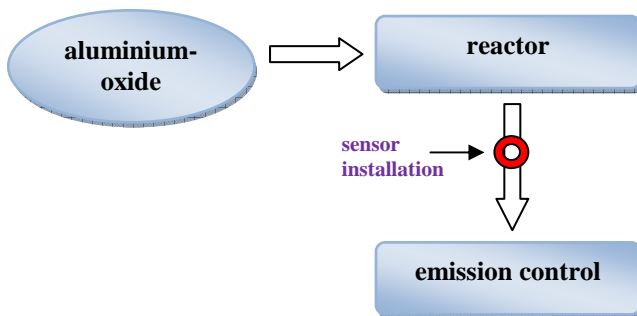
Application description:

At aluminium manufacturing plants, the exact dosage of aluminium oxide is extremely important for the process control.

A simple dosage control system does not satisfy the requirements. Disturbances such as a different amount of the oxide in a supply dosage can cause variable flow quantities from the reactors.

Only with accurate and continuous measurement of material flow can the dosage be controlled and adjusted to a preset value.

With the Mütéc mass flow meter MF 3000 accurate and continuous measurement of aluminium oxide is possible directly at the output pipe of the reactor.



The measurement values are captured and evaluated in real time and can be forwarded to other systems such as visualization or controlling of dosage by regular interfaces.

Benefits of Installation:

- ◆ Exact and continuous measurement of material flow
- ◆ Visualization of actual particle flow
- ◆ Exact dosage of aluminium oxide
- ◆ Optimization of material supply
- ◆ Contact less on-line mass flow measurement

The world wide operating company Trimet in Hamburg (Germany) processes aluminium oxide. For the optimal operating of the aluminium production an exact dosage of aluminium oxide is necessary.

To measure the material flow the Mütéc flow measuring system MF 3000 is successfully installed at the output pipe of an emission control-reactor.

The sensor measures the flow rate with an accuracy of $\pm 2\%$. The measured values are forwarded to the process control system via 4-20mA output for visualization and controlling of the dosage system.



Mass flow meter MF3000 mounted on the conveying line of the aluminium oxide

MF3000 Mass Flow Meter Benefits:

- ◆ Installed flush to inner wall pipe. No fittings in the pipe or in the material flow
- ◆ Easy and fast installation by simple welding flange even in existing plants
- ◆ For pneumatic conveying lines and free-fall processes
- ◆ Adjustable measuring range from a few kg/h to several t/h
- ◆ Robust, compact and maintenance free sensor
- ◆ Easy commissioning
- ◆ Analog and digital interfaces