

# Mass flow measurement with SolidFlow

## Application

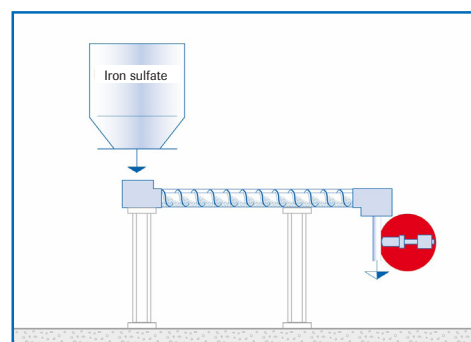
Burnt clinker, which is stored in storage bins, is grinded in cement mills (ball mills) to cement by adding sulfate carriers. Thereby iron sulfate is admixed to reduce the dissolvable chrome (IV) part in the cement. Chrome (VI) causes skin irritations, that's why his reduction is necessary.

One of the main challenges with the measurement of iron sulfate are material built-ups on the inside of the piping.



## Process Data

|                         |  |
|-------------------------|--|
| Customer:               | cement manufacturer (Germany)                    |
| Material:               | iron sulfate                                     |
| Transport equipment:    | conveyor   |
| Type of transportation: | free fall after rotary feeder and screw conveyor |
| Mounting place:         | freefall between storage bin and raw mill        |
| Flow rate:              | approx. 80 - 100 kg/h                            |



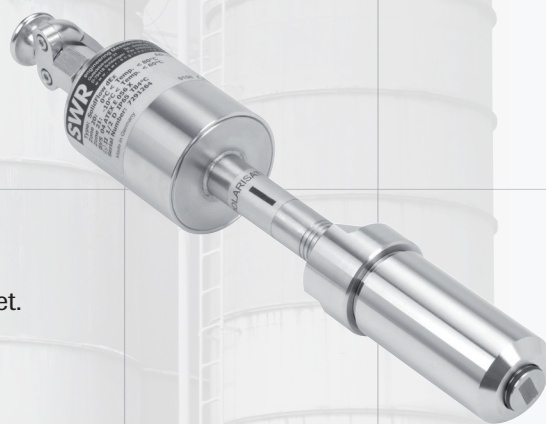
## Solution

The solution in the described application is the SolidFlow, which fits because of the flow rate of less than 20 t/h. With the SolidFlow almost all types of dust, powder and granules can be measured. The SolidFlow suits especially for the easy measurement of the mass flow of solids in pipelines.

In this application the signal of the SolidFlow controls the rotation speed of a rotary feeder. Because of the clumping of the material our customer installed a screw conveyor after the rotary feeder. In addition he used the SolidFlow version with retrofittable teflon jacket. By the use of teflon material built-ups can be evitated. A subsequent installation of the teflon jacket is possible.

## Customer benefit

- regulation of a rotary feeder by the signal of the SolidFlow
- evitation of material built ups by use of teflon jacket
- easy refitting with set-in nozzle
- no installations in the material stream
- easy and wear free installation



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