

# Exhaust gas cleaning in waste incineration

## Flow measurement with PicoFlow

### Application

A waste incineration plant produces exhaust gases during the incineration process. These gases need to be cleaned.

Therefore hearth furnace coke is used continuously and, if needed, lime hydrate. Both materials are stored in silos.

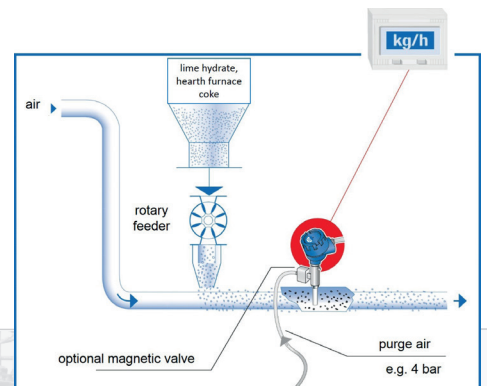
Via a rotary valve the two materials are blown from the storage places into a conveying air flow and thereby reach the exhaust gas stream which they clean.

Apart from measuring the different material quantities the installed volume meter also detects the output of the installed rotary feeder. Therefore the material feed from the silo is measured, while the rotary feeder continues to operate. Depending on the material quantity detected in the idle mode it is possible to recognize, if the rotary feeder has to be cleaned.



### Process data

Customer:	Incineration plant (Germany)
Material:	Hearth furnace coke (HFC), lime hydrate
Quantity:	64 - 100 kg/h
Installation place:	Conveying air stream, exhaust gas cleaning
Function:	Volume measurement in the supply air flow of exhaust gas cleaning

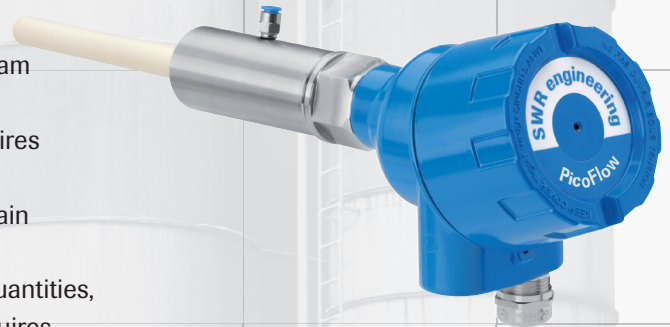


### Solution

PicoFlow is specially developed for measuring powder flow in transport lines with very low material concentrations. The measuring system delivers absolute values in g/h or kg/h. In the described application the dosing of two materials, hearth furnace coke and lime hydrate, into the exhaust stream is required to be measured.

Furthermore the rotary valve, used for material dosing, requires to be monitored. The rotary valve can become clogged with material, therefore the material supply is interrupted at certain intervals.

If the used PicoFlow continues to measure small material quantities, it can be assumed, that the internal of the rotary feeder requires cleaning. The PicoFlow transmits the actual material volume to the plant control room.



### Customer benefit

- Continuous flow measurement at low air/solid ratios
- Documentation of material consumption

**SWR engineering Messtechnik GmbH** · [www.swr-engineering.com](http://www.swr-engineering.com) · [info@swr-engineering.com](mailto:info@swr-engineering.com)  
 Gutedelstr. 31 · 79418 Schliengen (Germany) · Tel. +49(0)7635-8272-48-0 · Fax +49(0)7635-8272-48-48