

# Dust monitoring in food industry Filter damage monitoring on clean gas side

## **Application**

A coffee producer finishes coffee beans. During the handling process the beans are cleaned with water inside a tank.

After cleaning, the beans are dried in another tank with heat. The moist air that results from this process is extracted by a vacuum, filtered and returned to the heat exchanger.

The cleaning of the exhaust air is done by filter hoses. Thereby air is pressed through fabric hoses to filter existing dust particles. On the clean gas side of this filter the dust content should be monitored in case of a defect of the filter hoses, which results in an alarm.

This alarm notifies the control room of a hose leak/break.

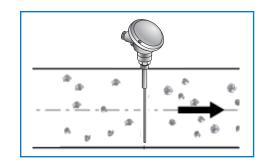


### **Process data**

Customer: Coffee manufacturer (Germany)

Material: Coffee beans
Installation place: Clean gas side

No. of systems: 9 x Dusty sensor with trend converter



### **Solution**

The Dusty was specifically developed to monitor clean sides after filters for broken-bag detection without delay.

It can be used in metal channels to detect dust particles in flowing gas. In the described application, the Dusty measures the dust concentration on the clean gas side after a filter. Thereby filter breaks can be detected promptly and reliably. In addition to a relay contact located in the Dusty, an optional DIN-rail transmitter can be used to measure the dust concentration with a continuous 4-20 mA output signal.



#### **Customer benefit**

- Filter break monitoring on clean gas side
- Usable in all clean gas and dust channels
- Trend monitoring is possible by 4-20 mA signal

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**Product link**