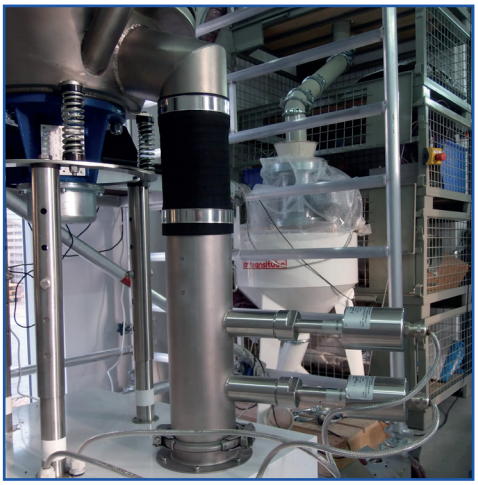
Monitoring of ground material
Screen break detection with Paddy

Avensys

Application

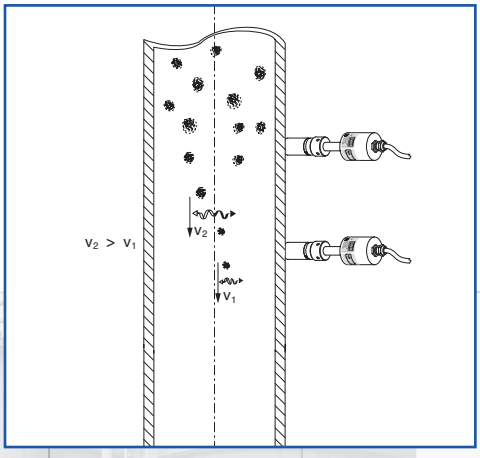
In many industrial processes, the control of particle sizing by the use of mechanical screening is important to ensure correct material sizing. Damage to the screen will lead to large particles flowing through, potentially leading to large amounts of incorrectly sized product. Associated costs of waste product, rework and product recall can be expensive for the manufacturer.

The off-line laboratory analysis of grain size in a material flow is time-consuming and not suitable for the detection of a sieve failure arising in the short term. Continuous maintenance or regular exchange of the sieves cannot prevent a defect. The screen break detection „Paddy“ provides a valuable real time measurement of particle size providing instant notification of defects in the screen.



Process data

Costumer:	Bulk processors and manufacturers
Material:	Any kind of bulk material
Installation place:	Discharge of material after sieve
Function:	Monitoring of grain size after screening process or fractionation



Solution

Paddy is a particle sensor which is able to detect a grain size range online. It consists of two sensors, a measuring sensor and a reference sensor.
For a successful measurement a minimal freefall of 500 mm is required.

Thereby the product stream, which has to be homogenized by two added baffles, can be monitored promptly and constantly.
Paddy uses state-of-the-art microwave technology in combination with intelligent evaluation software.
The method can be used for solids in metal pipes, conveyed in freefall or pneumatically.

Costumer benefit

- process reliability by continuous and timely grain size monitoring
- avoiding of plant downtimes
- quality assurance and improvement

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