

PROCESS

Material flow monitoring during unloading of silo vehicles for the detection of empty state

APPLICATION

During the unloading of limestone powder, silo vehicles are pressurised to the required level using compressed air units controlled by the driver and conveyed to the appropriate silo. Prompt detection of the empty state of the silo vehicle was not possible, therefore, product transfer was often finished too early or unnecessarily long, costing time and excessive use of compressed air.

The customer's aim was to automate the unloading of the silo vehicle and to create a reliable signal when reaching the empty state.

PROCESS DATA

Customer:	Saint-Gobain Weber GmbH (Germany)
Material:	Limestone
Installation:	Discharge pipe for truck loading (DN 100)
Function:	Automatized detection of the empty state



SOLUTION

The FlowJam S is a sensor for non-contact monitoring of material flow for "Flow" or "NoFlow".

The system works contactless and uses microwave technology where the material movements can be detected by utilising the Doppler effect.

The optional current output (converter in DIN Rail form) provides a non-calibrated trend signal for the material quantity conveyed.

By means of the 4 - 20 mA trend signal, a signal threshold for the empty state of the discharge pipe can be defined.

As soon as this value is reached, the unloading of the silo vehicle is automatically terminated with a time lag of approx. 5 minutes.



FlowJam S

CUSTOMER BENEFITS

- Robust, extremely reliable and durable sensor technology
- Time optimization of the logistics processes
- Reliable detection even with possible caking
- Safe automation of silo vehicle unloading
- Simple installation via 1½" socket

Monitoring for Powder, Dust & Gas