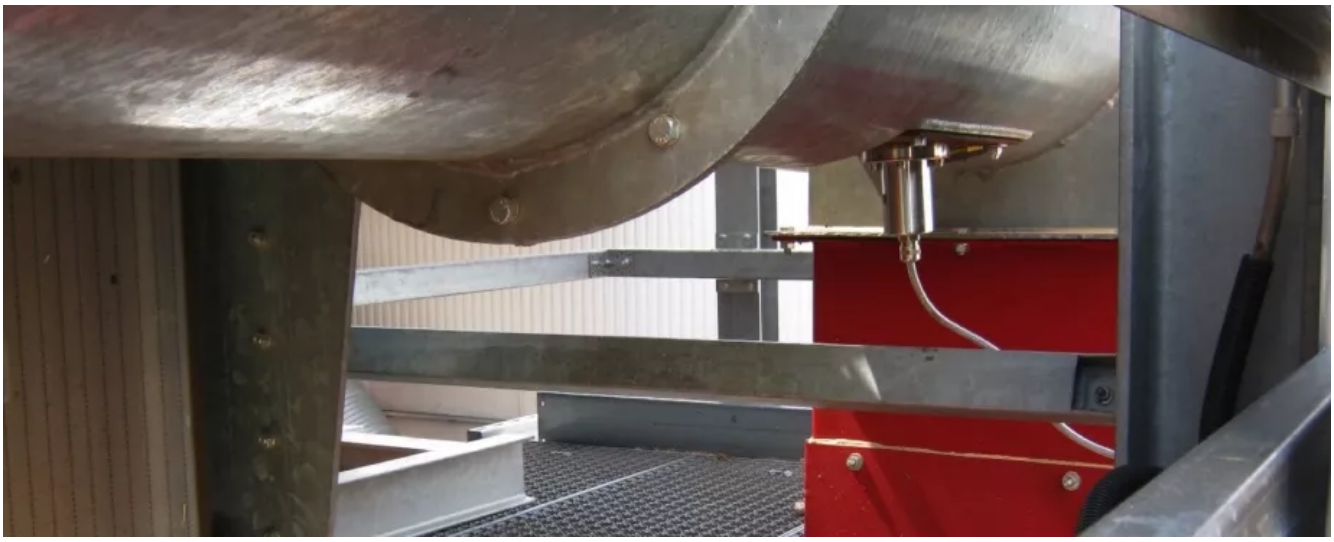


Case Study

SWR engineering: Moisture Measurement in Wood Pellet Production to ensure Material Quality

Edited by on 9. Apr. 2018

A manufacturer of wood pellets processes raw materials such as planing chips or wood chips (wood waste) to produce wood pellets. To ensure optimal adjustment of the drying process, the company uses SWR engineering's M-Sens 2 moisture sensor. The moisture is measured while the material is transported by a screw conveyor from the oven to the storage silo.

Application

After delivery of the wood waste, it is cleaned from extraneous material like metal and stones by a separator. Afterwards the material is crushed by a hammer mill and dried. The crushed material is then transported by a conveyor belt through a 90 °C convection oven.After leaving the oven a screw conveyor transports the wood chips to a storage silo. To assure the material quality, it is desirable for the moisture of the material to be measured during its transport to the storage silo. If the moisture is not correct, the drying process should be changed automatically.

The moisture is measured while the material is transported by a screw conveyor from the oven to the storage silo.

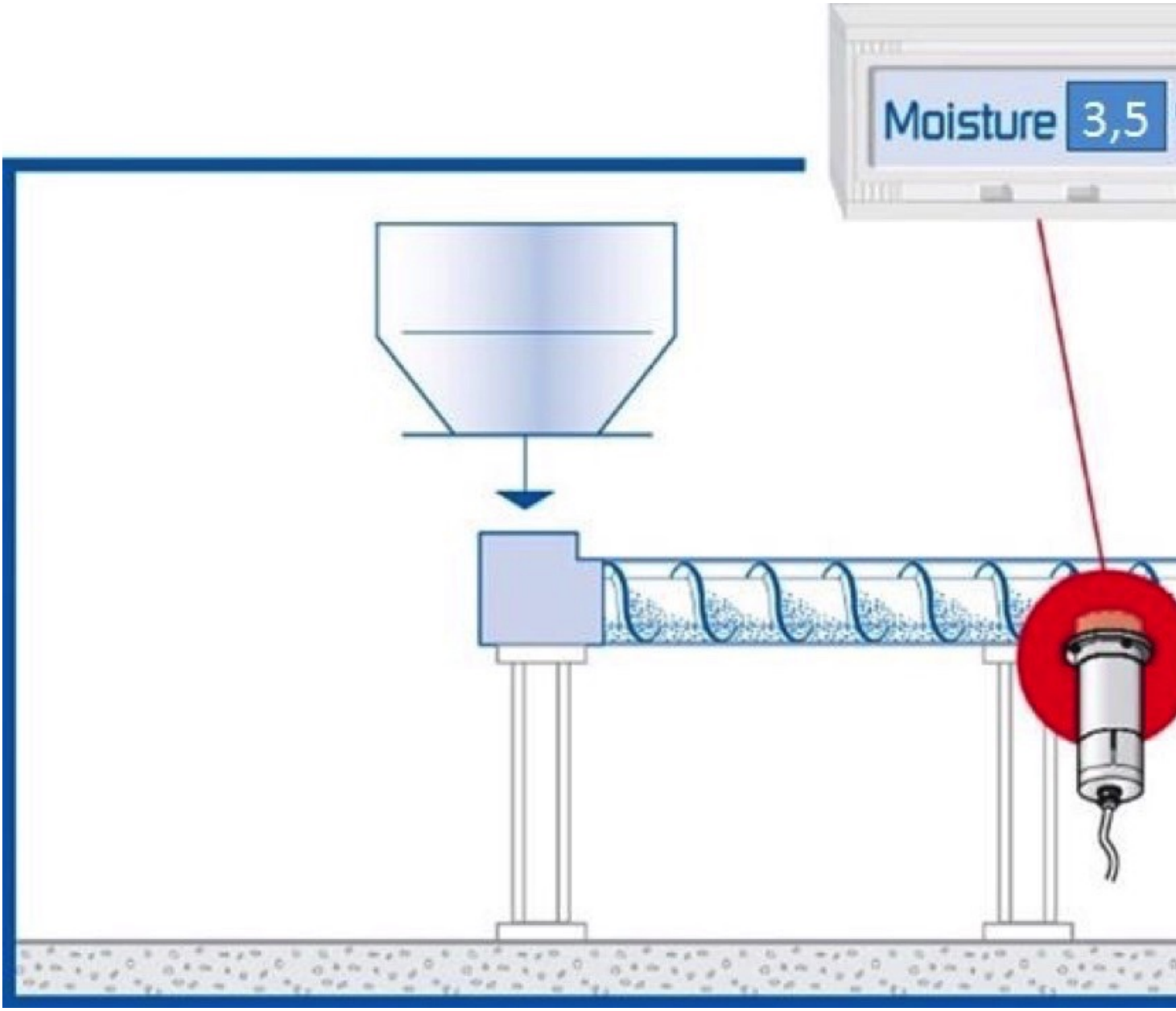
Process Data

- Customer: manufacturer of wood pellets (Germany)

- Material: chipped wood
- Transport means: screw conveyor
- Installation location: screw conveyor after oven
- Moisture: 3 - 8 %

Solution

After the drying process the material‘s moisture needs to be measured. The moisture is measured while the material is transported by a screw conveyor from the oven to the storage silo. Therefore, the M-Sens 2 is located on the underside of the screw conveyor.



The detected value can be directly used to adapt the speed of the conveyor belt in the drying oven.

The detected value can be directly used to adapt the speed of the conveyor belt in the drying oven. In this way the drying process can be directly regulated.

Customer benefit

- optimal adjustment of the drying process
- assurance of the product quality