

Filtering starch through a fine screen

Emergency shutdown with AirSafe

Application

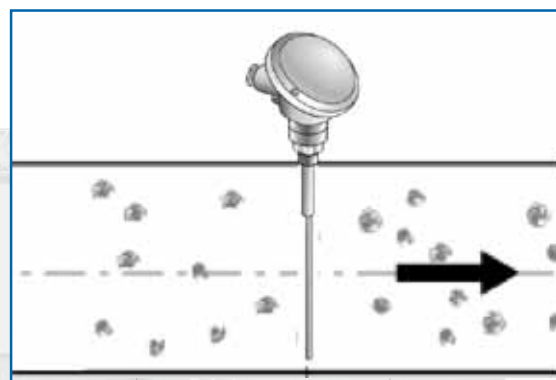
In this application starch is produced in a food manufacturer's plant before being blown into a silo with a holding capacity of 25 tonnes. The material is then filtered through a fine screen before being transferred to a drying silo in a further processing step.

The fine screens used (1) are swing-mounted on fibreglass frames (2) and are set in rotation by imbalance. During normal operation specified quantities of starch are fed into the system, filtered and transported further. If the filters in the fine screen become blocked, the material continues to be fed in, but removal of the material can no longer be ensured. In this case the fine screen becomes too heavy and the increased imbalance causes the fibre glass frames to break. This creates a considerable amount of dust. In such cases the operation of the fine screen is interrupted by the installed AirSafe (3).



Process Data

Customer:	food manufacturer (Germany)
Material:	starch
Installation location:	screening plant
Function:	causes the system to shut down if material clogs up the adjacent fine screen.



Solution

If the filters in the fine screen become clogged up, the fine screen overbalances, breaking the fibreglass frames used for mounting the screen.

Such a breakage creates a considerable amount of dust.

In this case AirSafe is activated and sends a signal to the screen assembly's controls causing them to shut down.

This prevents any further material from being transported and the system comes to a standstill. In addition to the areas of explosion protection and employee safety the area of system protection is another typical field of application for AirSafe.



User benefit

- simple system stop without a time delay
- protection of system safety and prevention of further system damage