CASE STUDY

# PROCESS

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KNOWLEDGE IN ACTION

# Material flow monitoring for truck unloading efficiency

## APPLICATION

Various raw materials are required in the soap manufacturing process. Sodium sulfate, one of the raw materials used in the formulation of soap, is often delivered in trucks. During the unloading of trucks, it is useful to know when the truck is empty so the pump for unloading can be switched off.
In order to automatically control the pump during the truck unloading, the customer was looking for a non-contact material flow monitoring system.

### PROCESS DATA

| | |
|---|---|
| Customer: | Manufacturer of detergents (Chemical industry) |
| Material: | Sodium sulfate |
| Installation: | Input pipe, connected to the truck |
| Function: | Monitoring the material flow to control the truck unload |

## SOLUTION

The FlowJam 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 utilizing the Doppler effect. The sensor is developed to be simple to install, adjust and maintain.

*FlowJam*

In the application described, the FlowJam is installed at the unloading of trucks and monitors the material transport lines. With the material flow information, the pump for unloading the vehicles can be operated automatically. This means that the pump is only switched on when material is present.

## CUSTOMER BENEFITS

- Automatic control of the pump during truck loading:
  No unnecessary operation of the pump (energy efficiency)
- Time saving during unloading
- Easy installation and adjustment
- Durability of the sensor, no material contact
- Insensitivity to material deposits on the sensor

*Monitoring for Powder, Dust & Gas*

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