Product News

SWR engineering: Transportation of minerals – Blockage Detection with ProGap S

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Schliengen, Germany –

ApplicationDuring the extraction and processing of basalt and lava stones of varying sizes in the plant of a German natural stone company, the first screening stage is occasionally clogged. The material is fed to this screening plant by a conveyor belt system via a feeding chute. In some cases the clogging leads to a congestion and jamming of the material in the feeding chute. If the congestion reaches the upstream conveyor belt, there is a risk that it will be damaged. This often results in costly and time-consuming production downtimes.

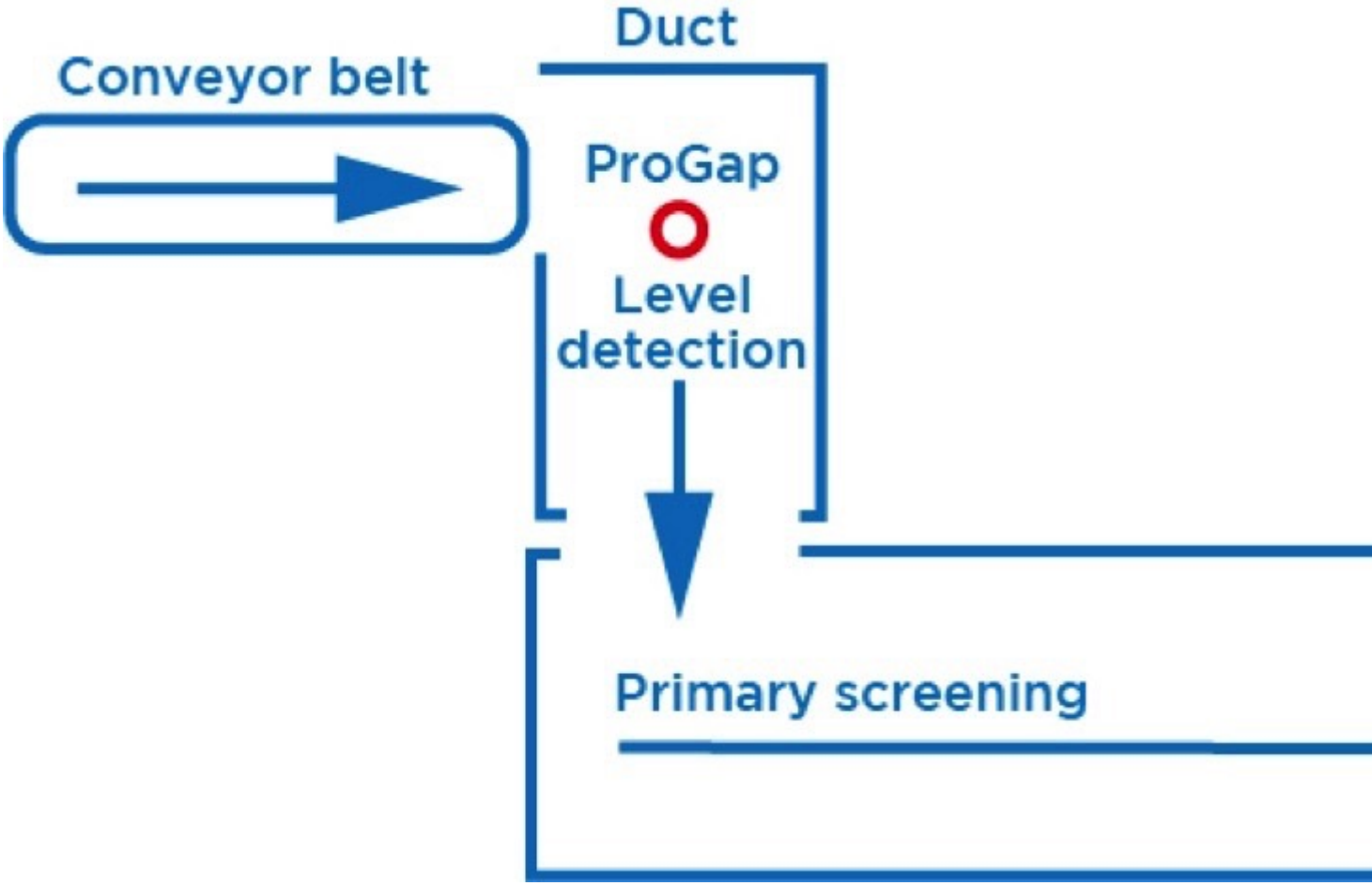
Process data

- Costumer: Mineral company
- Material: Stones (basalt and lava)
- Installation: Feeding chute behind conveyor belt
- Function: Protection of conveyor belt

Solution

SWR engineerings ProGap S sensor is insensitive to material caking.

The ProGap S with filling flow detection is a universally and flexibly applicable filling level sensor based on proven microwave technology. In this application, the ProGap S is used to detect the accumulation of rocks in the feeding chute between the conveyor belt system and the first screening stage.When a critical level monitored by the ProGap S is reached, the conveyor is (initially) stopped. The screening unit generally continues to run and thus usually dissolves the built-up accumulation.If, however, the sieve is not able to remove the accumulated material within a certain period of time, an alarm is issued to the plant personnel and the clogged sieve can be cleaned manually.



Position of the ProGap sensor in the feeding chute.

Customer benefit

- Prevention of damage to the screen and conveyor belt in the event of a material congestion.
- Reduced number of shutdowns, less production downtime due to blockages.