



CASE STUDY | MINING INDUSTRY

Precise level detection amid dust and rock

Radar sensors that provide reliable data
even in environments with limestone dust



Our customer:
Fels-Werke GmbH

Fels-Werke GmbH is a leading supplier of lime, limestone and mineral mixtures in Europe. The company extracts around 4 million tonnes of limestone every year at 11 different locations in Germany and the Czech Republic.

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The challenge:

Lime is an indispensable natural substance used, for example, in the production of steel, as a fertiliser or even in the extraction of sugar. Before lime can be spread on the field, it must be quarried and processed. First, the lumps of rock weighing several tonnes are broken down using crushers. The material is then sieved according to grain size.

A central process step is monitoring the level in the gyratory crusher. A defined limit value must not be exceeded in order to avoid overfilling, especially as the crusher is continuously fed via a conveyor belt. The harsh, dusty ambient conditions make reliable measurement difficult. Nevertheless, precise level monitoring is essential for smooth and safe operation.



The solution – why ifm?

The R1D100 radar sensor from ifm provides reliable level monitoring in this demanding, dusty environment. Thanks to its large angle of aperture, it precisely detects the crushing chamber and thus plays a key role in preventing overfilling.



Results:

- Higher system availability
- Precise and reliable level monitoring
- Low-maintenance solution compared to photoelectric systems



Higher system availability



Reliable level monitoring



Low-maintenance



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