

Metals Manufacturer Increases Facility Availability with High Performance Guided Wave Radar

RESULTS

- Increased facility availability
- Reduced operations and maintenance costs
- Lowered safety risks and reduced cleanup costs

APPLICATION

Alumina Powder Storage Silo Level

Application Characteristic: Low dielectric, extreme dust conditions, 24 m (79-ft.) silo height

CUSTOMER

Aluminum manufacturer in China

CHALLENGE

This manufacturer of aluminum metal in China had trouble managing the alumina levels inside its silo storage units. Alumina is the feedstock of the facility and storage levels are important for the operation and efficiency of the facility.

The customer was previously using non-contacting radar for this application. Large silo height, alumina's low reflectivity, and extremely dusty conditions prevented the non-contacting radar from providing reliable level measurements.

Erroneous readings from the non-contacting radar device caused process interruptions from overflow, reducing availability of the facility. High operations and maintenance costs were also incurred because personnel had to make frequent visits to the silo units to ensure adequate levels of alumina. The unreliable level measurement also increased safety, health, and environment risks and led to cleanup caused from silo overfills.

SOLUTION

The Rosemount 5303 Guided Wave Radar with a single flexible probe was installed for this customer. Guided Wave Radar technology handled the high dust environment.

The Direct Switch Technology of the 5303 provides more signal over the long range to the surface than standard Guided Wave Radar units. In addition, the 5303 Probe End Projection is paired with Direct Switch Technology to ensure a reliable signal.



The high performance Rosemount 5303 decreased the number of process interruptions, and ultimately increased the availability of the facility.



This newly installed Rosemount 5300 eliminated future overflow

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Best core technology built in the high performance Rosemount 5300 provided this customer a reliable level measurement for their alumina silos. This solution decreased the number of process interruptions and ultimately increased the availability of the facility. Personnel no longer had to perform routine checks on the silo resulting in reduced operations and maintenance costs. Safety, health, and environmental risks were lowered, as well as cleanup costs associated with silo overfill.

RESOURCES

Rosemount 5300

<http://www.emersonprocess.com/rosemount/products/level/m5300.html>

Rosemount 5300 Product Data Sheet

<http://www.emersonprocess.com/rosemount/document/pds/00813-0100-4530.pdf>

Rosemount 5300 Technical Note

<http://www.emersonprocess.com/rosemount/document/notes/00840-2300-4811.pdf>



The Rosemount 5300 Guided Wave Radar with a Single Flexible Probe

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