

# Anhui Changjiang Automates Level Measurement in Dusty, Humid Conditions

## RESULTS

- Stable, reliable level measurement achieved despite challenging conditions
- Safety risks eliminated
- Measurement unaffected by dusty conditions
- Stock optimized due to fewer halts to production



## APPLICATION

Level measurement of coke and iron ore pellets in seven-meter silos in a steel plant.

## CUSTOMER

Anhui Changjiang Iron and Steel Co. Ltd

## CHALLENGE

Anhui Changjiang has three production lines in their steel production plant, each containing 17 silos. They required level measurement of raw materials in the silos. The application was very challenging due to the extremely dusty and humid environment during filling. Steam also created problems.

The measurement device used was a non-contacting pulsed radar, but the environment caused fluctuations in the readings and at times the pulse echo could not be detected. These measurement errors were sporadic so the device could not be relied on. This also meant an increased level of operator involvement was required.

## SOLUTION

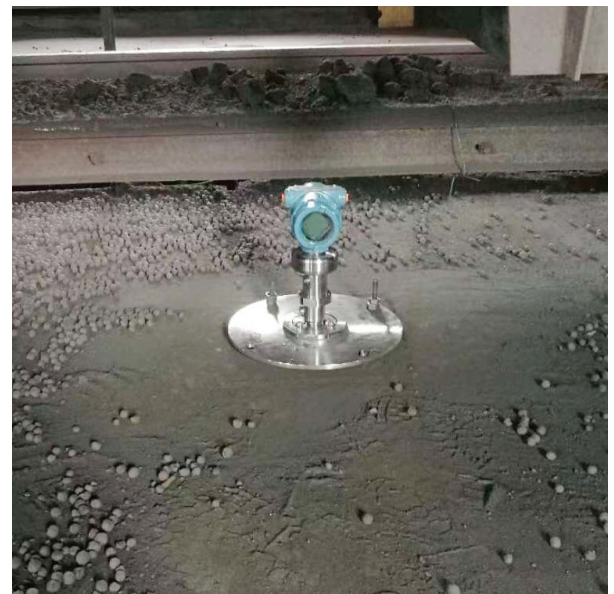
The customer installed a Rosemount™ 5408 Non-Contacting Radar Level Transmitter with a parabolic antenna. The Rosemount 5408 has higher signal processing capability than the original installed device and provided stable and reliable measurement.

The high sensitivity provided by the Rosemount 5408 meant that it was able to measure the weaker reflections from the uneven, inclining surface, and the dedicated software algorithm was able to merge the various echoes and provide a reliable measurement. The parabolic antenna with air-purging adapter built in to the antenna kept the device clean and prevented dust coating, so there was very little maintenance needed.

The customer was able to fully automate the process of raw material conveying and storage by installing the Rosemount 5408. They were so pleased with the result that they have installed Rosemount 5408 across all the silos with a total of 51 units installed.

*“With the installation of the Rosemount 5408 radars our process is fully automated, and manual measurements are eliminated.”*

**Mr. Gan Wu**  
E&I Supervisor



*Rosemount 5408 with parabolic antenna installed on the silo*

## RESOURCES

### Rosemount 5408 Non-Contacting Radar Level Transmitter

[Emerson.com/Rosemount5408](https://emerson.com/Rosemount5408)




### Emerson Automation Solutions Industries

[Emerson.com/en-us/industries/automation/mining-minerals-metals](https://emerson.com/en-us/industries/automation/mining-minerals-metals)




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