



ROSEMOUNT™ 5408 PREVENTS TANK OVERFLOW AND PUMPS RUNNING DRY

Customer

A food and beverage manufacturer in Australia.

Application

Level measurement in a three-meter high stainless steel mixing tank containing starch slurry.

Challenge

The customer required reliable level measurement in a three-meter mixing tank containing starch slurry. The tank contained agitators and there was turbulence in the vessel which added to the challenge.

The customer tried using various pulsed radar transmitters but none of the devices they tried were able to provide an accurate measurement. The radars were unable to track the quickly fluctuating levels and also experienced problems with signal blocking due to high concentration of condensation. The mixing blades also made it difficult for the radars to detect the true surface. These issues resulted in the tank overflowing or unnecessary high-level alarms. Another problem arose when the radars showed a level higher than it really was putting the pumps in danger of running dry.

Solution

The customer installed a Rosemount 5408 Frequency Modulated Continuous Wave (FMCW) non-contacting radar transmitter. After installing the Rosemount 5408, the level measurement proved to be very reliable and robust. Regardless of the quickly fluctuating level or turbulence created by the agitator blades in the vessels, the Rosemount 5408 was able to continuously track the correct level, even when a high concentration of condensation was present.

Since the installation of the Rosemount 5408 radar there has been no need for maintenance. The absence of downtime on pump maintenance and clean-ups has also increased the output considerably.

Results

- Downtime reduced
- Less maintenance needed
- Increased output
- Reliable measurement despite the challenging conditions



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Resources

Emerson Food & Beverage Industry
[Emerson.com/RosemountFoodAndBeverage](https://emerson.com/RosemountFoodAndBeverage)

Rosemount 5408 Non-Contacting Radar Level Transmitter
[Emerson.com/Rosemount5408](https://emerson.com/Rosemount5408)

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The Rosemount 5408 handled turbulence, condensation and agitators and provided a reliable, stable level measurement.

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For more information, visit
[Emerson.com/Food-Beverage](https://emerson.com/Food-Beverage)

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