

Bitumen Manufacturer Avoids Overflowing and Achieves Accurate Level Measurement on a Fast-Filling Exterior Tank

Results

- Accurate continuous level measurement of foam on an outside tank
- Quick response and reliable level measurement on fast-filling tanks
- Compact, simple to install and easy to configure radar technology



Application

Level measurement in exterior tanks for bitumen emulsion.

Customer

Engineering company that sells to end user (France).

Challenge

The end user, a bitumen manufacturer, was experiencing problems with their outside tanks. The bitumen emulsion is a dispersion of bitumen acid in water and, when it is manufactured, it creates a large amount of foam due to the chemical process and the injection of emulsion in the tank. The presence of foam can become a problem at the manufacturing plant if the bitumen emulsion tanks are located outside, since the foam can overflow and the wind can disperse the bitumen around the facility. When cooled down, the bitumen creates a solid and strong film that can damage the tanks and objects located at the facility, but also pose a safety issue.

The challenge that the customer faced was the need to measure the level of foam accurately to avoid overflowing. They needed a solution to monitor fast-filling tanks in a quick and stable manner, so that they could prevent the overflow of foam. Additionally, the company needed a compact solution that could fit their existing tanks, as well as ensuring that the measurement instrumentation was easy to install and configure.

Solution

The customer tested the Rosemount™ 1408A Level and Flow Transmitter on their bitumen emulsion tanks and decided to acquire it after seeing the quick and stable response that it delivered, which was superior to other similar radars and a cost-effective solution.

“The Rosemount 1408A Flow and Level Transmitter was quicker and more stable than any other similar radar.”

**Production Manager
Bitumen Manufacturer**



Rosemount 1408A Level and Flow Transmitter with 1" BSPP (G) process connection.

REFINING

With the Rosemount 1408A level and flow transmitter, the customer has been able to achieve robust and accurate measurements in their bitumen tanks, which helped them to gain insight into their processes, avoid overflows and ensure safe operations within their facilities. The transmitter excelled at detecting the foam of the bitumen emulsion and prevented overflows thanks to its innovative technology and the absence of dead zone, which allowed it to deliver accurate measurements up to the top of the tank.

Besides, the Rosemount 1408A ensures a quick response and reliable level measurements, even in fast-filling tanks. The transmitter uses Fast Sweep Technology, which provides a continuous echo against the material surface, allowing it to collect up to 40 times more information compared to legacy devices. This makes it the fastest level measurement technology available, delivering reliable measurements that enable users to monitor their processes closely.

Additionally, the compactness of the transmitters allowed the customer to install it in places where there was limited space and on various locations thanks to the 1" BSPP (G) process connection. With smart algorithms, the Rosemount 1408A is also simple to install and configure, which eliminates the need for advanced configuration. One only needs to mount the adapter, connect the M12 cable and set the range for the transmitter.

Resources

Emerson Automation Solutions Industries

[Emerson.com/Refining](https://www.emerson.com/Refining)

Rosemount 1408A Level and Flow Transmitter

[Emerson.com/Rosemount1408A](https://www.emerson.com/Rosemount1408A)

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“We were looking for a compact, easy to install and simple to configure device, and we found all of these in the Rosemount 1408A.”

**Engineer & Designer
Tank Manufacturer**

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