

# Galloway Company Saves Up To \$10k/Month by Accurately Measuring Wastewater with the Rosemount 1408A

## Results

- Significant reduction of sewer and maintenance costs within the plant
- To date, 2 years of trouble and maintenance-free operations
- Accurate and reliable level and flow measurement despite the presence of steam and other environmental conditions



## Application

Parshall flume in a sewer pit

## Customer

Galloway Company, Neenah, WI

## Challenge

The customer had been struggling to obtain accurate measurements of wastewater to ensure compliance with municipal regulations. Inaccurate measurement data meant that the city of Neenah would bill Galloway Company the maximum amount for that month. The customer had been using several other level technologies, such as ultrasonic and pulse radar and originally a bubble tube. Unfortunately, these level instrument technologies either failed because of the environmental conditions or did not measure accurately.

An investigation revealed that the cause of the problem was the environment. In Wisconsin, during fall and spring, the temperature changes significantly and it gets colder or warmer quickly, causing the wastewater to steam. When this happened, condensation got on the antenna of the ultrasonic or pulse radar, which would deteriorate the devices' housing and provide highly erratic and inaccurate level readings. That meant that when failures or inaccurate readings occurred, it would cost Galloway Company extra money in sewer costs, negatively impacting the business. Besides, their previous level instruments would only last for up to 6 months, and the maintenance team would have to get a confined space permit to change out the level instrument.

## Solution

The problem was solved by using a Rosemount™ 1408A Non-Contacting Radar Level and Flow Transmitter. The company chose this level sensor for several reasons: first, the 80 GHz frequency modulated continuous wave technology (FMCW), which generates a narrow-focused beam that is not affected by process conditions. Thus, delivering more accurate and reliable measurements than other technologies, such as ultrasonic level transmitters.

***“Now that we have proven this technology after over 2 years without a failure, we can replace the level ultrasonic transmitter backup unit that fails within less than 1 year, with another 1408A.”***

**Perry VanBoxel**  
Maintenance Manager,  
Galloway Company



*The Rosemount 1408A is installed in a parshall flume, next to old legacy devices.*

## FOOD & BEVERAGE

Second, the transmitter features a stainless-steel housing with minimal crevices and a drip-off seal design that is insensitive to condensation and, thus, doesn't require maintenance tasks. And third, its compact size, which enables installation in applications with space constraints.

With the Rosemount 1408A, Galloway sees a cost savings of up to \$10K per month, as they are now obtaining reliable level measurements of their parshall flume applications and can create accurate reports for municipal authorities. This also made it possible for Galloway to look at ways inside the plant to reduce sewer costs and understand the data behind the cost savings.

### Resources

Emerson Automation Solutions Industries  
[Emerson.com/FoodandBeverage](https://www.emerson.com/FoodandBeverage)

Rosemount 1408A Non-Contacting Level  
and Flow Transmitter  
[Emerson.com/Rosemount1408A](https://www.emerson.com/Rosemount1408A)

***"We needed an accurate and dependable way to measure the effluent flow leaving our plant. Any miscalculations ultimately lead to a higher cost we pay to the sewage department. Also, it is not a pleasurable event to enter this pit to do repairs, thus reinforcing the importance of a reliable instrument. Even though we had several trials and errors in our attempt to find the right form of instrumentation, the representatives at Rosemount did not give up until we finally solved our problem with the 1408A radar unit."***

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