

HYGIENIC LEVEL SWITCH PREVENTS TANK OVERSPILL IN YOGURT PRODUCTION APPLICATION

Customer

Yogurt producer in Europe

Application

Tank filling overspill detection in yogurt production

Challenge

In the packaging line for consumer-size yogurt containers, overfill of these small containers occasionally occurs. The excess yogurt is collected in a small funnel-shaped tank for reuse. These tanks hold about 13 gallons (50 liters) of material. The collection process is carried out automatically in a clean environment.

The level challenge is to detect the presence of yogurt in the tank and to know when the tank is full in these very small vessels with limited capacity. Hygiene is of paramount importance in any dairy process. The tanks are cleaned by flushing and hand washing at least once per day and the instruments must be able to withstand this process.

Results

- Reliable level and filling control
- Withstands Clean-in-Place procedures to increase operational efficiency
- Provides sensitivity to distinguish liquids from foam



Image 1. Rosemount 2110 hygienic level switches mounted in the overspill tank.

HYGIENIC LEVEL SWITCH PREVENTS TANK OVERSPILL IN YOGURT PRODUCTION APPLICATION

Solution

Two Rosemount™ 2110 Vibrating Fork Level Switches are used in each tank for reliable low and high level detection. The Rosemount 2110 is available with tri-clamp connections for easy installation.

Highly polished forks with a surface finish (Ra) better than 0.8 µm allow the Rosemount 2110 to meet the principle design criteria of the most stringent hygienic requirements.

The hygienic switch is designed to withstand the cleaning processes of the dairy industry. Manufactured in stainless steel, it is capable of withstanding steam cleaning (CIP) routines at temperatures up to 302 °F (150 °C). The sensitivity of the Rosemount 2110 allows it to measure viscous liquids, and liquids with high solid content while ignoring low/medium density foams and aeration.

Resources

Rosemount 2110 Vibrating Fork Level Switch
[Emerson.com/RosemountLevelSwitch2110](https://www.emerson.com/RosemountLevelSwitch2110)

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

“

The hygienic Rosemount 2110 was able to withstand the harsh cleaning processes of the dairy industry.

”



Image 2. Rosemount 2110 hygienic level switches mounted in the overflow tank.

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

The Emerson logo is a trademark and service mark of Emerson Electric Co.
Brand logotype are registered trademarks of one of the Emerson family of companies.
All other marks are the property of their respective owners.
©2023 Emerson Electric Co. All rights reserved.

00830-1200-4029 Rev AB