



BOOTLEG BROTHERS BREW HOUSE IN BANGKOK ACHIEVES ACCURATE LEVEL MEASUREMENT AND ENSURES CONSISTENT BEER TASTE

Customer

Bootleg Brothers Brew House (Bangkok, Thailand).

Application

Level measurement in fermentation tanks for beer.

Challenge

Bootleg Brothers Brew House is a fast-growing beer business that appeals to the general public because it serves good tasting beer. The good taste is in part due to its complete production elements from cooling, fermenting and cool crashing.

The accurate measurement of the beer in the fermentation tanks was a key requirement for this brewery, especially since the ingredients are delicate and the fermentation runs on a tight schedule. The business also needed to consistently produce a fresh tasting and quality beer to serve their customers.

The challenge that the customer faced, apart from taste consistency, was the need to closely monitor the beer consumption, which is reported to the government for tax collection purposes. The previous solution consisted of measuring the volume using a measuring jug, a cumbersome and manual task that required the assignment of operators and multiple measurements to calculate the actual volume. Additionally, the company needed to ensure that the measurement instrumentation looked congruously with the tanks' overall appearance.

Solution

The customer removed their existing manual and inaccurate measuring jug and replaced it with the Rosemount™ 1408H Non-Contacting Level Transmitter on their fermentation tanks, using a logic control unit (PLC).

Results

- Maximized production capabilities and taste consistency
- Accurate and reliable continuous level measurement achieved despite foam and bubbling conditions
- Measurement unaffected by acid and alkaline cleaning processes



Image 1. Rosemount 1408H Level Transmitter with hygienic adapter.

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The PLC has a strapping table that can convert level measurement values into volume values (liters), and both level and volume measurements are monitored through a webpage that registers parameters in tables with time stamp and graph trend. Registered parameters can be accessed from a PC browser or a mobile phone.

With the Rosemount 1408H level transmitter, the customer has been able to achieve ± 2 mm level measurement accuracy, which has helped them to gain insight into their processes, avoid overfilling and ensure a consistent beer taste. Besides, obtaining accurate and reliable measurements has eased the reporting tasks for the customer, who needs to monitor tank volumes closely and report them to the government. After calibration and matching with strapping table, the level transmitters provided 1-3% additional volume when compared with the standard volumes calculated before installation of the 1408H radars, thereby maximizing production capacity at the brewery.

The level transmitters also helped to increase tank utilization at the brew house by delivering reliable level measurement up to the top of the tanks, which had a full capacity of 400 liters. The Rosemount 1408H performance was unaffected by process conditions such as foam or bubbling, and its sensor with unique CIP algorithm proved to detect and withstand acid and alkaline cleaning processes. Thus, the level transmitters provided robust level measurement during cleaning procedures without delivering erratic or false alerts.

Additionally, the polished stainless-steel housing from the Rosemount 1408H helped the customer to keep a congruous appearance of their tanks, and the 3-way CIP fitting mounted made the commissioning easy and simple.

Resources

Rosemount 1408H Level Transmitter
[Emerson.com/Rosemount1408H](https://emerson.com/Rosemount1408H)

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

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

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The non-contacting radar technology has helped us to solve our business needs and challenges.

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The smart, robust and good-looking Rosemount 1408H radar transmitter is perfect for our brewing environment.

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*Chief Brewer
 Bootleg Brothers Brew House*



Image 2. The Rosemount 1408H Level Transmitter was connected to a logic control unit (PLC).


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