FOOD & BEVERAGE ROSEMOUNT 5408

High Coast Whisky Distillery Automates Fermentation Process with Rosemount 5408

RFSUITS

- Operator errors eliminated
- Reliable switching at 50 percent levels achieved
- Measurement unaffected by foam and turbulence



APPLICATION

Level measurement of wash in a four-meter fermentation tank

CUSTOMER

High Coast Distillery, Sweden

CHALLENGE

High Coast Distillery is a malt whisky distillery in the north of Sweden. The company began distilling in 2010 and now has a capacity of 350,000 liters annually.

The whisky is produced in seven fermentation tanks that are filled with wort (the liquid extracted from the mashing process during the brewing of whisky) from the top of the tanks. There are agitators in the tanks, which have flat blades that are used to cut down the foam during fermentation. When filling the tank, the switch blade is moved under the inlet to maximize the oxidization of the product. However, this creates splashing that can interfere with the level measurement. The purpose of the switch is to prevent foam from overfilling the tank.

When the 50 percent level is reached it is important that the system switches to another pot still, since the pot still only has room for about half the fermentation tank volume.

The fermentation tank levels were previously managed manually. The operator visually verified the 50 percent level and switched the tanks at this point. This required the operator to focus on the emptying operation, during which time he/she was unable to work on other tasks. The procedure was also prone to operator error, and was not cost efficient. Importantly, if the operator missed the 50 percent level there was the possibility of overfill.

To make the process more efficient, the customer wanted to automate the process using a level instrument that could handle the challenging process including heavy turbulence, splashes, condensation, and thick foam layers.

"The process is now automated and our operators do not need to waste time overseeing the filling process"

Roger Melander Distillery Manager



Rosemount 5408 installed on the fermentation tank



SOLUTION

High Coast Distillery installed a Rosemount™ 5408 Non-Contacting Radar Level Transmitter. Despite the agitator blades blocking part of the signal, reliable measurement was achieved. Combined with a DeltaV™ system, the filling and emptying of the tank is now fully automated.

RESOURCES

Rosemount 5408 Non-Contacting Radar Level Transmitter Emerson.com/Rosemount5408

Emerson Automation Solutions Industries

Emerson.com/Food&Beverage

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Google.com/+RosemountMeasurement

Global Headquarters Emerson Automation Solutions

6021 Innovation Blvd Shakopee, MN 55379 USA

+1 800 999 9307 or +1 952 906 8888+1 952 949 7001

RFQ.RMD-RCC@Emerson.com

Europe Regional Office Emerson Automation Solutions Europe GmbH

Neuhofstrasse 19a P.O. Box 1046, CH 6340 Baar, Switzerland

+41 (0) 41 768 6111

(a) +41 (b) 41 768 6300

RFQ.RMD-RCC@Emerson.com

Middle East & Africa Regional Office Emerson Automation Solutions

Emerson FZE P.O. Box 17033 Jebel Ali Free Zone - South 2 Dubai, United Arab Emirates

+971 4 811 8100

+971 4 886 5465

RFQ.RMDMEA@Emerson.com

Asia Pacific Regional Office Emerson Asia Pacific Private Limited

1 Pandan Crescent Singapore 128461

+65 6777 8211

+65 6777 0947

Enquiries@AP.Emerson.com

00830-0700-4408 Rev AA

