New Dairy Processing Plant Maximizes Capacity of Raw Milk Receiving with Magmeter Technology

RESULTS

- Increased receiving throughput capacity by up to 70%
- Reduced capital cost
- Reduced maintenance cost

High accuracy, high capacity Rosemount sanitary flowmeters with Smart Meter verification maximizes receiving capacity.

APPLICATION

Measurement of milk volume received

CUSTOMER

Dairy processing plant in North America

CHALLENGE

This dairy plant has planned expansion capacity that would require high raw milk receiving capability. The goal for the new receiving bays was to be able to unload raw milk delivery trucks as quickly and accurately as possible.

Their experience in raw milk receiving installations at other processing sites consisted of using truck scales or small receiving flow meters to measure incoming raw milk. Truck scales are expensive, prohibiting dedicated scales at each bay while using a single scale to provide a gross and tare for each truck would add significant time to each unload time. The 2-in. and 3-in. magnetic flowmeters used in recent projects didn't have enough capacity for the unload rates desired and extended the unload time. Additionally, uncertainty of accuracy over time would require pulling the meters to confirm performance.

These problems limited the receiving capacity of each bay and the incoming supply of raw milk. To achieve the desired unload capacity, more bays and truck scales would be needed, which would drive up capital costs. In addition, pulling the meters for maintenance further affected milk receiving operations.

Rosemount 8721 Hygienic Magmeter Sensor

ROSEMOUNT®

For more information:
www.rosemount.com

EMERSON™
Process Management

© 2013 Rosemount Inc. All rights reserved

SOLUTION

The design for the new bays included using high accuracy Rosemount 8721 Magnetic Flowmeters to measure the raw milk as it was unloaded from each truck. The large 4-in. flowmeter has over 70% more capacity than a 3-in. flowmeter and optional 0.15% accuracy ensures accurate accounting of incoming milk. The sanitary design is completely cleanable and drainable, reducing chances of contamination, and does not create foaming or add product shearing, which can impact quality. The Smart Meter™ in-situ meter verification can confirm flowmeter accuracy with no disruption to the unloading process and without additional tools or equipment.

The Rosemount 8721 magnetic flowmeter provided a higher unloading rate, increasing the receiving capacity of the plant. This also reduces capital cost as additional receiving bays were not needed. And finally, disruption of the unloading process to check accuracy of flowmeters was eliminated, reducing operation downtime and maintenance cost.

RESOURCES

Emerson Process Management Food & Beverage Industry

http://www2.emersonprocess.com/en-us/plantweb/customerproven/pages/FoodBeverage.aspx

Rosemount 8721 Hygienic Sensor

http://www2.emersonprocess.com/en-US/brands/rosemount/Flow/Magnetic-Flowmeters/8721-Hygienic-Sensor/Pages/index.aspx

The contents of this publication are presented for information purposes only, and while effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, expressed or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which can be found at www.rosemount.com/terms_of_sale. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

The Emerson logo is a trade mark and service mark of Emerson Electric Co.
Rosemount and the Rosemount logotype are registered trademarks of Rosemount Inc.
PlantWeb is a registered trademark of one of the Emerson Process Management group of companies.
All other marks are the property of their respective owners.

Emerson Process Management
Rosemount Inc.
8200 Market Boulevard
Chanhassen, MN 55317 USA
www.rosemount.com
Tel (USA) 800 522 6277
Tel (International) +1 (303) 527 5200
Fax +1 (303) 530 8459

Emerson Process Management
Blegistrasse 23
P.O. Box 1046
CH 6341 Baar
Switzerland
Tel +41 (0) 41 768 6111
Fax +41 (0) 41 768 6300

Emerson FZE
P.O. Box 17033
Jebel Ali Free Zone
Dubai UAE
Tel +971 4 811 8100
Fax +971 4 886 5465

Emerson Process Management Asia Pacific Private Limited
1 Pandan Crescent
Singapore 128461
T (65) 6777 8211
F (65) 6777 0947
Enquiries@AP.EmersonProcess.com

Emerson Process Management Latin America
Multipark Office Center
Multipark Office Center
Turrubares Building, 3rd & 4th floor
Guachipelin de Escazu, Costa Rica
T+(506) 2505-6962
international.mmicam@emersonprocess.com

ROSEMOUNT®

For more information:
www.rosemount.com

EMERSON™
Process Management

00830-0100-4901, Rev AB