



SIEMENS

PROCESS INSTRUMENTATION

Food processing company **improves** **product quality and consistency**

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Challenge

A large food processing company mixes differently sized portions of vegetables, meats, and liquids together in large vats in order to make batches of stew. The company requires accurate flow measurement of the ingredients going into the vats to maintain the quality and consistency of the end product.

Previously, the customer had relied on older mechanical flowmeters to measure the flow rates of the ingredients. Their mechanical instruments required periodic maintenance and recalibration, which was costly and time-consuming. Even worse, these meters often provided inaccurate measurements, resulting in an end product that was inconsistent in taste, texture and appearance.

The case at a glance

Region: USA

Industry: Food & beverage

Customer: Food processing company

Challenge: Accurately measure flow of stew ingredients into mixing vats to ensure consistent quality of end product

Product: SITRANS F M MAG 1100 F

Main benefits:

- High accuracy of +/- 0.2 % of flow rate
- Performance unaffected by harsh process conditions
- Virtually no maintenance required
- Straightforward installation



Solution

The company contacted their local Siemens representative and asked for advice in overcoming these major inaccuracy issues. The representative suggested that the customer install a SITRANS F M MAG 1100 F electromagnetic flowmeter with PFA lining to measure the flow of the ingredients into the mixing vats. With a stated accuracy of +/- 0.2 % of flow rate, the MAG 1100 F would help to provide higher-quality and much more consistent stew.

Although the electromagnetic meters have a higher initial cost than the older mechanical instruments, the significant decrease in lost product has made the MAG 1100 F flowmeter a much better value over time. Cost savings have also stemmed from the lack of maintenance requirements and reduced process downtime, along with quick and easy startup. Additionally, the obstruction-free performance is unaffected by the suspended solids, changing viscosities and fluctuating temperatures that characterize the ingredient transfer process.

Product Benefits

- AISI 316 stainless steel enclosure
- Conforms to 3A, and FDA standards
- Suitable for CIP and SIP cleaning
- IP67 / NEMA 4X rating, optional IP68 / NEMA 6P for remote sensor
- Multiple liner options
- Delivered with your specified connection; with a hygienic metal-to-metal design, the process grounding connection is automatic
- Direct access to covered keypad and display

About the SITRANS F M MAG 1100 F

The SITRANS F M MAG 1100 F electromagnetic sensor is ideal for use in the food & beverage and pharmaceutical industries. It is available with a variety of hygienic process connections and meets all sanitary requirements.

Designed to meet the challenges presented by the demanding applications within these industries, the MAG 1100 F is rugged enough to perform even where extreme temperature changes, humidity, condensation, hose-down and CIP cleaning are present.

With the unique and flexible adaptor concept, one flowmeter fits nearly every process connection. Adaptors are available for clamp connection, threaded connection or weld-in type connection for direct welding into the process piping.

To create a complete flowmeter, the SITRANS F M MAG 1100 F sensor should be paired with a SITRANS F M MAG 6000 transmitter.

Legal Manufacturer

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