



Source: Process alimentaire

APPLICATION REPORT Food & Beverage

Equipping a mixing facility for edible oil with measurement technology

- More accurate dosing of edible oils
- Traceability of product and energy consumption
- All instrumentation from one provider
- Technical support starting with project planning right through to after-sales care



1. Background

Lesieur is a French food company founded in 1908. It is now a major player in the production and marketing of edible oils and sauces. Lesieur is a subsidiary of Avril, a financial and industrial business in the oil and protein sector, and sells the products under the same brand name. The company has built a new packaging and bottling plant for vegetable oils (rapeseed and sunflower oil) at its Bassens location. This plant, in conjunction with the edible oil refinery of Saipol (another subsidiary of Avril) produces 100 million litres of edible oil per year, in 100 different grades.



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OPTIMASS 6400 dosing edible oil

2. Measurement requirements

In terms of technology, the goal was to increase the processing capacity of the 100 different types compared to the old facility. Production of the individual mixtures had to take place with maximum accuracy and taking into account the largest possible measuring range. The entire instrumentation had to comply with the standards of the food and beverage industry (EC1935/2004). The customer took on the project management from start to finish but the project planning, procurement and execution was shared by several different locations in France. Consequently, there were different expectations linked to the project.

When it came to technical project planning, the focus was on measuring technology, particularly measuring accuracy. In terms of purchasing, the main focus was on reducing the number of suppliers as well as costs. The production department placed particular importance on service and the user-friendliness of the instrumentation.

KROHNE

3. KROHNE solution

At first competitors bid on this project. KROHNE measurement technology had never been used in the old facility. The customer then learned of the simple and reasonably priced OPTISWITCH 6600 level switch. KROHNE was able to bring its knowledge of instrumentation to the project by providing the appropriate measuring devices for all of the necessary measurements in process and utility applications as well as relevant audits and training sessions.



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Mass flow measurement with OPTIMASS 1300 minimises product waste

177 measuring devices for pressure, temperature, level and flow were delivered for this facility. One of the project's focal points was the 15 Coriolis mass flowmeters for the three mixing stations into which the raw edible oil from the adjacent production facility was dosed. This allows the customer to provide greater variety of edible oils.

KROHNE was able to set itself apart from the competition when it came to the following points:

- Pre-sales services (design, consultation, project coordination) and customer service (installation verification, commissioning and training)
- As a full-service provider, KROHNE was able to provide all of the instrumentation for pressure, temperature, level and flow
- Good price/performance ratio

4. Customer benefits

According to the technical director at Lesieur, the company assessed suppliers based on the total cost of ownership, taking into account both the operating costs and purchasing costs. The customer was able to reach his objectives in terms of dosing accuracy for the edible oils, accurately tracking consumption in order to minimise waste and monitor process-related energy consumption. In addition, the customer took advantage of service and training sessions that allow him to independently check device performance.

5. Products used

OPTIMASS 6400

- Coriolis mass flowmeter for high accuracy mass flow and concentration measurement in dosing applications



OPTIMASS 1300

- Coriolis mass flowmeter with twin straight tube for universal applications



H250 M40

- Variable area flowmeter for liquids and gases



OPTISWITCH 6600

- Level switch for standard hygienic applications



OPTIBAR P 1010

- Pressure transmitter for simple pressure and level applications



OPTITEMP TRA-S11

- Temperature assembly with replaceable measuring insert



Contact

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Do you require technical advice for your application?
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