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### Results

The installation of a continuous and inline MIVI viscometer on each of the four yoghurts packaging lines at a French yoghurt manufacturer gave the following results:

<b>Yoghurt viscosity</b>	100 – 150 cP
<b>Whey pocket</b>	1 – 5 cP
<b>Diverted whey pockets</b>	100%
<b>Customer claims</b>	Divided by 10

### Benefits

Inline viscosity monitoring during yoghurt manufacturing is an easy way to follow the fermentation process and to detect consistency differences between whey pockets and normal yoghurt. It provides the following advantages:

- Improves process control
- Easily detects and diverts whey pockets from packaging lines
- Ensures consistent quality of end-product
- Ensures customer loyalty to the brand

### Return on Investment

A yoghurt process optimization due to the simple installation of MIVI inline viscometers on each packaging lines brings the following results to the manufacturing company:

- Decrease of customer claims
- Increase of customer loyalty
- Sales increase

These benefits are difficult to be numbered but it can easily be said that it solves a company's major issue with quality in a simple solution. Usually ROI is observed in the food and beverage industry in less than 6 months.

### Dairy industry users:

Gervais, Danone, Yeo, Bel, Sodiaal, Dairy Crest Foods, Waterford Co-op, Norske Meierier's, Générale Ultra Frais, Valio Ltd., 3A S.A., Emmi Fondue AG Suisse...

## Guide for identifying viscosity measurement needs

### Topics and Key Points

#### Are customer claims at a high level or have they increased?

The majority of customer claims stems from issues with the end product. If a packaged product is delivered to a store, customers return it and complain about quality, there are enormous consequences on sales, store loyalty, and brand reputation. Using an inline viscosity control during the manufacturing process assures a constant texture quality.

#### Is the product consistency optimal after culture?

Consistency – the end result – depends on how much time the product spends in the manufacturing line. Time- linked consistency variations can be eliminated by using a MIVI sensor and electronics, which give operators real-time process control.

#### Is the product's consistency stable and ideal before conditioning?

This will stabilize consistency during the conditioning, delivery and sales of the end-product.

#### How much maintenance is performed? What is the cost of each maintenance episode?

Frequent maintenance intervenes with production. Maintenance itself costs money, and production lapses generate loss.

#### Amongst the various suppliers, are there noticeable variations in the ingredients?

Even a minute difference in the ingredients must be detected and corrected and the MIVI is the ideal tool that provides such control.

#### Is density control used exclusively to verify product consistency?

Many fluids present similar densities so density as the sole parameter is not reliable. Viscosity control is the most reliable due to the great differences in products' viscosities.

#### How many dairy ingredients are wasted in the cleaning process?

Consider how many cleaning processes take place within the pipes and the amount of dairy products rejected during each cleaning phase. Take into account how much the product costs and then how much is wasted. The installation of a MIVI viscometer can differentiate dairy products from cleaning solutions for the recycling cycle and save incredible amounts of money.

### Sofraser recommended solution

<b>MIVI 9510 with sanitary design</b>	Possibility to set up relays and alarms Can be combined with external controller
<b>MIVI 9100 with sanitary design</b>	Low price positioning Can be combined with external controller

Contact Sofraser for detailed sensor configuration

### Competitors in this area:

Worldwide:

- Vionec Technologies / Krohne
- Other technologies: consistency (off line)

### This system is also efficient in:

- additional dairy processes like cream and melted cheese
- food & beverage
- emulsion mixing processes
- cleaning

