Measuring the flow fluently for more profit.
Is everything flowing the way you want it to? Let us assume that you process several products at a single plant in your company. Be it milk or beer: above all, it is the quantity that counts. After each batch process, you rinse the pipeline with a cleaning agent. This mixes with your product – and causes litres of waste. Furthermore, costs are incurred for waste water treatment. A flowmeter that quickly detects the media changeover reduces waste and increases the efficiency of your plant. So that everything flows as it should.

A food or beverage manufacturer operates an efficient production plant. It needs to run at full capacity to process the wide range of products economically. The crucial point: the efficiency of the plant is below expectations as profit slips away with each media changeover.

Do you want to increase the efficiency of your plant? Read how easy this can be done in your plant on the following pages.
Flow measurement ——— Challenge

/Efficiency is key/ Regardless of whether you process milk, beer or lemonade: during normal operation, your plant should produce as efficiently as possible.

Compatible

Regardless of whether milk, beer or cleaning fluid: flow measurements demand flowmeters that are compatible with a range of liquids.

Medium

Conventional solutions

Electromagnetic flowmeters (EMF) can also be used to measure the flow of various liquids. However, if they should also detect the media changeover, they must be combined with additional sensors.

Coriolis flowmeters detect the media changeover, but are expensive to purchase and difficult to handle due to their size and weight.

Media changeover

The pipeline has to be rinsed after each batch process. During the media changeover, the cleaning agent contaminates the product rendering it worthless.

Waste water treatment

Tipping product “down the drain” causes additional costs for waste water treatment.

Efficiency is key

Regardless of whether you process milk, beer or lemonade: during normal operation, your plant should produce as efficiently as possible.
Flow measurement with SAW technology / Hygiene is the top priority when producing food products and beverages. FLOWave provides you with a compact solution that meets strict hygienic requirements. Thanks to innovative SAW technology, the flowmeter dispenses with sensor elements in the measuring tube. No parts in the measuring tube means: no leaks, no material incompatibility, no maintenance, no pressure drop and easy cleaning.

Surface acoustic waves (SAW) occur in nature, e.g. as a result of seismic activities. We have harnessed these effects in a patented technology for the inline flow measurement of liquids.
Compact and clever / FLOWave not only measures the flow rate, but also the temperature, density factor and acoustic transmission factor of your liquids. It therefore detects media changeovers quickly and precisely. This is a gain for your production plant: it works much more efficiently.
/ Wave goodbye to waste: Detecting media changeover, separating production steps / FLOWave continuously determines the density factor. This is a temperature compensated measured value. If it changes, FLOWave recognises that a different liquid is flowing. For example, when milk turns into water at the end of a batch process. This fast and precise measurement reduces waste and increases the efficiency of the plant. We illustrate it here using an example of water, milk and lemonade with varying sugar content:

Regardless of the temperature, FLOWave outputs a density factor of 1.000 for water. If milk is added, the density factor increases. The higher the density of a liquid, the higher the density factor.

In the second example, two types of lemonade with varying sugar content are distinguished from each other: the lemonade with more sugar has a density factor of 1.025. The density factor for the lemonade with slightly less sugar is 1.002. The higher the sugar content of a liquid, the higher the density factor.