Filtration Group Application Example – Food & Beverages

Filtration of ice cream and chocolate

Food & Beverages

Initial situation

Our customer is one of the largest and most modern plants for the production of shell ice cream, stick ice cream and wafer croissants. In the production and filling process of walnut ice cream a constant homogeneous quantity of walnut pieces is required. In the starting process, a certain amount of waste is produced until the concentration has reached the desired level. The offcuts cannot be used any further. In order to be able to reuse the ice cream mass and the walnut pieces, both products must be separated from each other so that they can be used again.

Solution statement

- Filtration Group has chosen for this application an automatic metal edge filter **type AF 4243** with a stainless steel edge tube and radial scraper cleaning. The filter housing is made of stainless steel and is equipped with a heating jacket
- The filter type used makes it possible to separate the solid walnut components from the liquid ice cream
- Mounting the filter on a mobile frame allows flexible, mobile use. Since the customer produces in batches, the filter can also be used for example for chocolate, which is added to the ice cream cones to avoid softening during consumption

Customer value

- FG Automatic metal edge filters help in the manufacturing process to get the best out of the raw materials while reducing product loss
- Increase of product efficiency
- Reduction of downtimes: FG Automatic metal edge filters keeps the production circuit cleand and removes particles that could block the dosing nozzles
- Reduction of cleaning costs

Challence

The industrial production of ice cream is carried out in closed systems to ensure a particularly high level of hygiene protection. The raw materials are balanced and premixed according to a recipe prescribed for the individual types and flavours. This produces the so-called premix. The homogenizer breaks down the premix under high pressure through a sieve into small, fine components. This allows the milk fat to be distributed evenly and the ice cream contains a smooth, creamy melt. The ice cream mass is then pasteurised. It is heated briefly to 75 °C and then cooled down to 4 °C to prevent undesirable microorganisms from surviving in the ice cream mix or from forming again afterwards. The ice cream must then mature in refrigerated containers to develop its full aroma. In the so-called freezer, the ice cream is finally given its final composition before it is then

Technical Data

- Product: ice cream / chocolate mass
- Retention rate: 200 µm alternatively 50 µm
- with frame
- with filter control

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