



Gentle product treatment enhances the integrity of processed food products

Reduce operating costs, increase efficiency and safeguard taste, texture, colour and aroma

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Want to ensure that the food products you produce appeal to consumers? Focus on selecting hygienic equipment for your food processing lines that provides gentle product treatment. Ensuring gentle product treatment helps safeguard the taste, texture, colour and aroma of food products, and thereby improves product quality and integrity.

Most food products require gentle handling during processing in order to achieve high product quality. Liquids must be heated and cooled, then mixed with raw materials and food additives, and sensitive food particles added for the final fusion of ingredients. All this must be done effectively without the use of excessive force, unwanted air or foaming, which can adversely affect the end product.

The challenge is to balance the demands of consumer preference and product integrity while handling materials in the most efficient, economical, and hygienic way during processing. To do so, it is vital to have partners you can trust to ensure gentle handling in your food processing lines.

Image 1. Alfa Laval FrontLine



Gentle treatment for heating highly viscous food products

Pre-heating and final heating of food products to required sterilization temperatures requires gentle product treatment to prevent product damage from burning or overprocessing. Versatile heat exchangers that handle the complex and demanding ingredients of a wide range of foods, including heat-sensitive and high-viscosity products, contribute to product integrity and higher productivity.

For efficient heat transfer that provides gentle product treatment, the Alfa Laval FrontLine range of gasketed plate heat exchangers is available (Image 1). These can be supplied with stainless steel frames and clip plates especially suited to challenging food-processing tasks. A unique herringbone plate pattern with optimized pressing depths and plate material provides gentle, uniform heat transfer of sensitive food products, including those with viscosities up to 5000 cPs, particles up to 5 mm in size or require pressures of up to 21 bar (290 psi).

The Alfa Laval FrontLine plates eliminate the need for food products to go through additional heating or cooling processes. This translates into savings because the cleaning cycles are less frequent and require less cleaning fluids to achieve hygienic conditions with no risk of contamination in order to process the next batch.

Enhancing gentle heat transfer is not the only upside to the Alfa Laval FrontLine range. There are the added benefits longer operating times, higher productivity and reduced costs.

Significant increases in mixing efficiency

Ingredient mixing of raw materials such as sugar, spices, thickeners and food particles such as fruit, vegetables, meat and fish also require gentle handling. To ensure product integrity, sizing of the agitators or mixers is critical. Right sizing contributes to proper circulation for thorough mixing within the tank as well as energy efficiency and low maintenance costs. The challenge is to design the agitators and mixers for optimal efficiency while minimizing the overall footprint.

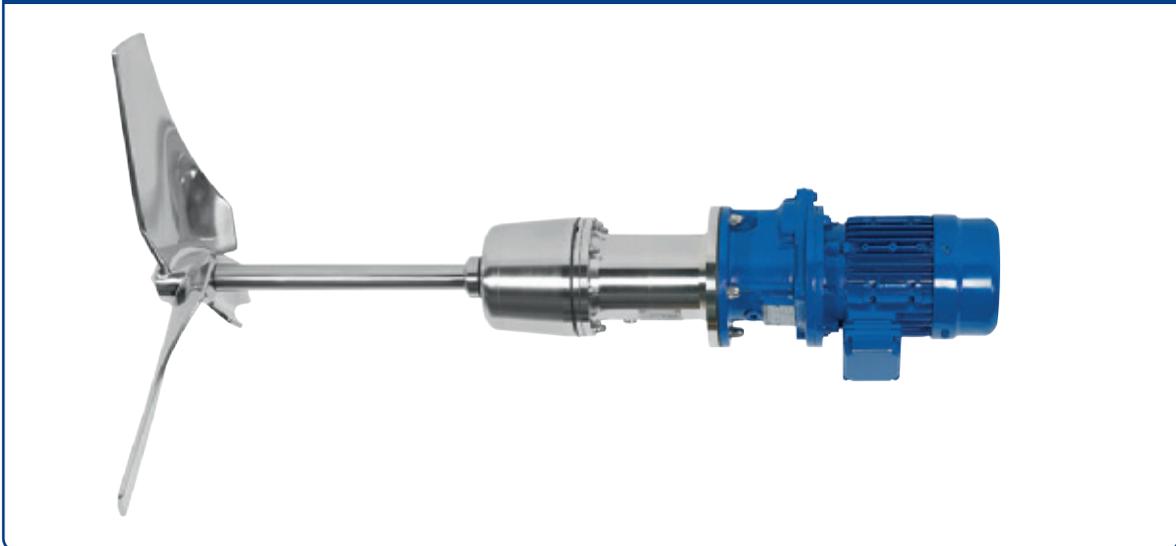
For effective and gentle mixing that is significantly more efficient than using agitators with standard pitch blade impellers, consider the energy-saving Alfa Laval ALS side-mounted agitators with the unique EnSaFoil impeller (Image 2). Its specially designed impeller blades uniformly blend food product within the tank across the entire length and width of the blade. This makes it possible

to reduce agitation speed further, thereby minimizing shear stress and preventing damage to sensitive food particles. Plus the hygienic design of the impeller makes it easy to clean, reduces the amount of heat absorbed by the food product, and cuts energy costs.

Using custom-designed Alfa Laval EnSaFoil agitators for highly efficient, low-shear mixing ensures that sensitive solids remain properly suspended in food products. So your process lines can produce more soups, sauces, desserts, baby food purées, fruit preparations and tomato preparations, safely, hygienically and more cost-effectively than comparable agitators.

What better way to help meet global food demand than to enhance your production lines with innovative technologies that promote gentle product handling?

Image 2. Alfa Laval EnSaFoil



To learn more, visit www.alfalaval.com/foodlogic

About Alfa Laval

Alfa Laval is a leading global provider of specialized products and engineered solutions that help customers heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuffs, starch and pharmaceuticals.

Alfa Laval's worldwide organization of 18,000 employees works closely with customers in 100 countries. Listed on the NASDAQ OMX Nordic Exchange, Alfa Laval posted annual sales of approximately 3.85 BEUR in 2014.

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How to contact Alfa Laval

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