

White paper

Alfa Laval EnSaFerm Agitator

# Alfa Laval EnSaFerm Agitator boosts dairy product quality and saves time and money

Dairy plants looking for new ways to reduce energy consumption, shorten fermentation time and improve product quality can look to the Alfa Laval EnSaFerm (Energy Saving Fermentation) Agitator as a welcome addition to cultured dairy processing lines. An easy-to-clean alternative to traditional frame agitators, the Alfa Laval EnSaFerm top-mounted agitator reduces energy consumption. Moreover, it ensures the highest standards of hygiene and maximum efficiency for dairy fermentation processes.





Alfa Laval EnSaFerm Agitator.

### Reduced energy consumption

Frame agitators require a large surface area and apply high shear to the product, which not only changes product texture but adds unwanted heat to the product that requires an equal amount of cooling energy to remove the excess heat. The Alfa Laval EnSaFerm Agitator, on the other hand, uses minimal surface area and reduces energy consumption.

### High mixing efficiency

Based on extensive fluid dynamic studies, the Alfa Laval EnSaFerm Agitator features the proven EnSaFoil impeller. By adding vertical blades, radial flow is created which ensures efficient exchange of product across the tank. This greatly improves coagulum breaking and heat transfer. The unique impeller shape ensures gentle product treatment and minimizes shear stress, which also substantially reduces power consumption.

The efficiency of the design has been validated through practical experience all over the world. In fact, there are cases where the Alfa Laval EnSaFerm Agitator reduces the process time by a factor 8 while maintaining gentle product treatment.

### Easier to clean

With its hygienic design, the Alfa Laval EnSaFerm Agitator cleans easily to meet virtually any requirement using a cleaning-in-place (CIP) system. The special design of the Alfa Laval EnSaFoil impeller ensures that no shadow areas are present in the tank and therefore contributes to optimal cleaning efficiency. Efficient cleaning not only saves time but water and energy.

Using a dynamic tank cleaning machine with a typical cleaning programme, the Alfa Laval EnSaFerm Agitator requires less time to clean than conventional frame agitators. As a result, the turnaround time between batches is shorter, which contributes to increased plant productivity.

### Tailored to specific fermentation requirements

Every Alfa Laval EnSaFerm Agitator is engineered to meet specific requirements of individual dairy plants, tanks and products, including sour cream, yogurt and kefir. To ensure

total peace of mind, Alfa Laval provides comprehensive documentation with each Alfa Laval EnSaFerm Agitator to meet today's strict dairy industry requirements.

All in all, this highly effective next-generation agitator is raising product quality, delivering significant energy savings and changing the sustainability profiles of dairies around the world.

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