

Case story

Global ice cream producer

Setting a new benchmark in agitator blade cleaning across global operations

Achieving efficient, all-around cleaning of agitator blades in storage and mixing tanks has long been a challenge in hygienic industries. In many cases, manual cleaning or additional cleaning devices inside the tank's production area are the only viable solutions, even though these methods may compromise hygienic standards and worker safety and may also involve extra cleaning time and media consumption.

This was the case at a leading, global ice cream producer until they discovered Alfa Laval PlusClean®. By delivering 100% cleaning coverage of the underside of the agitator blades and generating substantial savings in time, water and cleaning media, this innovative solution has now been successfully implemented across several production sites.





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Alireza Taghavi, Portfolio Manager, Tank Cleaning at Alfa Laval

Solving the manual cleaning challenge

Despite utilizing some of the market’s most efficient tank cleaning devices, a leading ice cream producer faced challenges to effectively clean the underside of the complex, multi-level agitators in their ageing and mixing tanks. To meet the required hygienic standards for food safety and product quality, the available solutions were either to rely on time-intensive manual cleaning after each production cycle or to install additional cleaning equipment submerged in the tank production area.

However, these solutions posed multiple issues:

- Incomplete coverage, increasing the risk of contamination
- Excessive consumption of water and cleaning agents
- Increased safety risks due to complex working conditions, e.g. in confined spaces
- Extended downtime, reducing overall production efficiency
- Increased risk of human errors that may compromise consistent cleaning standards

PlusClean delivered extraordinary cleaning performance

After careful evaluation of several alternatives, the producer decided to trial PlusClean from Alfa Laval. The Alfa Laval R&D team developed detailed cleaning coverage drawings, clearly demonstrating that the device could reach and clean every surface of the agitator blades.

With this documentation in place, two PlusClean units were installed in accordance with the precise installation guidelines provided by Alfa Laval. Real-world trials quickly confirmed what the drawings had promised: PlusClean delivered exceptional cleaning performance. Its high-pressure spray fan and multiple spraying patterns thoroughly reached even the most inaccessible areas, complementing the existing top-mounted cleaning device and effectively removing contamination risks in shadow zones.

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intervention. Following several successful trials, PlusClean was established as best practice and rolled out across all similar tanks in the customer’s facility. Its success has since set a new global standard, replacing manual and conventional cleaning processes across multiple sites,” said Alireza Taghavi, Portfolio Manager, Tank Cleaning at Alfa Laval.

Sustainability and efficiency combined

The ice cream producer was impressed not only by the exceptional performance and efficiency of the PlusClean device, but also its hygienic design. In addition to ensuring 100% blade cleaning coverage and boosting production uptime, PlusClean can potentially reduce water and cleaning media usage by up to 80% compared to traditional or manual cleaning methods such as ‘fill and dump’ or the use of additional cleaning devices.

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standards potentially increasing the shelf life of the products. The PlusClean solution is a win-win for all parties, enabling manufacturer to increase production efficiency and reduce costs,” said John Walker, Key Account Manager at Alfa Laval.

Fast adoption across industries

Though still relatively new to the market, Alfa Laval PlusClean has quickly built a strong reputation among leading brands across hygienic and ultra-hygienic food and pharma industries.

“With PlusClean, we offer the market’s first guarantee of 100% impact cleaning coverage. The rapid adoption by leading producers testify to the qualities of PlusClean, which not only shortens cleaning cycles significantly, but also consistently meets the highest standards of hygiene and product quality,” said Alireza Taghavi.

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Facts about Alfa Laval PlusClean

Alfa Laval PlusClean is a wall-mounted cleaning device specifically designed for cleaning of shadow areas in tanks, for instance underneath agitator blades. When activated during Cleaning in-Place (CIP), PlusClean efficiently cleans shadow areas with a high impact fan of cleaning media.

PlusClean can be installed in all tank types and for all applications requiring ultimate cleaning to meet the highest hygienic standards and ensure high product quality. PlusClean operates perfectly with all types of top-mounted cleaning devices such as static spray balls, rotary spray heads and rotary jet heads.

Main benefits:

- High product yield with 100% cleaning coverage
- Choice of different spray patterns for efficient and adaptable cleaning performance
- Low cleaning media consumption
- Can operate in media-driven mode with a CIP supply pressure as low as 2 bar
- Installed flush with the tank wall, suitable for both wall and bottom mounting
- Hygienic design
- Option for actuator and ThinkTop control unit



Alfa Laval PlusClean



Contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com