



Cleaning with impact

Rotary jet tank cleaning equipment from Alfa Laval



For us, downtime is a dirty word!

Let's clean it away! How much would you expand your production capacity if you could clean the inside of a tank to perfection in just a few minutes?

Welcome to the amazing world of high-impact tank cleaning with rotary jet equipment from Alfa Laval. Getting your tank clean no longer takes days, or even hours. The job is done in minutes and you can rely on the same result every time.

It's more than just shorter cleaning cycles. You avoid contamination and reduce the risk of producing second grade or reject batches. What's more, consumption of cleaning fluids, water and energy is dramatically reduced.

Think of the impact on your bottom line.

DOWN
TIME

Cleaning with impact from Alfa Laval



From days to minutes

Where time is money – downtime is a nightmare

Cleaning a tank manually can take days and involve high labour costs. Even cleaning using static spray balls takes hours. Large amounts of water, detergents and energy are consumed and large volumes of waste are produced. Worst of all, the cleaning process involves extended periods of downtime that reduce the overall output of your plant.

Cleaned to perfection in just a few minutes

Install Alfa Laval rotary cleaning equipment. You won't believe how fast it is or how clean your tanks are afterwards. It takes only minutes! Automatic high-impact cleaning immediately after each batch, cleans your tanks rapidly and efficiently, giving the same impressive result every time.

Continuous operation

Short cycles speed up your cleaning process and give you more efficient tank utilisation. Once you have experienced continuous operation with virtually no downtime, you'll wonder why you didn't install rotary cleaning equipment years ago. Your throughput increases and you expand the production capacity of your plant.

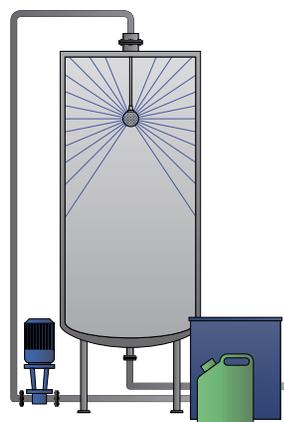
Improved product quality

Whatever your product, cleaning your tanks with rotary equipment from Alfa Laval makes a valuable contribution to quality. Contamination is avoided, so the risk of producing second grade or reject batches is minimal.



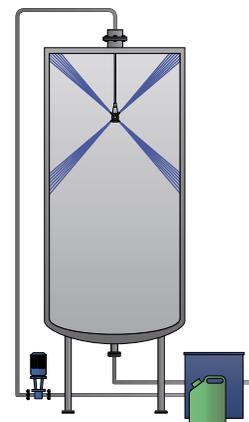
1 week

Many industries still clean tanks manually, involving large amounts of manpower and fluids, with production stops of days or even up to a week.



1 day

Others perform "semi-manual" cleaning using static spray balls. This method can take hours, even up to one day.



minutes

A full CIP pattern using high-impact rotary jet equipment from Alfa Laval is highly efficient and takes just a few minutes.

Low total cost of ownership

High-impact cleaning, with its short cleaning cycles, reduces consumption of water, detergents and chemicals by up to 75%. Recycled, filtered cleaning fluid can be used to clean more tanks. Cleaning with rotary equipment also requires less energy and fewer personnel.

Project costs are lower as well. CIP pumps can be smaller, fewer valves are needed and the amount of pipework is reduced. Combined with the low maintenance requirements and long working life-time of the rotary equipment, it adds up to low total cost of ownership.

It pays for itself

Alfa Laval rotary tank cleaning equipment gives better performance and lower life-cycle costs. Feedback from our customers shows that the

moderate investment required can be recovered within 6 months, often sooner. After that, it really starts earning you money!

And it benefits the environment

Using less detergents and chemicals and generating smaller volumes of waste means less impact on the environment.

Financial benefits at a glance

- Continuous operation, no downtime
- More batches processed – plant throughput increased
- Consumption of water and detergents reduced by 75%
- Lower environmental impact: Uses less energy and generates smaller volumes of waste



Benefits that impact your bottom line



Bioethanol production

Clean away savage yeast

You don't want traces of dead savage yeast in the bottom of your fermentation tanks. They kill the fresh yeast and reduce the production capacity of fermented product. So you have two choices – either use antibiotics or clean the tank to an extremely high standard.

Install Alfa Laval rotary tank cleaning equipment in your tanks and save money on antibiotics. High-impact cleaning after each batch will remove the last traces of savage yeast from your tanks.

Install Alfa Laval rotary cleaning equipment in your propagation tanks and liquid fraction tanks as well, and get more efficient tank utilisation. Alfa Laval rotary jet heads will give you the best performance available on the market today.



Pulp & Paper

Clean away your downtime

Switch from manual cleaning to automatic high-impact cleaning with Alfa Laval rotary jet tank cleaning equipment. Since cleaning takes minutes instead of hours or even days, you dramatically increase your production capacity. There are other benefits as well:

- High impact cleaning of pulp towers and filtrate tanks reduces variations in pulp quality and saves money on antibiotics.
- High impact cleaning of bleaching tanks increases product quality while saving money on biocides.
- High impact cleaning of process tanks around the paper machine reduces rejects and increases the runability of the paper machine.

Automatic cleaning is performed regularly, at shorter intervals – you don't even need to stop the process. The waste solids accumulate in the pulp or can be filtered away, and the water can be re-used for the next cleaning. The time-consuming process of manual cleaning is eliminated and high product quality is assured



Specialty chemicals

Avoid cross-contamination

Permanently installed, Alfa Laval rotary jet tank cleaning equipment is the ideal solution for cleaning tanks throughout your process.

Compared to manual cleaning, rotary jet heads do the job in a fraction of the time, eliminating costly downtime, increasing your overall output, and reducing your production costs.

High-impact cleaning of all inner tank surfaces and related pipework and fittings between each batch avoids cross-contamination and reduces the risk of second grade or reject batches.

Cleaning with Alfa Laval rotary equipment also contributes to personnel safety by preparing the tank for human entry after cleaning.



Impact by design

With Alfa Laval high-impact rotary tank cleaning equipment, key words are quality and performance. It's a guaranteed means of achieving high quality tank cleaning.

The impressive power of the jet from the rotary jet head as it impacts on the inner surface of the tank is the result of years of product development. The nozzles are designed for optimised jet definition, with working pressures as low as 3 bar.

Short cycles, efficient operation

Lasting only a few minutes, a full CIP pattern using rotary jet equipment comprises four or eight consecutive cleaning cycles depending on tank size. In the first cycle, the nozzles lay out a coarse pattern on the tank surface. The following cycles gradually make the pattern more dense until a full pattern is reached.

Scrubbing effect

Cleaning media is propelled against the tank's internal surfaces with 360° vertical and horizontal coverage, ensuring that every square centimeter is covered by detergent. The physical impact of the cleaning media, combined with the rotary motion, produces a scrubbing effect that effectively removes all residual material from the inside of the tank.

Cleaning verification

Rotacheck is an electronic verification system that can be installed to verify 360° coverage and, thus, high

cleaning efficiency. Special in-tank mounted sensors track the rotary jet head operation.

Easy to install and maintain

Alfa Laval rotary cleaning equipment is easy to install and requires only simple maintenance at long intervals. Maintenance can be handled by your personnel or by Alfa Laval service engineers.

Meeting industry standards

Carrying ATEX Certification, our rotary tank cleaning equipment meets all relevant industry standards. We also provide all necessary machine documentation and data.

Let us analyse your needs.

Our TRAX software simulates the performance of a rotary cleaning unit in your tank, before installation, by illustrating detergent distribution and wetting intensity. Thus, we can determine the configuration of the equipment in your tank that will provide the highest cleaning efficiency.

The Alfa Laval Rotary Jet Head, in a nutshell

- Long working lifetime, with low maintenance requirements
- High-impact cleaning at low working pressure
- Easy to install, remains a permanent fixture in the tank
- Automatic operation
- Sensors verify that cleaning has been performed correctly

Alfa Laval Rotary Jet Tank Cleaning Equipment

Alfa Laval Rotary Jet Heads are available in two or four nozzle versions.



Two nozzle versions are designed for cleaning larger tanks, using a more open pattern, and operate with four consecutive cycles.



Four nozzle versions are designed for cleaning smaller tanks, using a more dense pattern, and operate with eight cycles.

Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineered solutions.

Our equipment, systems and services are dedicated to helping customers to optimize the performance of their processes. Time and time again.

We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuffs, starch and pharmaceuticals.

Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

How to contact Alfa Laval

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

