

Case story

Biochemical enzyme plant , US

ThinkTop's outstanding performance delivers a win-win water-saving solution for US enzyme manufacturer

With the global focus intensifying on industrial water stewardship and efficient water use at all stages in the production process, the importance of water reuse and water footprint optimization is critical in the progress towards the establishment of circular water systems.



“It was a real example of how opening a dialogue can lead to great things. From that email came a constructive and challenging meeting with the sustainability team, and through answering their questions and exploring the possibilities, we moved into a project to replace 700 control units.”

Rene Stietz,
Portfolio Manager,
Hygienic Fluid Handling Optimization & Service,

It was these principles that underpinned a project to do a major upgrade of the cleaning system at a biochemical enzyme plant in the US through the installation of the burst seat clean technology embedded in Alfa Laval’s ThinkTop V-series.

Now halfway through completion, the solution has already saved the customer around 17 50-meter-long swimming pools of cleaning water!

The impressive results, which also include the reduction of energy, emissions, cleaning agents and associated costs, are a victory for the customer’s drive to achieve more sustainable operations – and for the power of dialogue and early engagement.

The project kick-off was an email sent by a system builder that Alfa Laval has previously worked with extensively in the US.

The system builder contacted the customer because he was convinced that the burst seat clean technology embedded in Alfa Laval’s ThinkTop system would meet the company’s cost-saving and sustainability ambitions.

That email prompted a meeting between the system builder and the company’s in-house sustainability team – with Alfa Laval’s Rene Stietz, Portfolio Manager, Hygienic Fluid Handling Optimization & Service, invited along to field questions and explain the full potential that such a project could deliver.

“Their sustainability team is dedicated to looking at how they can make savings and certainly put me to the test in the meeting, but that is good, and from that comes really focused discussions. I also worked as a system builder for 14 years, so there was good overlap and understanding there.”

The discussions and engagement led to a project to replace and upgrade 700 ThinkTops in a cleaning system for the Iowa facility. The ongoing project has already seen 350 valves installed units, delivering an estimated annual saving of 2,500m³, or 660,000 US gallons – or equal to 17 50-meter-long swimming pools – of CIP media.

The estimate is based on testing that Rene Stietz has carried out on a sample size of the operational system, where he has focused on the performance of 68 of the newly installed valves and ThinkTops. “It is one thing to sell a solution, but it is another to deliver and continuously prove that it is performing to expectations, and that is a challenge at a facility of this size where the system is operating at different pressures throughout,” explained Rene Stietz.



Water saving:
2,500m³, or 660,000 US gallons of CIP media.



Payback time of between four and six months.

“But of course, the sustainability team want to be sure that the investment is meeting their goals, and that can be done by measuring a strategic section of the system, so we’ll be able to hit the dartboard with our estimation if not the bullseye.”

By drilling down on the performance of this 68-valve section of the system, the measurements showed annual CIP cost savings and a significant reduction in the CIP media consumption of cleaning agents, energy and, not least, water.

These impressive results added up to a payback time of between four and six months.

Rene says: “Ultimately, it is about the payback time, and the customer can be confident that this supports their efforts to reach their sustainability and their cost-saving goals.”

“But of course, this is a dynamic project, and at Alfa Laval, we are committed to continuing to test and to measure and to give the customer a transparent and honest assessment of what they can achieve from the performance of the new system as part of our ongoing dialogue and relationship.”

Highlighted technologies



Sensing and control:

Maximize production uptime and safety, regardless of process conditions, with a broad portfolio of valve automation solutions from Alfa Laval.



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