

Alfa Laval's advanced circularity solutions striving to deliver water positivity for dairies



Making dairies water-positive in their operations would seem to be a far-fetched dream in this age of climate change and scarcity – but Alfa Laval believes it can be achieved and is ready to help the industry rise to meet the challenge.

There is an increased focus on water-use like never before across the globe, presenting a testing environment for dairies who are looking to work sustainably and are facing ever-tighter restrictions and scrutiny from their local regulators.

On top of this, a recent survey, 'Global Water Tariff Survey 2025', calculated that in some water stressed regions, water costs had risen by 50%, contributing to an overall global rise of 6.2%, with an expectation that the costs will continue to increase in the coming years. The two main reasons identified are that water is becoming an increasingly scarce resource, and that wastewater plants do not have the capacity to treat higher volumes. It is in this challenging landscape that Alfa Laval's industry-leading technology can put dairy producers on the journey towards water-positive operations, where they can actually provide water to communities rather than taking it away.

To do this requires a holistic approach looking across the processing line; reducing water use, minimizing the amount disappearing down the drain as wastewater and maximizing the volume being recirculated into the production processes.

Jakob Worsoe, Global Industry Manager Dairy, says: "The impacts of climate change present a huge challenge for dairies across the world, even in those areas that you would not consider to be in regions of real water scarcity.

"At Alfa Laval we see it as an opportunity; somewhere where we can build on the existing water reduction mechanisms in our products to make a major impact. We have a tremendous

portfolio of cutting-edge separators, decanters and membranes that can deliver innovative solutions for recirculating process water for use in cleaning, cooling and other operations."

Not only that, the materials that are extracted from the treated process water, such as cleaning media, proteins and fats, can be concentrated and used for biogas production and fertilizers, boosting even further the circularity, sustainability, efficiency and cost of dairy operations.

With its global reach and decades of experience, Alfa Laval is uniquely positioned to deliver expert technological solutions that are adapted to tackle the specific water challenges facing different corners of the world.

For areas like Saudi Arabia and Mexico, for example, the issues are clear – water is scarcer and only available by digging deep into the ground. This impacts severely on the quality, and in Mexico in particular, the water is high in silicates, which is abrasive and can quickly wear down the processing equipment unless it is treated and this damaging ingredient is removed.

Meanwhile, in Scandinavia, there is actually an excess of water, and the challenge for one dairy there is to limit the amount of water it sends for treatment to keep it under the volume dictated by the regulators, so that it can then invest instead in the expansion of its operations.

Alfa Laval is already working with dairies at both ends of this water supply spectrum to deliver technological solutions, and at a time when many companies are putting water use at the top of their agenda, Jakob is excited by the potential to make a significant difference across the world in an industry that has traditionally been resource-intensive, while playing a central role in the global food supply network.



"We can address these different problems because we speak to our customers, we learn their challenges, and we develop solutions by working with them – no matter where in the world they are," says Jakob. "There are significant changes taking place in this industry and we are ready to help companies realize their ambitions.

"Dairies have traditionally had targets for how many litres of water they use to produce one litre of milk, which used to be a ratio of around 10 to 1. Nowadays it is generally down to about one and a half litres but we believe the industry can turn this around even more so it is water positive and the dairies can actually generate water for their communities! These are exciting times."



Contact Alfa Laval

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