



Dairy
production

Ozone Sanitation for Dairies

Cost-efficient solutions for dairy
production challenges

ozonetech.

a MELLIFIQ brand



CHEMICALS, HEAT OR OZONE? WHAT 'S THE BEST DISINFECTION METHOD TODAY?

Dairies have since long used chemicals and hot water as a standard solution for disinfection. However, today there is a realistic option: ozone. With an efficient and reliable ozone system you can lower overall costs, simplify handling and reduce environmental impact.

Of all the unique advantages of ozone there is one that stands out. Ozone is produced on site from air – a free of charge natural raw material. No transport, no handling, no waste, no residues and extremely low environmental impact.

In this folder we have gathered five processes on your dairy where our ozone treatment would give you great benefits. We have also made a table comparing ozone with chemicals and hot water.

Installation and validation are simple and do not affect your normal processes. Thanks to monitoring of the ozone concentration, a reliable and qualified sanitation can be achieved every time.

Our high-performance system RENA Vivo - Dairy solutions has a footprint of only one square meter.

To summarize, implementing an ozone system in your dairy is easy.

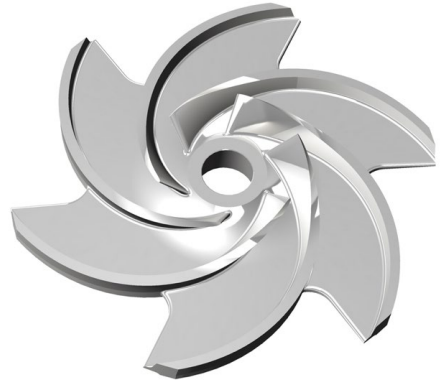
COMPARISON OF DISINFECTION METHODS

	OZONE	CHEMICALS	HEAT
Spore reduction	High	Varies	Medium to low
Removal of biofilm	High	Varies	Low
Disinfection potential	High	Medium	High
Energy efficiency	High	Varies	Low
Water efficiency	High	Low	Medium
Time for disinfection	Low	Medium	High
Chemical costs	Low	High	Low
Energy requirement	Very low	Varies	High
Environmental impact	Low	High	Medium
Transportation impact	Zero	High	Zero
Amount of harmful residues	Zero	Varies	Zero
Corrosion potential	Low	Varies	Low

FIVE WAYS TO REDUCE COSTS AND RISKS IN YOUR DAIRY

EFFICIENT CLEAN IN PLACE DISINFECTION WITH ADDED PRODUCT QUALITY

Utilize the unique properties of ozone as a disinfectant in CIP-processes. The strong oxidation potential along with its short half-life provides advantages that creates significant values for a dairy. Since no chemicals or heat are required the savings are easy to evaluate. Having no need for a last rinse increases up-time and reduces water usage. As a bonus a better product quality can be achieved.

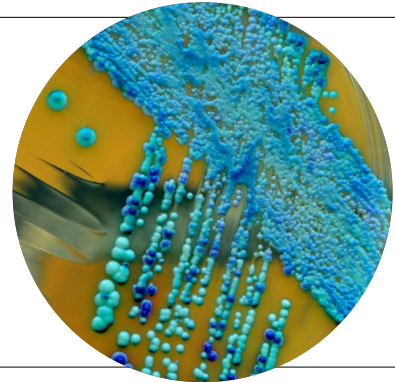


REDUCE HANDLING AND COSTS FOR COOLING WATER CONTROL

Keep the cooling water in control with only a small amount of ozone in the water. Ozone can replace the standard biocides (and corrosion inhibitors) used at the dairies to keep the cooling water safe from microbial growth. Eliminate the cost for and handling of chemicals. Due to residual-free ozone technology, the need for bleed off water treatment can also be significantly reduced.

INCREASED POTENTIAL FOR WATER RECOVERY

Large amounts of water can be saved if evaporator condensate or membrane permeate is recovered. This water can be used for less critical applications such as rinsing or cleaning instead of fresh water. However, BOD levels often lead to microbial growth which effectively can be prevented by ozone. Naturally, ozone treatment involves no chemicals or residuals that can affect the hardware or environmental impact of the plant.



QUALITY ASSURANCE OF PROCESS WATER

Improve the microbial standard in your dairy by using ozone treated water for critical applications such as final rinsing of equipment or flushing of product between batches. These actions can not only enable a better shelf-life but also enhance the run-time of the plant.

PROLONG BRINE LIFE TIME

Retaining water, salt and proteins in the brine, without microbial growth, is often desired for efficient cheese production. With ozone, mould, spores and bacteria are reduced in an innovative and efficient manner. Ozone treatment has a number of benefits, for instance low maintenance and energy costs, compared to more traditional techniques.



About Mellifiq

Mellifiq is a multi-awarded environmental service company group, that has since the early nineties evolved into a world leading system and solution provider with multiple groundbreaking applications for industrial, municipal, and real estate clients. We supply cutting-edge technologies to manage the most sophisticated air, water, and energy challenges.

Mellifiq offers a complete range of air and water treatment technologies and solutions across multiple industries such as processing industry, energy sector, food and beverage, pharmaceutical, wastewater treatment and commercial real estate.

Mellifiq offers strong and renowned brands, such as Ozonotech, Nodora Water Maid, Saniray, Axolot and world-class engineering services combined an excellent track record of more than 40 years of innovation. We help our clients achieve the most efficient and sustainable solutions while creating the maximum value for their businesses.

With several business units across Europe, Mellifiq is headquartered in Stockholm where research and development, production, QA and certification all take place. Our unique technology and our extensive expertise have made us the Center of Excellence for the world's most complex projects, and a global player with installations on all six continents.

Everyday millions of people rely on our solutions for ventilation, disinfection, sanitation, and odor control. We are committed to raising the bar for the concept of clean and the industry standard for engineering, technical services and general contracting.

For additional information, visit our website at www.mellifiq.com

