



Disinfection

Food &
Beverages

Italy

Disinfection for Pseudomonas Spp Elimination at Galbani Dairy, Italy

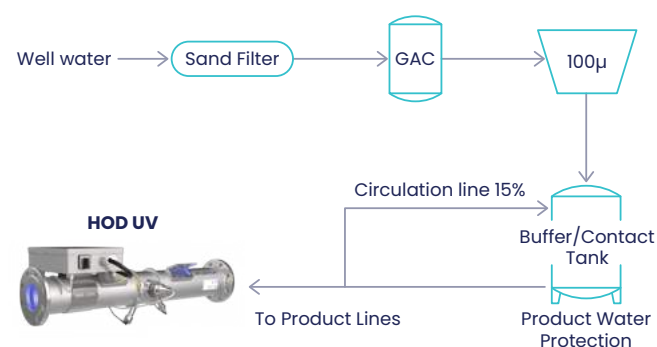
The Challenge

Galbani, a large Italian dairy company world-renowned for its high-quality products, operates two fresh mozzarella production plants in Corteolona and Casale Cremasco. Fresh mozzarella cheese is very susceptible to microbial contamination due to its high moisture content and pH, which is typically above 5. Controlling microbial contamination is vital to maintaining shelf life and product quality.

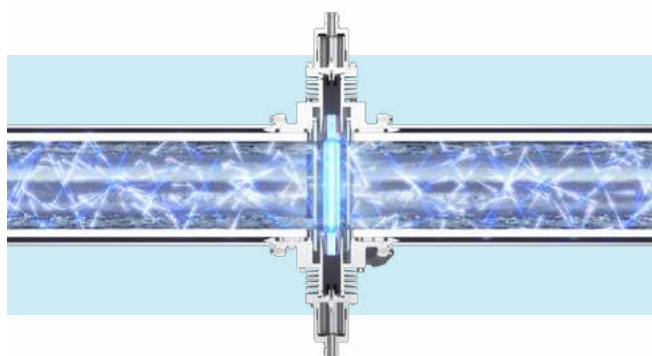
Pseudomonas is among the major microorganisms responsible for product spoilage in the dairy industry and a significant concern for the broader food sector. It compromises product quality and shelf life while also posing potential health risks to consumers. Some species are highly opportunistic pathogens, possessing the ability to metabolize a variety of diverse nutrients and to form biofilms. They are resistant to concentrations of chlorine in typical water distribution systems and can survive in a variety of unexpected places.

The Solution

Three HOD UV units were installed to protect all production and process water in the Corteolona lines from source water contamination; one unit was installed to protect the fresh mozzarella production line at Casale Cremasco.



Atlantium HOD UV systems effectively inactivate pathogens – while still being environmentally friendly, cost-effective, and not introducing any disinfection by-products. This is achieved by combining ultraviolet water disinfection technology with hydraulic and optic principles. The HOD UV system features the unique Total Internal Reflection (TIR) technology that recycles UV light energy, ensures homogenous UV dose distribution, provides superior power (kW) efficiency compared to traditional UV, and achieves unprecedented micro-organism inactivation.



Results

Installation of the units at the Corteolona plant enabled the elimination of chlorine usage at the inlet. By introducing a recirculation line, the plant was able to achieve an unprecedented level of disinfection in the line and inlet holding tank.



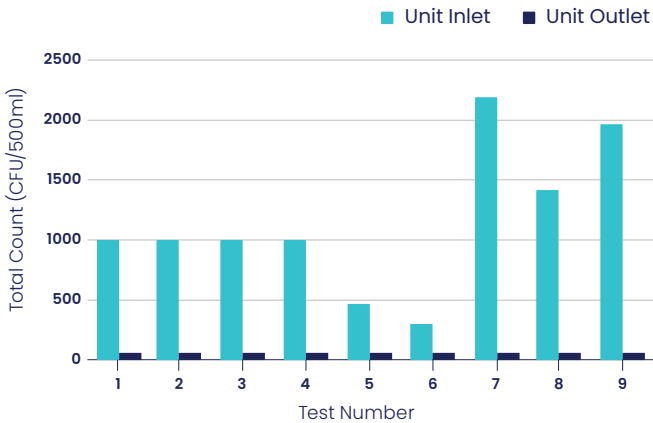
Corteolona – Firewall

The results demonstrate the superior disinfection ability of the Atlantium units. Despite variable counts in the inlet, HOD UV eliminated all bacteria and produced consistently high-quality water. The system ensured controlled flow rate through the units and full monitoring of operation and performance.

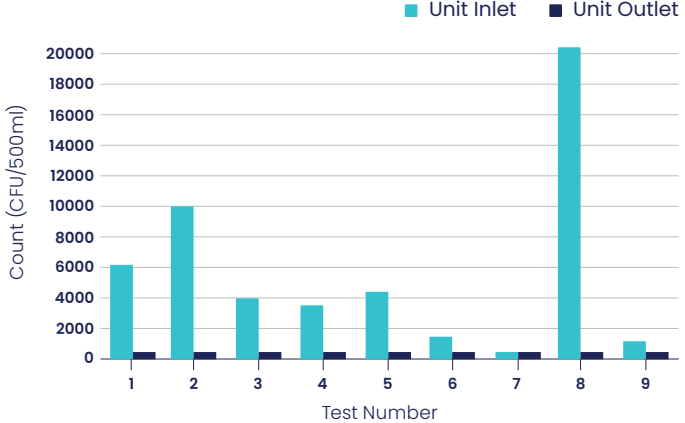


Casale Cremasco – Product Line Protection

Total Count Reduction



Pseudomonas spp. Reduction



About us

For more than two decades, Atlantium Technologies has helped to ensure water safety with its innovative HOD™ (Hydro-Optic Disinfection) UV technology and novel approach to performance, monitoring, and control. Atlantium's superior, environmentally friendly water treatment solutions ensure stable, efficient, and dependable production.

With thousands of full-scale installations for leading brands in various industries globally, we're committed to consistently meeting our customers' water quality needs, ensuring pure results.

