

# Flat cap decontamination Chilled Dairy Product

## Serac

Specialized in the manufacturing of filling & capping machines for sensitive products for food applications in bottles and cups, leader in aseptic dairy bottle filling systems, Serac keeps developing innovative solutions to ensure an optimum hygiene of the containers (aseptic, ultra-clean). Claranor solution integrated into Serac machines is now available to decontaminate caps for ultra-clean applications.



## Industrial Case

L'Armoricaine Laitière, Serac customer, french dairy cooperative created in 1950, is located in Brittany and employs 85 staff.

Products : Fermented milk, drinking yoghurt, cream, cheese... In figures :

- annual production : 15,000 T
- annual Turnover : 25 M€

**Product:** Flavored drinking yoghurt and drinking yoghurt with muesli, stored < 4°C  
**Shelf life:** 28 to 35 days  
**Packaging:** HDPE flat cap, 32 mm, for 180g bottles  
**Line:** existing Serac line, speed 22,000 bph (8000 T/year)  
**Microbiological issue:** mould and yeast hazard



## Claranor solution integrated by Serac

- 1 lamp optical cavity
- 1 flash/cap
- Trial results: 3.6 log reduction on A. niger in 1 flash
- Integration by Serac above the capping unit



### Cost elements for 1000 closures

	INVESTMENT COST	RUNNING COSTS	TOTAL COST
IRRADIATION	/	1,60 €	1,60 €
PULSED LIGHT	0,50 € (5Y)	0,04 €	0,54 €
CHEMICALS (PERACETIC ACID)	0,60 €	0,27 €	

Infos by l'Armoricaine

Claranor estimate

*Running costs :*  
 For pulsed light : lamps + electricity (0,08 €/kWh)  
 For chemicals : storage, energy, water, etc.

## Serac testimonial

Roland Nicolas, Food Business Development Director, Serac

"Markets are pushing for dry, chemical free decontamination. So Serac has shown a strong interest in the pulsed light technology. Serac and Claranor have built a common experience in supplying the pulsed light technology for plastic caps treatment with several lines installed and successfully running for fresh dairy products."



## User testimonial

Jean-Paul Linet, Managing Director, l'Armoricaine Laitière

"As we have logistic and transportation issues, we need to ensure the safety of (the) production line, in order to comply with our shelf life objective. The closure is a critical point in our packaging process, as it is in direct contact with the product. That is why we have been looking with Serac for a disinfection solution for our closures. We have considered pulsed light because of its advantages : simple to integrate and to use, no chemical products in the process, no smell nor noise nuisance in the factory, as well as low running costs. Before that we used to treat some closures, used for the production of sensitive products, with gamma irradiation. The Claranor unit was installed in September 2010. Since then 40 millions bottles have been produced without any issue on the closure quality."