

Press kit 2021-2022

The SERAP Group:
The world's leading manufacturer
of on-farm milk coolers

Innovation and quality at the heart of the Group's approach

Editorial



Éric BOITTIN, CEO of the SERAP Group

The SERAP Group is dedicated to providing its customers with the means to preserve and process food, cosmetics and pharmaceutical liquids.

Today we are the world's leading manufacturer of on-farm milk coolers and the leader in France. This market position has been progressively built up firstly in France and Europe, then in emerging countries. It is the result of:

- constant attention to customer needs,
- a culture of innovation that is deeply rooted within the Group, enabling us to make technical innovations in our products and services that maintain our offer at the top level in markets,
- a policy of **reliable**, **long-lasting appliances**; we design and manufacture robust machines that have no built-in obsolescence and last for 40 to 50 years.

We owe our company's success to a **consistent**, **sophisticated strategy rolled out gradually since 1968**, with my father, Michel Boittin.

With our 530 employees all over the world, we share powerful values: an ethical approach, job satisfaction and a liking for work well done, and we strive to maintain the quality of our products every day.

Together, we are addressing the key environmental, economic and societal challenges of todau.

As a market leader, it is our duty to provide a new generation of products and be fully involved in the energy transition.

Opticool, our new generation of milk coolers, brilliantly illustrates our innovation policy and responds to the major issues facing our society. It reduces energy consumption at peak times on farms in the morning and evening, during milking, adapts perfectly to robotic milking flows and heats the sanitary water. As a result, it reduces the dairy farmer's energy budget. This advantage, coupled with the use of a new refrigerant which has a lower impact on global warming, considerably reduces the milk cooling tank's carbon footprint.

Since the invention of the milk cooling tank in the USA in 1947, this is the first time a market player has developed a disruptive innovation for this machine.

As the market leader, our duty is to lead the way by initiating and carrying out high added value projects that protect the environment.

With Opticool, we provide a disruptive solution to farmers and contribute to developing a dairy industry of excellence. The advantage of our innovation is totally relevant to the goals set by COP21 (2015 Paris Climate Conference).

Opticool includes a smart and patented refrigeration unit that optimizes electricity consumption. This means that the extra purchase cost compared with conventional equipments pays for itself in a few years. In most European countries, where electricity is more expensive than in France because it is largely carbon-based, the pay-off period for the extra purchase cost is reduced accordingly.

In addition, these refrigeration units can be easily adapted to existing tanks on farms, regardless of the brand and construction date of the milk cooler. The average renewal rate of the existing stock of coolers being only 1 to 2% per year, Opticool is then a nice opportunity both for dealers and farmers, who can benefit from its advantages without changing their cooler's tank.

For the SERAP Group, the Opticool innovation is a powerful lever to gain and retain new dealers and acquire ever more market share.



An international group with its roots in the heart of Europe's leading dairy production region

The SERAP Group is now the world's leading manufacturer of on-farm milk coolers and the leader in France, with over 200,000 milk coolers sold worldwide.

It employs 530 people and currently manages six production sites located in France, India, Mexico and Brazil.

It is represented in around 100 countries through an extensive network of independent dealers supported by its production units and sales subsidiaries.

The history of this independent family business began in 1963 in Mayenne, in the heart of Europe's leading dairy-producing region.

The Gorron facility is the SERAP Group's main production unit. This factory has been gradually expanded to almost 20,000 m² of workshops with high-performance equipments and machines to manufacture milk coolers up to 40,000 litres capacity.



6 industrial sites France (3), India, Mexico, Brazil





530 employees in the entire group



Leading manufacturer of wine-making tanks for premium estates



52 M€: The Group's turnover



Over 50% of turnover from exports



Éric BOITTIN, CEO of the SERAP Group

«In France and Europe, our aim is to consolidate our position as a leader in terms of performance and quality in the increasingly demanding markets of milk coolers and winemaking tanks. As a market leader, it is our duty to come up with a new generation of products and to be fully involved in the energy transition. This is why the SERAP Group is constantly investing, in order to add technological innovations to its products and services, and also to modernize the production equipments. »

Nearly 60 years of industrial expertise and innovation working for the food and dairy industry

From the design of its products to their maintenance, the SERAP Group masters every stage

Within the company, the SERAP Group brings together all the skills required to manufacture its products: from fine stainless steel boilers for the agrifood industry to integrated automatic washing systems and refrigeration units specialized by product line.

An R&D department is also integrated, with an engineering and design office and a COFRAC-accredited experimental laboratory. Some 20 engineers and technicians specializing in innovation are involved in the various areas of expertise required to develop new products. To date, the company has registered 49 patents.

The culture of innovation is central: the SERAP Group has always maintained an innovation policy based on on the customers' needs and feedback. As a result the company designs and develops efficient products that are meant to last.

The SERAP Group has introduced a continuous improvement approach, with a commitment to quality, delivery times and cost optimization: ISO 9001 certification in 1996 and ISO 14001 (environmental protection) in 2006.

The SERAP Group awarded the «French Fab» label

The SERAP Group embodies the company model valued and recognised by French Fab (movement that brings together French manufacturers in order to promote the industry in France and at the international level) in every respect. It is a group:

- that looks to the future and develops internationally,
- rooted in its territory for the long-term,
- that creates jobs,
- open to digitisation and to the green economy, with a capacity for reinvention.

With more than 50% of its turnover achieved abroad, its capacity for innovation in communicating or energy-saving milk cooling tanks, and its employee shareholding, the SERAP Group, which meets the definition of French Fab in every way, decided to join this movement early in 2021.

So the company is now part of the French industrial ecosystem and will use this new label as a guarantee of recognition in its recruitment policy.



Opticool: a milk cooling innovation with highly effective environmental and economic performance

Opticool: the new milk cooler designed and manufactured in the historic Gorron factory

The new generation milk cooling solution Opticool, a patented refrigeration unit, significantly reduces energy consumption when cooling milk and heating water for the milking parlour.

This innovation is suitable for all types of dairy farms and ensures optimized electricity consumption as well as a high environmental performance.



A sustainable solution for the dairy industry that meets the challenges of the energy transition

France, the 8th largest milk producing country in the world and 2nd largest in Europe, is a reference in the dairy sector. For this to maintain its status as a «sector of excellence», it needs to **anticipate and adapt to constantly changing environmental factors** (increasing volatility of milk and input prices, ever-higher societal requirements with energy savings and sustainable development, changes in regulations, etc.) and thus remain competitive.

The Opticool innovation meets the economic and environmental expectations of the dairy industry and farmers. Opticool guarantees a return on investment to farmers through lower energy consumption, controlled operating costs and a significant reduction in the tank's carbon footprint:

- The technologies used along with the self-regulating system reduce the energy consumption for cooling milk by up to 40% compared with equivalent standard models. This consumption can be reduced by up to 70% with the addition of a pre-cooler. This consumption can be reduced by up to 70% with the addition of a pre-cooler. Heat recovery through this system also enables 50% savings on heating water. Through these performances and heat recovery, Opticool can even offset its own electricity consumption in favourable conditions, i.e. it returns the equivalent amount of energy consumed for cooling in the form of hot water.
- Its low power consumption, the use of a new refrigerant with a low GWP¹ and the use of recovered heat all reduce the tank's carbon footprint by over 50% compared with the equivalent conventional tanks now in service.

 $^{^{1}}$ GWP = Global Warming Potential, the potential warming impact of a gas released into the atmosphere in CO^{2} equivalent.

From the «Tank 2020» project to the launch of Opticool: four years' research and development

The «Tank 2020» project, begun in 2017, aimed to design and experimentally validate a milk cooler with the lowest possible electricity consumption. The starting point was simple: on a dairy farm, almost 70% of the milking unit's total power consumption comes from cooling milk in the tank and producing hot water for cleaning the tank and the milking machine.

To carry out this project, a consortium was created with six partners with complementary skills: the SERAP Group, the research center Pôle CRISTAL, the professional organization GIE Élevages de Bretagne, the Institut de l'Élevage (French Breeding Institute) and two dairy groups, LACTALIS and TERRENA. The role of this consortium was to define the project's specifications in order to produce a marketable innovation, while satisfying the requirements of the various stakeholders in terms of energy savings, environmental protection and competitiveness.

Stéphane BINEAU, R&D Director of the SERAP Group:

« The Opticool project goes far beyond the technical aspect. Working within a consortium gave us a better understanding and helps to increase our skills by calling on specialised expertise. »

The project reached a budget of €2.9 million, including €2.1 million for the R&D phase, with financial support from ADEME (the French Agency for Ecological Transition) and the Brittany and Pays de la Loire Regions.

In addition, SERAP Industries is one of the first 25 companies in the Pays de la Loire region to obtain a subsidy under the "France Recovery" plan launched by the French Government in September 2020. This financial aid of €700,000 will help to industrialise its new range of energy-saving milk cooling tanks.

Stéphane BINEAU adds :

« The SERAP Group has reached a milestone with Opticool. We have introduced artificial intelligence into the cooling system, where we previously worked on the basis of a binary 0 or 1 system. The parameters defined by an algorithm make it possible to adapt so as to consume as little as possible, in any situation. »

Opticool: official international launch at EUROTIER, November 2022

To accompany its launch and the start of marketing from 15 to 18 November 2022 at EUROTIER (the leading international trade fair for professional animal farming and livestock management in Hanover, Germany) a specific communication plan was set up: the launch of a <u>dedicated website</u>, website, a campaign on the social networks and in the media, and a stand at EUROTIER.

The slogan «Cool. Save. Preserve.» highlights the direct benefits for farmers and the planet.



With this innovation, in line with farmers' requirements and environmental issues, the SERAP Group is looking to reassert its position as leader in France and as the world's number one manufacturer of on-farm milk coolers.

About the SERAP GROUP

Based in Gorron, in the heart of France's largest dairy production region, the SERAP Group employs 530 people and currently manages six production sites located in France, India, Mexico and Brazil.

A specialist in stainless steel boiler production and heat exchange, the SERAP Group is the world leader in farm milk coolers and number one in France. The SERAP Group is represented in nearly 100 countries through an extensive network of independent distributors, supported by its production units and sales subsidiaries.

The SERAP Group has been awarded the French Fab label.

For more information: www.groupeserap.com



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