



Dairy factory in Italy employs Mellifiq for both odor control and water reuse

**Centrale del latte di Brescia
clears odor problems and
upgrades CIP process with
Mellifiq advanced treatment
solutions**

MELLIFIQ

Centrale del Latte, Brescia, Italy

Centrale del Latte di Brescia is a dairy factory founded in 1931 in the town of Brescia, in the northern Italian region of Lombardy. It has been producing continuously during the past 90 years, even during the Second World War. Continuous improvement is one of the core values of the Centrale – it was the first dairy factory in Italy to incorporate UHT pasteurization into their production process.

Facts

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| Name: | Centrale del Latte di Brescia |
| Location: | Brescia, Italy |
| Industry: | Dairy production |
| Challenge: | Odor control, reusing water in the CIP process |
| Project value (USD): | \$ 150,000 |

Solution:

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| Mellifiq delivery: | Ozonetech RENA pro B4 ozone system, 2 Nodora ADS A-series cabinets and closed cooling system (odor control solution); Ozonetech RENA Vivo B4, along with automation (pH and ORP sensors) and closed cooling system (CIP water treatment solution) |
| Capacity: | 11,000 m ³ /h for the odor control solution, up to 300 m ³ /h for the CIP solution |

Odor Control:

Dimensions HxWxD (cm):

- Nodora ADS A-series: 1 160 x 760 x 2 070 mm
- Ozonetech RENA Pro B4: 800 x 600 x 1800 mm
- Closed cooling system: 450 x 490 x 720 mm

Water reuse system:

- Ozonetech RENA Vivo B4: 270 x 120 x 80 cm

The problem

As the factory was built not far from the current city center, it is surrounded by a relatively dense residential area. Dairy products may involve lactic fermentation among other processes that result in residues emitting odorous compounds. These residues are discharged in the factory's process water and the odorous compounds enter the ventilation system, being subsequently released into the surrounding environment.

In this case, the odor problem resulted in both the neighbors and the municipality to file complaints against Centrale del Latte di Brescia.

The complaints have determined the company management to start looking for an efficient odor control solution. As a company with a vision for sustainability, they looked for a solution that can solve the odor problem and at the same time lower the environmental impact of the production.

Besides solving the environmental issue caused by odors, Centrale del Latte di Brescia decided to reduce the use of fresh water by treating and reusing it in their equipment clean-in-place (CIP) process.



Centrale del Latte di Brescia dairy factory

The solution

Since the Centrale required a sustainable, effective and innovative solution, they chose Mellifiq for this project. In our turn, we delivered a system consisting of an Ozonotech RENA Pro B4 turn-key ozone system and two Nodora ADS A-series.

The system is connected to the factory's ventilation system, where it treats the air in two stages, before releasing it into the environment. In the first step, ozone is injected into the ventilation duct, breaking down most of the odorous compounds. Afterwards, the remaining air passes through the Nodora adsorption modules, where remaining odorous compounds are adsorbed by the activated carbon.

The Italian dairy factory was also looking to improve their clean-in-place process. Ozone treatment can decontaminate wastewater from the dairy production to the point that it can be reused to clean the production equipment.

Hence, Centrale del Latte di Brescia has placed a second order from Mellifiq, for an Ozonotech RENA Vivo B4 ozone system, along with automation (Ph sensor, ORP sensor). Our solution is fully compatible with the EU initiative Industry 4.0, with its high level of automation and remote monitoring.

Evaluation

The odor control solution achieved 90% removal of odorous compounds in the preliminary evaluations after the installation, along with over 90% lower organic contamination levels and disinfection in the water reuse system.

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 and Water Maid, 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

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