

Building & Industry

**NOVENCO** 

SCHAKO Group

# Zott cooling tunnels go Industry 4.0 with 120 NOVENCO® ZerAx® fans – 66% less energy

Zott SE & Co. KG is a family-owned dairy company known across Europe for brands such as Monte, Jogobella, Zottarella, Sahne-Joghurt and Bayerntaler.

For almost 100 years, Zott has combined tradition with innovation, using modern technologies to produce milk, cheese, cream, yogurts and desserts.

## **The challenge**

The cooling tunnels were equipped with outdated fans that consumed excessive energy, resulting in high operating costs and a significant environmental footprint.

Frequent maintenance created further strain, while limited automation and control options made efficient operation increasingly difficult.

## **The retrofit solution**

Zott partnered with NOVENCO Building & Industry to execute a state-of-the-art retrofit.

The core of the modernisation was the replacement of 120 fans with ZerAx high-efficiency axial fans.

Each fan was supplied with an adapter plate for quick installation and a short diffuser to maximise pressure efficiency. Frequency converters ensure flexible speed control, with one converter operating four fans per sector for synchronised, cost-efficient performance.

An external MCB-107 option card secures uninterrupted control, even in the event of power unit failures.



Zott SE & Co. factory, Germany

## The impact

The retrofit delivers benefits far beyond energy savings. By replacing outdated fans with modern ZerAx fan technology, Zott achieved a 66% reduction in energy use and a return on investment of less than 12 months. The new system provides lower maintenance needs, improved integration with automation and control systems, and higher reliability with reduced downtime.

Noise levels inside the cooling tunnels are now significantly lower, improving working conditions for employees.

This project shows how innovation and smart engineering can extend the life of existing infrastructure while avoiding costly new construction.



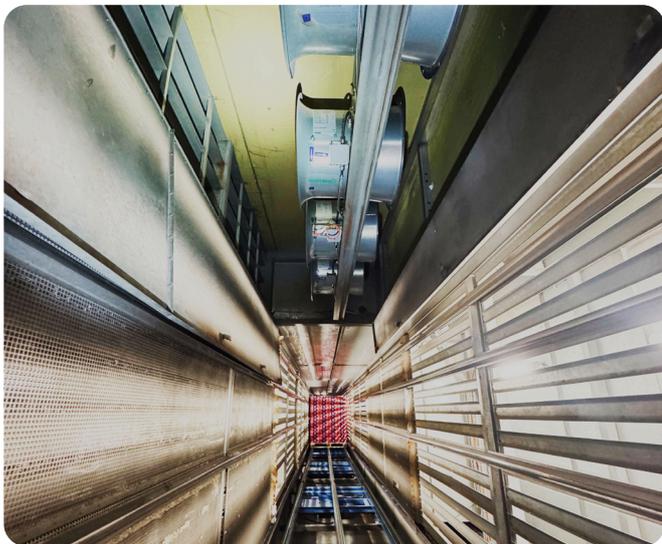
Outdated fans at Zott before retrofit



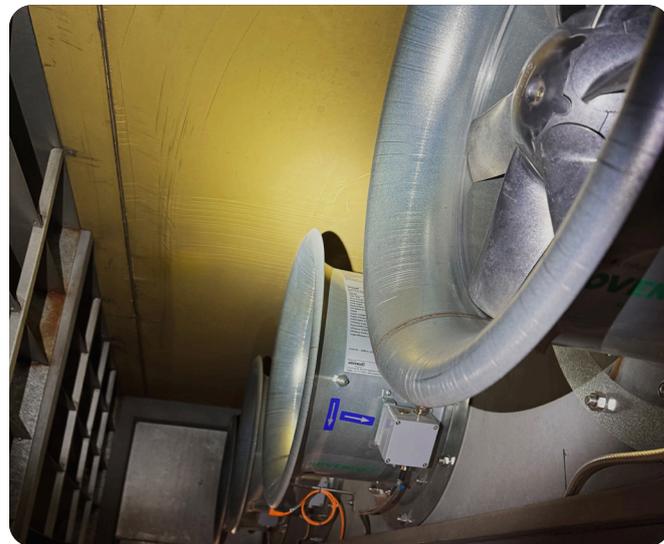
ZerAx® fans installed at Zott after retrofit

# Conclusion

## – a model for Industry 4.0 in dairy



ZerAx® fans installed in cooling tunnel for reliable performance



120 ZerAx® fans powering Industry 4.0 efficiency at Zott dairy

Completed as part of a practical technician's project by Florian Sindel, the modernisation stands as a benchmark for sustainable retrofits in the food industry. With reduced energy consumption, improved airflow, lower maintenance costs and a payback time of less than a year, the project demonstrates how dairy companies can meet the demands of Industry 4.0 with existing systems.

By modernising its cooling tunnels with NOVENCO ZerAx fans, Zott shows how smart automation and energy efficiency can work together. The project sets a clear direction for the dairy sector: future-proof operations that are more sustainable and more efficient. With this step, Zott strengthens its position as a pioneer in sustainable dairy production.

### Results:

- 66% energy savings – more than 1.5 million kWh annually ( $\approx 306,660$  kWh per tunnel)
- ROI under 1 year
- Lower maintenance requirements
- Smart integration into control systems
- Reduced downtime
- Reduced noise emissions