



UN SAPORE CHE TI PUGLIA

CASEIFICIO DELIZIA USER STORY



CASEIFICIO DELIZIA: SILO² VERTICAL STORAGE SYSTEM FOR EFFICIENT, CENTRALIZED SPARE PARTS MANAGEMENT



ICAM
INTELLIGENT SPACE SOLUTIONS



Excellence in dairy begins with excellence in processes

In the dairy industry, logistics is a critical function because it is the direct link between production and distribution. Even a minor slowdown on a single production line can impact overall performance and damage brand reputation. Ensuring uninterrupted plant operations therefore depends heavily on effective spare parts management.

This understanding led Delizia S.p.A., owner of the Deliziosa brand and one of Southern Italy's leading dairy producers, to rethink its MRO (Maintenance, Repair and Operations) inventory strategy at its production facility in Noci, near Bari, Italy.

The goal: secure operational continuity, reduce risk, and support a high-performance production environment.





The intralogistics challenges



Without a dedicated MRO storage area, all spare parts, kits, and components for the different production lines were stored on multiple shelving units located in various areas of the plant. Part retrieval relied on a purely visual search approach, making access slow and unreliable.

The presence of identical spare parts stored in different locations, combined with the lack of an up-to-date inventory, forced the company to overpurchase stock to avoid the risk of shortages when parts were needed.

This resulted in significant capital exposure. For production lines worth several million euros, spare parts inventories alone represented hundreds of thousands of euros tied up in stock.

In addition, frequent cases of misplaced items and unauthorized withdrawals caused delays in daily maintenance activities, directly impacting operational efficiency.



SILO²: maximum security and precision in a minimal footprint

With the goal of organizing its spare parts warehouse, implementing an optimized procurement strategy—avoiding both overstocking and stockouts—and minimizing overall costs, Delizia chose to install SILO², ICAM's innovative multi-column vertical automated storage system.

This decision followed an in-depth preliminary consultancy focused on analyzing the plant layout, as well as the variety, quantity, and turnover of spare parts to be managed.

The system rises to nearly 4 meters in height, delivering a total storage capacity of 32 m³ within a footprint of just 16 m². Its modular structure consists of three storage columns with a picking/replenishment bay positioned at ergonomic height (75 cm from the floor), ensuring safe and efficient daily operations.

Today, approximately 3,700 spare parts and maintenance kits are managed on a daily basis within the SILO² system, which features a maximum load capacity of 400 kg.





Everything organized and tracked in real time

In total, 6 maintenance technicians work across two shifts to ensure the proper operation of all production lines. However, only two of them are authorized to access the SILO² automated storage system.

Thanks to ICON, the web-based warehouse management software for SILO², these two technicians can access the system remotely, even when they are not physically on site. From any location, they can check real-time stock availability and command the automated system to deliver exactly the required spare part or kit to colleagues working in the plant.

Replenishment typically takes place after all required picking activities have been completed, following a product family or brand/supplier logic in order to optimize movement and picking times.

In terms of productivity, the SILO² system delivers up to 54 cycles per hour. On a daily basis, 60 to 80 picks are performed, with each picking list containing an average of 5 to 6 items.





Main benefits:



90% space recovery across the plant

Centralized storage of 3,700 spare parts, eliminating fragmented shelving.



Operational efficiency increased

Automated spare parts dispensing, eliminating visual searches across shelves and reliance on operators' memory



Enhanced protection for high-value spare parts

Secure, enclosed storage for high-value and sensitive components



Inventory in minutes, not hours

One-click inventory with full stock control



Remote control, on-site picking

Thanks to the ICON software, maintenance technicians can access the warehouse remotely and command the system to deliver the parts required by the production lines





Technical data

Stored items	Spare parts
No. storage columns	3
Picking and refilling stations	2 side-by-side
Storage system dimensions (WxDxH)	4,935 x 3,276 x 3,600 mm
System footprint	16.17 m ²
Max. tray load bearing capacity	400 kg
Useable tray dimensions (WxDxH)	1,953 x 802 x 41 mm
Specific tray load bearing capacity	228 kg/m ³
Number of trays/hour for each picking/refilling station	57



A strong foundation for business growth

Thanks to the SILO² automated storage system, all spare parts are now stored in a single location, in a secure and well-organized way, instead of being scattered across the plant on multiple shelving units.

This solution allowed us to eliminate more than 90% of the shelving, freeing up a significant amount of floor space.

Real-time stock monitoring protects us from both stockouts and overstocking, delivering clear operational and financial benefits.

Giovanni D'Ambruoso

President Delizia SpA

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ICAM S.p.A.

S.P. 237 delle Grotte, 70017
Putignano (BA), Italy - P.O. Box 129
Tel.: + 39 080 4911377

For more information:
marketing@icamonline.eu
www.icamonline.eu

