



Case study: La Anónima

The efficient simplicity of a sub-zero automated warehouse

Location: Argentina



La Anónima, one of the most important supermarket chains in Argentina, has expanded its cold storage in the town of Ituzaingo (Buenos Aires), gaining greater storage capacity. Mecalux has installed an automated warehouse composed of four single-depth aisles served by trilateral stacker cranes and a conveyor circuit at the front; all managed by the warehouse management software the Easy WMS by Mecalux. This solution is designed to meet growing demand, adapting to future prospects.



Needs of La Anónima

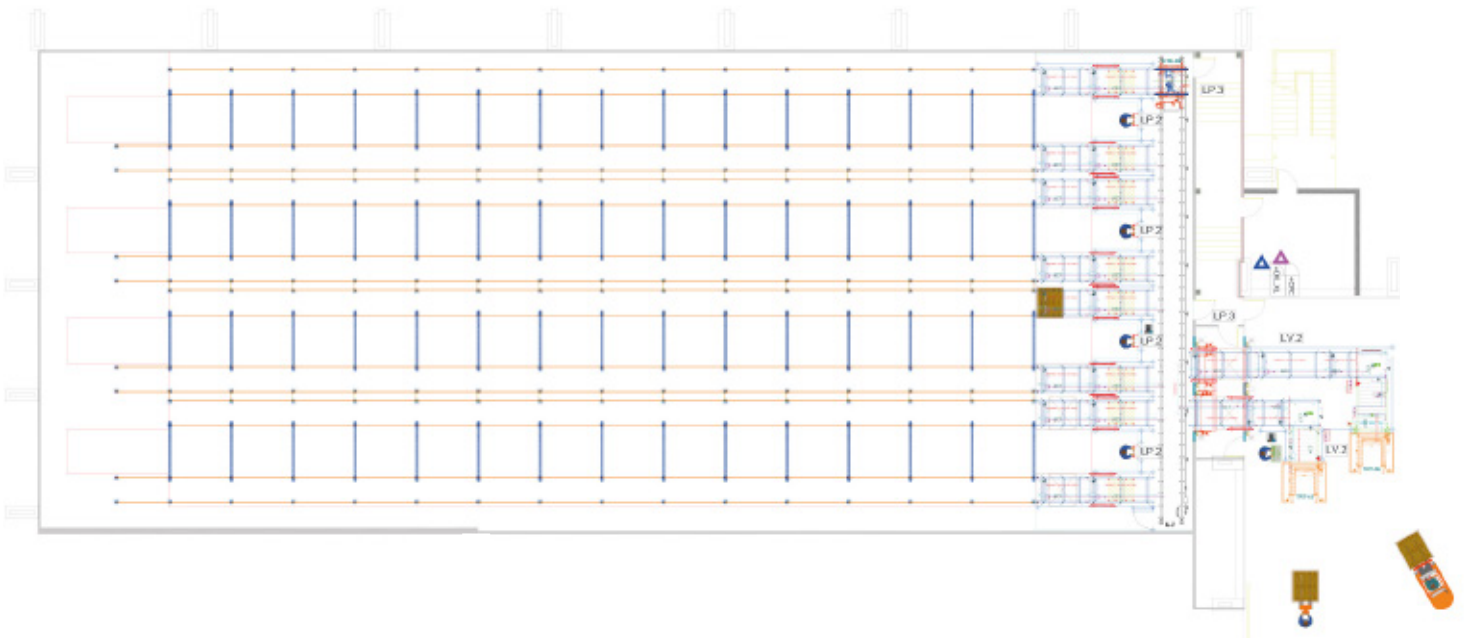
La Anónima is an Argentine company in constant growth since it was founded in 1908. It is known for offering a wide range of high-quality products and a variety of fresh foods, which meet stringent safety requirements. The company needed to expand the capacity of its cold storage, so

it sought the advice of Mecalux. The result was the construction of a completely automated system that makes it possible to dispense with the presence of operators inside. Equipped with the most advanced handling equipment, its operations are very simple: the goods are managed at all times to streamline reception, storage and

dispatch tasks with maximum protection and hygiene.

The Mecalux Easy WMS warehouse management software has been implemented, which is responsible for transmitting orders to the automated equipment and to organise the logistics process.





The solution by Mecalux

The 935 m² cold storage is kept at a constant temperature of between 0 and 5 °C and has a capacity for more than 1,200 pallets of finished products, with a maximum weight of 1,000 kg.

It also stores 192 containers of 650 kg, with cold meats that are sent to the manufacturing centre in order to package and prepare them for their subsequent sale.

Four single-depth aisles, only 13 m high and 41 m long, constitute the warehouse.

It is set up for growth, as three stacker cranes were installed with the prospect of enabling a fourth in the future, taking into account the chain's prospects.



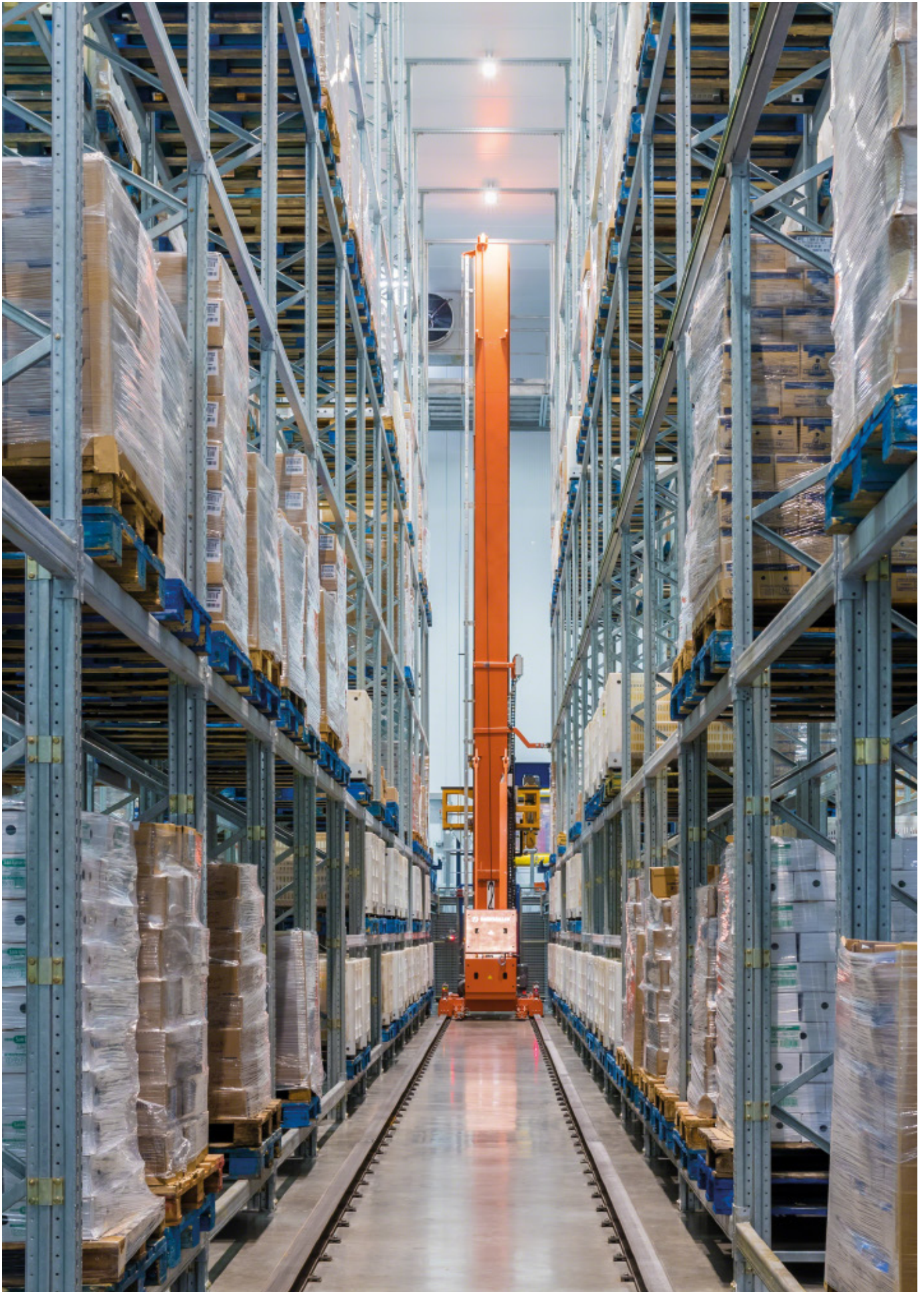


The automatic equipment

The warehouse has been equipped with trilateral automatic stacker cranes, the simplest solution by Mecalux to automate warehouses up to 15 m high, given that they move on two rails without needing upper guides. Their installation has remarkably increased the flow of goods per hour: locating and extracting the load units from the racks with great speed and without making mistakes. The stacker cranes have trilateral forks that can handle any type of pallet although in this warehouse there is predominately the 1,000 x 1,200 mm and deposit it just 10 cm from the ground, making full use of the facilities' height.

At the front of each aisle, there are two conveyor circuits with chains set up, one for entry and one for exit.

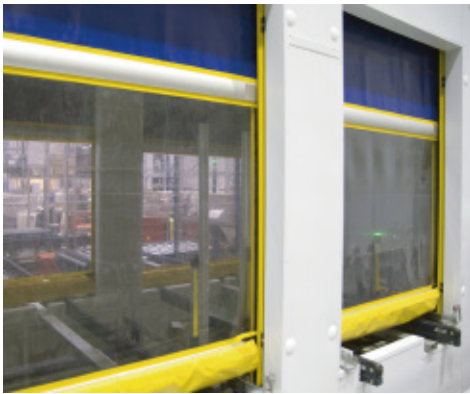
The transfer car connects the ends of the storage aisles with the cold storage inputs and outputs, located side by side to optimise movements



The inputs and outputs of goods

The tasks of receipt and dispatch are performed outside the cold storage. Operators, aided by pallet trucks, deposit the goods on a hydraulic table that lifts the loads up to the entry conveyor level. In addition, a checkpoint is responsible for validating their status before putting them into the warehouse. If the pallet is not in the required condition, it is automatically returned and removed from the circuit so that operators can recondition it.

Once the inspection is passed, the pallets first cross through a specialised enclosed area set up to keep cooled air inside before accessing the warehouse. This consists of a system of sluice gates, with two rapid-action vertical doors that never open at the same time.



The input system protects the cold storage from sudden changes in temperature and pressure by the continuous flow of load units

When the goods arrive at the cold storage, the transfer car distributes them directly to the assigned aisle. For output, it is the same route but in the opposite direction.





Easy WMS by Mecalux

The automated installation required a powerful management software to plan all operations with minimal human intervention. La Anónima implemented the Easy WMS program by Mecalux that is capable of managing all processes, including input, locations depending on product turnover, storage, extraction and outputs. This system reduces to a minimum the errors arising from the manual management and provides full traceability of goods, which is something fundamental when working with fresh food products.

The software is in permanent and bi-directional connection with the La Anónima's ERP, exchanging information and orders for the proper functioning of the different logistics operations.

The management program generates reports on the status of the warehouse and all the elements involved within it





Advantages for La Anónima

- **Maximum productivity:** the warehouse is fully automated, with minimal intervention by operators, so that it is possible to work without interruption, 24 hours a day. In addition, the trilateral stacker cranes increase the speed of inputs and outputs.
- **Greater capacity:** La Anónima has achieved a capacity of 1,248 pallets and 192 containers, which results in a cold storage that can meet the growing demand of its clients.
- **Logistical simplicity:** the cold storage is organised with a very simple circuit for input and output of the load units, which increases agility and safety in pallet movements.



Technical data

Storage capacity	1,248 pallets
Maximum pallet weight	1,000 kg
No. of containers	192
Maximum weight per container	650 kg
No. of stacker cranes	3
Type of stacker crane	MT0
Fork type	trilateral
Warehouse height	13 m

