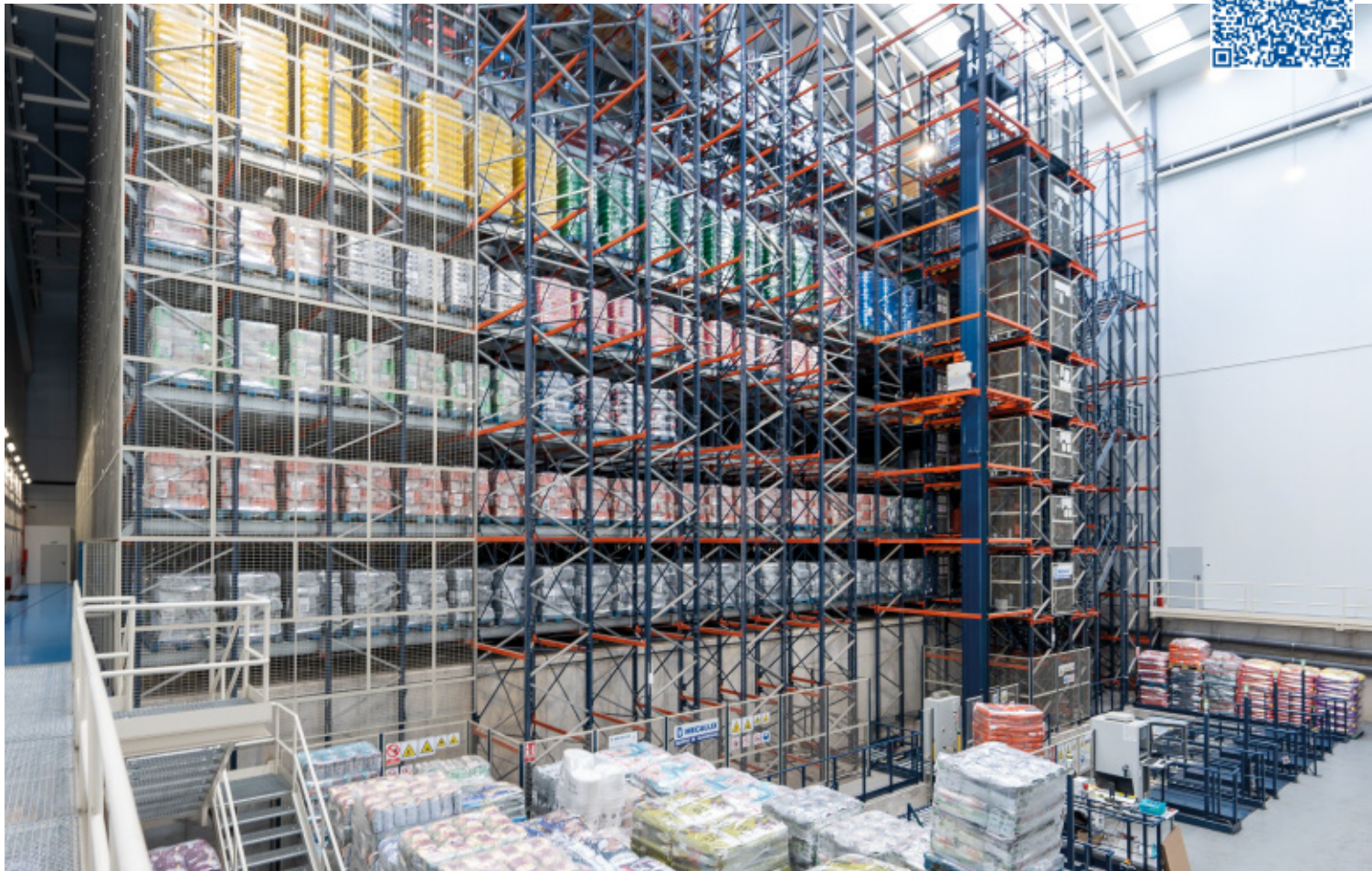


Storage of 132,275 tons of product a year

Alinatur Petfood installs an automated buffer managed by Easy WMS to support the annual production of 132,275 tons of dog and cat food.

Country: **Spain** | Sector: **pet care**



CHALLENGES

- **Connect the production lines** with the finished goods warehouse.
- Control stock **traceability** in real time.
- **Optimize space** to increase storage capacity.

SOLUTIONS

- **Automated Pallet Shuttle system with transfer cars.**
- **Conveyors and automated pallet lift.**
- Easy WMS **warehouse management software** from Mecalux.

BENEFITS

- Automated storage of **120,000 tons** of finished product **annually**.
- **Leveraging of the available surface** area with a compact storage system installed in a 9.8-foot-deep pit.
- **Complete traceability** of 5,000 pallets.



Based in Lorca, Spain, Alinatur Petfood is the dry dog and cat food manufacturer with the largest production capacity in the country. It features its own brands, which are distributed both in Spain and abroad. For this company, pet welfare is a priority. All processes in Alinatur Petfood's production chain are designed to ensure high-quality food that meets the needs of pets.

- » **Founded in: 2008**
- » **International presence: over 65 countries**
- » **Production capacity: 120,000 tons a year**

Increasing production volume without sacrificing logistics efficiency is one of the biggest challenges for any company, even more so when it is committed to ensuring excellent customer service. This was precisely the case of family business Alinatur Petfood when, as a result of its constant work and quality goods, its production activity began to pick up.

“Our warehouse was equipped with the semi-automated Pallet Shuttle system from Mecalux, a storage system consisting of a motorized shuttle charged with inserting and removing products from their locations autonomously,” says Roberto Ortín, General Manager of Alinatur Petfood. Goods were managed manually in the facility: using forklifts, the operators would place the shuttle in the different channels to deposit or extract the pallets. “This semi-automated solution worked really well for us for a long time and helped to boost our logistics operations up to the point when we ramped up production.”

Business growth led to new challenges. Alinatur Petfood opted to go a step further and automate its logistics processes with new storage solutions from Mecalux. “We wanted to improve our storage capacity and streamline the flow of pallet movements. We knew that automation was the only option that would cover our logistics needs,” says Ortín.

Alinatur Petfood chose the automated Pallet Shuttle storage system, one of the most efficient compact solutions on the market, as it ensures a high flow of goods entries and exits. The company swapped the forklifts used with the semi-automated version of the Pallet Shuttle for fully autonomous handling equipment — a transfer car on each level of the racking — to move the pallets to the storage channels.

“Because of the large number of SKUs and pallets coming off the production lines every

day, we needed real-time control of the goods,” says Ortín. To achieve this, Alinatur Petfood installed the Easy WMS warehouse management system from Mecalux. This software has provided the company with “more efficiency, control, traceability, and reliability in deliveries of orders to customers.”

The new Alinatur Petfood automated storage and retrieval system (AS/RS) sits between the production area and the loading docks to facilitate the automated movement of 1,800 pallets a day: 900 from production to the AS/RS and another 900 from the AS/RS to the dispatch zone to be sent to customers.

In addition, the pallet racks were set up in a 9.8-foot-deep pit, gaining height in the facility and, consequently, achieving the target storage capacity.

“We wanted to take advantage of the racking and the semi-automated Pallet Shuttle system we already had. So, we disassembled them, installed them in an adjacent facility, and asked Mecalux to expand the storage capacity. Then, we started up this new AS/RS with space for 5,000 pallets. Thanks to all these Mecalux solutions, we've gone from housing 1,300 pallets to almost 8,000 in total,” says Ortín.

Automated logistics

“The AS/RS serves as a buffer for finished goods; we store products there temporarily until we're able to ship them to customers. Production is based on sales forecasts, so we need the warehouse to be perfectly coordinated with the production lines. Plus, we have to dispatch orders as quickly as possible. Every 15 days, we establish the turnover of all the products we have in storage in line with sales,” says Ortín.

The AS/RS stands almost 66' tall. It has seven levels, a 125-foot-long aisle, and two blocks

of racking that leverage the entire surface area to provide a storage capacity of around 5,000 pallets. Each location holds eight pallets deep in the smaller block and 23 pallets deep in the larger one. A transfer car serves the storage channels on each level of the racks, while a motor-driven shuttle moves inside the channels, inserting and removing the goods.

The cycles/hour performed by the Pallet Shuttle system with transfer cars is multiplied by the number of levels in the facility, seven in this case. In total, the Alinatur Petfood warehouse is prepared to execute 126 combined cycles per hour (126 incoming and 126 outgoing pallets). Mecalux also installed a lift that connects all the storage levels and moves the goods to the level where they are to be stored.

Traceability of 5,000 pallets

“With Easy WMS warehouse management software from Mecalux, we’ve gained efficiency, control, traceability, and reliability in order deliveries,” says Ortín.

One of Alinatur Petfood’s priorities was for the warehouse management software to be integrated with its ERP system. The two programs communicate with each other

to ensure that operations run smoothly, coordinating movements of products from production to the warehouse and during the preparation of orders subsequently distributed to customers.

The Mecalux software supervises and optimizes all warehouse processes:

» **Goods receipt.** The products arrive from production stretch-wrapped and labeled. Easy WMS identifies the pallets the moment they cross the checkpoint, where it is verified that they meet the requirements established for their storage in the AS/RS.

» **Product storage.** Once the pallets from production are identified, Easy WMS makes a series of calculations taking into account the number of empty locations, the SKU, and the demand level to assign each item an appropriate slot. Thus, for example, best-selling products are placed near the lift to streamline their entry and exit.

» **Goods dispatch.** In the dispatch zone of Alinatur Petfood’s warehouse, activity is frenetic. Every day, around 900 pallets are shipped to customers. To carry out this operation efficiently, a large area has been set up

“We’re really pleased with our new AS/RS. Putting into operation a warehouse of these characteristics is no easy feat, especially when our production rate got so high that we couldn’t easily make adjustments. Mecalux’s team of professionals was present at all times and didn’t stop until the AS/RS was up and running at full steam.”

Roberto Ortín
General Manager, Alinatur Petfood

for organizing the goods to be distributed. As they leave the AS/RS, the pallets are sorted onto six automatic outbound conveyors. Easy WMS allocates each pallet a conveyor according to its order or transportation route (i.e., pallets that will be distributed along the same route will be placed on the same conveyor). This optimal distribution of the dispatch area has enabled Alinatur Petfood to ship products more speedily and without making mistakes.

Logistics with a present and a future

“We’re still immersed in a major growth process, but we now have a solid foundation — particularly in terms of logistics — thanks to our new, robust facility,” says Ortín.

The new Alinatur Petfood warehouse offers the storage capacity and throughput required to absorb an annual production of 132,275 tons of product. Moreover, Easy WMS speeds up inflows and outflows of goods by properly organizing products and optimizing the movements of the automated equipment (transfer cars, lifts, and conveyors).

Benefits of the automated Pallet Shuttle

- » Greater number of pallet cycles/hour.
- » Elimination of errors resulting from manual management.
- » Space optimisation due to compact racking.
- » Energy savings by charging the shuttle supercapacitors while on-board the transfer car.
- » High product availability.
- » Optimal stock control and perpetual inventory with Easy WMS warehouse management software.