

**Case study: PELENC**

Logistics 4.0 automation for a just-in-time strategy

Country: France



**Managing over 20,000 SKUs of different sizes and turnover calls for logistics operations that are organized as well as efficient. With this in mind, PELENC, French designer and manufacturer of tools for viticulture, fruit growing, and maintenance of urban green areas, has transformed its logistics center in Pertuis (France) with the installation of a new automated storage and retrieval system (AS/RS) for boxes and the Easy WMS warehouse management software from the Mecalux Group. With this comprehensive solution, the company has increased its operational throughput by 12%, preparing up to 1,000 order lines a day to supply the production lines at just the right time.**

**Agriculture and progress**

Up and running since 1973, PELENC develops sustainable technology solutions aimed at facilitating the work of operators, reducing their fatigue, and optimizing production quality. The company has 8 production plants and 19 subsidiaries worldwide where it produces, distributes, and sells its machines to over 500,000 customers. The firm is convinced that technology is indispensable for driving its business and progress in the primary sector.

Therefore, automation is found in most of its processes (including logistics). The purpose? To provide improved service and efficiently meet its customers' needs.

**From manual logistics to robotics**

PELENC's commitment to automation is on display in its modern logistics center in Pertuis, where it manages more than 20,000 SKUs (from spare parts sent to the production lines to finished products distributed to customers around the world).

Although the company now boasts a high-tech logistics center, PELENC Logistics Manager Cyril Spinosi acknowledges that this was not always the case: "We used to manage all our products using conventional logistics solutions for picking and storage."

Before making the technological leap, the company had stored all its products on double-deep pallet racks. As the business expanded and the production rate



## Order picking

The main operation of this logistics center is order preparation to supply the production lines with raw materials just in time. Inefficient operations would jeopardize the rest of PELLENC's supply chain. Therefore, with a view to preparing over 1,000 lines a day, the company is extremely strict in guaranteeing the organization and distribution of the goods.

Orders are prepared in both the AS/RS for boxes and the pallet racks in two different ways. At the pallet racks, picking is done according to the person-to-goods method. In other words, the operators travel up and down the aisles using carts in which they place products as they remove them from the pallets. These carts, carrying larger items, are deposited in a temporary storage area and sent to production at the appropriate time. Meanwhile, in the miniload system, orders are prepared in line with the goods-to-person concept.

To do this, two pick stations have been set up at the front of the warehouse. Operators remain there as the goods are brought to them automatically by means of orders sent by Easy WMS and executed by stacker cranes and conveyors. Thus, the operators merely need to remove the products from the boxes and leave them on pallets. Once the orders are completed, they are moved to the production lines. "With this picking system, our operators are more productive. Plus, they can prepare orders more ergonomically," says Spinosi.

became more intense, this storage system ceased to be effective.

This was because all goods management was carried out manually, and the operators, aided by forklifts, had to insert and remove the pallets from their locations. "We realized that if we wanted to optimize the throughput of our logistics center, we had to overhaul our operations," says Spinosi.

The first step to modernizing the firm's logistics operations involved reorganizing the distribution of the goods, taking into account their size and characteristics. To do this, PELLENC sought a "specific solution for small items that would make the most of the storage space, speed up picking tasks, and reduce errors," says Spinosi.

The company has transformed its logistics center with the installation of single-deep pallet racks and an AS/RS for boxes managed by the Mecalux Group's Easy WMS, a technological solution that enables companies to monitor their stock, providing total traceability. It does this by assigning a location to each box the minute it arrives at the warehouse, giving the company full control over entries and exits.

### AS/RS for boxes: characteristics

One of the features of this miniload system that most impressed PELLENC was its ability to leverage the surface area and accommodate a larger amount of raw materials: in just 915 ft<sup>2</sup>, the company stores 2,280 boxes.

The AS/RS for boxes comprises a single aisle with single-deep racking on both

sides. As the company works with boxes of two different heights (9.5" and 4.7"), the slots in the racks had to adapt to that peculiarity. The lower levels are used for the larger boxes and the upper levels for the smaller ones.

In the aisle, a stacker crane deposits and extracts the goods from their locations quickly, safely, and with full autonomy. Additionally, this robot ensures the continuous movement of boxes without any chance of error. "The AS/RS for boxes has allowed us to maximize space, increase capacity, and effectively integrate ourselves in Logistics 4.0," says Spinosi.





**Syril Spinosi**  
Logistics Manager, PELLENC

*"We're thrilled with the improvements resulting from the new storage and management solutions from Mecalux. We decided to automate our operations to ramp up throughput, enhance stock management, and speed up order prep."*



Easy WMS orchestrates this operation to enable the workers to process a larger number of orders in less time.

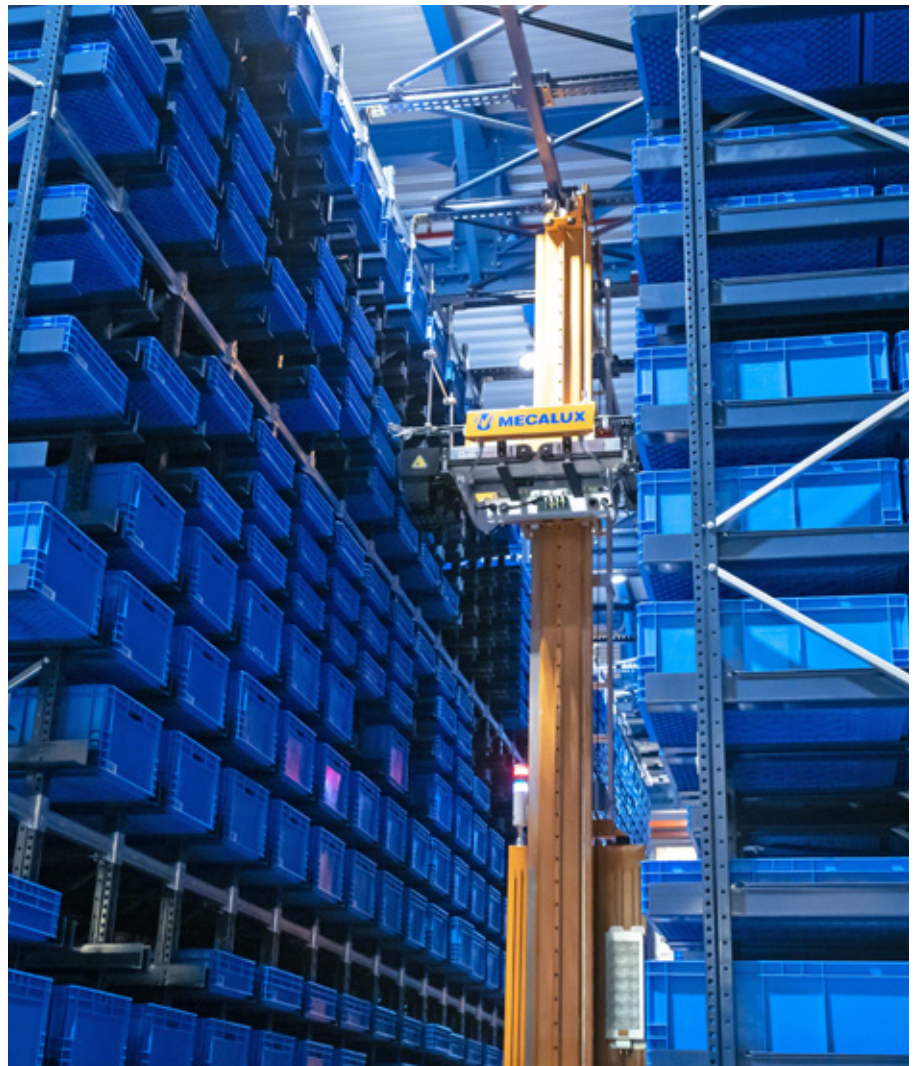
The WMS tells them which and how many items they require to put together each order. By following these instructions, the risk of error is practically zero. "With the implementation of Easy WMS, our center's throughput has risen by 12%. At the same time, we've streamlined all administrative tasks relating to information management," says Spinosi.

### Modern, high-tech logistics

PELLENC has revamped its logistics center with two main goals: to optimize the storage of 20,000 SKUs and boost the throughput of its operations, especially picking.

PELLENC now has a warehouse adapted to Logistics 4.0 with improved flexibility and responsiveness. Likewise, the implementation of Easy WMS has enabled it to reach its target efficiency, minimizing errors in the preparation of over 1,000 order lines a day.

"Our company is going through a phase of unprecedented growth, which has compelled us to make sure our logistics operations are able to meet all our needs and objectives," says Spinosi.



### Advantages for PELLENC

- **Management of 20,000 SKUs:** larger products are stored on pallets, and the smaller ones are housed in the miniload system.
- **Over 1,000 order lines per day:** the pallet racks offer direct access to expedite picking, while the miniload system follows the goods-to-person method.
- **Leveraged space:** the AS/RS for boxes optimizes the available space to accommodate the largest number of products. The company stores 2,280 boxes in just 915 ft<sup>2</sup>.
- **Just-in-time operations:** the PELLENC logistics center is designed to supply the production lines without interruption.



### Technical data

Storage capacity	2,280 pallets
Box sizes	16" x 24" x 4.7"/9.5"
Max. box weight	110 lb
Rack height	20'
Rack length	56'

