

**Case Study: Elektro3**  
Over 14,000 SKUs in an expanding warehouse

Country: Spain



**To cope with an annual growth of 44%, hardware and DIY store products company Elektro3 has added on to its logistics center in Tarragona, Spain, up to three times since it opened in 2010. To optimize space and accommodate a wide variety of SKUs, Mecalux has installed pallet racking to facilitate the preparation of 4.5 million order lines a year.**

**Continuous expansion**

Founded in Tarragona (Spain) in 1993, Elektro3 is a company that sells products for hardware, DIY, household appliance, and gardening stores. It is characterized by constant transformation, improvement, and growth. Elektro3 has around 175 employees in over 20 countries who provide advice and all kinds of solutions for 22,500 customers.

In 2010, Elektro3 relocated to a new warehouse that, since then, has been expanded three times in order to increase storage capacity. Currently, the logistics center occupies a surface area of 6.7 acres and

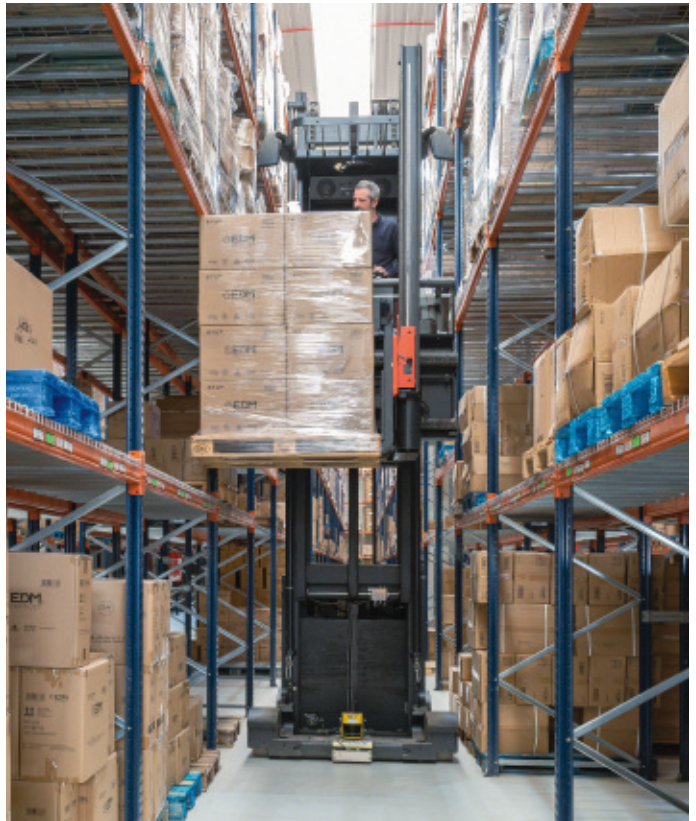
houses more than 14,000 SKUs of very diverse sizes, characteristics, and turnovers. Nevertheless, that figure is expected reach 16,000 during 2021.

**Capacity and agility**

When expanding the logistics center, Elektro3's priority was to be equipped with an extremely strong and versatile storage system capable of managing very varied goods. Likewise, the company required a solution that *"would optimize all the space to house the largest possible number of products,"* says Eduard Bordàs, Logistics Manager at Elektro3. The warehouse also stands out for its busy day-to-

day activity: every day, it receives up to 200 pallets, which operators identify and organize taking into account their turnover and size. At the same time, close to 1,000 orders are prepared, consolidated, and dispatched on close to 150 pallets sent to retailers and distributors of Elektro3's products.

Elektro3's logistics operations are designed to prepare and deliver orders to customers on the Iberian Peninsula in under 24 hours. It accomplishes this by means of effective, agile processes and efficient organization of its SKUs, ensuring that operators waste no time locat-



ing the products they need. To meet all of Elektro3's requirements, Mecalux has installed pallet racking with narrow aisles for three reasons: its adaptability to any type of load, weight, and volume; the direct access it offers to the products (facilitating goods handling and order picking); and its optimization of space.

The racks stand 30' tall and 262' long at their longest part. With five levels, they provide a total storage capacity of 21,000 pallets. *"They're specifically designed to boost the most important operation in this center: order picking,"* says Bordàs.

Order picking is done on the lower level of the racking, either directly from the pallets or from the locations themselves for smaller items. Meanwhile, the upper levels are allocated to the reserve products. This

means the goods are always available, doing away with interruptions.

In the aisles with picking locations, the upper part is covered with electro-welded mesh to prevent the materials from falling accidentally. *"Everything has been taken into account down to the last detail. Safety is indispensable for ensuring that our warehouse operations run properly,"* says Bordàs.

#### Efficient operations

The working aisles of the pallet racking system have been made as narrow as possible to optimize the storage area. As they span merely 6.2' wide, it is necessary to employ wire-guided VNA (very narrow aisle) trucks to insert and remove the pallets from their locations. The operation of these machines is simple as well as safe:

a wire embedded in the warehouse floor produces a magnetic field that guides their movement. These forklifts only navigate inside the aisles, so reach trucks are used to move the pallets from the aisles to the other areas in the facility.

The VNA trucks remove the pallets from their slots and place them on the consoles located at the ends of the racking. The reach trucks then pick up those pallets and move them to the required destination.

To prepare orders, operators travel about the warehouse using order pickers. They remove the SKUs directly from the racks and put the orders together on top of a pallet, which they then move to the consolidation area. This way, they can prepare multiple orders simultaneously on a single run through the warehouse.



**Eduard Bordàs**  
Logistics Manager, Elektro3

*"The Mecalux pallet racks have increased our storage capacity and helped us to improve management of our 14,000 SKUs. Our logistics center is growing constantly, and the racking makes the most of every available inch."*

#### Competitive logistics

Elektro3's logistics center in Tarragona is epitomizes the company's work philosophy: transformation, growth, order, and efficiency. Bordàs says, *"Thanks to the expansion of our logistics center and the acquisition of the new storage systems, we can provide our customers with better service and raise our yearly growth rate, which currently stands at about 44%."* Elektro3 has also recently opened a 43,055 ft<sup>2</sup> showroom to attend to its customers.





### Advantages for Elektro3

- **Agile operations:** direct access to products is essential for streamlining the preparation of 1,000 daily orders, equivalent to 4.5 million order lines a year. Additionally, orders destined for the Iberian Peninsula are delivered within 24 hours.
- **Surface area optimization:** the racking with narrow aisles leverages the available surface area to store 14,000 SKUs on 21,000 pallets.
- **Sustained growth:** Elektro3's logistics operations are designed and prepared to handle yearly growth of 44%.



### Technical data

Storage capacity	21,000 pallets
Pallet size	32" x 47"
Max. pallet weight	1100 lb
Rack height	30'
Rack length	262'

