

Case study: Benfood

Clad-rack warehouse features Moviracks for frozen Benfood products

Location: Spain



Mecalux has constructed a clad-rack warehouse and equipped it with Movirack mobile pallet racking specifically to house the frozen products of the Benfood alimentation manufacturing centre. The first phase of this solution was conceived to store 2,600 pallets, meaning the company heightens storing capacity and reduces logistics costs.

Benfood: quality products for professionals

The Castellón-based company Benfood first opened in 2014 with an initiative to serve up traditional, ready-made and pre-cooked Italian cuisine, crafted out of top-quality ingredients and all competitively-priced.

Benfood is known for the guaranteed high-quality of its entire product portfolio and for its capacity to please its customers by adapting to consumer demands. The company is constantly investing in its infrastructure and in its human resources to make its products a mouth-watering meal experience for its most discerning customers.

Making Italian products is Benfood's speciality, from stuffed Italian pasta, meat dishes, or sauces and purees, to pizza, focaccia and deserts. It owns and operates a few 15,000 m² production facilities with the latest in cutting-edge machinery to do just that, and all finetuned to its technical specifications. Plus, it also runs an intelligent logistics warehouse and eight production lines able to make more than 20 million kilos of the various products it manufactures yearly.

Its team of professionals is the cornerstone of its success. These days, Benfood has a



staff of 90 people, which include everyone from food safety specialists to personnel qualified in food technology. Through the joint effort of this entire team of professionals, the company's installations have received various certifications that show its firm commitment to quality and food safety in all manufacturing processes. The handiwork of the R&D&i Department is noteworthy, whose job is to continuously rejuvenate its products and feature food items on the market.

Needs of the company

Faced with business growth over recent years, Benfood turned to Mecalux for help, to have the storage supplier install a solution that would increase storage capacity, while also optimising available space.

Apart from that, and because it works with cold storage, the company needed a system that would help them cut costs as much as possible in power consumption used for cooling.

In a clad-rack warehouse, the racks themselves substitute the pillars or columns that would normally hold up the building



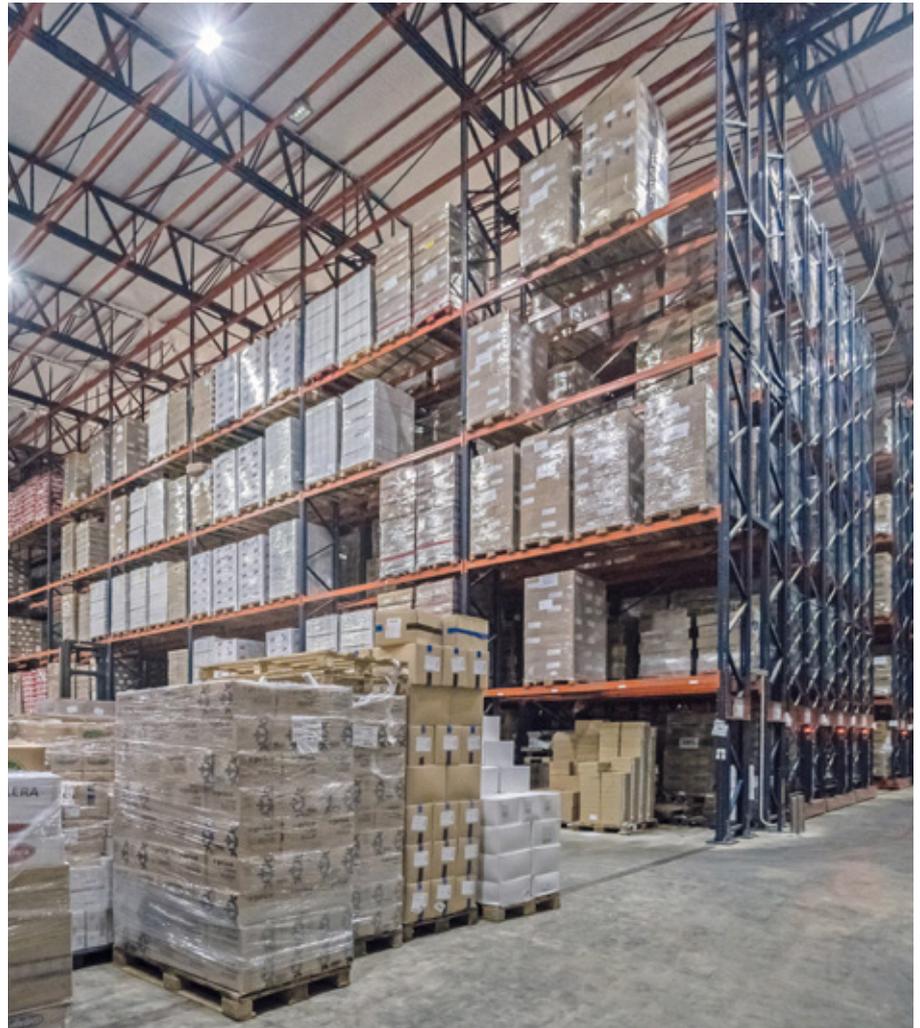
The solution: mobile bases inside a clad-rack warehouse

After analysing the requirements Benfood presented it, Mecalux was inclined to build a clad-rack warehouse and furnish it with Movirack mobile pallet racks mounted on bases.

A clad-rack system differs from any standard built racking inside a premise, because –in addition to the stored loads– they also support the roof and cladding structures, forces caused by wind, snow and seismic activity of the region where it is built. The structure also supports the cooling equipment (evaporators) and includes an access platform for maintenance work.

Pallet racks were installed on each flank of the warehouse, as well as along the centre, in order to support the building's structure. Meanwhile, Movirack mobile pallet racking was arranged between the pallet racks. The high-density mobile rack system trims back the number of aisles and provides optimal storage capacity.

Likewise, and redressed to Benfood's needs, the Movirack system is highly-suited for cold stores (refrigerated or frozen) since substantial savings is had in power usage for chilling air, by spreading this air among a greater number of housed pallets.



Benfood can warehouse 2,600 pallets of 800 x 1,200 mm, each weighing a maximum 750 kg



Movirack pallet racks in action

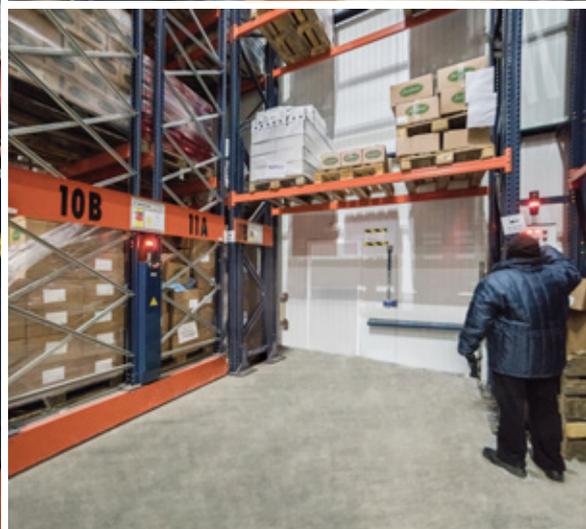
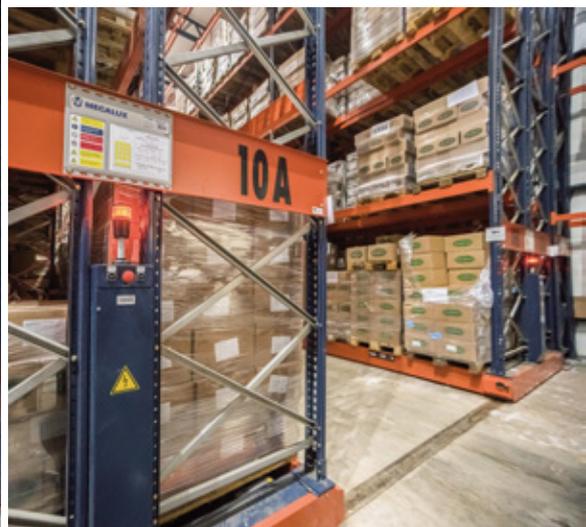
This system features racks installed on mobile bases that slide sideways along rails embedded into the floor. The operator selects the base they want access to using a remote control. The racks open in a cascade formation, leaving only the necessary working aisle accessible for loading and unloading between the selected racks. Reach trucks are used to extract and place pallets.

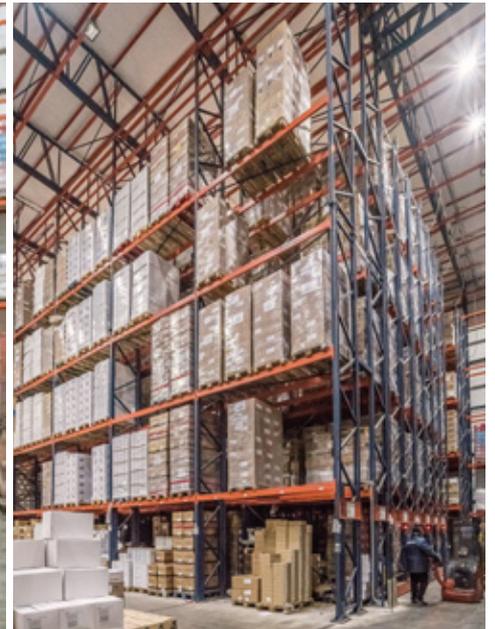
For the system to run right, each of the two Movirack mobile rack blocks set up in the Benfood warehouse has its own control cabinet, as well as onboard control panels on all the racks.

The PLC is located in the control cabinet and is responsible for directing and processing movement commands. In turn,



the power regulators synchronise the three motors in each base and soften start-up and braking to extend the service life of the components deployed in the racks (wheels, engines, guides, etc.).





Built-in safety devices, like internal and external barriers with sensors, on the 12.3 m tall Movirack pallet racks keep personnel safe and guarantee the warehouse operates properly

Ready for the future

The Benfood warehouse features a zone where more racks can be set up, if and when the company's growth calls for this measure. Currently, this area is used to store palletised merchandise straight on the floor.





Advantages for Benfood

- **Storage is the word:** Benfood's warehouse contains a total 2,600-pallet capacity, with a potential to be expanded down the road, if it became necessary.
- **Cut costs:** the Movirack mobile racking helps significantly lower the energy consumed to cool off space, thanks to the goods being kept close together.
- **Speedy operations:** the Movirack system and the pallet racks offer direct access to the goods, which means faster stock management and product handling.



Technical data

Storage capacity	2,600 pallets
Pallet size	800 x 1,200 mm
Max. pallet weight	750 kg
Racking height	12.3 m

