



Case study: Frío Valencia

Mecalux racks on mobile bases in the three frozen storage installations of Frío Valencia

Location: Spain



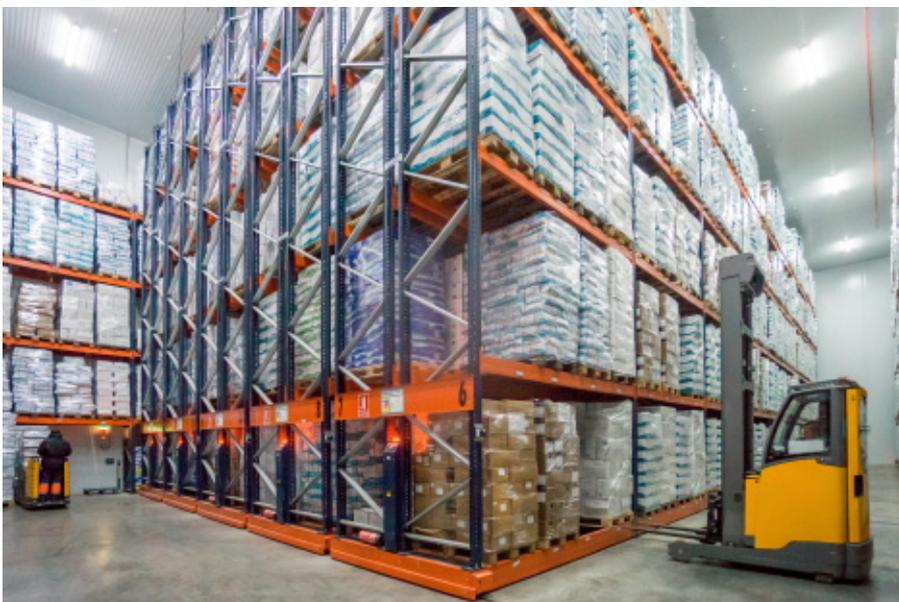
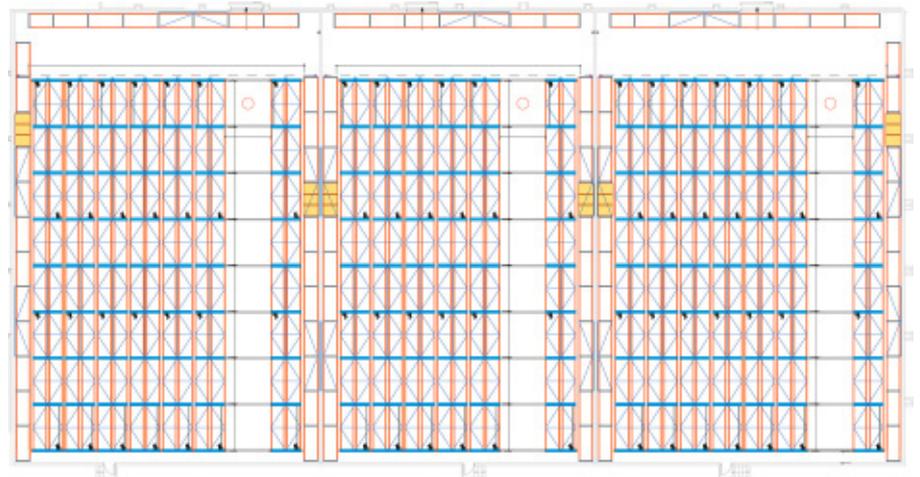
Mecalux has equipped the three frozen storage chambers of Frío Valencia with Movirack mobile pallet racking. This system makes full use of the available surface area to provide a storage capacity of more than 7,700 pallets and, likewise, to offer direct access to the SKUs the moment a work aisle opens.



About Frío Valencia

This cold logistics service provider focuses on storage, management and transport services for its customers in Spain. Its logistics centre is nestled in the town of Picassent, just 25 km from the port of Valencia and in a major transport hub that facilitates product distribution throughout the Spanish territory.

The centre is composed of three separate chambers that run at a temperature of -25 °C, which is where Frío Valencia deposits its customers' pallets. The facility also includes eight docks for loading and unloading.



Movirack mobile racking

Mecalux has fitted out the three freezer storage installations with a total of 20 double-depth racks on Movirack mobile bases and six stationary units. They are 10.5 tall, with five shelving levels, and 30 m long. Overall, this means a storage capacity of over 7,700 pallets with a maximum weight of 1,000 kg each.

This high-density system completely maximises space usage. It compacts the number of aisles, as well as eases direct access to the SKUs each time a work aisle opens.

The racks rest on mobile bases that slide sideways over rails independently. Utilising an RF remote-control device, the operator gives the open command to the desired aisle.

In order to protect workers and the stored merchandise, the system is fitted with electronic equipment and different safety devices:

- **Internal sensors.** These detect the presence of objects inside the aisle that would otherwise prevent the system from operating properly.
- **External sensors.** These stop the racks from moving when a piece of equipment enters the aisle.
- **Emergency stop buttons.** These are located in the onboard control cabinet of all the rack units, and keep the racks from moving if an incident occurs.
- **Proximity photocells.** These ensure a safe, smooth stop motion of the racks.

The transmission of power to the mobile base is undertaken through a double crown gear with a double pinion, which provides better system performance.

By doing so, the racks move more uniformly. Therefore, the life of the mechanical components is extended.



José Salvador Olmos
Manager at Frío Valencia

“Through this great storage system, we have really seen a capacity increase in our chamber storage, power savings from the compact storage and much more efficient order management because the racks move quickly.”

The Movirack units are especially useful in frozen storage chambers, like the ones at Frío Valencia, since they lessen the electricity consumed to create cold storage conditions by distributing this cold air between a larger number of stored pallets





Advantages for Frío Valencia

- **Storage capacity:** the three frozen storage installations of Frío Valencia offer a storage capacity of more than 7,700 pallets.
- **Cost savings:** the mobile racks help significantly reduce the power consumed to produce cold conditions.
- **Speedy operations:** the direct access to the goods means faster stock management and product handling.



Technical data

Storage capacity	7,735 pallets
Pallet size	800 x 1,200 mm
Max. pallet weight	1,000 kg
Racking height	10.5 m
Racking length	30 m
No. of mobile racks	20
Working temperature	-25 °C

