



**Case study: Unilever**

Unilever opens a warehouse in Uruguay that stores more than 15,000 pallets

Location: Uruguay



Mecalux has equipped the new Unilever distribution centre in Montevideo (Uruguay) with both single and double-deep pallet racks, providing a storage capacity of more than 15,000 pallets. In addition, 48 live picking bays were set up in one part of the racks to accelerate order picking.



### About Unilever

Unilever is a multinational manufacturer of consumer goods, primarily food, beverages, as well as home and personal care items. It sells brands such as Axe, Dove, Hellmann's, Rexona, Knorr, Lifebuoy, Cif, NeveX, Lipton, Lux and Tressemeé.

The company, which does business in more than 190 countries, got started in Uruguay in 1945 and, since then, has become one of the most prominent consumer goods enterprises.

### Needs and the solution

The success experienced by Unilever in the last few years, especially in Uruguay, has made it necessary to expand the Montevideo logistics centre.

In turn, Unilever launched the Sustainable Living Plan in 2010, where it made a public commitment to reduce the environmental impact of its operations by 50%.

In doing so, it not only had to enlarge but modernise to make better use of resources.

Unilever constructed an 18,000 m<sup>2</sup> distribution centre located in the Polo Oeste business park in Montevideo.

In the design, 15,000 m<sup>2</sup> was set aside for storage, leaving 3,000 m<sup>2</sup> for offices, HR and value adding activities. To construct this project, more than 120 operators would be needed.

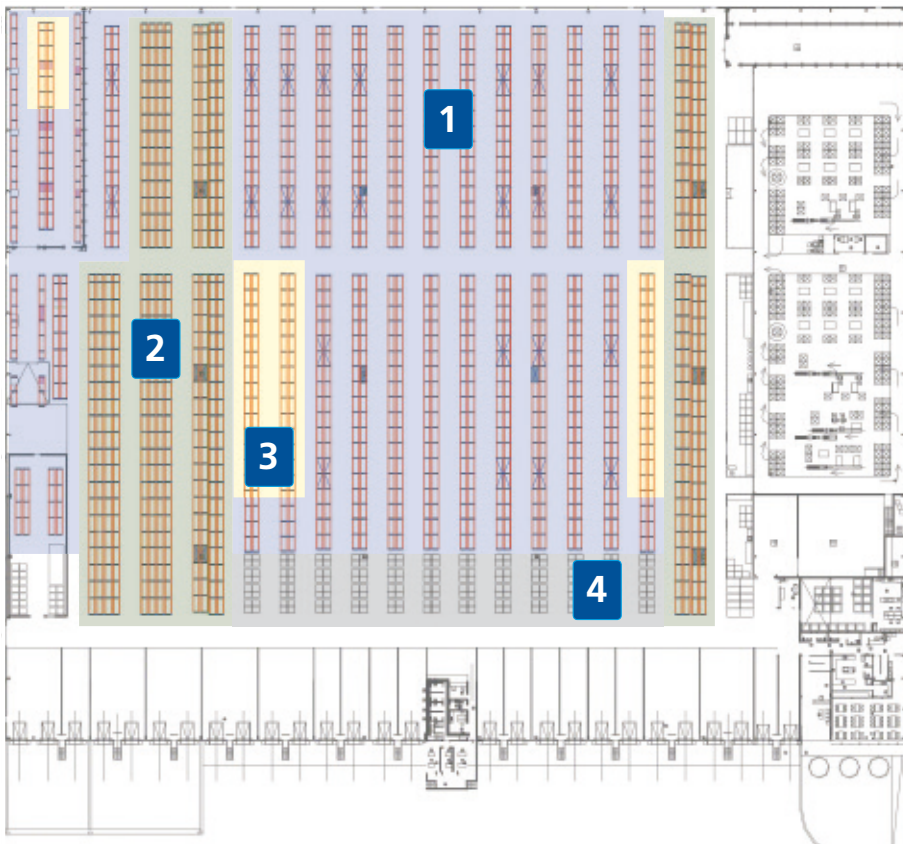
The storage area comprises single and double-deep racks, as well as levels with live picking storage. Between racks and the 27 loading docks, there is a preloads space where the reception and dispatch of goods are managed.

The warehouse also has a zone for storing temperature controlled products, designed in accordance with the highest safety standards.

Moreover, the Unilever warehouse is the first in Uruguay to be awarded the LEED Certificate (Leadership in Energy and Environmental Design) for eco-friendly structures. This internationally recognised certificate, issued by the U.S. Green Building Council, assures that a building fulfils the highest environmental protection standards.

Parts of the Unilever warehouse:

1. Single-depth pallet racking
2. Double-depth pallet racking
3. Pallet racks with live storage for picking
4. Preloads area



In a 12,000 m<sup>2</sup> surface area, Unilever can store 15,055 pallets of 1,000 x 1,200 mm weighing a maximum 1,200 kg each



### **Pallet racking**

The single and double-depth racks contain five and six storage levels, reaching a maximum 10 m high.

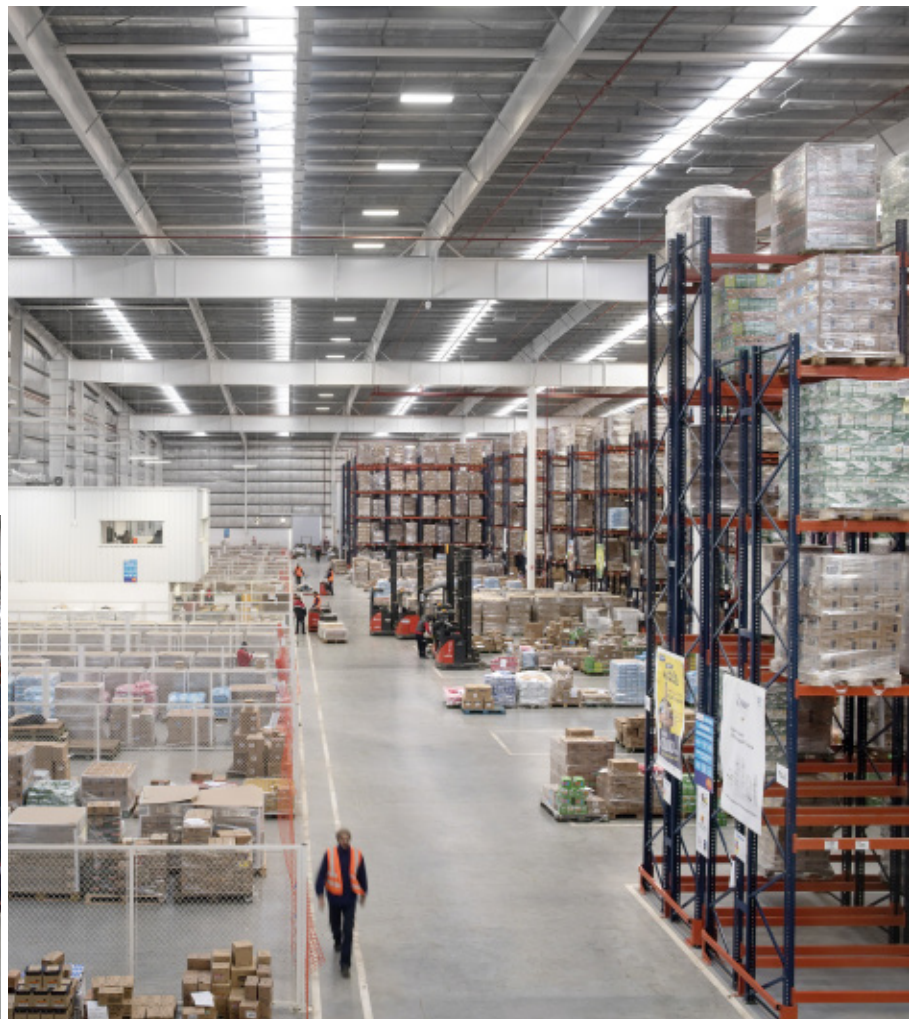
The single-depth racks, which fill the majority of the warehouse's surface area, are set aside to house low turnover products.

Picking is done directly off the pallets in the lower, ground level racks, with product reserves slotted on upper levels.

In turn, double-depth racks house high-turnover products.

This system offers greater storage capacity with direct access to the pallets. This solution features two pallets of the same SKU in each location (one behind the other).

Standard pallet racking makes direct access to each pallet possible, safely storing the maximum number of unit loads in an organised manner



### Live storage levels for picking

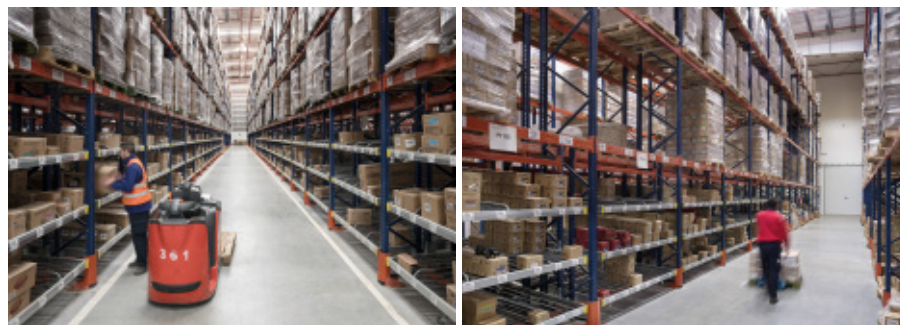
Picking of orders is not only carried out directly from pallets located on the bottom level of the single-depth racks, but also from the three levels of live storage with rollers enabled in one part of the pallet racks.

In all, there are 48 picking bays where orders with higher turnover products are prepared.

Each bay has three levels with four or five live channels that are several boxes deep, depending on their dimensions.



## Operators use order pickers to collect items, either the boxes placed in live storage levels or directly off the pallets

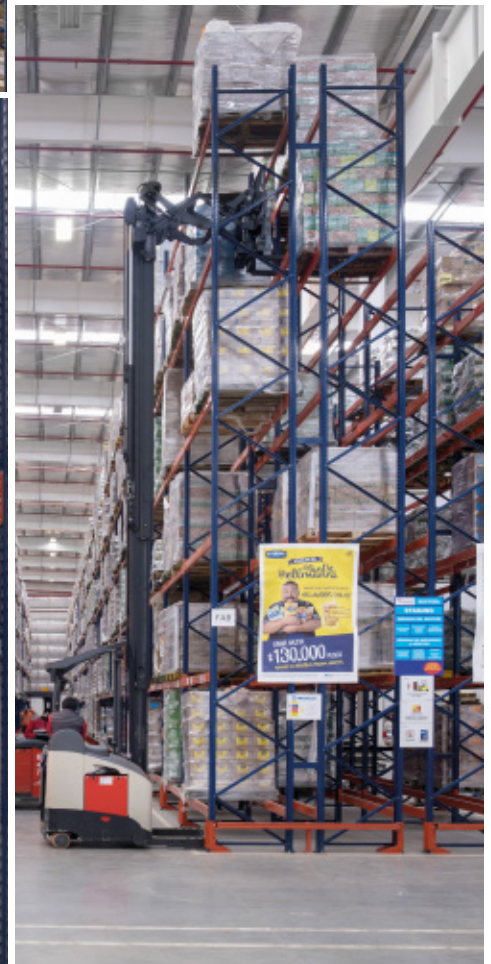


### Handling equipment

Operators use reach truck to insert and extract the goods in the single-depth pallet racks.

They turn out to be suitable for manoeuvring in a 3 m wide aisle and, also, can access upper levels.

To reach the second pallet in double-deep locations, reach trucks have extendible forks.





### Reception and dispatch

The Unilever distribution centre allocates a 3,000 m<sup>2</sup> preloads zone, set up in front of the 27 docks, to the reception and dispatch of goods.

Pallets from the same order or route are grouped together on the floor before the lorry is loaded to cut wait times of goods leaving the warehouse.





### Advantages for Unilever

- **High storage capacity:** the pallet racks have a 15,055-pallet storage capacity.
- **Efficient service:** the operation in the warehouse stands out for its simplicity. The direct access to goods means any SKU is easily managed.
- **Fast-paced picking:** the live storage levels of the pallet racks accelerate the picking of smaller sized products.



### Technical data

Storage capacity	15,500 pallets
Pallet size	1,000 x 1,200 mm
Max. pallet weight	1,300 kg
Max. racking height	10 m
Picking bays	48
Picking levels	144

