



RAMOS
GRUPO

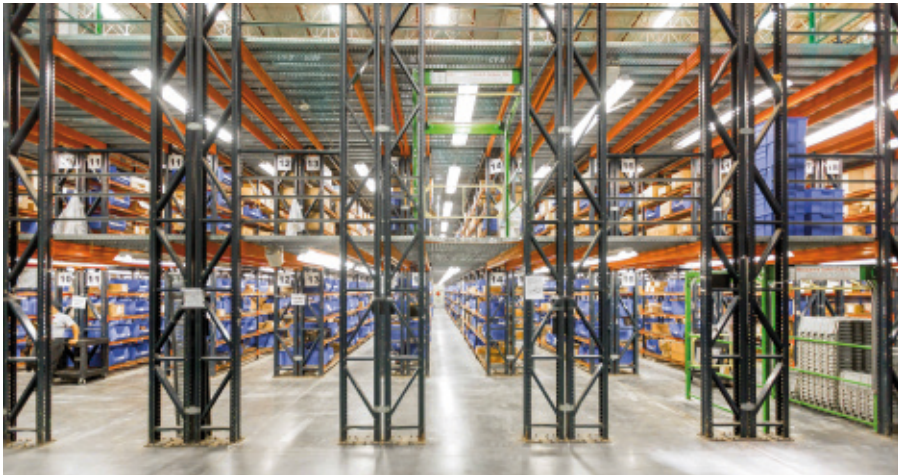
Case study: Grupo Ramos

A combination of different storage and picking systems to improve logistics efficiency

Location: Dominican Republic



Grupo Ramos, a leading retail sales company in the Dominican Republic, owns an enormous installation supplied by Mecalux. This facility integrates multiple storage solutions that bring together a large variety of products and harness the profitability of the distribution centre. The warehouse, with a capacity for more than 42,800 pallets, has improved the efficiency of the company, besides optimising its logistics costs.



At first glance: a multi-solution warehouse

The new Grupo Ramos distribution centre is at the heart of an ambitious renovation and logistical expansion project, which started in 2009, in order to deal with increased customer demands in a more efficient and logical manner.

On an initial plot of 142,000 m², an enormous 38,500 m² building was raised. It is capable of storing 42,816 pallets of a variety of goods to attend to three shop channels: La Sirena, Super Pola and Aprezio.

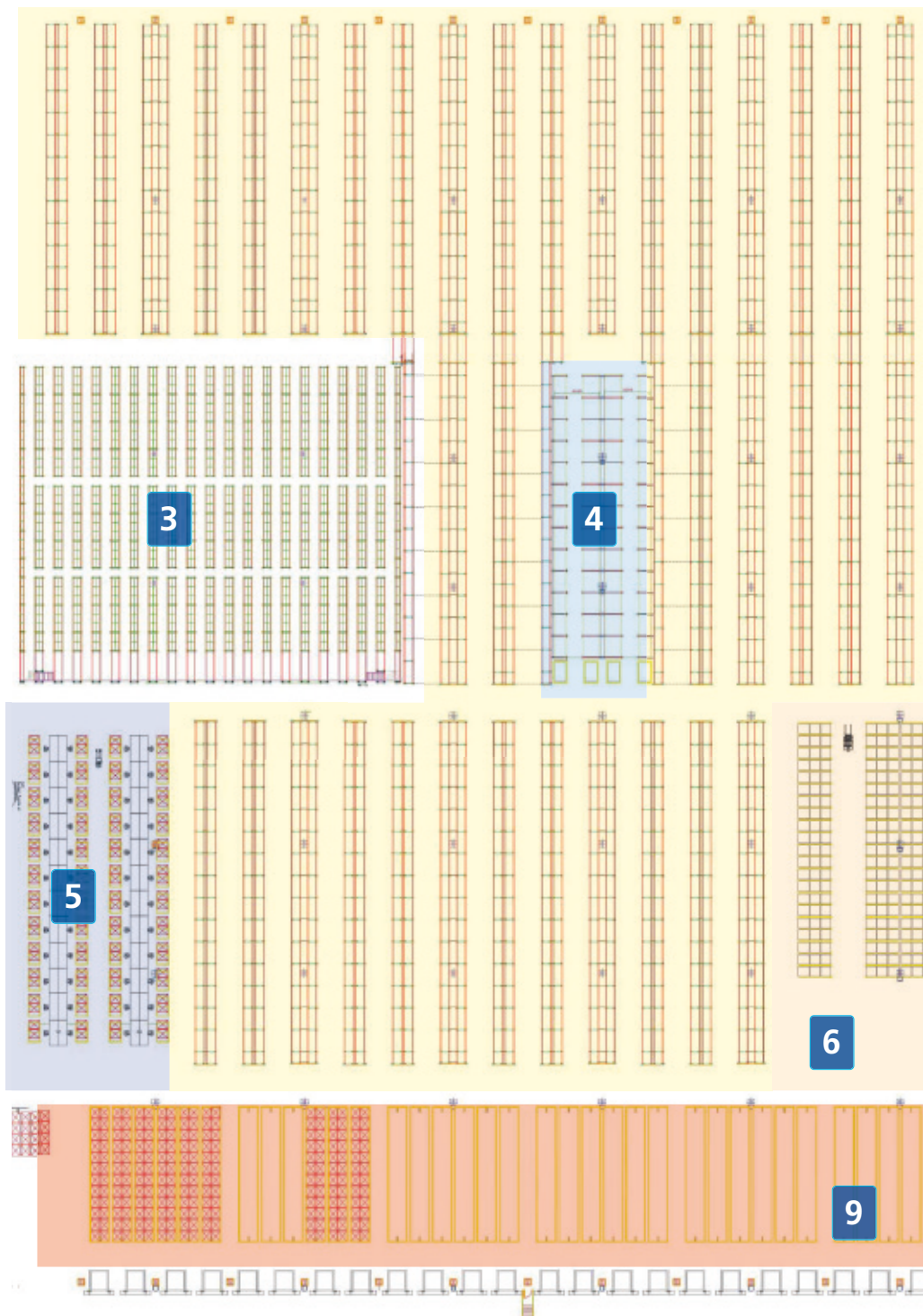
About Grupo Ramos

Grupo Ramos is the leading retailer in the Dominican Republic and one of the main private sector employers in the country. More than 10,000 staff work in its sales establishments, corporate offices, baking plants and distribution centres.

The company's history starts back in 1965, when Román Ramos Uría, a native of Asturias (Spain), at barely 24 years old acquired La Sirena on Mella Avenue in Santo Domingo. Grupo Ramos currently operates in more than 50 shops (La Sirena, Super Pola, Aprezio and Gran Aprezio), which together receive 50 million visits a year. It also operates two regional shopping centres, under the Multiplaza brand.

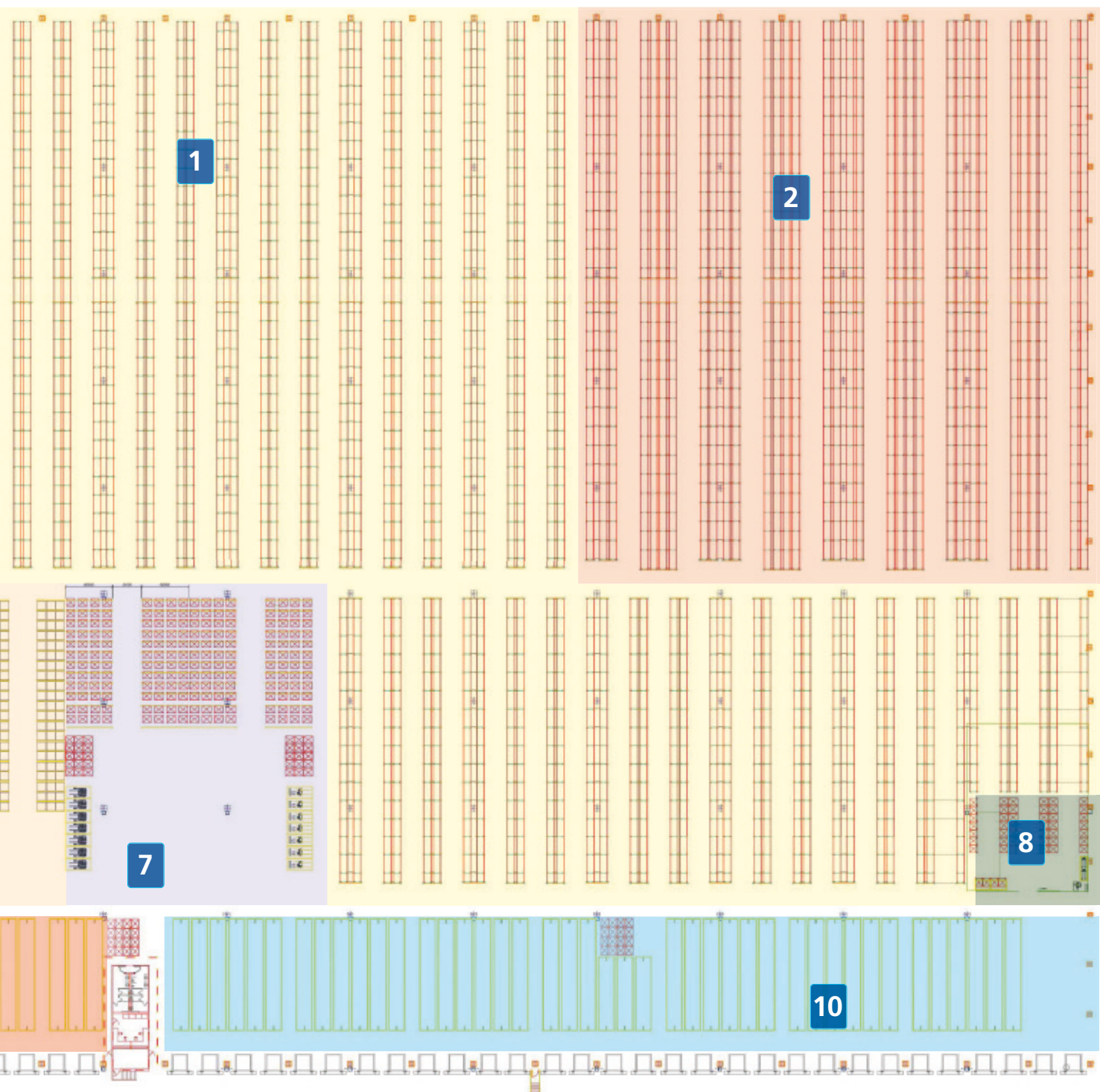
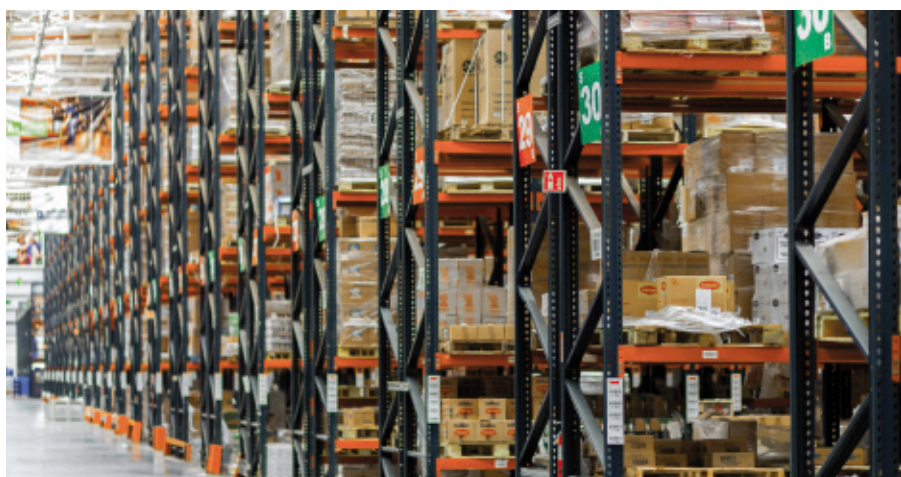
From its beginnings, Grupo Ramos diligently served its customers with excellence, by means of its different business units. The clear vision of its founders, the principles and values that guide its actions, a dynamic business strategy and a highly dedicated team are some of the keys to the company's leadership and success.

Mecalux designed a multi-solution warehouse to manage the large variety of products the company stocks and to efficiently optimise the space of the installation (260 m x 148 m)



The installation, which has experienced a qualitative jump logistically, incorporates the following warehouse solutions and operational areas:

1. Single-depth pallet racking
2. Double-depth pallet racking
3. Picking via gangways
4. Cantilever racking
5. Reconditioning and consolidation
6. Stacked storage
7. Cross-docking
8. Returns
- 9/10. Docks and preloads



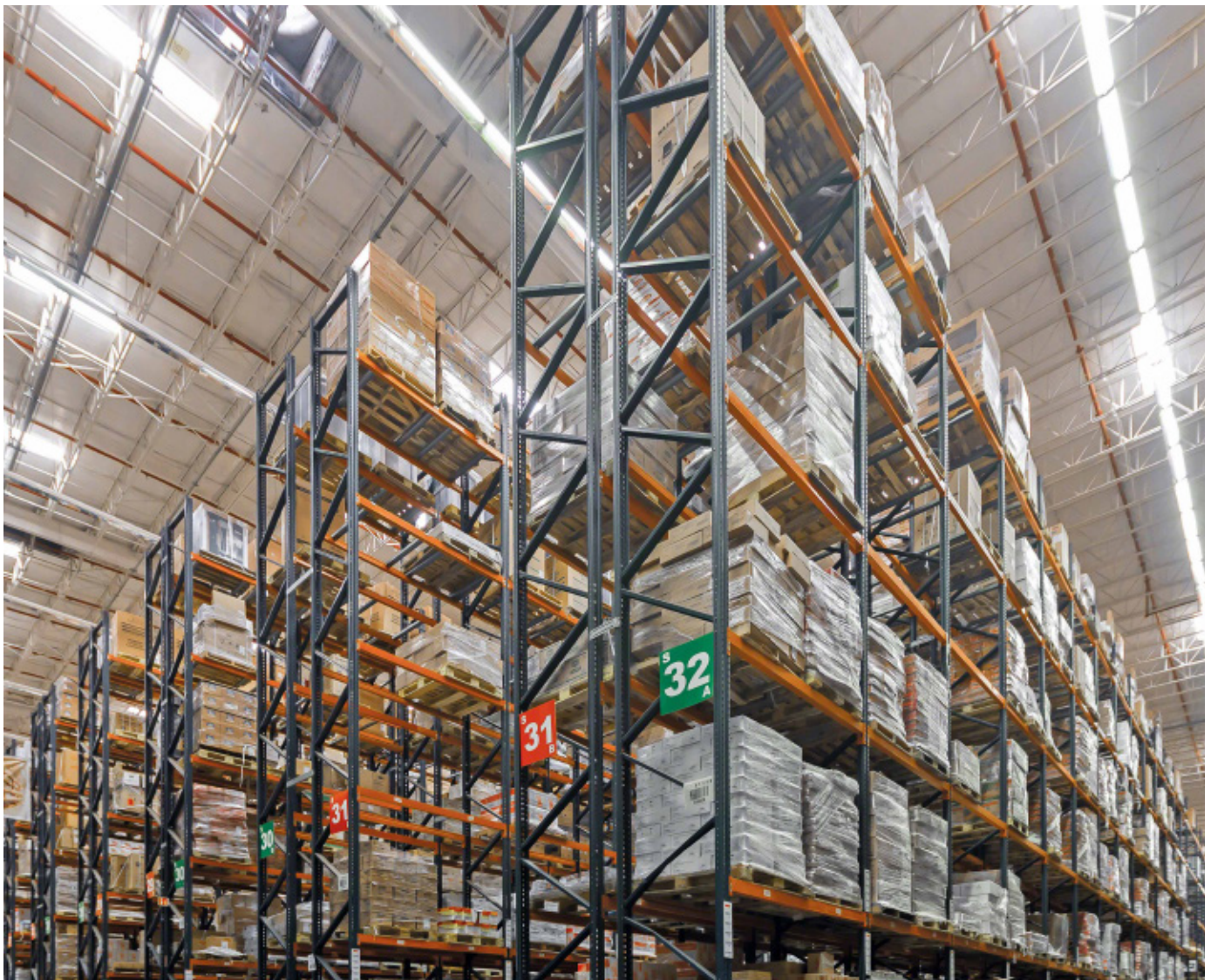
Single-depth pallet racking

Four areas with pallet racks were installed that take up more than half the surface area of the Grupo Ramos distribution centre.

The two zones located in front of the dispatch area and another arranged at one end are smaller than the one set up in the central zone.

The two lower levels of the racks were enabled so that operators could pick directly from pallets, and reserved good are stored on upper levels.

The 10.6 m high racks, with 6 or 7 load levels, offer a storage capacity of 29,937 single tonne pallets of 1,000 x 1,200 x 1,650 mm



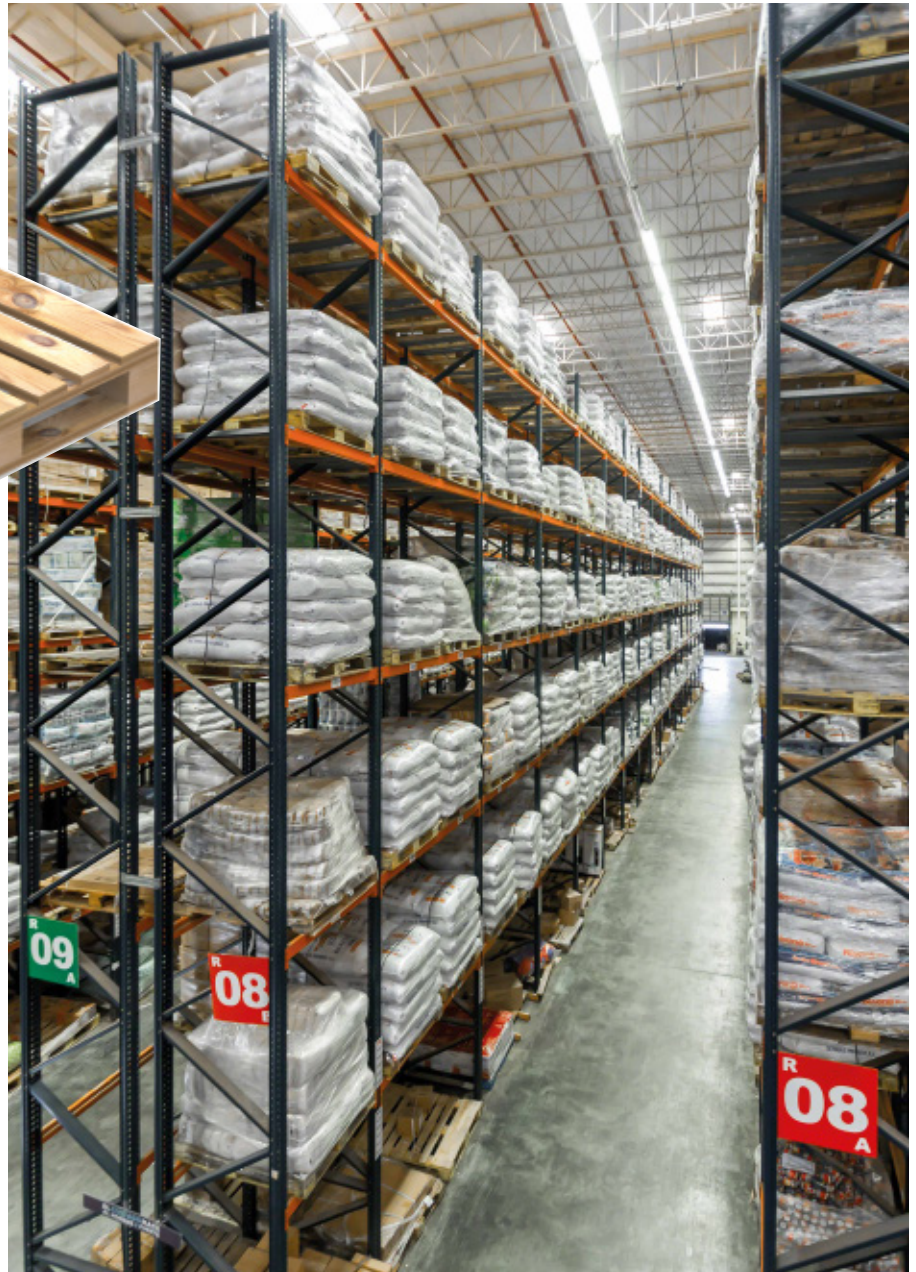


Perimetral pallet

The Grupo Ramos warehouse uses perimetral type pallets, i.e., which have skids with entry points on all four sides.

This kind of pallet helps to improve stability when remounting them, and is handled by pallet trucks or reach trucks.

The pallet racks make direct access to each pallet possible, housing the maximum quantity of unit loads safely and in a well-organised manner.

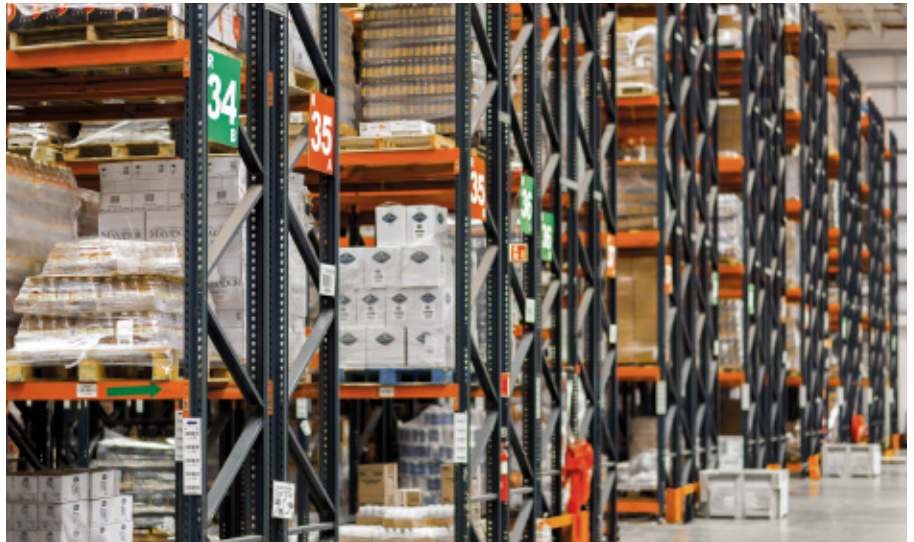


Double-depth pallet racking

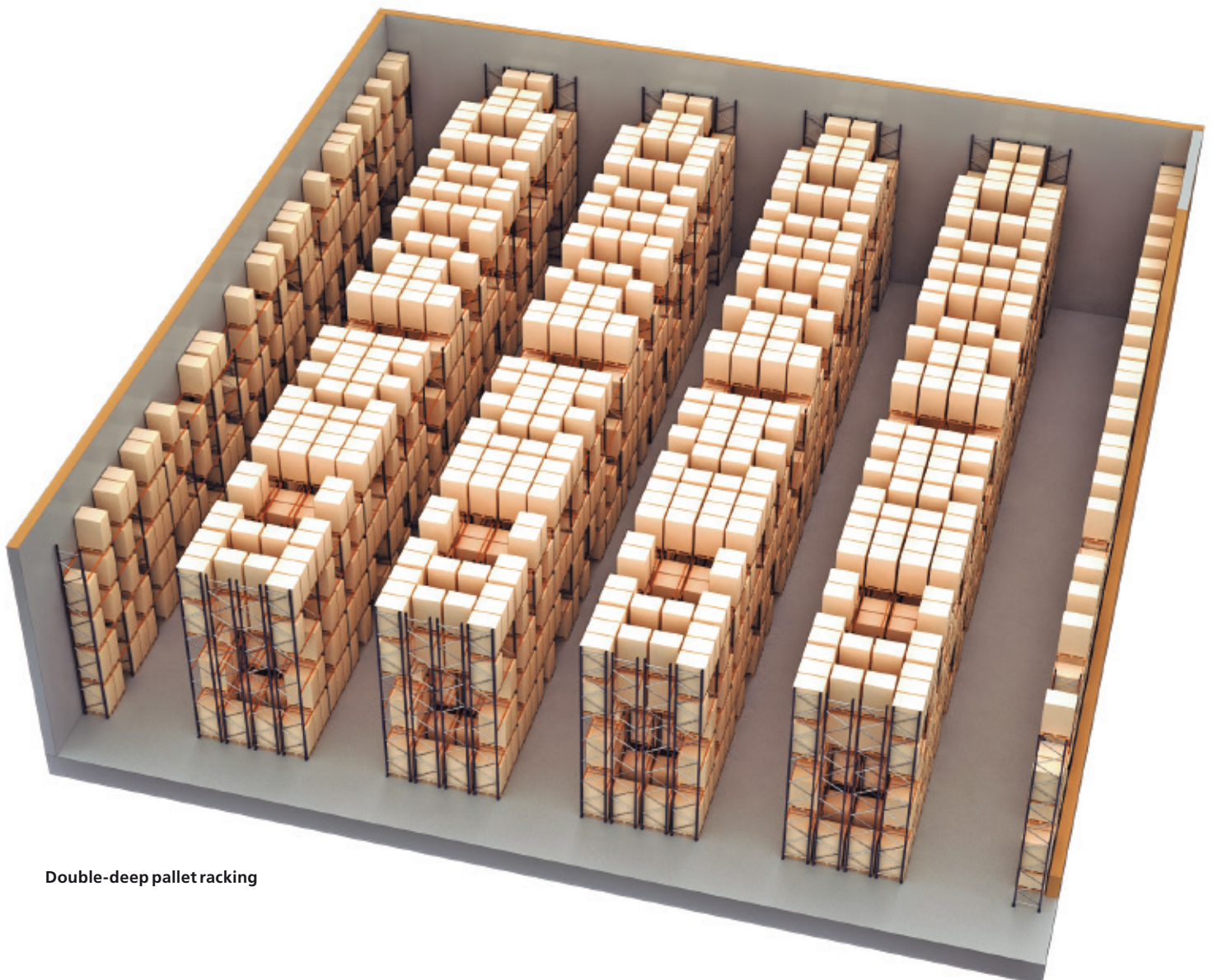
This block of racks, comprised of eight 77 m long aisles and located in a corner of the installation, is allocated to store highly consumed products.

Double-depth pallet racking is characterised by its simplicity and its ability to optimise space to achieve high storage capacity within the warehouse.

Operators use reach trucks specifically for handling pallets in this kind of racking.



In the double-deep racking, 12,879 pallets of 1,000 x 1,200 x 1,650 mm can be stored, with a top weight of 1,000 kg each



Double-deep pallet racking

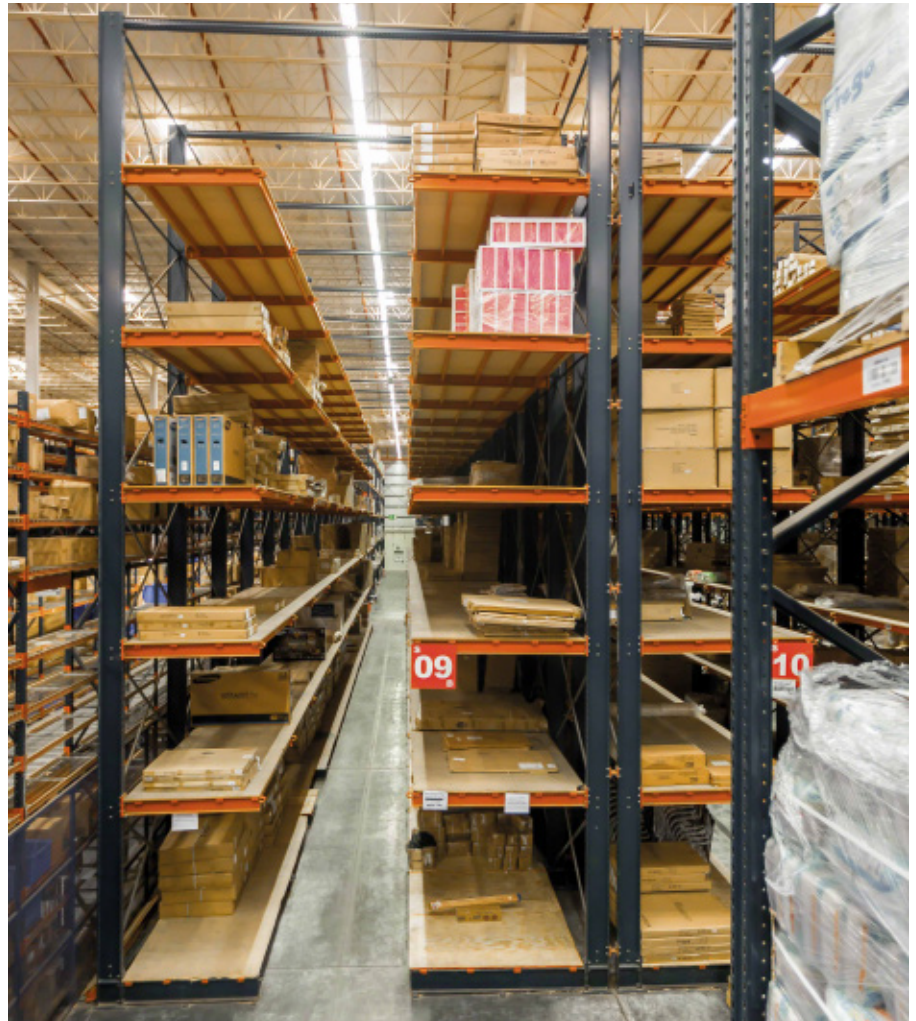
Cantilever racking

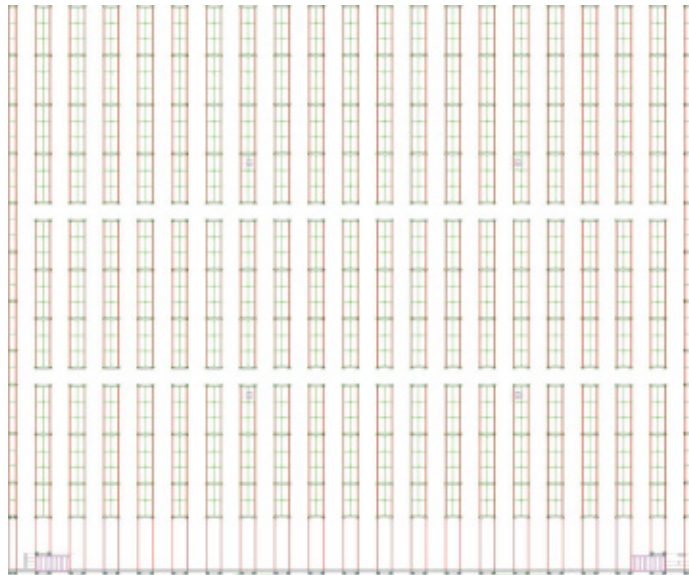
Cantilever racking was integrated into the pallet racking zone, leaving sufficient space on both ends to facilitate the handling of goods.

This system is the best option for the storage of large or odd-sized products, since the overhanging arms that hold the unit load permit easy and safe handling.

At the same time, the cantilever racking can be easily adapted to the size, weight, rigidity, tolerances, etc. of the goods.

The cantilever racking occupies a 320 m² space in the Grupo Ramos warehouse, which is 32 m long, 10 m wide and 11 m high





Layout of the picking area with gangways

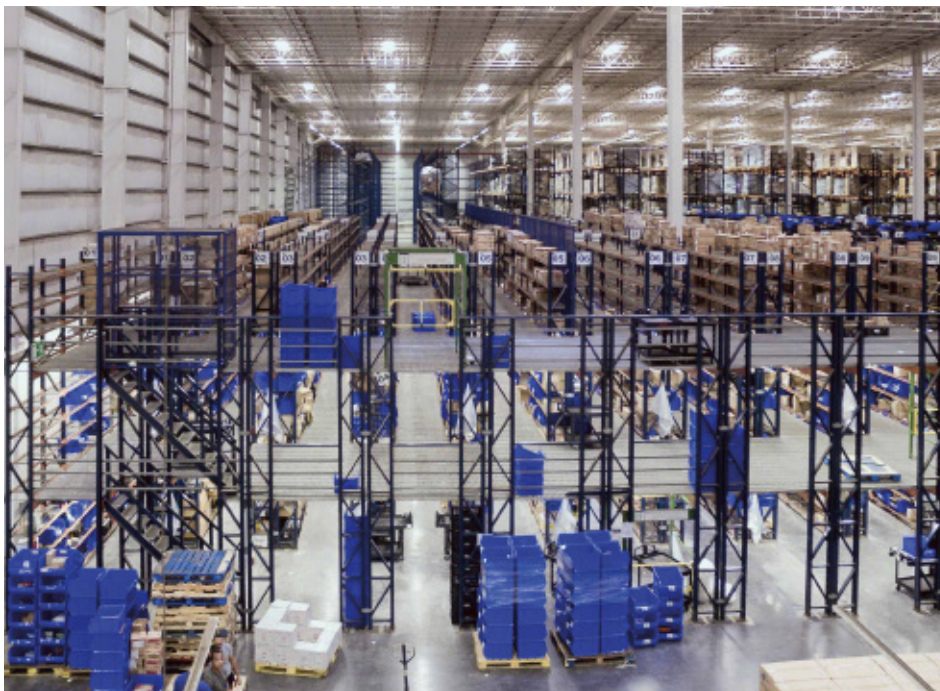
Picking area with gangways

At one end of the warehouse, and coinciding with the pallet racking area, a racking block was installed that has two level high gangways plus the one on the ground floor.

This area, which takes up a surface area of 1,584 m², is where manual picking of small sized or low turnover goods is performed.

The floor of the gangways is made out of slotted metal flooring, while the shelves of the racks are mesh.

This type of material, in addition to having a high load capacity, makes optimal ventilation and perfect water flow possible in the event the fire safety system is set off.



Access to the different gangway levels is done by means of two staircases placed in the corners, making accessibility and maximum safety a priority both in the installation and for the operators.

Open passageways are protected by rails.

In addition, the block is equipped with two swinging safety doors, a system well suited to create a loading and unloading area of the goods handled by forklifts and pallet trucks.

The 7.9 m high racking block with gangways is ideal to make full use of the building's height and to multiply the useful surface area of the warehouse





Area to recondition prepared orders

Reconditioning and consolidation area

In front of the picking block with raised gangways, there is an 840 m² space with 24 tables where orders are prepared and consolidated with smaller sized products.

In this area, the operators put orders together, verify the packing list and shipping labels. Furthermore, there are the computers and printers needed for completing the operation.



Stacking area

Stacking and cross-docking area

There is a 700 m² space in the centre of the warehouse where pallets are stacked on the floor with the help of forklifts.

A cross-docking zone was created right beside it, a 600 m² area with 48 channels where they store a total of 192 pallets with high turnover products, i.e., the goods that are immediately distributed and do not end up in the racks.

Reception and dispatches

The preloads area is enabled in front of the 56 loading docks of the Grupo Ramos distribution centre, allocated to the reception and dispatch of goods.

Pallets are grouped depending on if they correspond to an order, route or external transportation. This order is prepared before the truck is loaded, in order to avoid timeouts in outgoing goods coming from the warehouse.



Dispatch area on the right



Dispatch area on the left



Cross-docking area



Advantages for Grupo Ramos

- **Optimal logistics management:** Grupo Ramos uses the available space intelligently, making full use of each square metre with efficient operations that contribute to the high throughput of the installation.
- **Diversification:** the different solutions implemented in the Grupo Ramos warehouse permit the housing of a large variety of products of different sizes and weights.
- **Profitability:** the Grupo Ramos distribution centre has become a benchmark of profitability and efficiency that will assist the company to flexibly manage its continued growth.



Storage systems

- Single-depth pallet racking
- Double-depth pallet racking
- Picking via gangways
- Cantilever racking
- Stacked storage
- Cross-docking

