

Case study: Rana Furniture

Narrow aisle racks boost warehouse productivity

Location: USA



The new warehouse Rana Furniture, a home furnishing and decor business, owns in Miami (Florida) features pallet rack storage with narrow aisles from Mecalux. Thanks to this solution, the company has access to a storage capacity for 7,656 pallets, meaning it can keep growing and opening up new points-of-sale in the US in the foreseeable future.



About Rana Furniture

Opening its doors in Miami in 2003, Rana Furniture is a company that distributes the most popular brands of furniture and home decor products on the market. It manufactures its furniture in the US, Latin America, Canada, China and Indonesia.

Innovation is in the company's DNA, meaning it is continually evolving with the styles demanded by customers. In the last few years, this approach has translated into expansion, taking the company from a single shopfront in a Miami shopping centre to the grand opening of seven stores in Southern Florida.

Rana Furniture's needs

Rana Furniture's new central warehouse, located in the south of Florida, is its launching pad for business operations. Its mission is to supply furniture to all the distribution points it owns and operates, as swiftly as possible.

Rana Furniture sought out the collaboration of two companies who are experts in logistics solutions, namely Interlake Mecalux (IKMX) and Atlantic Rack, to set up a storage system that would best suit this central distribution centre. Its main prerequisite, apart from capacity, was that this solution would provide better, streamlined manual picking.

The warehouse is equipped with pallet racks and narrow aisles. The surface area of the warehouse is fully used, achieving a higher storage capacity. Plus, the racks can accommodate a tremendous variety of different sizes and volumes of furniture items.

Cantilever racks are the first choice when you go about storing furniture. Nevertheless, Rana Furniture specifically needed pallet racks due to security considerations, to prevent and protect the warehouse against fire hazards.



Features of the storage system

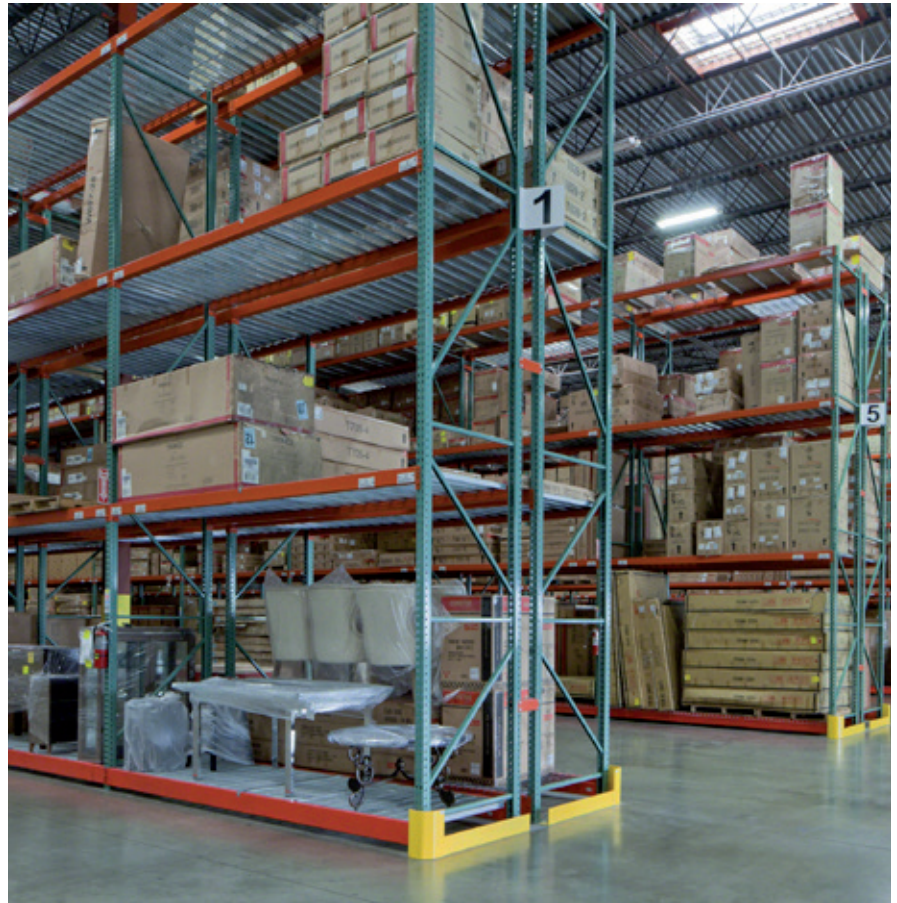
The warehouse is equipped with 6.7 m high conventional pallet racks that, overall, provide a 7,656-pallet storage capacity.

Products are sorted according to their characteristics and rotation. Goods being organised in this way has let the company streamline storage and order prep work.

There are nine narrow aisles: eight of these are 1.8 m wide and the other, 2.4 m wide. The workers operate forklifts that run along guide-wires inside these aisles. This model uses a floor-embedded wire that produces a magnetic field detected by the machine, which guides the equipment.

The wire-guided machines circulate centrally through the aisle, averting impacts to the rack structure and the goods.

Five wider storage aisles were also enabled, of 5.4 m, that facilitate smooth, speedy handling by operators. The largest pieces of furniture, such as sofas, are deposited in racks set up on both sides.



Direct access to the different SKUs of Rana Furniture eases tasks related to storage and order fulfilment



Getting orders ready

The warehouse is designed to speed up its main operation: order picking. Operators use order picker machines at heights to handle goods and collect products directly off the shelves for each order.

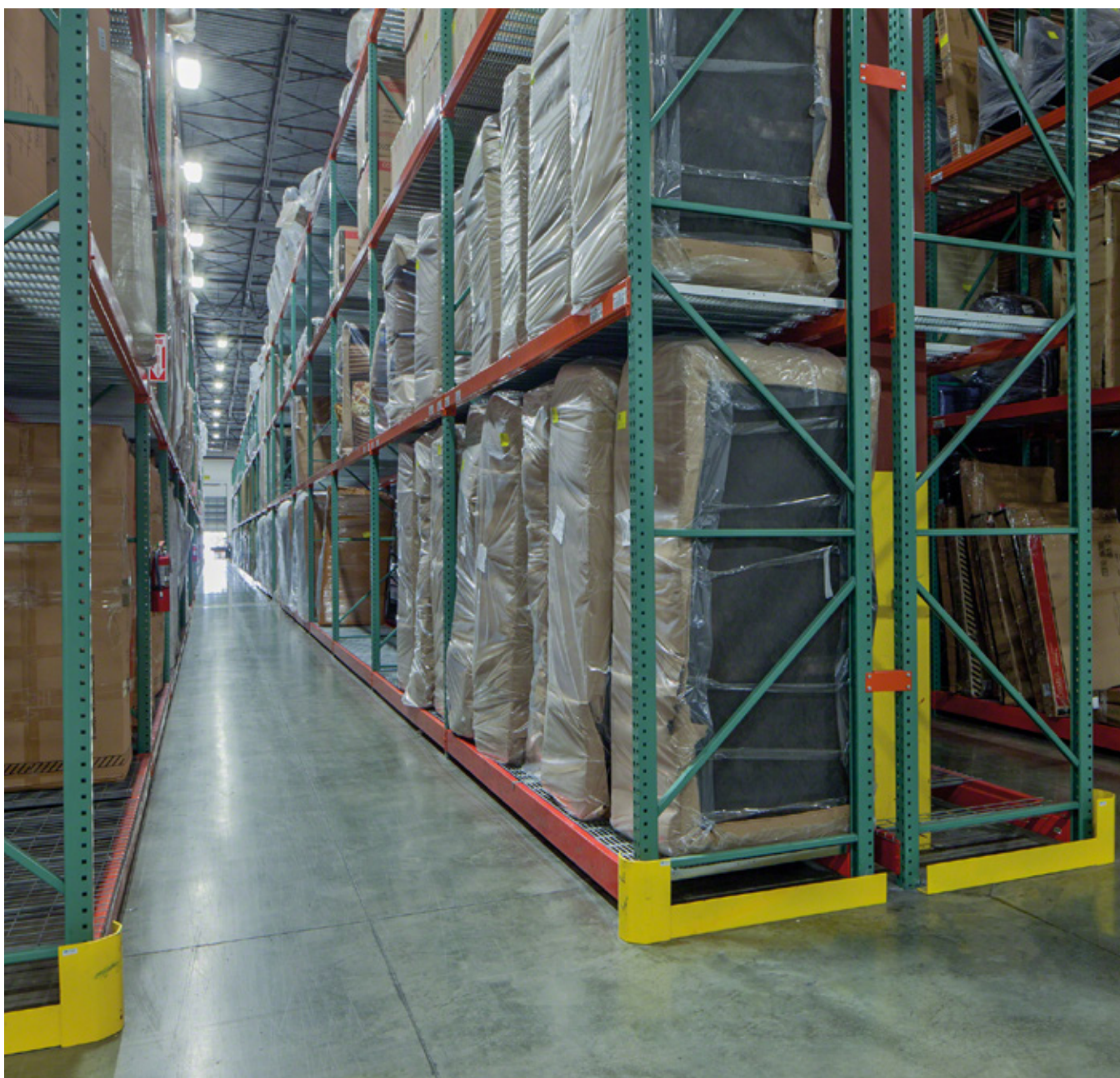
This type of equipment includes an onboard cabin, where the operator works from and which can be raised and lowered with the load. Boxes are set on the pallets by operators and, once the orders are finished, moved to the consolidation area.

Operators crisscross the warehouse gathering the SKUs for each order manually. Optimised inventory placement stops more than one worker from being in the same picking aisle at once. Rana Furniture has also achieved fully-manual product handling, reducing the odds of damage being done to the furniture.



Hector Rueda
Operations Manager

“The new racking is minimising damage to the product and is also boosting productivity. Before, workers used to be able to prepare, maybe, one truckload in an entire day. Now, the same workers prepare three trucks.”



Advantages for Rana Furniture

- **Top productivity:** the warehouse's design and the allocation of the goods mean workers are able to put orders together faster.
- **Safe and sound:** goods handling (both picking and storage tasks) is manual, which stops merchandise from sustaining any type of damage.
- **Full usage of warehouse surfaces:** the racks maximise space at heights and on the building's floor area. By doing so, there is better storage capacity without losing direct access to the SKUs.



Technical data

Storage capacity	7,656 pallets
Pallet size	1,000 x 1,200 mm
Racking height	6.7 m
No. of levels	4

