



Case study: Frío Dock

Semi-automatic Pallet Shuttle feature of new Frío Dock frozen storage

Location: Argentina



Frío Dock, the Argentinian logistics operator, has opened a new warehouse in Tortuguitas (Buenos Aires) to deal with the increase in production of its customers. Mecalux has enabled the installation with high-density racks operated by the semi-automatic Pallet Shuttle system, meaning it enjoys a total storage capacity of 2,280 pallets.

About Frío Dock

Set up in the town of Tortuguitas, in the Northeast of Greater Buenos Aires, Frío Dock is a company that offers temperature-controlled, frozen and refrigerated storage services for all sorts of businesses.

Since its beginnings in 2005, it has grown continuously, which has forced the company to expand the storage capacity of its logistics centre.

At the same time, it has expanded the customer services it offers, which includes 3PL storage of goods at various temperatures, freezer tunnels and order picking, among others.

Frozen storage: the advantages of the Pallet Shuttle system

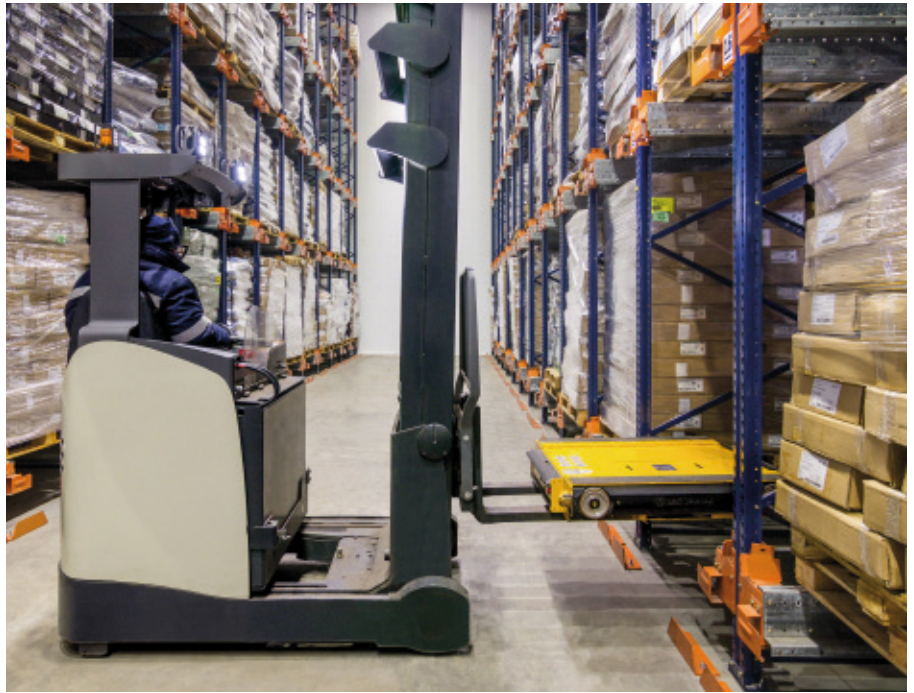
Recently, Frío Dock has constructed a new sub-zero 900 m² storage area that runs at a temperature of -25 °C. With this new warehouse, the company enjoys a higher storage capacity to absorb the growing customer demands better, to keep pace with current growth until now and, even, to improve business in the future.

Frío Dock made it clear that it needed a system that would optimise available space, while also guaranteeing high-paced product inputs and outputs. Consumer products are stored in this installation.



Ezequiel Mulhall Manager of Frío Dock

“Twenty years back, we partnered up with Mecalux when we equipped our warehouse facilities. We have always gotten good results with the products we have purchased, and this time was no exception. The truth is we are very satisfied and we have plans to install more Pallet Shuttles down the road.”



Mecalux has installed two blocks of pallet racks served by the semi-automatic Pallet Shuttle system. The racks are 11 m high and 12.7 m long. Each channel can deep store up to twelve pallets.

Choosing the storage system that best suited the needs of Frío Dock was no easy task and required an in-depth study. As Ezequiel Mulhall, Manager of Frío Dock, explains, *“At the beginning, we thought we needed a few drive-in racks because they would give us the storage capacity we wanted. However, we took a look at the advantages of the Pallet Shuttle system. And, after going through an analysis of our needs with Mecalux’s technical team, we reached the conclusion that this system would cover all our requirements. Plus, thanks to this solution, we would get an increase in storage locations in the same square metres.”*

One of the benefits that drew Frío Dock’s attention the most is that, among compact storage systems, the Pallet Shuttle is the one which confers higher agility in the input and output of pallets. It requires little operator involvement, since it is the automatic shuttle that carries out the movements inside the racking channels. *“We have reduced our goods loading and unloading times, meaning we can respond faster to our customers’,”* adds Mulhall.

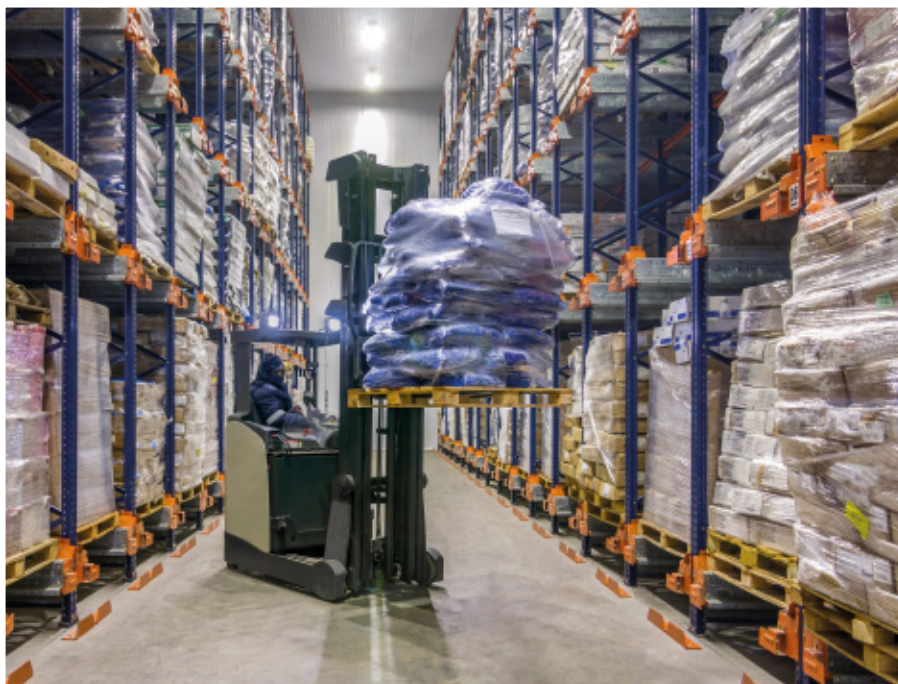


With 190 channels overall, Frío Dock is reaping the benefits of a storage capacity that tops 2,200 pallets of 1,000 x 1,200 mm

Workers deposit the Pallet Shuttle in the corresponding channel. Soon afterward, they insert the goods into the first position in the channel and the motorised shuttle takes it directly up to the first open location it finds inside the channel.

Operators use a tablet with an internet connection to interact with the shuttles and organise the introduction and extraction of the pallets.

Seeing that operators do not need to enter the lanes to handle the goods, this reduces potential damage to the racks. For Frío Dock, this means *"savings in maintenance work on the racks and in forklifts,"* stresses Frío Dock's manager.





Advantages for Frio Dock

- **More storage capacity:** with the new frozen-storage chamber, Frio Dock has received a storage capacity for 2,280 pallets.
- **Maximum space usage:** the two blocks of racks have made full use of the available surface area of the frozen-storage installation. The energy consumed to create these low temperatures is less, since chilled air is distributed between a larger number of pallets.
- **Streamlined operations:** the Pallet Shuttle carries out the inputs and outputs of the goods in a fully-autonomous manner, which renders much faster pallet management.



Technical data

Storage capacity	2,280 pallets
Pallet size	1,000 x 1,200 mm
Max. pallet weight	1,200 kg
No. of channels	190
Racking height	11 m
Racking length	28 m
Channel depth	12.7 m

