Case study: Serfrial
Cold-storage + Pallet Shuttle: a sure equation for intelligent business operations at Serfrial

Location: Spain

Serfrial, a logistics operations company within the Grupo Fuentes, has renovated two of its cold stores located in the town of Las Torres de Cotillas (Murcia). The company has fitted them out with high-density racks operated by the semi-automatic Pallet Shuttle system, meaning it enjoys a total storage capacity for 26,880 pallets.

About Serfrial (Grupo Fuentes)

Founded in Murcia in 1991, Grupo Fuentes is one of the leading logistics operators in Europe. Running a huge fleet of modern trucks, it offers 24-hour transport services to cater to more than 5,000 customers from all sorts of industrial sectors.

Within Grupo Fuentes, Serfrial is a company which focuses on the storage and distribution of frozen and refrigerated products. Over the last few years, it has updated and enlarged its logistics centre in Las Torres de Cotillas (Murcia). The sizeable investment made to improve the infrastructures has helped the business keep pace with growth up till now and has even enhanced the future outlook of the company.

Serfrial's needs solved

The logistics operator needed to install a storage system that made maximum use of the available surface area and, likewise, streamline general operations to ensure massive product inflows and outflows. Two cold stores grace its logistics centre. In the first, Mecalux set up two blocks of racks with the Pallet Shuttle system. The racks are 12 m high, with six, 27.5 m deep levels.

To deal with a tidal wave of sales, a year later, Mecalux fitted out the second chamber with four blocks of racks operated by the Pallet Shuttle system. These racks are 14.5 m high, with eight levels for 17 m deep storage.

A total of 1,148 channels gives Serfrial a storage capacity for 26,880, 800 x 1,200 mm pallets. Meanwhile, in the cold-storage chambers they also work with 1,000 x 1,200 mm and 1,000 x 1,200 mm sized pallets

Racks run by the Pallet Shuttle system

This compact storage system requires little operator involvement, since it is the automatic shuttle that carries out the movements inside the rack channels.

The operators place the motorised shuttle into the right channel, deposit the pallets in the first position of the racks and, soon after, the Pallet Shuttle autonomously transfers these directly up to the first vacant location. The reverse operation is performed to remove the goods.
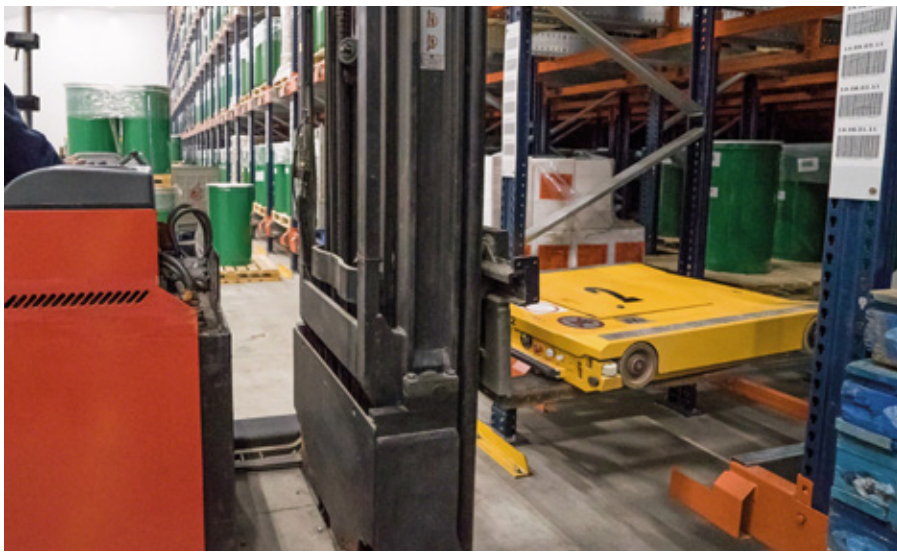
How tablets run the Pallet Shuttle

Wi-Fi connected tablets are used to send orders to the Pallet Shuttles. Each tablet can interact with any in-warehouse shuttle, as long as it meets standard operational procedures.

Channel loading and unloading are examples of the functions executed with the device, as well as recounts of stored pallets, personnel authorisation or shuttle localisation through acoustic and light signals.
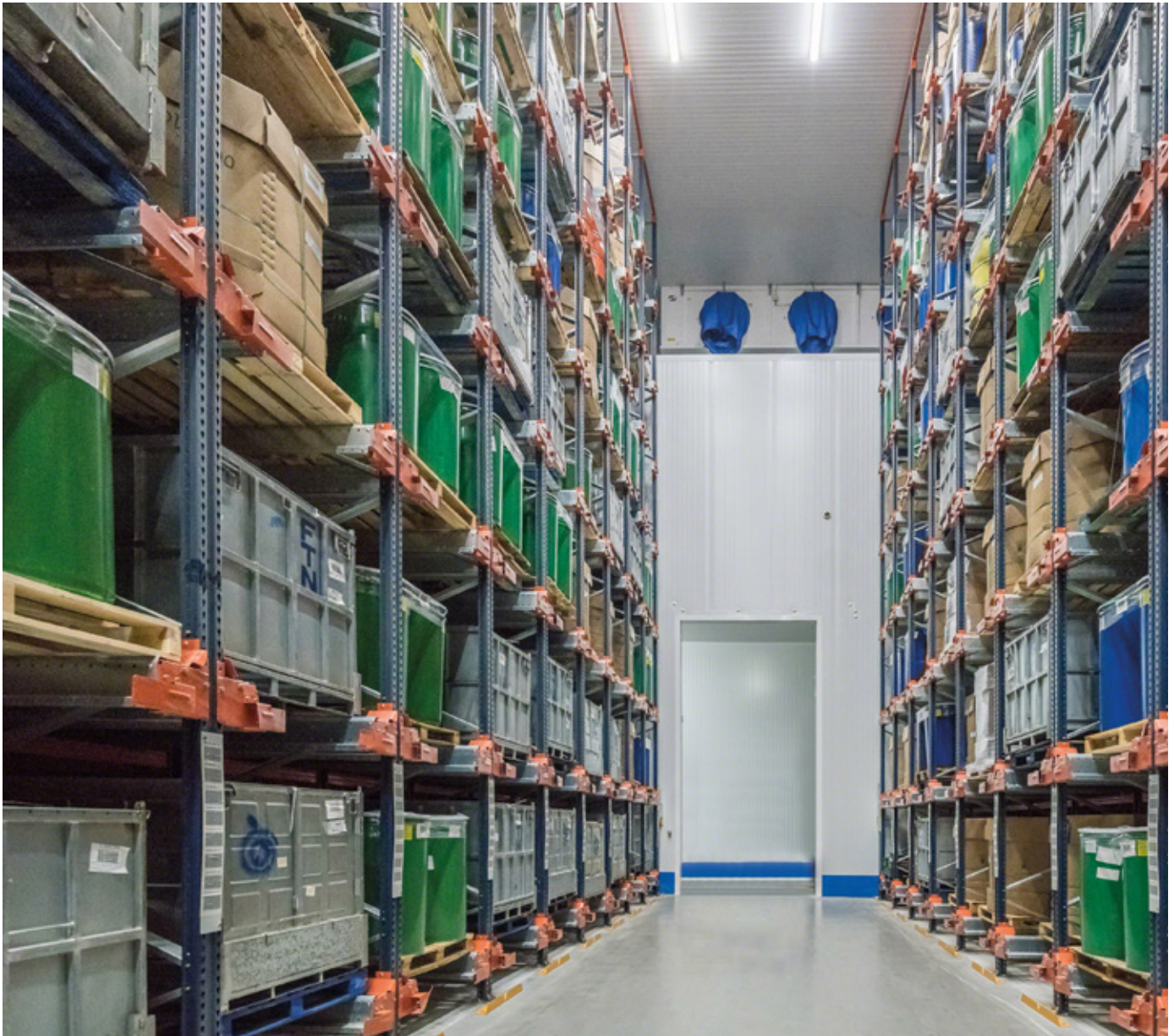
Advantages for Serfrial

- **Higher storing capacity:** the company has reached an in-warehouse storage volume of 26,880 different sized pallets.

- **Productivity up:** the Pallet Shuttle system requires little to no operator involvement. The automatic shuttle runs in-channel movements to quickly deep store goods.

- **Space optimised:** racks fill almost the whole surface area of the two cold stores.

Technical data

Storage capacity	26,880 pallets
Pallet sizes	800 x 1,200 / 1,000 x 1,200 / 1,200 x 1,200 mm
Max. pallet weight	1,050 kg
No. of channels	1,148
Racking height	12 & 14.5 m
Channel depth	17 m & 27.5 m

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