



Case study: Burro De Paoli

Frozen butter storage operates with the Pallet Shuttle system at Burro De Paoli

Location: Italy



The butter producer Burro De Paoli has equipped both its frozen storage chambers in Italy with the semi-automatic Pallet Shuttle system. The installed storage solution boosts productivity, provides a 1,494 pallet capacity and minimizes the workforce.

About Burro De Paoli

This Italian business has more than 50 years of experience in butter production. Its product catalog offers a host of cheeses and butter.

Butter making at Burro De Paoli brings together traditional, home-style recipes and high-tech machinery, as well as the strictest quality control standards that guarantee excellence.

Burro De Paoli has twin chambers kept at -13 °F, one set aside for finished products and another with semi-finished ones

High-density Pallet Shuttle system

Mecalux set up the Pallet Shuttle system in the two frozen storage chambers Burro De Paoli owns and operates in Vicenza (Northern Italy). Chamber 1 is comprised of a pair of 1,830 ft² blocks, which hold finished products. Chamber 2, enabled with a single 1,733 ft² block, stores the partially-finished products. Both areas are run at a controlled temperature of -13 °F. The Pallet Shuttle is part of a high-densi-

ty system that makes full use of the physical warehouse space, cutting down on the number of aisles. In addition, given that an operator does not need to enter the lanes with the forklift, the insertion and extraction of goods are very swift. With a total of 174 channels, the Burro De Paoli warehouse has a capacity to hold 1,494 pallets of 32" x 48". Each of these can weigh 1.32 t. Racks are 25' high, and their uprights are protected from rough handling by machinery. When calculating the rack the seismic action was taken into account, applying the corresponding local regulation. To store pallets, the operator places the electric shuttle in the corresponding channel by means of a reach truck. Later, the pallet is deposited in the first rack position letting the shuttle shift it to the next free location automatically. Pallet extractions are done via this process but in reverse.

FIFO system: channels and batches

Goods management is carried out according to the FIFO criterion by batches or channels. The first channel to be filled with a SKU is the first to be emptied, thus assuring product rotation.





The warehouse is set up to house 1,494 pallets that are 32" x 48" in size. Each of the pallets can hold a maximum of 1.32 t

Tablets: how they work

The operator sends movement orders to the Pallet Shuttle by means of a Wi-Fi connected tablet. Its intuitive interface provides the operator with information about the number of pallets stored in a channel. Here are some of the operations that can be run from this device:

- Select shuttles in operation and verify their status.
- Choose which pallets to operate with.
- Continuously load and unload goods from the channels.
- Inventory control: information about the stored pallets shows on the tablet.
- Locate shuttles via audible and light signals.
- Improve operational safety. Use the tablet to activate the locking system that attaches the shuttle to the forklift's forks and prevents it from accidentally falling.



Easy battery recharging

The shuttle includes a battery level indicator and additional backup energy. Moreover, spare batteries were provided to power the equipment while the two Pallet Shuttles keep working.



Batteries are extracted from the shuttles and connected by just slipping them into the charging stations set up in the warehouse. There is also a separate cable that lets the shuttle itself be charged, without needing to remove the battery.



Advantages for Burro De Paoli

- **Maximum use of space:** the Pallet Shuttle system moves inside high-density racks, boosting the maximum storage capacity.
- **Operational optimization:** the motorized shuttle frees the operator from entering the racks with a forklift. This semi-automatic system reaches different depths in any point of the rack levels.
- **Efficient goods management:** having both chambers at -13 °F and using the FIFO management criterion by batches or channels mean goods arrive at the consumer in better condition.



Technical data

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| Storage capacity | 1,494 pallets |
| Pallet size | 32" x 48" |
| Max. pallet weight | 1.32 t |
| Racking height | 25' |
| Warehouse temperature | -13 °F |

