www.systemlogistics.com

CASE HISTORY

TOSANO FROZEN

Cerea, Italy

GROCERY

The company

Born in 1970 as a small family-owned supermarket, Tosano Group is today one of the best rooted and expanding businesses in the North Eastern area of Italy, across the cities of Verona, Vicenza, Mantua, Brescia, Venice, Padua and Ferrara.
With its directly managed hypermarkets, it is one of the leading companies in the food sector. It offers consumers over 40.000 food SKU's with a vast choice of "big brands" and an ever increasing space dedicated to small and medium-sized Italian food producers.

Issues and targets

Tosano Group needed to speed up its operations connected with pallet preparation for the frozen food sector.
System Logistics responded by supplying a fully automated storage and picking system, optimising all storage, palletization and shipment operations, reducing working times and improving the working conditions of the operators in a hostile environment.

The solution and the results

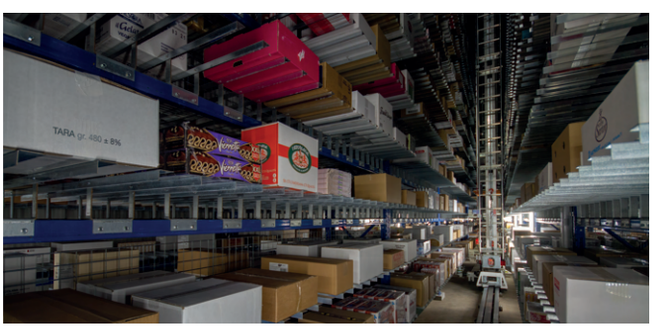
The system mainly consists of an automatic warehouse (HBW) for pallet storage, and of a fully automated picking system (MOPS) for mixed pallet preparation. The HBW consists of 5, 26m high stacker cranes where 17,400 double depth pallets and 1,700 SKUs are stored at a temperature of approximately -28°C. The hourly flow rate envisaged for the HBW is approx. 120 IN + 160 OUT.
On the other hand, the MOPS system is mainly composed of:
• A depalletization area, consisting of an automatic layer station and a manual station.
• A package buffer with a storage capacity of approximately 28,000 cells with 6 Miniloads
• A palletization area consisting of 2 automatic Dual-Robot palletization stations and a manual palletization station.

The overall system (HBW+ MOPS) covers an area of 8,000 square metres on 2 main floors:
The ground floor basically houses the goods infeed and shipment bays, that are connected to the automatic warehouse by means of a rectilinear shuttle car system.
On the first floor, the full pallets are disassembled in the depalletization areas provided and connected to the HBW by means of an SVL system.

On the same floor, the packages are subsequently palletized. Overall, the system has been designed to handle a rate of 15,000 picking packages per day.

Highlights

• Reduction of storage space thanks to intensive storage (HBW) and automatic handling of over 1,700 SKUs in the picking process (1,700 picking manoeuvres less on the ground level)
• No more operations in hostile environments: storage occurs at -28°C, all the loading/unloading and picking operations are handled in an environment at 0-4°C
• High hourly productivity that translates into high daily picking volumes and consequently into prepared and shipped yearly volumes
• The MOPS system assures strict sequences for each individual item package when preparing the order pallets (shipment units). The sequence is not only dictated by the possibility to stack packages (that for frozen food is not compelling since most packages to handle are carton ones) but also by the palletization rules applied by the customer (for example, pallet organised based on the shop's display, or by columns etc.)



TECHNICAL FEATURES

HBWH:
17,400 pallet slots
5 double depth stacker cranes
121 IN + 157 OUT
MOPS:
6 miniloads
2 Dual Robot stations
1 manual palletization station
1 automated depalletization station
2 manual depalletization stations