

## A highly automated solution for a cold storage warehouse

### The Company

Fratelli Veroni fu Angelo S.p.A. is one of the historical and most prestigious brands in the cured meats sector in Italy. The origins of this company go way back to 1925 when five brothers that were running a food shop decided to expand the family business and take up the production of cured meats. Over the years the company has specialised in the production, marketing and distribution of a wide range of cured meats. Today the company is run by the fourth generation of the Veroni family, counts 4 controlled companies and comprises 7 production units all situated in Emilia Romagna.

### Problems and objectives

The system designed by System Logistics fits into a larger multi-year project of innovation and expansion of the business, which on the one hand has involved the production cycle and company reorganisation and on the other hand modernisation of the production systems. In particular, the production unit at Gazzata of San Martino has tripled its production sur-

face area since 2010: hence the need for a finished product warehouse with a high degree of automation, a capacity of 2500 tons of product, and streamlined logistic processes for maximum efficiency.



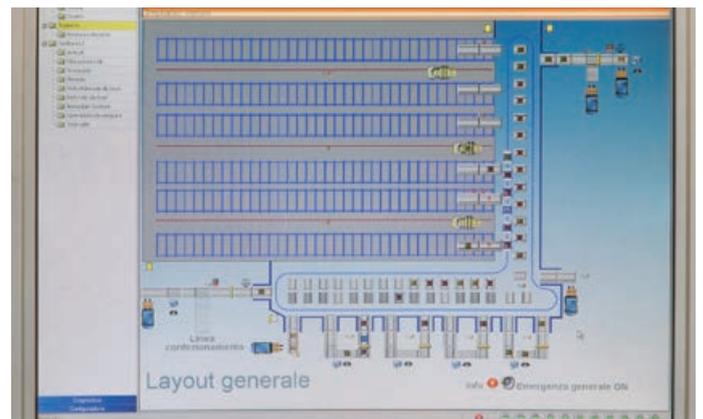
### The solution and the results achieved

The new warehouse, built on a green meadow, is the heart of the company's entire logistic system. It replenishes the picking area to which it is connected by means of an automated conveying system and is characterised by a double-depth automated solution with high productivity. The radio-frequency and the Warehouse Management System (WMS) integrated with the stacker crane software and the picking software complete the information technology of the project.

The food nature of the product requires that the temperature of the entire production site be kept at 8-10°C, while the warehouse operates at a temperature of 0-3°C. Warehouse operation is guaranteed 15 hours a day (06:00 to 21:00) in two work shifts. The system is made up of the following main parts: elevated handling system for pallets and crates coming in to the processing departments; dedicated area for the automatic palletization, weighing and shape control operations; intensive storage area for pallets and bins with automatic storage systems; picking and shipping area; consolidation and shipping area.

The warehouse is spread over 3 floors (of which one underground) for a total surface area of 2500 m<sup>2</sup> of which 1100 m<sup>2</sup> for the automated warehouse alone. The warehouse is used to store plastic bins (for indoor use, dimensions 1000x1200x800 mm, max. 500 kg) and palletized loading units of finished product (Epal pallets and plastic pallets, dimensions 1000x1200x1200 mm, max. 500 kg). The storage potential is 5000 loading units with racking designed to stock the two types of loading unit. The warehouse is spread over 14 levels in height with double-deep racking served by 3 stacker cranes dedicated to as many aisles and engaged in pallet and crate handling. 6 SVL (System Vehicle Loop) steering shuttles handle the loading units. In order to contain the number of stacker crane movements, an "intermediate buffer" area has been arranged consisting of 32 selectively reachable stations

(stalls) outside the automated warehouse where the high-turnover items are allocated thus avoiding putting broken up loading units back in the warehouse. There are 12 additional stalls, i.e. 3 for each of the 4 picking bays. On average, the warehouse handles 3000 rows/day equal to about 1000 orders a day executed and 85,000 kg outgoing product.



### TECHNICAL SPECIFICATIONS

Warehouse height: 24.5 m

Length: 56 m

Surface area: 2,500 m<sup>2</sup>

Stacker cranes: 3 double-depth

Type of loading unit stored:

Wood/plastic Europallets 800x1.200xh=1,200 mm, max. 500 kg

Plastic bins 800x1200xh=800 mm, max. 500 kg

Type of shipping unit: cardboard boxes on Epal pallets

Pallet slots in stock: 5,000

SVL: 6

Picking bays: 4

Flows: 100 loading units/hour - outgoing

100 loading units/hour - incoming

Material identification system: barcode