



SAMMONTANA ITALIA



SAMMONTANA CASE STUDY

Food & Beverage

THE COMPANY

Sammontana S.p.A. is an Italian food company specializing in the production of ice cream and frozen croissants.

It was founded in 1946 in Empoli, in the province of Florence, where it still has its headquarters.

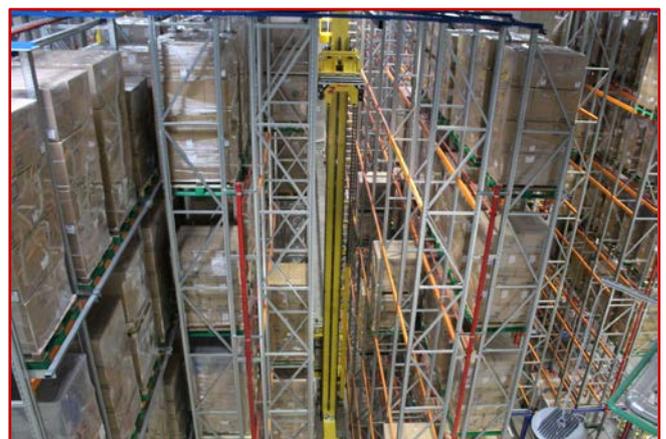
Sammontana holds about 20% of the Italian industrial ice cream market and about 40% of the frozen croissant market.

The company has about 1,050 employees in three production plants in Italy and is able to produce over 1 billion portions per year.

CUSTOMER NEEDS

The customer turned to Cassioli for the construction of an automated warehouse for raw materials and packaging in a new building area with a rhomboid shape, therefore difficult to realize due to the particularity of the available surface. There was a need to connect the new warehouse with the production department, located beyond a municipal road.

The customer also requested the plant to meet the prerequisites of "Industry 4.0." (control via PLC; interconnection to factory IT systems; integration with the factory logistic system; simple and intuitive man-machine interface; compliance with the latest standards in terms of safety, maintenance, service and remote control).



THE CASSIOLI SOLUTION

- ▶ Automated warehouse consisting of:
 - 4 double-depth stacker cranes
 - 1 ICRANE stacker crane with ISAT satellite for multi-depth storage
- ▶ 4 SLS shuttles (RGV- Rail Guided Vehicles) for in/out pallet handling
- ▶ 4 elevators for pallet handling
- ▶ Service pallet stacker
- ▶ Conveyor system
- ▶ Quality control system, pallet control and labeling

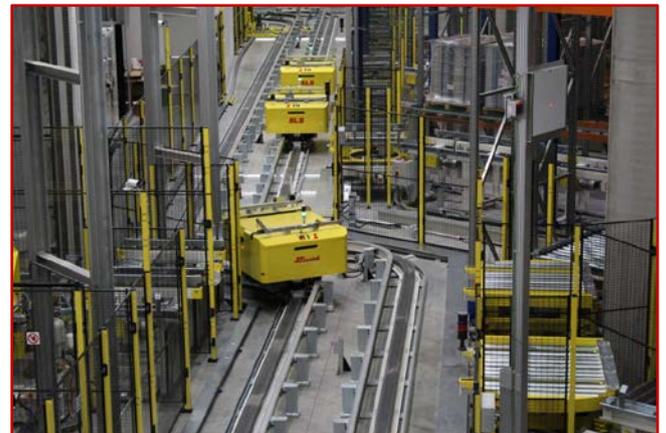


Inside the new building, Cassioli designed the construction of an innovative automated warehouse consisting of 4 double-depth stacker cranes and an ICRANE stacker crane with ISAT pallet shuttle: the latter stacker crane allowed to make the most of the available surface thanks to the multi-depth storage of pallets. The incoming pallets arrive in the warehouse and, through a system of conveyors, reach the quality control and shape control system: if the pallet is not suitable for

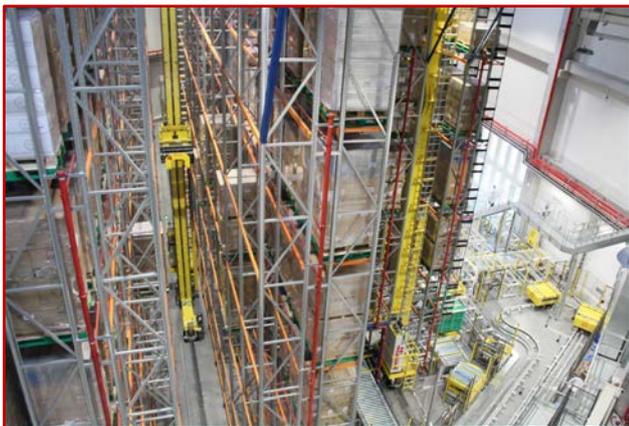
storage, it is equipped with a service pallet to facilitate its handling.



All the pallets are labeled with a bar code and transported inside the automated warehouse through an RGV shuttles system. The RGVs move within a closed circuit and are used both for the supply of the warehouse, at the entrance, and for the picking, at the exit.



4 elevators have also been installed inside the plant, allowing the pallets to be moved on different levels; the service pallets, once unloaded, are automatically stacked and then returned empty to the warehouse.



To connect the new building to the old warehouse used for production, Sammontana created an elevated connection tunnel that crosses the road. Inside the tunnel, Cassioli installed a conveyor system to handle pallets between the two factories.



In addition to the typical automation systems, Cassioli supplied Sammontana also with an innovative fire-fighting system with related tank and water reserve that feeds it: specifically, a sprinkler system with internal and external hydrant network, pumping station and smoke detection systems, according to the current regulations.

ADVANTAGES

- **FULLY DIGITALIZED INDUSTRY**
- **100% INCREASE OF STORAGE CAPACITY (NEW AVAILABLE AREA)**
- **MAXIMUM EXPLOITATION OF THE AVAILABLE SPACE**
- **SIGNIFICANT REDUCTION OF THE WORK FORCE AND RISK OF OPERATIONAL ACCIDENTS PRACTICALLY ELIMINATED**
- **INCREASE IN PRODUCTION EFFICIENCY**
- **MAXIMUM ORGANIZATION OF THE WORKING ENVIRONMENT**
- **RECOGNITION OF ECONOMIC BENEFIT AS "INDUSTRY 4.0"**