



## ***CASE STUDY SACI INDUSTRIE***

*Household Detergents*

## THE COMPANY

Saci Industrie SpA, founded in 1925, is a major player in the field of detergents for household and professional use that operates internationally.

The company has an integrated production system, ranging from collection and refining of fats to chemical saponification, up to the sale.

Saci internally designs bottles, packaging, images and graphics of all the products.

Today the company supplies some giants of retail chains and has exports accounting for 30% of revenues in the major European countries.

## CUSTOMER NEEDS

SACI has chosen Cassioli for the construction of an automated warehouse for the storage of finished products placed on pallets.

The warehouse had to be divided into 3 independent parts, each one provided with a stacker crane, so as to have greater flexibility and ensure continuous operation even in the event of partial damage.



SACI asked to Cassioli to design an integrated system that would allow a pre-organization of the pallets to be shipped in the dispatch area.

The customer also requested that the existing ground warehouse will be reorganized and integrated with the new automated warehouse.



## THE CASSIOLI SOLUTION

- ▶ Automated warehouse (capacity 7750 pallet; unit load max weight 850 kg), equipped with 3 stacker cranes ICRANE with pallet shuttle ISAT for multi-depth storage;
- ▶ Handling lines consisting of motorized roller conveyors, motorized chain conveyors and gravity roller conveyors to manage both Europallet and coupled Düsseldorf pallet;
- ▶ Elevator to handle incoming pallet;
- ▶ Stacker and destacker for slave pallet (Europallet);
- ▶ Pallettizer;
- ▶ Pallet type control system, bar code reading and shape and weight control;
- ▶ Management software Cassioli.



Cassioli designed and realized an automatic storage system consisting of 3 ICRANE stacker cranes with pallet shuttle ISAT for multi-depth storage. Each stacker crane works in one of the three warehouse areas, all independent for accessibility and maintenance. The automated warehouse is partially underground and extends over a total area of 2850 sq. meters for a height of 14.7 meters (6 of which are underground).



The entry and exit of goods from the warehouse takes place at level 0, through a handling system consisting of various types of automated conveyors.

The incoming pallets (Europallet or coupled Düsseldorf pallet) are positioned through an hand pallet truck in the loading position: from here, they pass through a double control system that

verifies the type of pallet and reads the bar code.

If the system identifies a pair of Düsseldorf pallets, the palletizer inserts a Europallet service pallet (1800x1200). The supply of service pallets on the line is ensured by an automatic stacker/destacker for service pallets.

Before entering the warehouse, the unit load is analyzed again by a shape and weight control system: if appropriate, it is directed to the warehouse, otherwise it is moved to the reject station, where a client PC managed by the software Cassioli displays information about the anomaly found.

Once arrived at the warehouse, the pallet is picked up by one of the ICRANE stacker cranes and positioned in the aisle chosen by the WMS management system through the ISAT pallet shuttle.

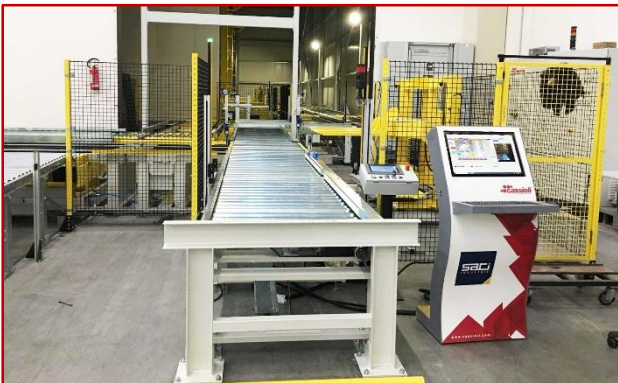


At the time of the output, the pallet is picked up from the warehouse by one of the systems stacker crane ICRANE/ISAT pallet shuttle, positioned in the handling system and, if necessary, the service pallet is removed through a depalletizer. The outfeed sorter, made with four-chain conveyors, and also able to manage coupled Düsseldorf pallet and roller conveyors, sorts the pallets on ten gravity roller conveyors with terminals for picking through hand pallet truck.



Monitors, managed by the WMS Cassioli management software and positioned above each exit of the gravity roller conveyors, show all the information relating to the pallet and the order being executed.

The Cassioli WMS management software is also responsible for the management of the non-automated ground warehouse, with a storage capacity of about 6.000 pallet, and its complete integration with the automated warehouse.



## 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**
- **OPERATIONAL FLOWS TRACEABILITY**
- **CLIENT AND CASSIOLI MANAGEMENT SOFTWARE INTEGRATION**