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Case study: Amagosa
Amagosa automates the storage and management
of its logistics centre
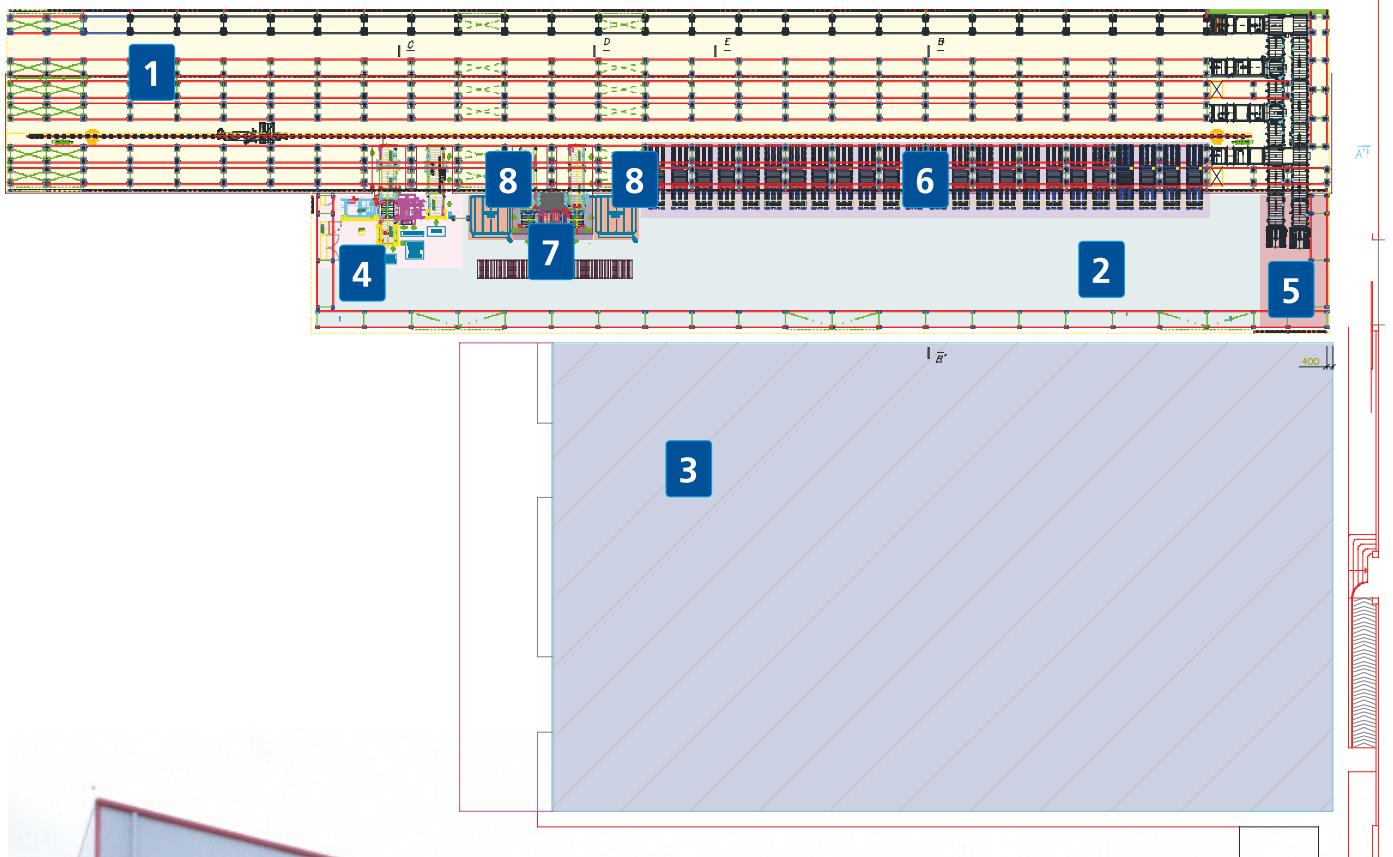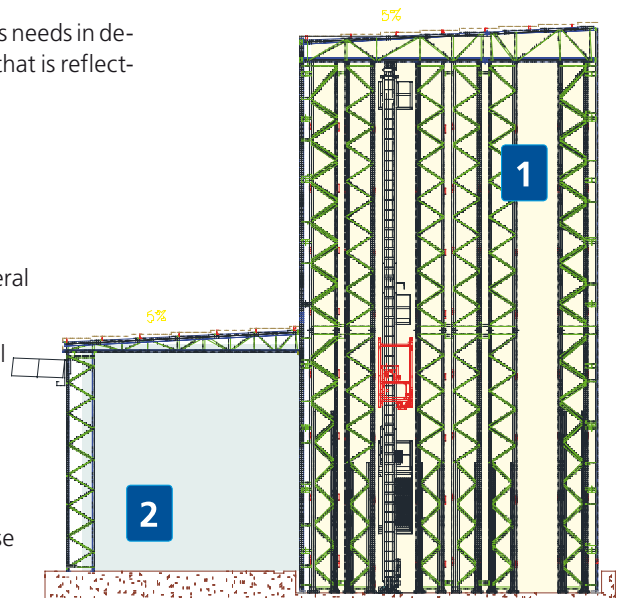
Location: Spain

Amagosa, a company specialised in food and beverage distribution, and catering related products, has upgraded their installations in the city of Merida (Badajoz). An automated clad-rack warehouse with conventional pallet racking, live channels and an annex building which coincides with input and output areas was built for them. They had two Clasimats, pallet racks and a picking station arranged inside the new facility. The Mecalux Easy WMS (warehouse management software), responsible for managing all activities of the centre, was also installed.
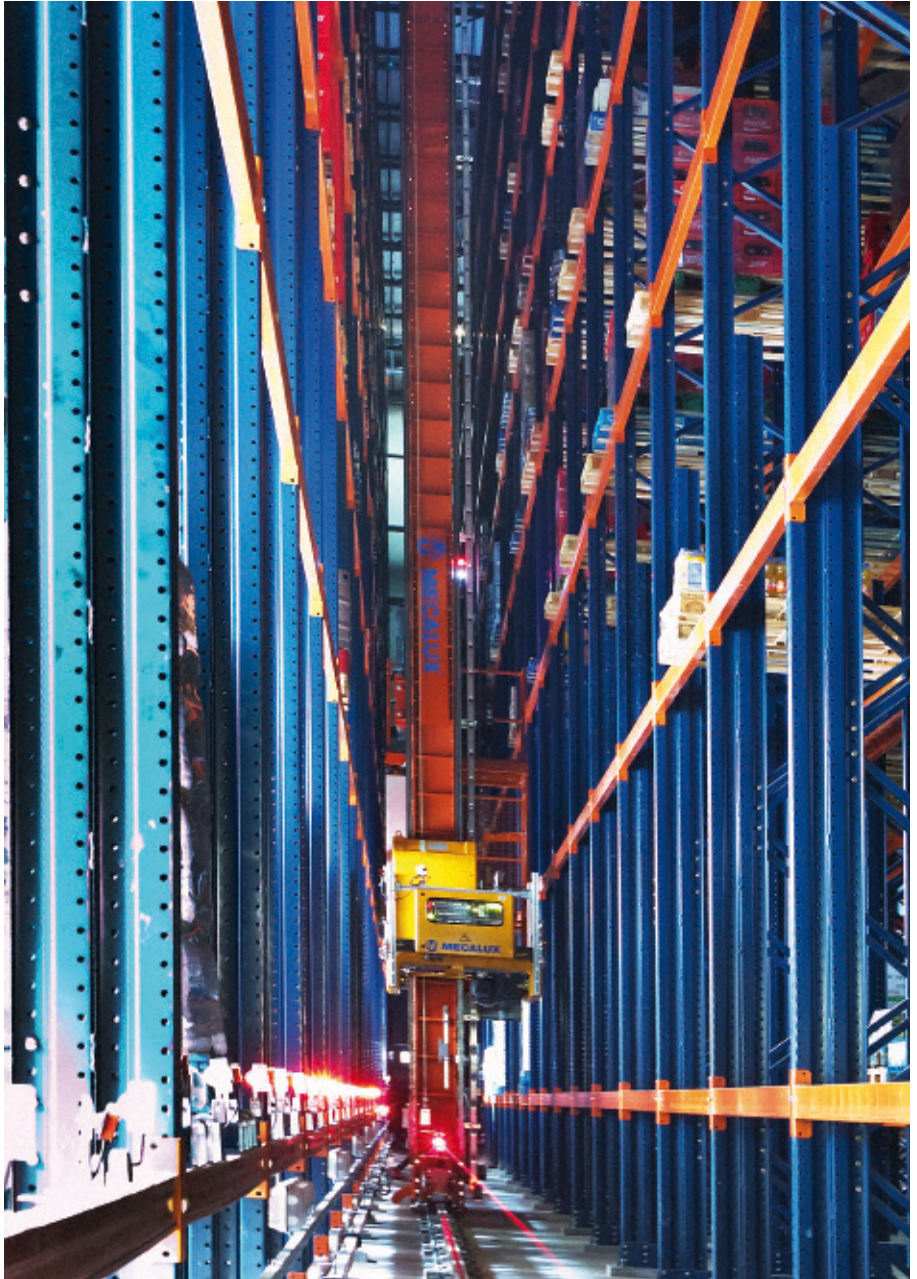
Mecalux analysed Amagosa's needs in detail and opted for a solution that is reflected in the enclosed plan:

1. Automated warehouse
2. Annexed building
3. Dock, preloading and general warehouse
4. Inputs, outputs and control
5. Input and output No. 2
6. Channels for picking
7. Picking station
8. Clasimat vertical warehouse

At first glance

As the years passed by and after experiencing notable growth, the Amagosa installations became too small. It was then that the company opted to improve the performance of its logistics center and, at the same time, reduce work costs.

Pallet stacker for empty pallets

Entry and exit point

A clad-rack warehouse as a solution

This clad-rack warehouse, measuring 26 m in length and 22.2 m in height, has two single and double depth aisles that allow for a storage capacity of more than 2,300 pallets. Being 'clad-rack' means that the racking forms the building's structure and that the exterior covering is attached to them.

In each aisle a stacker crane carries out the movement of the pallets from the conveyor to the location designated by Mecalux Easy WMS.

The stacker cranes´ implementation allows for an increase in productivity and at the same time decreases the resources needed for each operation.

Due to the type of goods stored, and for small quantities of products for an item like those Amagosa works with, it was essential for an operator to arrange a picking

The process of input and output in the automated warehouse is done via a conveyor circuit installed at one end

Dynamic channel exits

area swift enough to prepare orders with great speed.

They installed twenty-four live channels with rollers on the first level of racks where picking of higher consumption 'A' type products is done. Each channel, that coincides with the ground floor, can house up to three reserve pallets.

Next to that, a picking station has been set up in the shape of a 'U' for products with medium and low turnover (B and C).

On both sides of the picking station they have placed two vertical Clasimat warehouses intended to store high value C type products (liquors, high-end wines, cognacs, etc.).

Plus, they have raised conventional pallet racks where the most consumed products (B type) are placed.

Picking area

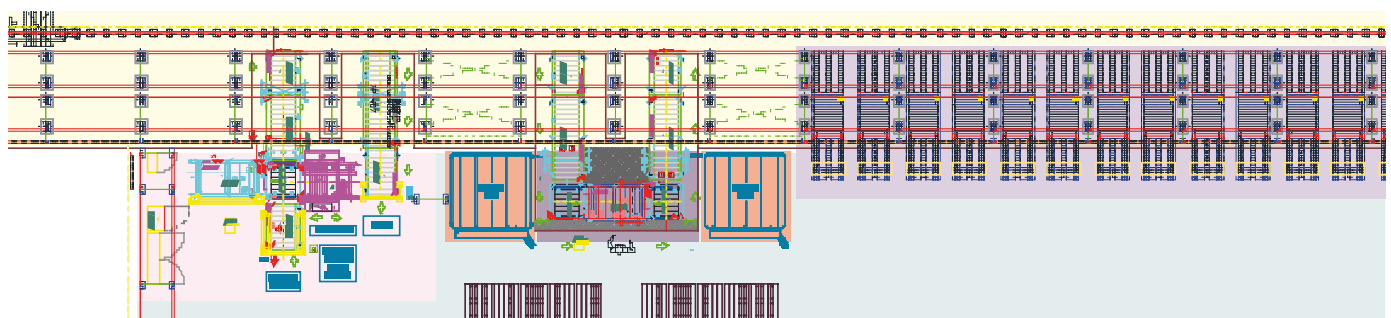

Preparing orders: steps to follow

1. The first operator, assisted by a pallet truck and a computer terminal, takes a pallet and goes along the dynamic channels to do picking of A type products.

2. Then, they move toward the conventional pallet racks to take the B type products. Once finished, they leave the pallet in the order fulfillment area, located just behind the picking station and the Clasimats.

3. The operator who mans this station prepares waves of five orders at the same time. They are responsible for putting together and finishing the orders by filling the pallet with the picking of all the B and C type products, including those from the Clasimat.

4. Once the orders are completed, the operator moves the pallets to the area reserved for replenishment, after passing by the baler machine. This area is located in the old building, situated at the side of the new warehouse.

Clasimat is a vertical automated warehouse system intended for light products, which optimises maximum storage space while increasing the productivity of the picking work

A Clasimat for all valuable C type products

In the Amagosa warehouse, they have installed two 8.5 m high Clasimats with 20 trays in each.

These trays, stored in the support structure by a shuttle, are 2.4 m long and are capable of supporting up to 500 kg of goods.

Docking areas with light devices

In the old warehouse, which is next door, there are several racks that do not interact with the new warehouse. The only area that is connected is the space reserved for the output docks that are connected via a wide door where the forklifts circulate.

In this area, eighteen preloading channels have been set up where pallets with already prepared orders arrive. These channels are equipped with light devices that allocate placements

Easy WMS

Amagosa uses the Mecalux Easy WMS to meet all the management needs related to the logistics center.

Easy WMS controls all the entry processes, the location in the warehouse, stocks, location rules, retrieval, the pallets that have to go to picking stations, the picking itself, returns to the warehouse, etc. It is also capable of analyzing the state of distinct parts or areas via query and reporting tools, as well as all the teams that operate in it.

Mecalux Easy WMS (warehouse management software) communicates with the ERP SAP of the customer in a permanent, or bidirectional manner.

Advantages for Amagosa

- **Increase in storage capacity:** the Amagosa clad-rack warehouse works with single and double-deep racks offering a storage capacity of 3,500 pallets, 800 x 1,200 mm in size and 2,000 mm in height, in a surface area of only 1,000 m².

- **Efficient picking:** the combination of the live channels, the picking station and the two Clasimats allow them to make efficient preparation of all products (A, B and C).

- **Productivity improvement:** thanks to the high level of warehouse automatisation, the speed of order preparation has increased.

- **Perfect stock control:** Mecalux Easy WMS manages all the movements, processes and operations that take place inside the warehouse.

Technical data

Automated warehouse

Storage capacity	2,373 pallets
Maximum pallet weight	1,000 kg
Warehouse height	22.8 m
No. of stacker cranes	7
Type of stacker crane	single-mast
Picking channels	24
Construction system	Clad-rack warehouse

Clasimat vertical warehouse

Total capacity	40 trays
Tray length	2.4 m
Weight admissible in the tray	500 kg
Warehouse height	8.5 m
No. of units	2

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