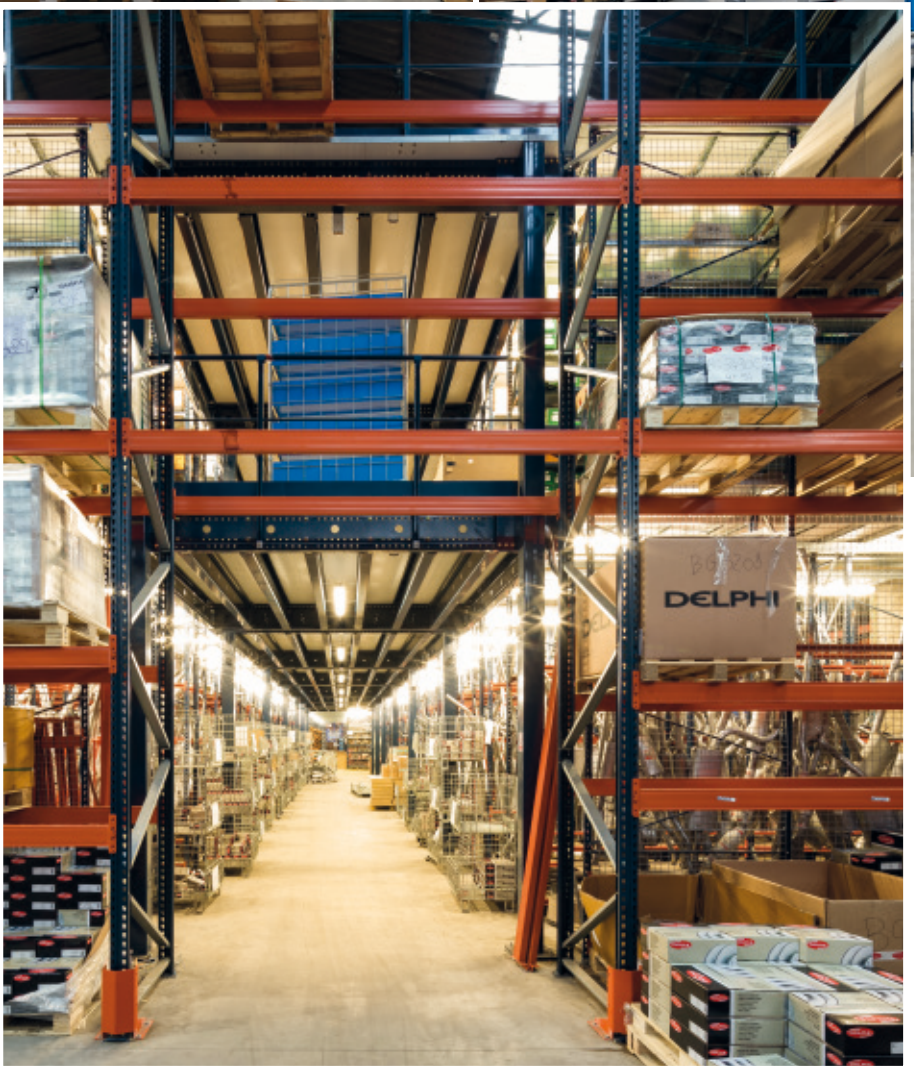
MECALUX

Case Study: Automotive Factory Parts

Automative Factory Parts: online and super-sized

Location: France

Automotive Factory Parts, a distributor of automobile spare parts, owns a 5,000 m² modern logistics centre in Gennevilliers (France), whose principal operation is the picking of online orders. Mecalux has provided the storage systems, including a circuit of conveyors that link all areas of the installation, so that picking is carried out faster.



The needs of Automotive Factory Parts

The French company sells an extensive catalogue of spare parts for garages, petrol stations and the automotive industry.

Faced with boosted sales, the enterprise required an expansion of its warehouse's storage capacity, along with the implementation of a solution that would sort goods by market demand and size.

Automotive Factory Parts' goal is to provide competitive pricing on the best products and, to do this, it would need to keep running costs down.

Thanks to the collaboration with Mecalux, it has set up a quick picking system that helps provide excellent service to its online shoppers.

The solution

Mecalux analysed Automotive Factory Parts' requirements at length and proposed the installation of manual hand-pick racks. The racks are 6.2 m high with walkways or raised aisles attached to them, making up a total of three floors.

A conveyor circuit automatically moves finished orders to the completion and consolidation area.

Racks with walkways take full advantage of the height of the distribution centre to max out available space and provide greater storage capacity

Pallet racking
The sides of the warehouse are lined with pallet racks for over-sized products and reserve stock on pallets for the picking shelves.

Picking shelves

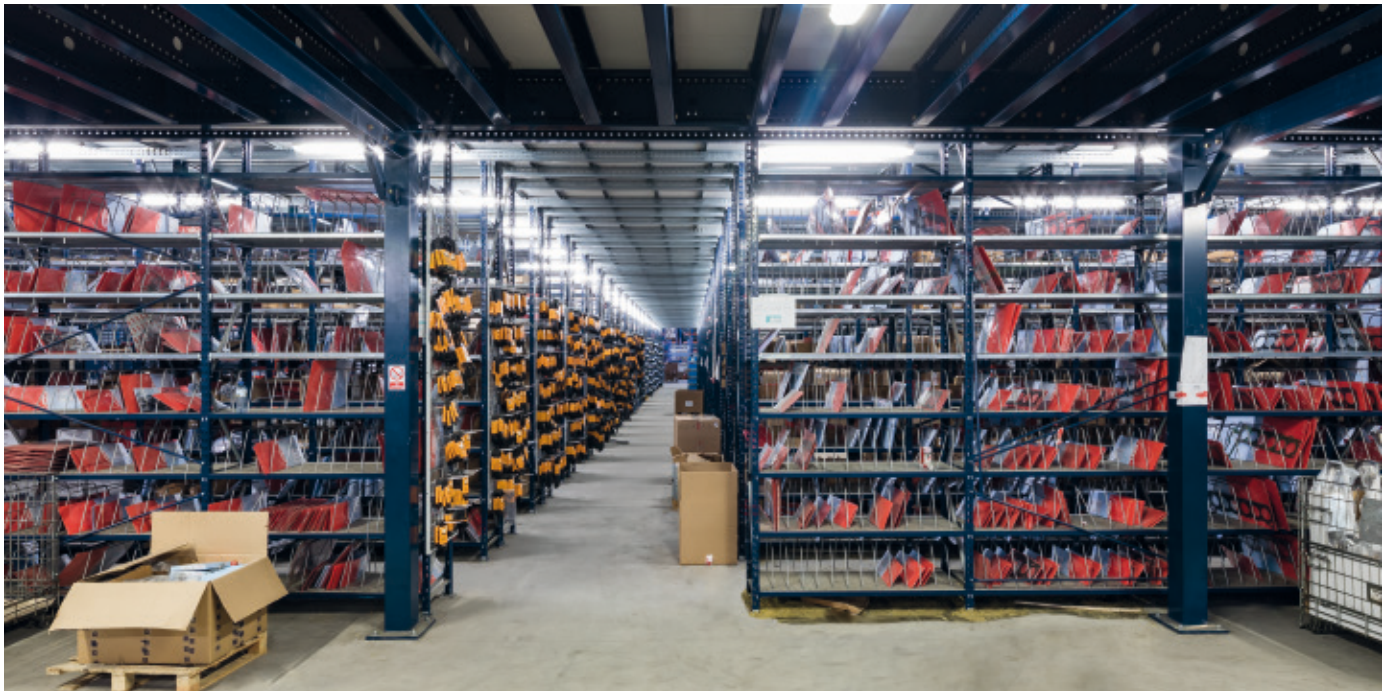
The warehouse was sectored to organise the company's broad range of SKUs. Thus, maximum throughput is achieved in the installation, as well as streamlined picking.

Operators walk the aisles picking the products that comprise each order directly from the shelves. They follow the order grouping system, which consists of preparing several orders during the same trip.

Replenishment is carried out in off-peak hours, i.e., when there are fewer orders to prepare.

A mezzanine structure is installed in the central aisle area. The upper floor is where the conveyor circuit is located, with more racks on the lower level.

Each of the warehouse levels is set aside for a specific product type and a specific number of operators, which may vary depending on the demand



Ground floor

The logistics centre racks are highly accessible, fostering the handling of goods. Moreover, they are very adaptable, since there are add-ons and accessories to deposit all the different sized products (from over-sized ones, down to the smallest).

Racking bays are equipped with extra components that make it possible to store and classify products of similar characteristics

The aisles are wide enough so operators move about with handcarts, picking and replenishing products. To facilitate their movements, a cross-aisle passageway was opened up that runs front to back in the block of racks.

Upper floor

An empty, wide open mezzanine above the racks can be fitted with more racks down the road, taking into account the needs and future growth of Automotive Factory Parts.

To connect the three warehouse levels, the circuit includes inclined belt conveyors that lower boxes to the other levels at a controlled speed

Conveyor circuit
It links the three floors and runs to the consolidation area, where orders coming from different warehouse areas are sorted and prepared.

This solution lessens the movements of operators because they do not have to run all over the warehouse to select the products that make up each order, but only work in the area assigned to them.

Consolidation area

Once on the bottom floor, the boxes are sorted into four channels. Next, orders are distributed in handcarts, as per the order they belong to, and taken to where they are validated, packaged, labelled and issued the required shipping documents.

Finished orders are sent to three different destinations:

- Mass delivery. Products are grouped on pallets and transported to delivery vehicles.
- Individual packages.
- Sales counter and direct pickup.

Galileo from Mecalux

The warehouse management system (WMS) at Automotive Parts Factory is in constant communication with the Mecalux Galileo control module.

This software is tasked with giving movement orders to the conveyor circuit and with directing the boxes to the corresponding warehouse areas.

Advantages for Automotive Factory Parts

- **Operational flexibility:** the warehouse layout offers flexibility when picking orders. Each floor has a specific number of operators, which may vary depending on the demand.
- **Optimal goods management:** racks offer direct access to the goods, and at the same time are equipped to classify products according to their size and characteristics.
- **Rapid picking system:** the automatic conveyor circuit joins the different warehouse zones and streamlines picking, since operators do not have to crisscross the installation to pick up the appropriate products.

Storage systems

Pallet racking

Racks with walkways

Mezzanine

Automatic conveyor circuit