

# Three storage systems and automatic internal transport for finished products

Toymaker Falk Toys expedites the storage of finished products with several warehousing solutions and automatic internal transport systems.

Country: **France** | Sector: **Plastic**



## CHALLENGES

- **Increase storage capacity** to accommodate all toys manufactured.
- **Optimise internal goods transport** between the production plant and the warehouse.
- **Store and classify** products according to the ABC method.

## SOLUTIONS

- **Transfer car** and **automatic pallet conveyors**.
- **Semi-automated Pallet Shuttle system**.
- **Movirack mobile pallet racking**.
- **Pallet racking**.

## BENEFITS

- **Storage capacity for over 3,000 pallets** of different sizes.
- **Automatic transport** of toys from the production lines to the storage area.
- Distribution of toys in **three storage systems** and organised by turnover (ABC analysis).

In business since 1947, Falk Toys is a leading manufacturer and distributor of plastic toys with pedals: tractors, bulldozers, motorcycles and others. Crafted and produced in Oyonnax (eastern France), the company's toys are designed for children to develop their motor skills outdoors while having fun. In line with Falk Toys' commitment to environmental care, its products operate without batteries and incorporate over 60% recycled materials.

» **Founded in: 1947**

» **International presence: 40+ countries**

Plastiques Falquet & Cie distributes its toys under the trade name Falk in France as well as internationally. In 2015, the company embarked on a comprehensive modernisation initiative for its facilities and work equipment, including offices, machinery and workshops. The business recently opened a new warehouse in the French city of Oyonnax, where it also operates a manufacturing plant.

Falk Toys' former logistics facility was outdated and did not align with the organisation's requirements or the modernisation process it was undergoing. Yvain Sogno, CEO of Falk Toys, says that when opening the new warehouse, the main logistics need was "to have enough space to store more than 3,000 pallets of finished products."

To meet Falk Toys' requirements, the new facility is divided into three areas, each with a different Mecalux storage system: pallet racking, Movirack mobile racking and the Pallet Shuttle system. "We chose this combination of storage solutions because of the flexibility they offer our logistics operations. Now, we can decide where to store each item based on its characteristics and turnover rate," says Sogno.

With three storage systems in place, the company categorises its stock using the ABC analysis method, which takes into account the turnover rate. The ABC technique follows the 80/20 rule: 20% of the items account for 80% of goods movements, while 80% of the products create the remaining 20% of movements. Using this criterion, the most popular toys are positioned in easily accessible locations to speed up their entry and exit from the logistics facility.

Furthermore, to accelerate the flow of movements between production and the warehouse, Falk Toys has also implemented an automated transport system consisting of conveyors and a transfer car. Automating the transport of goods internally was essential

for streamlining the management of the 150 pallets received and shipped every day. Mecalux has delivered a personalised logistics solution that fits Falk Toys' requirements, from the available space to the type of products. This can be seen in the customisation of all the storage and internal transport systems, which have been tailored to operate with pallets of two different sizes: 800 x 1,200 mm and 1,000 x 1,200 mm.

### **Automatic transport of finished goods**

"With Mecalux's automated transport systems, we've streamlined the transfer of

finished products leaving the production lines and heading to the storage area," says Sogno.

Mecalux has installed an internal transport circuit that connects production to the warehouse. It features two automated systems: pallet conveyors and a transfer car. The conveyor lines are set up at both ends of the circuit. They incorporate rollers that bear the load and propel it along the line in a controlled manner via electric motors. In the middle of the circuit, the transfer car travels a distance of 108 m, transporting the goods at top speed.





The combination of these two automated transport systems saves time and improves efficiency in moving loads. With this solution, the flow of goods between production and the warehouse is significantly faster and safer, eliminating bottlenecks and ensuring that finished products reach the storage area in perfect condition.

### **Semi-automated Pallet Shuttle system**

“We opted for Mecalux’s semi-automated Pallet Shuttle system to house our high-turnover finished products — type A — coming from the production lines,” says Sogno. The semi-automated Pallet Shuttle is a high-density storage solution equipped with

a motorised shuttle car that moves pallets inside the storage channels. The racking makes the most of the available surface area to accommodate as many products as possible. Moreover, the automatic shuttle car has considerably reduced storage and retrieval times for Falk Toys.

The system has a capacity for 918 pallets and holds up to 17 pallets deep. The stock stored in it is managed in line with the LIFO (last in, first out) method.

To insert goods, operators use a forklift to place the motor-driven shuttle car at the entrance to the storage channel. The vehicle then moves the pallet to the deepest available position. Once the load is stored, the device returns to the channel entrance to repeat the same movement with the next pallet. The Pallet Shuttle system consolidates a substantial amount of merchandise. Therefore, Falk Toys has an ample supply of products to meet customer demand in the event of a sudden spike or an unforeseen disruption in the supply chain.

### **Movirack mobile racking**

The Movirack mobile racking system has been allocated for low-turnover finished products (type C). “We’re very pleased with this solution because it stores the goods in a compact way and gives us direct access to the products we need,” says Sogno. Capable of housing 2,640 pallets, the system comprises nine mobile-based racking units, each standing 8 m, along with two fixed rack units on either end.

Mecalux’s Movirack mobile racking is the only high-density system that provides direct access to all products stored. How? The racks are installed on mobile bases that move laterally on rails. Operators use a radio-controlled remote to select the aisle they need to access, and the rest of the racks cascade open,



***“The main benefit we’ve gained with the three different storage systems and the automatic transport circuit is the marked improvement in logistics efficiency throughout the facility. Our goods are now organised much more effectively, which contributes to strengthening our supply chain competitiveness.”***

**Yvain Sogno**  
CEO, Falk Toys

leaving only that working aisle accessible. The movement of the Movirack mobile pallet racking is completely secure, thanks to multiple safety devices. These include, for instance, external and internal barriers equipped with sensors that halt movement upon detecting the presence of operators or objects. Additionally, emergency stop buttons interrupt the movement of the racking in case of incidents, while proximity photocells ensure a smooth, safe stop.

### **Pallet racking**

“Mecalux pallet racks stand out for their strength, adaptability and versatility. We use this system to store over 1,300 pallets with type-B finished products, with medium turnover,” says Sogno.

Adjustable pallet racking is the most all-purpose solution offering direct and individual access to each pallet. It is particularly useful for storing multiple SKUs. Apart from streamlining goods management, direct access facilitates inventory control.

### **Multiple solutions maximise efficiency**

By installing different Mecalux storage systems — both high-density and conventional — Falk Toys now has the flexibility its logistics operations require. The toy company has achieved greater storage density to house all its finished products before distributing them to customers in more than 40 countries. Likewise, automating the transport of all merchandise from the production lines is crucial for avoiding supply chain disruptions.

Thanks to Mecalux’s solutions, Falk Toys’ logistics operations are performed at full capacity. The business is now well-prepared to support its expansion process and cope with any sudden increase in the production pace if demand so requires.

