

Case study: Decathlon

Three new warehouses to prepare online orders

Location: Italy



The sporting goods company Decathlon keeps outpacing its own expected growth. Recently, it celebrated the grand opening of three new logistics centres in the Italian towns of Brandizzo, Basiano and Castel San Pietro Terme. Over the last few years, the company has incremented its number of shops nationally, as well as the online sale of its products. Mecalux stepped in and equipped the three warehouses with custom, made-to-measure storage solutions designed to deal with this growth, and so picking could be done at great speeds and efficiency.

Decath-online

Founded in 1976 in France, Decathlon is a trendy company which focuses on merchandising items for sports enthusiasts, from beginners to experienced athletes. It has a clear target to sell at an international level and, currently, is present in more than 35 countries such as Italy, Spain, the United Kingdom, Poland, China, and Brazil, etc.

You can find all types of products to practice any kind of sport in the more than 1,350 points-of-sales it runs worldwide. These include the most well-known brands to the company's own private labels (called Passion).

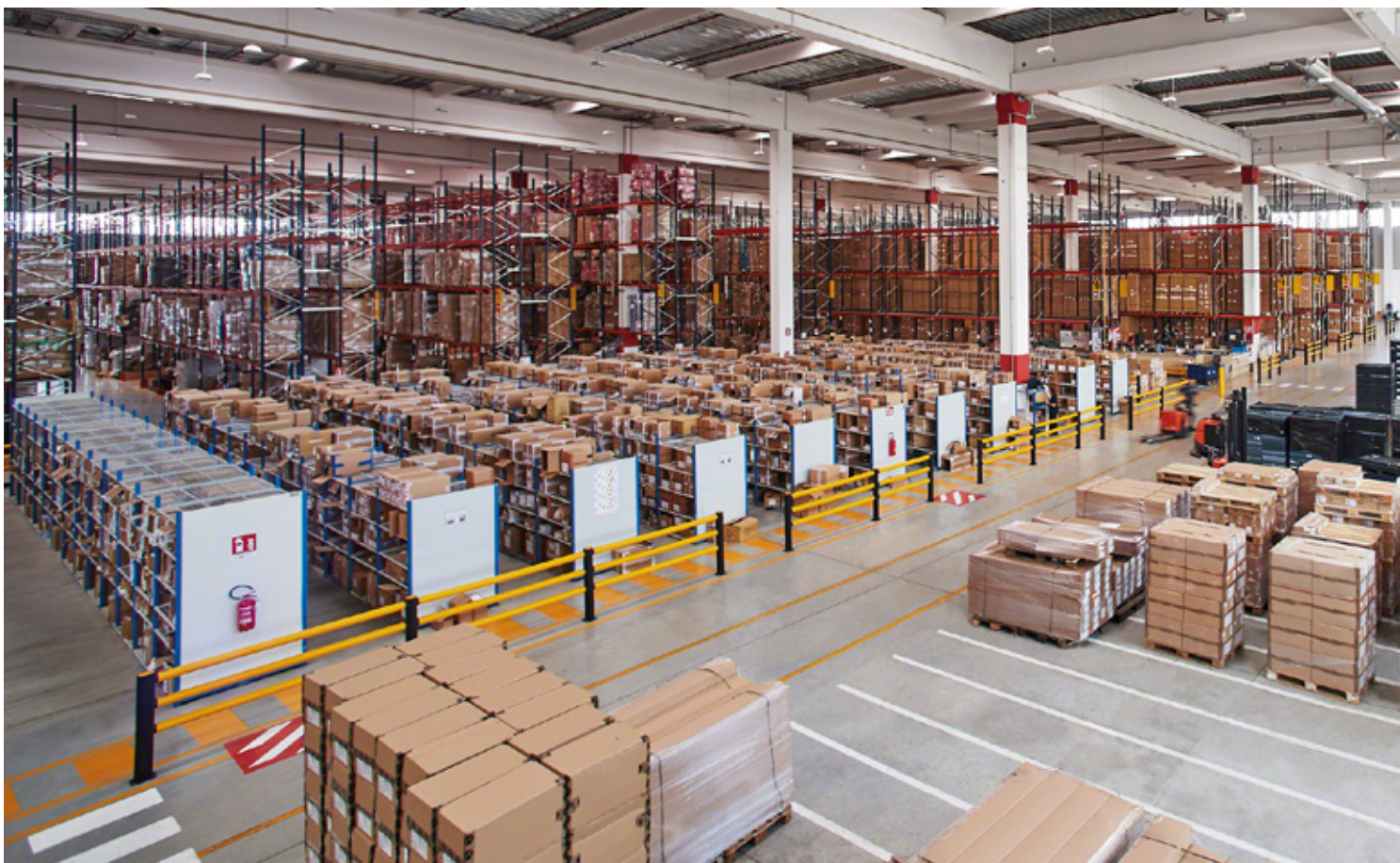
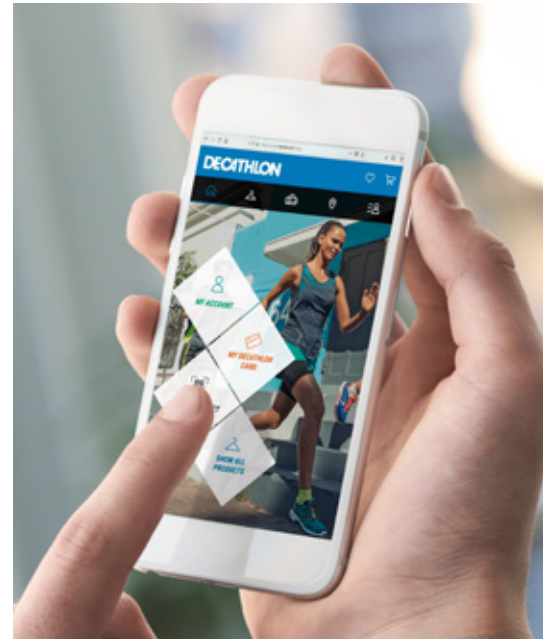
Innovation is an integral part of all the projects of this company in order to adapt to ever-changing consumer markets. Traditionally, Decathlon runs massive superstores located in major commercial areas or shopping malls, all close to city centres. However, in recent year, it has chosen to bring sporting goods closer to home, redoubling its efforts to fulfil consumer habits. To do so, it has opened shops in some European capitals and, additionally, has bolstered the e-tailing of its products online. In 2017, Decathlon invoiced 11,014 million euros, equivalent to a 10.5% increase.

One of the company's objectives is to apply an omnichannel model throughout its business, to serve growing customer demands better. Thus, Fabio Montinaro, Logistics Director at Decathlon Brandizzo, points out that *"We need fluid, flexible logistics."*

Decathlon started doing business in Italy in 1993 and now has more than 120 points-of-sale throughout the country, since it opened the doors of its first shop in Lissone. Thanks to its products' quality and affordable prices, the Passion brands have been a resounding success all over Italy, and sales have shot up. Proof of this being the company registered more than 1,300 million euros in sales just last year, which means an increase of 7.2% compared to the previous year.

Growing demand for products in Italy meant Decathlon needed to modernise its entire logistics. It was determined to optimise all storage and picking processes, reduce handling costs, increase productivity and offer better customer service. Following that line of action, it constructed three new distribution centres in the municipalities of Brandizzo, Basiano and Castel San Pietro Terme.

Purchases from the Decathlon.it website rose to 3.5% of Decathlon's overall sales generated in Italy





Logistics challenges in the e-commerce sector

Decathlon's products are within everyone's reach, from anywhere and all day long, with a simple 'add-to-basket' click online. Receiving goods in a matter of hours from the comfort of your home is a real advantage for consumers, even though it puts pressure on the company. Ensuring that products are delivered in as short a time as possible and dealing with more demand for these services requires flawless organisation of all logistical processes. To do so, several fundamental issues need to be considered:

Pick out **the most suitable storage system**, which best adjusts to the company's specific needs. Direct access to products speeds up the handling of goods and order preparation. Moreover, racks should be versatile and include add-ons and accessories to store different sized SKUs.

Distribute the goods in the warehouse as per their features, sizes and level of demand to streamline order picking. It is preferable to prioritise the consumer product distribution, for example, setting aside a specific area just for these goods.

Sectorise the warehouse into different zones (each zone can have a different number of aisles or else comprise an entire warehouse level). Each sector must be assigned a certain number of operators that

may vary according to the demand and quantity of orders to prepare. Through this methodology, very high productivity is reached in picking, provided that the zones are linked together via suitable handling equipment (such as conveyors).

Optimise workflow routes inside the warehouse. Whenever possible, each operator should prepare various orders at the same time. These should be verified afterwards to make sure no errors were made.

Use auxiliary devices. Radiofrequency terminals, or put-to-light, pick-to-light devices, as well as voice or visual picking devices, provide significantly higher productivity levels, by pinpointing the corresponding items.

Install a **warehouse management system (WMS)** that controls stock in real-time for uninterrupted operations throughout. The system detects if there is the minimal stock level to guarantee service. If this is not the case, it orders the immediate replenishment of the shelves.

For an e-commerce business, a warehouse plays a vital role in offering the desired service levels and guaranteeing a positive user experience





Mecalux solutions for Decathlon

The Mecalux technical team worked with Decathlon's in-house experts to chisel out a needs-based storage solution. Italy is one of the European countries with the highest risk of seismic activity. As such, the racking has been specifically designed to withstand the dynamic forces caused by earthquakes and, thus, prevent pallets from falling.

The three brand new logistics centres have very similar characteristics and space distributions, to achieve top-notch picking. According to Fabio Montinaro, *"picking is our main operation, both for our customers that buy online all over Italy and for supplying Decathlon shops in the Northern region of the country."*

Every working day, operators crisscross the aisles collecting the SKUs listed by the warehouse management system (WMS) on an RF device.

The warehouses are divided into two different zones:

1. Three-tier mezzanine floors with picking shelves: allocated to small-sized products (like clothing and footwear). These racks are 2.7 m high, with five shelf levels. By offering direct access, operators can extract items from inside the boxes with ease. The three-level mezzanine is neatly connected together through a conveyor circuit that sends finished orders up to the consolidation area.



Fabio Montinaro
Logistics Manager at Decathlon Brandizzo

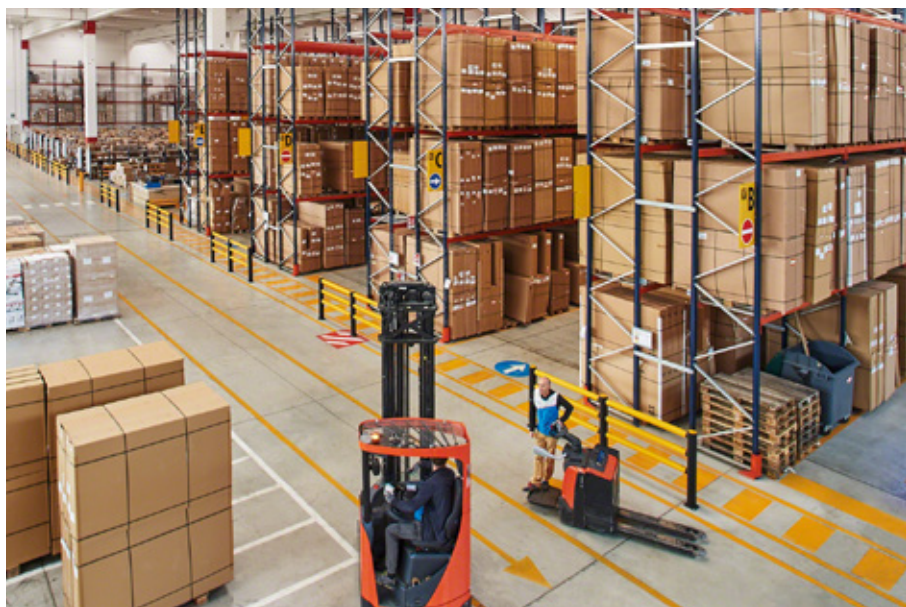
"Mecalux has provided us with some racks that have fully adapted to our needs and at the best price. Moreover, they are reinforced and set up to protect workers and the goods from any potential seismic tremors."



2. A wide area with pallet racks: bulky product storage is located here (e.g. bicycles, punching bags or tents) and palletised reserve goods for the picking shelves.

Generally, Decathlon operates with 800 x 1,200 mm pallets and those of varying load heights (up to 2,350 mm), which can even exceed the base's dimensions. So, the pallet rack system proved to be the most suitable to store pallets with many SKUs of different sizes, weights and heights.

Decathlon's warehouses are mainly operated by forklift trucks when pallets are inserted and extracted from their locations and by ground level order pickers allocated to picking tasks.





Advantages for Decathlon in Italy

- **Maximum space purposing:** picking shelves and those for pallets fully optimise the surface area of the three logistics centres to yield the best possible storage capacity.
- **Picking as a priority:** the Decathlon warehouse was designed for streamlined order picking. All storage solutions offer direct access, which facilitates the handling of goods.
- **Keeping pace with growth:** the building of the three new warehouses in Italy shows the bright future Decathlon has in Italy and how successful the sales of its products have been in this country.

Technical data

Brandizzo

| | |
|------------------------|-----------------------|
| Total storage area | 22,913 m ² |
| Pallet racking | |
| Storage capacity | 9,738 pallets |
| Pallet size | 800 x 1,200 mm |
| Max. pallet weight | 700 kg |
| Racking height | 9.5 m |
| Racking length | 29.7 m |
| Picking shelves | |
| No. of shelves | 10,640 |
| Shelving height | 2.25 m |

Castel San Pietro Terme

| | |
|------------------------|-----------------------|
| Total storage area | 35,999 m ² |
| Pallet racking | |
| Storage capacity | 12,801 pallets |
| Pallet size | 800 x 1.200 mm |
| Max. pallet weight | 700 kg |
| Racking height | 9.5 m |
| Racking length | 96.3 m |
| Picking shelves | |
| No. of shelves | 12,540 |
| Shelving height | 2.75 m |

Basiano

| | |
|------------------------|-----------------------|
| Total storage area | 44,001 m ² |
| Pallet racking | |
| Storage capacity | 14,234 palets |
| Pallet size | 800 x 1,200 mm |
| Max. pallet weight | 700 kg |
| Racking height | 9.5 m |
| Racking length | 91.6 m |
| Picking shelves | |
| No. of shelves | 21,300 |
| Shelving height | 2.7 m |

