

Pick

**FRANCISCO LOPEZ,
MERCADONA:**

“**SPEED,
ACCURACY
& RETURN ON
INVESTMENT**”

**The Spanish grocery giant
improves its efficiency
with Cimcorp automation**

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Supermarket giant invests for further growth

The leading Spanish supermarket group, Mercadona, is investing in a fully automated order picking system from Cimcorp at its new distribution center in Guadix.



TEXT: HEIDI SCOTT PHOTOS: ARTO HELIN, SHUTTERSTOCK



Flying in the face of very tough economic conditions on the Iberian peninsula, Mercadona continues to go from strength to strength. In 2012, the retailer increased its turnover by 7% to over 19,000 million euros, recorded a net profit of 508 million euros, created 4,000 new jobs and opened 60 new stores. Its 1,418 supermarkets now represent 13.8% of Spain's grocery retail footprint, serving more than 4.7 million households. These stores are served by a network of ten distribution centers (DCs), with two more under construction – in Guadix (Grenada) and Abrera (Barcelona) – in order to handle further growth.

Freshness is key

The new Guadix DC, which will serve 82 stores and is due to open in July, will feature a robotic system from Cimcorp for order picking of full crates of fresh fruit and vegetables, as well as meat products. This will be, in effect, an 'island' of automation, albeit fully

integrated with the surrounding manual operations. Product quality is a key reason behind Mercadona's decision to implement a robotic picking solution in the Guadix DC.

Francisco Lopez, Head of Logistics and Purchasing (Fruit and Vegetables), explains: "The automated solution improves efficiency and picking accuracy, bringing benefits to our customers in terms of product freshness and availability on the shelves."

In Mercadona's corporate model, the satisfaction of its customers is paramount, with the consumer referred to as 'el jefe' (the boss). "Our slogan is 'Always Low Prices'," says Francisco Lopez, "but that does not mean that we compromise on quality. In fact, for many years our philosophy has been: 'quality doesn't have to be more expensive'. When it comes to fresh produce and chilled foods," continues Señor Lopez, "a key element of quality is freshness. That's where supply chain efficiency comes in."

Francisco Lopez believes that ▶



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► Mercadona must remain able to reinvent itself in order to continue to succeed. “The only constant is change,” he says. “One of the main challenges facing the company today is how we deal with the realization that we cannot handle fresh produce in the same way as dry produce. Perishable food has to be treated differently in the handling process – from the field to the shelf – in order to guarantee its freshness. This requires fundamental change to our supply chain. The new robotic systems we are implementing guarantee minimal handling time and therefore optimum product freshness,” he continues. “Our new fresh produce preparation line and picking system will allow us to prepare all orders ready for delivery in just six hours. The speed, simplicity and return on investment of the Cimcorp solution were the deciding factors for us. Of course, accuracy is fundamental too – we need to have the complete order, with no errors, delivered to each store before it opens in the morning.”

Robots to take the strain

The new Guadix DC will feature various zones – one for dry products; two for refrigerated products, at temperatures of 3°C and 12°C;

one for frozen products at -23°C; and a production area for bread, producing some 8,000 loaves per hour. Cimcorp robots will automate the picking of full crates of fresh fruit, vegetables and meat products in the refrigerated zones, where around 300 different stock-keeping units (SKUs) will be handled in almost 30,000 crates each day. In total, the new DC will handle some 6,000 SKUs and shift more than 100,000m³ of merchandise per month.

Another important reason for Mercadona choosing the Cimcorp solution was to protect its staff from strenuous work. The company takes the welfare and satisfaction of its employees very seriously, as evidenced by the fact that – unlike many workers in the grocery sector – all of its 70,000 staff have permanent contracts. “The robotic system minimizes the need for manual handling, protecting our employees from the strain of moving heavy crates and the associated risk of injury,” says Francisco Lopez. He sees potential for more co-operation with Cimcorp in the future. “We are planning to roll out automated picking to more of our distribution centers in the next few years,” he explains, “in order to eliminate strenuous manual handling from our other facilities.” ■



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The MultiPick® solution

The 'island of automation' at Guadix will feature 8 MultiPick® robots handling perishable goods in two temperature zones (+3°C and +12°C).

MultiPick® robots combine buffer storage and order picking functions into one flexible operation. They handle, store and pick crates of product in stacks. Goods arrive at the island by conveyor in stacks of crates that contain just one SKU. A robot collects the stack and stores it on the floor within its working envelope. For picking, the robot moves to the relevant stack for the first product of the order.

After picking the required number of crates of this SKU, the robot moves to the next product, and so on. When the stack being picked is complete, the robot either stores it for dispatch later or deposits it onto a pallet or into a roll container.

At Mercadona, the robots will pick up to 28,675 crates in a 6-hour period and will be able to store up to 30,000 crates per day. The 300 SKUs will be handled in one of two sizes of plastic crate – 600mm x 400mm and 400mm x 300mm – weighing between 5 and 250kg and with a maximum stack height of 2.2m. In addition to the robotic system, Cimcorp is supplying the crate stackers, the conveyor system and its WCS (Warehouse Control Software) system to manage the material flows, as well as providing installation and start-up services.

Cimcorp's MultiPick® robotic island offers many benefits for grocery retailers.

It prepares orders for the retail stores accurately and rapidly, enabling them to be transported to the supermarkets without the need for any further processing. **The system is self-sufficient**, taking care of goods reception; put-away; location of stored items; retrieval planning; picking of crates; sorting and assembly of crates into discrete orders; and loading of the orders onto transport units ready for delivery. As well as **ensuring shorter lead times** due to very fast order processing, the robotic system facilitates customization of picking rules according to the retailer's preferences – for example, arranging crates into product families for shelf-ready replenishment. In addition, automation means that **full tracking and tracing** are possible throughout the island, with all goods movements being communicated to the host system without the need for barcodes or RFID tags. A great benefit of the MultiPick solution is **easier cleaning** – as the robots can empty the entire floor area fully automatically. ■