

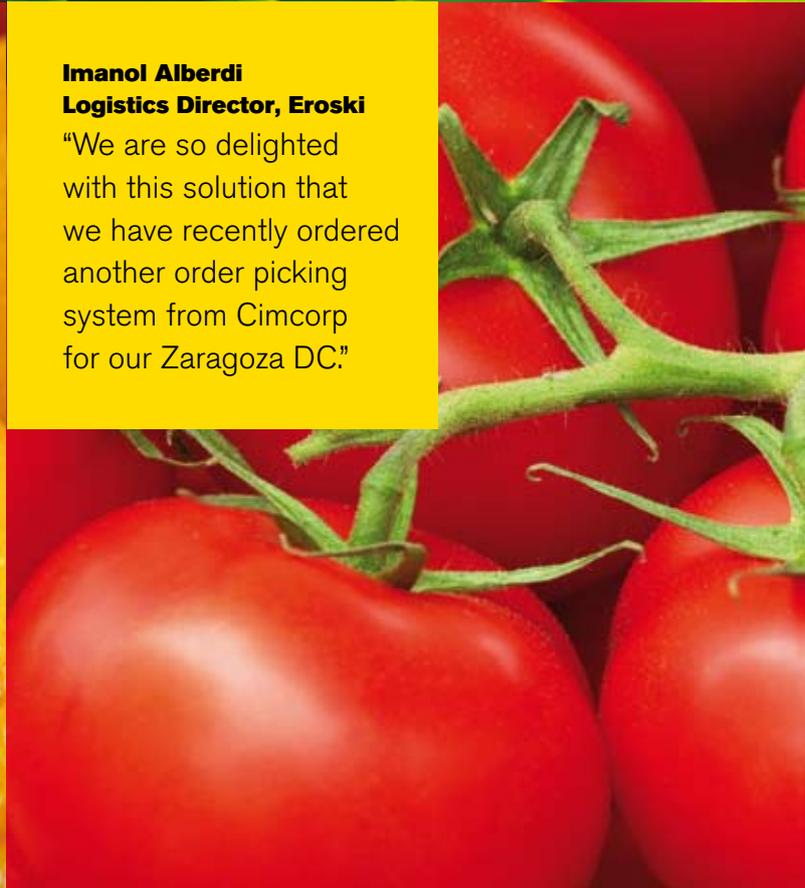
CIMCORP

ORDER PROCESSING ISLANDS
Automation exclusively for fresh produce



Imanol Alberdi
Logistics Director, Eroski

"We are so delighted with this solution that we have recently ordered another order picking system from Cimcorp for our Zaragoza DC."



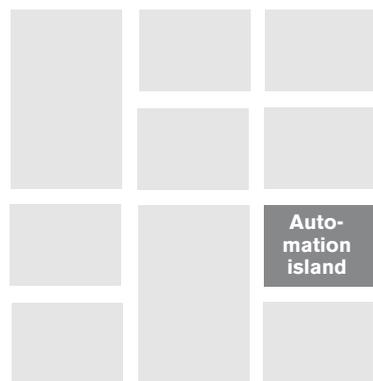
AUTOMATION ONLY WHERE

Not every area of grocery distribution is suited to full automation. In these scenarios, 'islands' of automation – fully integrated with the surrounding manual operations – may enable clients to achieve maximum benefit for minimum investment.

Distribution centers that have both crate handling and other operations – such as manual order picking, handling of whole pallets or handling of items in cardboard cases – use a combination of logistics technologies. In these applications where full automation is generally not feasible due to cost or complexity, Cimcorp's order processing islands can be a highly effective solution for automating the handling of full crates. In this way, the islands are ideal for the handling of fresh fruit and vegetables within the distribution networks of large grocery retailers.

Order processing islands

An order processing island is clearly defined within the surrounding manual environment, with product pallets going in and customer pallets coming out. The island prepares orders for retail stores, enabling them to be transported to the supermarkets without the need for any further processing. The island 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.



Independent automation island unit is an efficient part of distribution center



Depalletizing

Storage and picking area

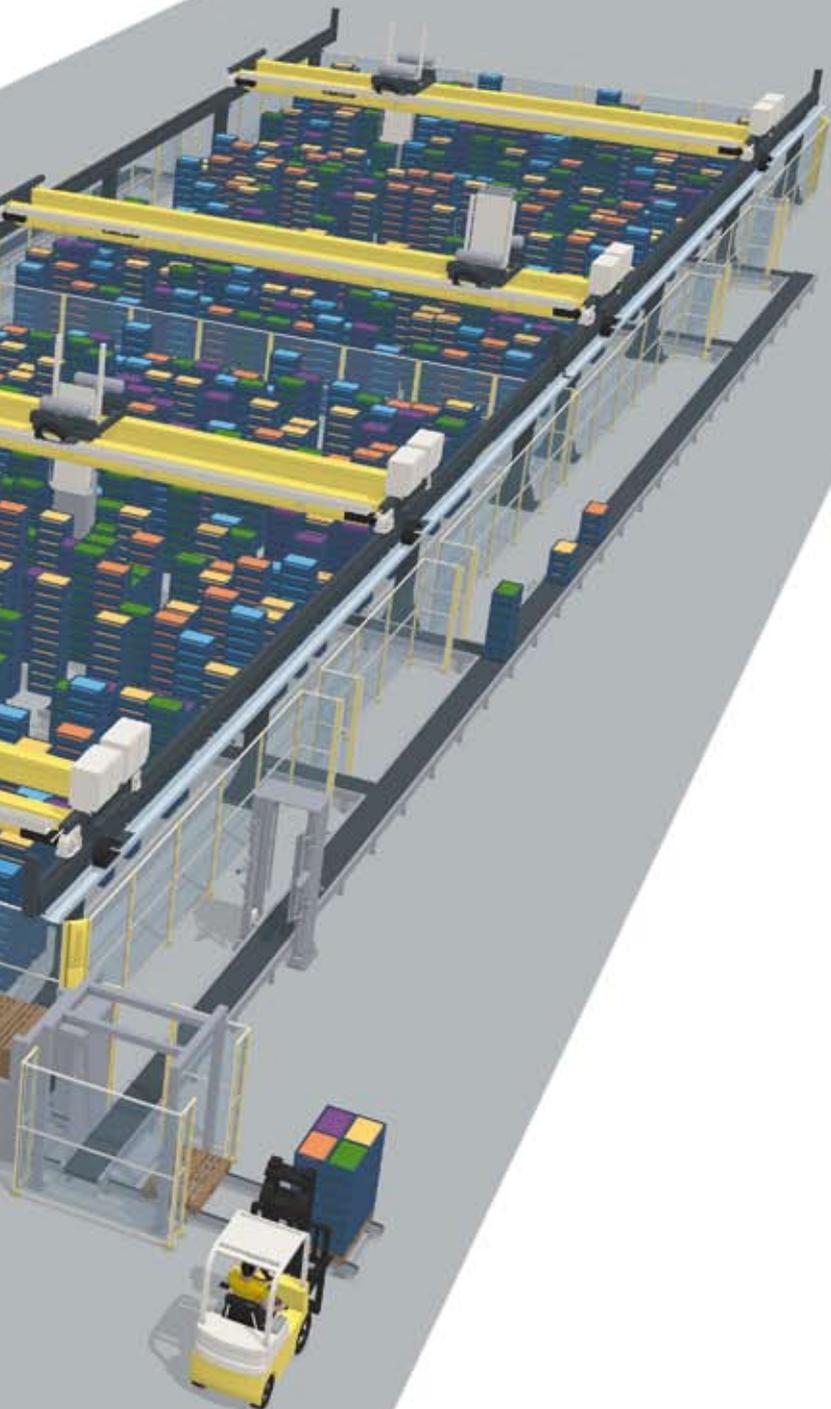
Transport unit loading

IT PAYS



See it in action

www.youtube.com/watch?v=mU8KKqxJJS0



Clear benefits

Shorter lead times due to very fast order processing; this is a critical factor for perishable products with limited shelf lives.

Easier cleaning as the crates are stored on the floor without racking and the robots are able to empty the entire floor area fully automatically; hygiene is an essential requirement in the food industry.

Greater flexibility through the solution's unique way of handling the goods in stacks, which allows retailers to adapt their operations to meet daily, weekly, monthly and seasonal fluctuations in the most economic way without a need to over-dimension the system.

Full tracking and tracing are possible throughout the island; all goods movements are communicated to the host system without the need for barcodes or RFID tags.

Enhanced security as the island is surrounded by safety fencing that prevents unauthorized access.

Customization of picking rules enables consistent implementation of a retailer's preferences; picking rules facilitate handling within the supermarkets and can include placing heavy products at the bottom of crate stacks, arranging crates into product families, splitting transport units into temperature-specific groups and taking into account expiry date or production batch.



HOW CIMCORP'S SOLUTION WORKS

How it works

Cimcorp's order processing solution for plastic crates uses robots that operate on an overhead gantry to combine buffer storage and order picking functions into one flexible operation. The robots handle, store and pick crates of product in stacks. With the gantry design being modular and able to accommodate any number of robots, the system can handle large volumes with ease. Goods arrive at the island by conveyor in stacks of crates that contain just one stock-keeping unit (SKU). A robot

collects the stack and stores it on the floor within its working envelope, before either collecting another stack or moving into order picking mode. 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 sends it to a transport unit loading station where it is moved onto a pallet or into a roll container.

Key features

As the system is modular, it can be constructed in phases and expanded to accommodate the number of islands needed for a particular throughput, with typical daily volumes of 25,000 to 40,000 crates per island. The solution can process hundreds of different SKUs for hundreds of stores, with each island able to handle several different types and sizes of crate.



CIMCORP IN A NUTSHELL

Automation technology company Cimcorp supplies robotic solutions for managing material flows in production and distribution environments. Cimcorp's purpose-built systems, software and services improve the profitability and competitiveness of its customers' businesses.



The Cimcorp group – which consists of Cimcorp Oy in Finland and RMT Robotics Ltd in Canada – has become a leading supplier worldwide to the tire industry, and is also strong as a supplier to the food & beverage and postal services sectors. The group has 300 employees and has delivered 2,000 robotic systems across five continents.

CIMCORP OY

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