

A turn-key distribution center

Super Bock Group: Boosting efficiency while cutting costs.



Super Bock Group is the largest beverage company in Portugal, with a multi-brand, multi-market strategy, and a history that stretches back over a hundred years.

The core business is based on beer and bottled mineral water, but the group is also active in the segments of soft drinks, wines and malt production, as well as in the tourism business, owning two leading attractions in the Trás-os-Montes region: the Vidago Palace Hotel and Pedras Salgadas SPA & Nature Park.

Super Bock Group is Portuguese-owned, 56% held by Grupo VIACER and 44% by the Carlsberg Group.

As the group continued to expand in the first decade of the 21st century, and with plans for both growth and improved sustainability, logistics was a headache that need to be sorted out. With nine production plants across Portugal, the delivery chain passed through five external warehouses and three distribution centers. It was a legacy solution, not designed for the challenges of the future, and it had to be rethought.

At a glance

Project goal

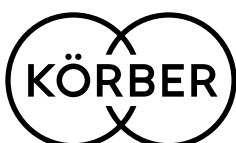
- Energy and costs saving
- Improved use of space - higher storage capacity
- Increased productivity

Solution

- 72 RGVs, high speed vehicles in
- 4 different loops
- 11 lifts
- 163 fully automated restocking gravity lanes in the picking area
- 24 loading docks served by 69 gravity lanes automatically feed by the system

Features and benefits

- Approximately height of 32 meters
- Capacity for 50,000 pallets in automated storage, handled by 10 double pallet, double deep stacker cranes



The board considered a number of possible solutions, including fully outsourced logistics, before deciding on a new, purpose-built logistics center fully integrated with the main brewery, delivered by Körber.

Centralized distribution

After assessing the needs and special characteristics of the business, Körber designed and built a turn-key solution with the construction of a brand-new logistics center in Leça do Balio. The new distribution center allowed Super Bock to centralize all warehouses and distribution in the northern and central region. The goal of the new facility was clear: by centralizing all stock, it would be possible to reduce the overall flow of goods through the delivery chain. This would guarantee a high service level to customers while reducing the environment impact of the logistics involved.

To minimize energy consumption, all equipment is fitted with speed drives and larger equipment, such as stacker cranes and lifters, with energy recovery systems. All systems are easily accessible for maintenance and equipped with IT tools for fast faultfinding as well as alarms that allow all errors to be resolved quickly.

A high-tech solution for a complex operation

This new facility not only ensures a high quality, innovative and competitive technical solution, but also a medium and long-term strategy to minimize operating costs within the customer global system. With a ten-year maintenance and operation contract, Körber are safeguarding on-site preventive/corrective maintenance, remote assistance service, restocking spare parts and consumables, as well as the system's 24/7 operation, meeting the contracted service levels.

The entire logistics system is managed by software fully developed by Körber, composed of three essential layers: the Warehouse Management System interconnecting to the customer's ERP (SAP) that manages the many vital functions; the Handling Management System responsible, among other things, for tracking pallets throughout the system and taking decisions concerning each pallet's destination; and the Supervision System that enables 3D monitoring of the system's status, errors, maintenance alerts and statistical information in a graphical environment.

When designing the solution, some key aspects for the customer included redundancy for all equipment as well as alternative paths to ensure that products can continue to flow with minimal impact to the chains, in case of any equipment malfunction.

The new distribution center for beverage products features a picking area with 163 locations automatically replenished with pallets coming from the high-bay warehouse dedicated to high-and medium-rotation products. 250 additional locations are semi-automatically replenished, dedicated to low-rotation products.

On site, 24 hours a day, 7 days a week

"After the initial project, we decided to have Körber run the daily operation of the automation part here on site. This way we are able to have a highly skilled and focused team on site 24 hours a day, 7 days a week, 52 weeks a year, assuring that everything goes smoothly with the automation part of the full solution that we have," says Alves.

This is a major investment, but the benefits are crystal clear. Super Bock saw significant reduction in both cost and emissions as well as improvement in process transparency. The group maintained its productivity while reducing operating costs and order preparation errors, keeping full traceability of its products – a critical aspect for a beverage company.

Super Bock is more competitive and fully capable of responding to the demands of the market.

“Besides all of these technical aspects, this solution allows us to have the full traceability that is critical for a beverage company like ours, so it helps us to have a better product and of course a better service for our customers. When we decided to go for this solution, it wasn't because it's sexy to have an automated warehouse, it's because we had a very good business case for the project.”

Pedro Alves,
Projects and Processes Manager at Super Bock

