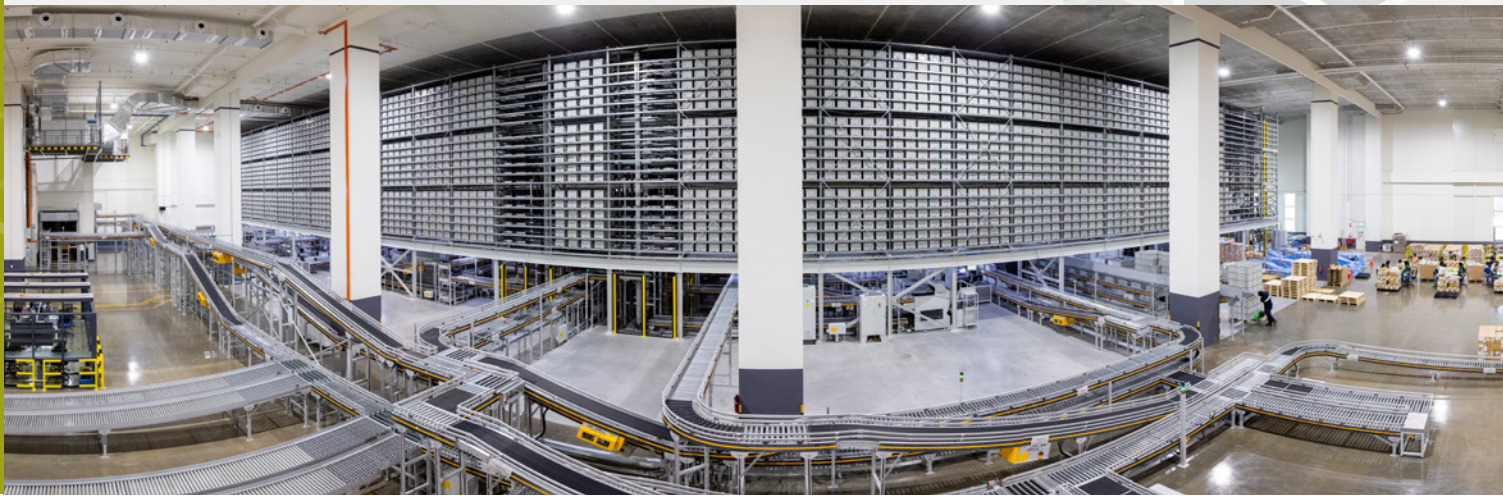


CASE STUDY

Bolloré Logistics Singapore

Bolloré Logistics achieves improved speed, productivity and accuracy with cutting-edge Dematic automation



Singapore

▷ Home to a fleet of robotic shuttles and the tallest conveyors in Southeast Asia, it takes just 20 minutes for an order in the 8-storey Blue Hub to be picked, packed and labelled - ready for delivery. Located in Singapore, the 50,000 sqm distribution centre features an innovative automation solution providing space-efficient storage with fast and accurate picking to meet the expectations of Bolloré Logistics' clients.

Bolloré Logistics is a global leader in international transport and logistics as well as a Tier 1 partner to some of the world's renowned brands. Its operations in Singapore are the largest in Asia-Pacific and form a key regional centre for the group.

Operating in Singapore since 1983, Bolloré has over 200,000 sqm of warehouse space spread over 14 sites, and offers comprehensive logistics solutions to a range of clients. Their new Blue Hub facility is the largest and most advanced of these.

BOLLORÉ LOGISTICS BENEFITS

- Improved space efficiency, maximising the inventory that can be stored with the high density storage provided by Dematic's Multishuttle.
- Increased productivity, improved ergonomics and reduced order fulfilment times with Dematic's high rate Multishuttle storage and retrieval technology and high rate RapidPick GTP stations.
- Improved inventory and order accuracy reduces the cost of resolving errors and addressing returns.
- Ability to adapt to different product ranges and order profiles to suit multiple clients with the flexible & modular design of the system.

WORKING WITH A TRUSTED PARTNER

With growing demand for E-Commerce, fierce global competition and increased consumer expectations of faster delivery times, retailers and brands have been ramping up their efforts to accelerate order fulfilment capabilities while keeping costs low.

To meet the increased demands of its clients, Bolloré Logistics started working with Dematic back in 2016 to provide an automated storage and order fulfilment solution for their Green Hub facility to increase speed, productivity and space efficiency. At that time, the 42,000 m² distribution facility was Bolloré Logistics' flagship site in Singapore.

With the success of Green Hub, the company planned another facility to support further growth of their business and to help them expand the number of clients they could service, particularly in the perfume and cosmetics sector. For its new Blue Hub facility, Bolloré Logistics and Dematic worked in partnership to drive further productivity improvements with a focus on solution innovation and the adoption of new technology. This included a pilot project comprising Dematic's robotic picking cells which can support orders being picked, packed and labelled for despatch without the involvement of an operator.



STATE-OF-THE-ART AND BUILT FOR PRODUCTIVITY, SAFETY AND FLEXIBILITY

Blue Hub was designed and built from the ground up to cater for business transformation in terms of omnichannel distribution, especially in the growing area of E-Commerce.

"Now, goods are going from everywhere to everywhere," said Mr Marcerou.

There were three main business drivers in mind when building this customised distribution centre.

"Here in Singapore, a big component is the cost of the space. So the automation is helping us with storage densification to reduce our footprint. And this is the first big advantage."

Frederic Marcerou, Managing Director, Bolloré Logistics



Mr Frederic Marcerou, Managing Director, Bolloré Logistics Singapore, said, "Dematic has helped us with other projects in Singapore, including our Green Hub DC. We have always been impressed with their quality of service and the quality of their solutions, so it was an easy decision for us to work with Dematic again on Blue Hub. They also provided in-depth training sessions for staff to understand how to use the system, and the team was there every step of the way to ensure that any challenges were quickly resolved."

The second one is in terms of productivity. We are able to be much more productive than we were in the past when pickers went into the aisles, to each shelf, doing manual picking."

And the third one, which is as important, is operational excellence. This system allows us to improve our operational excellence and the service we are giving to our clients."

Dematic worked closely with Bolloré Logistics to design an automated solution that would deliver improved efficiency and provide the option to scale up operations for future growth.



As part of the solution, Dematic set up a Dematic Multishuttle® automated storage and retrieval system. Products are placed in open totes, which are then stored in high-density racks. The system selects the best storage locations and shuttles automatically transport the incoming totes to designated rack locations. These towering racks reach the ceiling of the main storage floor, maximising the storage density of the warehouse.

Whenever there is an order to be fulfilled, the Multishuttle system automatically retrieves totes containing the required items. Totes are retrieved in a specific sequence and conveyed to the RapidPick goods-to-person (GTP) workstations where they are picked and placed into order containers. The operator stays in one place while items are delivered to their pick station in a precise sequence, increasing picking speeds and productivity by eliminating the need for the picker to travel.

At a single Dematic GTP System pick station, an operator can achieve extremely high rates and pick virtually error free. Dematic pick stations are also designed for employee comfort and safety. Operators only pick in an ergonomically optimised “golden zone” — there is no need to move hands above the shoulder or extend arms beyond a comfortable reach and no need to bend or twist.

“The entire system is ergonomic and safe. Employees no longer have to walk from aisle after aisle to look for the right products, which also saves a lot of time.”

Frederic Marcerou, Managing Director, Bolloré Logistics

The entire GTP system is designed with modular components and is highly flexible. Within Blue Hub, seven RapidPick workstations operate in the picking area, with the 4-aisle Multishuttle system supplying products at high rates. The system design allows Bolloré Logistics to easily turn on and off capacity and to suit operational needs, and provides flexibility to adapt to changes in SKU range and order profiles including both retail and E-Commerce orders.

An intelligent order tote and carton transport conveying system includes energy-efficient Spiralveyors to link the central order picking area with the client-specific operational areas. At over 40 m high, these Spiralveyors are amongst the tallest installed anywhere in the world.

The system provides not only very high-rate, accurate and ergonomic picking, but also supports efficient order packing and processing with automated carton assembly, lidding and labeling. Automated carton erectors create the cardboard shipping cartons for orders, with labels automatically applied at the point of induction. Once the order picking process is completed, the cartons are automatically closed and a tamper proof lid is automatically attached. From start to finish, an order can be picked and completed in as little as 20 minutes.

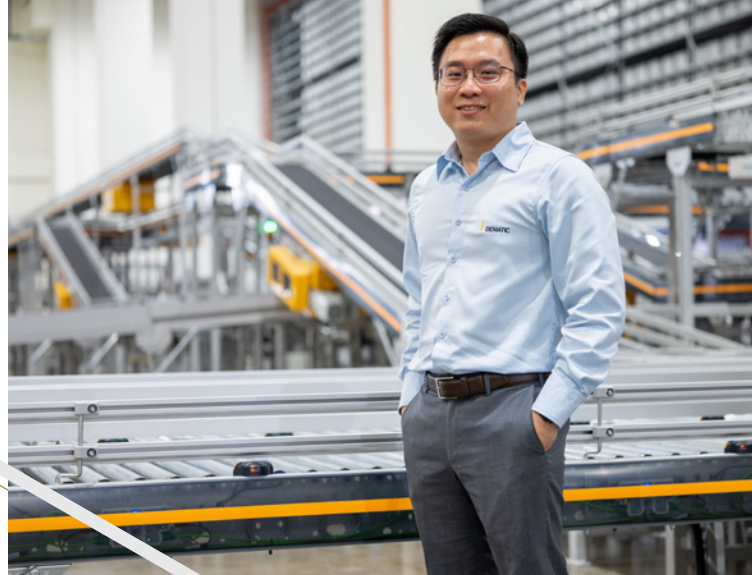
Dematic’s integrated warehouse control system also enables Bolloré Logistics staff to view orders, schedules and stock inventory status in one place. It provides staff with more data to help streamline their processes and optimise performance.

MINIMISING REAL ESTATE COSTS BY MAXIMISING STORAGE DENSITY

Building another facility in Singapore required a solution that made efficient use of space. The GTP system's flexibility enables Bolloré Logistics to serve omnichannel distribution channels, while its ability to handle a large range of SKUs in a small footprint ensures that productivity levels are maintained.

The high-density storage configuration within Blue Hub also makes efficient use of limited warehouse space in Singapore, with the storage needs met in only 25% of the usual footprint.

Jennifer Deng, assistant warehouse manager, Bolloré Logistics Singapore, said, "The solution complements our workflow very well. With better utilization of space and storage, we are able to double our picking lines. Storage density increased roughly 400%. The system helps our operators perform at their highest capacity, and we are seeing a 100% increase in productivity."



"The software brings together all automated equipment in the warehouse. This enables us to view orders, schedules, stock inventory status, all in one screen. Most importantly, better data visualisation has helped to streamline our process to reach our optimised performance. Our core goal is to continuously grow and improve ourselves, and bring more value-creating ideas to our customers. With the Dematic system, we can now plan our labour and anticipate trends based on demand, achieving more efficiency," she added.

To ensure the system operates with the highest levels of availability, Dematic provides a residential service and support team on site at Bolloré Logistics' facilities. They perform all the preventive maintenance and servicing of the system and are available to help address any system issues that might arise with an immediate response time. The whole system is also covered with support from Dematic's Software Centre that is available 24/7.



IMPROVING PRODUCTIVITY, ACCURACY AND EFFICIENCY

In a traditional DC setup, workers have to travel to the aisles to pick the items that comprise the orders. Time is spent receiving instructions and locating the item stock. This is a highly inefficient process that is not only time-consuming but prone to errors that are difficult to trace and costly to resolve.

With Dematic automation at the Blue Hub facility, Bolloré Logistics is experiencing significant improvements to operational excellence.

"Gone are the days where our employees had to push carts from aisle to aisle or carry heavy cartons off the shelf and putting them back after picking. With less workplace injury, we are seeing bigger smiles on our employees' faces," said Ms Deng.

"We were able to complete the installation ontime and on-budget. We received terrific support from the Dematic team when going live and the hands-on training sessions made a big difference in helping us understand and familiarise ourselves with the new system."

Jennifer Deng, Assistant Warehouse Manager, Bolloré Logistics

"The team was there to support every step of the way and was quick to help solve any challenges that arose as we were going live. Thanks to the Dematic team, the entire process was smooth and successful," said Ms Deng.

MAINTAINING FLEXIBILITY

Dematic worked closely with Bolloré Logistics to develop a flexible multi-user solution that would leverage automation to serve the logistic needs of the various clients in Blue Hub facility.

“We work with many different clients — some operate retail channels, others have a large E-Commerce component, and some have an omnichannel approach. Dematic solutions provides us the flexibility to handle all of our clients’ needs without having an effect on productivity,” said Mr. Marcerou.

The fully automatic Multishuttle system is one of the first shared-customer automated systems in Singapore capable of providing logistics support for multiple customers within a single distribution centre. Dematic designed the system with a flexible storage and order picking area that could be used for multiple clients concurrently, while customer-specific value-added-services (VAS), packing and sorting areas were arranged on different levels of the building to address the requirements of Bolloré Logistics’ various clients.

The Dematic GTP solution is flexible, modular and scalable, with subsystems that can be integrated to suit the various storage, throughput, and order fulfilment needs. The system can also be extended with the introduction of additional Multishuttle aisles, RapidPick stations and customer-specific processing areas.



DRIVING INNOVATION

Blue Hub is also home to B.Lab, a regional innovation centre, that encourages collaboration between sector stakeholders. It is the second innovation center that Bolloré Logistics has worldwide and its first in Asia-Pacific.

To further drive innovation, Bolloré Logistics has worked with Dematic to introduce robotic piece picking into their operations. This technology will allow Bolloré Logistics to install goods-to-robot cells around the Multishuttle which can operate 24/7 without the need for pickers.

The robotic picking cell was first installed in B.Lab to allow testing with actual product from their clients’ range, before being migrated to the operational system. This will be the first installation of robot unit picking in Asia and one of the first worldwide.

Mr. Michael Bradshaw, Senior Regional Director Sales and Solution Development at Dematic said, “Bolloré has a long history of innovation across their business. And when they learnt about Dematic’s robotic unit picking technology, they were quite excited about the opportunity that they thought it might present for them at Blue Hub. We plan to migrate this into the operating system where it’ll effectively act as an additional picker, but one that can work day or night, weekdays or weekends and never have to take a break — and will never be late for work.”



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DEMATIC

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