

CASE STUDY

ARVATO SUPPLY CHAIN SOLUTIONS NEDERLAND



ARVATO SUPPLY CHAIN SOLUTIONS SCALES UP SWIFTLY WITH AUTOSTORE

Since 2014, Arvato Supply Chain Solutions in Heijen has been taking care of the logistics behind all e-commerce orders for Rituals Cosmetics. "Itw started in Venray with two packing tables and a number of racks," explains Maurijn Hellenthal, Senior Logistics Engineer at the logistics service provider. "Since 2019, the operation has been housed in the warehouse in Heijen."

But Rituals is growing fast, by an average of 30 to 40 percent a year. For several years in a row, the company was even the fastest growing company in the Netherlands. Moreover, the market is changing. Consumers are placing their orders increasingly later, which means that more and more orders have to be processed in an ever-shortening time frame.

The logistics operation in the Arvato warehouse therefore no longer bears any resemblance to the operation of seven years ago. "We grew along with the customer, and together we looked for an automated system that could handle the expected growth in volume on the one hand and was scalable and flexible to enable further growth on

the other," continues Hellenthal. The system also had to be able to handle peak output. In peak periods, the number of orders increases significantly, from an average of 10,000 per day to more than 25,000 per day.

Just as important for Arvato was the wish to have one point of contact; one system integrator with one software system that controls all other systems and provides feedback to the WMS.

THE SOLUTION

Arvato and Rituals found the ideal solution at Swisslog, which, as the main logistics contractor, was responsible for the implementation and integration of an automated goods-to-person system. "The decisive factor for us was the way in which Swisslog, as a system integrator, takes on the entire project. In that respect, they really had an advantage over other AutoStore suppliers," says Hellenthal. "They offer everything from a single source, with the entire process controlled by their SynQ software system."



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Maurijn Hellenthal
Senior Logistics Engineer
at Arvato Supply Chain Solutions



The AutoStore system has a storage capacity of 36,000 bins.

A unique AutoStore system, powered by Swisslog, plays a central role. The compact storage and retrieval system was delivered turnkey, in two phases. During the first phase, 36 AutoStore robots, six picking stations and two inbound stations were delivered. The grid accommodates up to 36,000 bins. Over 75 percent of that capacity (28,000 bins) is being used.

THE AUTOSTORE SYSTEM AT ARVATO IS THE FIRST SYSTEM IN WHICH THE STORAGE OF HAZARDOUS GOODS IS FULLY INTEGRATED

To be able to store gases, aerosols and flammable liquids in the AutoStore system, a special bunker facility was installed. This makes the AutoStore system at Arvato, as far as can be ascertained, the first system in which the storage of hazardous substances is fully integrated. Hellenthal: "That was a complex challenge because nothing like this had ever been done before. Arvato took on this solution, also with regard to regulations,

insurance and, of course, safety. That took some serious work."

The first phase was fully operational in September 2019. Without the end customer noticing anything of the entire transition. The second phase was planned for 2025. At the start of the project, Arvato and Rituals assumed that by then six more picking stations and 36 additional robots would be needed.

However, due to the COVID pandemic - and all the restrictive measures - that moment came significantly earlier. Retail shops remained closed and the number of e-commerce orders rose significantly. Hellenthal: "Moreover, the order structure changed. Consumers went on a hoarding spree and ordered a lot more in one fell swoop. A day after Germany announced a lockdown as a result of the second wave, no less than 40,000 orders came in. That is twice as many as during Black Friday, for example."

Hellenthal: "Fortunately, Swisslog was able to scale up very quickly. 15 new robots could even be delivered immediately. The second batch followed shortly afterwards." In total, Swisslog supplied 65 additional

"By involving employees in the automation process in a timely and continuous manner, you create a platform of acceptance and really get the most out of the investment"

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robots. The number of picking stations was doubled. Because the grid was already prepared for this expansion, downtime was kept to an absolute minimum and the expansion was completed in just a few weeks. With the expansion, Arvato also switched to 24/7 operation. "It is important for the robots to be able to charge for a sufficient period of time at the right times," adds Hellenthal. "This is another reason why the number of additional robots is larger than initially envisaged."

PUT-TO-LIGHT ORDER PICK CARTS

Swisslog's SynQ WMS allocates the incoming orders to a put-to-light order pick cart in the most logical order. The system indicates in



1. Thanks to SynQ goods are picked in logical order.



2. After picking at the fast movers, carts are brought to the picking station.



3. AutoStore brings the small goods to the picker.

which of the six standard carton sizes the orders are to be picked. Up to 30 orders can be picked per cart.

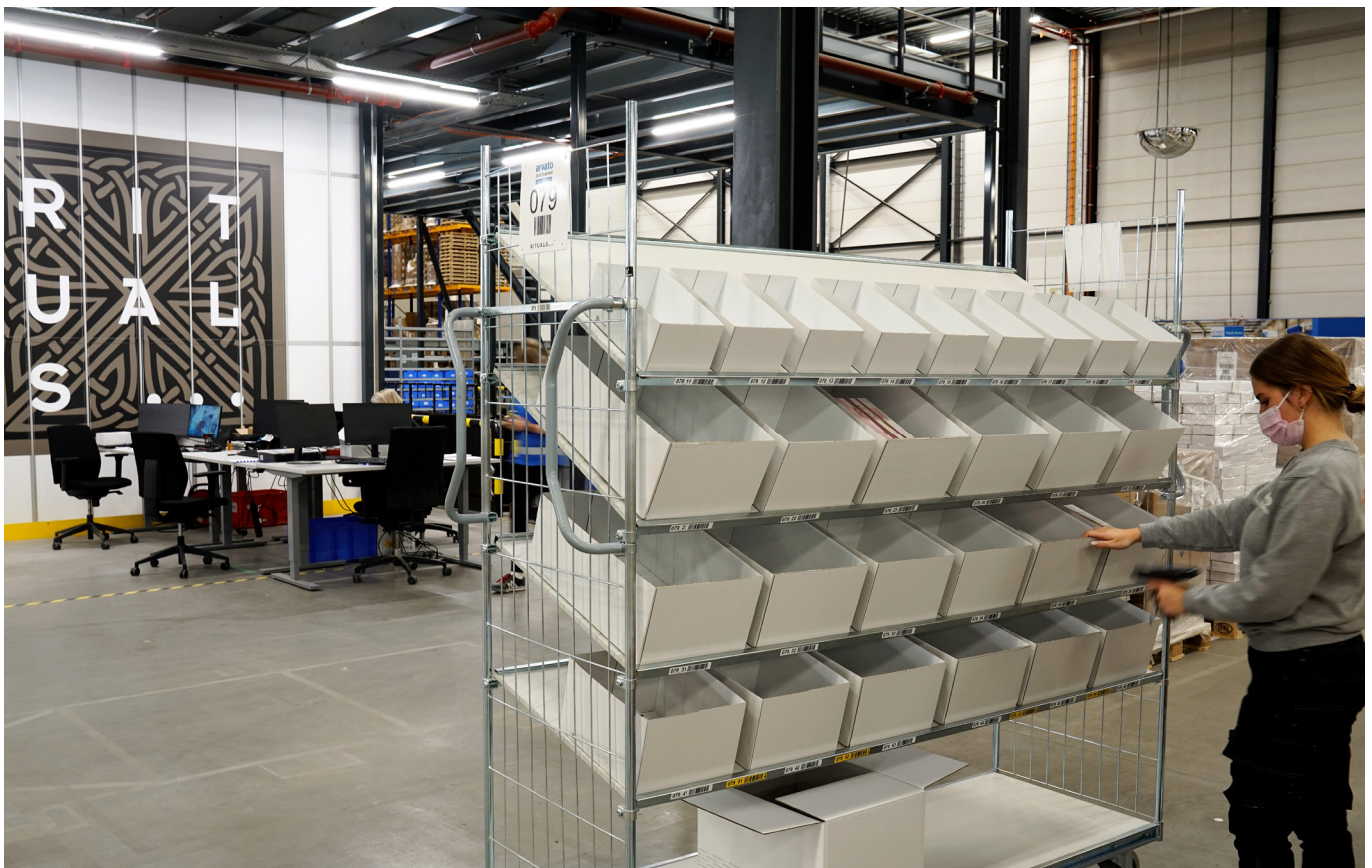
The order picker first walks the cart through the fastmover lane, where triple A orders and larger products are allocated to the corresponding order box. Next, the carts are placed at the picking stations of the Auto-Store system where the orders are picked in batches, again according to the put-to-light principle. Per station, 4 carts, thus 120 orders, can be picked simultaneously. The SynQ interface is configured in such a way that the screen clearly displays the status of the orders at a glance.

Once all orders have been picked onto a cart, the cartons are placed on a Swisslog QuickMove conveyor system and further processed. If necessary, they are passed on to the value added service department,

where customer-specific matters such as gift wrapping and greeting cards are carried out. The three largest box formats are also transported further via this conveyor, as they are closed and labelled manually. The majority of orders, around 80 percent, are however handled automatically, with the boxes being made to measure. This way, less air is transported. "Where previously a maximum of 60 orders could be placed on one pallet, now up to 120 orders fit on one pallet. This reduces our CO2 footprint considerably", says Hellenthal. After the boxes have been labelled, they are transferred to the right carrier by a sorter and sent to the end customer.

The automation of logistics processes naturally has an impact on the entire organisation. And that includes employees. Arvato therefore deliberately chose to

involve permanent staff in the changes on an ongoing basis. "That way you create acceptance and really get the most out of the investment", says Hellenthal. According to the Logistics Engineer, the automation fits in perfectly with Arvato Supply Chain Solutions' aim of being the most innovative, data-driven logistics service provider. "That transition has started and will only increase in the coming years," he says. "However, that does not detract from the role of our employees. They are just as important as they were before automation. Nevertheless, new functions have been created and the work has been lightened. To avoid repetitive work, employees at Arvato rotate. "Nobody can perform at their best for eight hours. Moreover, the work must not become monotonous," concludes Hellenthal.



All the goods are picked to a pick-to-light cart that is then placed two by two on both sides of the picking station.



4. Filled cartons are placed on the sorter.



5. If needed they are sent via the QuickMove conveyor to the VAS department.



6. Up to 120 orders can be collected per pallet.



Four moveable carts with 30 target cartons each are placed right and left from the AutoStore picking stations. Up to 120 orders can be handled at the same time.

ABOUT ARVATO SUPPLY CHAIN SOLUTIONS

Arvato Supply Chain Solutions is the internationally leading provider of order-to-cash solutions for end-customer-oriented industries. Arvato's vision is to be the best international supply chain management organisation with the most innovative, data-driven logistics solutions. As a logistics service provider, Arvato provides logistics operations for companies from various industries, both B2B and B2C.

arvato
BERTELSMANN
Supply Chain Solutions

In the Netherlands, Arvato has four locations (Heijen, Venlo, Venray and Schiphol-Rijk) and 1,800 employees. In peak periods, the number of temporary workers can quadruple. Arvato carries out a large part of its logistics activities from Heijen, where the service provider has a warehouse of more than 175,000 m².

FACTS AND FIGURES AT A GLANCE

Logistics Installation

AutoStore Robots	101
AutoStore Picking Stations	12
AutoStore Inbound Stations	4

Capacities

Maximum storage capacity	36.000 bins
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WMS/Control

SynQ
Interface with WMS
Warehouse Control System

BENEFITS FOR ARVATO

- Efficient, state-of-the-art technology
- Control over processes, minimal risk of errors
- Extremely high storage density
- Maximum scalability and flexibility
- Higher handling speed
- Improved ergonomics
- Quality guaranteed thanks to extensive automation.
- Possibility to store hazardous goods

SWISSLOG SERVICES

- Design and implementation of automated goods-to-person system
- Implementation SynQ
- As logistics main contractor responsible for overall integration of all systems