

## Long-term partnership with Swisslog enables speed, efficiency and resilience.

### The customer

Medline is a medical supply manufacturer, distributor and solutions partner with the mission of making healthcare run better. A major part of that mission is improving the performance and reliability of the healthcare supply chain.

In 2011, the company began exploring the feasibility of goods-to-person automation to adapt to changing order profiles and support projected growth. That exploration led to the first U.S. deployment of an AutoStore system, and a 10-year plus relationship with Swisslog.

Working with Swisslog, the company has implemented 20 AutoStore systems across its network, enabling a boost in order accuracy from an already outstanding starting point, while also increasing fulfillment speed and operating flexibility.



### Taking the first step

Based on how order profiles were changing within some market segments and the company's growth projections, Medline embarked on an exhaustive search for a goods-to-person automation solution for its Libertyville, IL distribution center. After evaluating solutions from about a dozen providers, the company narrowed its options down to three finalists, one of which was the AutoStore system, which had not been deployed in the U.S. at that time.

"There was some risk associated with being the first in the U.S. to implement AutoStore," said Daniel Schwartz, Vice President of Engineering at Medline. "But we liked that it had fewer single points of failure and required less

maintenance than the other systems we were evaluating."

AutoStore's selection of Swisslog as its first integration partner also proved attractive to Schwartz and his team.

"While AutoStore was new to this market, Swisslog had a proven track record of providing supply chain technology solutions and that gave us the confidence to move forward," said Schwartz.

In addition to collaborating on the integration, Medline worked with Swisslog to develop an ergonomic pick station tailored to the company's needs.

"At that time, AutoStore offered excellent cubic density but wasn't

optimized for picking speed," Schwartz said. "We wanted to pick fast so we worked with Swisslog to design a pick station that allowed us to achieve that goal and ensure that we were designed to service the entire continuum of care."

The system went live in April 2013 and after nine months of operation the Medline team began planning for additional AutoStore implementations.

"We knew there would be a learning curve, so we limited our initial use of the system to one of our markets," Schwartz explained. "But the solution proved its value relatively quickly and Swisslog and AutoStore were both great partners in helping us work through the issues that come with being an early adopter."

## Building on success

Medline refers to its initial AutoStore implementation as its “Gen 1” design and worked with Swisslog to apply the lessons from that design to future implementations.

“We realized we could reduce our initial costs and minimize bottlenecks downstream by enabling picking and packing at the pick stations,” Schwartz explained. “That was the biggest change we implemented in our Gen 2 design.”

The first Gen 2 design went live in 2015 and the second in 2016. Following those deployments, Medline accelerated its use of automation through its Healthcare Resilience Initiative, which was launched to support the long-term needs of its healthcare partners and help strengthen the nation’s healthcare infrastructure.

The company worked with Swisslog to implement 17 AutoStore systems between 2018 and 2024, advancing through Gen 3 and Gen 4 designs in the process.

As an example of how the company’s use of automation evolved, Schwartz points out that the first AutoStore system was processing 10,000 order lines a day when it went live. One of the more recent AutoStore implementations averages 45,000 order lines a day and recently set a company record with 58,000.



“We were able to leverage learnings from our earlier implementations to move forward aggressively with our automation plans,” said Schwartz. “This was enabled by the program approach adopted by Swisslog, which supported us with dedicated resources and personnel who stayed with us from project to project.”

All of Medline’s AutoStore systems run on Swisslog’s SynQ software platform. “The SynQ software gives us a lot of flexibility in how we fulfill orders based on customer needs,” Schwartz said. “That’s been a very important part of the solution.”

Medline has also deployed AutoStore’s Router software at some sites. Router works at the machine level to manage robot travel. “We like Router because it reduces robot travel and charging requirements,” Schwartz said, “That improves system performance and enables us to run in 24-hour mode when required.”



## Enabling growth

The business case for the first AutoStore system was built primarily on improving pick rates. The solution met that objective and this benefit remained central to Medline's business case for subsequent AutoStore deployments.

"We see an improvement in pick rate of 2 to 4x when we implement AutoStore," Schwartz said. "But we've also realized other significant benefits. We support next-day delivery to 95% of the U.S. and AutoStore and SynQ have been instrumental in enabling that with a high level of quality. With the volumes we have today, we simply couldn't have achieved the speed and accuracy we needed without automation."

Schwartz points to training as one of the unexpected benefits of automation. "The automation makes training so much easier and more intuitive," he said. "That was a benefit we didn't expect when we were planning for our first system."

When you deploy as many systems as Medline has, the benefits of automation extend beyond individual distribution centers to the entire supply chain.

"Robust automation allows us to be a supply chain leader in our industry and that has been instrumental in our growth," Schwartz concludes. "We've been able to scale without compromise, enhance the resilience of our supply chain and work with our customers to meet changing requirements. Swisslog and AutoStore have been really good partners throughout that process."

### Benefits

#### Increased Pick Speeds

Medline has improved pick rates by 2 to 4x at each site where it has implemented an AutoStore goods-to-person solution with SynQ software.

#### Increased Pick Accuracy

With AutoStore and SynQ software, Medline has been able to improve pick accuracy as volumes have grown and the demand for less-than-case orders increased.

#### Reliability and Resilience

Automation helps Medline consistently meet tight delivery windows, efficiently manage demand peaks, and support changing customer requirements.

