

The very narrow aisle truck for high shelving is designed to facilitate warehouse management for industrial companies.

Würth Elektronik France is an electronic and electromechanical components manufacturer based in Jonage near Lyon with an average annual growth of 25%. "This forces us to regularly expand our logistics system – almost every two years – to keep up with our development and growth as well as to maintain the quality that defines our success," explains Sébastien Vom Scheidt, Head of Supply Chain Management at the Jonage site.

After the company outgrew its previous warehouse in Saint Priest, the new building was constructed in 2012 and provides an impressive standard of service: 98% of the delivery orders generated daily are dispatched on the same day. Express deliveries within France are fulfilled within 24 hours, deliveries to Europe take 48 hours and the rest of the world only has to wait 72 hours.



Sector: Electronics

Company: Würth Elektronik has locations in 50 countries, has 8,300 employees and recorded a revenue of EUR 926 million in 2017. The company is among the top 3 of the 470 businesses that belong to the international Würth Group.

Challenges: Average annual growth: 25%. Current stock: 6,500 items 98% of orders dispatched on the same day. Express deliveries within France are fulfilled within 24 hours, deliveries to Europe take 48 and to the rest of the world 72 hours.

Solution: Continuous warehouse expansion, new concepts for streamlined work processes, high storage density, operator assistance systems and safety measures.

STILL products: STILL MX-X VNA-truck with rear-view camera and laser detectors.

Additional OptiSafe features: height restriction for specific areas through transponder

network.



The addition of an intermediate storey and an automatic conveyor belt "provides a streamlined process for order picking without overloading the control area, which all items have to pass through as all orders are checked and subject to spot tests." Sébastien Vom Scheidt, Head of Supply Chain Management

From containers to individual parts

With an RMA rate (Return Merchandise Authorization) of 0.08% – that is one error in every 2,200 order lines – the company handles all types of orders: entire pallets, containers for large industrial consumers, parcels for small quantities or even free samples.

"Some competitors require a minimum order quantity for certain items, but we are happy to work with our customers regardless of order size," says Sébastien Vom Scheidt.

Würth Elektronik's strength stems from a business model adopted by its headquarters, which proved to be very successful: a big and diverse customer portfolio of predominantly small and medium-sized companies. SMEs provide 90 to 95% of the company's revenue while also limiting the financial risk should a problem occur with a major client. The downside of this strategy is that it requires a large stock of inventory, worth 9.5 million euros in this case, which guarantees an uninterrupted supply chain for three to six months. "Our catalogue offers 5,500 standard items and our inventory contains 6,500 items," Sébastien Vom Scheidt elaborates.

Dealing with the specific requirements of this type of on-demand logistics requires a large enough and well-designed warehouse.

Triple the warehouse capacity

The focus on customer service soon led to the first warehouse expansion; Würth Elektronik started planning this in-house without external consultation in 2015 and it was successfully completed by 2017. This increased the pallet capacity from 1,000 to 3,500 m², allowing a total of 9,000 pallets to be stored (up from 2,800 in 2012). The order picking and dispatch area was expanded from 1,500 to 2,500 m². The key transformation of the warehouse included the addition of an intermediate storey and an automatic conveyor belt. This ensured that the building size and thus the distance to the order picking and quality control areas would not become inconvenient for employees. "This system provides a streamlined process for order picking without overloading the control area, which all items have to pass through as all orders are checked and subject to spot tests," Sébastien Vom Scheidt explains.

Another logistic improvement is the separation of incoming and outgoing goods. Put into practice, this means that purchased items are on pallets that are put onto a conveyor belt and then picked up by one of two STILL FM-X 10 reach trucks at the dispatch area and loaded onto one of the consoles at the end of the palletiser. This minimises the risks of incoming and outgoing goods crossing paths and at the same time creates smooth work processes for the operators.

Two VNA-trucks in Würth colours

Then, one of the two MX-X very narrow aisle trucks lifts the pallets from the palletiser. The Würth Group chose very narrow aisle warehouses based on their experience: the highest storage location has a picking height of 10.50 m and the pallet spaces



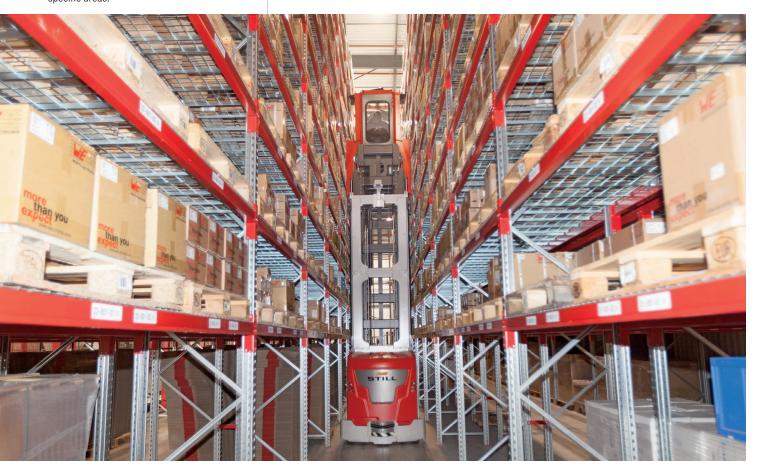
Incoming and outgoing goods were separated. The STILL FM-X 10 reach truck picks pallets off the conveyor belt at the dispatch area and loads them onto the console at the end of the palletiser.

have been specifically standardised to a depth of 80 cm and a width of 1.20 cm. "We had to adopt this design due to the limitations of our warehouse management software as it only allows for one item or batch number per pallet. But in turn, this allows us to immediately close a stock location and stop distribution of a specific item if a fault has been detected during the quality inspection. The flexibility of this system also means that we can apply the first in first out principle in our logistics."

The two MX-X very narrow aisle trucks also benefit from a French touch – a motor-operated rear-view camera automatically adjusts the view based on the travel speed. The faster the truck goes the wider the camera's angle of vision becomes. The fork-lift truck is even fitted with laser detectors that sense potential obstacles. "These two safety and operator assistance systems have been specifically developed for the French market," Thomas Bary, Sales Engineer at STILL points out.

Both forklift trucks have also been customised to sport Würth colours. "The ware-house is the result of meticulous research in architecture and represents the commercial platform of the Group. It was only logical to consider the forklifts in the design. Our new building gives us just that extra edge. Now we can channel our energies elsewhere for four to five years before having to think about the next big expansion or modification," Sébastien Vom Scheidt comments. With an available and soon to be opened area of 4,800 m², provisions have been made for the future.

The MX-X includes the OptiSafe feature: it allows lifting height restrictions to be set for specific areas.





Both STILL MX-X VNA-trucks are provided with a motor-operated rear-view camera: the faster the truck goes the wider the camera's angle of vision becomes.

OptiSafe: flexibility and safety

"Unlike commercially available forklift trucks that come with a preprogramed main lifting height, the MX-X includes an OptiSafe feature that lets you set height limits for specific areas," explains Julien Baer, Sales Engineer for intralogistics at STILL. Thanks to this system, safety heights can be programmed depending on the particular warehouse environment and obstacles, thus eliminating human error and potential collisions. The system is based on a transport network, which is integrated in the floor and communicates the exact location of the forklift trucks to themselves in real time. If the building is modified (for example if the warehouse is expanded or its functionality is reorganised), the transponders can simply be re-programmed making the system flexible and adaptable.

"This technology makes it easy to generate a map of the warehouse and to mark prohibited stock locations," Julien Baer adds.

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