

The perfect logistics outfit for Swedish sportswear.

Business is booming for lifestyle clothing and sportswear. To speed up delivery times, New Wave GmbH has opened a modern logistics centre in Germany, exclusively for the distribution of the traditional Swedish brand CRAFT. The distribution centre is located in the town of Geiselwind in Lower Franconia, just off the A3 and not far from the A7. Providing delivery within 24 hours, it's a real milestone for the company. STILL – the experts in customised internal logistics solutions – was commissioned with the planning and installation of the intralogistics. A particular highlight is the innovative assistance system Active Floor Compensation (AFC) for the MX-X Very Narrow Aisle Truck. Thanks to the intelligent AFC system from STILL, the truck is able to achieve its maximum driving speed without the costly procedure of renovating the warehouse floor.



Sector: Textiles industry

Company: 2,500 employees, revenue of over EUR 500 million, active in 20 countries.

Challenge: Optimum utilisation of storage and transport equipment, selection of the trucks and shelving systems.

Solution: Analysis, warehouse layout and fleet planning. Storage area of 10,500 m², five shelf and floor levels, 33,000 picking stations and 8,500 pallet bays.

Active Floor Compensation (AFC) assistance system enables maximum performance even with uneven floors.

STILL products: Intralogistics consulting, 10-aisle narrow-aisle warehouse, 8-aisle wide-aisle warehouse, platform system, MX-X Very Narrow Aisle Truck with AFC, FM-X reach trucks, EK-X vertical order picker.

The AFC and ALS assistance systems provide full truck performance for the MX-X, despite the uneven warehouse floor. This eliminates the need for costly processing of the floor.

The old warehouse was bursting at the seams

The high-quality Swedish brand is one of the today's world-leading brands of specialist sportswear. Due to increasing sales and products, the New Wave warehouse on the Austrian border – near the company headquarters in Oberaudorf – gradually became too small with only 1700 m² for German distribution.

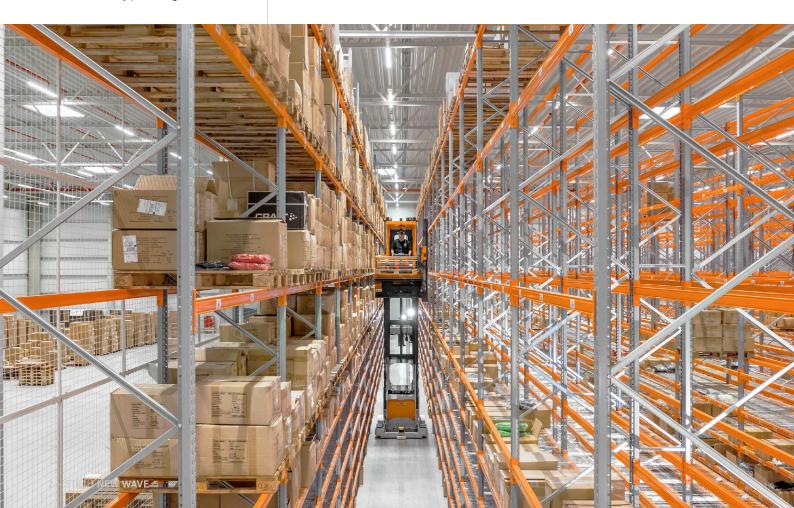
With 10,500 m² of logistics space at its modern logistics centre in Geiselwind, New Wave is already able to offer a better service. The new site is also centrally located in Germany, making it the ideal spot for fast delivery.

Mario Hammer, Operations Manager for the new logistics centre: "The CRAFT collections account for half our trading volume. Most of our other brands are supplied mainly for finishing, such as printing or embroidery. This business has short turnarounds: orders arrive from the headquarters in Oberaudorf by 2 p.m. and we are able to pick them and have them ready for delivery the very same day – at the moment, we can even complete the orders by 4 p.m."

The new logistics centre is set to receive the complementary addition of a showroom. The outlet for all clothing brands will open in the foreseeable future.

Careful storage planning

The goal of warehouse planning is to optimise the use of storage and transport resources while minimising the costs of warehouse management. Patrick Litz, Project Manager at STILL: "When it came to warehouse planning, the first task was to analyse the requirements for the new logistics centre. The team of local experts and our intralogistics specialists in Hamburg drew up a variety of storage solutions based on



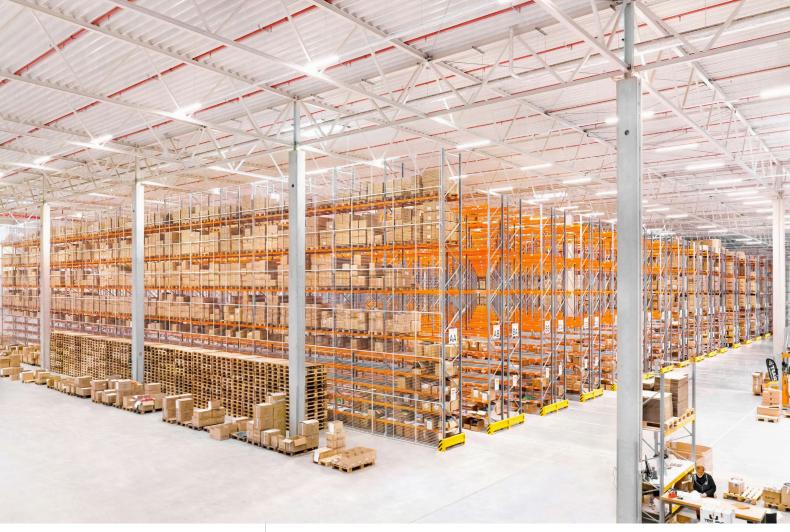


During storage, the fast and agile RX 20 delivers the pallets to the handover stations.

material flow and vehicle analyses. Our specialists carefully examined the conditions in the new logistics centre, the product structures and the requested order picking processes, the results of which they translated into optimum storage solutions. After reviewing and testing them for cost-effectiveness, we evaluated these solutions together with New Wave and used them as a basis to create the best possible logistics concept."

This includes: designing the layout, selecting the right shelving systems in combination with suitable trucks, as well as barcode printers, scanners and truck terminals, plus a platform system for the latest CRAFT collection. Andreas Dürlich, Planner for STILL shelving systems: "In order to maximise the use of the height of the warehouse, a high rack warehouse system was installed. To optimise the use of space and the material flow, this warehouse was divided into one narrow-aisle warehouse with ten aisles and one wide-aisle warehouse with eight."

The narrow-aisle shelving offers an extremely high use of space, so it's ideal for items that come in large quantities and have a medium turnover. An MX-X Very Narrow Aisle Truck is used in this area for order picking as well as for storing and retrieving complete pallets up to a height of 8.3 m. As the STILL Project Manager points out: "During the development of the MX-X, a great deal of attention was paid to the user-friendly and ergonomic design of the operator's cab. To ensure particularly effective ergonomics, the MX-X was fitted with the addition of a tilting barrier.



In addition to the intralogistics planning and layout design, STILL supplied all the ware-house equipment.

This allows easier access to goods, even if the distance to the pallet is a bit too far." With aisles that support two-way traffic, the wide-aisle warehouse is ideal for items with a high turnover. Shelf operation is carried out with two FM-X reach trucks and five EK-X vertical order pickers.

Innovative assistance systems increase handling capacity

Of course, New Wave not only required a safe and ergonomic solution, but also one that would be cost-effective, which usually means increasing handling capacity. Markus Maier, Systems Salesman for intralogistics systems at STILL in Nuremberg: "The condition of the warehouse floor does not allow the MX-X to reach its maximum driving speed. With a lifting height of up to 8.3 m, even a 3 mm difference between the right and left side of the aisle would be acceptable. However, the difference measured 9.5 mm in the worst spots." Patrick Litz adds: "With our innovative Active Floor Compensation (AFC) assistance system, we are able to achieve full truck performance, even without taking extensive measures to address the unevenness of the warehouse floor. Our AFC system detects unevenness in the ground beneath the load wheels and offsets them in real time from the left to the right side."

STILL's AFC system – the only one of its kind on the market – has ultra-fast processors which allow it to react instantaneously, even when travelling at top speeds. In contrast to passive systems that only have a dampening effect, this system actively prevents vibrations before they occur, making it a genuine alternative to the costly processing of the warehouse floor.





In the wide-aisle warehouse, order picking is carried out with the EK-X, while the FM-X takes care of stock replenishment.

At 33,000 picking locations for the EK-X trucks, products are picked from the boxes up to a reach height of 3.7 m.

According to Mario Hammer: "AFC offers impressive truck performance. The difference is huge. After seeing the height measurements in the aisles, we were sure that this additional assistance system installed by STILL was the right solution. We were therefore able to avoid expensive refurbishment of the warehouse floor." Walter Schmidt, District Sales Manager for STILL in Nuremberg, adds: "If you sand down the warehouse floor then, depending on the load, it has to be repaired again in another ten years or so. This takes a great deal of effort and is very costly. So our AFC system definitely pays off."

When storing and retrieving heavy loads at high lift heights, vibrations occur in the mast of the MX-X. The operator then has to wait until these vibrations subside to continue working. In order to reduce both vibrations and waiting times, another intelligent assistance system from STILL controls Active Load Stabilisation (ALS) also optimises the driving speed according to the load weight.

These two useful assistance systems – AFC and ALS – make work far more comfortable and significantly increase handling capacity.

Order picking, efficiently designed

To ensure optimal order picking across the entire warehouse, 33,000 out-of-the-box picking stations were set up on the lower five levels of shelving, along with 8,500 pallet bays on the ground level for stock replenishment. All storage locations are assigned to set storage areas in the warehouse system and are categorised into A-, B-, or C-rotating products for quick access. The replenishment stock is stored in one of the pallets above each location and is controlled in the wide-aisle warehouse by the two FM-X reach trucks – and by the MX-X truck in the narrow-aisle warehouse. Mario Hammer explains: "Every day, we compile around 3,000 promo items with





The ALS and AFC assistance systems in use with the MX-X Very Narrow Aisle Truck significantly increase the handling capacity.

During the development of the new MX-X, a great deal of attention was paid to the user-friendly and ergonomic design of the features of the cab elements.

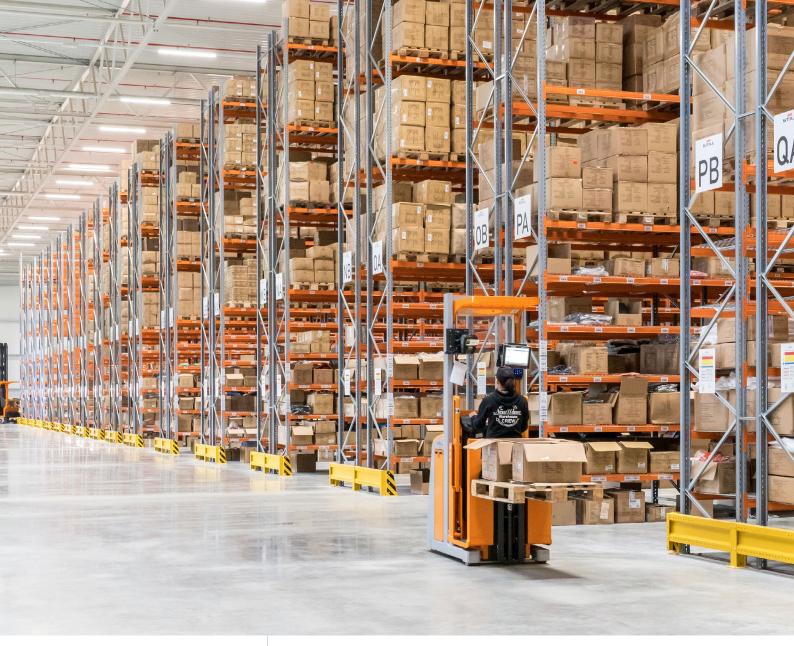
the EK-X order pickers. That's about 600 packages, which are then picked up and delivered by UPS. At the end of the year, around 13,000 team sports products will be added to the range. We have already responded to these additional requirements by ordering a second MX-X."

CRAFT collection: Twice-yearly order peaks

Twice a year, the latest CRAFT collection is restocked in drawers which are kept on a platform system shelf. The replenishment stock is located beneath the platform in the wide-aisle warehouse. With there being one summer and one winter collection, the majority of orders are made twice per year, as this is when all the sporting goods retailers put their orders in. When the shipping containers are delivered, the products from the new collection are registered in the host system before being immediately assembled in the storage space in front of the platform. This ensures the goods can be delivered straight away. Easy access to the goods in the logistics centre is essential to the timely delivery of these peak orders.

Service technicians always on hand

Some of STILL's service technicians come from this region. The STILL subsidiary in Nuremberg is also not far from the logistics centre. "There is even a service technician stationed here in Geiselwind. And another 13 km away in Ebrach. Since we have to deliver quickly, it's essential that the service technician can be on site quickly too, if needed. Fast service was an important criterion when opting for STILL," Mario Hammer emphasises.



Watch the video! STILL MX-X with Active Floor Compensation (AFC), FM-X and EK-X in action at New Wave.

Summary

In addition to the planning and organisation of the shelving and transport technology as well as the layout design, STILL provided all the intralogistics for the new logistics centre. One of the major challenges in this project was adapting the components of the previous warehouse for the world of high shelving. Thanks to the transparent organisation of the storage locations, with clear classification according to turnover, overall visibility in the warehouse has improved. Together with the scalable industrial trucks and the large order picking areas, the entire material flow has been optimised. "This allows us to react more flexibly, not only when it comes to larger orders but also with smaller online orders. Following the commissioning of our logistics centre, we have already achieved very good performance results, even after a short time." According to Mario Hammer, "This is largely down to STILL's specialist skills in the field of planning and the smooth execution of projects, as well as their timely completion."

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