



U.I. Lapp GmbH

Smart Intralogistics including radio-based safety system and driver assistance system

U.I. Lapp GmbH has opened its new distribution centre in Hanover as a response to the constantly increasing revenue in the cable industry. The facilities, including a racking system along with industrial trucks, was planned, installed and put into operation by the renowned intralogistics systems experts at STILL. Completing this facility is the radio-based safety system which works with STILL's other driver assistance systems for collision avoidance, such as the Active Floor Compensation (AFC) to compensate for uneven ground or the warning zone light for industrial trucks as a visual warning for pedestrians.

Sector: Leading provider of cables and integrated connection solutions.

Challenge: Complex product range (featherweight optical fibres up to 6-tonne cable drums). Unevenness in hall floor. Integration of a comprehensive safety concept.

Solution: Comprehensive intralogistics concept – including planning, racking systems, industrial trucks and security systems.

Products: MX-X very narrow aisle trucks with Active Floor Compensation (AFC), racking systems, RX 20 and RX 60 electric forklift truck.

Safety concept: Radio-based 360-degree collision protection for people and trucks, even without visibility. Warning using acoustic and visual signals. Further safety functions are automatically activated in danger zones (zoning). Additional interactions include automatic opening of hall doors to switch on the lighting.

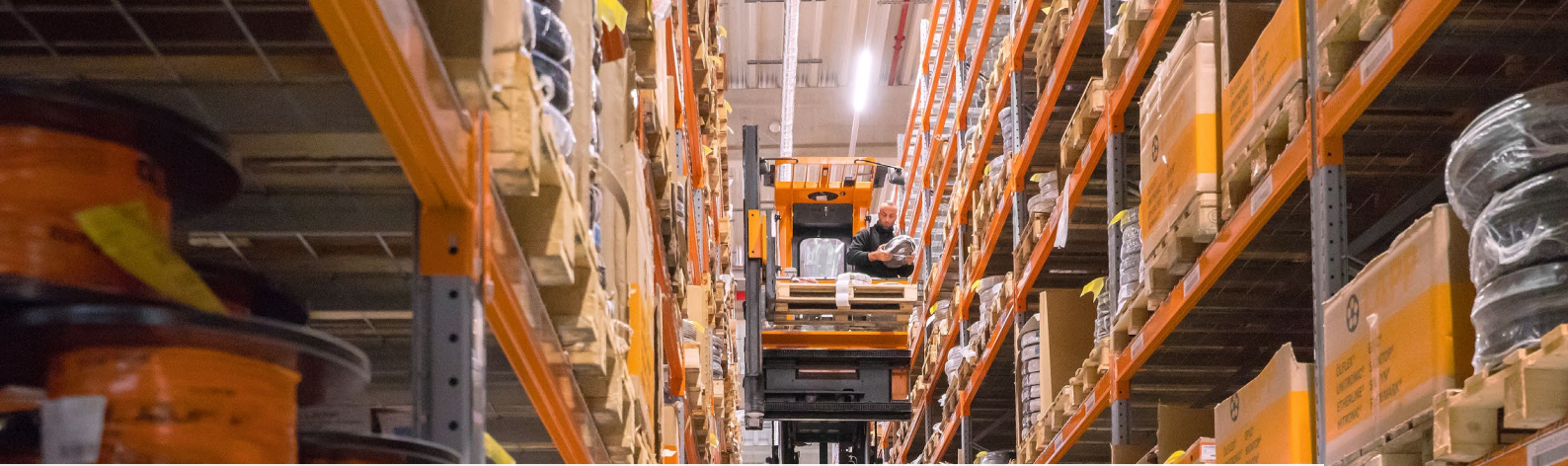
Prepared for future challenges

U.I. Lapp GmbH boasts a modern network for distributing its product range, with logistics centres in Ludwigsburg, Stuttgart, Hanover and Wrocław. In order to guarantee a reliable delivery of goods ordered for the future, the interplay of internal processes for Lapp companies was re-organised and more finely attuned. The Operations Manager at the new logistic centre in Hanover, Andreas Gesse, explains: "While we were reorganising internal logistics, our already varied range became even more complex. Our newly-constructed logistics centre now includes everything for energy supplier infrastructure, from fibre optic cables weighing just a few grams to cable drums weighing up to six tonnes. Following a search for the right provider to help us establish our new logistics centre, we ultimately found a partner in STILL who with their own wide product range of industrial trucks and intralogistics solutions, were also able to meet our requirements". Sven Budelmann, Head of Sales at STILL Hanover branch, adds: "The challenge here at Lapp Hanover was planning the entirety of the intralogistics including its implementation, together with delivery and installation of the racking systems and commissioning the industrial trucks". Andreas Gesse says that STILL has worked with Lapp to create and install the ideal solution for managing the distribution centre, which will make it possible to respond quickly and flexibly to ever-changing markets in future.

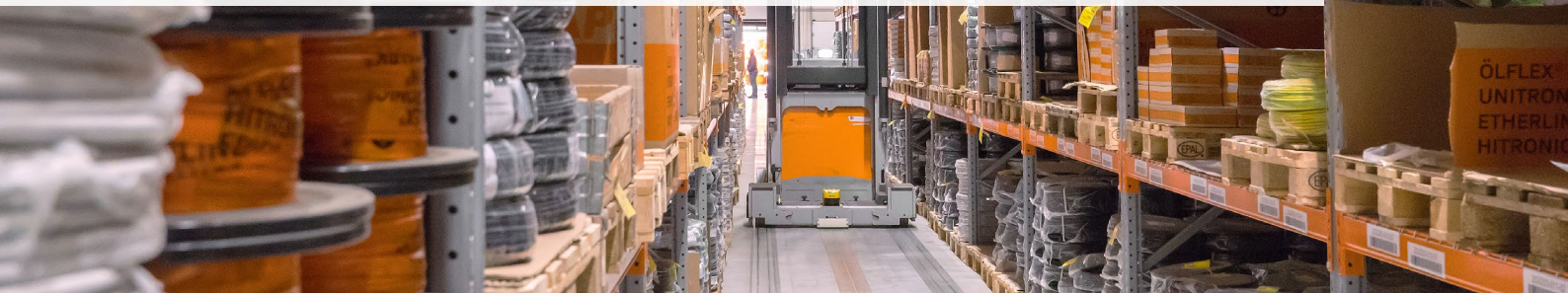


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Sven Budelmann, Head of Sales at STILL Hanover



**"STILL's AFC system responds [...] without delay, even at the maximum possible driving speeds.
[...] this ensured we were able to save on the time-consuming and expensive refurbishment of the hall floor."**
Martin de Groot, LAPP Facility and Maintenance Team Leader



AFC smart driver assistance system compensates for uneven floors

STILL's smart driver assistance systems support the procedures and processes. An outstanding feature, for example, is the sophisticated Active Floor Compensation assistance system, or AFC for short. The system identifies any uneven surfaces on the tracks of the load wheels of the MX-X very narrow aisle truck, and compensates for them in real time. This ensures that the truck frame of the MX-X always remains horizontal and the mast stays vertical. In contrast to passive systems that only have a dampening effect, this system actively prevents vibrations before they can occur. Facility and Maintenance Team Leader, Martin de Groot, emphasises: "Thanks to the fastest processors, STILL's AFC system responds without delay, even at the maximum possible driving speeds. This smart assistance system was one of the deciding factors when awarding the contract. It allowed us to save considerable costs on the time-consuming and expensive refurbishment of the hall floor".



The trucks were equipped with a radio-based assistance system for collision protection. In addition, the warning zone light provides a warning of approaching trucks.

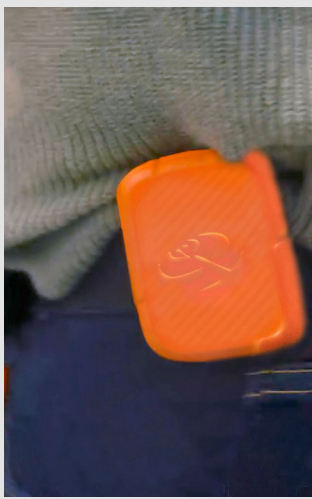
Increased safety thanks to radio-based collision protection

Distribution centre workflows are picking up pace and becoming more demanding. This is also associated with an increased risk of faulty processes which can cause disruption and pose a risk to employee safety. Investing in workplace safety is not only worthwhile from a financial standpoint, it also improves the company's image, both among the company's own employees and contractors. A significant motivation that ultimately results in added productivity. STILL's Regional Service Manager Patrick Laake explains: "In order to reduce the risk of accidents and personal injuries along with minimising damage to goods, racks and trucks, the aim of our consultation was to develop and implement a comprehensive safety concept. In order for us to identify and assess potential safety risks and then to recommend measures accordingly, we started off by recording the process flows and the required industrial trucks in the logistics centre. Following analysis, the trucks were equipped with our radio-based assistance system for collision protection".

"To reduce the risk of accidents [...] the aim of our consultation was to develop and implement a comprehensive safety concept".

Patrick Laake, STILL
Regional Service Manager





The trucks were equipped with a 360 degree antenna set – pedestrians with a tag (receiver/sensor for personal protection)

Drivers are shown the position of people and trucks with visual and acoustic alarms on a touchscreen display, even without direct visual contact.

This includes an active 360-degree antenna set with passive elements at hall doors and busy intersections, as well as a driver interface that communicates with the truck control system. In the event of danger, the assistance system reduces the truck speed, limits movement and sends acoustic and visual signals, all in real time. If a truck drives into a danger zone, it immediately receives all information for activating the predefined safety functions. Martin de Groot says: "Thanks to the installed functions, STILL's assistance system protects trucks and drivers, pedestrians and our sensitive goods, even without visual contact at passages and doors, and for collision protection both between people against trucks along with truck vs. truck". Alongside the ability to change the truck performance, the system can also interact with the environment, such as automatically opening hall doors or switching on the room lighting.

The radio-based zone detection promotes general work safety, for example it's possible to introduce an automatic speed reduction in certain areas, switch ceiling lighting on or open doors when a truck is approaching.





Process safety thanks to all-round service

Patrick Laake and his technicians are available through all communication channels in order to better serve customers. Thanks to STILL's comprehensive service network, a technician is always on site quickly, even at other locations. Patrick Laake adds: "Our service technicians immediately see and recognise, using their trained all-round vision, where and how the safety and condition of the trucks and warehouse facilities can be improved". Martin de Groot confirms that the service with STILL is working perfectly, and is happy to report: "In the event of disruption, downtimes are kept to a minimum. If a forklift fails, I call the technician. They arrive right away and address the disruption very quickly". Technical expertise, high quality and quick availability of the replacement parts also guarantee a smooth, successful service flow. Our standardised, digitally led and optimally planned repairs and servicing processes for every truck type keep downtimes to a minimum.

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Martin de Groot, LAPP Teamleiter Facility und Maintenance

Short-term forklift rentals increase flexibility

Lapp has been writing double-digit growth rates for the last ten years. "Thanks to the constant development of technology, such as the switch from classic telephone cable to sensitive fibre optic cable, warehouse management with a flexible fleet of forklift trucks is the best possible solution for our internal logistics. Using electric forklift trucks that we have hired for short periods, we can also respond quickly and flexibly to transport peaks of the respective market situation", emphasises Andreas

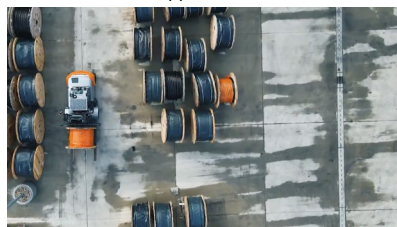


Gesse. Operation with a rigid conveyor system would have long since reached its limits. Lapp is constantly evolving with the market and the needs of its customers, emphasises the Operations Manager. The included maintenance and services ensure that the rented forklift trucks are available at all times. These can be rented for single days but also for longer periods, depending on the requirements.

Summary

In a competitive environment, the key to success is smooth and quick internal logistics. Using sophisticated truck technology, STILL's smart driver assistance systems increase the level of automation and ensure greater safety along with fatigue-free and ergonomic working. The results are immediate: increased productivity and cost reduction. Lapp also ensures short delivery times, individual logistics performances connected with the highest quality requirements in future at the new logistics centre. The retrofitted driver assistance system for collision protection avoids accidents as well as damage to people, cable drums, trucks and equipment. Increased safety also, therefore, results in increased efficiency and productivity. "I would also like to mention that we are highly satisfied with STILL when it comes to the implementation of the new logistics centre, and long may it continue! After all, our aspiration is always to continue growing and developing. We learn from one another and are constantly implementing and using new technologies. For example, we've been able to integrate our cut-to-length machines into the access control of the STILL FleetManager", Andreas Gesse sums up with enthusiasm.

Roll the film! Racking systems, VNA trucks and radio-based 360-degree collision protection all in use at Lapp.



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