# Medical logistics: TGW automates logistics centre of Richard Wolf

**From several small warehouses to a consolidated logistics centre in Knittlingen, Germany. Richard Wolf has ventured the step to automated logistics with TGW – the highly sensitive medical devices are now stored and handled in a logistics system without electro-static loading and shipped to the end customer from there.**

In the German town of Knittlingen Richard Wolf produces devices for endoscopic diagnosis and therapies. These devices containing high resolution cameras with flawless quality standards are produced in the name of medicine at their headquarters. Since 1947, the company group has been growing – today, about 1,400 employees are working in the subsidiaries worldwide; all storage and picking capacities have come to an end. Thus, Richard Wolf searched for a solid partner for the consolidation of various storage areas and the understanding of their highly sensitive goods.

What has until recently been a dream of the future is commonplace at Richard Wolf today: all processes in the new consolidated logistics centre have been automated – the current situation can no longer be compared with the initial situation. "Previously, Richard Wolf worked with several small warehouses in which the employees had to walk long distances to get to the goods. Manual storage and picking processes consumed an enormous amount of time. The enterprise's success did no longer allow those processes, therefore, we at TGW designed a tailor-made solution for the specialist in medical technology. This way we were able to simplify many processes," reports Markus Maier, Project Manager at TGW. On a surface of almost 7,000 square metres, Richard Wolf's medical devices are now prepared for the customers with utmost care.

**The TGW solution**

For the period of about one year, TGW was implementing a new logistics centre for Richard Wolf's plans for the future. A STINGRAY shuttle system with three aisles constitutes the heart of the installation completed by a goods-to-person picking system and state-of-the-art KingDrive® conveyor technology. As soon as the goods arrive in the goods receiving area, they are repacked into totes and the SAP system reports the goods to the TGW material flow control system. At the same time, the goods are handed over to the TGW KingDrive® conveyor technology that will transport the totes into the STINGRAY shuttle system. 48 shuttles move on 16 levels in the three-aisle warehouse which represents the full-scale configuration of the shuttle system. "The particularity of this warehouse is that we store two tote types of the same size, however with different heights. By implementing stacking and destacking devices, we are able to offer our customer the maximum of storage capacity. The lower totes are stored on top of each other, the higher totes are stored separately. This allows us to store up to 32,000 totes," explains Thomas Steinbauer, Project Manager at TGW. Furthermore, the implemented conveyor system has already been designed for an expansion by one aisle and six additional workstations. "We could prove the increase in performance to be expected in the loop directly in the course of this project phase," the Project Managers are happy.

Uwe Wicklow, Project Manager at Richard Wolf, is convinced as well: "With our new logistics centre, we have made a giant leap into the future. In doing so, workflows and processes have been modified in the entire company. At first, such a project inevitably involves frictional losses. Now, we are in a phase in which these processes are largely running stably, and we are increasing the efficiency step by step."

At a rate of up to 1,600 totes per hour, the shuttle system retrieves the required goods and forwards them to the eight picking workstations. There, picking is effected according to the goods-to-person principle. "In the old logistics installation of Richard Wolf, the employees had to walk long distances and pick the goods manually. This new picking strategy not only allows Richard Wolf to save space, but also reduce the walking distances and time," explains Markus Maier. The highly sensitive goods that are picked here directly proceed to packaging where they are packed manually onto pallets and roll containers to be immediately shipped to the end customer afterwards.

**A sophisticated system for sensitive goods**

Due to the partly sensitive electronic products that are moved here, TGW realised the entire installation without electro-static charge. "In general, all of our components are grounded as a standard. However, sometimes this is not quite enough and we want to be 100 per cent sure. Regarding our conveyors, we made sure to implement anti-static brushes at out in-feed and out-feed transfers. The little steel brushes are lifted by the integrated lifting mechanism, the tote swipes these brushes and discharges automatically. Conductible belts avoid electric charging. The shuttles with vulcanised wheels are equipped with such brushes as well," explains Thomas Steinbauer. Special ESD totes avoid additional electro-static charging.

**Boosted efficiency with TGW system**

Right from the start, Richard Wolf knew what the future should look like. 45,000 items should be stored in the warehouse, a performance of 815 order lines was presumed. The TGW system was able to deliver these figures. No long distances have to be walked in the new logistics system, the working environment has massively improved for the employees. The consolidation of the different warehouses at one site adds to this – the performance could be increased considerably. "Our customer is satisfied with the system, because we were able to improve particularly three factors: one consolidated warehouse – all at one site, avoiding long distances for the employees and a massive increase in efficiency due to the time saved by the automated processes," knows Markus Maier. "Apart from the boosted performance and the consolidation of our previous sites, we have been able to increase the transparency of the processes. This is not only important for logistics planning, but also for all people working in the logistics centre. We keep an eye on everything," Uwe Wicklow of Richard Wolf is happy.

Just like for all TGW systems, the sustainability of the system was of course also taken into consideration. Intelligent energy management by automatic shutdown of particular system areas if they are not required at specific times, automatic energy recovery integrated in the system and an automated energy saving mode provide for optimal energy figures.

Due to the decisiveness of Richard Wolf, a quick start could be made in all realisation phases. "The cooperation of all parties involved in the project was excellent, the relation to Richard Wolf is first class," Project Manager Steinbauer is pleased. "This project was by far the largest individual investment in our company's history. We were able to keep the very ambitious schedule. We were very content with TGW's project management. From the start, the installation has been running without larger failures for about one year now. The hotline service of TGW has always been available and able to solve all incidents occurred in a competent, quick and sustainable way. We are very glad to be prepared for the future with our new logistics system," says Uwe Wicklow.

Objectives and Requirements:

* Consolidation of laborious processes and different warehouses
* Expansion of storage and picking capacities
* Modern processes: Saving time by changing from manual to automated picking

Customer benefits:

* Considerable increase in efficiency
* Saving time by automated processes
* Short walking distances for the picking personnel by intelligent goods-to-person system
* Consolidation of different sites
* Expansion of capacities for sensitive medical devices

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**About TGW Logistics Group:**

TGW Logistics Group is a global leading systems provider of highly dynamic, automated and turn-key logistics solutions. Since 1969 the company has been implementing different internal logistics solutions, from small material handling applications to complex logistics centres.

With about 2,500 employees worldwide by now, the Group implements logistics solutions for leading companies in various industries. In the business year 2014/15, the TGW Logistics Group generated sales revenues of 475 million Euros.

**Pictures:**

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