

Jungheinrich customer reference.

# Narrow-aisle automation at SKF.



# Successful warehouse conversion during continued operation.

As the world's leading supplier of anti-friction bearings with subsidiaries in around 130 countries, efficient warehousing processes are essential for our customer SKF. Increasing order numbers and new requirements for internal processes tipped the scales in favour of automation at the world's largest production location in Schweinfurt. Jungheinrich supplied an integrated logistics solution with 16 automated EKX 516a narrow-aisle trucks, which move around 80 tonnes of goods through the warehouse every day without operators. The restructuring is an essential step for SKF in securing its own competitiveness.

## OPEN-HEART LOGISTICS.

SKF uses EKX 516a automated guided vehicles (AGVs) to automate the material flow in an 18-aisle high-bay warehouse with around 18,700 pallet storage locations. In order not to jeopardise production, the eighteen-month-long conversion of the warehouse took place during continued operation. Precise advance planning and a perfectly coordinated team ensured a smooth process. The Swedish ball bearing manufacturer invested almost seven million euros to bring its warehouse logistics up to date. Increased efficiency, higher process reliability and improved working conditions have quickly proven that this decision is paying off in every respect.

## From simulation to reality.

## IDEALLY POSITIONED FOR THE FUTURE.

The AGV fleet supplied by Jungheinrich is the centrepiece of the new warehouse solution. However, as general contractor Jungheinrich also supplied the pallet racking system, the pallet materials handling equipment with integrated electric in-floor conveyor, container conveyor technology, and seven ergonomic order-picking workplaces, as well as the Jungheinrich Warehouse Control System (WCS) for controlling

the automated processes. "We wanted to become even more productive overall and to give ourselves optimal positioning for future growth and new business," explains SKF project manager Andreas Wartha. "We have come a great deal closer to achieving this goal."

## AUTOMATION AS A NEW PRINCIPLE OF SUCCESS.

Originally a manual tri-lateral stacker, the EKX 516a effortlessly masters the newly introduced goods-to-person principle and ensures that the employees at the various order-picking stations are able to work smoothly at all times. Where previously trucks blocked each other's way, the processes now enable efficient use of time and are safe. Overtime during the week and at weekends has been reduced to a minimum by automating the routes, while working conditions have improved significantly.

## COMPLEX IMPLEMENTATION, MASTERED WITH CONFIDENCE.

Jungheinrich looked after the SKF team every step of the way: from the planning stage and through the four construction phases to service and support. At no time did operations come to a standstill. A complex and demanding design phase with process-time simulations determined the customer's exact logistics requirements in advance: 16 EKX stackers to serve the workplaces. Achieving a double-digit growth rate was defined as the planning parameter. The result is a fully tailored solution with great potential for the future.

**01**  
In the extensive logistics centre with 18 aisles, 16 automated EKX 516a high rack stackers deliver maximum goods throughput.

**02**  
Precise navigation and space-saving loading from the side make the EKX stackers the perfect choice for narrow-aisle warehouses.





**“ From conception through implementation to service – Jungheinrich delivered 100% for us in every phase of the project. ”**

**Andreas Wartha**

Manager Warehouse Operations,  
SKF Logistics

## **We chat with Andreas Wartha, Warehouse Operations Manager at SKF**

### **What were the reasons for implementing automation at the Schweinfurt logistics centre and what are the main advantages?**

First and foremost, the aim was to future-proof SKF's most important logistics facility in Germany and to save time and costs. The new goods-to-person order picking system with automated trucks significantly reduces forklift traffic in the aisles. In addition, we were able to reduce our significant overtime burden. Our employees benefit from healthier working conditions throughout the location. Thanks to wire guidance and transponder control, the AGVs navigate safely and confidently through the warehouse. Around the clock if necessary: the trucks are supplied with electricity so no battery exchange is necessary – a real benefit to us.

### **What particular challenges did you face during commissioning?**

In addition to the EKX trucks, we also bought the materials handling equipment, racking and stacker cranes, an electric in-floor conveyor and the software for controlling the automated components from Jungheinrich. This was a very comprehensive restructuring process, which had to be undertaken during continued operation and heavy utilisation. While the multi-stage commissioning was taking place, the ability to deliver had to be guaranteed at all times. Clearly defined responsibilities and the clean separation of the construction areas from the operational areas were imperative for successful implementation.

### **How do you rate the overall project and would you recommend Jungheinrich as a general contractor?**

Definitely, because not only was the automated solution well thought out from start to finish, but so was its implementation. We received optimum support throughout the entire project, and this continues today. Communication and cooperation were flawless – everyone agrees on that. Right from the start, Jungheinrich gave us the feeling that the company had the necessary expertise and experience for our rather complex project. We have received precisely the customised logistics solution that we need to achieve our corporate goals. The 17<sup>th</sup> automated guided vehicle has already been ordered – further fleet growth has not been ruled out.

## THE PROJECT AT A GLANCE.



Customer:	SKF Logistics Germany GmbH
Sector:	Mechanical engineering
Company size:	Approx. 4,000 employees (Schweinfurt location)
Location:	Schweinfurt, Germany
Warehouse size:	A good 20,000 m <sup>2</sup> of warehouse space

## CHALLENGE.

Automation of the material flow with automated narrow-aisle trucks, introduction of the new goods-to-person order picking principle and implementation of the new warehouse logistics during continued operation.

## JUNGHEINRICH SOLUTION.

Automated narrow-aisle warehouse with 18 aisles, 16 EKV 516a automated guided vehicles, 8 order-picking work-places, materials handling equipment and Jungheinrich WCS for controlling the automated processes.

## RESULTS.

Increased productivity through the automation of standardised routine tasks, as well as cost savings, increased occupational safety and employee satisfaction.

## IMPRESSIONS.

Eight order-picking stations with ergonomic equipment provide optimal working conditions for SKF employees.



Greater efficiency thanks to fully automated materials handling equipment: every day, around 2,400 orders are processed and up to 350 tonnes are moved throughout the warehouse.

Ready for the next job: thanks to state-of-the-art warehouse management technology, each AGV knows exactly where to go when storing and removing goods.

