

Case Study

# Optimized Assembly Through Automation





# Space-saving production buffer

## Customer and task

Böllhoff's goal was to overcome the limitations of their previous intralogistics setup, which relied heavily on manual processes. They wanted to streamline operations by digitizing and automating the workflow. To improve efficiency, Böllhoff wanted to save valuable floor space, reduce walking distances for employees, and ensure the proper storage of both raw materials used in production and finished goods awaiting shipment. These improvements are critical to maintaining their competitive edge in a highly demanding market where precision and reliability are paramount.

## Solution

The implemented solution was a joint collaboration between Böllhoff, Kardex, BITO-Lagertechnik and P.S. Cooperation. The integration of advanced automation technologies replaced manual processes, increasing efficiency and reducing errors. The system fits seamlessly into existing operations, ensuring a smooth transition.

Raw materials are now stored in a Kardex Miniload-in-a-Box which provides a space-saving 30 hour buffer to supply the production. When an assembly line needs raw materials, the operator creates a request via el/ka/sy at the touch of a button. This triggers the fully automated retrieval from the Kardex storage system, and one of BITO's LEO locative AGVs picks up the bin to serve the assembly station.

When a finished part is ready, the operator generates a request, the AGV picks up the part and stores it in a second Kardex Miniload-in-a-Box until it is shipped.

Stock management and information transfer between modules is coordinated by the el/ka/sy system from P.S. Cooperation.

WATCH VIDEO

## Case at glance

### Fast and space-saving assembly processes

Böllhoff Produktion GmbH, a leading supplier of joining and assembly technology, serves customers worldwide, particularly in the automotive and aerospace industries. Faced with the challenge of manual processes within its intralogistics, Böllhoff sought to digitize and automate its operations to improve efficiency, reduce labor, and streamline workflow.

Space-saving  
30h buffer

Automated  
storage  
and retrieval

Minimum  
walking distances



### Scope of delivery



2 Kardex Miniload-in-a-Box storing semi-finished and finished parts  
W: 2,350 mm | D: 12,370 mm | H: 5,900 mm  
W: 2,350 mm | D: 16,170 mm | H: 7,500 mm



9 AGVs BITO LEO locative to serve 25 assembly stations across 3 halls



Warehouse management through the el/ka/sy system from P.S. Cooperation