

Combination of retrofit and new construction



Within a few months, Körber implemented a combined retrofit and new construction project during full operation: a warehousing solution that increased Schenker's storage capacity by more than 60 percent and boosted throughput by 80 percent.

Customer

After the announcement of a new BMW model, the contract service provider Schenker Deutschland in Eching had to realign its services to the car manufacturer. Schenker is taking on the entire upstream management of incoming goods for assembly in the Munich works. The automated miniload was nearly 10 years old and could no longer meet the requirements.

Features and benefits

- **Combined retrofit and new construction project**
- **5-aisle automated small parts warehouse with 27,000 storage positions**
- **60% increase in storage capacity**
- **80% increase in throughput capacity**



Special features / benefits

With an enlargement of the miniload to 27,000 tray storing positions, performance could be increased by 80 percent.

The precisely timed IT system directs the trays with the required items from the loop to one of the five work positions. This guarantees the just-in-time supply to the BMW plant in Munich; the option of storing and retrieving 5,000 trays per day also is a significant step forward for Schenker to guarantee the entire upstream incoming goods handling for the car maker. All storage and retrieval machines (SRMs) are equipped with a dual-camera system that increases safety and transparency of the whole system, and makes maintenance easier.



Solution

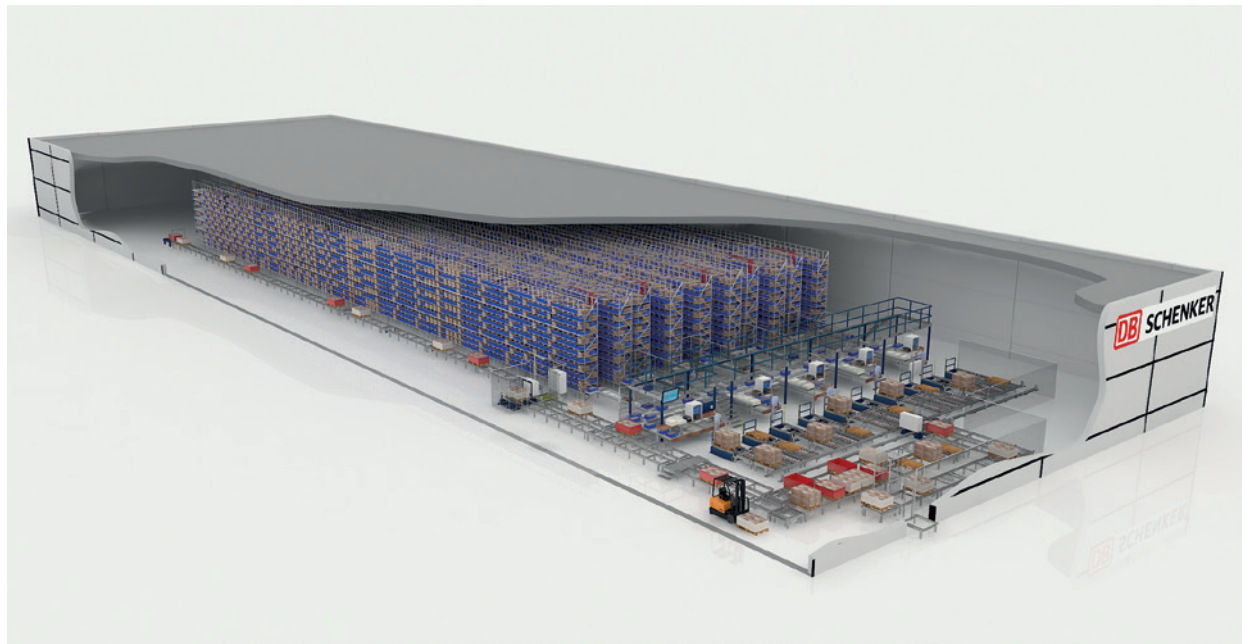
Enlargement of the automated miniload by 2 aisles, deconstruction of the old conveyor to redesign the feed area, and installation of a pallet conveyor. The old SRMs were modernized and new ones installed. Due to the expansion and modernization, the capacity of the miniload was increased from 16,500 to 27,000 tray storing positions. Within a realization period of 4 months, a 50-meter long pallet conveyor lane, serving as an accumulation zone for incoming pallets and empty totes, was also connected up. It also reduces the forklift traffic between the incoming goods buffer and the miniload feed area.

Integrated components

With the optimizations carried out by Körber, Schenker is now capable of storing and retrieving up to 5,000 trays per day. This results in an overall performance of 350 double cycles per hour. The order picking stations, equipped with turntables in the miniload feed area, are served by two conveyors, one for warehouse input and the other for output. When demand is high, both lanes can also be used in the same direction.

The connected tote conveyors first guides the trays into a loop. Up to 700 trays per hour can be transported on this roller conveyor circuit. Automatic input by the SRMs follows immediately after the barcode on the trays has been recorded at the input conveyor in front of the miniload. Optimized use of the storing positions is guaranteed by double-deep storing with up to four totes in each position.





Facts and figures

Industry

Logistics service provider for the automotive industry

General contractor scope of delivery

- Complete storage rack construction
- Extension of aisles 1 to 3, new aisles 4 and 5
- Construction of steel platform
- Tote conveyor
- Storage and retrieval machines
- Pallet conveyor
- Automation
- WinCC monitoring system

Small parts warehouse

L x W x H	57 x 25 x 6 m
Load units	Plastic trays
Storage positions	27,000
Weight	50 kg
Type of storage	double depth

Stacker cranes (SRM)

Aisles / SRM	5 aisles / 5 SRMs
Load handling device	Combined fork
Driving speed	5 m/s
Lifting speed	3 m/s
Handling performance	5,000 trays storage and retrievals/day

Körber Supply Chain Automation

Our impartial consultants will advise on, and help you select, the right automation solution for your organization. We have our own range of competitive products, but we are equally willing to procure and implement other products if they are better suited to your needs.

Körber Supply Chain
koerber-supplychain.com

Copyright © 2020 Körber AG or its affiliates.
 All rights reserved.