

AUTOMATION DURING ONGOING OPERATION



Case Study
van Heck Group, Schiedam (NL)



Miniload® aisle

Our scope of supply and services:

- ▶ Small parts storage system steel construction
- ▶ Bin conveyor system
- ▶ Control systems
- ▶ Storage and retrieval machines (SRM)
- ▶ Warehouse management system
- ▶ Transport and storage bins
- ▶ Visualization
- ▶ Pick-by-Light



Conveyor system in front of miniload®

Automatic small parts storage system (miniload®)

L x W x H	63 x 26 x 6 m
Loading aids	bins 600 x 400
Storage locations	26,000
Weight	max. of 25 kg
Type of storage	single-deep

Miniload® - storage and retrieval machine (SRM)

Quantity SRM/aisles	4/4
Load-carrying device	combined telescope
Traveling speed	300 m/min.
Lifting speed	180 m/min.
Throughput	3,200 bins/day

Bin conveyor system

Components	Accumulating roller conveyor, driven roller conveyor, belt conveyor, diverting multiple-strand conveyor
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Pick-by-Light

Pick faces	2,800
Order-picking stations	16



Bin retrieval in miniload®

Services from one single source enable an extension without interruption of operation

New conceptual design of warehouse management, material flow, and new order-picking strategies for more than 60,000 automotive products without interruption of operation:
 By coordinating simultaneous changes in the entire storage area, SSI Schaefer as the general contractor enabled an increase in order-picking performance by 25%. Without interruption of operation, a new system design was developed and, at the same time, implemented:
 new information- and control processes, steel construction for 26,000 bin storage locations in the small parts storage system, integration of four new storage and retrieval machines, new bin conveyor systems, and new order-picking workstations with Pick-by-Light systems.



Miniload® order-picking area

Warehouse management systems

Computer hardware provided by the customer
 Operating system provided by the customer
 Database system Oracle Database Standard Edition

WMS software



Functionalities

Goods receiving / shipping
 Order picking
 Material flow control
 Warehouse management
 Radio data transmission for RF terminals



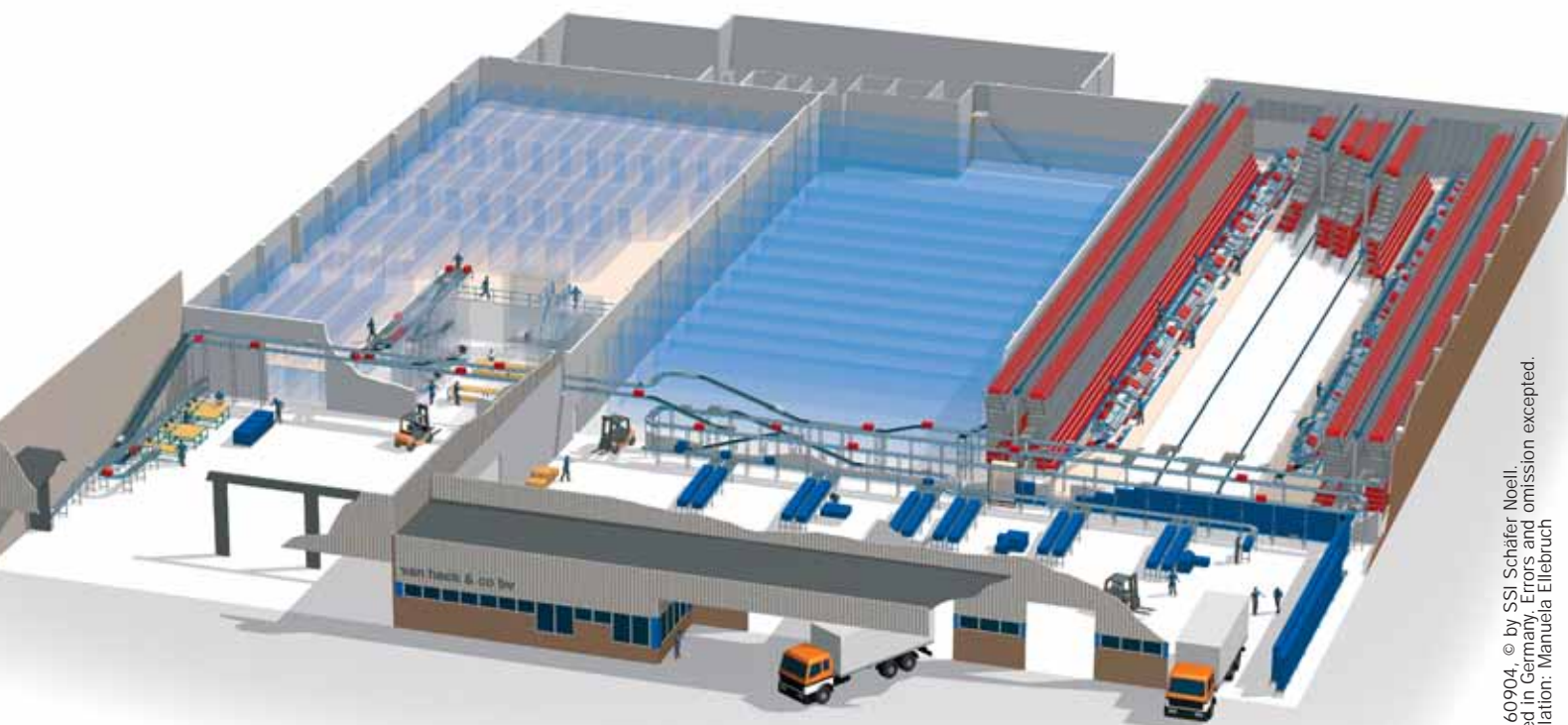
Order-picking workstation



Pick face



Bin transport to order-picking area



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Translation: Manuela Ellbruch

- ▶ General contracting
- ▶ Planning and consulting
- ▶ Warehouse management system
- ▶ Control systems
- ▶ Steel structure / racking systems
- ▶ Storage and retrieval machines
- ▶ Conveyor systems
- ▶ Service and maintenance



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