

Concept as general contractor

supports the strategic goals of the company
Gebr. Heinemann, Hamburg



▲ Infeed Commissioner

Project objective

- ▶ Savings on warehousing costs due to the merging of several warehouses with little or outdated technology
- ▶ Increase in delivery quality
- ▶ Faster reaction times
- ▶ Reduction of transport costs

High bay warehouse (HBW)

L x W x H	84 x 75 x 36 m
Load units	Euro + industrial pallets
Storage locations	some 21,400
Order-picking positions	some 2,700
Weight	1,200 kg maximum
Type of storage	single- + double-deep
Ambient conditions	Normal temperature

HBW storage and retrieval machine (SRM)

Quantity SRM/aisles	8/8
Load suspension device	telescopic fork
Traveling speed	200 m/min
Lifting speed	60 m/min
Throughput	30 DC/h + 47 SC/h per SRM
Peak performance	1,400 storage operations/day 1,500 retrieval operations/day in case of future expansion, up to 3,000 retrieval operations can be carried out per day

Commissioner

Quantity	36
Load units	bins
Storage locations	44,000
Weight	50 kg
Type of storage	double deep
Bin type	MF 6120 + EV 6220
Ambient conditions	34 x normal temperature 2 x air-conditioned (approx. 16° C)
Throughput	130 DC/h per module
Peak performance	4,680 DC/h in the commissioner

Task:

Building a new logistics center for storage, order-picking, and distribution of a comprehensive range of products consisting of perfumes, liquors, tobacco, accessories, textiles, and non-food products with a total of some 25,000 items.

Implementation of customer-oriented, flexible, and 100% EDP controlled warehousing and order-picking processes to ensure inventory and delivery quality.



▲ Steel structure during the installation phase

Pallet conveyor system

Components	Roller conveyor, chain conveyor (some 500 drives), vertical conveyors with a lifting range of approximately 18m, turntables, shuttle vehicles, automatic positioning in the shipping area, integration of three shrink-wrapping systems as cargo securing systems before the shipping area
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Bin conveyor system

Components	Belt, multiple strand, and roller conveyors, scales, curved belt conveyor, repacking tables, diverting unit with integrated chain conveyor, pop-up diverting unit, chain transfer unit, lifting tables with integrated roller conveyor
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Warehouse management system

Computer hardware	5 productive servers IBM pSeries 7028-6C4 with 4 GB RAM external storage system Enterprise 2105-F20 with 470 GB 1 backup server
Operating system	AIX 5.1
Database system	Oracle
WMS software	SSI Schäfer Noell "ant"
Functionalities	Goods receiving/shipping Order-picking Material flow control



▲ Order consolidation



▲ Bin conveyor system

Availability to Promise: Maximum efficiency in any logistics dimension

High availability of goods, maximum reliability,
perfect fulfillment:

A challenge that SSI SCHÄFER NOELL as the general contractor for the logistics company Gebr. Heinemann, Hamburg has met successfully.

The result is that the “just in time” concept of Gebr. Heinemann is rendered perfect and that up to 3,000 deliveries a day to more than 2,000 store customers are handled reliably and efficiently.



▲ Workplaces for inspection and quality assurance

In addition to the technical data of the building, throughput and item quantities make the dimensions of this innovative overall concept clear:

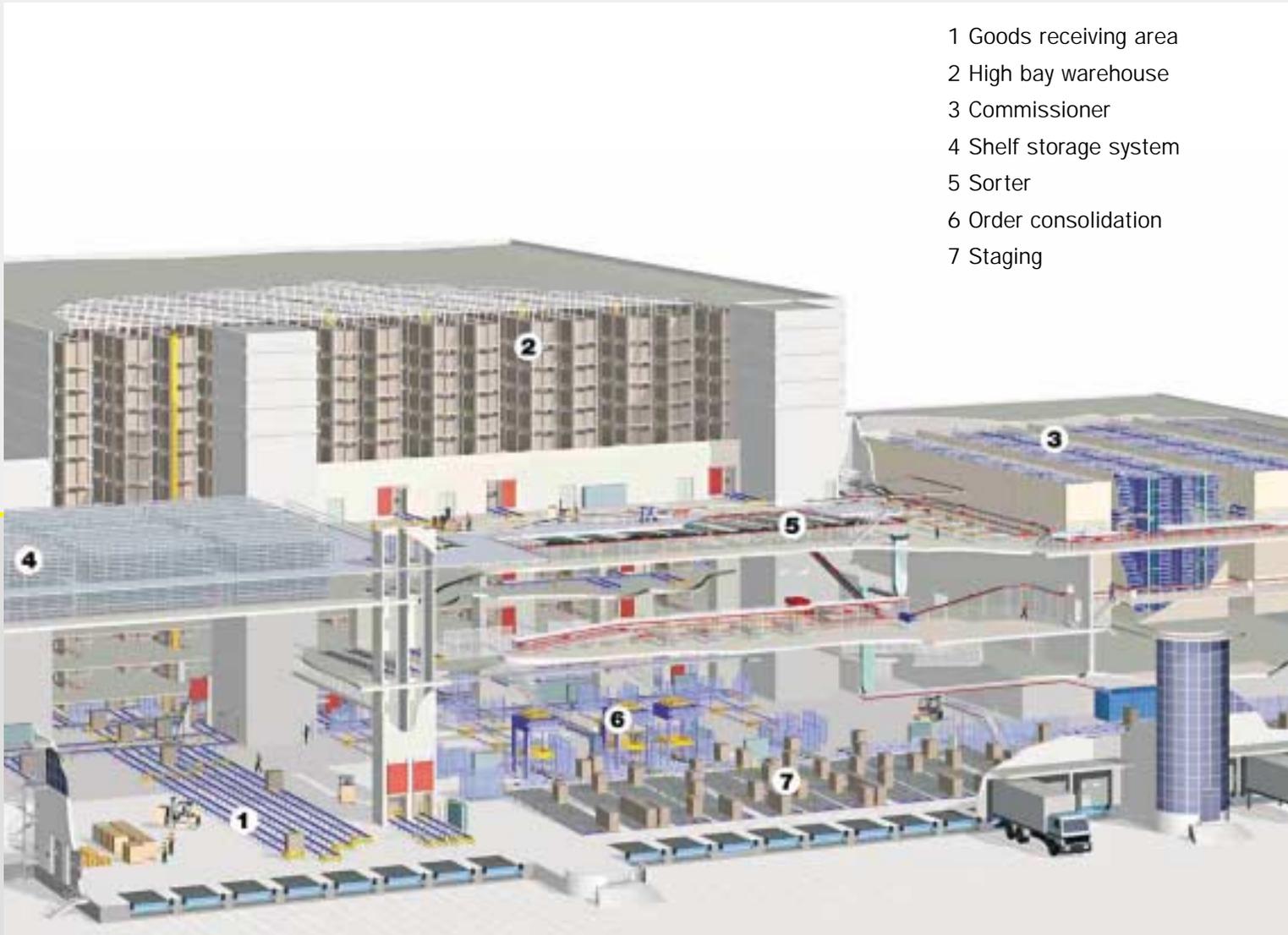
- some 25,000 order lines per day in the overall system,
- 12.5 mil. shipping cartons or 150,000 tons of cargo per year,
- every day, 1,500 pallets are staged in the shipping area for up to 100 trucks
- a range of some 25,000 items in the shipping area, the tunnel picking storage system, and the shelf storage system
- order-picking performance in the commissioner area: 12,000 picks/day (8hrs)



▲ HBW pallet order-picking



▲ Order-picking at the commissioner using mobile scales for 100% control



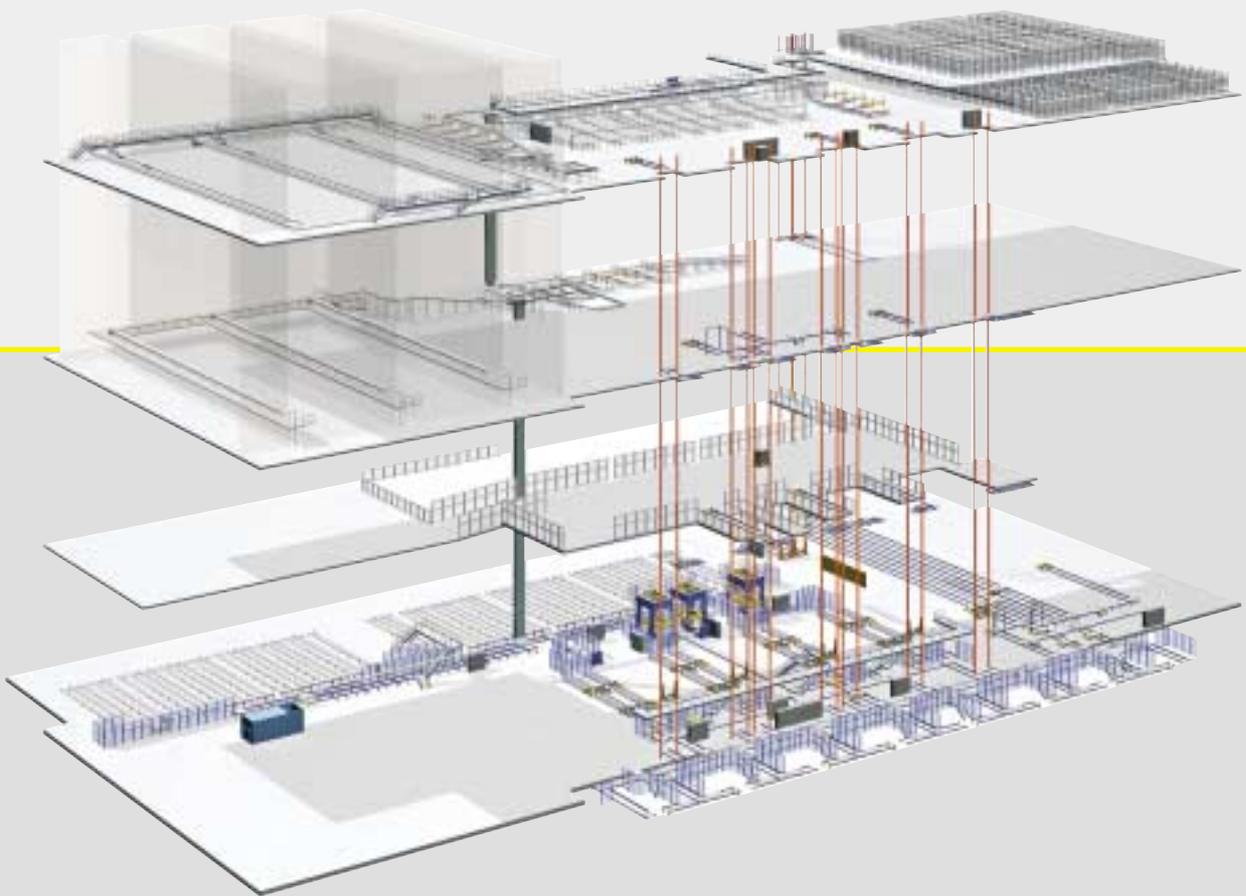
- 1 Goods receiving area
- 2 High bay warehouse
- 3 Commissioner
- 4 Shelf storage system
- 5 Sorter
- 6 Order consolidation
- 7 Staging

▲ Model Heinemann

Our scope of supply and services:

- ▶ Engineering
- ▶ Simulation
- ▶ Storage and retrieval machines (SRMs)
- ▶ Pallet conveyor system
- ▶ Conveyor system for bins and cartons
- ▶ Bins and trays
- ▶ Shrink-wrapping systems
- ▶ Commissioner
- ▶ Racking system
- ▶ PLC
- ▶ Visualization
- ▶ Warehouse management software





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

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