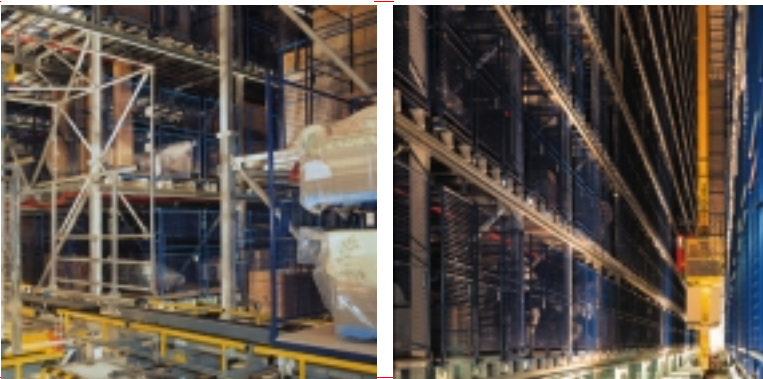


High-bay warehouse for furniture industry

Zurbrüggen service centre

**CUSTOMER:**

Zurbrüggen GmbH & Co. KG, Bönen, Germany

BRANCH OF INDUSTRY:

Furniture industry / Sale of all kinds of furniture

TYPE OF FACILITY:

High-bay-warehouse with an interesting conveyor and furniture trolley system.
Distribution and delivery of furniture directly to the customer via the in-house vehicle pool and of goods that are picked up by the customers themselves.

STORED PRODUCTS:

All kinds of furniture

DIMENSIONS**HIGH-BAY-STORAGE FACILITY:**

Length x width x height: 135 m x 28 m x 41 m

Range of articles: All kinds of furniture

Loading aid: Furniture trolleys in three different heights

Type RC 2700: l x w x h: 2,700 x 1,150 x 2,200 mm

Type RC 1300: l x w x h: 1,300 x 1,150 x 2,200 mm

Trolley storage spaces: Type RC 2700: 7,200

Type RC 1300: 14,400

Max. trolley weight: Type RC 2700: 1,200 kg

Type RC 1300: 600 kg

Storage: Storage on furniture trolleys

Type RC 2700: single deep,

type RC 1300: double deep

Anti-tipping device on fork

S/R MACHINES:

No. of S/R machines/
aisles: 3 aisles: 1 S/R machine
per aisle

Travelling speed: 180m/min,
acceleration: 0.55m/s²

Hoisting speed: 70m/min,
acceleration: 0.6m/s²

Telescopic fork unloaded: 72m/s, acceleration 1.3m/s²

Telescopic fork loaded: 42m/s, acceleration 0.8m/s²

Handling speed: 30 double cycles/h,

42 single cycles/h

Peak performance: Approx. 700 storage and
retrieval operations/day

ORDER PICKING SYSTEM

Goods to man

FURTHER COMPONENTS:

Transfer cars: 4 cars, two of which run on
the same travelling rail plus
transfer of trolleys to 150
waiting lanes at ground
level

Vertical conveyors: 2 conveyors

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**WAREHOUSE MANAGEMENT SYSTEM:**

Type of computer: SNI Primergy 67-40,
Pentium III, 500 MHz,
256 MB memory
Operating system: Windows NT
Database system: Oracle
WMS software: SSI Schäfer Noell

PROJEKT MANAGEMENT:

Strength of an extreme lack of space and limited storage capacity the Wohnzentrum Zurbrüggen GmbH decided to restructure its distribution logistics and opted for a centralized system. The experienced general contractor SSI Schäfer Noell GmbH erected a fully automated high-bay warehouse on greenfield site. KG. This facility of monumental proportions is equipped with an interesting conveyor and furniture trolley system.

PROJEKT DESCRIPTION:

A conveyor bridge links the fully automated three-aisle HBW to the two-floor handling hall. The furniture that is to be stored is transported by two vertical conveyors over the conveyor bridge to the high-bay warehouse. During retrieval, a small part of the goods remains on the upper floor of the handling hall for order picking. The majority of the goods is transported straight to the fully automated in/out lanes by vertical conveyors. The furniture is delivered directly to the customer via the in-house vehicle pool, except for some 3% of the retrieved goods that are picked up by the customers themselves.

Special feature: Time zone concept

This special feature of the new service center is the joint input and output area. Storing and retrieving goods at separate times means that empty trolleys don't need to be stored away any longer but stay on the relevant ramp of the goods output area until the next input arrives. Precisely defined time zones and work areas enable a technically optimal capacity utilization of the system, and reduce the number of personnel required as well as in-house transport.

The SSI Schäfer Noell warehouse management system monitors and controls the faultless keeping of the time zones. Therefore, a special automatic safety system monitoring the waiting lanes and ensuring the safe and smooth output of goods was developed by SSI SCHÄFER NOELL.

BENEFITS/ ADVANTAGES

- Solutions from one single supplier mean that interfaces aren't needed any more, time is saved, costs are minimized and an effective performance is guaranteed.
- Increased storage capacity with reduced storage costs.
- According to the staff it ensures a considerably higher stock handling rate with the number of personnel remaining unchanged.

GENERAL CONTRACTING CAPABILITIES:

- Steel structure of HBW and connecting bridge
- roof and wall cladding
- smoke and heat outlet
- S/R machines, conveyor systems,
- control subsystem (PLC)
- warehouse management system
- plant visualisation (Visu)
- fire gates

Responsible for the contents:
A. Fellmann / AWiWA, status as at: 08.07.2001

