

# BEVERAGE LOGISTICS AUTOMATION SOLUTIONS FOR BEVERAGE BOTTLERS



Case Study  
Brandenburger Urstromquelle GmbH & Co. KG,  
Baruth/Mark (D)



The trolley of the approximately 350 meter long electric monorail can transport two Euro pallets at a time.

### Project objective

- ▶ Consolidation of warehouses and no need for warehouses during peak periods
- ▶ Delivery is guaranteed through more efficient processes
- ▶ Improved utilization of space
- ▶ Optimized allocation



The SRMs can retrieve two Euro pallets loaded with two Düsseldorf pallets each and transfer them to the monorail.

### Our scope of supply and services

- ▶ Simulation
- ▶ Planning of realization
- ▶ Turn-key construction of intermediate building and HBW including foundation slab
- ▶ Fire protection including sprinkler system
- ▶ Pallet conveyor system
- ▶ Storage and retrieval machines
- ▶ High bay warehouse and rack system
- ▶ Visualization
- ▶ Control of flow of materials and expansion of WMS

#### High bay warehouse (HBW)

L x W x H	118 x 64 x 39 m
Storage aids	2 Düsseldorfer- on Euro pallet
Storage positions	44,850 units
Weight	1,000 kg
Type of storage	single deep

#### HBW – Storage and Retrieval Machine (SRM)

Number of SRM/aisles	14
Load accepting device	2 telescopic forks per SRM
Traveling speed	190 m/min.
Hoisting speed	70 m/min.
Turnover performance	44 double cycles (DSP)/h

# Performance in goods issuing almost doubled

The companies plant, headquartered in Baruth, specializes in beverage bottling. This naturally fluctuates with the seasons, during a heatwave more water and juice is sold than during the cold season. This means for instance 4 million hecto-liter and approximately 60,000 bottled units per hour. The extremely hot summer of 2006 pushed the warehouse and the shipping department to its limits - reason enough for the expansion and optimization of the plant.

Against this background, the bottling company assigned SSI Schäfer, the intralogistics specialist in Giebelstadt, to modernize and expand its production plant.



The empty Euro pallets are stacked at the separating station in front of the goods issuing department and returned to production.

## Pallet conveyor system

Components	Electric monorail Roller conveyor, chain conveyor (overall length 1140 m) Feed-in/acceptance station Vertical conveyor Angular transfer unit Rotary table with roller conveyor 90° Pallet stacker/-de-stacker Pallet check point Pallet separating station Gravity roller conveyor
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In the intermediate building the Euro pallets are taken off the monorail, the Düsseldorf pallets are separated and transferred back onto the monorail.

## Material flow control

Hardware	2 HP/Compac ML 350
Operating system	LINUX
Data base system	ORACLE



The integrated conveyor system forwards the pallet with beverages directly to the high bay warehouse for storing.



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



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