

BUFFER AND DISTRIBUTION WAREHOUSE FOR FRESH POULTRY



Case Study
Bell AG,
Zell (CH)



SQS in the finished goods warehouse

Project objective

- ▶ Immediate access to 100% of the stored goods (Best before date because of fresh meat)
- ▶ Savings on warehousing costs and personnel
- ▶ Better chances to react during peak periods
- ▶ Increase in delivery quality
- ▶ Reduction of internal transport costs
- ▶ Centralization of distribution and delivery
- ▶ High availability of items
- ▶ Automation of the internal flow of goods

Our scope of supply and services:

- ▶ Logistics concept preparation
- ▶ Simulation
- ▶ Implementation planning
- ▶ Bin conveyor system including bins
- ▶ Schäfer Quad System (SQS)
- ▶ Rack systems
- ▶ Visualization
- ▶ Warehouse management and control systems
- ▶ Mechanical equipment and racks, mostly in stainless steel design

Automatic small parts storage system (miniload)

L x W x H	45 x 18 x 11 m
Loading aids	Euro bins 600 x 400 x 220 mm C2 bins 600 x 400 x 147 mm
Storage locations	approx. 18,000
Weight	30 kg
Type of storage	single-deep, partly in stacks of 2

SQS

Quantity SQS / aisles	15 / 15
Load carrying device	quadruple extracting device
Traveling speed	5 m/min.
Lifting speed	3 m/min.
Throughput	max. of 230 DC/h
SQS manufacturer	SSI Schäfer



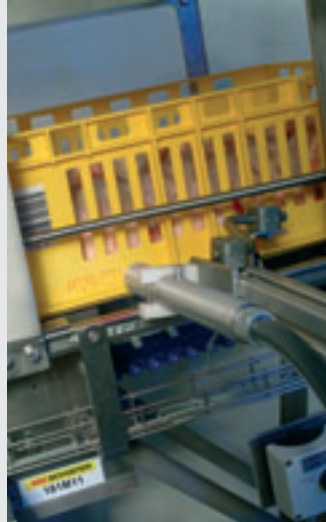
SQS retrieval of raw materials



Raw materials warehouse with hoist

Ten times higher throughput thanks to the innovative Schäfer Quad System (SQS)

For the subsidiary of the Swiss BELL AG, SSI SCHÄFER implemented a storage concept pointing the way to the future: As a direct complement to the poultry slaughterhouse, a buffer and distribution warehouse was implemented. This warehouse did not only have to meet strict hygiene and cold chain requirements but also maximum storage efficiency. 15 modern SQS aisles with 18,000 bin storage locations form the core of a system solution, which, compared to conventional solutions, enables an up to ten times higher throughput. All this is integrated into a storage area where all system components – from racks and conveyors to lifts and SQS units – are made of stainless steel.



The system box with ventilation slots for the circulation of cooling air is labeled during transport by the inkjet printer.



Stainless steel conveyor lanes in the production area


Bin conveyor system

Components	Belt, multiple strand, roller conveyors (total length 516 m and 446 m) Hoist raw materials warehouse Repacking tables Curved roller conveyor Multiple-strand diverting unit Chain diverting unit Stacking machines Indexing elevator (1,000 bins/h) Conveyor system, partly stainless steel
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Order picking

Pick by Light
Order-picking scales with touch-screen PC
Hand-held scanner
Label printer

Warehouse management system

Computer hardware	2 computers, each with four 3GH processors, 7 GB main storage, 250 GB fixed-disk storage
Operating system	2 Windows 2000 servers
Database system	Oracle 9.2
WMS software	

Functionalities

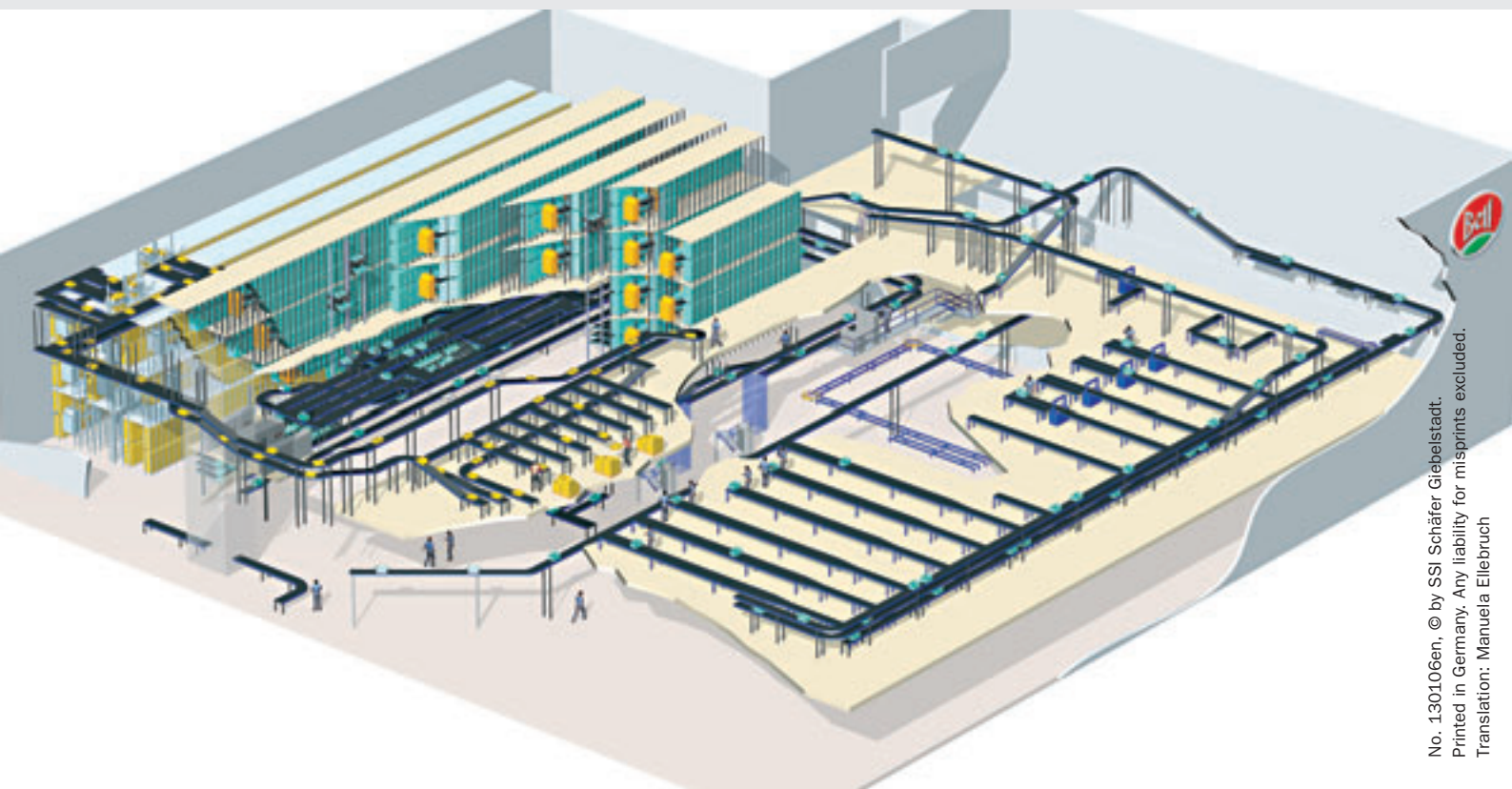
Warehouse management
Goods receiving / shipping
Order picking
Material flow control
Visualization
Pick by Light



Transport of shipping bins by the load-carrying device of SQS with quadruple extracting device



Pick by Light order picking in the finished goods warehouse



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