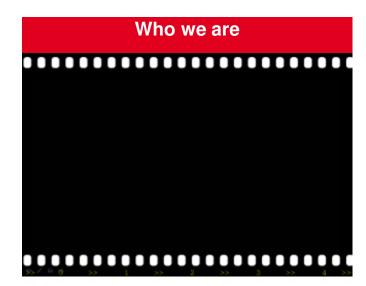




Agenda

- 1. Swisslog: Your right Choice!
- 2. Swisslog at a Glance Facts & Figures
- 3. Market Trends & Environment What does it mean for Your Business?
- 4. Offering
- 5. Proven Solution Designs based on Key Technology
- 6. Satisfied Customers: Global F&B references
- 7. References in China





SWISSLOGYour right Choice!



What our customers can rely on

Who we are and what we do



Our Vision:

We strive to be the partner of first choice in Automated Intralogistic Solutions



Our Mission:

We enable our customers to provide:

The right products, to the right place, at the right time



Swisslog: Your right Choice

What you can rely on:

Inspired Partner:

We are an inspired partner who understands your business strategy and **designs your success** through future-proof solutions.

Competence:

We have the competence to design **adaptable**, **scalable** and **flexible** solutions that allow you to stay ahead of your competition.

Clarity & Collaboration

Our clear and collaborative business approach delivers you value by offering everything from a single source, for **reduced risk and complexity** within budget and on time.

Commitment

We are committed to delivering measurable success by offering **tailored services** which support your growth, protect your investment and guarantee peace of mind.

Introduction





2. SWISSLOG AT A GLANCE Facts and Figures



We are where you are...

... all over the globe



Facts & Figures

- Founded in 1898 with Headquarters in Buchs/Aarau, Switzerland.
- Global presence
 30 offices throughout more than
 20 countries.
- Listed on the SIX Swiss Exchange.
- A premier supplier of logistics robots and automated distribution centers.

Plus many more support facilities around the globe.



Swisslog

Our market offering

Swisslog

A premier supplier of automated distribution centers and logistics robots

Warehouse and Distribution Solutions

 Design: Logistic Consulting / System Design

 Develop: Project Implementation / System Integration

Deliver: Operation Support /

Maintenance & Modernization







Healthcare Solutions

- Transportation of goods and materials throughout healthcare facilities
- Packaging, storage, dispensing and inventory management of medication



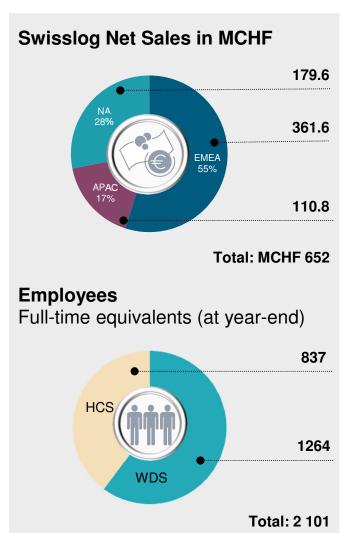




Swisslog WDS at a glance

EMEA APAC NA **Asia and Pacific** North America Europe, Middle East and Africa 307.5 **Net Sales** in MCHF 75.3 49.9 12% 71% **TC Global Technology Center** 220

Facts & Figures





3. MARKET TRENDS & ENVIRONMENT What does it mean for your business?



Market trends drive product innovation

Increased demand for Light Goods Technology

Market Trends

Less storage space



High availability of complete product range



Urbanization



Consequences

- more orders and order lines
- smaller orders with fewer order lines
- short shipping frequency
- short lead times

Freshness



Less space per article



Internet trading



What does it mean for your business?

Market Trends

Be flexible...

... based on scalable & flexible solutions for your future growth.

Be customer focused...

 and respond to changing customer needs at any time thanks to adaptable and future oriented solutions.

Be efficient, productive & ahead of your competition...

• ... thanks to an optimized logistic system which guarantees fast response times, reduced inventories, increased throughput & short delivery times, zero downtimes and maximized productivity.

What we can do for you:

- We understand your unique business needs…
- ... by designing flexible, scalable and future oriented solutions
- ... designs which deliver value and allow you to stay ahead of your competition
- ... and deliver peace of mind at any time.



4. OFFERING

Our Competence – Designs Your Success

Our Approach — Develops Value for Your Business

Our Services – Deliver You Confidence



Our Answer

Everything from a single source

Offering

Automated Warehouses & Distribution Centers

Design

Develop

Deliver

Logistic Consulting

System Design

Project Implementation

Support

Maintenance & Modernization

Modernization



Material handling technology

- Vectura Pallet stacker craneProMove Pallet conveyor system
- Tornado Miniload crane
- QuickMove Light goods conveyor system
- SmartCarrier Storage & transport system
- Click&Pick Integrated AutoStore solution
- AutoStore Small parts storage for specific application
- AGV System
- Monorail System

IT Hardware/Software & Controls

- WM 6 WarehouseManager 6
 Warehouse management system
 incl. material flow control system,
 visualization and user Interface
- Box Controls for conveyors, cranes, etc. based on the Swisslog standard controls concept
 AutomationControls





Sub-suppliers: All additionally needed sub-systems

Our Competence – Designs Your Success

Meeting tomorrow's requirements today

Offering

Industry expert knowledge across multiple industries recognizes and identifies key factors for success.

Food & Beverage

- Understand business strategy & future needs
- Analysis on data (material flow, transport and storage units, item structures, order structures)
- Comparison of variants and utility analysis



Retail & E-Commerce

- Optimized storage space utilization reduces the amount of space required
- High throughput rates, no seasonal labor fluctuations
- Guided picking reduces order fulfillment errors
- Fast response times, return logistics



Pharmaceuticals

- Reduced validation costs since only critical processes need to be validated
- Automated environments eliminate process handling errors
- Transparent information flows and seamless tracking thanks to E-Pedigree process





Our Competence – Designs Your Success

Logistic consulting & system design

Offering

Based on your business strategy we implement scalable, reliable and stress-free solutions.

Analyze & Consult

- Understand business strategy & future needs
- Analysis on data (material flow, transport and storage units, item structures, order structures)
- Comparison of variants and utility analysis



Plan

- Layout development based on the selected technical concept
- Material flow and process planning; definition of functions, strategies and interfaces
- IT concept (integration into existing IT infrastructure)
- Investment and operating cost analysis



Simulate

- Checking the system performance to identify bottlenecks and oversizing
- Establishing strategies and visualizing functionalities
- Behavioral analysis in case of malfunctions





Our Approach – Develops Value

Project implementation & integration

Offering

We develop and engineer turnkey solutions, guarantee reduced risk and complexity by completing projects on-time & within budget.

Project Management

- Tailor-made facility that matches optimized flow of goods
- Business and technical project management
- Overall integration
- Enforcement of cost, functional and scheduling targets



Architectural Service

- Construction concept and feasibility studies
- Visualization/color concepts
- Detail and permit planning
- Calls for bids, execution planning and construction management



System Integration

- Engineering, selecting and sizing the technical systems and safeguarding specification and construction of individual components.
- Control & Warehouse Management Software
- System Performance
- Trainings: From Start-up to Ramp-up





Our Service - Delivers Value

From field service to modernization

Offering

Through inspiring service concepts we deliver proven reliability, maximum productivity and total peace of mind.

Modernization & Upgrade

- Seamless integration during ongoing operation
- Customized modernization concepts reduce risk and complexity
- 3rd party integration



System Operation

- Zero downtime, maximized productivity by tailored service models
- Preventive maintenance or resident service
- Spare part management



Field Service & System Support

- Tailored service models
- Guaranteed response time 7/24
- Software support
- Protecting your investment, improving efficiency and productivity





5. PROVEN SOLUTION DESIGNS

... based on Key Technology



Designing Success...

... means having the right design in place

Proven Designs

We design flexible and cost-efficient solutions, keeping you ahead of your competition.

StackRunner

Crate/tote handling system for automatic order fulfillment by store order sequencing and automatic pallet or dolly loading.







ZoneRunner

Efficient piece picking with automated bin replenishment to pick facade.





AutoStore

Efficient goods-to-person piece picking from high-density storage system.





SmartCarrier

High performance shuttle storage and retrieval system for crate/tote/cartons.









Designing Success...

... means having the right design in place

Proven Designs

We design solutions that are adaptable, future proof and flexible, enabling you to stay ahead of your competition.

CaddyPick

Semi-automated picking system for the order filling of pallets or roll cages.





PalletRunner

Combined warehousing and picking through automatic put-away and replenishment of single SKU pallets.





WarehouseRunner

High throughput automatic storage and retrieval in high bay warehouse environment.





AGVPick

Automated pallet jacks improving traditional manual case selection process.







Key Technology from Swisslog

Light Goods & Pallet Applications























... by using proven technology

Proven Technology

Vectura: Pallet Crane

Benefits

- Excellent price / performance ratio
 High standardization of modules and low cost of ownership
- Reliable: High quality design leading to less maintenance
- Proven: More than 2 500 cranes delivered since 1976

- Based on a set of standard modules, up to building heights of 50 m
- Applicable for single, double and multipledeep storage
- Temperature range -28°C to +40°C





... by using proven technology

Proven Technology

ProMove: Pallet Conveyor

Benefits

- High performance: Frequency drive controls for smooth acceleration / deceleration and high speeds
- Wide range of elements: Delivered with wiring, motors and sensors
- Easy to run, access and maintain:
 User-friendly handling

- Load range: Up to 1 500 kg
- Throughput of transfer unit:
 250 350 load units/hour
- Temperature range -28°C to +40°C





... by using proven technology

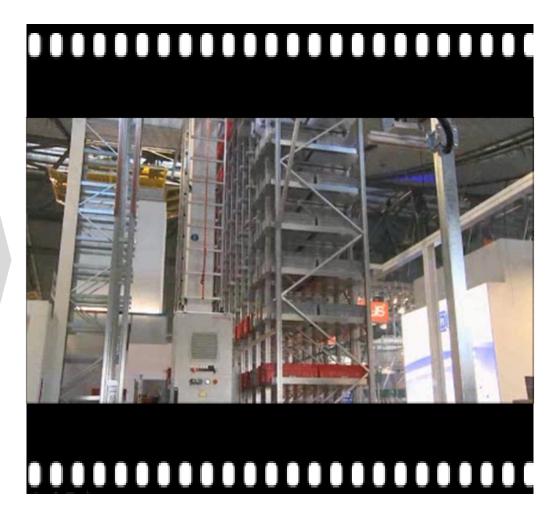
Proven Technology

Tornado: Miniload Crane

Benefits

- Dynamic & light: 20 % weight reduction compared to cranes of similar height
- Easy to maintain: High endurance and long intervals between services
- Sustainable: Low energy costs

- Height: up to 20 m
- Applicable for single and double-deep storage
- Horizontal speed up to 6 m/sec
- Load range up to 120 kg
- Temperature range -28°C to +40°C





... by using proven technology

Proven Technology

QuickMove: Light Goods Conveyor

Benefits

- Quick & reliable: High performance thanks to an ideal combination of proven mechanics and controls
- Sustainable: Efficient drive concept for optimized energy consumption
- Modular system: Easy expansion possible at a later date

- Max. load up to 50 kg
- Speed up to 3.5 m/sec (belt conveyor)
- 24VDC roller conveyors / 400VAC belt conveyors
- Temperature range -28°C to +40°C





... by using proven technology

Proven Technology

ProPick: High Ergonomic Pick Station

Facts & Benefits

- High picking performance, up to 1 000 item picks per hour due to 1:1 picking method.
- Maximized picking efficiency through optimal ergonomics.
- Operator personalization of functionalities, promoting workplace health and long-term employee retention.
- Adjustable floor and adjustable screen(s), noise protection and optimized lighting.
- Meets the common European regulations for a sustainable, safe working environment.





... by using proven technology

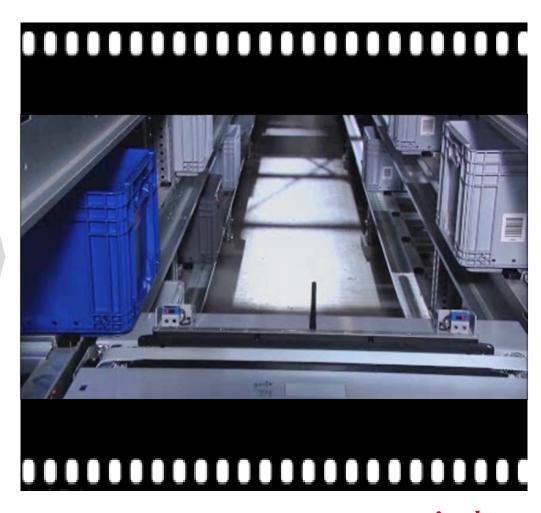
Proven Technology

SmartCarrier: Transport & Storage System

Benefits

- Scalable high throughput capability:
 Easily adaptable by adding SmartCarriers
- Flexible Solution: Handle totes, trays and cartons
- High reliability: Through autonomous vehicles (SmartCarriers)

- Pay load up to 35 kg
- Storage capacity 1 500 5 000 totes/aisle
- Transport units are totes and trays
- Temperature range +10 °C to +40 °C





... by using proven technology

Proven Technology

AutoStore: Storage & Order Picking System

Benefits

- High storage density: Due to efficient storage of high density and flexible use of floor space
- Protection of investment: Thanks to easy extension by adding robots/ports and extending the grid
- Efficient item picking

- Height of grid max. 5.4 m, load up to 30 kg
- Bin presentation per port 180 – max. 500 bins/h
- Temperature range +2 °C to +40 °C





... by using proven technology

Proven Technology

AGV Family: Automated Guided Transport System

Benefits

- Efficient transport system at many sources and destinations
- Avoidance of fix installations due to the need of space usage or through traffic
- Ideal price ratio for mid performance (especially in 3-shift operation)

- Standard AGV the pioneer!
 Integrated system based on fork lift truck and/or conveyor deck.
- Hybrid AGV the cost-efficient alternative!
 Operation between production lines and shipping and/or warehouse areas based on fork lift truck.
- AGVPick a complete solution!
 Picking system based on pallet jack.
- CarryPro the newcomer!
 Mobile robots for dynamic storage and picking operation based on portable transport racks and pods.











... by using proven technology

Proven Technology

Monorail systems

Benefits

- Very quiet and environmentally friendly
- Easy transportation via multiple levels
- Standard controls concept

- Standard Monorail Solution
 For transportation mainly
- CaddyPick Solution
 For the combination of transportation and picking











Deliver Confidence... by using proven technology **Software & Controls Solutions Enterprise ERP System ERP** Resource **Planning** WarehouseManager 6 Warehouse **WMS** Management Warehouse Management SPOC 7 System Single Material Point of **MFS** Material Flow Control Flow Control Control System **Automation** e.g. AC **BoxControl** CraneSPOC Control System



6. SATISFIED CUSTOMERS Global F&B References



Satisfied Customers

Small selection

References

Retail & @Logistics



























Food & Beverage



























Pharmaceutical























Further Industries

































V&S Absolut Spirits

Åhus, Sweden

1998

The business case:

Background

Leading spirits manufacturer and distributor in Sweden.

Objective

New Warehouse and Distribution Centre for spirits



The solution:

Storage & Material Handling

- Fully automatic delivery vehicle unloading systems.
- Pallet conveyor system.
- Automated pallet warehousing with 10 cranes, 15,158 pallet locations
- Automatic depalletisation systems and slat conveyors.

WMS & Control

- Warehouse
 Management System to provide full inventory control
- Conveyor control system

Customer benefits:

- Flexibility of handling system allows Absolut Vodka to supply orders in preferred manners – on Euro pallets, on slipsheets or as stacked cases to satisfy the customers
- Computer control allows accurate inventory and efficient transport flows
- Absolut is able to produce larger batches of each article



Brauerei C. & A. Veltins GmbH & Co.

Grevenstein, Germany

1995

The business case:

Background

Leading brewery manufacturer in Germany.

Objective

New automated logistic center for brewery



The solution:

Storage & Material Handling

- Highbay with 13'380 pallet locations
- 6 stacker cranes with 4 load handling units each
- Brand preparation with 47 conveyor lanes
- Electric monorail system with 27 hangers
- 2700 m pallet conveyor system with 24 vertical lifts and 8 shuttle cars

WMS & Control

Warehouse Management System

Customer benefits:

- Complete control of returned empties (pallet status and crate origin, plus quantity)
- Option to extend this control down to the level of Bottles
- Empties are either put into store or, during demand peaks, can be fed directly to production



Grolsch

Enschede, The Netherlands

2004

The business case:

Background

Grolsch is a beer brewery focusing on the premium segment of the market.

Objective

Distribution Centre for beer and returnable goods.



The solution:

Storage & Material Handling

- Returnable goods system: Fast movers via three automated cranes, handling four pallets per cycle. Slow movers via block store.
- Full goods: all in block store.
- Monorail (675 m): transporting to and from filling lines, with 29 carriers.
- Conveyor System with Vision system for goods recognition
- Automated truck-unload and -loading systems.

WMS & Control

 WMS for both automated and manual operations.

Customer benefits:

 Automated product recognition of incoming empty goods.



Ringnes

Gjelleråsen, Norway

Start of Operation: 2012

The business case:

Background

Some equipment are worn-out and there's a need of upgrade of the conveyors.

Objective

Change old conveyors with new.



The solution:

Storage & Material Handling

- Replace part of existing 1 600 m pallet conveyor system
- Existing storage

WMS & Control

Existing WMS & control

Customer benefits:

- Reduced truck driving
- Increase efficiency
- More secured and stabilized pallet transport

Green features:

- Weight reduction & energy efficient drives, resulting in reduced lifting energy
- Recuperation and speed reduction measures
- Potential cost saving in the warehouse of >20%





Ringnes

Gjelleråsen, Norway

Start of Operation: 2012 Food & Beverage: Beverages



Project Information

Ringnes AS is Norway's leading brewery company with approx. 1 400 employees. The company is owned by Carlsberg Group, the world's fourth largest brewery group.

"We deliver beer, soda and water for the entire Norwegian beverage market and we are proud of our many strong brands."



Coca-Cola Amatil

Auckland, New Zealand

2010

The business case:

Background

Largest bottler and distributor of non-alcoholic beverages in APAC. 15 000 EE and MAUD 4 350 R.

Objective

Distribution center for Coca-Cola products.



The solution:

Storage

- HBW Storage for 55 432 pallet, equivalent of 158 million cans
- 13 stacker cranes (28m tall)
- 12 pallets moved every min.

Material Handling

- Monorail system: 740 pallets moved per hour
- Pallet conveyor: more than 1.5 km
- Automated loading:
 6 docks, despatch
 1 truck per 4 min.

WMS & Control

- WarehouseManager
- AutomationManag
- Swisslog SPOC

Customer benefits:

- Accuracy of inventory and ontime dispatch
- Improved customer service levels
- Efficiency of operation (the site runs with just 6 staff to move 8 000 pallets/day



Coca-Cola Amatil

Auckland, New Zealand

2010



offered by Swisslog outstripped their competitors and reflected their knowledge of CCA's business needs.

Derek O'DonnellLogistics & Planning Manager



Tine SA

Oslo, Norway

2010

The business case:

Background

Norway's largest producer, distributor and exporter of dairy products. 5 500 EE and BNOK 19.4 R.

Objective

New Greenfield Warehouse and distribution centre. Consolidation of 5 warehouses.



The solution:

Storage

- Two high bay warehouses
- Special Pallets to handle 4 RC's
- HBW 1 & 2 (6+5 cranes)

Material Handling

- Pallet conveyors
- ORM for Blue Trays
- Monorail system
- ORM for Roll Containers
- Pick-by-voice

WMS & Control

- WarehouseManager
- AutomationManag
- SPOC (Single Point of Control)

Customer benefits:

- Better area utilization, that leads to reduction in building costs.
- Flexible and simple solution that creates better ergonomics for employees.
- Releases high frequent products to order quickly, with right sequence.



Tine SA

Oslo, Norway

2010

as the supplier for TINE's new warehouse and distribution centre as Swisslog draws on an international network of specialists who work and share knowledge across countries and disciplines. This, combined with a close cooperation, will guarantee (no for) a successful project."

Ole Erik Hulleberg, Logistics Manager, TINE SA, Oslo, Norway



WHY Swisslog?

What customers say

References – Option b



«Swisslog has proven to be the right solution provider for Wal-Mart for our grocery distribution. A decisive factor in choosing Swisslog as our partner was its experience in the sector, leadership, creativity and methodological approach. An outstanding, global team has developed convincing solutions for our specific requirements in the distribution of chilled food.»

Rollin Ford Vice President of Logistics Wal-Mart Houston, USA



«We have chosen Swisslog as the supplier for TINE's new warehouse and distribution center as Swisslog draws on an international network of specialists who work and share knowledge across countries and disciplines. This, combined with a close cooperation, will guarantee a successful project.»

Ole Erik Hulleberg Logistics Manager TINE SA Oslo, Norway

Lonza

«Swisslog has been the right choice for our new deep freeze warehouse with a fire prevention system based on oxygen reduction. Investing in a solution from a single integrator was the correct decision for us. Swisslog was convincing from the planning phase onwards with its highly competent consulting.»

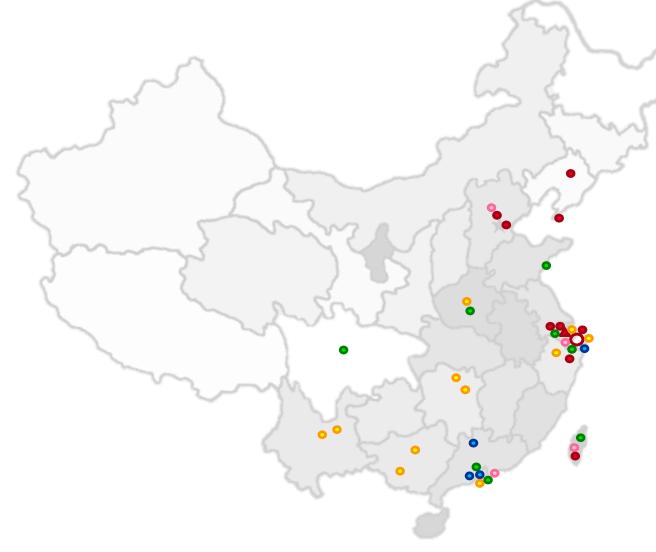
Stefan Stucky Head of Logistics LONZA AG Visp, Switzerland



7. REFERENCES IN CHINA

Reference in China

Successful References in Multiple Industries



Page 46 / 4 November 2013 / Presentation Name

Industry

segments:

- F&B
- Tobacco
- Pharmaceutical
- RetailOthers

0

▲HQ in APAC Factory

Successful references with complex installations:

- PBOC Key Valt
- Shanghai Haiyan Logistics
- Wyeth Nutribution Suzhou
- Coca Cola Dongguan
- Hangzhou Cigarette Factory
- Livzon Pharmaceutical

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COCA-COLA DONGUAN, CHINA, 2007~2010

Food & Beverage: Soft Drinks

THE CUSTOMER:

BACKGROUND Leading Beverage company world wide

PURPOSE Warehouse for storage & distribution of Finished Goods



THE SOLUTION:

STORAGE

- Freestanding rack, Height = 22m
- 15'776 Double Deep pallet locations
- 7 Vectura cranes
- Installed by 3 phases.

MATERIAL HANDLING

- Pallet conveyors
- Pallet lifters

WMS & CONTROLS

- WarehouseManager
- AutomationManager
- AutomationControl

- Seamless conjunction with production line.
- Fully automated system to handle with high throughput. Less dependent on labor availability.
- High density of storage with double deep solution.





SHANGHAI ZIQUAN BEVERAGE CO., LTD. SHANGHAI, CHINA, 2011

Food & Beverage: Soft Drinks

THE CUSTOMER:

BACKGROUND One of China's leading OEM bottlers.

PURPOSE Warehouse for storage & distribution of Finished Goods

蒙泉快料 Ziquan Beverage

THE SOLUTION:

STORAGE

- Freestanding rack, Height = 20m
- 11, 630 Double Deep pallet locations
- 5 Vectura cranes

MATERIAL HANDLING

- Pallet conveyors
- Pallet lifters
- Shuttle cars

WMS & CONTROLS

- WarehouseManager
- AutomationManager
- AutomationControl

BENEFITS

- Seamless conjunction with production line.
- Fully automated system to handle with high throughput. Less dependent on labor availability.
- High density of storage with double deep solution.







Page 48 / 4 November 2013 / Swisslog in Cold Chain

PFIZER CHINA NUTRITION CO., LTD. SUZHOU, CHINA, 2010

Food & Beverage: Nutrition

THE CUSTOMER:

BACKGROUND World leading pharmaceutical and nutrition company.

PURPOSE HBW of Finished Goods and Raw Materials for milk powder.



THE SOLUTION:

STORAGE

- Freestanding rack, Height = 21m
- 9,274 Double Deep pallet locations
- 5 Vectura cranes

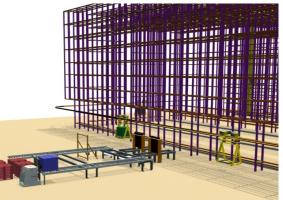
MATERIAL HANDLING

- EMS loop surrounding high bay warehouse, 10 carriers along 250m rail, 343 pallets/hr.
- AGV
- Conveyors

WMS & CONTROLS

- WarehouseManager
- AutomationManager
- AutomationControl





- Seamless conjunction with production line.
- AGV transportation keeps environment clean and human safe.
- EMS system is flexible and efficient, handling high throughput in long distance.



Shanghai Haiyan Logistics Development Co., Ltd. Shanghai, China, 2005

Tobacco

THE CUSTOMER:

BACKGROUND One of the biggest Distribution Centers in China

PURPOSE DC for tobacco, alcohol and sugar in Shanghai area.



THE SOLUTION:

STORAGE

- HBW with 17 SRM for tobacco storage, nontobacco storage and replenishment
- 24,000 PL for storage,
 5,000 PL for picking & replenishment

MATERIAL HANDLING

- Pick to belt system with 3,200 picking faces
- Cross belt sorter with 40 chutes
- A-frame sorting system
- Pick to light
- Conveyors and lifters

WMS & CONTROLS

- WarehouseManager
- AutomationManager
- AutomationControl







- Swisslog's WMS seamless interfaced with SAP, managing all subsystems from one end.
- Efficient picking and on-time consolidation of A, B and C items.



Livzon Group Livzon Pharmaceutical Factory ZHUHAI, CHINA, 2011

Pharma

THE CUSTOMER:

BACKGROUND

One of the top50 China leading Pharmceuticals companies

PURPOSE

HBW&Automated system of raw material to supply to production line and finished products to warehouse



THE SOLUTION:

STORAGE

- 15 SRM EcoStore,
- 24,000 pallet locations,
- pallet conveyor
- EcoMove, 6 circulating shuttle cars,

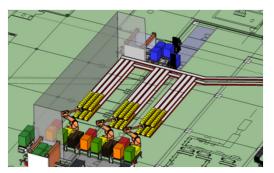
MATERIAL HANDLING

- 3 AGV, 3 picking stations,
- 1 pallet washing machine, 1 robot,
- case conveyor, 10,000 plastic pallets withRFID,

WMS & CONTROLS

- Swisslog自动化管理器
- Swisslog单点控制
- Swisslog仓库管理器
- WMS





- Maximum number of storage locations with minimized space
- Automated system to handle with infeed, outfeed and replenishment. High efficiency and less dependent on labor availability.
- Integrated into SAP from which receives orders and handles automatically.



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