

logistik-report

December 2007 edition

The commissioning of MERCURY at Jesuman S.A. in Santa Cruz, Tenerife

Manual and fully automatic order picking in parallel operation, zero-error order picking, the highest level of flexibility in the range of goods as well as reduced logistics costs have contributed to Jesuman S.A.'s decision to use the new automated order picking system by Salomon Automation. Jesuman S. A. operates a central goods distribution centre in Santa Cruz, Tenerife, which supplies its own supermarkets (Altezas) and shopping centres (Hipertrebol). The MERCURY system is built in an existing order picking warehouse for the automatic order picking of dry goods product lines and is integrated in the logistics cycle.

After a test setup and intensive performance tests, the MERCURY System was shipped to Tenerife at the end of June. Several teams have since worked on the installation of the fully automatic order picking solution - storage bay and platform systems have been constructed, four rows of automated small parts warehouse shelves, handling equipment, workstations and pallet storage racks for the BPM system (batch picking mobile) have been erected, and container handling equipment and storage bay access devices have been installed.

Installation under difficult general conditions

The Salomon project management team had to allow for difficult structural factors when planning the solution. Individual components had to be positioned and installed in accordance with a precise strategy in order to ensure that the right material for the respective step of the construction work was always available in sufficient quantities, at the appropriate time.

In order to integrate the automatic order picking system into the WAMAS warehouse management system, WAMAS LVS, which had been used for a number of years, was replaced by the up-to-date version of WAMAS, the WAMAS control system for optimising and controlling handling equipment and BPM systems was implemented and a new hardware platform was installed.

The individual components are currently being tested and the WAMAS material flow system for optimising the flow of goods is being implemented. This means there is no longer anything standing in the way of the successful commissioning of the first MERCURY system!



A look at the handling equipment that supplies the Mercury modules

Facts and figures on the project

- MERCURY 2 modules, automatic tray storage with sorting function
- BPM (Batch Picking Mobile) 3 modules aisle device with moving order picker and continuous product removal
- Automatic depalletting
- 4 palleting spaces, 1 depalleting space
- Tray handling equipment, stacking and un-stacking machines
- Logistics software, WAMAS warehouse management, order picking and control system



Batch Pick Mobile in the storage bay aisle



*Handling equipment loaded for automatic depalletting
Right: depalleting process*



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Extension of the Berglandmilch logistics centre

The five-aisle, fully automated high bay warehouse is being extended to include a further three aisles.

In 2003, Berglandmilch erected a 5-aisle, fully automatic high bay warehouse with comprehensive scope for handling equipment at the Aschbach site in Lower Austria. May 2008 should see the completion of an expansion by a further three aisles. Salomon Automation is taking over the project management for system technology and software.

Since 2005, several optimisation measures and modifications to existing high bay warehouses have been carried out in order to meet the constantly increasing demands regarding capacity, performance and availability. Since the commissioning of the system, performance at the goods entrance has tripled and at the goods exit has doubled.

The development of the three-aisle high bay warehouse is being carried out without downtime. Comprehensive handling technology with trolleys will link the existing high bay warehouse to the new one. Conversions in the goods exit area, designed for an in/outfeed of 150 pallets an hour, a shortening of the goods exit channels and use of new storage technology are all measures aimed at further increasing storage performance.

The WAMAS logistics system meets Berglandmilch's industry-specific requirements for production regarding

automatic and manual storage right through to paperless order picking and control of loading.

Salomon Automation's range of services starts in the production hall. The WAMAS system takes production orders from the ERP system, approves them and assigns them to a production line. Special label printers print packaging and trays, and the palletiser is provided with the necessary data. The packaging material passes an additional inspection point and is checked once more via an EAN code scan.

After filling, the WAMAS system takes over the fully automatic control of the pallets. Palletted goods and/or empty pallets are transferred by six AGVs (automated guided vehicles) and are transported either directly to the respective storage areas, to the brooder house and then finally to the cooling tunnel or directly to the cooling tunnel and then to the high bay warehouse. The goods are stored and transported on EURO or Düsseldorf pallets, without under-floor pallets. The storage areas are administered entirely automatically using storage bay access devices or BCVs (battery channel vehicles) with servo drives.

In the course of outfeed to the supply channels, the pallets are wrapped and then labelled on a total of three wrapping lines.



Information and facts on the expansion: Commissioning - May 2008

- 3 storage bay access devices
- 1 trolley
- 1 application system
- 1 wrapper
- approx. 150 m handling equipment
- WAMAS logistics software - material flow and control system, basic automation
- 1 S7-400 controller
- 90 motor boxes
- 90 drives



Marktkauf Logistik modernises 9-aisle high bay warehouse

Since 1988, Marktkauf Logistik GmbH has been operating a nine-aisle, fully automated high bay warehouse at their site in Bielefeld, Germany, which in the last few years has been repeatedly expanded and technologically advanced. The logistics centre in Bielefeld is divided up into the following sections:- dry foods, high bay warehouses for "fast-moving items", fruit and vegetables and frozen foods. The fully automatic high bay warehouse with a length of 82 m, a width of 45 m and a height of 18 m has a storage capacity of approx. 12,000 Euro pallet spaces.

Extensive warehouse refurbishment

A lack of efficiency and stability in the outdated logistics system was being faced with increasing logistics demands which prompted the extensive refurbishment of the warehouse. Marktkauf Logistik commissioned Salomon Automation Deutschland as prime contractor in August 2006 for the renovation of the high bay warehouse. The scope of supply and services for Salomon Automation included analysis, proposal and planning, project management with detailed restructuring scenarios, replacement of the control technology, implementation of the material flow and control system, the commissioning of the whole system and the training of Marktkauf employees.

The aims of the refurbishment were to considerably improve system availability, system performance, stability and operational safety and to reduce operational costs. The demands of the customer on the Salomon team: implementation of the system modernisation project within the planned timeframe and during operation, no system downtime during the 3-shift operation from Sunday 22:00 to Friday 22:00.

From 0 to 100

In order to also guarantee maximum system availability during the Retrofit project, a restructuring scenario was developed and defined together with the customer, providing a step-by-step implementation plan. In the first step, the outdated control technology of the storage bay access devices and the handling equipment were replaced by Simatic S7. Tests were carried out during those weekends in which there was no operation. Parallel to this, the material flow computer was adapted and the existing warehouse process control system was replaced by the WAMAS material flow and control system. Optimum planning and comprehensive tests in the run-up meant the system could be operated from 0 to 100 metaphorically speaking, without a hitch.

Subsequently, mechanical and electrical modifications to the storage bay access devices were made. To improve acceleration and for a quick and precise positioning of the storage bay access devices, the existing traction/lift drive was replaced with a frequency-regulated three-phase current/drive motor with speed reduction. The existing telescopes were all replaced with new telescopic equipment and sensor technology.

Improved transportation performance

The most extensive and ambitious modifications in terms of mechanics and control technology were realised at the end of the project. To improve transportation performance, the cycle chain conveyor was constructed in line at the goods exit. For this purpose, the drive chain had to be divided into four cycle chain conveyors of equal length.

The benefit for the customer is a clear improvement in the outfeed performance compared with the previous drive chain, which was clearly too slow. Even at the

project analysis and planning stages, in some cases very long supply times from the high bay warehouse to the last outfeed roller were observed. Through the installation of a second short circuit line, we were able to clearly reduce the supply times from the high bay warehouse.

The refurbishment project posed a great challenge for the Marktkauf and Salomon project team. Under no circumstances could the day-to-day business be disrupted or shut down altogether. All main activities, modifications and tests had to be concentrated during the allocated weekends.

Marktkauf Logistik appears to be very happy with Salomon Automation's performance, approach to the project and implementation. "All project goals were achieved within the agreed time frames and with excellent quality. Day-to-day business was not disrupted in any way. A competent Salomon team on site and extensive training of our employees further contributed to the safe operation of the system".

Marktkauf

Marktkauf Holding GmbH in Bielefeld, Germany, is a 100% sister company of EDEKA Zentrale AG & Co. KG in Hamburg, Germany. With approximately 27,000 employees, 2006 saw an annual turnover of around 4.8 billion euros. There are 186 Marktkauf SB warehouses and consumer markets throughout Germany. Marktkauf Logistik GmbH administers the logistics service functions for the sales area in the Marktkauf Group. There are around 817 employees working for the company; in 2006 the inventory turnover amounted to approx. 1.4 billion euros.

When implementing enterprise resource planning, the bio-super-market chain Basic AG trusts x-trade by maxess

With a central enterprise resource planning system shortly to be implemented, the Basic limited company (Basic AG) is counting on the maxess team and their x-trade standard solution.

Basic AG is the second largest bio chain, currently with 27 outlets and approx. 25,000 goods in their product line. The branches are currently only supplied via road and use the systems Dewas and dStore from the MoveRetail partners POS Systemhaus and Superdata. By virtue of the current development, in the future Basic will also supply goods to the branches via a central warehouse.

In our cooperation with maxess, we have taken an experienced partner on board. In the past few years, this company from the town of Kaiserslautern has not only processed several major projects, e.g. with coop eG, Lupus familia, Rewe Dortmund eG and Wasgau Produktions and Handels AG. It has also been proven that the x-trade solution can even be successfully implemented in medium-sized companies in the shortest space of time. This shows that maxess possesses the necessary project experience and competence in the industry sector to be able to make a success of a project of this scope, in such a small space of time.

EDEKA opens new cool storage warehouse in Heddesheim

WAMAS® logistics software controls storage processes

The company EDEKA Handelsgesellschaft Südwest GmbH has replaced the existing cool storage warehouse with a new building and has invested approx. 22 million euros in the logistics infrastructure. The refrigeration centre serves as a model plant within EDEKA. With the enlargement of the Heddesheim storage site, the regional subsidiary is the best primed for expansion in the Frankfurt Rhine-Main Region and for the supply of Marktkauf outlets.

Over a total storage area of 50,000 m², a range of fresh and dry foods, drinks and deep-frozen foods are stored at the Heddesheim storage site. The new building, with an area of 19,000 m², offers

space for 4,000 goods from the range of fresh foods, fruit and vegetables. Warehouse management, order picking and outfeed are optimised by Salomon Automation's WAMAS warehouse management system.

EDEKA Südwest operates the warehouse in 2-shift operation. An average of 61 order pickers and 14 forklift drivers are employed per shift. The forklift control and order picking system guide the warehouse employees through the order picking process in the best possible way. In addition to online order picking via terminals, Pick by Voice is being operated. The WAMAS systems process up to 74,000 order rows a day, handle up to 1,000 transport units (pallets) of



delicatessen and 900 transport units of fruit and vegetables at the goods entrance and ensure the timely delivery of the goods in the region.

Successful commissioning by the EDEKA Südwest and Salomon team

The EDEKA Südwest business area covers 1,451 outlets in Baden-Württemberg, Hesse, Northern Bavaria, Rhineland-Palatinate and Saarland. In order to keep transportation distances to a minimum, the EDEKA loading network is supplied by the St. Ingbert, Ellhofen, Offenburg, Balingen and Heddesheim warehouses. A uniform WAMAS software

standard is used at all storage sites.

EDEKA Südwest

The company EDEKA Südwest, with its headquarters in Offenburg, Germany, employs more than 22,000 workers. The company is therefore one of the largest employers in the region and with regard to consolidated sales and the number of employees, in the corporate group as well as among the independent retailers and in terms of storage area, they have really hit the big-time in German food trade.

+ Cutting edge projects +

Emmi Schweiz AG manages ice cream products using WAMAS®

Batch tracing and continuous inventory control from production right through to the ramp.

Emmi Schweiz AG, the leading Swiss milk processing plant, uses the WAMAS warehouse management system in the deep-freeze area at their production site in Ostermundigen, Switzerland, for the management and order picking of their ice cream products. Main requirements of the customer: batch tracing and inventory control from production right through to loading onto the ramp in order to satisfy Emmi's high quality standards on the one hand, and to fulfil the legal requirements of food producers on the other.

Since its launch in April 2007, the ice cream product line has been controlled, optimised and managed on 1,500 pallets in 5 aisles from the production stage right through to loading onto the ramp using the WAMAS warehouse management and order picking system. The manual order picking warehouse is operated at -28 degrees and has a total warehouse capacity of approx. 9,000 pallets.

Connecting to the host system

An interface between the new ERP system Enterprise 1, E1 for short, by JD Edwards and WAMAS ensures data communication. The key part is a two-level goods exit confirmation. After order picking ("Pick Confirm"), when loading takes place ("Ship Confirm"), a second confirmation is sent to the host system. This means it is

also possible to trace the flow of goods right through to loading at the ERP level. The goods inventory is reconciled on a daily basis.

From production to quarantine

Straight after production, each pallet is registered in WAMAS and put into storage in a special quarantine warehouse, designed to fit 300 pallets. Ice cream may only be used for outfeed after a certain period of quarantine and is inaccessible until that time. Goods are released in the ERP system and this is communicated to WAMAS automatically. Once released, the goods can be used for the compilation of orders.

Batch order picking

In the course of online order picking the batch number is recorded to ensure complete tracing of the ice cream product line.

Through WAMAS online order picking, additional costs and time could be minimised at the order compilation stage, also due to the fact that the deep-freeze area is operated at -28 degrees. This is because in the case of 90% of the goods to be picked for orders, the batch number is already given by WAMAS and no longer needs to be recorded.

Inventory control right through to the ramp

Quality assurance through total control of

loading. Control of loading is regulated by WAMAS and ensures that any "changes in state" of the highly sensitive ice cream products in the time between order picking and loading are reported. Each pallet is scanned during loading and WAMAS checks whether the goods, based on their material qualification, can or cannot be delivered.

The basis for this is the WAMAS software quarantine function, which registers any qualification change in the state of the goods and therefore guarantees that only those goods that meet Emmi's high quality standards are delivered to the customers.

Approximately 3,000,000 trade units are processed using WAMAS in the division of ice cream products every year.



+++ Migros Verteilbetrieb Neuendorf AG, Switzerland

The Retrofit project - new control technology and an update of the WAMAS® control system for pre-zone control 1

+++ Emmi Schweiz AG, Ostermundigen, Switzerland

Update of WAMAS® warehouse management system in the deep-freeze storage warehouse and subsequent rollout in the division of fresh products

+++ Ivoclar Vivadent AG, Schaan, Liechtenstein

Expansion of the field of consignment - upgrading of container handling equipment and integration into the WAMAS® warehouse management and control system

+++ Fraisa SA, Bellach, Switzerland

WAMAS® order picking system with "pick by voice" and connection to existing host

maxess systemhaus gmbh

+++ Max Lüning GmbH & Co. KG, Rietberg, Germany

x-trade enterprise resource planning system, data warehouse/BI solution x-decision and decision-cockpit

+++ Doego Fruchthandel und Import eG, Dortmund, Germany

x-trade enterprise resource planning system

+++ Hiper Usera, Torrejón de la Calzada, Spain

BI solution decision-cockpit

+++ Vegalsa, S.A., Sigüeiro, Spain

BI solution decision-cockpit

GT-IV First Job Challenge

The race for 10,000 euros is over! On 14th October, over 1,000 runners competed in the First Job Challenge for the much sought after prize money and the attractive prizes of the Styrian company GT-IV. Salomon Automation was able to hand over the company prize, a weekend at the Hamburg marathon, to Josef Rattenberger from Kärnten. The 4 fastest winners in the different categories shared the prize money of 10,000 euros. We wish to congratulate them!

Marathon:

Daniela Rechberger won the First Job Challenge marathon with a time of 3:27:11.57. Florian Prüller won the marathon with an overall time of 2:31:24.86.

Half marathon:

The victor among the women, Marie Steinthaler, won with a time of 1:40:21.53. Matthias Müller from Switzerland came first among the men, with a time of 1:10:52.39.



New office in Linz-Pasching, Austria

Our project office in Upper Austria has been relocated. Salomon Automation has moved into new offices in Commerzpark West in Pasching near Linz, Austria.



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Excursion for both SALOMON classes to the LUTZ central warehouse in Sattledt, Austria



This year, for the first time, we managed to organise a joint excursion to one of Salomon Automation's realised warehouses, with both Salomon classes of the vocational education and training colleges in Weiz and Graz-Göding. At both schools, the "Salomon class" training cooperation has been running successfully for a number of years and in order to give those participating the chance to see one of the largest fully automatic pallet warehouses in Austria, we set off for Sattledt with 28 pupils and two teachers. The responsible project manager was able to provide those taking part with a very practically-oriented insight into the XXX warehouse and the employees of tomorrow appeared very impressed by the size and complexity of the system.



Recruiting goes INTERNATIONAL

In order to be able to meet the demand for highly qualified employees in a timely manner in the future and to use the most suitable people for the job, we are increasingly looking to our neighbouring countries. At the beginning of November, Salomon Automation presented itself at the Konaktiv recruitment fair in Dortmund, Germany. In numerous one-to-one interviews we were able to meet interesting candidates for our branch in Dortmund and for the other locations in Europe. Furthermore, at KARRIERA 07 in Ljubljana, Slovenia, in which we were participating for the second time, we once again had the chance to interview the best qualified interested candidates. CONNECT in Klagenfurt, Austria, rounded off our autumn of careers fairs. We were again able to take exciting discussions, well prepared candidates, and dozens of good applications back home with us.



Salomon scholarship - software engineering training course

And the winners are....

... Daniela Begusch and Andreas Ortner. Both were chosen through a careful selection procedure for the two scholarships awarded by Salomon Automation, amounting to a total of 3,000 euro. Once they have completed their theoretical training at Campus 02, the candidates will start their three month placements at Salomon Automation. Both recipients of the scholarship will be used in fields relevant to their training and shall therefore gain practical experience. In autumn 2007 a new software engineering training course was created in close cooperation with the state of Styria, the Industrial Association and other Styrian control operations, which was run for the first time at CAMPUS 02 in November. Over 20 participants competed for the sought-after company scholarships. Through this cooperation, the aim is to be able to access available personnel quickly in the future and to reduce the lack of technicians through a further training certificate.



Events

- 19th - 21st February 2008**
Salomon Automation at **LogiMAT 2008**
Neue Messe Stuttgart
Germany, hall 6, stand 527
- 23rd - 27th February 2008**
MoveRetail at **EuroShop 2008** in Düsseldorf
Germany
hall 6, stand C50
- 28th - 29th February 2008**
Salomon Automation at the **24th "Logistics Dialogue" of the national Austrian Organisation of Logistics (BVL Österreich)**, at the Eventpyramide in Vösendorf, Vienna, Austria
The Logistics Dialogue 2008 has the motto "Are climate change and resource shortages forcing a re-think of logistics?"
- 27th - 31st May 2008**
Salomon Automation at **CeMAT 2008**, Hanover, Germany
hall 27, stand H55

We need reinforcement:

- SPS specialist
- Technical team manager m/f
- Control technician m/f
- Software technician m/f
- CAD designer m/f

looking for the best



join the crew
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