SSI SCHAEFER update

Company magazine of the SSI SCHAEFER Group

Toptopic

New Shuttle solution:
The Schaefer Orbiter System

Automotive

Tailored workpiece carrier for Bosch

Foodlogistics

Carlsberg: Higher throughput to combat a big thirst

Autumn 2009
No. 15

Dear reader,

as in the past, reports tell us daily about the state of the global economy. Is the situation improving or deteriorating?

A company is successful if it succeeds in combining experience, knowledge and technologies in global competition in such a way that new ideas derive from this. Ideas give birth to innovations which come onto the market and establish themselves there – independently of the economic situation.

SSI Schaefer therefore also continues to invest in developing intelligent solutions. The SCHAEFER ORBITER SYSTEM – a modern, innovative storage and transport solution is also a new creation.

As a pilot customer Logistics Group International is installing the new shuttle-system in their new distribution centre in Hünxe for the first time and has proved that the developed transport solution sets new standards.

Furthermore we report in this "update" about exciting project profiles, company news and new SSI Schaefer Group systems.

Enjoy your reading.

Klaus Tersteegen
Managing Director SSI Schaefer, Neunkirchen

Contents

Around 150 invited guests from the business world, politics and the media were able to look behind the scenes at the site opening

A new superlative distribution centre

In June Logistics Group International GmbH (LGI) opened a 42,000 m² big distribution centre in Hünxe. The company which ranks as one of the biggest industrial contract logistics companies in Germany, counts here on modern channel storage technology and – as a pilot customer – on the new Schaefer Orbiter System (SOS).

The new distribution centre officially entered service in June and the new shuttle solution was presented to the general public for the first time. Even after just a few weeks of operating time, it can be seen that the system sets new standards.

SSI Schaefer's developed storage and transport solution ensures the fastest stocking and destocking of pallet-based goods and offers a dynamic approach to enhanced efficiency. 12 Orbiters are used in parallel in Hünxe and serve 30,000 pallet storage locations in the channel storage system supplied by SSI Schaefer. "This meant that we were able to achieve a 90 % degree of density and raise the utilisation rate of the warehouse and staff to an optimum level," explains Hermann Holsten, Manager Real Estate at Logistics Group International GmbH.

One of the reasons why LGI decided for the SOS was the completely new drive concept developed for it: the Orbiters are kept in motion with the help of Power Cap Technology (high-performance condensers), each of which has 4 drives and an integrated power supply in the rack system. At each docking as well as pallet acceptance/delivery cycle the shuttle's power caps are supplied with energy and recharged in 6 to 24 seconds.

"The results achieved so far have shown that storage processes are faster and safer with the Schaefer Orbiter System than with conventional drive-in racks. This means that the system has a high share in the success of intralogistics in Hünxe," Holsten summarises.

Safe, fast, intelligent: the Schaefer Orbiter System

SSI Schaefer, which is oriented towards market and customer requirements, has designed the Schaefer Orbiter System (SOS). The new storage and transport solution is designed to ensure an increase in the performance, efficiency and safety of a channel warehouse.

With its simple working principle, the system which is equipped with the most modern functional and energy technology ensures maximum goods availability at a relatively low level of automation and represents a correspondingly manageable investment.

The Orbiter and the docking station designed for loading using a forklift form an inseparable functional unit: the forklift picks up the docking station including the Orbiter and places them in the frontal centring consoles of the rack channels. While the forklift then concerns itself with taking up the next pallet being stored away, the SOS takes over the pallet and conveys it quickly and safely into the desired storage location in the rack channel being served. The shuttle system can be operated with all of the usual lifts and works completely independently in the shelves. The driving orders are communicated by wireless remote control.

The maintenance-free Power Cap Technology (high-performance condensers) used here is particularly long-lasting and also permits problem-free use in the deep-freeze area. It offers a quantum leap in drive technology and energy efficiency:

battery replacement is completely eliminated and the unit's life-cycle costs are minimised due to the durable, robust and low-consumption components.

Beyond usual standards

with Schaefer Compact Cranes

Phoenix Contact, Blomberg, a specialist in electrotechnical connection technology, decided in favour of Schaefer Compact Cranes (SCC) when fitting out its central European logistics centre. SSI Schaefer, Giebelstadt, realised an installation design beyond usual standard projects for it.

The logistic centre was extended by a fully automated high-bay warehouse. A special feature: in addition to connecting the goods flow to the existing AKL and installing the high-bay warehouse, Phoenix Contact components were also integrated. “With the use of components from our own production we primarily wish to prove the wide range of applications offered by our articles. In addition to the boosted efficiency and improved use of our surface-area capacities the project should also act as a reference object for Phoenix Contact’s connection and automation technology,” explains Andreas Prokisch, who is responsible for logistics and planning at Phoenix.

Over 2,500 pallet locations are now available in the 6 aisles of the new high-bay warehouse.

Six Schaefer Compact Cranes, which are mainly designed for retrofitting projects, are used as rack-operating devices for single depth storage. The project would only have been feasible at a high cost using conventional rack-operating devices. Prokisch is satisfied: “We achieved an optimisation of the processes by a good 30 %.”

Schaefer Compact Crane (SCC)
High-performing, compact and inexpensive

SSI Schaefer, Giebelstadt, has developed an optimised rack operating device in the pallet conveyor technology sector with the SCC.

The compact conveyor tool covers nearly 70 % of market requirements with its performance and equipment features.

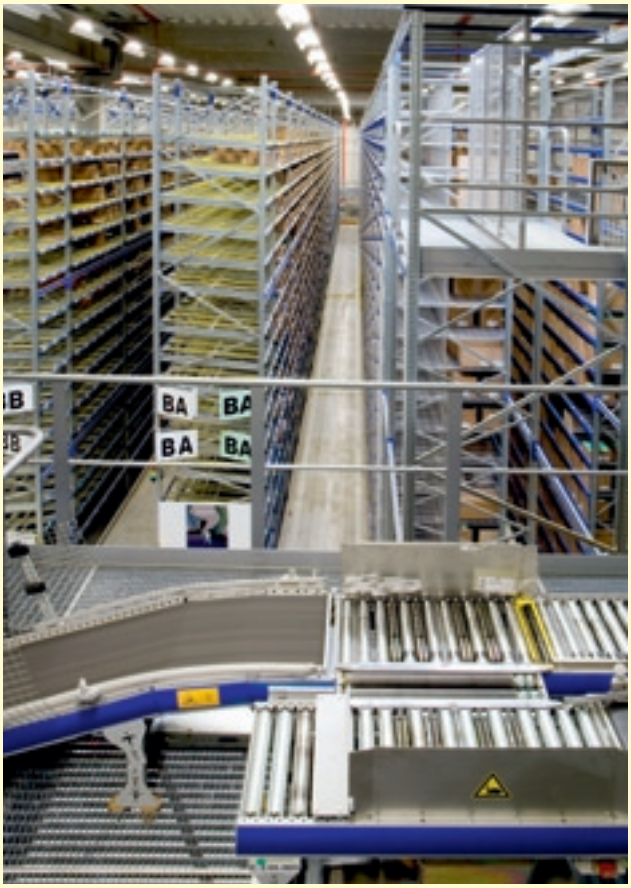
The rack-operating device is particularly designed for standardised pallet high-bay warehouses with a high throughput and medium construction height. Thanks to its optimised development and production concept it is more economical to buy than conventional rack-operating devices and up to 15 % lighter. Technical and financial advantages: the devices are supplied as premounted main assemblies. Modern manufacturing techniques and a high degree of standardisation safeguard rapid availability as well as short assembly and entry-into-service times.

Complex logistic processes

for low and medium voltage articles in France

Schneider Electrics' international distribution centre near Lyon in France distributes low and medium-voltage articles.

SSI Schaefer France won the order to integrate the company's entire complex logistic process from goods inwards via order-picking up to dispatch in the Newlog warehouse.



SSI Schaefer set up a control system for the goods flow as well as a rack-operating device for light loads. New shelves for cartons and pallets used in 3 distinct, independent areas that are connected to a conveyor unit ensure ideal storage.

At present 3,000 articles are stored in stock and 3,000 packages are processed extremely efficiently on the 24,000 m² site.

After this successful project SSI Schaefer is currently working at Schneider as a general contractor for a second similar project titled "Newlog 2".

Paint manufacturer increases delivery quality

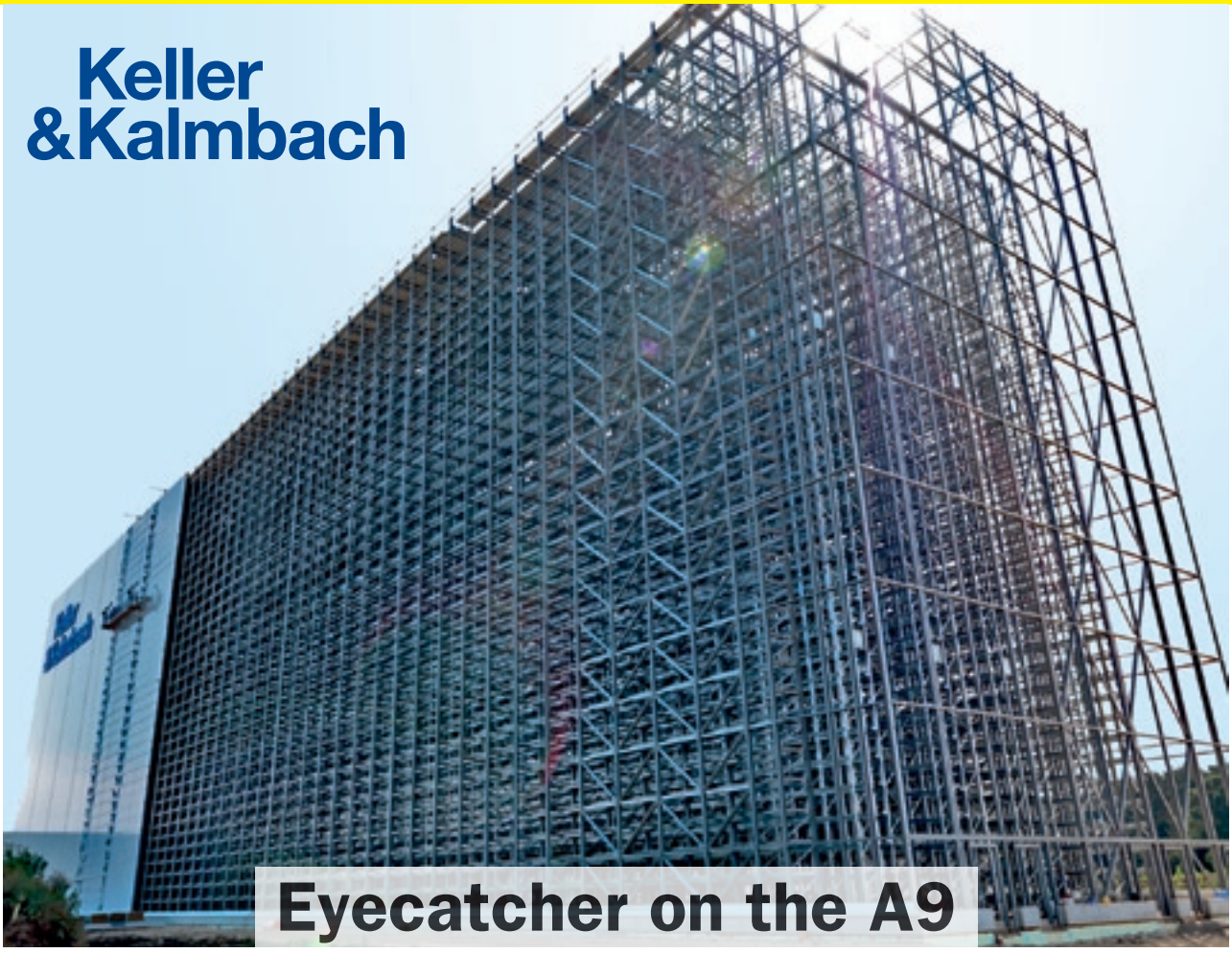
The paint maker Brillux, Münster, increased its delivery quality substantially with the extension of its silo-style high-bay warehouse. The award for the delivery and assembly of the steel construction was won, as had already happened in 1999, by SSI Schaefer, Neunkirchen.

In addition to the cost effectiveness of the range of services provided, the continuity in the customer relationship and the excellent experience during the previous project were decisive in the continuation of the cooperation.

As a full-range supplier and direct provider in the paint and colour sector, Brillux ranks number 1 in Germany. The company extended the warehouse capacity and order-picking areas due to its larger market share and the introduction of new product ranges.

Using a combination of single and double depth storage, approximately 3,500 articles on 12,100 Europallets are located in the new 6-aisle high-bay warehouse. Although the new warehouse and additional order-picking areas create major potential, a future extension is not being excluded. A further three aisles can therefore be added and all of the aisles lengthened.

Brillux is now optimally oriented through the new warehouse building and the extension of the entire goods distribution centre, while all options for further expansion are simultaneously safeguarded.



Eyecatcher on the A9

With the entry into service of the distribution centre on the A9 in Hilpoltstein, in spring 2009, Keller & Kalmbach GmbH, one of the leading specialists in C-parts management, optimised their logistic processes from every perspective.

The most important construction project for a clear increase in the product throughput and an improvement in the delivery quality stands on an overall surface area of 44,000 m^2 and represents an investment volume of approximately EUR 21 million.

System integrator Jungheinrich received approval to implement the entire system in November 2007. Jungheinrich commissioned SSI Schaefer, Neunkirchen, to supply the project components in the fully-automated silo-built pallet warehouse as well as the boxing and automatic small parts warehouse, including perfectly-fitting plastic load carriers.

The 38 m high plant now offers space for over 35,000 pallets, 164,000 cartons and 8,000 plastic containers.

The company is optimally equipped for future growth due to the large surface area in the logistics centre: there is nothing in terms of construction to prevent a tripling of the storage capacity for pallets and small-parts containers.

High throughput to combat a big thirst

It is the biggest investment project in the history of the Danish Carlsberg Breweries: the new production and distribution centre in Fredericia. SSI Schaefer, Giebelstadt was accepted as the general contractor.

The plant was to be built within barely 14 months after the order had been issued. Rack-operating devices, pallet conveyor technology with an electric suspension rail and Schaefer Compact Cranes (SCC) as well as a SSI Schaefer perfectly-customised warehouse management system ensure efficient processes and high throughput.

An 8-aisle "in-house rack" with a height of 7 m and 6,000 pallet storage positions will act as a buffer for empty refreshment drink units and the smaller part of the production. Eight SCCs which can look after inputs and retrievals of up to 250 pallets/hour are being used as rack-operating devices. The automated in-house high-bay warehouse would barely have been feasible without the special design of the rack-operating devices. A further 76,000 storage positions for ready-to-ship drinks pallets are available in the 18 aisles of the 9,000 m^2 41 m high-bay. Storage is single-deep.

In total, almost 2,000 conveyor technology components, roller/turning roller tracks, chain conveyors, corner switchers and shifting carts were built into the new distribution centre. They are supplemented by an electrical suspension rail with a driving length of 4 km and 265 vehicles.

The installation has been fully operational since November 2008. "The plant is optimally designed in terms of its performance-customisation for our high standard throughputs as well as demands during peak periods" explains Lars G. Hansen, logistics manager at Carlsberg Breweries.

One of France's biggest deep-freeze stores

SSI Schaefer, Neunkirchen, is currently building a fully-automated silo-style high-bay warehouse with around 70,000 storage locations for McCain, the global leader in potato products manufacturing, near Lille on instruction from the Dutch logistics service provider Kloosterboer.

After the planned entry into service at the start of 2010, deep-frozen products from 4 production units will be stored on an overall surface area of over 25,000 m^2.

Goals: a shorter logistics chain, reduced CO_2 emissions as well as savings on transport costs. An improvement in delivery quality is also a prominent factor.

As only high-quality steel profiles maintain permanently extreme temperatures of -28°C on a lasting basis, SSI Schaefer is using top-quality steel for the 6-aisle high-bay warehouse.

Two warehouse areas are planned for fire protection reasons. These are separated from each other by 2 special walls and a 1.5 m wide passageway. To ensure compliance with fire- protection regulations in France, government constraints which were statically and constructively tested by SSI Schaefer in close cooperation with a French test laboratory are linked to the behaviour of the steel construction in the event of a fire.

Thanks to the very good cooperation all of the parties involved see the further progress of the project very optimistically and look forward to target-oriented implementation of the project.

Perfect freshness through store reorganisation

Full-scale operations have resumed after comprehensive modernisation in the 7-aisle high-bay warehouse operated by Schachinger marken & frische logistik, Hörsching near Linz. General contractor Salomon Automation, Friesach/Graz, modernised the unit during ongoing operations within the shortest possible time frame.

Thanks to tailored logistics solutions for the food industry Schachinger guarantees that branded goods such as Haribo or HIPP remain what they are on the journey to the customer: high-quality fresh products.

The warehouse now has over 13,000 pallet storage positions. Three extra rack-operating devices, a new front-zone connection as well as the separation of the goods storage and retrieval level now permit more efficient exploitation. The existing WAMAS warehouse software was adapted to the new requirements and expanded with functionalities such as tour sequencing and field load calculation.

Results: a maximum increase in the level of service to customers, conversions and extensions at an affordable cost and a sharp rise in the performance and turnover.

Shop-specific order-picking for Duty Free Shops

Fiege Logistik (Switzerland) AG won the assignment to take over the central logistics for the European Tax & Duty Free Shops operated by Travel Retailers in 2008. The company called in SSI Schaefer, Switzerland, for the project.

The deliveries for the Tax & Duty Free Shops are made up of large-volume goods stored on pallets and merchandise available in small formats. A special combination was therefore selected for ideal shop-specific order-picking. A pallet high-bay warehouse reduced in height to 8.5 m with 4,200 storage positions and a stage with modular racks stretching across all of the high-bays were used.

This solution now ensures fast access and optimum combination of the most varied goods. “The successful implementation of the order confirms the positive experience in our cooperation”, summarises Brigitte Schönhoff, Head of Division Logistics, for the Fiege logistics centre, Oftringen.

Innovation: i-Pick and pick@work

Fast and efficient order-picking or assembly

Pick-by-Light (PbL) systems automate the composition of specific customer orders quickly and efficiently. They achieve an enormous storage compression and reduce path and order-picking times. SSI Schaefer, Graz and Neunkirchen, have now developed two new variants of the PbL: i-Pick and pick@work, which can be integrated without any major programming costs into a warehouse by the user affordably and effortlessly thanks to a modular-kit system.

The user installs the entire PbL application himself without any special IT knowledge in a brief period with the help of a carefully-designed graphical user interface – the so-called Touch Panel PC.

The light illuminates the pick location

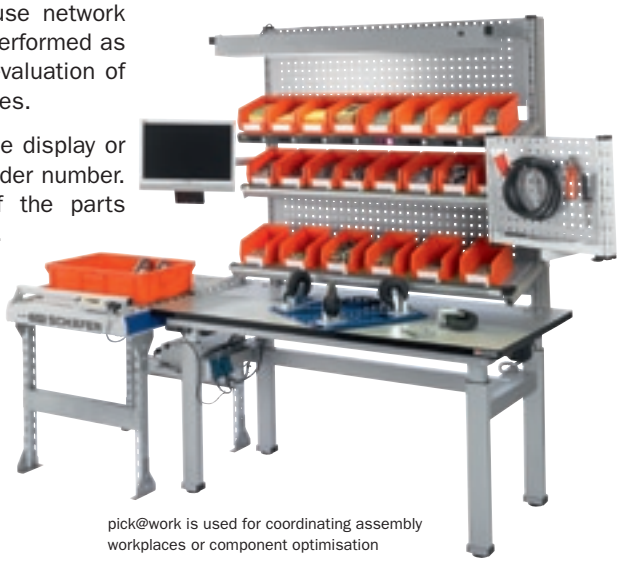
The system handles everything from the connection to an order database via the installation of operating features and the assignment of storage positions up to day-to-day use. The integration into the in-house network and product database is performed as simply as the statistical evaluation of storage/retrieval frequencies.

Orders are selected via the display or started by scanning the order number. The storage positions of the parts being order-picked light up.

The i-Pick can achieve a pick performance of 600 lines/our and an increase in efficiency of 300 %, combined with a 10-fold rise in the order-picking quality compared with conventional order-picking methods.

The pick@work is an extension of the i-Pick and is configured through a software extension in the Touch Panel. The system is used in particular for coordinating assembly workplaces and component optimisation. The storage positions for the parts being built light up in the correct sequence and these are assembled step-by-step with the help of the display guide, which makes work manageable and effective.

The orders are selected via the display or started by scanning the order number



pick@work is used for coordinating assembly workplaces or component optimisation

Companynews

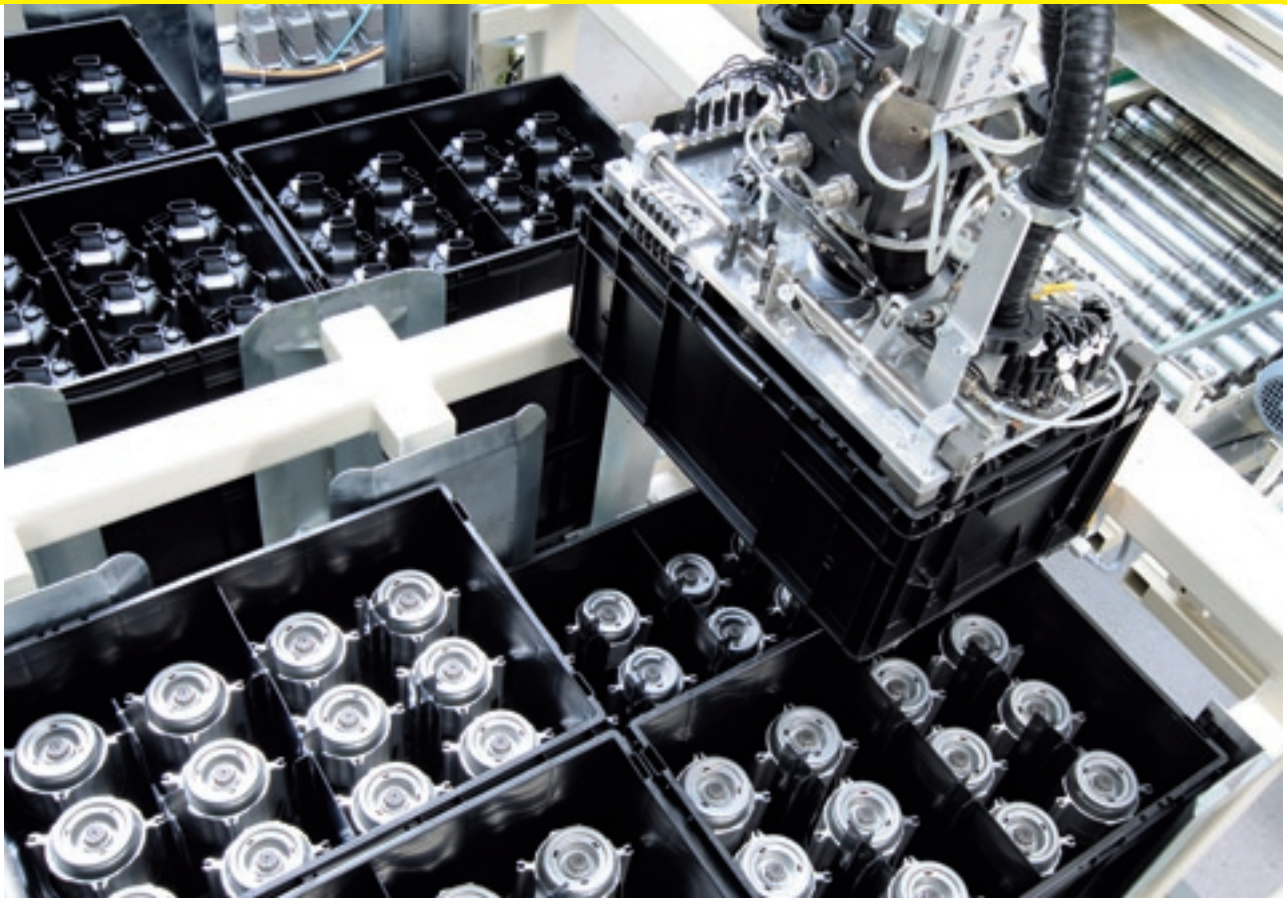
Logistica09 – Innovation leader opens its doors in Graz

The annual international dialogue congress “Logistica09” organised by SSI Schaefer, Graz, is taking place in the company’s presentation rooms this year in September.

Profitable solutions for the current demands facing internal company processes are being presented under the title “Cost Reduction through Innovation in Challenging Times”.

Live demonstrations allow a direct access to the exhibits, while workshops and presentations facilitate direct dialogue between guests and specialists.

The dialogue congress will be rounded off by practical lectures from international experts on business concepts and plant optimisation.



Safe underway in the circuit

Customised workpiece carriers for microelectronics

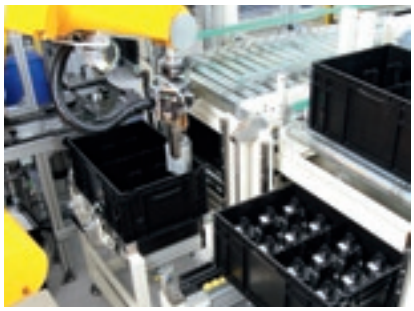
BOSCH

Bosch Automotive Electronics manufactures, develops and markets microelectronics for vehicles as well as the control units for electric power-assisted steering at its Reutlingen site. As high-value components are involved here, Bosch uses tailored workpiece carriers for the transport and manufacturing circuit.

In the context of a meticulously paced delivery and value-creation cycle the goal was to tighten up processes and to create a closed Just-in-Sequence (JIS) supply circuit.

So SSI Schaefer, Neunkirchen, designed an individual workpiece carrier for Bosch. It is a high-tech product that is uncompromisingly tailored to Bosch's extremely specific requirements. The workpiece carries provide all of the protection required for the valuable parts as well as a time and cost-saving JIS circuit for components between three factories.

"Approximately 25,000 workpiece carriers are used in the new fully-automated circuit and these help us to save material and empty goods cycles as well as money", says Marcus Bopp, Manufacturing Group Manager at Bosch.



Professional workshop for the superbike

SSI Schaefer designed the complete workshop layout for alpha Racing

When top-quality racing motorcycles are being manufactured, every handle must be in place. An essential prerequisite for this: a workshop layout which guarantees optimum work in a well-organised and efficient way. The workshop area in the new competence centre belonging to alpha Racing (the partner of BMW Motorcycle Motorsport) fitted out by SSI Schaefer, Neunkirchen, fulfils these demands.

SSI Schaefer delivered the fixtures within just six weeks to Stephanskirchen near Rosenheim. The planning and arrangement as well as the sequence and design of the workplaces were implemented individually according to specifications from alpha Racing.

A few hundred work steps are required before a racing motorcycle is assembled as ready to drive. An optimised workflow and ever faster access to the sequentially prepared parts and tools are essential here.

The workshop areas are now completely equipped with drawer cupboards, workbenches, functional cupboards, modular shelves and tyre shelves. The result: anyone who associates the term “workshop” with creative chaos will be disappointed. This is because the work area is organised so manageably and efficiently, that only the parts that are being built in can be found on the workbenches.

inbrief

Increased efficiency at BMW

With the third extension of BMW’s spare part warehouse, SSI Schaefer, Spain, has substantially increased the efficiency of the company in Cabanillas del Campo.

BMW uses the what is now a 6,600 m² warehouse for spare parts and accessories as a distribution centre for the entire Spanish and Portuguese market.

After the first two extensions in 2003 and 2008, SSI Schaefer next equipped the carmaker’s warehouse with a further shelving system including a stage. 567 shelve fields with modular units and separating walls now improve storage efficiency again at BMW.

11,000 new storage locations for Bentley Motors

SSI Schaefer, England, increased the storage capacity with a multi-floor R 3000 modular shelving unit for Bentley Motors Ltd in Crewe, Cheshire.

The car manufacturer now has around 11,000 storage locations for car parts on a surface area of 950 m². Furthermore, appropriate security measures such as load lifts and gates protect valuable parts.

“SSI Schaefer worked together effectively with the Bentley Team. The intralogistics specialists’ proposed solutions were exactly what we needed”, explains Steve Rhodes, Senior Aftersales Logistics Manager.

SSI Schaefer, Giebelstadt, is currently equipping the IKEA furnishings store in La Coruna, Spain, with modular conveyor technology. Entry into service is planned for the start of 2010. The unit is tailored exactly to the requirements of so-called multi-level stores and has now become the sixth installation of this type at IKEA across Europe. The other 5 are in Nieder-Eschbach (D), St. Gallen and Lyssach (CH), Dublin (IRL) and in Ghent (B).

The foundation of the solution is formed by 8 different functional conveyor technology components ranging from the handover station and chain driver via shifting carts, revolving tables and swivel tables up to a perpendicular conveyor. An appropriately designed software package completes the solution.

A special feature: all of the mechanical components are equipped with a special conveyor belt. It is made up of a longitudinally mutually toothed plastic elements that extend across the entire width of the conveyor technology. This means that load carriers of different types can be taken over and transported safely and without slippage by the automated conveyor technology.

Modular conveyor technology solution for IKEA®

A piece in the jigsaw for IKEA towards replacing conventional pallets by ecological load carriers.

“We increased the productivity of the goods inwards processing by a double-digit figure with the plastic conveyor solution compared with conventional handling”, explains Michael Geiger, the logistics manager at the IKEA store in Nieder-Eschbach near Frankfurt/Main. “All expectations relating to material flow control and efficiencies were fulfilled”, Geiger summarises.

SSI Schaefer, England, implemented a fully-automated order fulfilment system in less than 12 months for the new distribution centre belonging to Office Depot, Leicester.

Fully automated process chains for Office Depot

Each day the office goods supplier processes a multitude of customer orders whose delivery must take place on the same or next day. New fully-automated process chains were indispensable so that orders could be coped with as quickly as possible again.

“Our old supply chain was reaching its limits in terms of its productivity and efficiency”, explains Simon Brammall, Senior Project Manager, Office Depot, Leicester.

The new SSI Schaefer order fulfilment system now makes it possible to order-pick 36,000 cartons daily and to deliver 75,000 orders in 12 hours.

Economic and ecological book deliveries

SSI Schaefer, Neunkirchen, has successfully implemented a reusable system for order-picking and distribution with 160,000 containers for the book wholesaler KNV, Cologne.

One of the two central warehouses from which the company supplies the entire German-speaking market is located in the cathedral city.

Over 60 % of KNV customers have opted now for the reusable system, and the trend is growing. They have recognised that the standardised containers allow easier processes.

For KNV the ecological aspects as well as the customer friendliness of the solution are a prominent feature in particular, along with the greater flexibility and the time and cost savings.

Despite the newly imposed special container size the first equipping was completed within six months.

Results: an increase in performance of 20 %, standardised processes and options for further automation.

WAMAS® with online order-picking for design experts

To optimise warehouse operation, Josef Mäser GmbH commissioned Salomon Automation, Friesach/Graz, to introduce the WAMAS warehouse management system with online order-picking and connection to the HOST system.

Josef Mäser is one of the internationally leading providers of contemporary, consumer-oriented table culture solutions and is the market leader in glass and porcelain enhancement in Austria.

The goal was to minimise all faulty deliveries and customer returns in the manual warehouse with a booking system and to permit exact electronic online registration and control of all warehouse movements.

Two halls for an order-picking and reserve warehouse, a closed manually navigable small-parts store and two separate parts of a high-bay warehouse entered service on approximately 15,000 m^2 in February 2009. Today glass as well as crockery is order-picked, packed, distinguished and dispatched via a shipping check in 3 individual goods inwards areas, order-picking locations and packing stations. The entire steering and order-picking are radio-controlled. The unit produces a picking performance of approximately 230 order lines per hour.

SSI SCHAEFER positions itself with SAP-Consulting

SSI Schaefer, Giebelstadt, is taking over responsibility as an objective planning and implementation partner for IT infrastructure in the logistics-relevant SAP environment.

The intralogistics specialist is bringing together the skills for logistics-relevant SAP solutions consulting in a separate department. The goal of the nearly ten-person team is to offer users comprehensive objective consultancy for IT planning and implementation along with proven hardware during the design and optimisation of their intralogistics.

“Substantial potential can be achieved through individual customisation and optimum interfacing of information systems”, explains Michael Vollmuth, SAP-Consulting department manager at SSI Schaefer. “Even in the SAP-ERP systems environment there is a great need for clarification among customers on how far subordinated material flow and control systems in SAP can be connected into or to SAP.”

For SSI Schaefer as a general contractor and provider of overall solutions, information technology counts among its core skills. This is why the company offers clients objective consultancy and planning services immediately in such cases.

Concept for SAP Warehouse Management

SSI Schaefer, Giebelstadt, has won an order from BEKO TECHNOLOGIES GMBH, Neuss, to advise on and plan an efficient software connection for a new warehouse complex under SAP.

The goal is the optimum process integration of SAP LES-WM and SAP LES-TRM during production supply and disposal as well as during goods entry and exit processes. SSI Schaefer is taking over the consulting during the compilation of the specifications and the design of the SAP warehouse management system as well as incorporating the subordinated material flow and control systems.

VDI logistics prize for SCP

The VDI society awarded SSI Schaefer, Giebelstadt, with the Logistics innovation prize 2009 for the SCP (Schaefer Case Picking). A jury made up of specialists praised the innovative approach in the novel overall concept for warehouse and distribution logistics.

Rudolf Keller, CEO SSI Schaefer International (right) and Harrie Swinkels, Chief Executive SSI Schaefer, Giebelstadt (2nd from left.) receive the prize

The award-winning SCP is a scalable and almost arbitrarily extendable solution for fully automated, branch-specific delivery assortments. The SCP covers the entire process from storage up to volume-optimised pallet formation.

update publishing notes

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