



SCHÖNENBERGER

SUCCESS STORY AUTOMOTIVE

FAURECIA



THE OBJECTIVE: RELIABLE PROCESSES FOR THE JUST-IN-SEQUENCE PRODUCTION (JIS)

ZERO-DEFECT
ORDER PICKING OF
SEAT COVERS (JIS)

JUST-IN-SEQUENCE
(JIS) DELIVERY OF
THE SEAT COVERS
WITH MINIMUM
LEAD TIME

GENTLE HANGING
STORAGE
AND TRANSPORT

CONTINUOUS
INVENTORY
CONTROL

SIGNIFICANTLY LOWER
OPERATING COSTS

ERGONOMIC
WORKSTATIONS

OPTIMUM USE
OF SPACE

FLEXIBLE SYSTEM
EXPANDABLE

OPTIMIZED
WORK PROCESSES

FULLY AUTOMATED INTRA LOGISTICS SYSTEM FOR THE SUPPLY OF SEAT COVERS

Faurecia manufactures vehicle seats for the Audi A4 in Neuburg/Donau, Germany. At Audi in Ingolstadt, Germany, up to 1,700 vehicles a day are equipped with these seats. This means that more than one set of seats must leave Faurecia's factory every single minute. In order to optimize the work processes in view of the very short lead times, the automotive supplier has relied on the fully automatic Schönenberger Intra-Logistics-System ILS 2100 since 2017.

Audi A4 customers can choose between different leather and fabric types, colors and seams for the seat upholstery – in this combination, around 900 variants are possible. Pre-production is not possible due to this diversity. Therefore, Faurecia only produces the seats immediately after receiving the order (just-in-sequence). From receipt of the order to the installation at Audi, only eight hours are available, and this includes transport times.

SCHÖNENBERGER ILS 2100: FOR THE SEQUENCING OF A HIGH PARTS VARIANCE IN THE SHORTEST TIME

Before the introduction of the fully automated ILS system, many employees searched for the required covers individually in the warehouse and sent the covers to the various production locations for further processing. A task that is very difficult to handle manually, given the short lead times, last-minute changes and call-off orders in a cycle of just a few minutes with around 16,000 seat covers in the warehouse. After all, it must be 100 % guaranteed that the right sequence of covers always arrives at the right place at the right time – even under high production pressure in the 24-hours/5-day production plant. Today, the parts are filtered, their right sequence and the transport to the workplace is completely automated. Storage and distribution loops provide quick access to every item in the system. At the Neuburg site, the ILS system connects all areas that belong to the seat cover production department: from incoming goods, through dynamic storage and sorting, to workstations.

FULLY AUTOMATED TRANSPORT, HIGH-SPEED PROCESSING

When Faurecia selected the ILS system, it chose a powerful, highly flexible system for storing, picking and sequencing of individual items. First, each seat cover is clipped to a specially designed clamp in the incoming goods area, the product code is scanned and "married" to the bar code of the single carrier trolley. The covers are automatically transported to the warehouse under the hall roof. Here, the seat cover types are distributed in dynamic storage blocks. At first glance, this storage of the goods may seem chaotic. In fact, this increases the hit rate, as the search proceeds in parallel and in all storage blocks.

The filtered-out covers are transported to the sorter, where they are sorted in the correct sequence and temporarily stored in a buffer area. The inclined conveyor ensures the covers finally reach the mezzanine. Here, they are automatically unloaded from the single carrier trolley and then delivered via a pin conveyor just-in-sequence to the respective assembly workstation.

NO SPACE CONSUMPTION THANKS TO HANGING TRANSPORT AND STORAGE

The ILS 2100 system has been in operation at Faurecia in Neuburg since September 2017. The desired optimization and cost effects soon became apparent. Stock-keeping, picking, sequencing and delivery are handled by one single employee per work shift. The use of the building height and the available areas are optimized: Storage area, sorters and buffers were built up on two floors. The steep inclined conveyors move the goods upwards and downwards again. The covers are delivered to the workplaces suspended above the heads of the employees. This frees valuable floor space. The new system was erected without significant disruptions during operation. The mechanical system proves to be robust and low-maintenance; small disturbances are corrected in the shortest of time. Ergonomic workplaces support and relieve the employees. Thanks to seamless tracking of all items in the system, inventory management is always up to date. For quality control purposes, individual seat covers can be requested and verified. Today, the error rate is close to zero.



Incoming Goods: Attachment to clamps, scanning and automatic loading of the seat covers



Dynamic storage: Filtering and transporting the required covers to the sorter unit

THE SCHÖNENBERGER TRANSPORT SYSTEM AT FAURECIA

Scope

- System planning
- Performance simulation
- Development of sequencing and system strategy
- Control cabinet design and construction
- Installation & Commissioning
- Performance optimization
- Maintenance & Service

Main customer benefit

- Process and cost optimization
- Gentle material storage and transport
- Error reduction
- System-supported quality control
- Intelligent inventory management
- Optimum use of space

Technical solution

- Schönenberger Intra-Logistics-System ILS 2100
- 1,500 m built-in rails
- 16 Rotating units
- 3 inclined conveyors
- Dynamic storage with 3 blocks, 37 lines (506 m), about 20,000 trolleys
- Sorting system with 26 sorting lines
- Buffer with 11 lines (105 m) and 2,200 trolleys

"Every failure of the system is an emergency – because it brings our customer's production to a fast shutdown as well. Since commissioning the Schönenberger system, we have never had to activate our emergency procedure."

Stefan Tilli, Project Manager and UAP Manager at the location in Neuburg an der Donau, Germany



System overview in real time

FAURECIA, THE COMPANY

"Inspiring mobility": With this motto Faurecia focuses on the worldwide design, development, production and just-in-time delivery of advanced technologies for the international automotive industry. As one of the world's leading supplier to the automotive industry, the company supplies all market segments and model versions with products from the fields of seating, interiors and clean mobility. Its 109,000 employees work in 35 countries at a total of 290 locations. In Germany, Faurecia employs around 7,000 people at over 30 locations. With German customers, such as the VW and BMW Group as well as Daimler AG, Faurecia achieves around one third of worldwide sales.



SCHÖNENBERGER

looks back on 40 years of experience in conveying and storage technology. Today, the company employs a staff of more than 80 and has so far implemented more than 2,500 systems worldwide. The company focuses on transport systems using a center-suspended rail track for production and warehousing purposes and, in a holistic sense, the company concentrates on systems for the just-in-time or just-in-sequence supply of production, assembly or dispatch workstations. Further core competences lie in customer-specific solutions including specially developed equipment and load carriers as well as in electronic control systems and their integration - which can also be integrated into the customer's host systems.

OUR PARTNERS WORLDWIDE



China • France • Greece • United Kingdom • India • Indonesia • Italy
Canada • Poland • Portugal • Romania • Spain • Switzerland • Turkey • United States

SCHÖNENBERGER Systeme GmbH

Justus-von-Liebig-Straße 12 • D-86899 Landsberg am Lech, Germany

☎ +49 8191 10 10 • info@schoenenberger.de

www.schoenenberger.de

SCHÖNENBERGER Systems (Taicang) Co., LTD.

No. 66 East Ningbo Rd • Taicang City • Jiangsu Province • 215400 PR, China

☎ +86 512-5383 5468 • info@schoenenberger.cn