

Your General Contractor for Intralogistics

INTELLIGENT, DYNAMIC MATERIAL HANDLING SOLUTIONS



General Contractor with Heart and Mind

Your partner for highly dynamic intralogistics, automation and services

As partner to leading national and international customers, we develop innovative ideas and set new standards for intralogistics in terms of economy, performance and innovation. For over 35 years, we have been implementing smart, tailor-made warehouse logistics solutions in various industries. From project planning to “go-live”, we assume overall responsibility for the implementation of complex new-built systems as well as for the modernization of existing systems during ongoing operation.

As a general contractor, we bring a full set of solution expertise for a turnkey system – dependable, efficient and innovative. With locations in Germany, Austria, Poland and Hungary, we put great emphasis on personal customer service, reliability, quality and comprehensive service.

We are part of the strong HÖRMANN Group and the passion for logistics drives our more than 300 HÖRMANN Intralogistics employees to peak performance every day. Giving our all for long-term success of our customers.





Our individual intralogistics solutions from a single source



High-bay warehouse S. 4

- ◆ Pallet storage
- ◆ Wood/heavy-duty storage
- ◆ Paper roll warehouse
- ◆ Corrugated board warehouse



Small parts warehouse S. 7

- ◆ AutoStore®
- ◆ Micro fulfillment solutions
- ◆ Miniload systems
- ◆ Tray storage



Robotics S. 11

- ◆ Automated guided vehicles for small parts
- ◆ Automated guided vehicles for large goods
- ◆ Moving Racks
- ◆ Pick-by-robot
- ◆ Bin-in-bin/bin-out-bin robotics



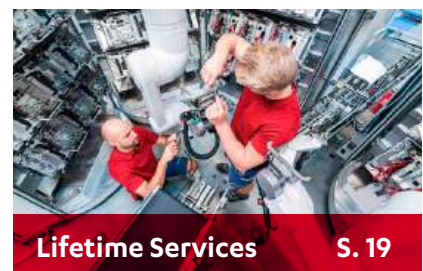
HiLIS WMS + MFS S. 14

- ◆ Flexible warehouse management system
- ◆ Highly dynamic material flow control



Conveyors S. 18

- ◆ Pallet conveyor technology
- ◆ Container conveyor technology
- ◆ Individual conveyor technology for large parts



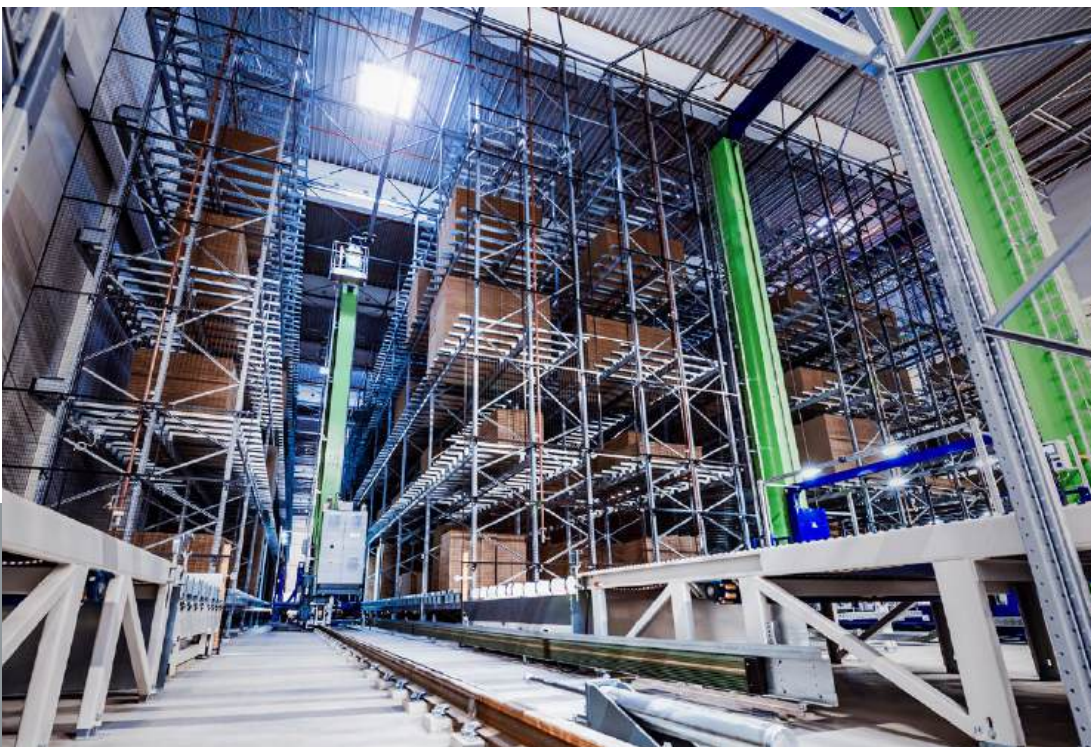
Lifetime Services S. 19

- ◆ 24/7 customer service
- ◆ Maintenance and repair
- ◆ Retrofit
- ◆ Industrial services

Customized and Highly Available: High-bay Warehouse



If goods and merchandise are to be stored compactly and automatically, we recommend an individually adapted high-bay warehouse system with fully automatic storage and retrieval from goods receipt to dispatch preparation. We build stacker-crane-based high-bay warehouses as in-house or silo systems with high storage density and for high throughput rates.





Automatic pallet warehouses

An optimal solution for medium to heavy goods. In a pallet high-bay warehouse, articles are stored quickly and safely on a sub-pallet. Due to the variable height and multi-depth storage, the available storage space can be used perfectly. Pallet warehouses can be configured individually and are suitable for almost all stored goods. Specifications for temperature control from ambient to deep-frozen, hygiene requirements, fire protection measures, e.g. through oxygen reduction and maximum redundancy can be implemented. This makes automatic high-bay pallet warehouses one of the most universal storage technologies.

consumption can even be reduced by approx. 40% and connected load by approx. 65%.

- ◆ Optimal use of regenerative electricity from one axis to the other
- ◆ Reduction of energy requirements through optimized weight management
- ◆ Storage of regenerative energy directly on the stacker crane
- ◆ Reduce power consumption by up to 40%
- ◆ Saving CO₂

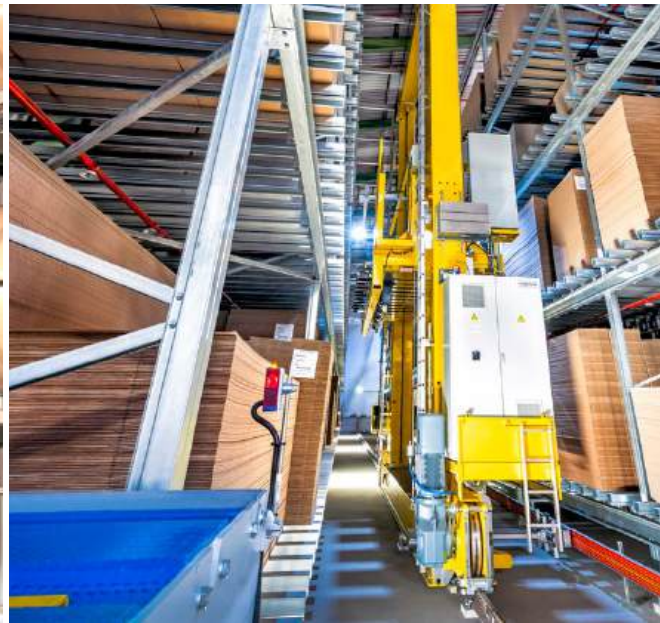
State-of-the-art energy management technologies

Optimizing energy consumption is an absolute must for intralogistics solutions, as it reduces CO₂ emissions for electricity production and operating costs. When building or modernizing a high-bay warehouse, our automation technology can reduce energy consumption of storage and retrieval machines. With the use of the innovative Powercap technology for storage and retrieval machines, power

Automated timber or heavy-duty warehouses

For heavy and bulky goods, we develop and implement high-bay warehouse solutions with tailor-made storage, retrieval and conveyor technologies. In this way, goods with a wide variety of dimensions and weights can be stored in a space-saving and gentle manner according to sophisticated storage strategies. At the customer's request, we also integrate automatic just-in-time connection to production and dispatch provision.





Automatic paper roll warehouses

We specialize in the gentle storage and sensitive handling of paper and film rolls. Our high-bay warehouses offer maximum flexibility for a wide variety of load units and roll weights up to 5 tonnes and more with fast, gentle access.

Automatic corrugated board warehouses

With decades of experience, we develop tailor-made complete solutions for the storage of corrugated board products from a single source. Safe and damage-free transport, fully automatic handling and volume-optimized storage are key to our innovative storage solutions. With efficient material flow processes, the greatest possible flexibility in the transport units and optimal use of the spatial conditions, both for sheet and finished goods.



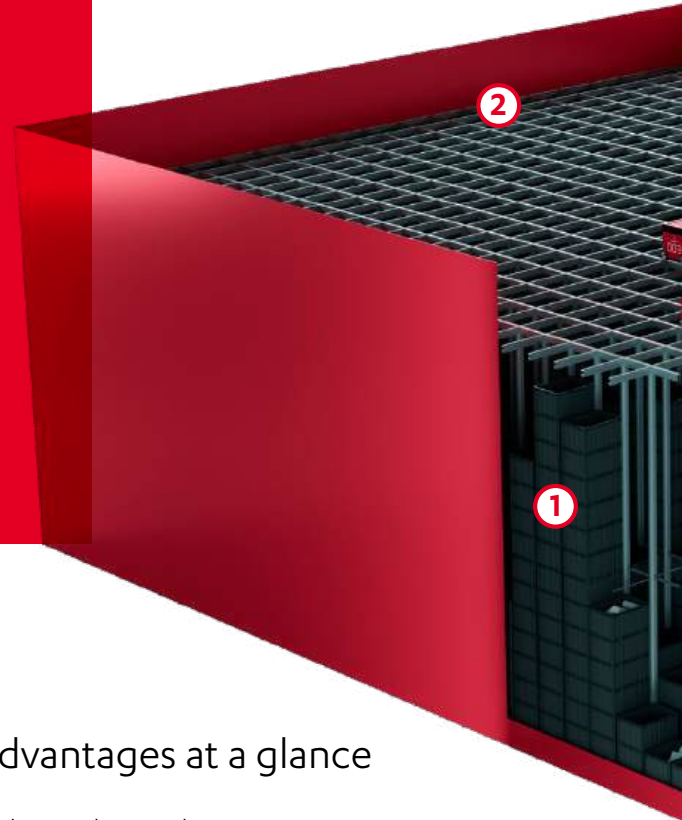
High Density and Dynamics: Small Parts Warehouse

For small-scale, sensitive, and lightweight to heavy goods with high turnover – whether individually stored or in containers, cartons, or trays – we design and implement customized AutoStore® systems, tray-based solutions, or miniload warehouses. Areas of application include classic warehouse functions as well as, for example, buffer warehouses, shipping warehouses, production supply or use as a picking system.



»With our experience as a general contractor in various industries and the tailor-made warehouse management system HiLIS, we design and implement custom, powerful and future-proof AutoStore® solutions for you.«

**ROBERT HEINZ | HEAD OF AUTOSTORE,
HÖRMANN INTRALOGISTICS SOLUTIONS GMBH**



AutoStore®: The ultimate spacemaker

AutoStore is a modern and innovative system for the automatic storage and picking of small parts in plastic bins. The compact system optimizes volume utilization, dynamics, energy efficiency, expandability, material use and the connection of picking stations. As an official distributor, HÖRMANN offers Intralogistics AutoStore with the tailor-made WMS HiLIS and 24/7 customer service as a general contractor.

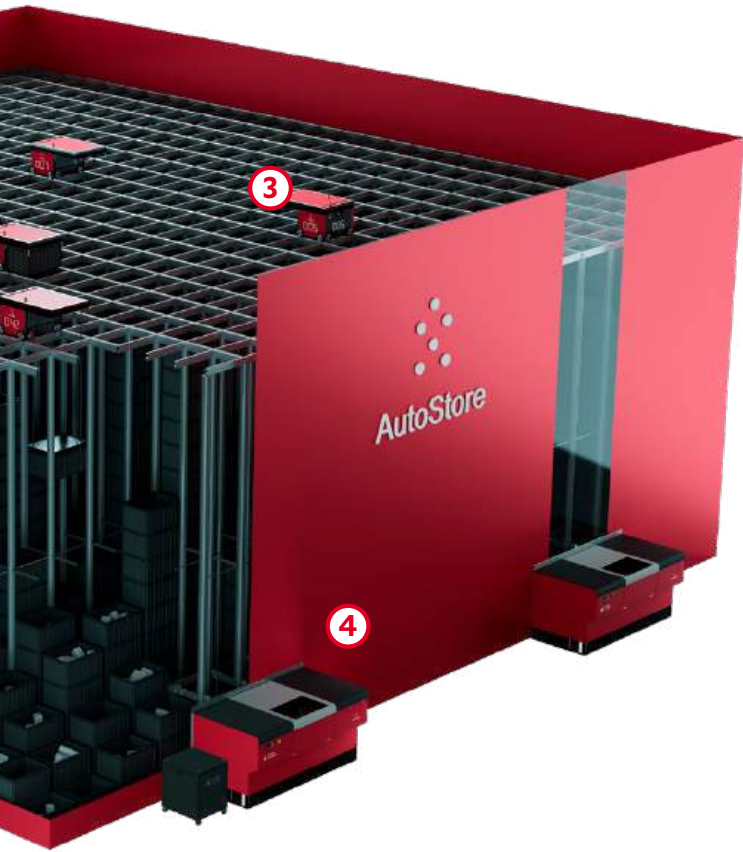
Ultra-high density and highest redundancy

With the best storage density ratio of any automated storage system, AutoStore achieves ultimate space efficiency. Since almost any grid shape is possible, existing buildings can be used optimally. An availability rate of 98.5% makes AutoStore the world's most efficient storage system. Even if one robot or one port fails, the other robots and ports can take over the tasks and thus ensure maximum redundancies. There is no single point of failure.

The advantages at a glance

- ◆ High volume utilization due to compact storage
- ◆ High dynamics
- ◆ Simple and flexible design options for integration into existing building structures
- ◆ Modular design of the overall system
- ◆ Best scalable capacity increase by expanding the grid
- ◆ Best scalability in terms of performance increase by using additional robots and additional ports
- ◆ Low energy consumption due to low power consumption and maximum efficiency
- ◆ Highest availability due to system-inherent redundancies
- ◆ Best security against theft
- ◆ HiLIS Warehouse Management System from HÖRMANN Intralogistics





- ① Stack of bins
- ② Grid
- ③ Robots
- ④ Port for Goods Receipt and Picking

Warehouse Management System HiLIS

The AutoStore control system autonomously executes the transport orders for all robots but does not know the contents of the bins. For this purpose, HÖRMANN Intralogistics has developed a separate warehouse management module in the HiLIS product portfolio, which can also map manual warehouse areas and additional processes. This is tailored to the requirements of AutoStore and is connected directly to the customer's HOST systems. HiLIS provides the goods receipt and picking information at the ports, maps all operator functionalities and enables operator intervention.

Same-day fulfillment close to the customer: Individual systems for e-commerce

Micro Fulfillment is an innovative strategy for efficient fulfillment of orders in online retail in direct proximity to the end customer. This means that orders can be picked on the same day and immediately made available to customers for pick-up or delivered directly to their homes. Due to the high degree of automation and high storage density, little space and few personnel are required. The proximity to the customer enables Click & Collect offers as well as a significant reduction in time and costs for delivery.

With AutoStore and other technologies, HÖRMANN Intralogistics offers innovative systems for automatic storage and picking in micro fulfillment centers. Thanks to its modular design, AutoStore, for example, can be installed quickly and easily and can be individually expanded at any time. The ultra-high storage density and availability make AutoStore the ideal solution for micro fulfillment centers.





Tray warehouse

For larger-format warehouse items with high turnover, we implement highly dynamic, automatic tray warehouses with connected conveyor technology, picking stations, shipping buffers, etc. Depending on your needs, we design tray warehouses with steel or plastic shelves, which can be equipped with special inlays to store the items safely and gently.

Small parts and shuttle storage systems

For cargo such as containers or cartons with high turnover, we implement flexible miniload warehouses or shuttle warehouses. Areas of application include both classic warehouse functions and, for example, buffer storage, goods provision or use as a picking system.

»The new material flow concept with AS/RS ensures our company the greatest possible flexibility, future growth and safe and transparent processes. In the implementation of this demanding project, we were able to rely on HÖRMANN Intralogistics as a professional, on-time partner at all times.«

**ALBERT SAUTER | MANAGING DIRECTOR,
KERN & SOHN GMBH**



Next Level Automation: Robotics Solutions

Productivity, low operating costs and uncomplicated picking – we implement innovative robotics solutions that can be combined with other storage and picking systems. Demand-based scalability, rapid expansion and maximum dynamics make our robotics applications the ideal solution for growth markets. Logistics processes can be streamlined and costs saved with smart warehouse systems and robotics solutions. We offer you advice on your needs for new development or retrofit projects and guarantee highly professional realizations as a general contractor.





AGVs for large goods

Automated guided vehicles enable safe and efficient transport even for heavy loads and bulky materials. All systems can be easily integrated into the existing intralogistics. With autonomous navigation systems, the vehicles move flawlessly and flexibly, which optimizes processes and sustainably reduces costs.

Pallet AGVs

Pallet AGVs ensure a smooth flow of materials, reduce manual handling effort and thus increase productivity. Compared to forklift transport, they score points for precise navigation, increased safety and continuous availability – ideal for 24/7 operation.

Roll AGVs

We offer tailor-made solutions for fully automatic transport of rolls of different sizes and weights. Our systems are specially designed to move sensitive or heavy rolls gently and to ensure an uninterrupted material flow.

Moving Racks

The Moving Racks system is an advanced method of the goods-to-person principle and replaces or complements classic picking areas by transporting modular racks efficiently and sequentially from the storage locations to the picking workstations. Rack transport is carried out by mobile transport robots from SAFELOG. HÖRMANN Intralogistics Moving Racks can be used standalone or in combination with Auto-Store® or other storage systems.

AGVs for small parts

With its automated guided vehicles for small parts, HÖRMANN Intralogistics offers intelligent solutions to efficiently connect workstations and automate transport processes. The compact and precise vehicles transport smaller load carriers reliably and flexibly between storage, picking and production areas.

Thanks to its modular design and easy integration into existing systems, the solution adapts individually to your requirements.



Pick-by-Robot

Pick-by-Robot is an intelligent, AI-powered picking solution that automates the entire picking process. This solution is particularly suitable for high-throughput picking stations with a wide variety of items, perfectly suited for 24/7 operation. A flexible, fast and precise robot arm takes over the picking activities and adapts to a wide range of requirements, using different gripping tools.

Thanks to communication via our warehouse management system HiLIS, the system can be easily integrated into existing intralogistics processes. Pick-by-Robot is available independently or in combination with other storage and picking systems such as AutoStore® or AGVs.

Bin-in-Bin and Bin-out-Bin small load carrier picking

HÖRMANN Intralogistics is setting new standards in automation with its bin-in-bin and bin-out-bin small load carrier (SLC) picking solution. For the first time, complete SLCs can be stored and retrieved directly into AutoStore bins.

Through the use of advanced image processing technology, the entire process is precisely controlled. For fully automated picking, the bin-in-bin and bin-out-bin SLC picking solution can be combined with an AGV for the transport of goods.

The overall system can be flexibly adapted and seamlessly integrated into existing processes.



HiLIS WMS + MFS: The Beating Heart of Intralogistics Solutions



Our HiLIS Warehouse Management System (WMS) is the beating heart of all automatically and manually handled intralogistics processes in our material flow solutions. The high-performance software suite manages, controls and optimizes all intralogistics processes and material flows.



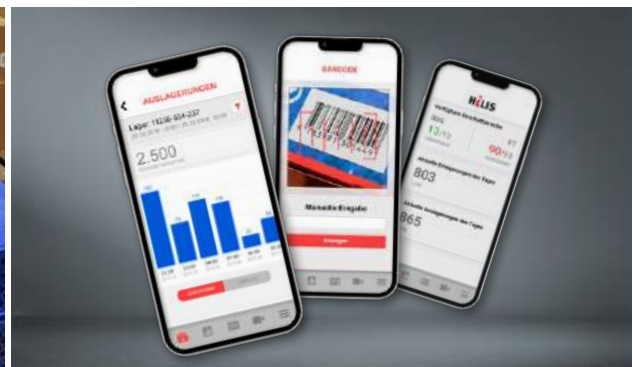
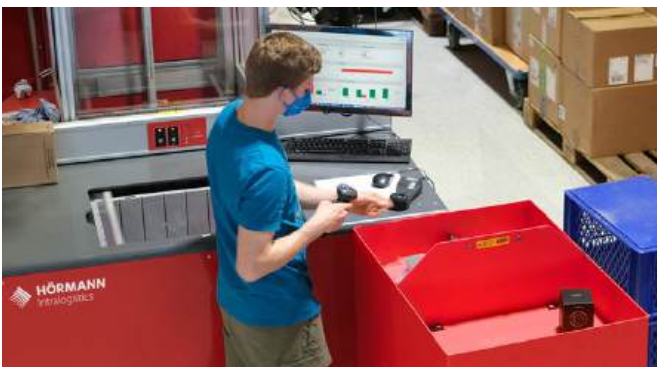


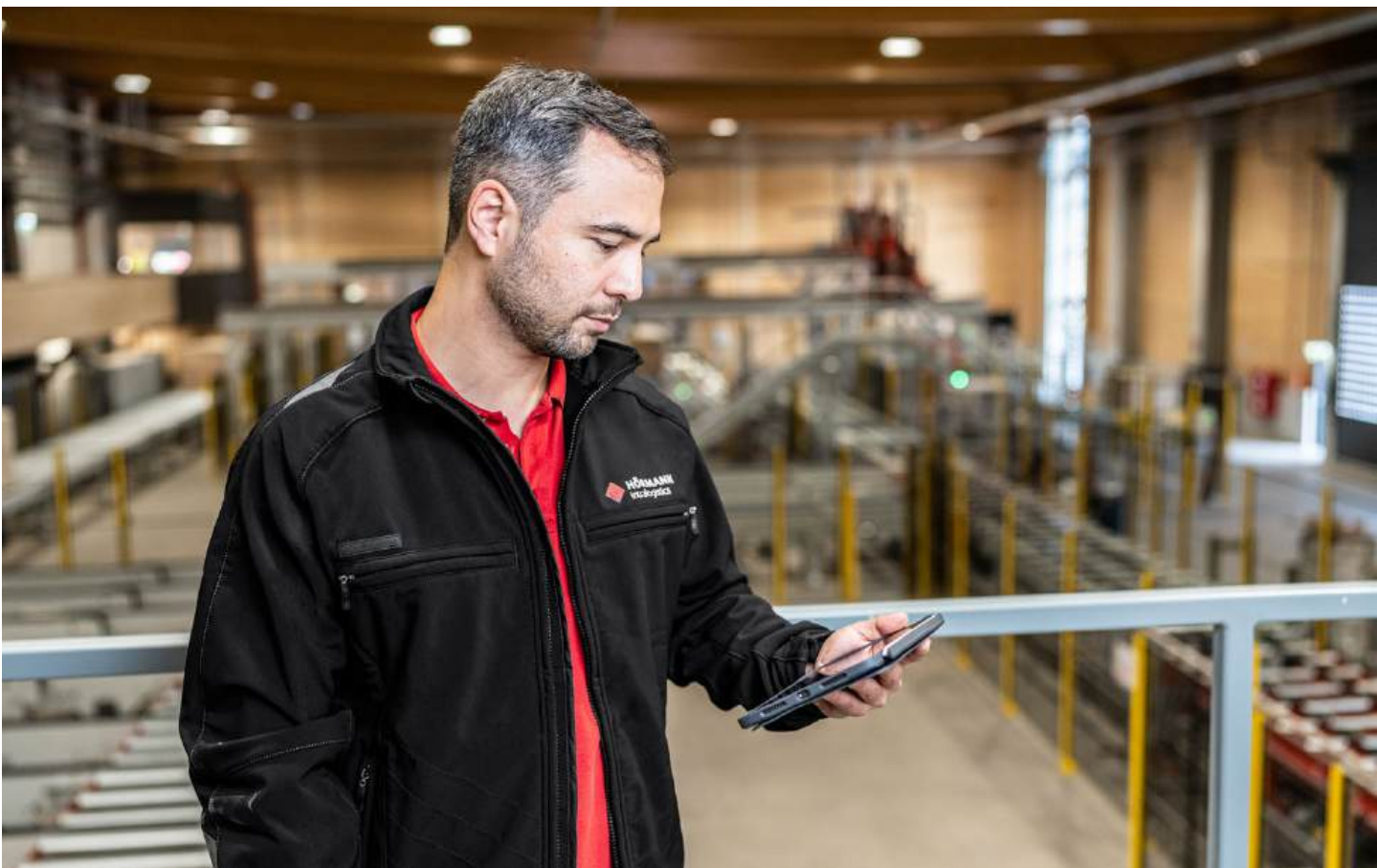
The HiLIS software suite maps all processes that are important for the intralogistics requirements of our customers. As the central brain of your warehouse, HiLIS manages, controls and optimizes the material and data flows. HiLIS visualizes these in a clean, structured fashion on a customizable user interface – from classic PC workstation to mobile app. Even complex customer-specific logistical processes can be optimized, controlled and monitored with our warehouse management system.

In addition, the modular structure allows tailor-made adaptation to your specific needs, which creates maximum flexibility and investment security.

HiLIS advantages

- ◆ Flexible connection to any ERP and production systems
- ◆ All functionalities of a modern WMS
- ◆ Mobile-responsive view
- ◆ Clean and ergonomic dashboard
- ◆ Material flow control and monitoring
- ◆ Integration of PLC systems
- ◆ Visualization
- ◆ Maximum system availability and flexibility
- ◆ Transparency and safety
- ◆ Scalable and future-proof





»With HiLIS, we offer our customers a flexible, tried and test and future-proof warehouse management system for tailor-made mapping and optimization of individual intralogistics processes.«

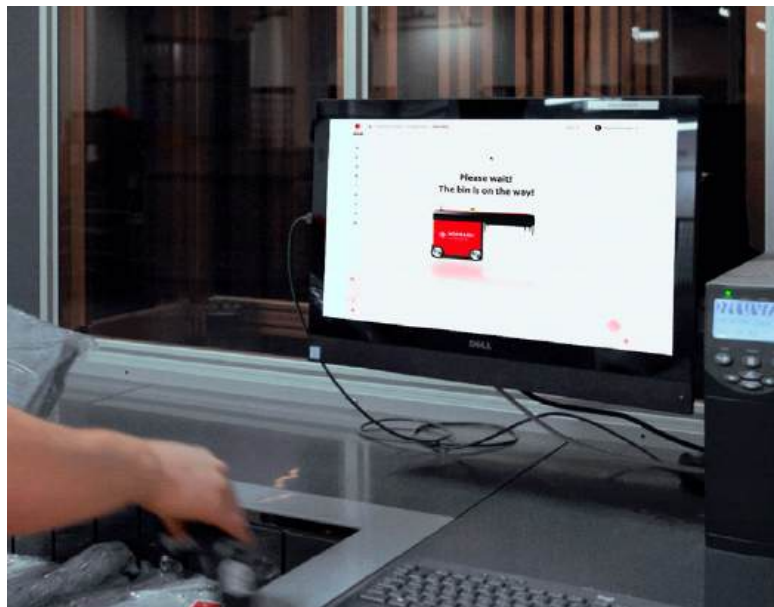
**PETER GIERLICH | HEAD OF IT SOLUTIONS,
HÖRMANN INTRALOGISTICS SOLUTIONS GMBH**

High performance and modular design

HiLIS stands for high-performance and flexible warehouse management. It centrally maps all sub-areas of intralogistics processes from incoming goods to outgoing goods in an optimally coordinated overall system without media and interface breaks.

HiLIS features

- ◆ Warehouse and inventory management
- ◆ Master control
- ◆ Goods receipt and putaway
- ◆ Order job control
- ◆ Replenishment and production supply processes
- ◆ Picking
- ◆ Consolidation and packaging
- ◆ Dispatch control
- ◆ Inventory
- ◆ Key performance indicators and reporting
- ◆ Material flow control





HÖRMANN
Klatt Conveyors

Tailor-made, innovative conveyor technology

With HÖRMANN Klatt Conveyors, we offer state-of-the-art conveyor technology solutions tailored to customer needs. Durability and cost-effectiveness are front and center. Years of experience, in-house, highly specialized pre-assembly and assembly as well as maintenance and service from a single source make HÖRMANN Klatt Conveyors a reliable partner for bin, container, pallet, stacking, baggage and special conveyor systems.

In order to transport bulky, sensitive goods safely and gently on the conveyor system, HÖRMANN Klatt Conveyors has developed an innovative modular belt conveyor technology made of high-quality, lubricating oil-free plastic with integrated transport rollers. Goods can be transported on it with and without loading equipment.





Lifetime services as a strong partner to the industry

Our HÖRMANN Intralogistics Services cover the entire life cycle of automated manufacturing and production facilities. From design, realization, assembly and commissioning of machines and systems to relocation or modernization of existing production plants. This also includes stand-in concepts, optimizations, maintenance and servicing of intralogistics systems.

The HÖRMANN Intralogistics service team is available around the clock, 365 days a year.

Through regular maintenance, system care and update service, we ensure maximum system availability. In the event of a malfunction, our hotline service provides immediate assistance and, if necessary, immediately dispatches a team of specialists. In our fault database, every hotline message is recorded immediately and can be viewed online by you at any time. Continuously drawing statistics and feedback, we are able to develop preventive measures for you.

Increased performance through modernization during ongoing operations

With the latest technology, even an aging automated warehouse can work efficiently and future-proof again. Since the various components of an intralogistics system have different life cycles, it is often worthwhile to take a critical look at control units and software. Our modular warehouse management system HILIS integrates easily into existing IT landscapes.

However, mechanical elements such as storage and retrieval machines, conveyor technology and rack elements can also significantly increase the efficiency of the entire storage system by modernizing or expanding them. As a general contractor, we make your intralogistics fit for the future.

Partner of the industry

We offer individual and competent solutions for industrial services from a single source. Our professional teams with many years of experience in the planning and production-related assembly sector know what really counts. From automation and control technology to machine technology and a wide range of industrial services, we offer a broad portfolio.



< More information
on our website

Thank you!

We owe our success story to our customers – here is an excerpt of our current projects.



KraussMaffei
Pioneering Plastics

Future-oriented timber intralogistics for Mayr-Melnhof Holz in Leoben, AT

The state-of-the-art intralogistics solution includes a 3-aisle high-bay warehouse as well as the connecting, custom, gentle modular belt conveyor technology for order-related sequencing, packaging, stacking and tour-appropriate provision with subsequent truck loading in the loading hall, which is semi-automatical as an industry-first.

The conveyor system transports the timber packages from the sorting and planing mill to the high-bay warehouse. Here, the timber packages are temporarily stored, either for truck loading to internal and external customers or to the cross-laminated timber plant for further processing.

For truck loading, the sawn timber packages are put together according to sequence and route, packed and stacked on request. A distribution wagon then transports the heavy-duty packages to the respective staging lane next to trailers in the loading hall.

Intelligent intralogistics strategies with the HiLIS product portfolio

Warehouse management, system control, system visualization and truck loading are carried out with the proven HÖRMANN Intralogistics HiLIS, which communicates with the customer system via an interface.

»The all-in-one concept of HÖRMANN Intralogistics has enabled us to revolutionize our logistics processes. The designed software control, sensor technology, innovative conveyor technology and seamless integration into our existing processes increase our efficiency and competitiveness. We are excited about the possibilities offered by this new facility.«

**STEFAN HIERZENBERGER | HEAD OF GROUP LOGISTICS,
MAYR-MELNHOF HOLZ**

Combined project of automated high-bay warehouse and AutoStore® system for iDM Energiesysteme GmbH in Matrei, AT

In the newly built iDM logistics center, HÖRMANN Intra-logistics installed an innovative AutoStore small parts warehouse with 16,000 bins, a new pallet high-bay warehouse with 9,324 storage spaces as well as the connecting conveyor technology and central picking workstations, which are served from both warehouse areas.

At the heart of the system is the HiLIS warehouse management system. The tailor-made application ensures that the requested goods from the a-synchronous, different storage areas come together smoothly at the picking station. HiLIS takes care of warehouse management, plant control and system visualization for both automatic and manual warehouses.

Clever intralogistics solution with AS/RS and APL for KraussMaffei Technologies

The order included a miniload warehouse (AS/RS) and an automated pallet warehouse (APW) with conveyor system connection, picking stations, tower storage for sequencing, complete automation technology as well as warehouse management and material flow control with SAP/EWM. At a total of nine goods-to-person picking stations, the items from AS/RS and APW are picked for assembly on an order-related basis. The finished picked goods per machine are then transported to the respective assembly station for assembly.

»As a leading ‚Pioneering Plastics‘ machine manufacturer, we had to meet the growing demand and make incoming and outgoing goods more efficient. The HÖRMANN Intralogistics project team was at our side at every stage of this demanding undertaking. Especially with the difficult supply chain situation in the pandemic years, they always found a solid solution.«

SIMON KALLER | PROJECT ENGINEER PROCESS EXCELLENCE, KRAUSSMAFFEI TECHNOLOGIES



HÖRMANN Intralogistics expands automation for Liebensteiner Kartonagenwerk GmbH in Plößberg

In continuation of the long-standing cooperation with Liebensteiner Kartonagenwerk GmbH, the automation at the Plößberg site has now been expanded. In 2010 and 2015, HÖRMANN Intralogistics already built a 5-aisle finished goods high-bay warehouse and a 3-aisle high-bay work-in-progress warehouse for Liebensteiner, which were equipped with the HiLIS WMS and a comprehensive system visualization. Now the degree of automation will be increased even further with the use of mobile robots.

The new project includes the automation of pallet transport between different picking zones, a new buffer warehouse and the existing high-bay warehouse using twelve automated guided vehicles (AGVs) from robotics pioneer SAFELOG. This further optimizes and accelerates logistics processes. Particularly noteworthy is the seamless integration of the new systems into the existing infrastructure, which has been running reliably with the HiLIS Warehouse Management System for years.

The mobile robot solution increases efficiency by handling transports fully automatically. The mobile robots ensure the transport of pallets between the various storage areas as well as the connection to the production stations, so that internal processes are significantly accelerated and simplified.

»The special challenges of our new material flow concept were mastered excellently by the HÖRMANN Intralogistics team. Now we are ready to take on the future.«

**BERNHARD SCHÖN | OWNER
AND MANAGING DIRECTOR,
LIEBENSTEINER KARTONAGENWERK**



Two Refrigerated and Room Temperature Micro Fulfillment Solutions for flaschenpost

With the first, innovative combined refrigeration and room temperature AutoStore® system in Langenfeld (Rhineland), HÖRMANN Intralogistics convinced those responsible for flaschenpost. For this purpose, the different temperature zones “Ambient” and “Chilled” were connected in such a way that dry and refrigerated goods can be picked from both systems for an order in parallel. The scope of supply also includes the complete housing of the chilled system as well as the cooling technology to operate the system at 2 °C. A specially adapted cooling system ensures minimal escape during operation and optimum energy efficiency. The successful cooperation prompted flaschenpost to order a second, identical micro-fulfillment system at another logistics location.



»The first positive experiences during implementation of the pilot plant in Langenfeld as well as the personal customer service encouraged us to order another plant with HÖRMANN Intralogistics within a year.«

**MARC SUCK | HEAD OF PROCESS
ENGINEERING, FLASCHENPOST SE**

»The new AutoStore® system makes our picking processes much more effective and our employees' work easier.

A win for the whole team.«

**MARKUS GIESSWEIN | OWNER,
GIESSWEIN WALKWAREN AG**

AutoStore warehouse with two expansions at Giesswein Walkwaren in Austria

Giesswein Walkwaren AG is a Tyrolean family business in the third generation. With special know-how and a holistic approach, the company has developed into Europe's leading manufacturer of clothing made of 100% virgin wool. At the Brixlegg site, HÖRMANN Intralogistics implemented a tailor-made AutoStore system as a finished goods warehouse in an existing warehouse to support the constantly growing online shop business and stationary trade.

With the second expansion, 200 storage positions and 1,560 picks per hour can be carried out on a total of 6 carousel and 3 conveyor ports. The 17,500 bins in the standard format 649 mm x 449 mm x 330 mm (L x W x H) each allow a payload of approx. 30 kg. 51 robots supply the workstation modules, for whose ongoing charging process a total of 39 charging stations are available at the edge of the grid.

Another special feature is the AutoStore Port located in the Giesswein Walkwaren Shop, which allows direct access to the warehouse.



At Your Side Across Europe



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