



SSI SCHAEFER – Your Strong Logistics Partner

Future-proof logistics solutions should integrate seamlessly into your individual processes, be modular and upgradeable, and adapt flexibly to new conditions. For this, you need specialists who think in terms of systems rather than individual services.

All-in-one solutions from a single source

Our wide range of products and services forms the basis of industry-specific solutions that we can tailor to your needs. With such a portfolio, our experts can provide bespoke solutions that cover all areas of your internal material flow. Our customers benefit from the fact that we make all of the SSI SCHAEFER Group's components ourselves. Having more than 10,000 employees globally makes us a strong and reliable partner.

At SSI SCHAEFER, holistic thinking has been the key to our success for many decades. As a global general contractor, we implement complete logistics systems. Our team of consultants provide comprehensive system planning and project management services, which are certified by the International Project Management Association (IPMA). This approach enables us to provide turn-key systems with tailored service and maintenance packages. Upon request, we can also plan and build your project with our in-house construction department.

Dedication and commitment

If you know anything about SSI SCHAEFER, you will be aware that we put our customers at the center of everything we do.

This includes the obligation:

- to always provide the optimum solution
- to always be there for our customers
- to always keep our word

You can expect us to be fully dedicated to your concerns. Whether it be the devotion that our employees give to developing new solutions or the all round service we ensure during the life cycle of your systems, we will always be by your side, no matter where you are in the world. As a family company, we always think of the future and plan for the long term.

A Solution for Every Industry

Same-day delivery and shop-friendly delivery, e-commerce, omnichanneling, efficient production line provisioning - the increased requirements on modern intralogistics can only be tackled with efficient processes, an individually tailored degree of automation as well as specific industry know-how.

Intelligent, interconnected intralogistics with high-performance information technology play a key role in the future viability of your company. Also of critical importance is the industry-specific experience of your intralogistics partner. Our specialists work on this basis to analyze your intralogistics processes and then automate, optimize your processes using our software solutions.

While the challenges for internal material flows may be identical across sectors, the solution strategies will vary widely and will come down to specifics.

For this reason, SSI SCHAEFER has specialized in six market sectors, in which we bring together specific expertise:



Food retail

Manual, semi-automatic and fully automatic storage solutions for customers who store and distribute foodstuffs. Delivering to wholesalers, businesses or via e-commerce channels. Warehouses usually have different cold zones.



Food & beverage

Storage and picking solutions for drinks, foodstuffs/confectionery, frozen foods, dairy products.



Retail & wholesale

Solutions for companies whose business is the temporary storage and resale of mainly non-food products to retailers or end customers. Depending on the submarket sector in question, the full range of SSI SCHAEFER products may be deployed.



Healthcare & cosmetics

Warehouse solutions for the healthcare and cosmetics industry. Delivering primarily to pharmacies, cosmetics companies and e-commerce customers.



Fashion

All customers who trade in or produce fashion articles. Goods may be transported and stored flat, hanging or packed.



Industry

Automated warehouse and transport solutions in the industrial sector. Target customers are manufacturers in the fields of machine, plant, and automotive engineering. Solutions extend from warehouse logistics in a production environment and spare parts logistics to the use of robots and automated guided vehicles.

Experienced teams with comprehensive specialized knowledge speak the language of your industry; they understand the challenges and use this know-how to develop customized solutions. As a result, you can be sure you are benefiting from the very latest intralogistics and application know-how for your project.





Solutions to Suit Your Taste

The food retail trade comes up with some demanding requirements for intralogistics specialists. Technical developments are advancing all the time, with new challenges for large chains from the rapidly growing online grocery trade. SSI SCHAEFER provides flexible, scalable, modular solutions that have proven themselves time and again in practice.

The food retail trade has been subject to evolutionary development for some time now, with a key focus on continuous optimization of logistics networks. SSI SCHAEFER sets the benchmark for manual, semi-automated and fully automated intralogistics solutions for the restocking of branches at early stage.

The growth of the online grocery trade brings new logistics challenges for food retailers. SSI SCHAEFER is able to provide scalable solutions here too, which enable both established retail chains and aspiring start-ups to efficiently serve this new market - from incoming goods and on to the customer's front door.



Challenges for intralogistics

Chain stores

- The "perfect" pallet store-friendly, volume-optimized or maximum stability, depending on the transport route requirements and branch requirements
- Efficient warehousing and picking from a large assortment, distributed across different temperature zones
- A multiplicity of different packaging units
- Reliable tracking of best before date and batches
- Efficient handling of large volume flows

e-Grocery

- Efficient and ergonomic picking of numerous small jobs
- Short order lead times
- Short delivery time slots
- Intense outbound delivery peaks
- Scheduling for an efficient "last mile"
- High degree of flexibility and scalability to operate in a rapidly growing business area

Solutions from SSI SCHAEFER

- Individually tailored, modular warehouse, picking and transport systems, from the high bay warehouse to automated guided vehicles
- Automatic handling of different article units such as cartons, bins, PET and glass bottles as well as shrink-wrapped items
- Efficient shipping buffer
- Web-based visualization and dashboards with standard and customer-specific KPIs
- Ergonomic work stations
- WAMAS and SAP software solutions for manual, semi-automated or fully automated warehouses



Customized solution for absolute sequence

As a general contractor, SSI SCHAEFER is responsible for developing the logistics concept, the design planning, and the construction of the turn-key installation for the retail company ASKO. The overall project includes a comprehensive infrastructure with material flow management, visualization, and a warehouse management system. The highly automated distribution center is separated into two different temperature zones: Ambient and deep-freeze.

The SSI Case Picking solution ensures the automated compliation of store-friendly packed pallets. Material flows and order management are coordinated by the logistics software WAMAS from SSI SCHAEFER.





Refreshingly Efficient

The productivity demands on the food and drinks industry have grown significantly over recent years. An increasing diversity of products and continuous innovation in packagings make handling in conventional block warehouses uneconomic. This increases the need for efficient warehouse and picking solutions.

Challenges for intralogistics

- Compact, highly dynamic storage of raw materials and supplies as well as finished goods
- Tour-specific staging of full pallets and picked pallets in the right sequence for rapid dispatch by HGV
- Shift from "full pallet handling" towards mixed pallets made up of cases and individual products
- Traceability and secure processes
- More outbound deliveries due to smaller, more frequent customer orders

- Price pressure and time to deliver
- Green Logistics
- Work station ergonomics for picking

SSI SCHAEFER offers flexible and scalabe solutions, from the first idea to turnkey overall systems, to considerably increase efficiency and productivity. Any temperature range can be covered.



- Mobile racks, channel storage and standard rack systems
- Storage systems with storage and retrieval machines and shuttle
- Pallet conveying system, rail-guided vehicle and electric monorail systems, as well as automated guided vehicles
- Picking systems from manual to fully automatic
- Container handling with robots
- Automatic picking with articulated or gantry robots
- Static or dynamic pallet layers
- Empties detection
- WAMAS and SAP software solutions

The software we deliver will grow with your manual, semi-automated or fully automated warehouse.

RheinfelsQuellen: Start of a new era of logistics



By establishing a leading-edge logistics system at the production location in Duisburg-Walsum, SSI SCHAEFER has elevated the intralogistics processes as well as the entire empties management to a new level for the beverage manufacturer.

A fully automated high-bay warehouse, an intelligent and forward-looking material flow control, the use of state-of-the-art algorithms for empties supply, and the use of a range of different warehouse and transport technologies have resulted in a significant increase in efficiency, ensuring maximum cost effectiveness even during seasonal peak periods.



Acting in Your Best Interests

The traditional distinction between in-store and mail-order sales channels is increasingly disappearing. In many sectors, this has since morphed into an omnichannel model. Customers can now buy at any time and from anywhere, whether by going to a shop as in the past or shopping online. Customers expect fast, correct delivery of their goods, whether it's to their home or a pick-up point.

Challenges for intralogistics

- Ever shorter delivery times (same-day/next-day delivery)
- Smaller delivered quantities and fewer units
- Increasing number of items
- Increasing returns rate
- Seasonal variations
- Sales promotions like Black Friday, Cyber Week, Singles Day, etc.
- Omnichanneling with different order types in one distribution center

SSI SCHAEFER deploys a comprehensive product and solution portfolio and a high level of IT expertise to produce customized and efficient solutions that meet the multiplicity of requirements in the retail & wholesale market sector.

Solutions that are tailored to the particular sub-market sector, from furniture, electrical and electronic goods or office supplies through do-it-yourself, hardware and every kind of spare parts retailer to online retailers.



Solutions from SSI SCHAEFER

- Manual, semi-automated or fully automated picking systems
- Ergonomic work station systems
- Bins, containers, trays
- Efficient returns handling
- Waveless picking every incoming order can be instantly triggered in the picking process
- Single and multi-stage picking
- Picking different packaging units, e.g. cartons and pallets for B2B, individual pieces for B2C
- Robots and automated guided vehicles
- Process and IT solutions, including for temporary work stations during peak periods
- WAMAS and SAP software solutions for manual, semi-automated or fully automated warehouses

JYSK: Intelligent material low concepts for logistics centers

SSI SCHAEFER is a long-standing partner f the Danish furniture retailer, JYSK. The company is one of Europe's market leaders for bedroom, bathroom and living room articles. SSI SCHAEFER has implemented distribution centers in Poland, Sweden and Denmark. In Uldum, Denmark, SSI SCHAEFER set up three connected high-bay warehouses, two miniload systems, and ergonomic work stations along with an optimally customized logistics software that ensures that all of the processes in the distribution center run efficiently.

The company also assigned SSI SCHAEFER the task of expanding the distribution center. The fourth high-bay warehouse is distinguished by its higher capacity and improved efficiency. Energy-eficient SSI Exyz storage and retrieval machines are utilized to store and retrieve the pallets. In addition, SSI SCHAEFER also optimized the material flow between the four high-bay warehouses and converted the JYSK systems over to the logistics software WAMAS.





The Recipe for Ultimate Efficiency

Sensitive products, end-to-end documentation and complex framework conditions set extremely demanding requirements on the intralogistics of manufacturers and distributors in the healthcare & cosmetics industry. Decreasing availability requires more frequent deliveries, even of smaller quantities. Customer expectations and wishes, for example for faster delivery, including for late incoming orders, increase the demands within the logistics chain.



Careful handling of products often plays a significant role in the cosmetics industry. No scratches or damage may be apparent on the packaging. Seasonal peaks also need to be covered as does the growing degree of omnichanneling. By contrast, extremely high picking performance at peak periods and a very high degree of reliability are requirements in the healthcare sector.

SSI SCHAEFER brings in-depth know-how and innovative technologies for the pharmaceutical and cosmetics supply chain. This includes manual, semi-automated or fully automated solutions.

Challenges for intralogistics

- High quality requirements and zero-error tolerance on the part of end customers
- Multiple deliveries per day lead to order peaks
- A multiplicity of product shapes places demanding requirements on handling
- Differentiation between OTC and RX pharmaceutical products
- End-to-end traceability for quality assurance
- Validation and certification of software solutions (GDP, GMP)
- Integration of value added services
- Batch picking and sorting for mail-order pharmacies

Solutions from SSI SCHAEFER

- Manual, semi-automated or fully automated picking systems
- Broad product range for goods-to-person systems
- Seamless product and order verification
- Handling systems for rapid and efficient material flow
- Automated guided vehicles and robots both for picking and pallet formation

- Bins, containers, trays
- Serial number tracking using automatic data capture for individual items
- Expiry date checking by means of continuous warehouse stock verification and automatic early identification of when expiry date is approaching
- WAMAS and SAP software solutions for manual, semi-automated or fully automated warehouses

100% order verification for North American retail pharmacy

SSI SCHAEFER implemented a highly innovative material handling solution to ensure 100% accuracy in prescription and order fulfillment. The retail pharmacy needed not only a flawless picking solution, but also an automated solution that would work with limited personnel even during peak volumes. The stringent logistics requirements were optimized and implemented

with a combination of proven storage and picking systems with state-of-the-art robotics and data capture technology. The entire system is controlled and administered by the logistics software WAMAS. The logistics dashboard WAMAS Control Center is making operating processes transparent and visible.



The Right Collection for the Fashion Industry

Permanent availability of goods and fast delivery have helped to drive the rapid growth in the fashion trade in recent years. The convenience of trying something on in front of your own mirror, free returns and low prices brought about by ruthless competition have placed demanding requirements on internal material flows for producers and manufacturers.



boohoo

State-of-the-art DC for online fashion retailer

The solution in Sheffield, UK, includes a shuttle warehouse with more than 550,000 bin locations and the dynamic SSI Carrier pouch sorter which stores up to 150,000 returns and fast-moving items with a throughput of 40,000 items/h. The WAMAS logistics software ensures efficient processes and the 24/7 SSI Resident Maintenance® service package guarantees maximum system availability.

Challenges for intralogistics

Especially when several sales channels are being operated, the complexity of logistics processes can only grow, since customers expect not only low prices, but also top service. What is needed are solutions that fulfill a whole series of requirements:

- Storage of a broad product range
- Rapid dispatch on receipt of order
- Efficient handling of daily and seasonal peaks
- Optimized returns handling
- Efficient execution of very small jobs
- Minimization of product touches
- Shop-friendly delivery
- Customized IT systems

Solutions from SSI SCHAEFER

- Overhead conveying system with RFID-compatible carriers
- Handling of individual items instead of entire cartons
- Automatic buffering and sequencing
- Innovative storage systems
- Automated guided vehicles
- Intelligent conveying system
- Automated and manual picking systems
- WAMAS and SAP software solutions for manual, semi- or fully automated warehouses

In order to fulfill these complex requirements, SSI SCHAEFER developed a system module with intralogistics solutions for the fashion industry.





Keeping Your Production Line Moving

The material flow in warehouses supplying production lines increasingly demands integrated solutions, from manual and semi-automated to fully automated processes.

Raw materials and production materials are accepted into incoming goods, buffered, prepared and delivered to the production location or assembly work station just-in-time or just-in-sequence.

Challenges for intralogistics

- Automotive: Special solutions for the automation of just-in-time and just-in-sequence production and assembly provisioning
- Chemical Industry: Storage of hazardous substances on pallets and transport across different temperature ranges with special requirements
- Pulp & Paper: Heavy-duty loads, large volumes
- Mechanical Engineering: Complex processes and demanding work station design

Finished products often have to be sequenced and sent to outgoing goods, where they are readied for dispatch. Moreover, all products must be traceable across the entire supply chain.

IT plays a central role. SSI SCHAEFER develops solutions that cater to your needs based on our WAMAS software or SAP. We offer the full range, from warehouse management to material flow control. Visualizing your KPIs in dashboards makes the optimization of your system more efficient and transparent.



Solutions from SSI SCHAEFER

- Rack systems and bins
- Pallet warehouse and automated small-parts warehouse
- Storage and retrieval machines and shuttle systems
- Picking systems
- Sequencing systems
- Automatic palletising and depalletising using robotics
- Conveying systems and automated guided vehicles
- Individual work station systems
- Mobile racks and storage lifts
- WAMAS and SAP software solutions for manual, semi- or fully automated warehouses

Schaeffler Group: European distribution center with state-of-the-art logistics solutions

As general contractor for intralogistics, SSI SCHAEFER implemented the new European distribution center in Kitzingen for the automotive and industrial supplier, which is one of the most modern logistics centers in Europe. SSI SCHAEFER implemented a 7-aisle high-bay warehouse, a 6-aisle automated small parts warehouse, innovative robotic technology, ergonomic workstations, comprehensive pallet and container conveyors and an electric floor track system. The WAMAS logistics software, which is connected to SAP EWM, controls the warehouse and conveyor technology.





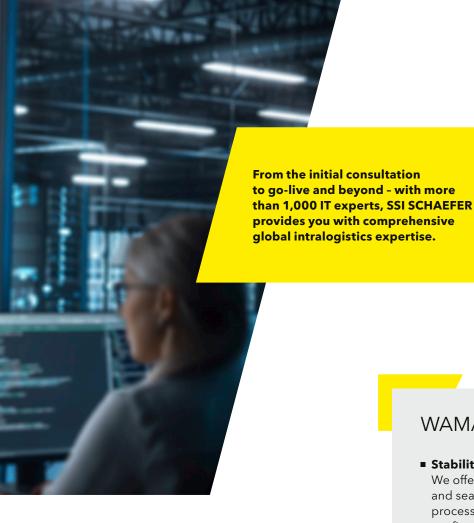
Software Solutions: The Driving Force for Consistently Synchronized Processes

Automation combined with the right software is the key to optimizing warehouse performance. SSI SCHAEFER is your global partner. We not only supply software and automation, but also have the global expertise to connect it all perfectly.

WAMAS logistics software

Our WAMAS logistics software guarantees intelligent solutions for the challenges of today and tomorrow. WAMAS encompasses around 30 years of expertise in the development and implementation of sustainable and scalable intralogistics solutions.

The logistics software can be seamlessly integrated into ERP systems, creating the perfect prerequisites for efficient control of all the logistics processes - from customer order to the PLC and mobile end devices in manual areas. The software grows with your requirements, supporting your company through any and all expansions.



Proven SAP competence

As a system provider, we are your trusted partner for the selection, implementation, ongoing maintenance and further development of SAP logistics solutions. Our broad range of consulting and implementation expertise is reflected in numerous international projects.

WAMAS benefits

■ Stability through standardization

We offer the highest software standards and seamless adaptation to your warehouse processes thanks to a multitude of configurations.

■ Seamless vertical integration

WAMAS can be directly integrated into the customer's existing systems, thus enabling efficient overall logistics control.

■ Future-proof

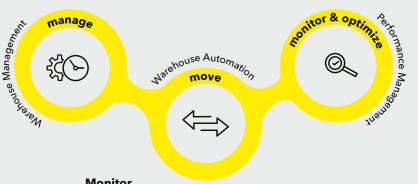
WAMAS grows with your requirements and is fully scalable to meet almost any growth in logistics volume. We protect your software investment through scalability and flexibility.



Manage

The state-of-the-art software controls and optimizes manual or highly complex automated processes based on the current daily orders.

Whether forklift transportation, conveyor technology, shuttles or AGVs - WAMAS integrates all components into a high-performance overall system.



Monitor

The central information platform WAMAS Control Center provides insights into warehouse operations in real time and constantly shows potential areas for improvement.





Optimize Processes and Save Costs: More Power Through Modernization

Increase the performance of your warehouse with new storage technologies and software releases.

Technology updates streamline warehouse and picking processes and reduces costs. This includes also updates to previous investments. It does not matter if you purchased an installation from us or from another provider.

We analyze your logistical situation together with you to increase sustainable performance and profitability. With our years of expertise, we advise you on areas for optimization and recommend customized solutions.

After preparing a return on investment analysis, we offer you:

- Optimization of organizational and warehouse processes
- Implementation of new picking methods
- Expansion to new warehouse areas
- Extension/modernization of mechanics, electrical engineering, control
- Software and hardware upgrading

Innovative Service Portfolio for Maximum Availability of all Systems

Once your system has been successfully commissioned, our experts will continue to support you. Our comprehensive service portfolio offers customized solutions for all requirements.

Preventive Services

- Maintenance
- Inspection
- Safety Inspection
- Rack Inspection
- Training and Certification
- System Monitoring
- System Security

Reactive Services

- 24/7 Technical Support
- Call Out Support
- SSI Augmented Support

Life Cycle Management

- Retrofit
- SMP
- Global Spare Parts Service

SSI SCHAEFER Maintenance Philosophy (SMP)

With our improved SSI Resident Maintenance® solution, we offer our customers "more than just service".

The SSI SCHAEFER Maintenance Philosophy is based on three core elements:

- Expert employees (SSI Resident Maintenance Team)
- Best-practice processes for technical maintenance and repair work
- Integrated service tools and systems



Six Reasonsfor Choosing SSI SCHAEFER

■ Stability

As a financially independent family business, SSI SCHAEFER is committed to long-term solutions. You can trust that our team of experts will be there for you today, tomorrow and in years to come.

■ Efficiency

SSI SCHAEFER solutions are scalable and able to grow with your business. You can always upgrade or retrofit.

Quality

As a systems specialist and original equipment manufacturer, SSI SCHAEFER provides tailor-made and high-quality solutions from a single source, specifically designed to meet your challenges.

■ Reliability

Thanks to our worldwide Customer Service & Support network, SSI SCHAEFER ensures smooth operation of your system, both during and after installation.

■ Know-how

SSI SCHAEFER solutions are always up-todate with the latest technological standards and can be easily integrated into an existing (IT) landscape.

■ Internationality

As a global organization, SSI SCHAEFER has local offices worldwide. With over 70 operative subsidiaries, our team of experts speak your language.

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