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INTRALOGISTICS
SOLUTIONS



A MEMBER OF THE KRONES GROUP



THE HEART OF
INTRALOGISTICS





THE COMPANY

ABOUT US

System Logistics is a global supplier of innovative intralogistics solutions designed to optimise warehouse supply chains, distribution centers and manufacturing facilities across the world. With a special focus on the food industry (beverage, food, grocery), System Logistics develops tailor-made solutions for warehouse automation and picking (order filling and consolidation), including stacker cranes, miniloads, Automated Guided Vehicles (AGV), handling systems, software and services.

The majority of the intralogistics solutions are designed, engineered, fabricated and installed entirely by System Logistics, who can therefore claim to have complete mastery of the supplied systems.

Thanks to the experience and deep knowledge of the business, System Logistics also offers its clients a comprehensive consulting service, ranging from data analysis, simulation, feasibility study, to full detail project planning.

System Logistics is part of Krones Group, the worldwide (market and technology) leader for the processing and packaging automation in food & beverage sector with a workforce of over 15,000 employees and a turnover of over 3.7 billion euro.

THE KRONES GROUP

Since April 2016 System Logistics is a member of the Krones Group, the worldwide (market and technology) leader for the processing and packaging automation in food & beverage sector.

THE ORGANIZATION

System Logistics is organized around its “heart” of technology/ manufacturing based in Fiorano Modenese, Italy. This is where our R&D for new products and services, engineering and design departments, procurement and production processes are housed. The Group’s departments staff are also housed in Fiorano (finance, accounting and control, human resources, computer services). System Logistics has established a number of local organizations in the main markets, which operate independently at the local level to develop customized solutions for their clients, handling orders, executing project implementation and aftersales services. The “Europe & Africa” is based in Fiorano Modenese (Italy), and has a company in Wackersdorf (Germany), dedicated to the DACH market, with 100 employees offering Engineering and Project management. The “Asia & Middle East” has offices in Bangkok while the “America” is headquartered in Arden, North Carolina (USA). In the United States, System Logistics Corporation has recently acquired Vertique, a leading player in the local food & beverage market.

THE STRATEGY

Over the last 10 years, System Logistics has focused and specialized on solutions for the food industry, especially beverage, and has grown to be acknowledged as the leading supplier to this market. The major names in the beverage industry entrusted and have relied on System Logistics for important installations in their plants around the world, from the United States to Latin America, Northern Europe to Spain, and from the Middle East to the Far East. System Logistics is currently expanding its expertise to FMCG industry (Fast-Moving Consumer Goods) and to the grocery.





Solutions

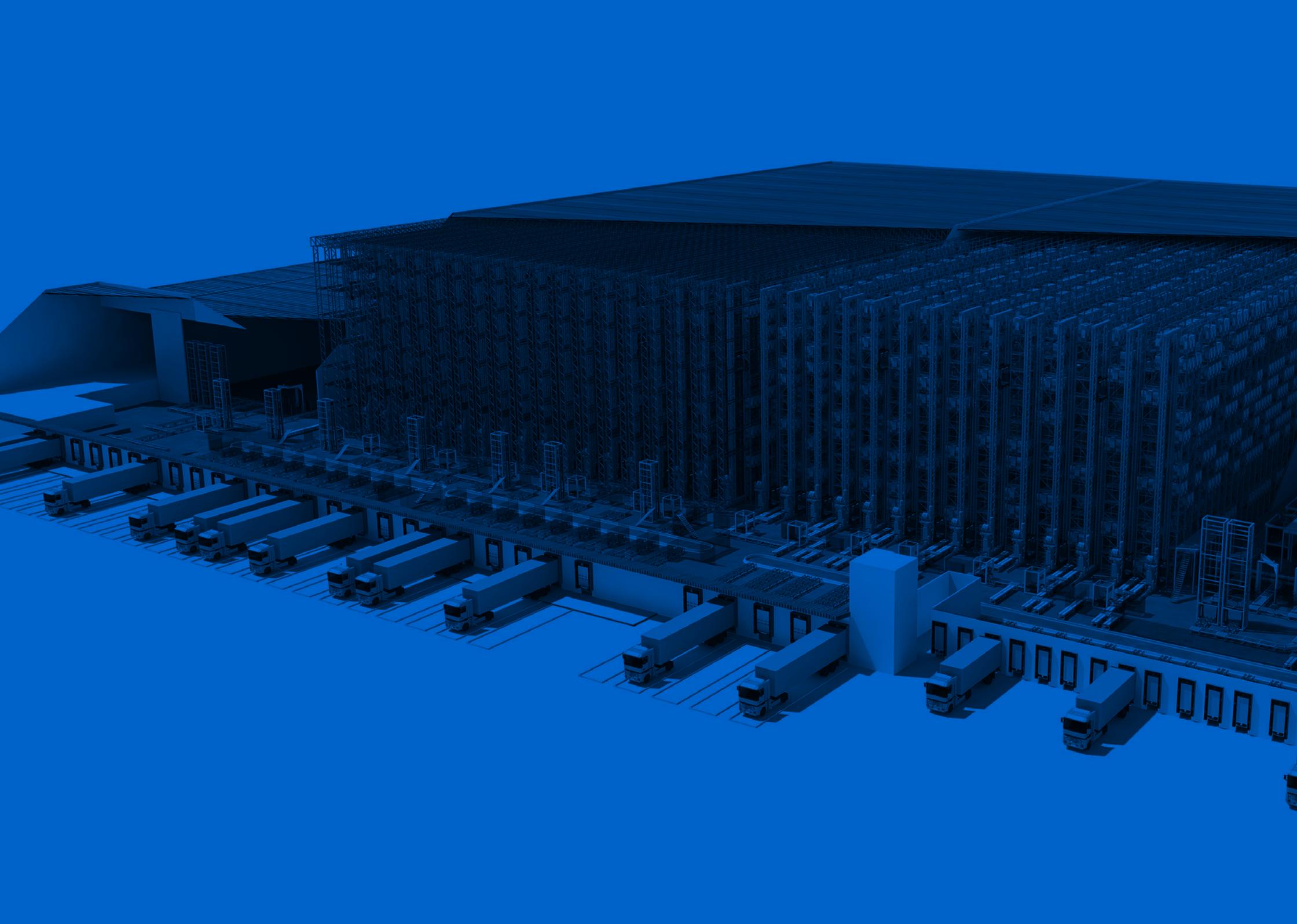
- › Automated storage & buffering
- › Automated picking solutions
- › Marshalling & JIT

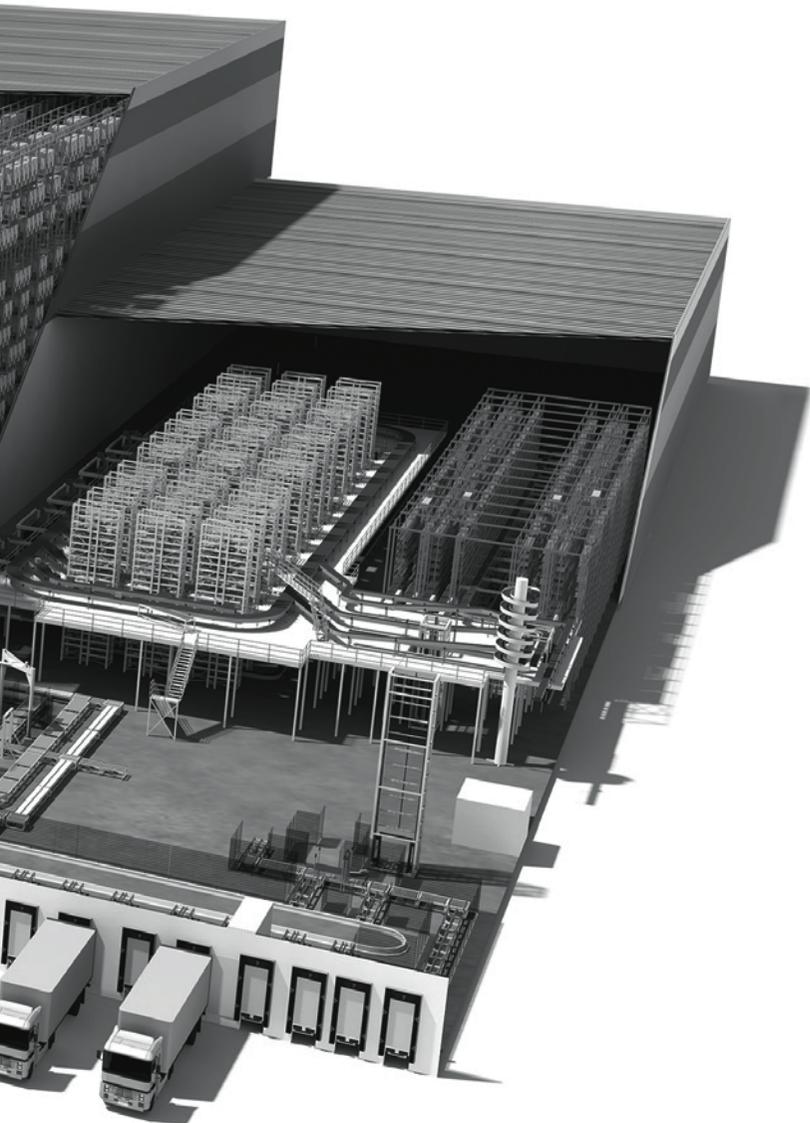
Products

- › AS/RS (Automated Storage/Retrieval Systems)
- › Material handling & AGV
- › Software

Services

- › Spare parts, 24/7, Control room
- › Maintenance packages
- › Modernization & training





AUTOMATED STORAGE & BUFFERING

Tailor-made solutions, suitable for any type of automated storage:

- › Raw material warehouses.
- › Intra-operational warehouses.
- › Finished product warehouses.

Large range of applications:

- › Storage of different types of load units: pallets, containers, boxes.
- › Storage in single, double or multiple depth.
- › Self-cladding or independent racks.
- › Frozen, air-conditioned or temperature controlled environments.

Easy interface and flexibility:

- › Integration with different picking and material handling systems.
- › Balancing of the level of automation with the investment budget.



AUTOMATED PICKING SOLUTIONS

System Logistics develops case picking solutions that meet market's needs in terms of deliveries (fast, frequent, and with an increasing number of SKUs), accuracy and cost-effectiveness.

Scalable and expandable, they fit to the right level of automation required by the customer.



FULLY AUTOMATED PICKING SOLUTIONS

MOPS™ - MODULAR ORDER PICKING SYSTEM

MOPS™ is ideal for case picking and for the automated preparation of mixed pallets.

It can be used with a moderate amount of SKUs in a high volume environment.

MOPS™ is composed of different modules:

- › Pallet descrambling: from full pallets into single cases.
- › Sequencing: cases ordering according to the composition of the order pallet.
- › Palletizing robots: automated composition of mixed pallets.
- › Systore: System Logistics property WMS (Warehouse Management Software) for the management of business rules and physical dynamics of all SKUs through the “Best fitting” algorithms.

APPS - AUTOMATIC PICK TO PALLET SYSTEM

APPS is ideal for low/medium picking complexity (n° of cases per SKU).

Main features are:

- › Robotic picking directly from SKU pallet to mixed pallet.
- › Use of Vision System to pick single cases from an existing layer. (suitable for single-case depalletizing tasks into a MOPS Solution).
- › Use of Best Fitting Software algorithm to build the most stable pallets.
- › Suitable for all types of beverage packages with embedded automated gripper change.

SEMI-AUTOMATED PICKING SOLUTIONS

SPL - STEADY PICKING LOCATION

SPL uses System Vehicle Loop (SVL) to deliver goods to picking areas. As a goods-to-man system, the pallets coming from the warehouse or from temporary stations are sequentially conveyed and sorted to the order picking areas according to FIFO/LIFO criteria, stacking classes, reverse picking systems, etc.

SPL is ideal in applications with medium picking volumes (less than 4,000 items per hour), 300 or more SKUs and orders of 8-10 items or more.

ARP - AUTOMATICALLY REFILLED PICKING

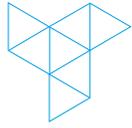
ARP is based on a pick to voice or pick to light system driving the operators along the aisles.

Customer's pallets are built by picking SKUs directly from the ground and ordered according to stacking possibilities or rotation class criteria. ARP is ideal for processing high volumes of orders, but with a limited number of SKUs.

It uses stacker cranes, pallet handling systems or AGV (directed by the WMS through Radio Frequency picking technology) to automatically replenish the supply of goods at picking stations.

PPS - PICK-TO-PALLET SYSTEM

PPS is based on a radio communication between WMS and operator, who prepares the customer pallet on its pallet truck by picking packages from the pallets stored in static positions and/or picking bays, with no need of connection to an automated storage system. The system is “automatically” configured according to the number of codes to be managed and their frequency of use. PPS is ideal where picking is particularly split (up to 10-12 items per order line).



MARSHALLING & JIT

ORDER CONSOLIDATION AND DESPATCH

Order consolidation systems combine material handling technologies which guarantee efficiency in the order preparation phase. Products coming from different storage areas and different preparation processes are routed to a single shipment and sequenced based on the unloading order, thus optimizing shipping management.

JUST-IN-TIME SYSTEMS (JIT)

Just-in-time systems are suitable for situations with high flows associated with a need for extensive pallet sorting in any order fulfillment operation. These handling solutions significantly reduce loading unit transfer times, a requirement for many order picking systems, especially automated order picking, and are essential for the “just-in-time” management of truck loading.





AS/RS

STACKER CRANES

Stacker cranes are designed for automated storage systems of medium and heavy loads in ambient, chilled and frozen temperature.

- › Loading units handled: pallets, metal or plastic cases, frames and more.
- › Load capacity: from 600 to 3000 kg.
- › Height: up to 36 meters.
- › Single or double mast.
- › Single or double pallet.
- › Maximum horizontal speed: up to 4 m/sec.
- › Load collection devices: telescopic, single or double-depth forks, multi-depth satellite trucks.

MINILOADS

Miniloads are ideal for handling light loads for different types of loading units.

- › Loading units handled: beverage packages, cardboard cases, plastic bins/totes, etc.
- › Maximum load capacity: up to 650 kg.
- › Height: from 7.5 meters up to 20.
- › Single or double mast.
- › Maximum horizontal speed: up to 5.5 m/sec.
- › Load collection devices: telescopic forks, grips or drives, etc.

FRS - FAST ROTATION STORAGE

FRS system is ideal both as production buffer before shipping and as high density storage solution. It is based on high speed linear shuttles combined with multi-depth satellite technology. It allows to achieve a very high throughput and storage capacity in a small volume.

VLS - VERTICAL LIFT SEQUENCER

VLS sequences single cases according to order building requirements. It is composed of a lifting beam technology, a bottom handling extractor and cantilever finger storage.

It can easily be implemented in groups or “blocks” to achieve rate and storage capacity requirements.



MATERIAL HANDLING & AGV

SVL - SYSTEM VEHICLE LOOP

SVL is a closed-circuit suitable for systems with high flows associated with a need for extensive pallet sorting.

It is composed of shuttles that travel on an inverted monorail loop.

SVL has a material handling and a pallet sorting function.

It can be placed between an AS/RS and the order picking bays, or between the order picking bays and the shipping area.

It reduces transfer times of unit loads, and is essential for the "just-in-time" management of truck loading.

PALLET CONVEYORS

Pallet conveyors provide a continuous flow of material and a universal interface to all kinds of material handling equipment and manual operations. They can easily and efficiently handle peaks in workloads and fluctuations in material flow.

AGV

AGV are autonomous vehicles for any kind of handling activity inside a factory.

They can connect production lines to the warehouse and dispatch areas, and are also suitable for many functions to service filling and packaging lines:

- › Supply and storage of packaging materials.
- › Recycling of material and removal of waste.
- › Storage and handling of format part, tools and machine modules.
- › Pallet storage & handling of full pallets and empty pallets.

They are able to handle different types and dimensions of unit loads (pallets, bins, etc.). They use a laser guidance system that can track and correct the vehicle position, and are very flexible in terms of route configuration and planning.





Pallet sano_layers_2

(Base Dimension: 900 x 1200)

Artículo: S17
Descripción: S17
Dimensiones: X: 210 Y: 240 Z: 200
Posición: X: 107 Y: 135 Z: 720
Rotación: 0



SOFTWARE

SYSTORE™ - MATERIAL HANDLING SOFTWARE

Systore™ is a WMS and WCS integrated framework for intra-logistics solutions management.

> WMS WAREHOUSE MANAGEMENT SYSTEM

Systore™ WMS is customized and user-friendly and easily interfaces with existing computer processing and ERP systems (e.g. SAP, Oracle, JD Edwards, Bann).

It can be accessed remotely via Internet.

It can be used for handling and tracking of incoming goods, optimization of movement flows and processes batch, order consolidation as well as storage allocation data, inventory checks and statistical analysis.

> WES WAREHOUSE EXECUTION SYSTEM

Systore™ WES is a software suite which synchronizes order fulfillment, material handling and shipping systems optimizing labor and equipment in the warehouse.

> BESTFIT™

BestFit™ is an algorithm which determines the best possible mixed pallet configuration, optimizing pallet volume and allowing different pallet building strategies (by column, layer, etc.)

> RADIO FREQUENCY

Radio Frequency technology allows the interface of SYSTORE™ with mobile devices (handheld and vehicle mounted).



AFTER-SALES SERVICES

System Logistics has developed a broad, flexible and well structured after-sales support programme that is easily customized to meet the specific needs of the operations.

> SPARE PARTS

An initial stock of spare parts is defined in advance so that spare parts can be available during the start-up of the system.

After commissioning, the Service Level Agreement (SLA) determines the immediate availability of parts.

> 24/7 HELP DESK

Our service engineers can connect straight to the customers to quickly follow up the enquiries; along with a spare parts package supplied with the equipment, 24/7 Help desk achieves virtually continuous operational readiness.

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> CONTROL ROOM

The control room consists of remote assistance through a remote video surveillance system. It can offer centralized support thanks to the permanent operator presence that allows to monitor and remotely activate the fault resolutions.







MAINTENANCE PACKAGES

PREVENTIVE MAINTENANCE

Thanks to regular checks on working systems, detailed reports are produced, giving recommendations for necessary adjustments or corrective actions.

MAINTENANCE MANAGEMENT SOFTWARE

Maintenance management software warns of any problems and makes recommendations about servicing and replacement of parts.

IT MAINTENANCE

System Logistics' IT maintenance contract guarantees that the system is always up-to-date with the latest versions of our software.



MODERNIZATION & TRAINING

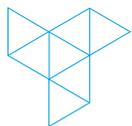
MODERNIZATION

Our systems are regularly analyzed in order to define areas in need of upgrades or modifications to improve warehouse management software, PLC, and electronics. The Customer Support team manages all after-market activities, including current systems expansions and enhancing or replacing of out-of-date technologies.

TRAINING

Our training programme includes both standard and customized courses that can be provided at customer's premises or at our factory. Classes are designed for logistics managers, warehouse supervisors, system operators and supervisors, maintenance technicians, and are structured around participants' existing knowledge.





OUR NETWORK

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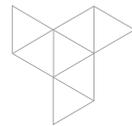
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