

aiut

WE INNOVATE TECHNOLOGY

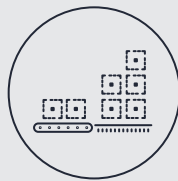
Automated storage and retrieval systems (ASRS)



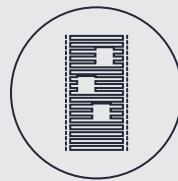
Technological progress has enabled the development of Automated Storage and Retrieval Systems (ASRS), which have revolutionized the functioning of warehouses and distribution centers. Companies want to constantly meet the growing volume of orders and meet high customer expectations. They are increasingly aware that in order to remain competitive in the market, they must strive for a fully automated warehouse model. Modern solutions enable them to enhance the efficiency of warehouse operations, free up warehouse space, and optimally utilize it to successfully fulfill a greater number of orders.



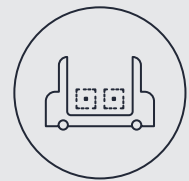
HIGH STORAGE WAREHOUSES



AUTOMATED BUFFER STORAGES



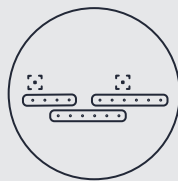
CONVEYOR SYSTEMS



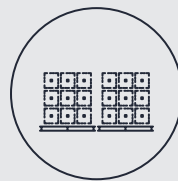
PALLET AND CONTAINER SHUTTLES



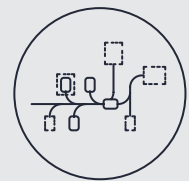
COOPERATING WAREHOUSE FACILITIES



SORTERS

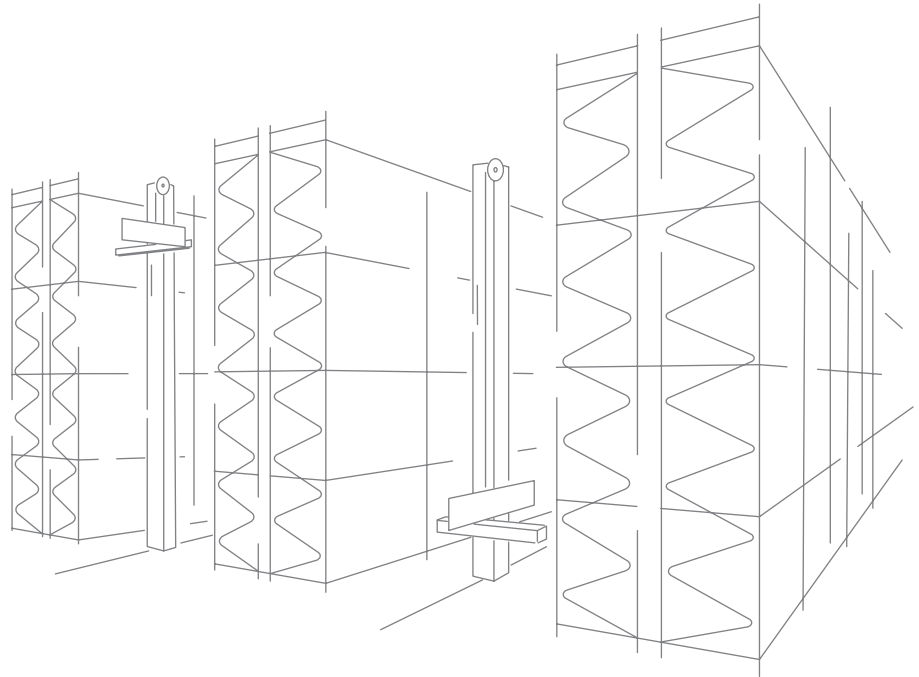


PALLETIZATION



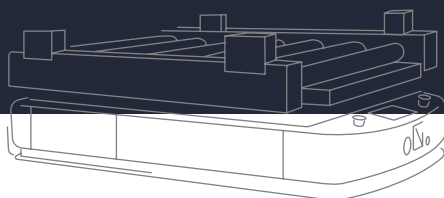
AUTONOMOUS MOBILE ROBOTS

Automated storage and retrieval systems (ASRS)

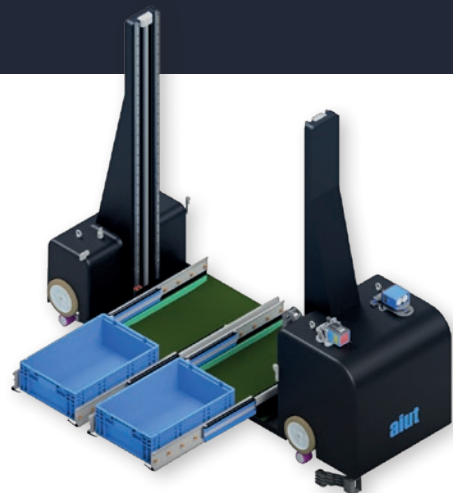


At AIUT, we co-create the latest trends in intralogistics. We are a leader among providers of advanced robotics and automation systems for global industrial markets. Our comprehensive solutions are tailored to client's needs, in order to achieve their goals and successes in the market together.

Mobile robots, conveyor systems, automatic sorters, and high storage systems that can reach over 40 meters in height, are just examples of intralogistics solutions that have become an integral part of warehouses and distribution centers today. Integration, customization, and utilization of these solutions to individual needs are key. Development, following new trends, and technological progress will ensure companies' high competitiveness and the ability to face new challenges.



Transforming manual warehouses into automated ones is the direction of the market. The basis for effective investment is the choice of the right technological partner.





EXPERIENCE

For over 30 years, we have been providing our customers with comprehensive solutions in the field of automation and robotization of processes. We know the needs of manufacturing companies as well as suppliers of equipment and systems necessary for production and logistics processes. We use only proven system components from the world's leading manufacturers. We professionally and quickly create modern warehouses tailored to individual requirements.

FLEXIBILITY

At AIUT, we focus on quality and reliability. We carefully select suppliers and solutions, offering each customer, a system tailored to their specific needs and requirements. We value challenges, including complex and unconventional projects. We carry out relocations, modernizations of warehouses, and are responsible for comprehensive construction of new automated logistics facilities.



IMPLEMENTATIONS

AIUT provides comprehensive equipment for companies, warehouses, and logistics centers with automated storage systems, order picking, and cargo transportation. We significantly improve intralogistics processes in the facilities of many market leaders. Our solutions have already been implemented at leading automotive manufacturers in e.g. Spain, France, Slovakia, Sweden and Germany.

What makes us stand out?

- Quality of modern technologies
- Competence developed through years of experience
- Customization for individual customer needs
- Implemented projects for leading European manufacturers
- Fully comprehensive and responsibility for implementations
- Reliability of the best system solutions and cooperation with reputable global suppliers
- Support at every stage of the investment
- Competitive prices of our solutions





Automated storage and retrieval systems

Our solutions

High storage warehouses

For efficient storage and retrieval of materials, pallets, and containers in warehouses and distribution centers, we employ advanced storage systems based on: pallet stacker cranes, miniloads, automated Pallet Shuttles systems, and our innovative solution of mini stacker cranes, which are dedicated to container handling for high-capacity systems. Our set of possible solutions also includes less typical systems, such as stacker cranes for transporting car bodies, large-volume storage, or other less typical materials or structures.

The experience, engineering expertise, flexible approach to project implementation, collaboration with manufacturers in the intralogistics industry, and the ability to design mechanical, electrical, and control systems are the distinguishing features that enable us to implement any ASRS solution. For example, these could include high-storage systems up to over 40 meters, solutions for freezers (-30°C), or automatic KLT container warehouses for fast-rotating products (e.g., 10,000 KLT per hour). The management systems provided by us significantly increase warehouse operation efficiency, while the designed solution allows for optimizing both production and supply chains, guaranteeing optimal space utilization.

Automated buffer storages

Automated manufacturing buffers and smooths out production in case of line stops and provide the possibility of product sequencing, particularly when there is a large variety of assortments. Also, they minimize the risk of downtime in just-in-time production and provide its greater flexibility.

Conveyor systems

We use conveyor transport systems for pallet transportation. The construction of such systems starts with a thorough analysis of the logistics chain, including the parameters of the transported objects. Depending on the needs of a particular plant, we design different types of conveyors: roller, chain, belt, and modular. Systems built with roller conveyors are used on sections of horizontal transport lines for picking or buffering pallets. Chain systems, on the other hand, are used where pallets must be transported laterally due to limited space. Belt conveyors are used where there is a difference in level and small items are transported. Conveyor modules can be mechanically driven or work with gravity. Roller and chain conveyors are most commonly used to transport pallets, while roller and belt conveyors are used for containers and cartons.



Collaborating warehouse facilities

In a warehouse designing, many cooperating devices are used to help streamline warehouse operations. These can include labelers, through-feed scales, automatic wrappers, strapping or stacking machines and a lot more.

Sorters

Automated sorters guarantee highly efficient and almost error-free segregation of items and parcels in a time incomparably shorter than during manual operations. Sorters can support companies at many points in production and logistics processes, including order picking or final sorting at parcel release. They are also used in the process of returning goods. When selecting sorters; we take into account the type of items to be sorted and the available space in the warehouse to optimally plan the physical flow of goods. Non-standard size, length or lack of packaging of goods that a company wants to segregate automatically is not a problem from our perspective, as we create a project for individual customer needs.

The solutions designed at AIUT, thanks to the traceability systems used, also allow tracking and full control of the sorting process. Errors in the sorting process are reduced by vision systems. Data from each stage of sorting goods are archived for future analysis and control, and photos taken of individual packages leaving the sorter allow full traceability of shipments and their condition at the time of release.

Palletization

We deliver comprehensive, automated palletizing systems tailored to the specific needs of the facility. We integrate central palletizing stations with load conveyors and other processes. Our implemented robotic delivery systems, based on Autonomous Mobile Robots (AMRs), ensure process repeatability, enhance quality, and improve the efficiency of loading and unloading operations for palletized goods. The company gains a smoother flow of warehouse goods and better control over inventory status and warehouse space.

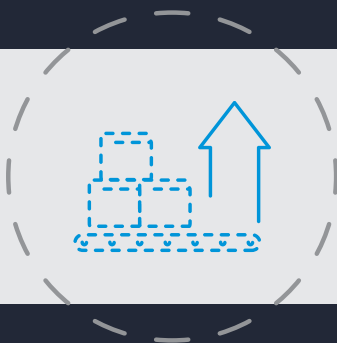
Autonomous mobile robots

Autonomous mobile robots AFORMIC F series provide efficient and unmanned cargo transportation. At the core of our intelligent intralogistics platform lies an advanced solution for managing logistic processes and fleet of mobile robots called Qursor. Our system enables the optimization of logistics processes in warehouses, distribution, and manufacturing plants. It allows to increase production efficiency, reduce operational costs, eliminate the risk of production downtime and collisions, as well as enhance workplace safety through real-time process monitoring capabilities.

Benefits of implementation ASRS

- speed and flawlessness in the execution of tasks
- increase the density of storage per unit area
- maintain consistency of supply and high productivity
- generate savings and minimize production costs
- improve security

Operation scenarios:



**Building new warehouse
from scratch – ASRS**

**Modernization
of warehouse**



**Relocation or expansion
of the warehouse with
the selection of modern solutions**



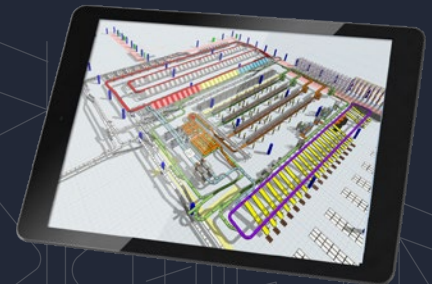
Method of project implementation

Evaluation and selection of warehouse automation and intralogistics systems

- Technical specifications
- Selection of stacker cranes, shuttles, and racks
- Selection of transportation systems and specialized equipment
- Project development of a comprehensive storage system

Virtual warehouse arrangement

- Simulations of real processes
- Analysis of transportation systems
- Virtual commissioning – elimination of disruptions right at the testing phase



Selection and implementation of a warehouse management system – WMS

- Automation of handling orders and deliveries
- Automatic picking of goods
- Real-time control – full diagnostics
- Communication with a third party system

Automated deliveries with AFORMIC F series fleet of autonomous mobile robots

- Robotized deliveries within the warehouse
- Automated transportation of heavy and large loads
- Safe collaboration between warehouse crews and robots in a shared space

Implementation

- Mechanical and electrical assembly and installation of the system
- Full commissioning of the systems
- Warranty and post-warranty support and service



AIUT

30+

years of experience

1000+

employees

700+

engineers

4500+

big projects

We are a leading provider of advanced robotics and automation systems for the global industrial and utility markets. AIUT combines engineering expertise and intelligent automation technologies, and provides solutions that improve manufacturing and intralogistics processes, allowing our customers to achieve even more benefits.



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Talk to our experts

Automated warehouses

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