

# AUTOMATED WAREHOUSES FROM TRANSSYSTEM GROUP

Also deep freeze



# Moving industries forward since 1991

## ABOUT US

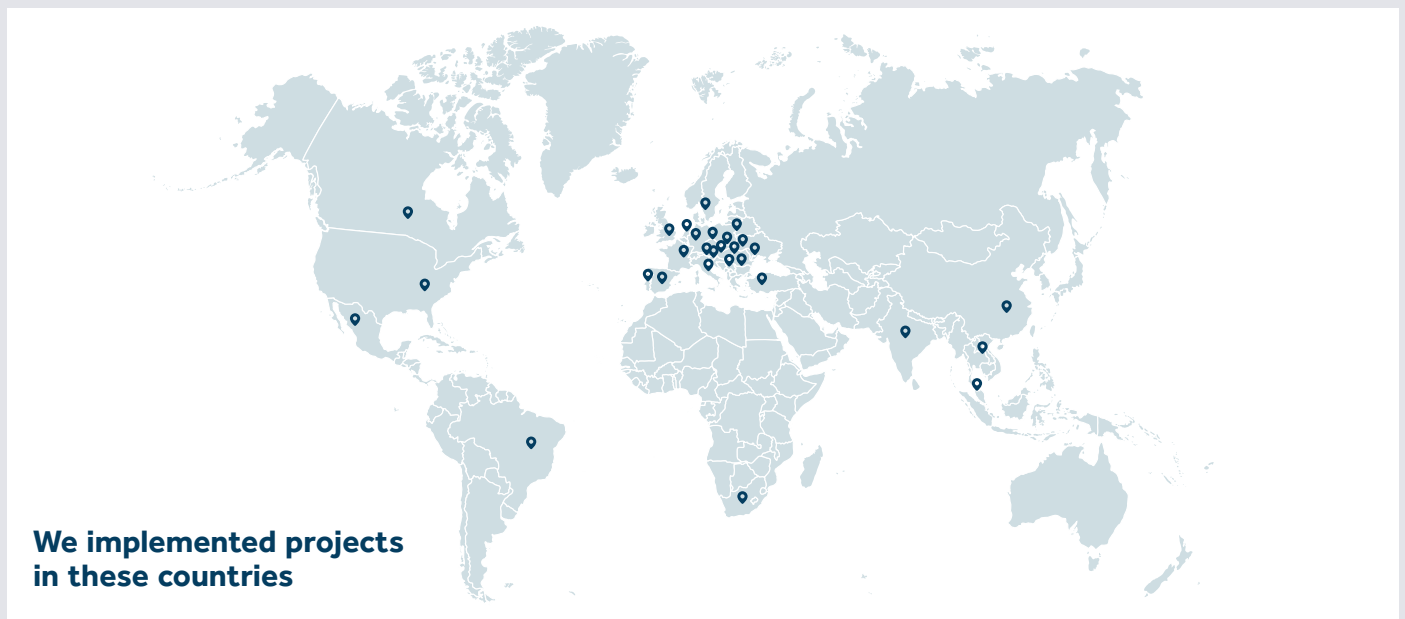
We specialize in technological solutions tailored to the individual needs of our clients.

We focus on the FMCG industry, intralogistics, handling systems in tire factories and steel structure production. Our primary business goal is to provide solutions to companies using automated handling systems in their production and logistics processes.

Headquarters: **Łańcut**  
Year of establishment: **1991**



**Our locations**



**We implemented projects in these countries**

# INTRODUCTION

Automation, which proved effective many years ago in repetitive production processes, has also entered the logistics industry, as only automated warehouse processes can ensure the desired flow of materials. Well-designed warehouse racks, high-speed elevators and conveyors, forklifts, and even mobile robots (AGVs) are now essential components only of a modern logistics system. However, meeting expected requires also the use of high-speed sorters, racking robots, automated forklifts, and so on, which together create an automated warehouse handling and retrieval system – in short: AS/RS.

Founded in 1991, the Polish company Transsystem SA, together with the Hungarian company Gamma Digital and partner companies, builds complete warehouses for the intralogistics industry, also offering fully automated and low-temperature (-25°C) versions for storing food, chemicals, and pharmaceuticals. As the Transsystem Group, we provide systems that meet all the requirements of modern, automated intralogistics:

**Receiving** products into storage locations

**Sorting** - automated systems for sorting materials delivered to the warehouse

**Storage** - stores products in bins, totes or on pallets

**Inventory management** - solutions offer an optimized inventory management structure and visibility

**Retrieval** - solution offer an automated retrieval of ordered products

**Delivery to goods-to-person (GTP) station** - eliminating the need for people to move around the warehouse to fulfill orders

In this type of warehouse, automated stacker cranes (SCRs) are integrated with conveyor and mobile handling systems to locate and retrieve goods on and off the racks. The entire process is managed by a proven master control system (WMS and/or MFC), which orders goods transfers according to the logic agreed upon with the facility user.

We implement turnkey projects, starting with design, simulation, and emulation of transfer processes, followed by manufacturing and assembly of components, and finally delivery to the installation site, assembly, and commissioning. Our projects are provided with ongoing technical support through continuous online access and analysis of the system's «digital twin.»

Based on a strategic partnership with company HAI Robotics, we offer automated warehouses equipped with mobile robots that climb racks and ensure the placement of goods at an incredibly high level of density.

The structures and handling equipment we manufacture are equipped with specialized components from recognized world leaders. Our extensive experience, well-thought-out solutions, high-quality components, and attention to quality workmanship and assembly are arguments that have convinced many of our clients. We have completed many projects, and our users recommend us to future investors – this proves the attractiveness of our solutions .

We invite anyone interested in building handling systems or fully automated warehouses for any product range and type of packaging to contact us.



Poland



Hungary



USA

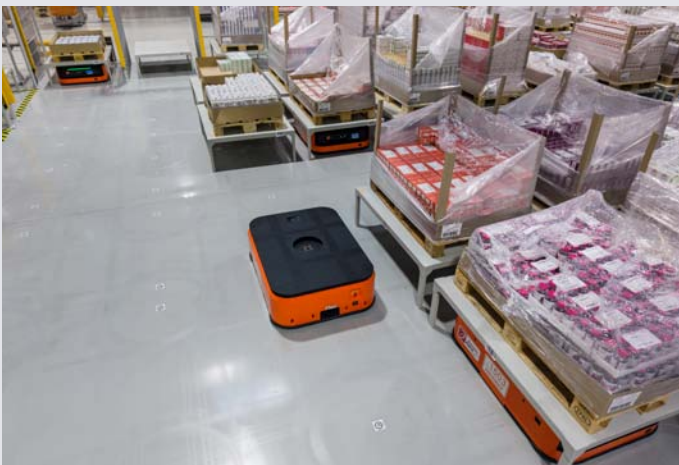
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## Logistics Centers

Examples of logistics **center projects** where all handling processes for goods in standard packaging or goods with defined shapes (e.g., tires) are automated.

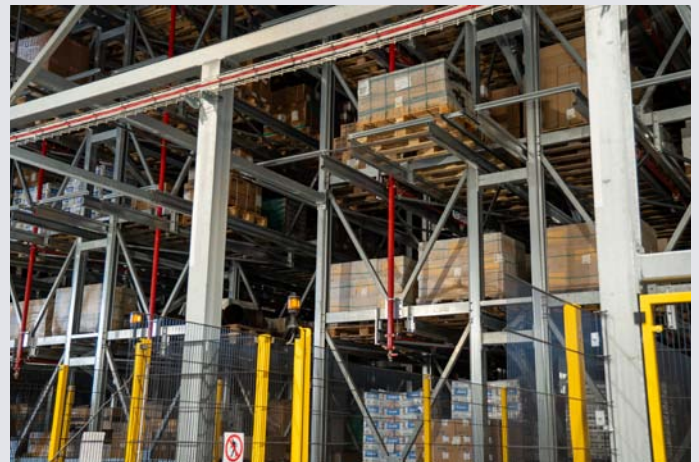
The scope of implementation includes:

- Design of all material handling processes according to the investor's specifications.
- Confirmation of compliance with specifications through simulations and emulations.
- Fabrication and installation of all necessary equipment, such as conveyors, elevators, manipulators, and sorters.
- Delivery, assembly, and commissioning of equipment.
- Staff training.
- Warranty and post-warranty service.



## An example of the implementation of a fully automated pallet warehouse

In an automated warehouse, goods placed on pallets weighing up to 2 tons are delivered via roller conveyors with directional manipulators. The conveyors deliver the pallets to monorail stacker cranes, which place them in designated storage locations in double-row racks. Goods are also retrieved from the racks using stacker cranes, which place the retrieved pallets on roller conveyors, which then deliver them to the delivery station. From there, the pallets are distributed to designated delivery locations using self-propelled forklifts. The entire pallet delivery and collection cycle is fully automated – without human intervention.

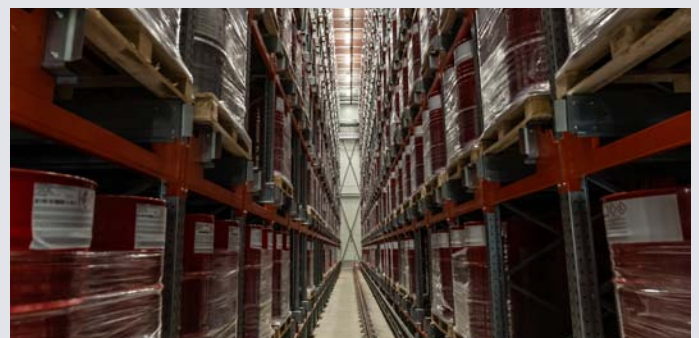
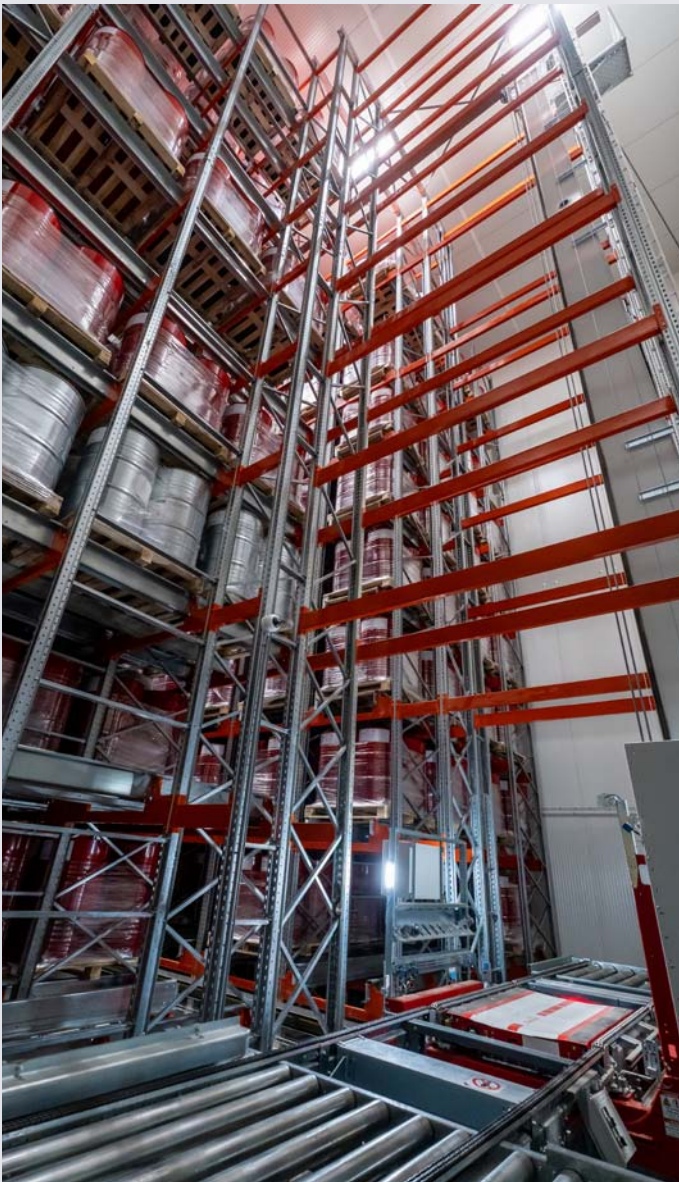


## Example of an automated warehouse designed for extremely low temperatures: -25°C

Certain types of food, medicines, and chemicals require storage at extremely low temperatures, around -25°C. These types of warehouses allow for the storage of goods in conditions that are practically impossible for human operation and require the use of proven solutions and technologically advanced components. While downtime in standard automated warehouses due to equipment failures generates predictable losses and requires standard maintenance, downtime and maintenance in frozen warehouses pose an incomparably more serious problem. Therefore, only companies with high competence and extensive experience can undertake such projects.

Here's our example of an automated pallet warehouse for chemicals stored in steel drums. Ambient temperatures: one area -20°C and one area -25°C. Due to the height of the racks and the weight of a single pallet containing four drums of liquids, loading and unloading cannot be accomplished without the use of automated stacker cranes, meaning their availability must be nearly 100%.

Due to the prevailing conditions, staff can continuously monitor the situation inside the warehouse thanks to full visualization of handling processes and a system of specialized cameras.



## ASRS warehouses

In the field of automated storage and retrieval systems (ASRS) with functions such as „goods-to-person” or „material-to-line,” we present a project based on solutions from HAI ROBOTICS, with whom we have a strategic business partnership. This agreement allows us to jointly offer warehouse systems incorporating the latest technical solutions, enabling the transfer and storage of goods in virtually all types of standard packaging. Hai Robotics is a leading global supplier of automated storage and retrieval systems (ASRS), providing unparalleled flexibility and maximizing operational efficiency for any type of facility.

The use of innovative mobile robots capable of moving both horizontally on flat surfaces and vertically across racks enables performance unattainable with standard stacker cranes.

Examples of the benefits of the HAI Robotics system:

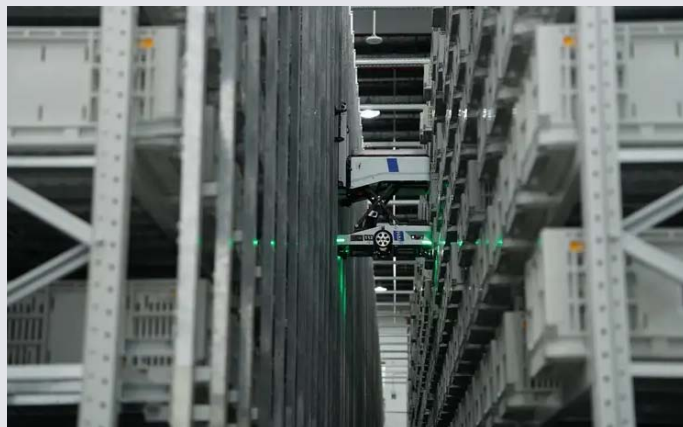
**Up to 6x** operational efficiency

**Up to 12 m** of vertical storage

**Up to 67%** labor cost savings

**Up to 5x** greater storage density and reduced warehouse space

**Up to 6x** higher automatic picking efficiency than traditional picking





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