



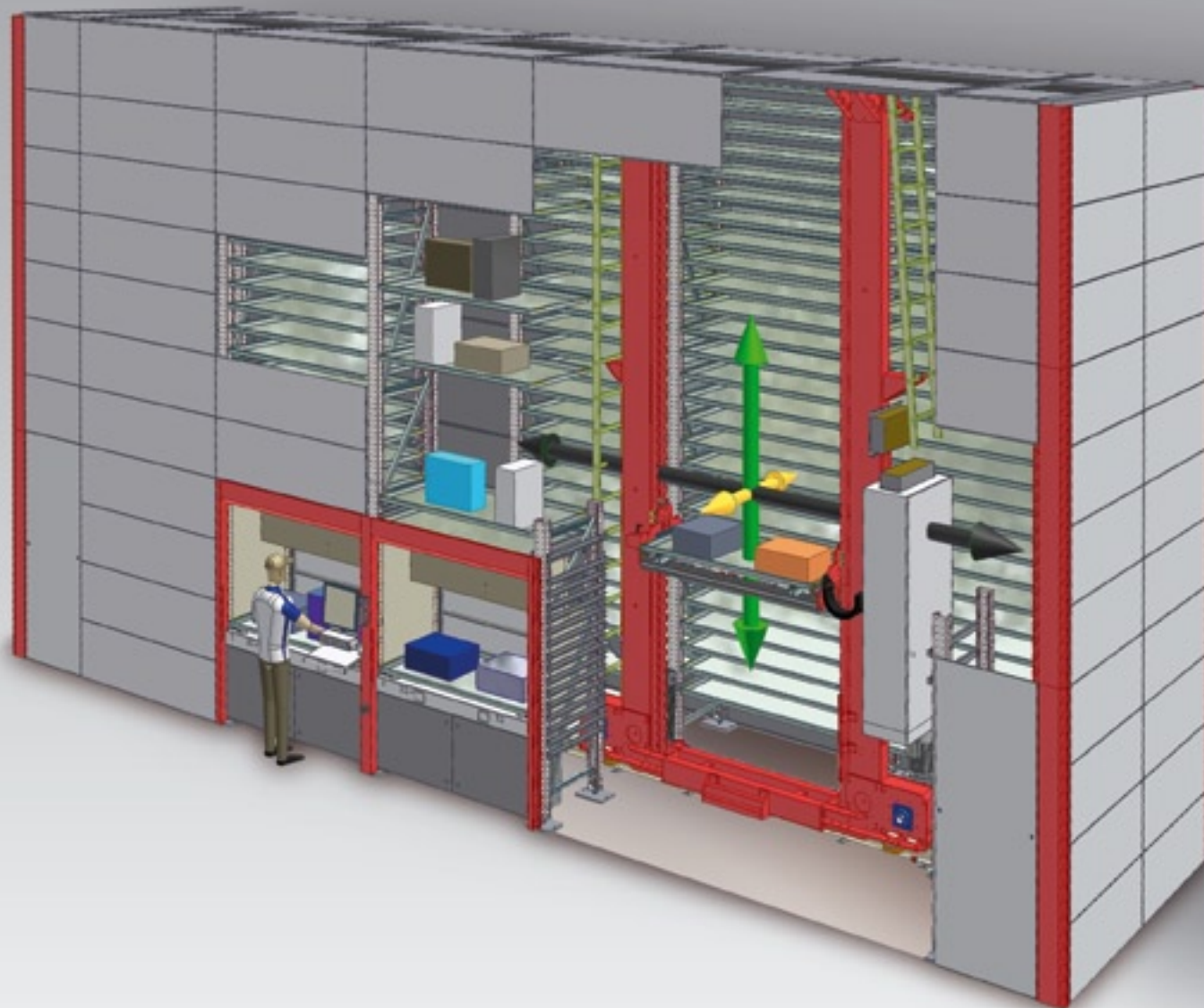
THE UNLIMITED WAREHOUSE

HIGH FLEXIBILITY DEGREE FOR HIGH SPACE AND STORAGE REQUIREMENTS

UNICO is the more progressive model in the automated vertical warehouse sector. Thanks to its technologically exclusive design, UNICO guarantees the highest flexibility degree present in the sector scenario thus allowing for unlimited adjustment.

AUTOMATED VERTICAL WAREHOUSE: **WHAT IS IT?**

The automated vertical warehouses use mechanical structures moving between two rows of racks to carry out the load AS/RS (storage / retrieval) operations. The stored containers are trays whose features and dimensions are determined by specific characteristics of the goods. The whole structure is fully enclosed by walls and therefore isolated from the company surrounding environment; the only openings are one or more “bays” through which the trays are set available by the system. The handling operations are controlled by software through the appropriate station placed next to the bay.



AUTOMATED VERTICAL WAREHOUSE: **UNICO**

The system carrying out the automatic operations inside UNICO has been realized by using a stacker-crane structure. An application which allows UNICO to optimize the space utilization when the demand of important storage capacity may cause problems. The modular structure allows to adjust the machine dimensions, both lengthwise and in height, to guarantee a comprehensive response to any necessity of quantity to be stored. UNICO enables to control, even from one single bay (and with one single operator), the handling of a high quantity of goods and therefore to apply, even in special operative realities, the advantages coming from the picking/deposit operation automation without having to renounce to their contribution in terms of efficiency and cheapness. The exceptional flexibility, being the exclusive characteristic of UNICO, may then be exploited not only regarding the space but also in the time. In fact, the system is in a position to go with the company along its business development, always keeping the attained efficiency levels, thanks to the ability of being expanded, easily and with a modest expense, simply by adding the necessary modules. The designed and applied exclusive technology, makes **zmagazzini** systems the only ones able to integrate in a perfect way with the peculiar needs of space and capacity distinguishing every single company, being this the necessary condition to transform the advantages coming from the automated structures into positive results.

UNICO M11 length: 22 mt. - 11 modules



UNICO M21 length: 40 mt. - 21 modules



EXTERNAL UNICO installation of an Unico outside the factory



RETRIEVAL retrieval operation and goods positioning on trolley



ADDITIONAL BAY bay placed at a different floor



EXTERNAL UNICO external warehouse featuring internal bays

ADVANTAGES

SURFACE

Up to 80% space saving in relation to the traditional racks:

- more space available for the production department;
- better use and distribution of the available spaces to the various departments;
- optimized procurement process by providing a single department with its specific warehouse.

Possibility of overcoming some structural limits imposed by the rules referring to the traditional warehouses:

- better ratio between occupied space and logistic capacity (even in underground and/or external spaces);
- less limitations due to the good weight and volume.

The flexibility in positioning the bay allows, with one warehouse only, to solve the storing needs and/or the record of more departments, even when located on different floors.

EFFICIENCY

Faster and better organized storage and/or retrieval:

- considerable reduction of the waiting times thanks to the possibility of carrying out several operations simultaneously when having more than one bay.

Reduction of the human resources to employ into the warehousing activities:

- the automatic system and the control software solve several activities previously demanding the intervention of several operators;
- the management software is designed for an immediate and easy use.

Possibility of permitting the good picking to the authorized operators only.

Identification and storage of all the accesses and operations:

- higher attention from the operators;
- zeroing of unwelcome event risks (thefts, sabotages, etc.);
- certainty about the stocked quantities and inventory in real time;
- cost reduction thanks to a better management of both the stock and the provision processes;
- certainty of the good traceability.

SAFETY

The whole system is fully enclosed and consequently not accessible by the personnel:

- zeroing of the accident risks typical of the activities carried out into the traditional structures;
- zeroing of the accident risks due to the structure fatigue;
- reduction of the accident risks thanks to bigger availability of company spaces resulting in a general improvement of the working environment;
- zeroing of the costs necessary to respect the low prescriptions for the space characteristics and use inside the traditional structures.

The only openings are the picking and/or retrieving bays:

- total safeguard thanks to the ergonomics of the operator activities.

All goods have an appropriate and isolated housing:

- important reduction of possible damages to things and/or persons;
- important reduction of possible confusion and contaminations among different materials.

Improvement of cleanliness and hygienic conditions of both the goods and the company spaces.

Improvement of the company climate thanks to a higher perception of safety by the operators.

EMPLOYS

The employ of the new storing systems, based on the automated vertical warehouses, allows for several opportunities to reduce all those costs the company has always been obliged to sustain for the traditional logistic infrastructures: wastes and consumes due to the occupied spaces and to the used human and non-human resources. Those wastes and consumes being due to the several structural binds (stocking capacity, worker safety rules, picking and retrieval modalities, etc.). A mass of inefficiencies that may cause a waste of time, money and energy in various departments resulting in profitability losses that can affect the results of the whole company. The **zmagazzini** systems guarantee the best results thanks to the possibility to adjust every machine to the specific characteristics of spaces, activities and material typology of the company reality.

TRAYS

The stored containers are trays whose features and dimensions are determined by the specific characteristics of the goods and by the storing necessities (storage density, protection, insulation, etc.):

- they can be realized with different dimensions and thickness according to their expected capacity and equipped with suitable perimeter edges having different heights and/or with partitions.

BAYS

Every bay may be adjusted to maintain ergonomics and safety for the storage/retrieval operations even in case of materials having special characteristics (weight and volume), in case of specific operative needs such as the line integration:

- they may be equipped with external appendixes for heavy material picking/deposit operations by means of lifters and/or for the tray deposit on suitable trolleys;
- they may be integrated with line handling automated systems;
- the bay quantity and placement flexibility allows, with a single warehouse, to solve the storing needs of more departments, even when located on different floors.

SOFTWARE

EASY-NET is the software controlling, in a simple and immediate way, the company logistic, through the picking list planning, the operation and stock control, the continuous monitoring of safety and functionality:

- the system allows a single operator to organise the efficiency of several systems (automated vertical warehouses, stacker-crane systems, traditional racks, etc.) and therefore the storage/retrieval activities necessary to match with the various company sector needs;
- the software is designed in such a way as to be integrated with the other computer programs present in the company (ERP software, Database, etc.) and as to adjust its interface to the chosen display terminals (PC monitor, RF terminal, display, etc.).

PERSONALIZATION

- The external shell has been designed to be easily customized, even with the colour choice, thus allowing every company to satisfy its image demands.



CUSTOMER
SERVICE

The zworld customer service assists every **zmagazzini** customer with the constant support of professional staff during every phase necessary to improve the satisfaction of the company needs: before, during and after the system realization.

ANALYSIS AND DEVELOPMENT

The staff carries out inspections and analysis necessary to develop the project with the technical specifications and the best solutions according to the space, material and company activities.

START-UP

In this phase the staff follows the installation, carries out the personnel training and, finally, commissions the system and guarantees its full functionality.

ASSISTANCE

Every customer; through tailor-made contracts, may have the necessary service for a continuous and efficient running of the system:

- on-line assistance for the immediate control, monitoring and intervention on the system running;
- immediate assistance to activate the intervention of a qualified technician;
- immediate availability of the spare parts;
- scheduling and execution of the maintenance services.