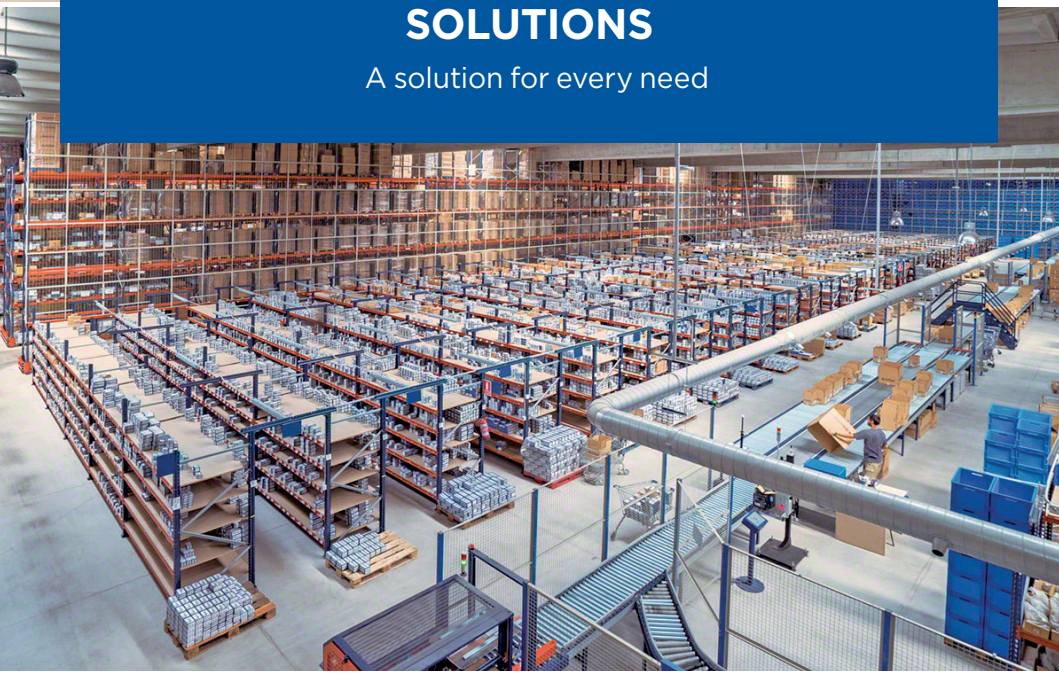
SMART WAREHOUSING SOLUTIONS

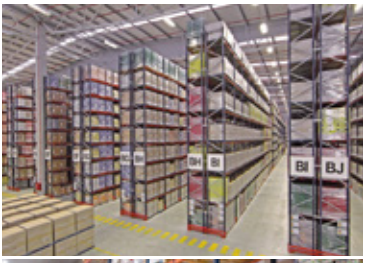
A solution for every need

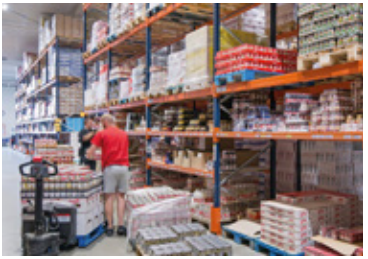


MECALUX

BOOST YOUR WAREHOUSE EFFICIENCY WITH SMART SPACE MANAGEMENT

MECALUX





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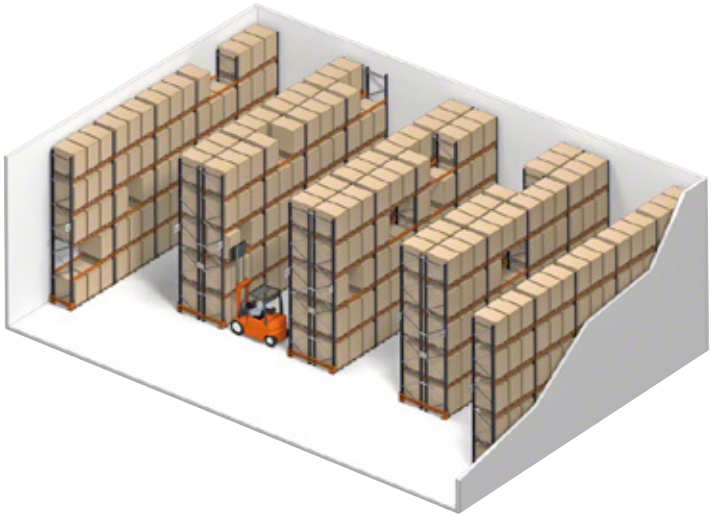
CONVENTIONAL PALLET RACKING

Optimised solution for warehouses containing palletised goods and a wide variety of SKUs.

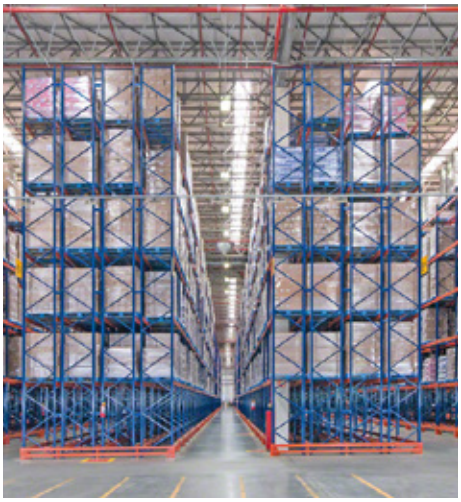


» **Direct access** to every single product.

» Easy **stock control**: each storage slot holds one pallet.

» **Adaptable** to any space, weight or size of goods.

» Double-deep racks can be installed to **increase storage capacity**.



INNOVATIVE SAFETY LOCKING SYSTEM THAT PREVENTS ACCIDENTAL OR DELIBERATE MOVEMENT OF THE BEAM.

DRIVE-IN RACKING

Ideal for managing many products
of the same SKU.

» Maximum **utilisation of available space**, both surface area and height (up to 85%).

» Excellent for **homogeneous products** with many pallets per SKU.

» **No aisles** between the racks.

» Perfect for **freezer rooms** requiring full use of available storage space.

CAN BE USED WITH EITHER LIFO (LAST IN, FIRST OUT) OR FIFO (FIRST IN, FIRST OUT) WITH BATCHES WHEN THERE ARE MORE THAN THREE LANES PER SKU.

PALLET SHUTTLE SYSTEM

Optimised storage capacity:
an electric shuttle moves inside the channels, inserting and removing pallets autonomously.

» Compact, **high capacity** system: storage of up to 40 m deep.

» High **productivity**: increased flow of pallets/hour.

» Greater **diversification**: one SKU per storage channel.

» Maximum **safety**: less damage and fewer accidents.

PERFECT FOR STORING CONSUMER PRODUCTS WITH A HIGH PALLET TURNOVER RATE.

LIVE PALLET RACKING

Pallets accumulate in the storage channels by gravity, compacting space and ensuring agile management.

» **Perfect pallet turnover** with the FIFO method: the first pallet in is the first pallet out.

» Ideal system for **perishable products**.

» Savings in space and time when handling pallets.

» Optimal **use of surface area**. Up to 30 pallets deep per channel.

UNINTERRUPTED FLOWS:
NO INTERFERENCE BETWEEN LOADING AND UNLOADING OPERATIONS
BY DESIGNATING A DIFFERENT AISLE FOR EACH TASK.

PUSH-BACK RACKING

Maximised available space with high accessibility and agility in goods handling.

» Excellent **use of space**: up to four pallets deep.

» **LIFO method**: loading and unloading are carried out from the same side.

» Suitable for **medium-turnover** products.

» Each channel can be used to store a **different SKU**.

» **Reduced times** for loading and unloading operations.

AGILITY AND SAFETY IN OPERATIONS: FORKLIFTS DO NOT HAVE TO ENTER THE RACKS AND ONLY WORK FROM ONE AISLE.

MOVIRACK
MOBILE RACKING

Maximise your storage capacity with racking installed on mobile bases.

» **Direct access** to each pallet.

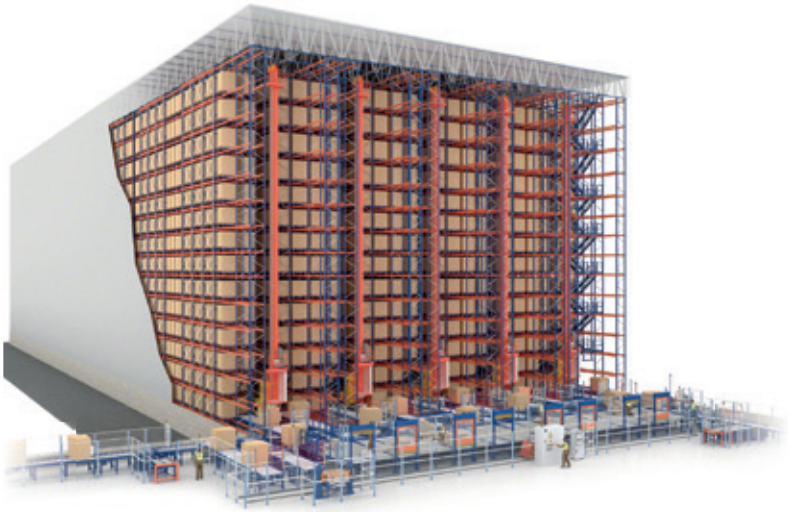
» With only **one working aisle needed for access**, the mobile bases free up storage space by compacting the goods and can even multiply the capacity of the space.

» Suitable for **cold storage** or freezer warehouses due to the lower energy consumption per pallet stored.

OPTIMUM SAFETY: THE RACKING IS EQUIPPED WITH NUMEROUS SAFETY DEVICES DESIGNED TO PROTECT OPERATORS AND GOODS.

CLAD-RACK WAREHOUSES

The best solution for high-bay storage
with maximum use of the available surface area.



» **Space optimisation**: storage area is increased by eliminating intermediary pillars.

» **Quick implementation** with minimal construction: the racks themselves form the building structure.

» **High performance** warehouses that can incorporate different degrees of automation.

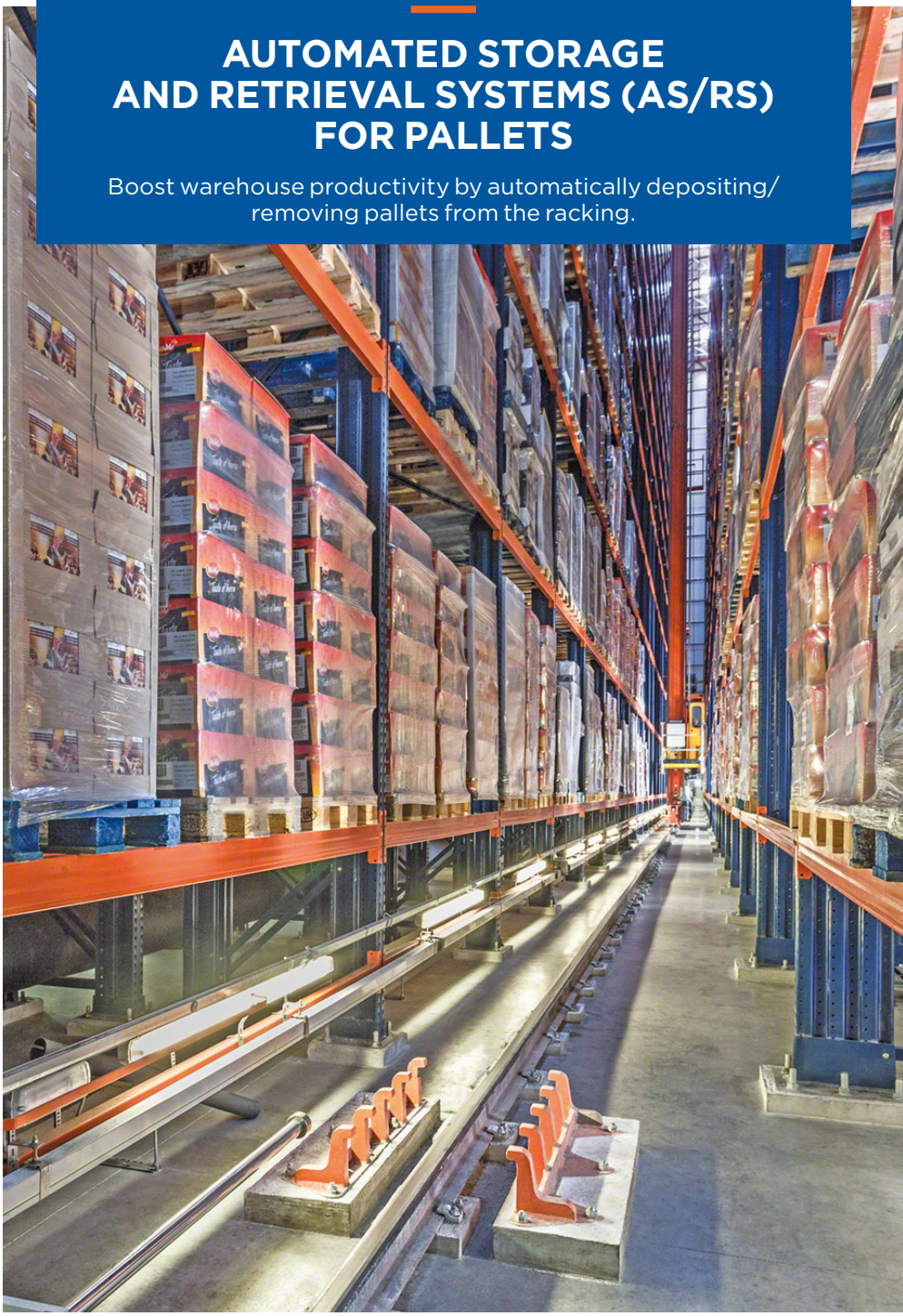
» Ideal for freezer or **cold stores**.

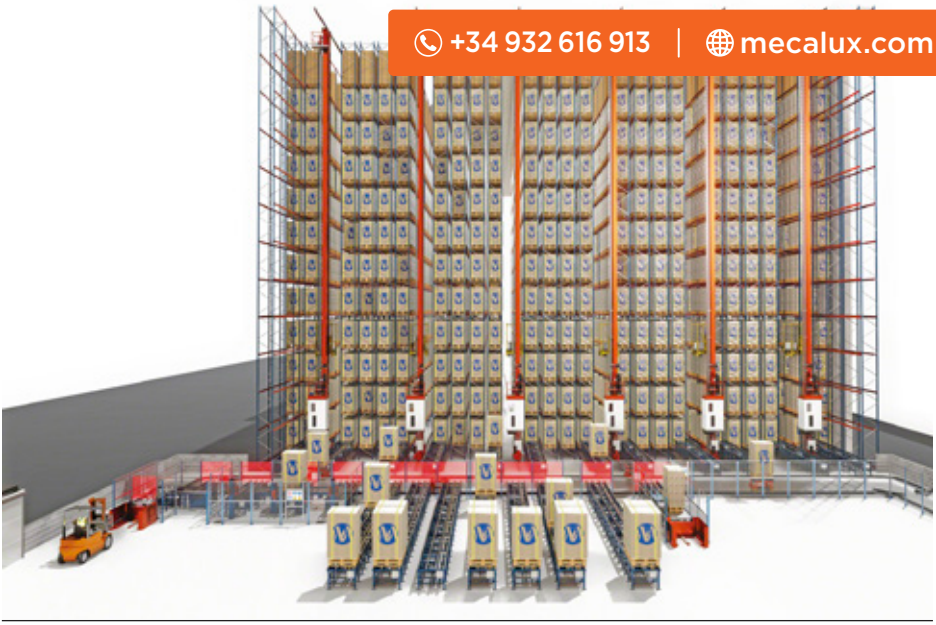
» Both **automated** and **standard** systems can be implemented.

MAXIMUM CONSTRUCTION HEIGHT: CLAD-RACK WAREHOUSES CAN BE BUILT FROM AS LITTLE AS 12 M UP TO 45 M HIGH.

AUTOMATED STORAGE AND RETRIEVAL SYSTEMS (AS/RS) FOR PALLETS

Boost warehouse productivity by automatically depositing/ removing pallets from the racking.





» Raised **productivity** in goods inflows and outflows.

» Elimination of **errors** arising from manual management.

» **Inventory controlled** and updated in real time.

» High **profitability** due to lower labour and maintenance costs.

» **Space** maximisation.

» Load **safety**.

OPTIMISED PRODUCT ENTRY, PLACEMENT AND EXIT FUNCTIONS CONTROLLED BY THE WAREHOUSE MANAGEMENT SYSTEM (WMS).

AUTOMATED PALLET SHUTTLE

All the advantages of compact storage
and automation.

» **Maximum capacity** with storage channels up to 40 m deep and racking over 40 m tall.

» **Raised productivity** by increasing the number of pallet cycles/hour.

» **Automated** management. Error elimination.

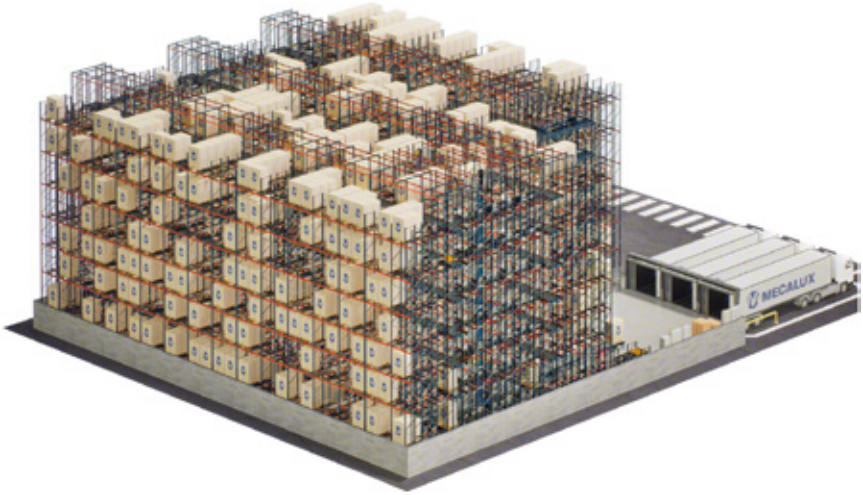
» **Lower labour and energy costs** and less floor space used.

» **Reduced risk** of accidents and total control of goods.

IN COMBINATION WITH STACKER CRANES,
THE PALLET SHUTTLE SYSTEM CAN REACH A STORAGE HEIGHT
OF UP TO 40 M.

AUTOMATED 3D PALLET SHUTTLE

High-density pallet storage featuring autonomous multi-directional shuttles to maximise capacity.



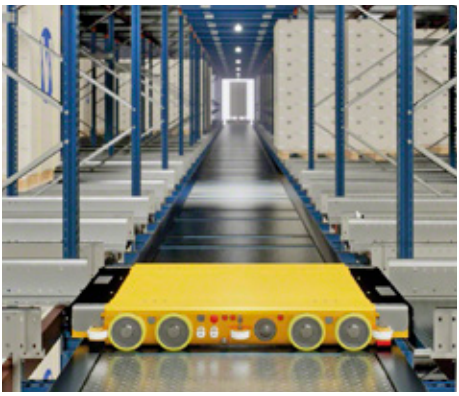
» **High throughput** thanks to the speed and operational versatility of the shuttle cars.

» **Great flexibility**: the shuttles can change levels and operate simultaneously with other shuttle vehicles in the same aisle.

» Maximum **utilisation of available space**.

» **Intelligent operation** of the shuttles through fleet management software that controls traffic and optimises their routes.

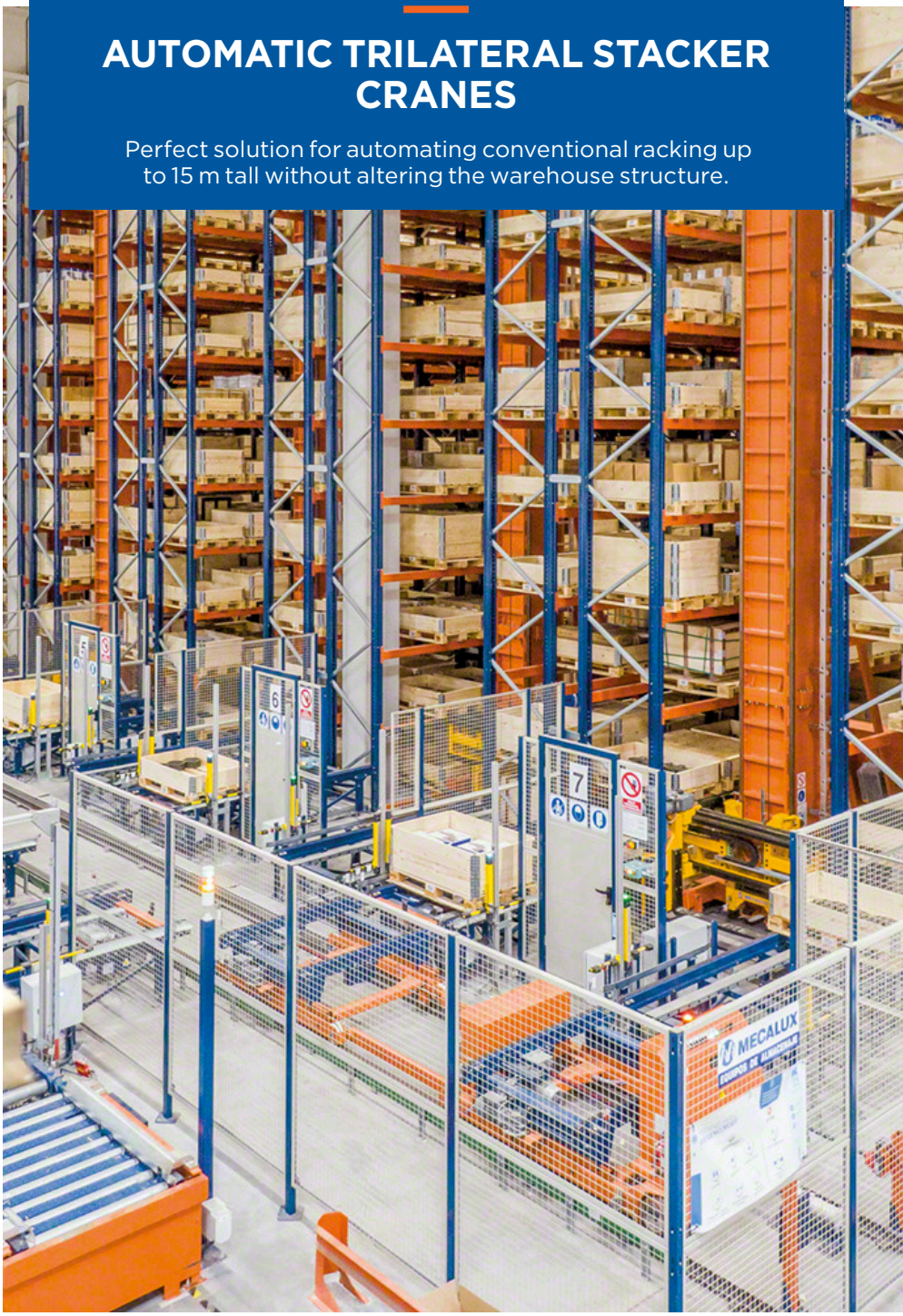
» **Scalable solution**: additional cars can be incorporated to boost productivity.

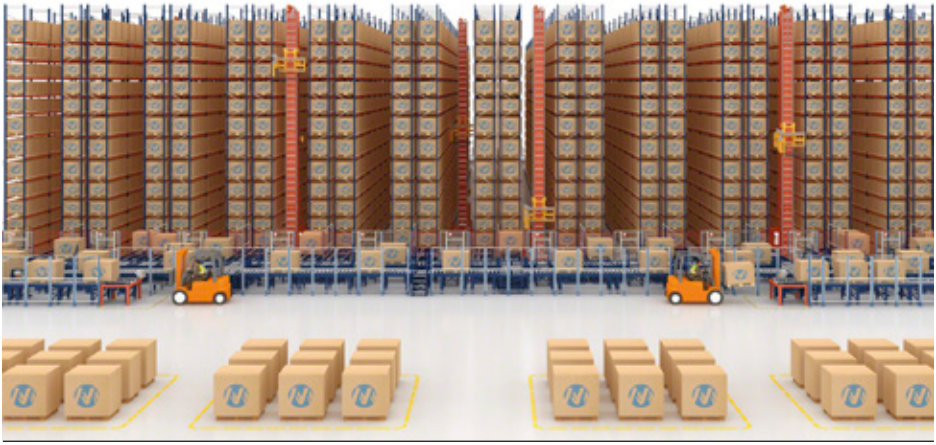


THE SYSTEM PROVIDES SIGNIFICANT ENERGY SAVINGS IN COLD-STORAGE WAREHOUSES.

AUTOMATIC TRILATERAL STACKER CRANES

Perfect solution for automating conventional racking up to 15 m tall without altering the warehouse structure.





» **Economical automation** with a rapid return on investment.

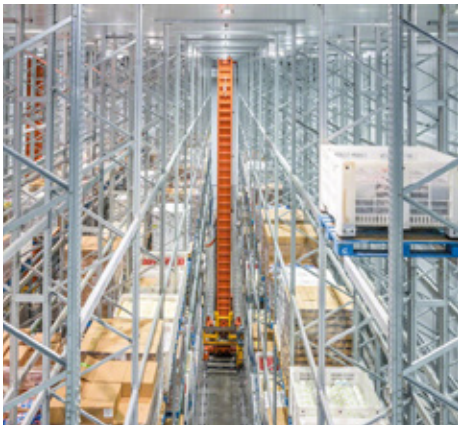
» **Maximum use** of **locations**: pallets can be picked from floor level.

» Reduced operating **costs**.

» Improved **safety** in the facility.

» Low **maintenance** costs.

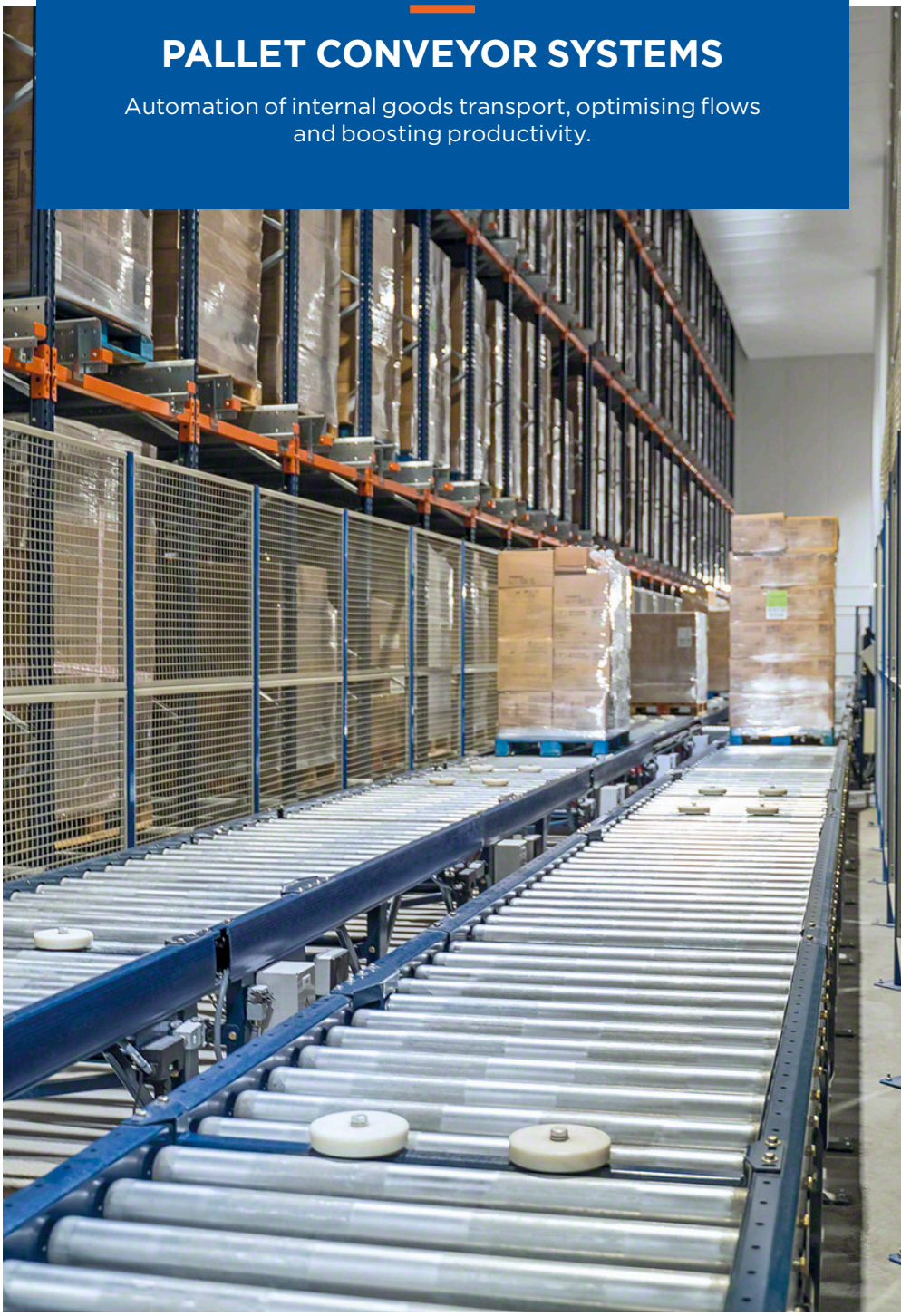
» **Integrated trilateral extraction system**: a rotating head picks and stores pallets in three positions.

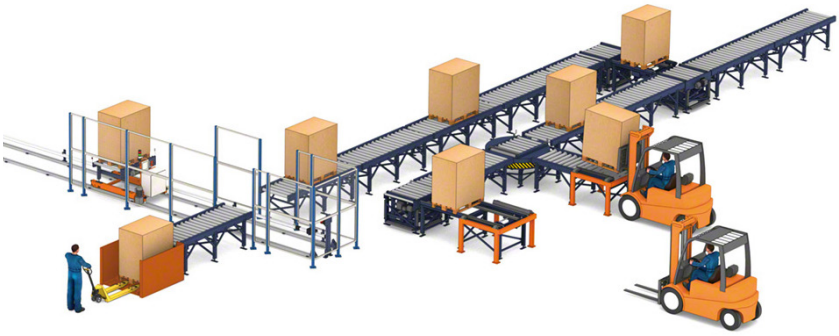


EASY TO IMPLEMENT IN BOTH NEW AND EXISTING FACILITIES, AS THE WAREHOUSE STRUCTURE DOES NOT REQUIRE MODIFICATION.

PALLET CONVEYOR SYSTEMS

Automation of internal goods transport, optimising flows and boosting productivity.





» Reliability in **continuous flows** of products.

» **Fewer accidents** and errors compared to manual transport.

» **Wide range** of components for different combinations and circuits.

MAXIMUM STANDARDISATION OF MEASUREMENTS AND COMPONENTS TO MAKE PRODUCTION EASIER AND LOWER COSTS.

MINILOAD SYSTEMS

Perfect for box storage and picking operations using the goods-to-person concept.

» Complete **automation** of entries and exits.

» Great **productivity**.

» **Maximum use** of available space.

» **Elimination of errors** stemming from manual management.

» Real-time **inventory**.

» Excellent storing **small loads**.

INTEGRATES THE RACKING, STACKER CRANE
AND WAREHOUSE MANAGEMENT SYSTEM ROLLED INTO ONE.

SHUTTLE SYSTEM FOR BOXES

For increasing storage density, order picking speed and, thus, productivity.

» **Continuous flow** and operations 24/7.

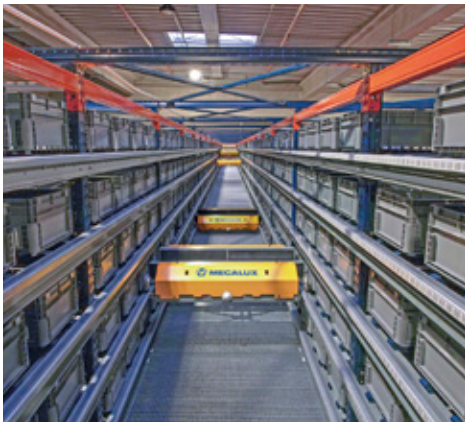
» **Maximum speed** in goods entries and exits.

» **High** number of movements/hour.

» **Modular and scalable** based on logistics needs.

» **Optimisation of available surface space** to expand storage capacity.

» **Easy maintenance** without the need to completely stop the operation of the system.



ADAPTABLE TO DIFFERENT UNIT LOADS: PLASTIC OR CARDBOARD BOXES AND METAL TRAYS OF MULTIPLE SIZES.

HIGH-PERFORMANCE PICK STATION

Preparation of a large number of orders:
up to 1,000 picks/hour

» **Speed and productivity** for businesses that manage a high number of orders.

» Possibility of preparing up to **6 orders simultaneously**.

» **Ergonomic** system that adapts to the height of the operator.

» **Elimination of errors** thanks to the warehouse management software's instructions.

PICK-TO-LIGHT SYSTEMS STREAMLINE ORDER PICKING AND AVOID ERRORS DUE TO MANUAL HANDLING.

PICKING ROBOT

Robotic system that uses artificial intelligence
to automate order picking and increase productivity.

» Ability to **operate continuously**, 24/7.

» Possibility to **work autonomously or with operators**.

» **Maximum reliability** in the picking process thanks to the vision system and artificial intelligence.

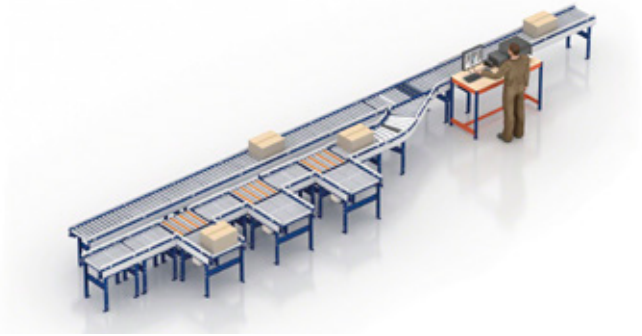
» **Operational safety**: the cobot is capable of moderating its speed when it detects any presence in its vicinity.

» **Compatible** with multiple automated storage solutions.

FLEXIBLE SYSTEM CAPABLE OF HANDLING A WIDE RANGE OF ITEMS OF DIFFERENT DIMENSIONS, MATERIALS AND SHAPES.

BOX CONVEYOR SYSTEMS

For increased speed in moving and handling boxes and light loads in the warehouse.



» Improved **communication** between different areas or levels.

» Possibility to span **long distances**.

» Ability to **sort** orders.

» Essential for any **automated process**.

» Can be **combined** with any other storage system.

» Easy **maintenance**.

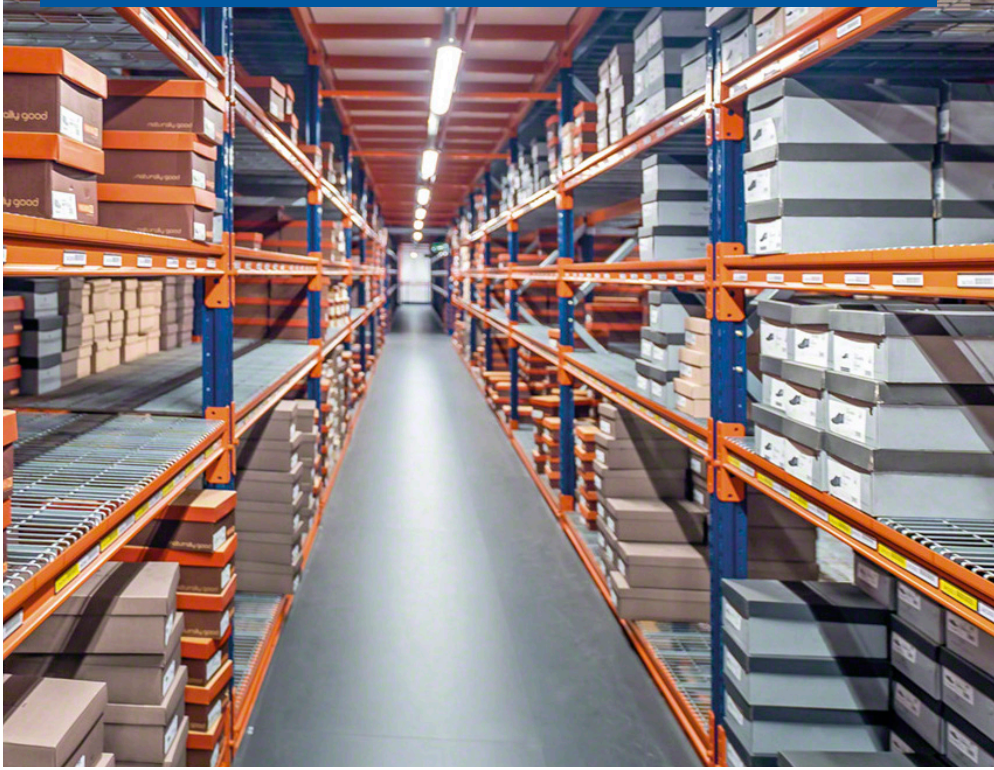
AUTONOMOUS MOBILE ROBOTS (AMRs)

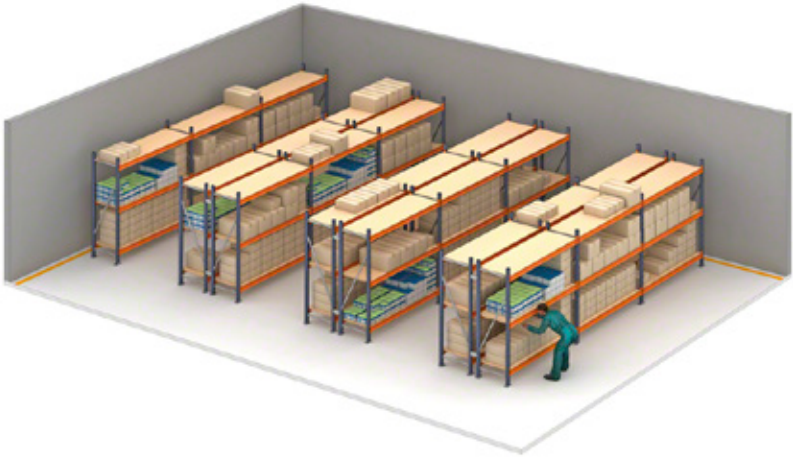
Autonomous internal goods transport system that adapts its route in real time.

- **Autonomous movement** of boxes, pallets and shelves in the warehouse.
- **Swift implementation**, no infrastructure costs.
- **Accuracy and safety** in task execution.
- **Flexibility** in picking processes.
- **Easy integration** with other systems operating in the facility.

METAL SHELVING FOR MANUAL PICKING

Economical, efficient solution for manual storage of medium and heavy loads.





» **Great strength** and versatility.

» Ideal for **diverse SKUs** and split turnover.

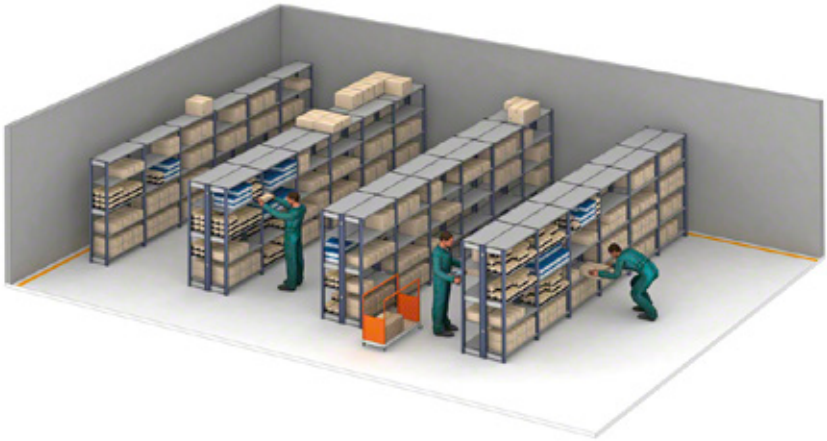
» **Multiple accessories** for storing products of particular shapes: tyres, clothing, spare parts, etc.

» **Gangways** can be installed to leverage the height of the warehouse.

WITH NARROW AISLE HANDLING EQUIPMENT, THESE SHELVES CAN BE UP TO 20 M TALL.

LIGHT DUTY SHELVING

Basic manual storage and archiving system
for light and medium loads: up to 200 kg per level.



» **High-quality finishes** that adapt to all types of environments, from warehouses to offices and garages.

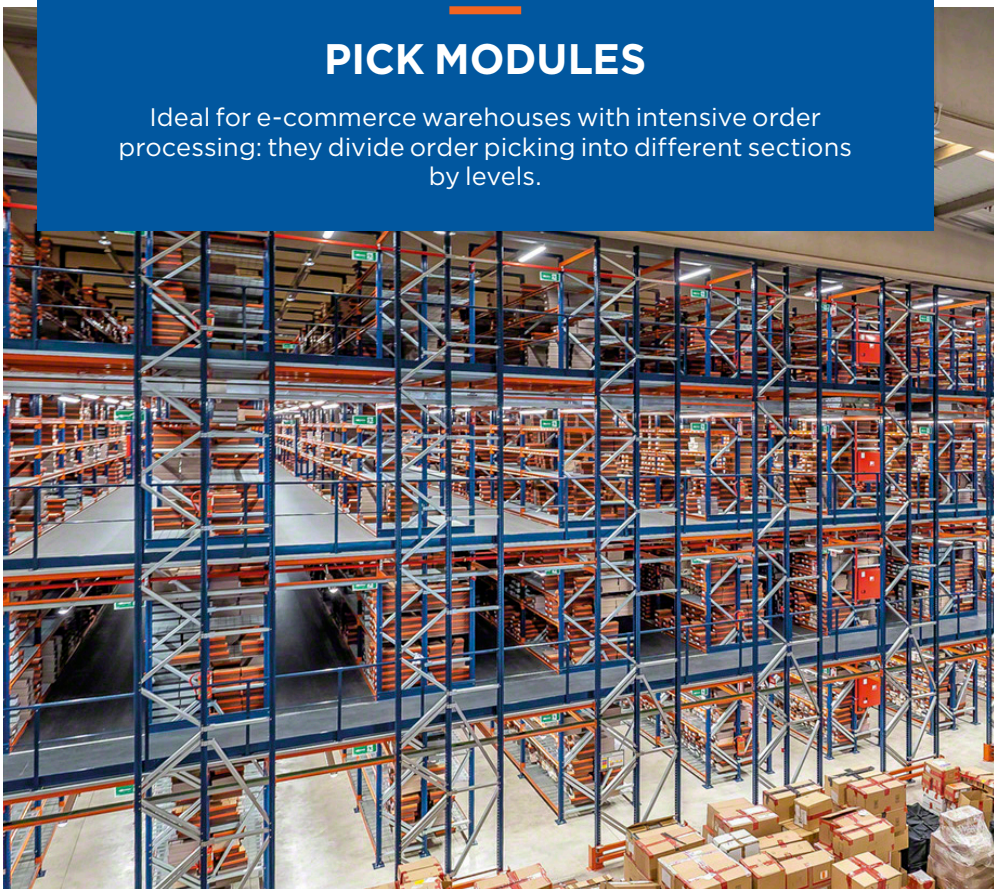
» Easily **assembled** and **scalable**.

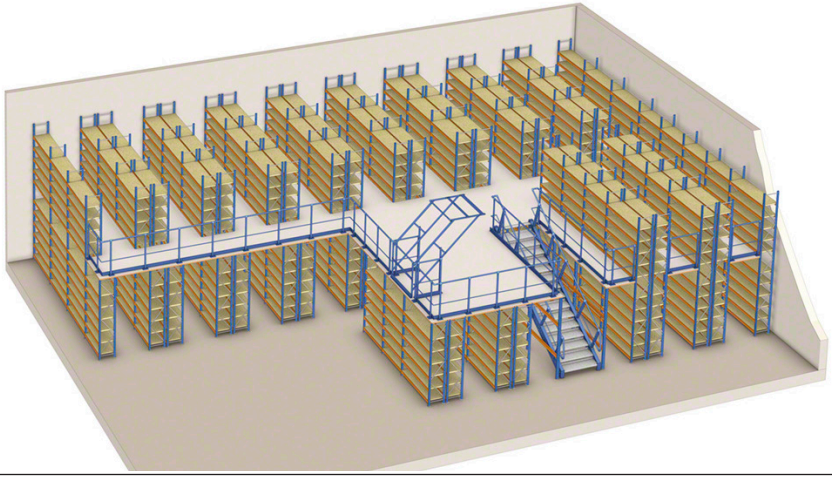
» **Wide range of accessories**: additional modules, vertical dividers, book dividers, metal doors, plastic drawers, etc.

THE QUALITY OF THE MATERIALS USED ENSURES THE STRENGTH AND DURABILITY OF THE RACKING.

PICK MODULES

Ideal for e-commerce warehouses with intensive order processing: they divide order picking into different sections by levels.



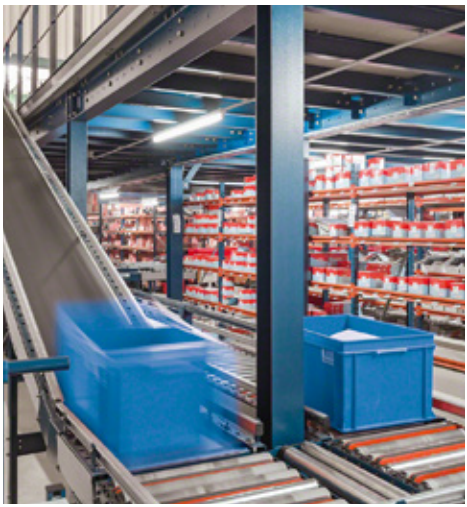


» **Maximum use** of vertical space.

» **Flawless management** of stored materials.

» **Multiple configurations** adaptable to each operation.

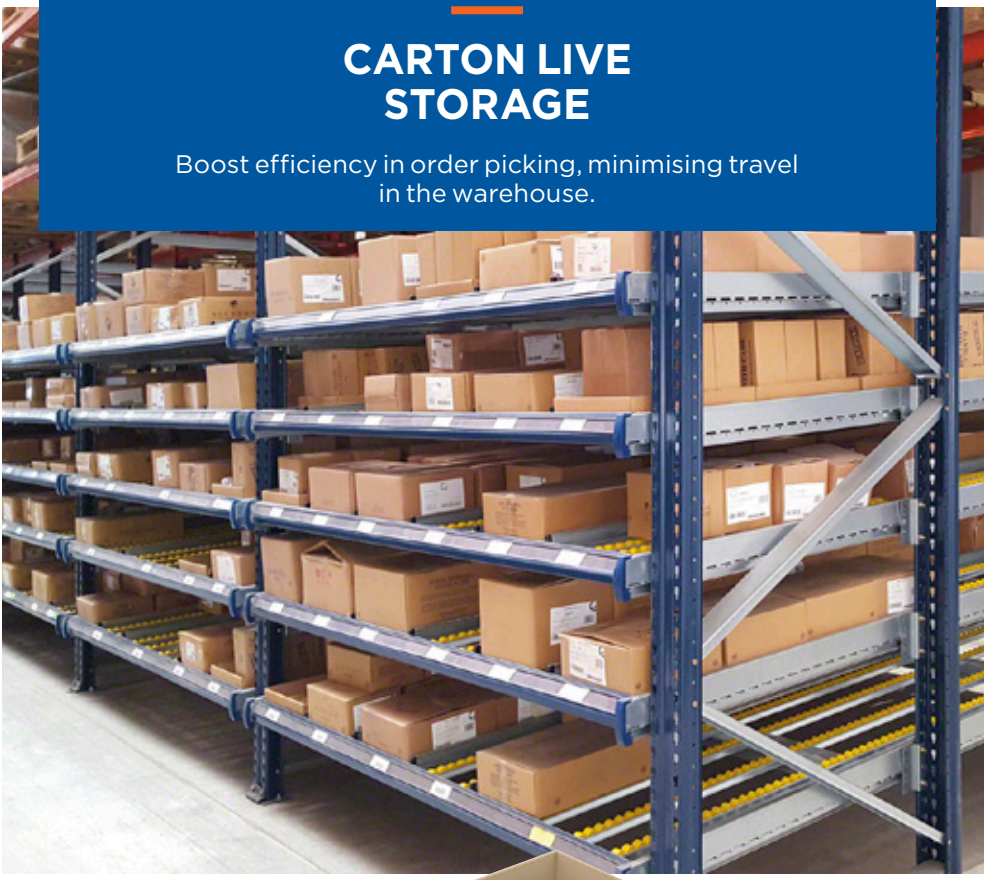
» **Storage of different load types**: from small parts and individual items to packages and boxes.

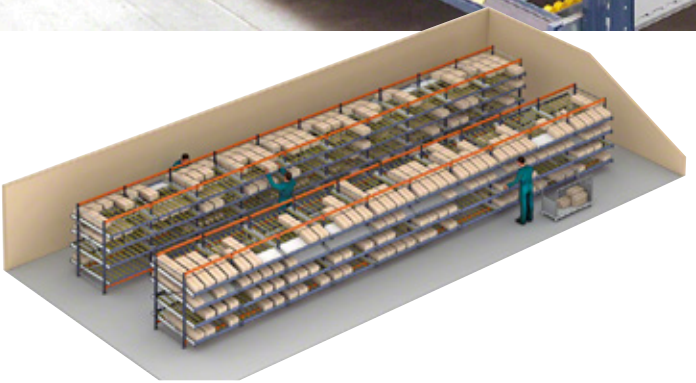


PICK MODULES CAN BE COMBINED WITH AUTOMATIC LIFTS OR CONVEYORS TO STREAMLINE MOVEMENTS BETWEEN LEVELS.

CARTON LIVE STORAGE

Boost efficiency in order picking, minimising travel in the warehouse.





» **Optimal product turnover** (FIFO method: the first box in is the first box out).

» Greater **number of SKUs** in the front part of the racks.

» **No interference** in replenishment and picking operations.

» **Pick-to-light systems** speed up order picking and minimise errors.

MESH PARTITIONING AND ENCLOSURES

Ensure protection of operators, goods and machinery in warehouses and production centres.

» **Modular, adjustable** system for any area requiring partitioning.

» Quick and **simple assembly**.

» Easy to **expand** and modify at any time.

» Design and installation meet workplace **safety regulations**.

CANTILEVER RACKING

Designed to store long or variable length unit loads.

» For **unit loads** such as metal profiles, pipes, moulding, wooden boards,metal or plastic sheets, etc.

» Levels can be placed on **one or both sides** of the structure.

» Extremely **simple**, **sturdy** structure.

» Features all the necessary elements for **outdoor installation**.

THESE RACKS CAN BE INSTALLED ON MOBILE BASES TO INCREASE STORAGE CAPACITY.

INDUSTRIAL MEZZANINE FLOORS

Simplest, most economical and versatile solution
for making the most of the height of the warehouse space.

» **Greater storage capacity** by adding one or more additional floors.

» Easy, **quick assembly**.

» **Adaptable** to any requirement due to the wide variety of sizes, floor types, construction systems, etc.

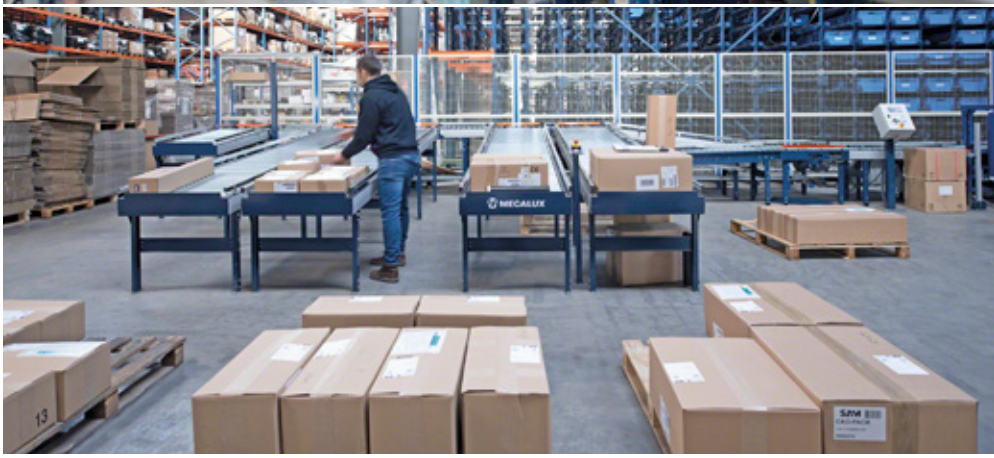
» Can be fully **dismantled** and reused.

» Possible to use in **combination** with conveyors and automatic lifts.

MULTIPLE FINISHES AND CONFIGURATIONS ADAPTABLE
TO ANY TYPE OF PRODUCT, WAREHOUSE OR LOGISTICS OPERATION.

EASY WMS WAREHOUSE MANAGEMENT SYSTEM

The logistics software created by warehousing experts.



Easy WMS is a powerful, versatile and flexible warehouse management system. It controls and optimises all movements and operations that take place in a facility, eliminating errors and reducing logistics costs.

Easy WMS manages a manually operated warehouse (using RF scanners) with the same efficiency as an automated facility or an online shop, thanks to its WMS for Ecommerce module.

- » **Order** preparation.
- » **Stock control** in real time.
- » **Cost** reduction.
- » Adaptation to **e-commerce**.
- » **Error** elimination.

Gartner | MECALUX IN THE **2023 GARTNER® MAGIC QUADRANT™** FOR WMS

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EASY WMS MAXIMISES WAREHOUSE OPERATIONS AND PRODUCTIVITY

The software sends instructions directly to the operators, who work faster knowing what to do and where to go at any given time.

GOODS RECEIPT

» **Identifies and checks** items received. Then **assigns** them the optimal location.

» **Ensures ideal locations**, manages replenishment, and **controls stock** and its traceability.

PRODUCT STORAGE

easy wms

WAREHOUSE MANAGEMENT SYSTEM

ORDER PICKING

» **Sends instructions**, **generates pick paths** and streamlines **picking** and packing for order fulfilment.

ORDER DISPATCH

» **Creates** the necessary documentation and **organises** the loading of the delivery lorry.

Easy WMS in the cloud

CLOUD

» Lower **initial investment** — no need to purchase servers.

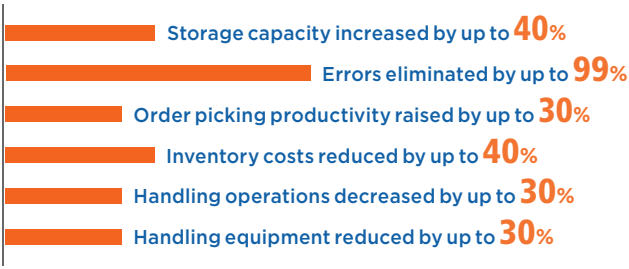
» Faster, simpler **implementation**.

» Easy, cost-effective **maintenance**. Completely secure with Microsoft Azure.

» **Software version up-to-date** at all times.

» **Always available** to ensure business continuity.

BENEFITS GAINED WITH EASY WMS



EASY WMS MODULES

- MULTI CARRIER SHIPPING SOFTWARE
- STORE FULFILLMENT
- MARKETPLACES INTEGRATION
- WMS FOR MANUFACTURING
- 3PL WAREHOUSE MANAGEMENT SYSTEM
- YARD MANAGEMENT SYSTEM (YMS)
- LABOR MANAGEMENT SYSTEM (LMS)
- SLOTTING FOR WMS
- VALUE-ADDED SERVICES (VAS)
- WMS AND PALLET SHUTTLE INTEGRATION

Our solutions are certified by:

ORACLE Partner · SAP Partner · Microsoft Partner · ZEBRA TECHNOLOGIES SEE MORE. DO MORE.

TECHNICAL INSPECTION OF RACKING SYSTEMS

Standard UNE-EN 15635 requires an annual inspection of your installation by qualified external personnel.

Have you scheduled your **mandatory annual inspection?**

The objective of this inspection is to:

» Improve **safety in your warehouse**.

» **Reduce risks**.

Mecalux has been offering this technical inspection service to its customers for over 25 years to enhance the safety and efficiency of their logistics facilities.

The condition of the warehouse will be certified with a label placed on the safe load warning notice, indicating the date of the next inspection.

OUR TECHNICIANS PERFORM A RIGOROUS INSPECTION OF THE INSTALLATION, CHECKING THE CONDITION OF THE RACKING AND SHELVING AND OF THE WAREHOUSE IN GENERAL.

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Feel free to get in touch with your local branch office

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MECALUX

Mecalux has a presence in more than 70 countries worldwide

We have offices in: Argentina - Belgium - Brazil - Canada - Chile - Colombia - Croatia - Czechia France - Germany - Italy - Mexico - Netherlands - Poland - Portugal - Romania - Slovakia - Slovenia Spain - Turkey - UK - Uruguay - USA

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