

# TIRE INDUSTRY

Experts in satisfying the needs of our clients, designing and manufacturing fully customized machines for each production process.

Transforming tire manufacturing through smart automation.

More than 20 years of experience working with companies in the tire sector, which has made us the best option for industrial engineering.

We have several <u>patented solutions</u> that put us at the forefront of cutting edge within the sector.

Our machines cover all manufacturing processes, from feeding in the raw material mixing area to final inspection and palletizing of the tire. Also material transport and intralogistics applications for all areas of the factory.

From the design to our post-sales service, we cover all phases of the machine production.

#### **Applications:**



WE ARE:

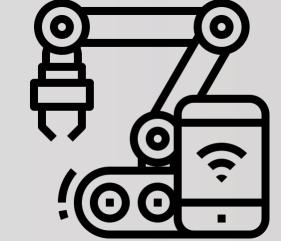
- Feeding of raw materials.
- Robotization in calenders.
- Material collection and winding up systems.
- Robotization in different stages of construction.
- Vulcanizing process.
- Final inspection and palletizing.
- Wharehouse automation.

#### **INNOVATIVE**



**CUSTOMIZED** 





**CUTTING EDGE ENGINEERING** 

We develop solutions with the objective of improving your product or your productive system, responding where standard commercial systems cannot. Desmasa has a clear international vocation. Our technology is distributed mainly to Europe and America, consolidating us as a leading company in the tire industry.



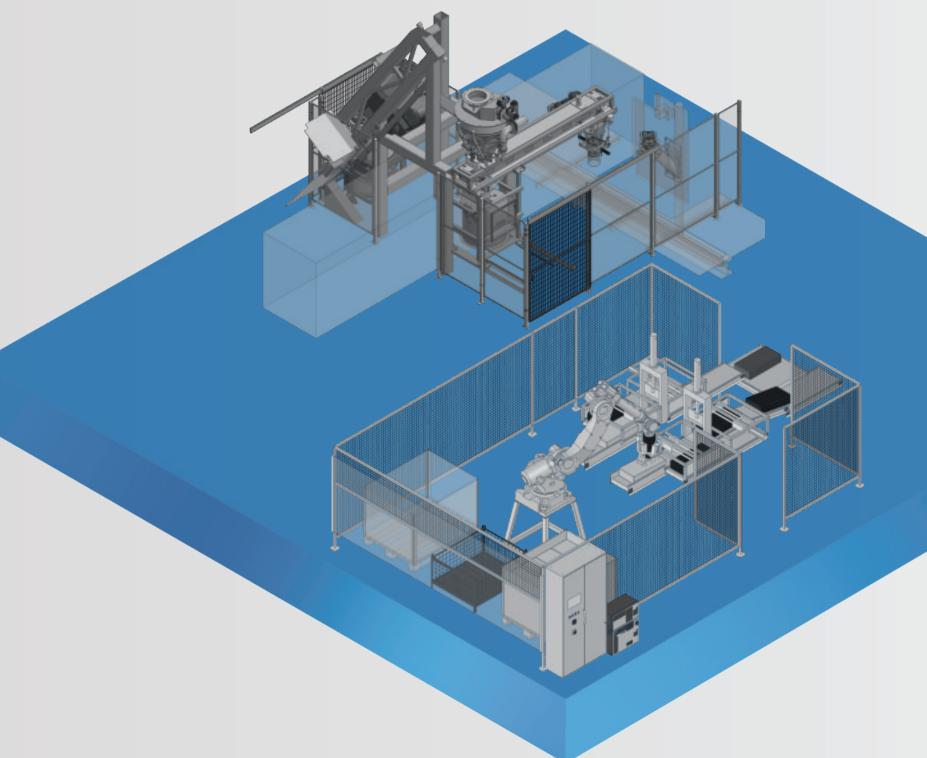
Together, we build a sustainable future.

#### **MIXING SECTOR**

We develop new customized automations to improve each production process, such as our robotic rubber bale load system. We arrange all mixer applications in tire manufacturing to each production line and plant.

Applications:

- Autofeeding system for mixer.
- Material pushing system in mixer.
- Unloading waste material containers to mixer.
- Rubber sampler.
- Conveyors cooling equipment.
- Carbon Black collection and feeder station.
- Robotic rubber bale load system.

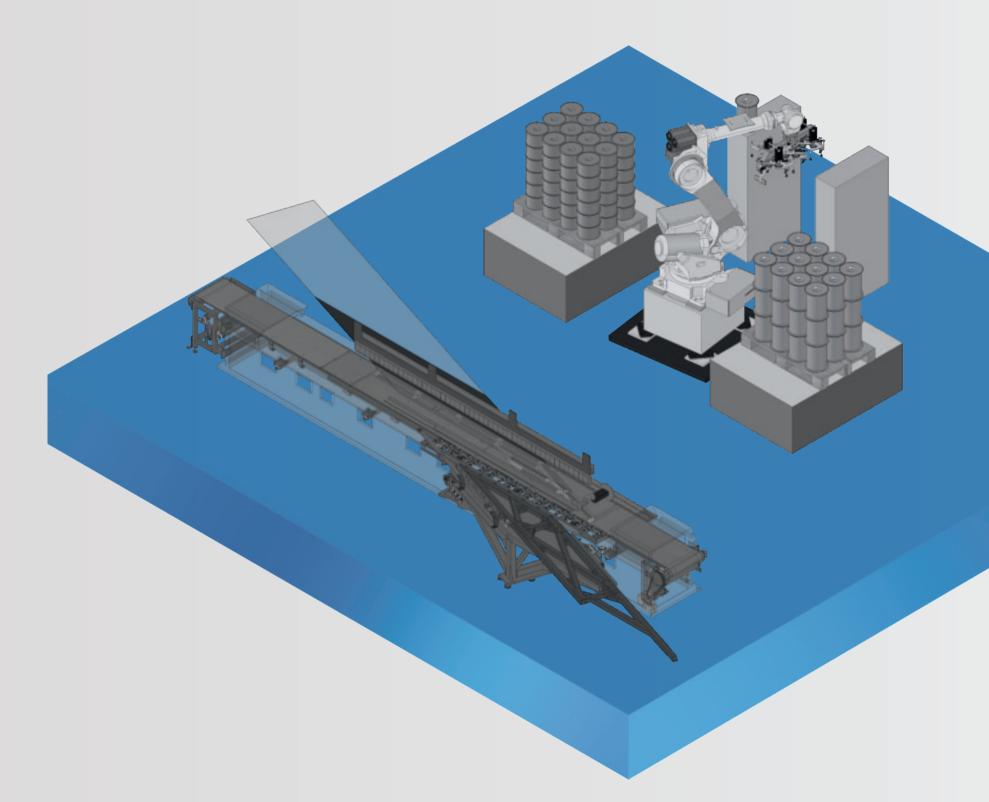


## **CALENDERS AND CUTTING**

At DESMASA we develop and manufacture different applications for the calendering and cutting process of textile and metallic fabric used in the manufacture of the tire, adapting them to each plant and production line.

# Applications:

- Servo-electric weightless manipulator.
- Wire Reels palletizing/ depalletizing robot reels (creel).
- Handling wire reel for calenders.
- Material transportation.
- Automatic wire reel storage management.

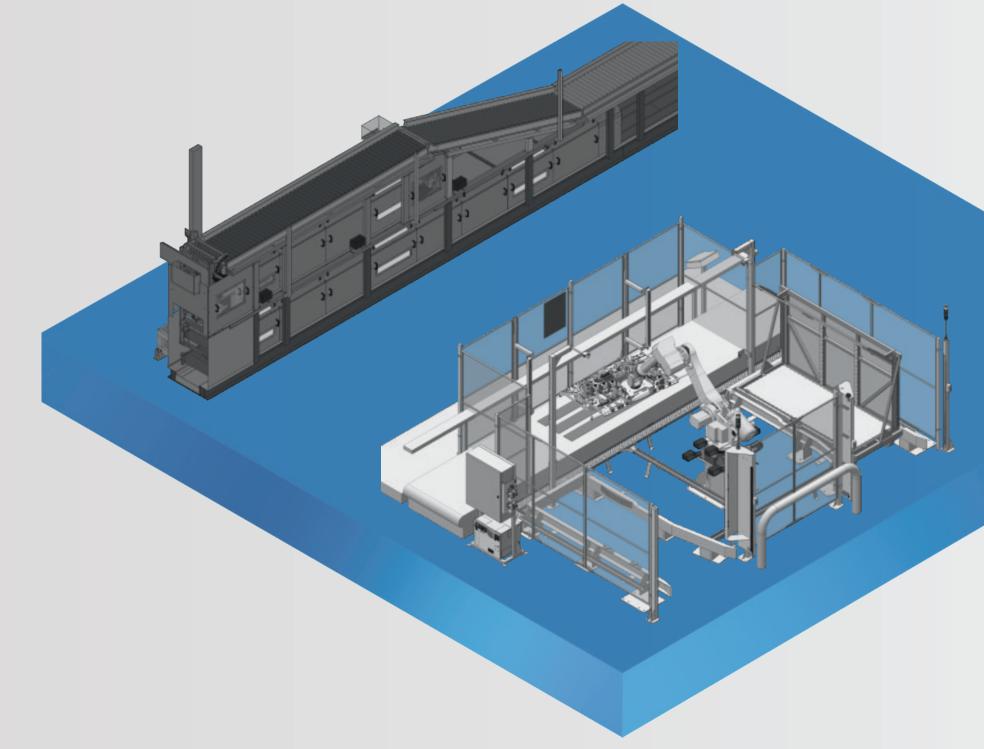


## **EXTRUDER AREA**

We design and manufacture our applications for tire manufacturing, thinking about innovation and improvement of the plant and production line.

# Applications:

- Tread robot manipulator in Booking System
- Cooling /Drying conveyor.
- Chafer application system.



#### WIND UP SYSTEM

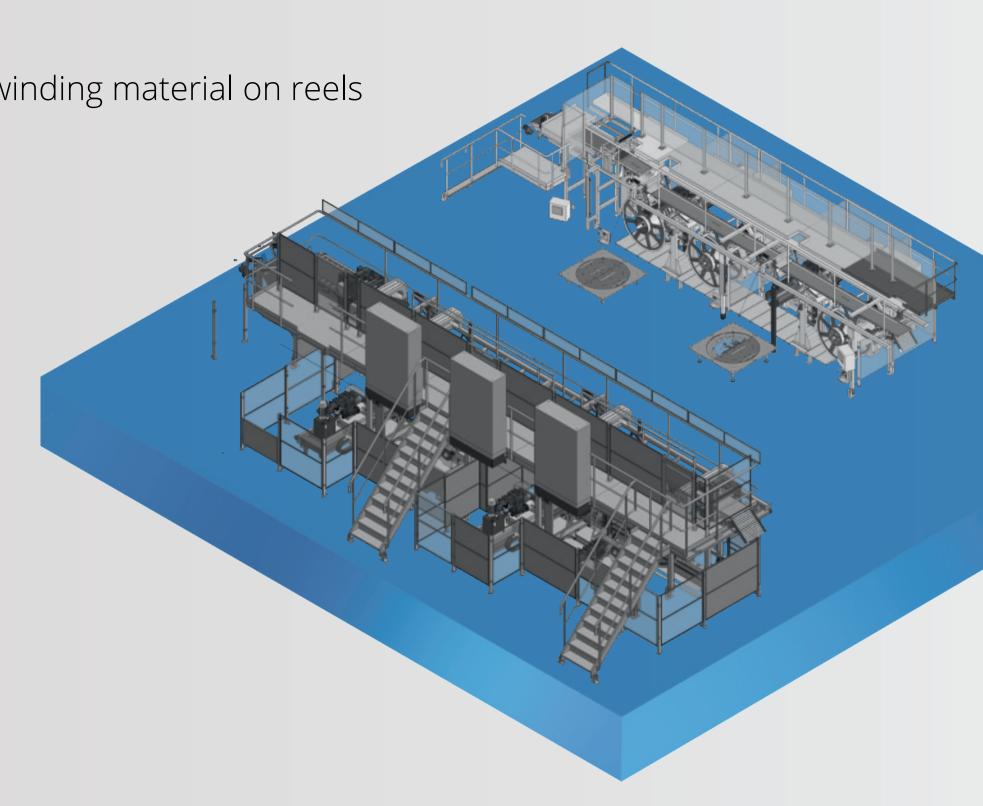
Our wind up system is one of our fully automated patented applications, developed for material winding.

#### **REEL / CART WINDING SYSTEM:**

The purpose of the installation is winding material on reels or carts, with a specific tension..

#### Options

- Artificial vision camera to control the production.
- Possibility of extraction and chopping of waste material from reel for unloading on pallet.
- Automatic reel loading and unloading
- AGV integration
- Automatic liner manipulator

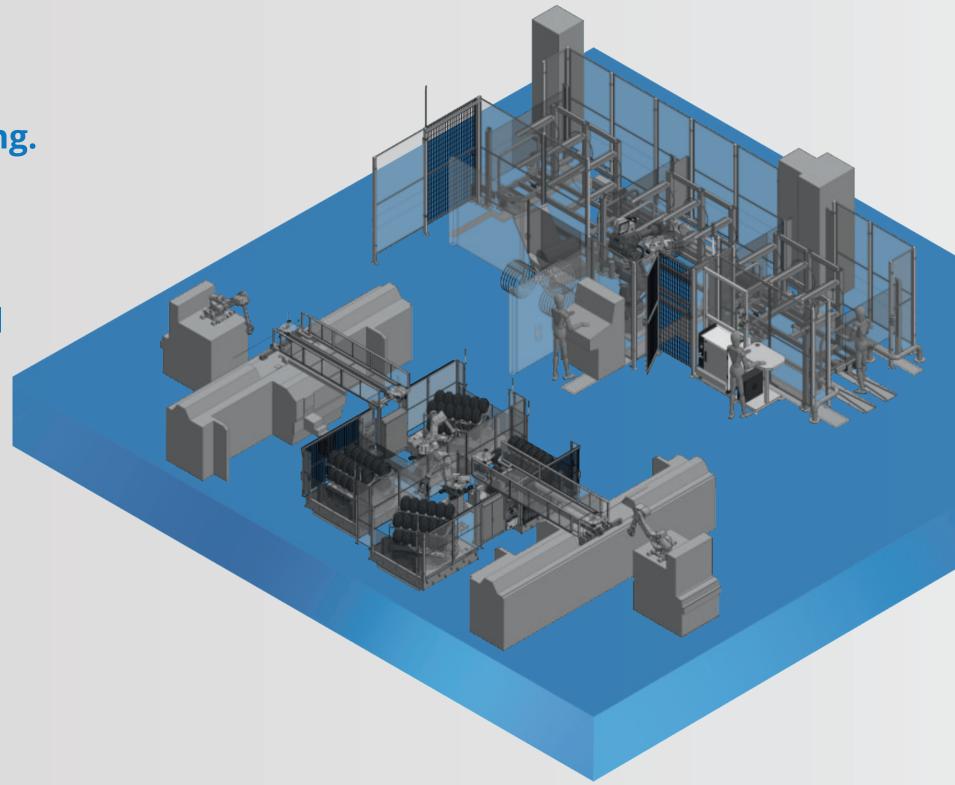


#### **BUILDING SECTION**

The Green Tire automatic handling system or the automatic storage and retrieval system for carts makes clear our innovative vocation when designing our applications.

#### Applications:

- Bead ring handling robot
- Green Tire automatic handling.
- Bead filler handling robot.
- Automatic storage and retrieval system for carts.
- Automatic assembly sidewall system on construction machine.
- APEX manipulation

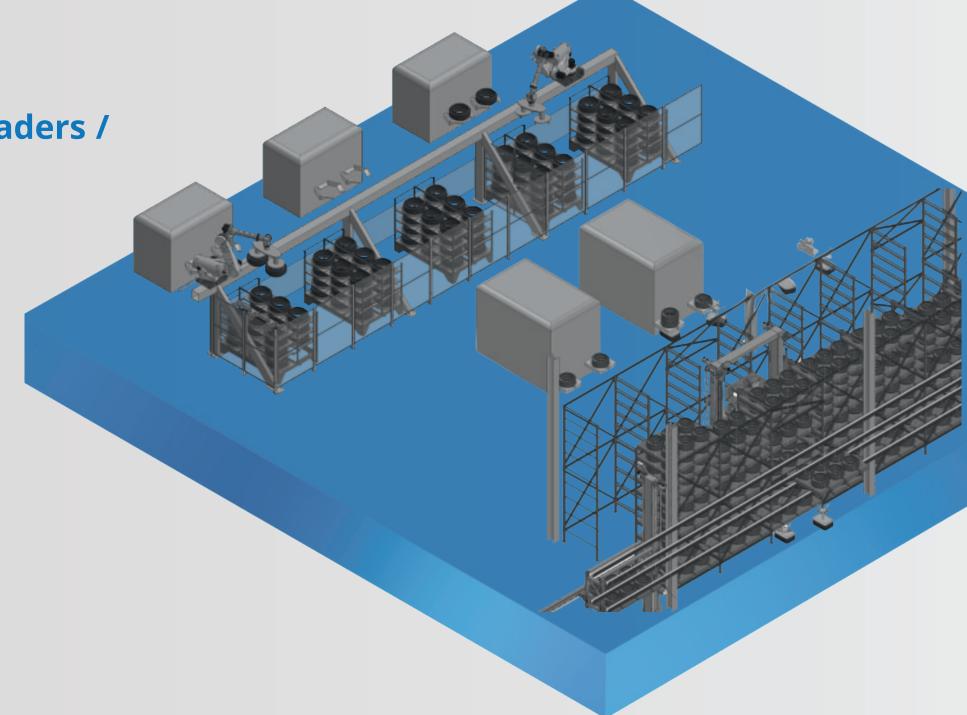


## **CURING / VULCANIZING**

We carry out new customized automations in each production process. We also develop different feeders adapted to each tire vulcanizing press.

#### Applications:

- Bladder assembly table
- GT handling/storage.
- Robotic vulcanizing press loaders / feeders
- PCI Machine

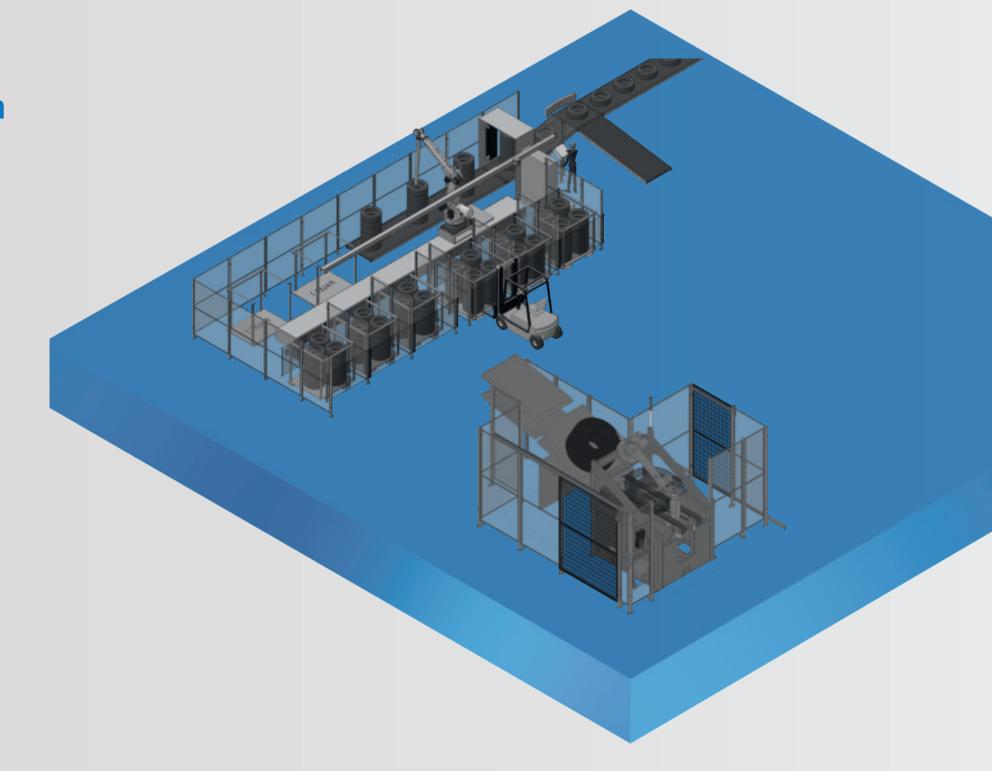


#### **INSPECTION AREA**

The Green Tire automatic handling system or the automatic storage and retrieval system for carts makes clear our innovative vocation when designing our applications.

#### Applications:

- Hot stamp marking system
- Tube + Flap positioning station.
- Tire palletizing robot.
- Tire depalletizing robot.



## **AGV / AMR INTEGRATION**

We develop new automations based on the needs presented in the production lines. Our hot stamping marking robot is a stamping solution designed to be flexible and simplify tire marking, capable of adapting to the wide range of tire sizes / profiles on the market.

We chose the more suitable type of AGV according to the specific needs of each client.



- Possibility to work 24 hours a day, 7
  days a week non-stop without the need
  for human intervention.
- Efficient, fast and flexible transport.
- Compatible with different pallet/boxes sizes.
- Available with natural or laser navigation.
- Customizable according to the type of weight/load/products to be handled.

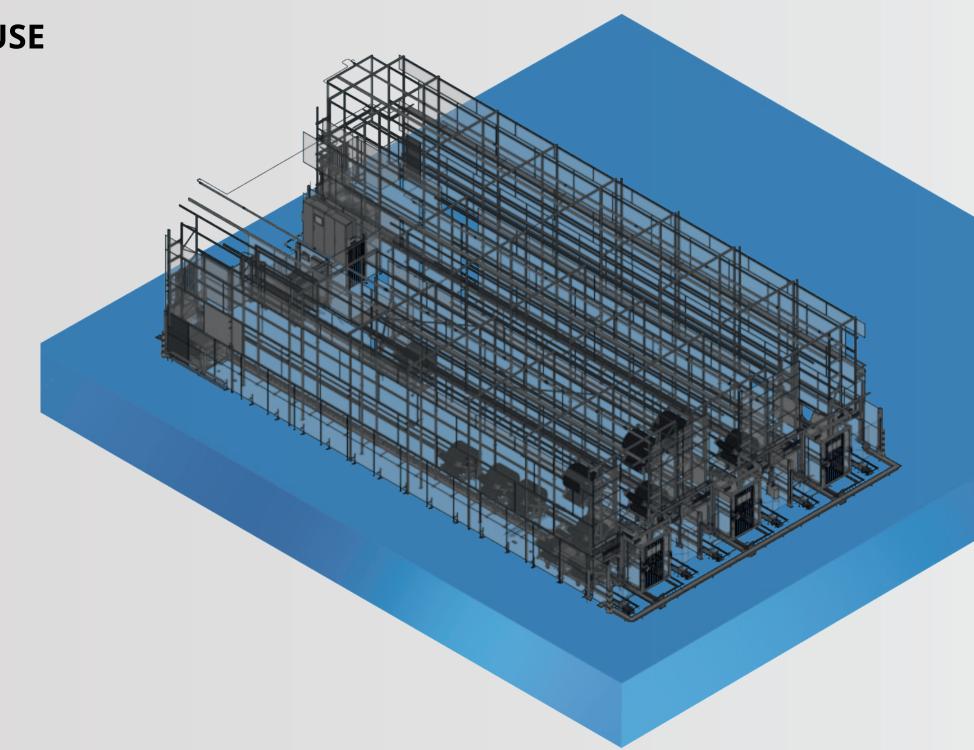
# **ASRS**

# **Automatic Storage Retrieval System**

We design and manufacture our warehouses in such a way that it fits with special requirements of our customers like layout, product and restrictions. We develop warehouses for all the phases in the production chain.

#### **AUTOMATIC CARTS WHAREHOUSE**

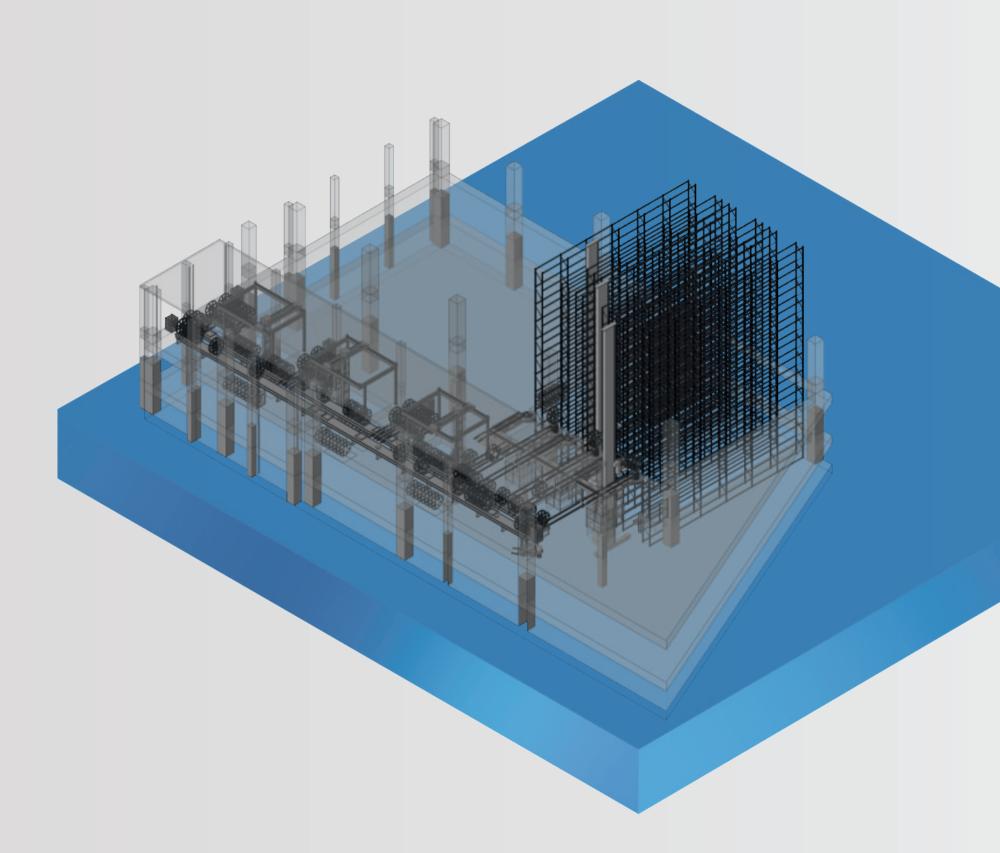
Automatic vertical warehouse to store carts at different heights, being able to minimize the use of floor space. Automatic handling of trolleys both at the entrance and at the exit, being identified for their correct traceability and storage.



#### **AUTOMATIC REELS STORAGE**

Turnkey solution for Automatic Reels Storage in differents configurations and several options for loading and unloading automatic systems to the warehouse.

The ASRS could be develop for new facilities or adapted to the current warehouse.





# mechatronic solutions

