



# OVERHEAD TWIN-RAIL CONVEYING SYSTEM



# OVERHEAD TWIN RAIL SYSTEM

The overhead twin-rail transport system was introduced for the first time in the meat industry from the company Menozzi Luigi & c. s.p.a

**65**  
Years of experience

**200**  
Plants realized

**500.000**  
Meters of twin rail installed

# OVERHEAD TWIN RAIL

The twin-rail conveying system allows to improve and optimize the logistic inside the meat industry. This system accompanies the product from the beginning, that is when the raw product enters the packing plant, to the shipment of the finished product. It reduces the handcraft and allows to make best use of the available space; it is a guarantee of hygiene as required by the sanitary rules.

The high quality of these strongly built and long-lasting systems is the results of over 60 years experience, of steady research and technological innovation

Each project and each installation is developed according to the different needs of each product and of each customer. This system is in fact very versatile and can be utilized in the production line of each meat product, to be cooked, to be seasoned or smoked.

The Twin-rail conveying system is available both made of AISI 304 stainless steel and of extruded aluminium.

- Logistics optimization
- Labor costs reduction
- Best hygiene



# DIRECTIONAL SWITCHES

The switches are direction devices positioned in the intersection points of one rail with the other. The operator sets the switches according to the direction the hanging racks must follow.

The switches are available in three different versions:

- manually acted, by a stick hanging at each switch
- pneumatically acted, by stainless steel control panels at the wall
- electrically acted, motorized

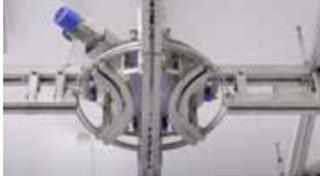
When the twin rail needs to cross any door, such as room doors or fire doors or cooking chamber doors, the door crossing is enabled by a pneumatic connection device acted by door opening and closing.



2 ways



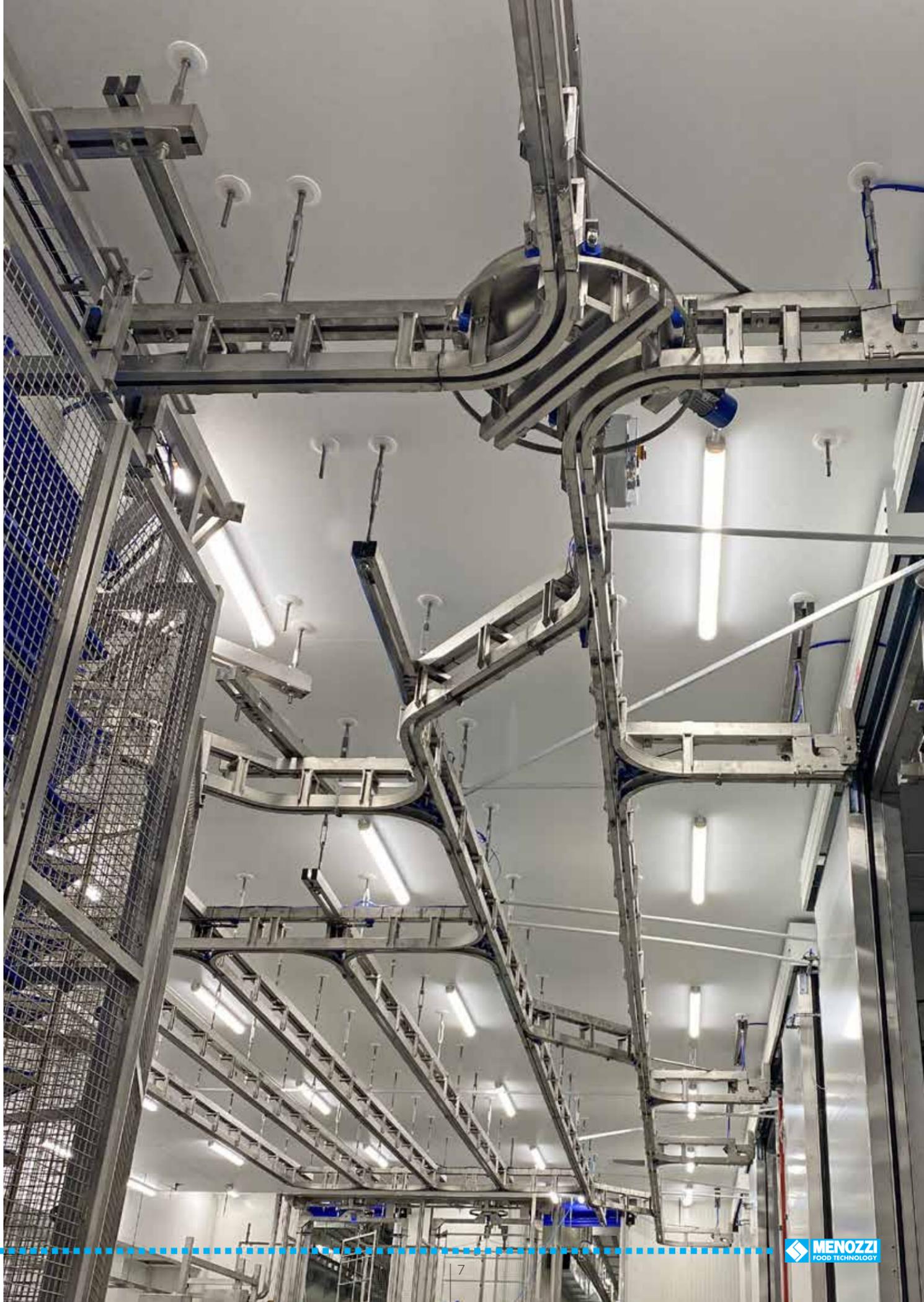
3 ways



4 ways



Door switch



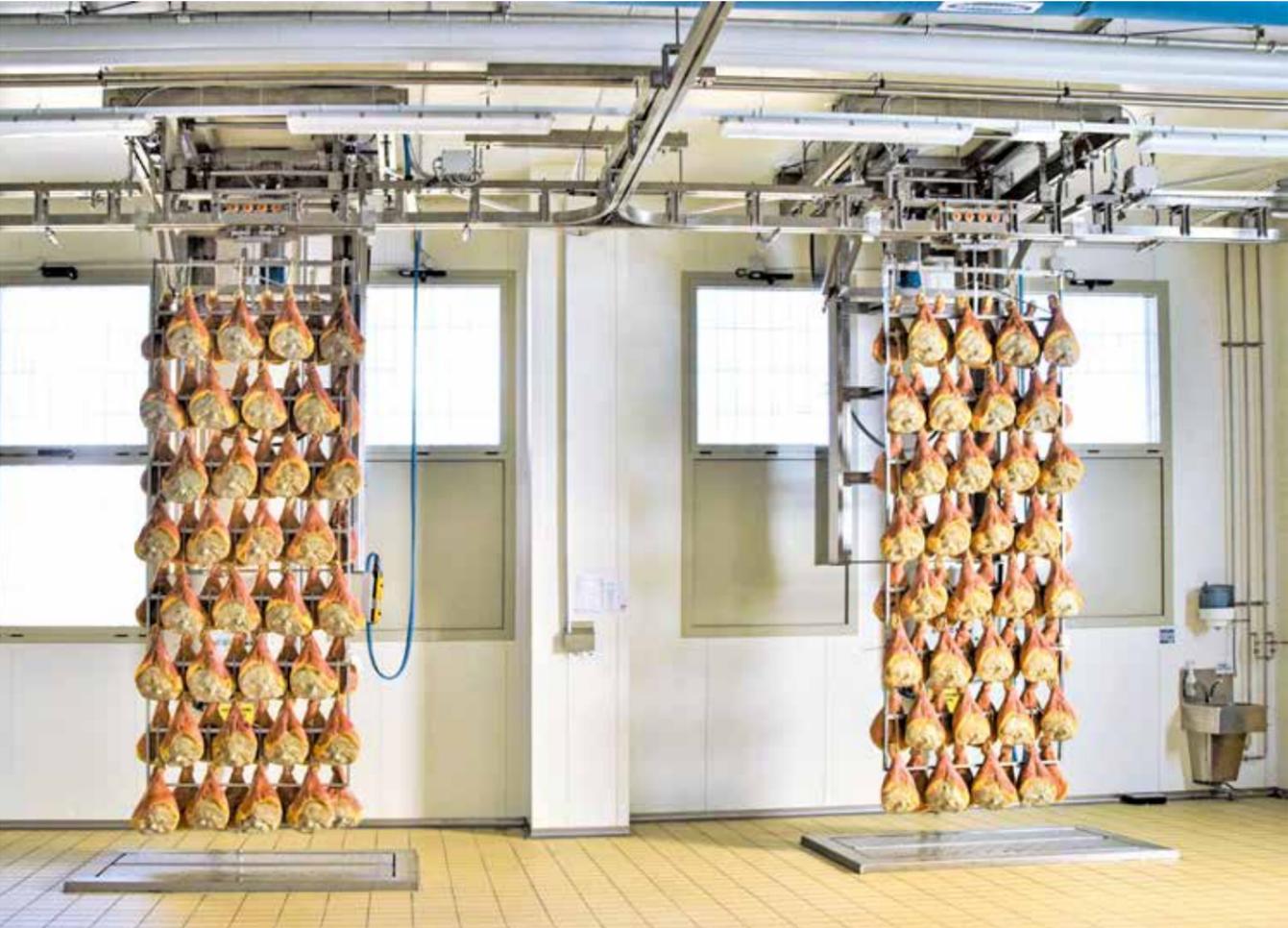
# AUTOMATIC LOADING AND UNLOADING SYSTEMS

Automatic loading, unloading and hanging systems using anthropomorphic or Cartesian robots. During the loading phase it is possible to automatically select and divide the product into different weight classes in order to standardize the load on the frame, optimizing the seasoning process.



# LOWERING AND LIFTING DEVICES

The lowering/lifting units are employed to low or lift the hanging racks so to position them at a suitable height. The operator can easily load and unload the product keeping an ergonomic working position. In case the hanging racks are very high, this device is positioned on a sort of hole, so that also the upper part of the hanging racks are lowered at eye level.



# AUTOMATIONS

THE OVERHEAD TWIN RAIL CONVEYING SYSTEM can be automated at different steps of the handling process, adding the following devices

## **AUTOMATED TWIN RAIL CONVEYING SYSTEM LINES**

for the automatic forward moving of the hanging racks, particularly employed in stand-by areas, to feed some machinery such as: racks washing machines or palletizing robots. These automated lines are also used inside the seasoning and smoking rooms to recirculate the product and expose it uniformly to air conditioning.

The forward moving can be pneumatically acted, by means of mechanical pushers at regular pitch, or electrically motorized, by means of a chain drive system, which allows bidirectional movement.

## **LEVEL VARIATOR UNITS**

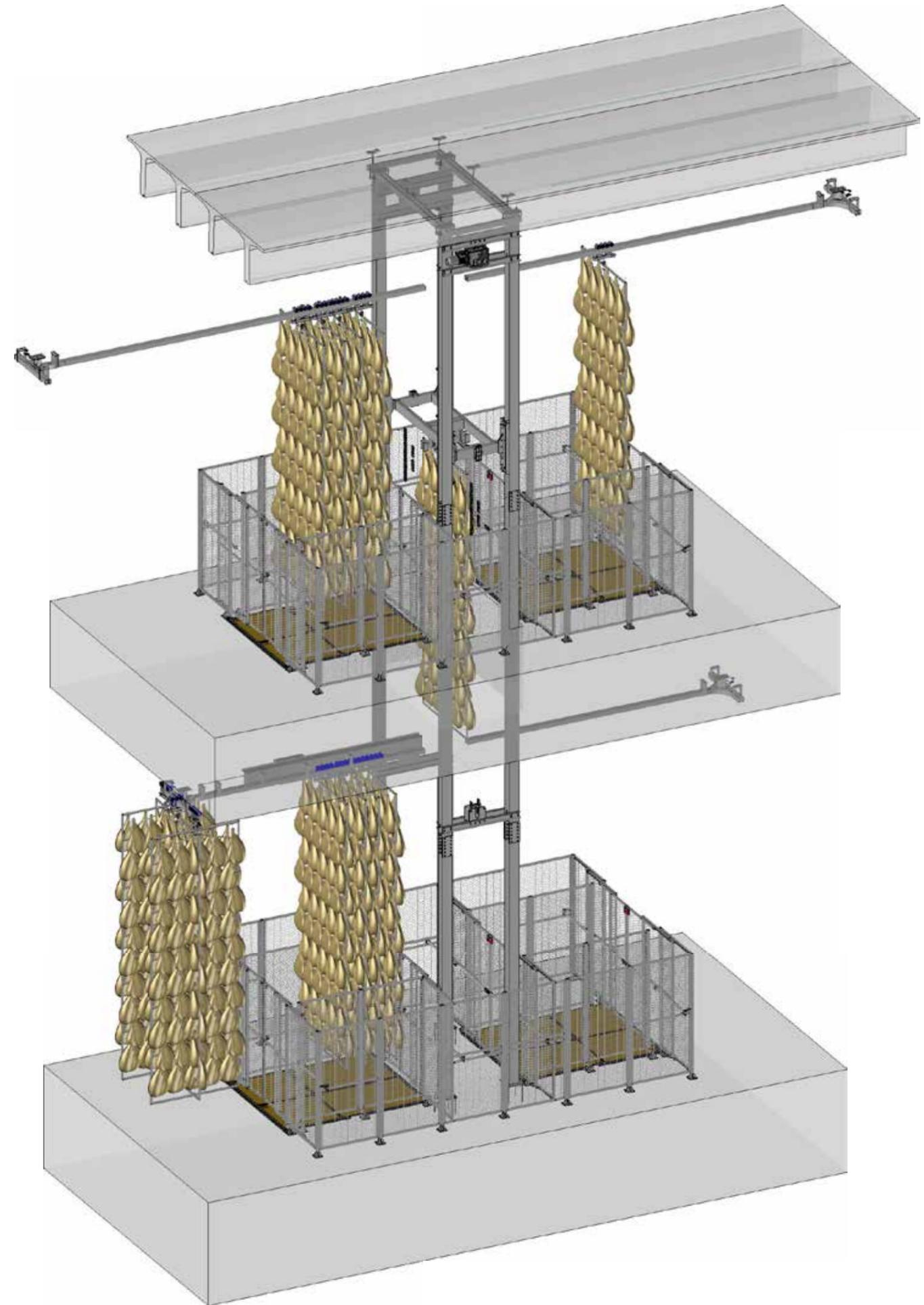
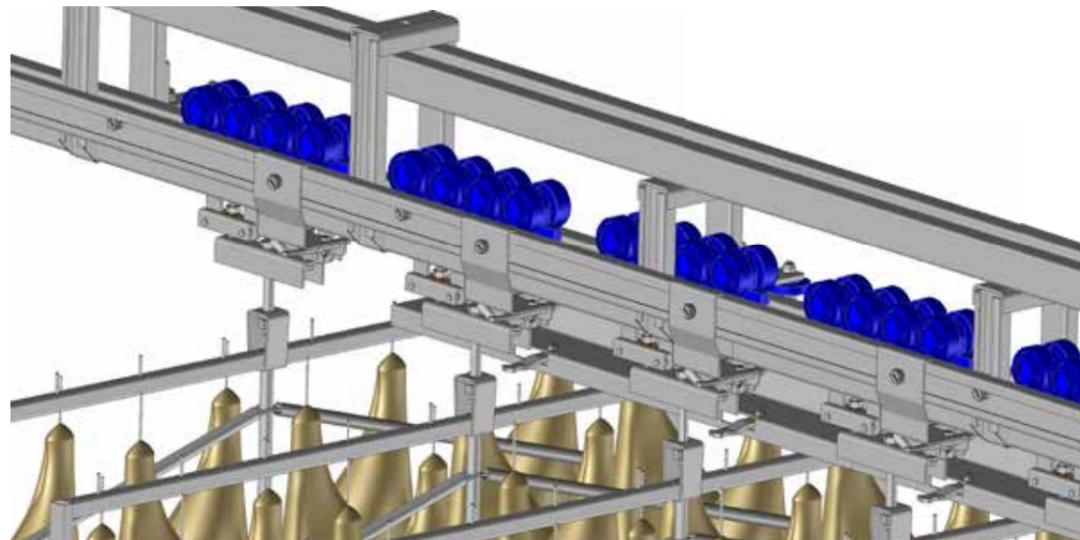
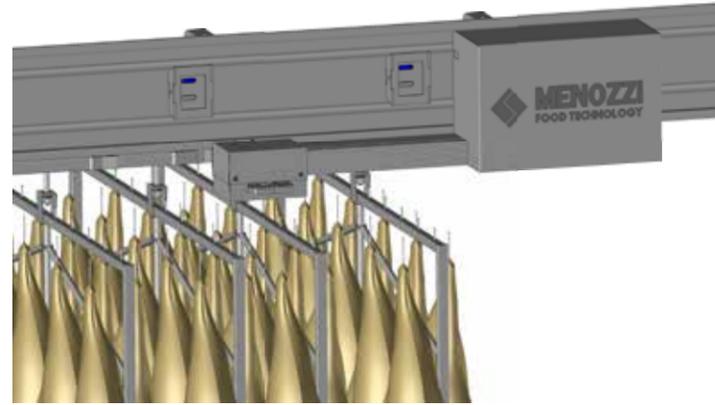
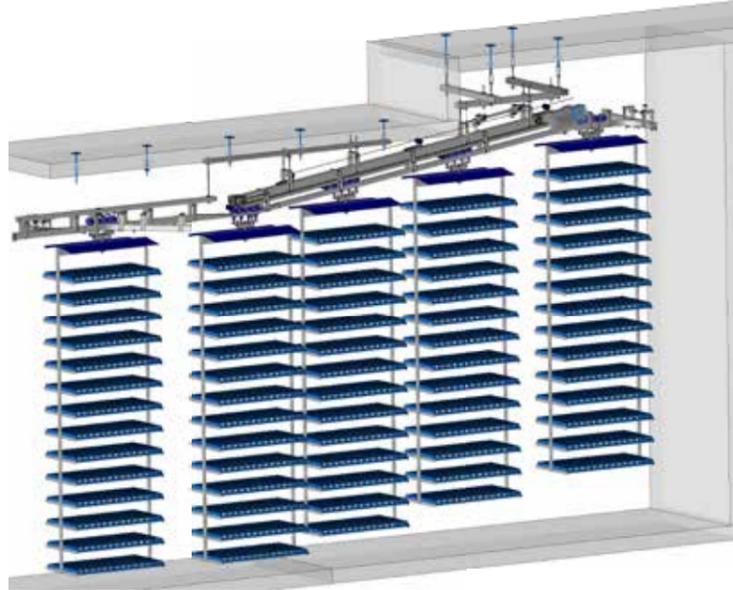
allow to connect twin rail systems hanging at different heights

## **LIFTS**

to move one or more racks from one floor to the other

## **TRANSFER SHUTTLES**

able to autonomously identify, grasp and transfer the racks to a pre-set point, ideal for long straight transfers, or transfers from a production department to the other and to feed stand-by lines

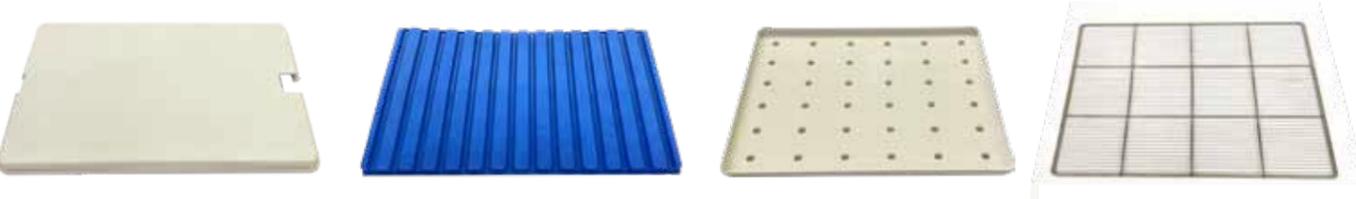


# RACKS WITH SHELVES

This kind of rack is used for lying products, such as hams or bellies in the salting phase, or speck/bacon and bresaola also in seasoning and smoking phase. Each rack is customized according to the needs of each customer and of each product.



Also the shelves themselves are different in shape and material: plastic (smooth or ribbed) or stainless steel, (sheet or net)



# RACKS WITH SHELVES

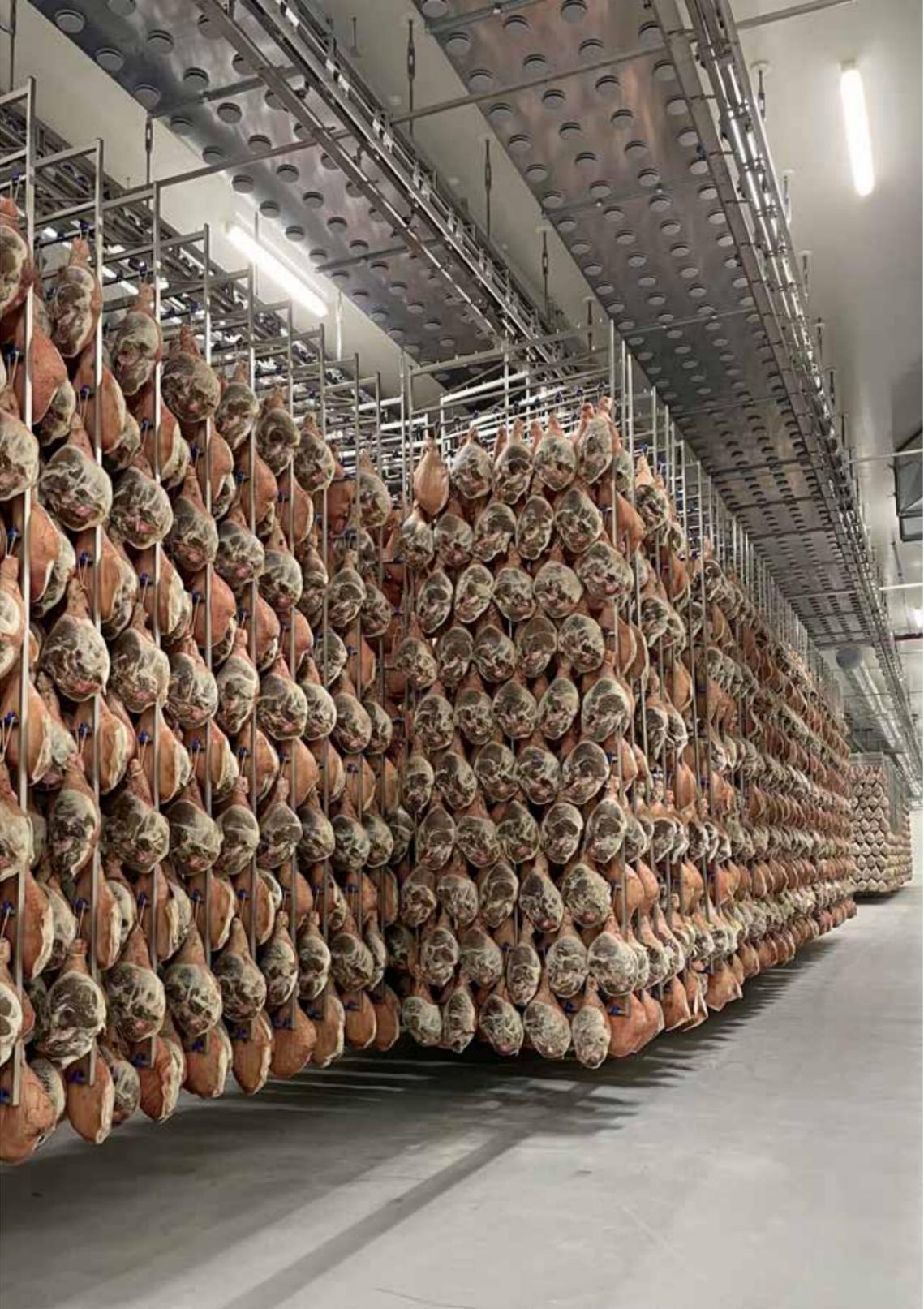


# RACKS WITH NAILS

Racks with nails are suitable for hams, traditional speck and bacon, that is for products to be hang by twine. Also in this case each rack is customized.

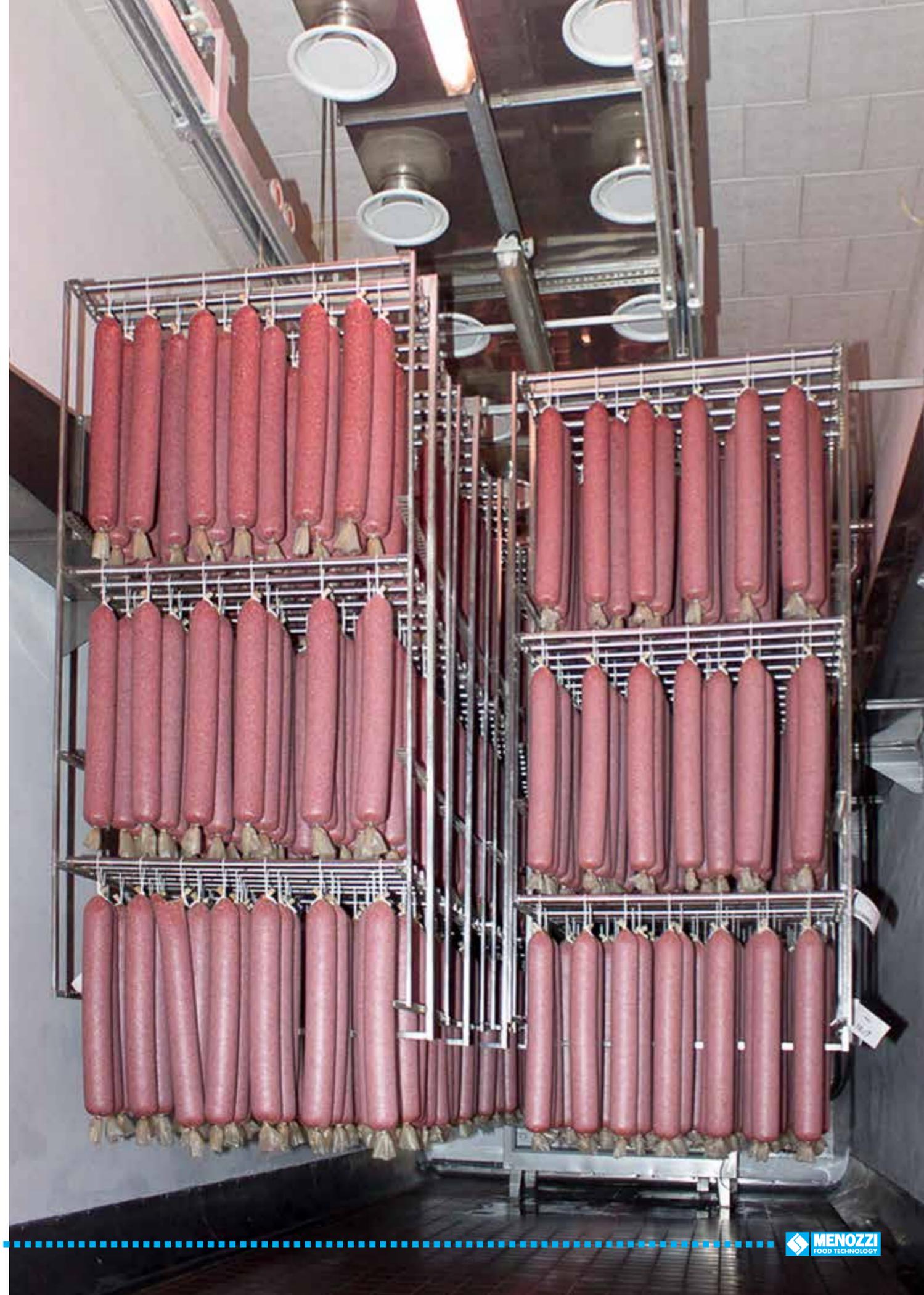
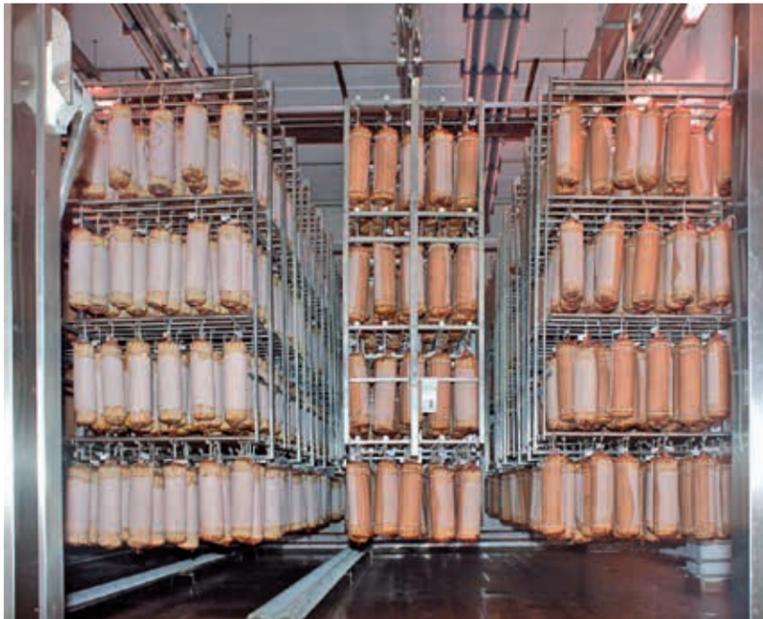


# RACKS WITH NAILS



# RACKS FOR STICKS

The racks for sticks are normally employed for each product that must hang in the seasoning, drying or smoking phase, such as salami, rolled bellies, rolled pork necks, sausages, kabanos and so on. These are easy to adapt to any product size and can be automatically loaded and unloaded by any automated device. A wide range of sticks, both of stainless steel or aluminium, are available to complete these racks.



# TROLLEYS

Thanks to our long-standing experience in this field, we have developed a wide range of trolley. Each trolley has different characteristics depending on the load it must carry and on the working temperature.

## WHEELS

available with different diameters, made of NYLON for working temperature till 80 °C or made of a special compound for working temperature from 80 to 120 °C  
Ball bearing of stainless steel on request.

## TROLLEY BODIES

are made of stainless steel, coated with toughened technopolymer or they are obtained by stainless steel precision casting.



# RAKS FOR AGV

The experience of Menozzi company in the production of RACKS, both hanging for twin rail conveying system and standing on the floor, has allowed us to build solid racks of large dimensions to be used with AGV (Automated Guided Vehicle) handling systems.

Racks for AGV are also customized, however they can be summarized in the following versions:

## STICKS

for handling salami, hams, necks and other hanging products

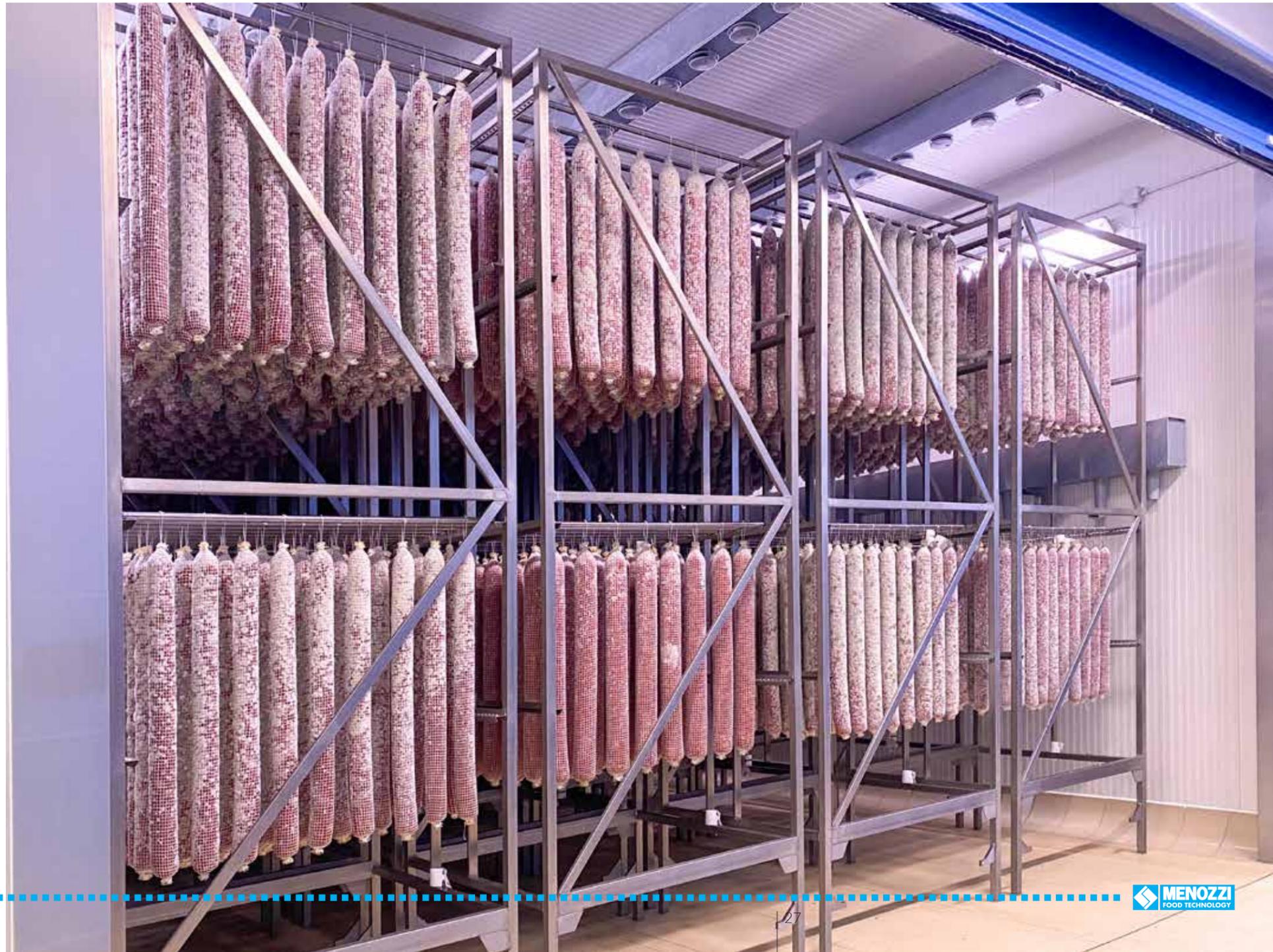
## PLASTIC SHELVES

for laying products such as hams in the salting phase

## SHELVES OF STAINLESS STEEL MESH

for products to be smoked or dried such as speck, bacon and salmone

Our engineering staff is at your disposal to help with layout planning of your processing and production lines. Our production department has been recently implemented with laser cut machinery and welding robot of latest generation. This makes our production faster and versatile.





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