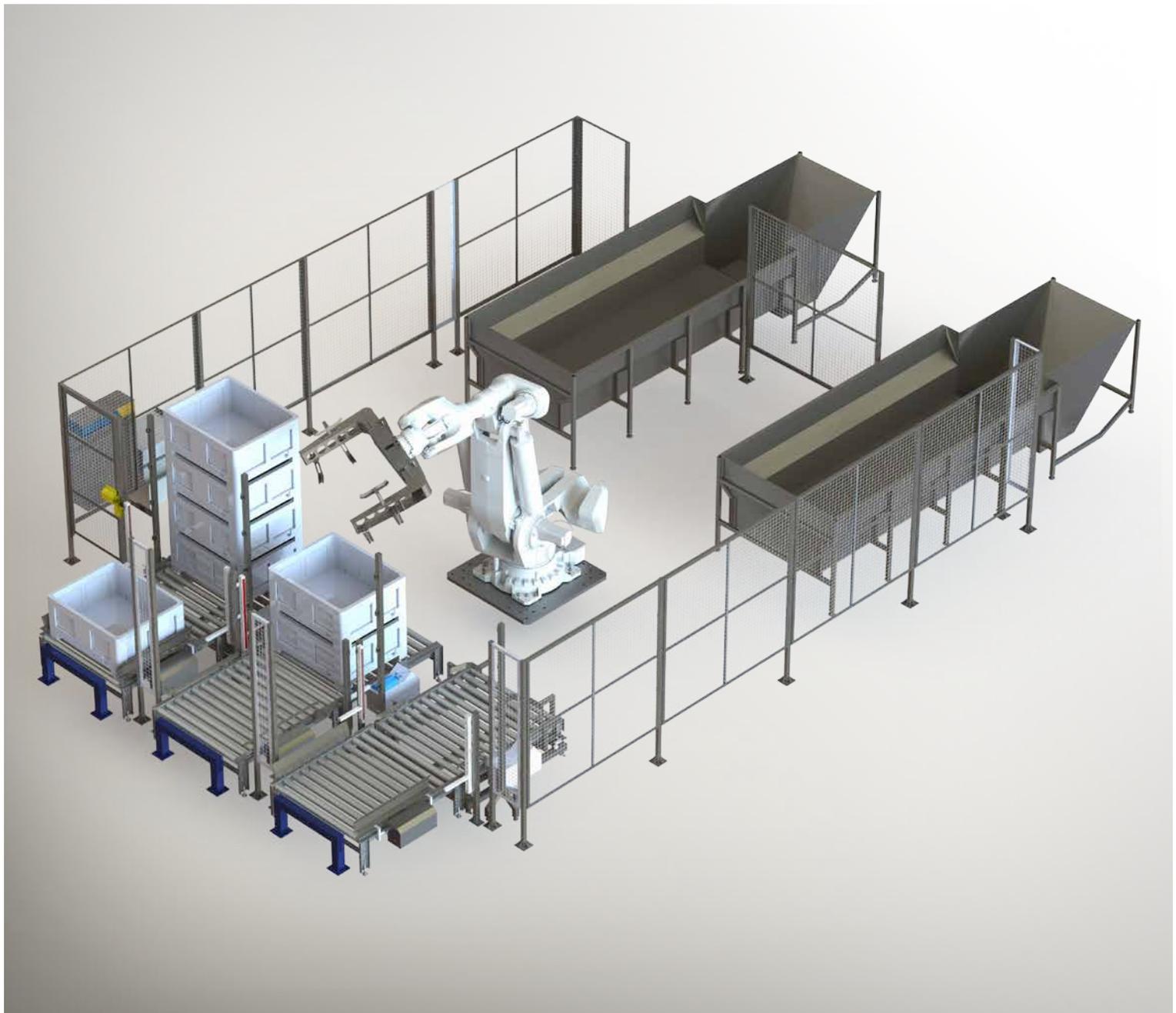


Géminis[®]

ROBOTICS: PALLETISING AND DEPALLETISING SYSTEMS



Géminis[®]

Procesos Alimentarios, S.L.

Robotised palletising and depalletising systems

(GÉMINA Procesos Alimentarios)

Robotics offers great advantages to the production process of food industry: robotics increases productivity, reduces costs, has a high efficiency, offers an optimal quality in the realised work, increases security, reduces occupational accidents and increases the safety in the process.



Anthropomorphic robots can be programmed to handle any element. Therefore, Gémina designs and creates solutions adapted to the different customer's needs. Gémina also creates different solutions for different containers: metallic or plastic drums, pallets, boxes, cans, bags, packs, etc.

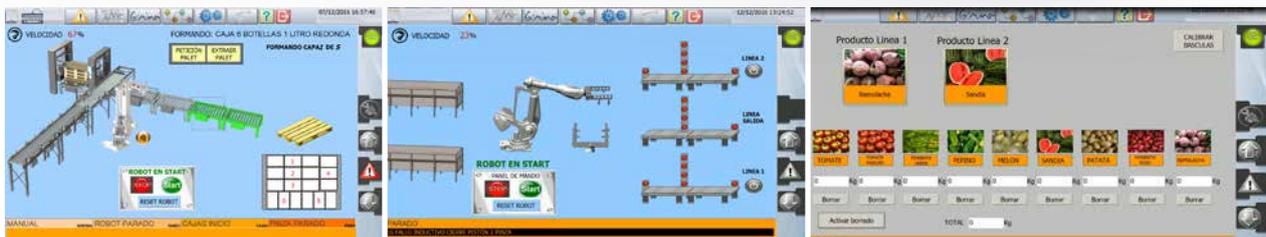
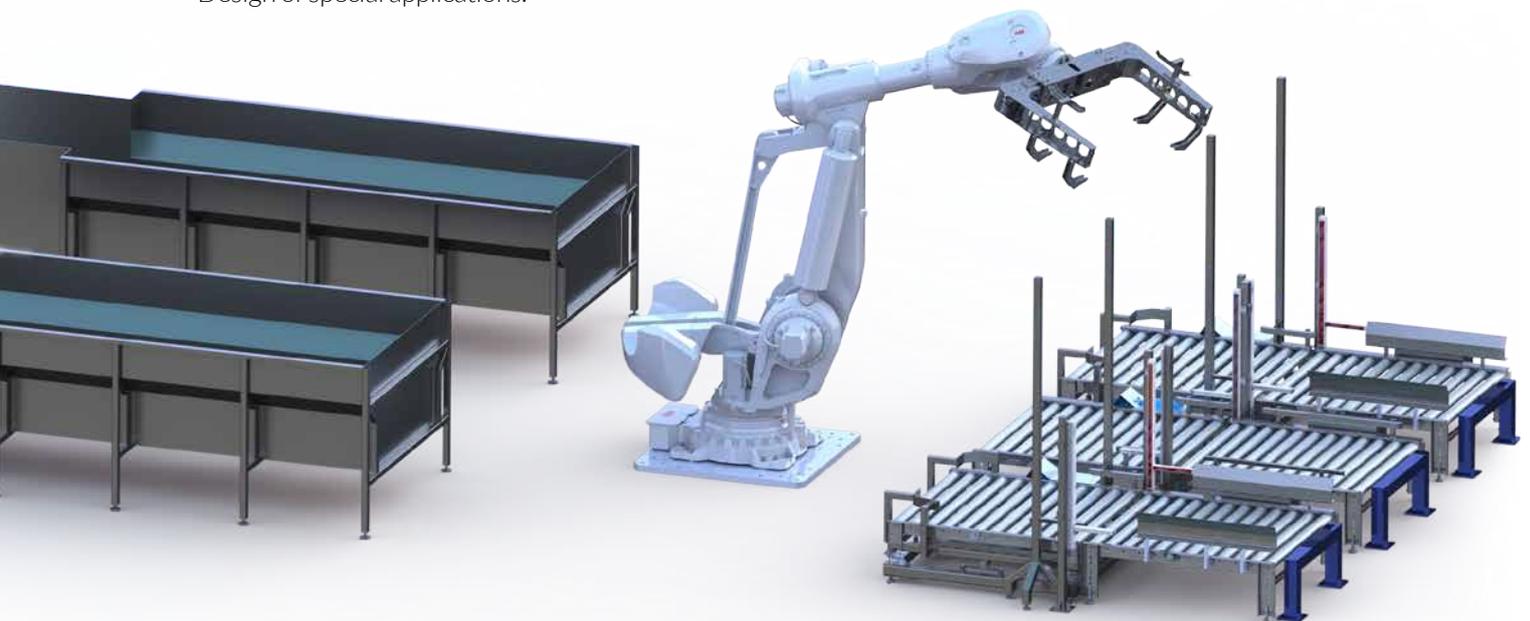
We have different accessories for robotic cells depending on the element you want to manipulate. Some of them are conveyors and transportation of boxes and pallets, stacking and un-stacking machines for pallets, boxes, mosaic formers, applications for changing the heading of pallets, etc.

Features

- The robot is selected to fulfill the needs of every specific application.
- Integration of ancillary elements of the cell and management of pallets movements.
- The brand of robot can be chosen by the customer
- The robot is completely monitored by tactile screen, eliminating the manual control.
- Robot events are recorded in a tactile screen panel PC, offering a report of events, alarms and fails.
- Online and in situ technical assistance for solving production stoppage

Specifications

- The process data is integrated in the central system for its recording.
- Applications are integrated in SCADA systems.
- Communication between equipments through PROFINET.
- First class security systems.
- Design of special applications.



Advantages

- Productivity increases.
- Staff is reduced.
- Occupational hazards are reduced.
- Minimize food contamination due to food handling
- Possibility of handling different elements through a change in the type of gripper.

Raw material input application: metal drums



Features

- Different typology of drums.
- Drums from up to 280 kg.
- Cycle from 60 to 90 drums/h.
- Hygienic Treatment of the product.
- Possibility of combining it with other process equipment: crusher, discharge hoppers, empty drum press and so on.
- Control of raw material input through weight registers which are classified depending on the product.

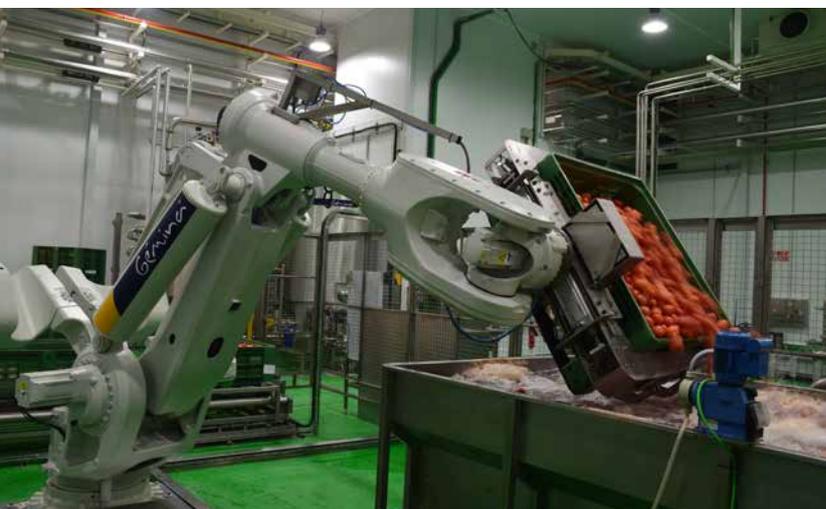
Box palletizing application



Features

- Different typology of boxes.
- Grippers can be used with a multitude of boxes formats.
- Work cycles from up to 5 seconds.
- Combination with different process equipment: conveyors, transports, stacking pallet machine, box mosaic former, etc.
- Production control through the registration of processed boxes which are classified depending on the product.
- Complete control through intuitive tactile screen.

Pallets depalletizing application



Features

- Different typology of pallets
- Pallets from up to 450 kg
- 90 pallets/h cycle.
- Hygienic treatment of the product.
- Possibility of combining this application with other process equipments: hopper, washing rafts, etc.
- Control of raw material input through weight registers which are classified depending on the product.
- The robot speed can be adapted to the speed of other equipment.
- Robot control through intuitive tactile screen.

Our Company



GÉMINA Procesos Alimentarios, S.L. is located in Jumilla, Murcia, a spanish autonomous region which is a model in food production.

GÉMINA has 25 years of experience in designing, making and integration of systems which offer innovative solutions for the food sector industry.

*You imagine and,
we do it.*



Business lines

Design and manufacture of machinery

- Design, manufacturing and integration of process equipment and food aseptic packing.
- The Manufacture is completely carried out in our installations.
- All our machinery has CE safety certificate and complies with the most exigent standards.
- I+D+i: We bet on technology innovation.

Engineering and design of processes: Projects management

In Gémina, we love our work and, therefore, our engineering department includes from the design, the calculation, the manufacture, the assembly, the automation and the start up of machines and installations. Therefore, we include a global and integral management of all our projects.

We care of every detail of the process and we advise our clients to optimize their product elaboration procedure. Gémina designs every process adapting it to the customers' requirements and standing out our customers' products among their competitors.

- Versatility and flexibility: we can plan from a plant, a simple line expansion to the installation of an equipment in a process.
- Ability of adaptation to different places and circumstances.
- Our engineering department has a big technical capacity and a long experience in this area.
- Gémina guarantees your success because we manage the whole project, reducing risks, costs and deadlines

Services Provided

1 - Technical assistance service: Alfa-Laval official technical and distributor service

- Maintenance service.
- Installation service.
- Calibrations.
- Replacement parts services.
- "Training" service.
- Online monitoring of production process and breakdown resolution.

2 - Automation and Robotics

- Automation of custom-made processes: integral solutions.
- Total Control of the process: SCADA systems, record and control of data.
- Custom-made robotics applications: different solutions for different necessities.

3 - Food Quality

- Optimization, development and validation of processing and packing equipment, besides of food elaboration processes.
- Consultancy for implantation of standards such as: BRC, IFS: ISO 22.000, FSSC...
- Product development [process + formula].

Customer Service

Gémína is characterized by its exclusive and permanent customer service. Our vocation is to become part in an operational way of the companies which we work.

Our closeness, technical competence, wide experience and self-confident are some of the main features why our costumers place their trust into our equipments and services.



Industries

Industrial sectors where GEMINA develops its projects:

- Dairy industry
- Tomato industry
- Juice and drink industry
- Vegetables and fruits industry
- Citrus fruits industry

Products catalogue

Aseptic fillings

Aseptic machine which fills metal drums with pre-sterilised bags which have pressurised cap. Besides, it also fills carton containers

Bag in box

Aseptic filling automatic feeding of pre-sterilized bags which have pressurized cap and a low volume (1-20 liters)

Extractors

Processing of a wide variety of products to get a puree free of seeds and peels.

Different methods of using: extractor or refiner

Heat exchanger

We offer all kind of models and designs, from single-tube to partial ones or rough surface exchangers.

Forced circulation evaporators

Concentrators which have great capacity and performance for products having great viscosity and a high content in solid matter.

Multiple stages which are adapted to the process and needs.

Hot/cold break units

These units process tomato puree and tomato paste guaranteeing the total or partial deactivation of the pectolitic enzymes and allowing the preservation of the pectine.

Laboratory pilot plants

Pasteurization and aseptic packing in the laboratory of small product samples, such as juices, soda drinks, vegetable creams, soups, etc.

Tubular pasteurizer

Project and constructive development of pasteurization plants adapted to different needs.

UHT

Low- acid liquid products (pH>4.5 for milk pH>6.5) are treated at 135-150°C for a few seconds with indirect heating or direct steam injection.

Heaters and coolers

Heating of products before getting through treatments such as refining or mixing. Cooling previous pasteurization treatments.

Cream extraction plants

Cream extractions of all types of fruits and vegetables, in both cold and hot extraction processes.

Aseptic Monoblock

Integration of an aseptic filling in a pasteurization plant, creating a compact, functional and versatile machine which is adaptable to a wide range of products.

Crusher

Defrosting of stored products such as fruit juices, fruit and vegetables pastes, creams, sauces and so on.

Piston Pump

It is conceived to pump viscous products, big particles of products (fruit in cubes or in pieces) or product which are sensible to shear stress.

Inverse osmosis equipment

Reduction of salinity of salty waters and sea waters.

Blending room / blending

Blending by recipes from database and transference of process parameters to pasteurizers.

Emptying of cans by aspiration

Unloading of metal cans and aseptic bags in blending rooms through emptying techniques in very few seconds.

Cip systems

Cip systems are used to carry out the chemical cleaning of food installations in a completely automatic way.

Processing tanks

Storage in aseptic packing tanks for high and low ph products, in liquid or viscous products.

Blending tanks

We have a wide range of vertical and horizontal tanks with different types of shaking and volumes. They are adapted to process needs.

Storage tanks

Storage rooms in stainless steel tanks having standard volumes or custom-made volumes.

Finisher or pulping machine

It refines crushed product to remove peels, stems and seeds.

Hammer mill

It is a grinder of pitted food (vegetables among others) for processing raw material.

Robotics

Robotic applications in proportion to palletized/ depalletized for the start and the end of processing and packing lines.



Gémina® at your service

Gémina®

Procesos Alimentarios, S.L.

GÉMINA Procesos Alimentarios S.L.

Polígono Industrial Los Romerales

Parcelas 3 y 4 - 30520 Jumilla

Murcia - España

Apartado de Correos 231

T/ + 34 968 716 018

E/ gemina@gemina.es

www.gemina.es



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