Packaging & Palletizing





WE MOVE
YOUR BUSINESS TO
INDUSTRY 4.0 ERA

GIZELIS ROBOTICS

www.grobotics.eu

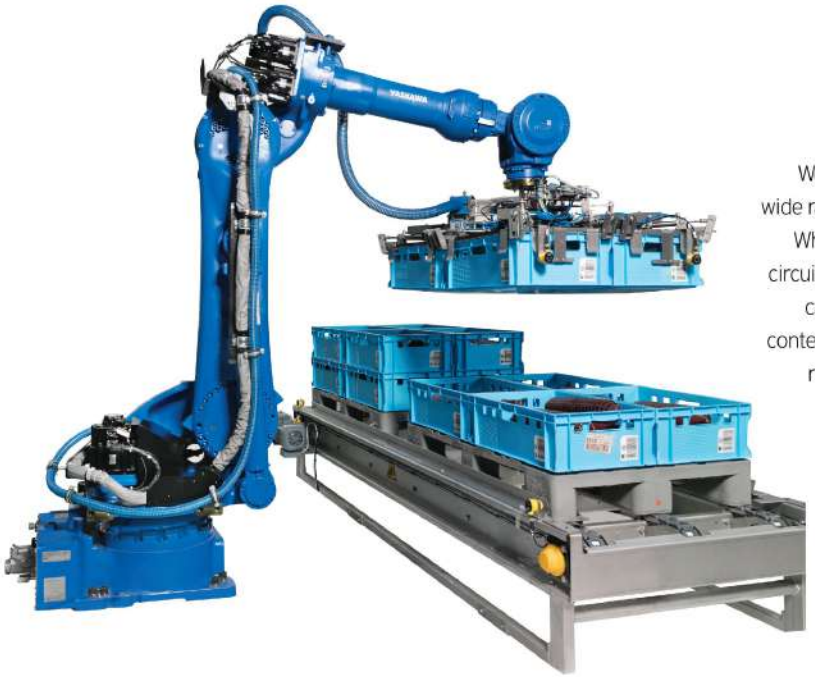
Gizelis Robotics SA has been founded to offer high-end robotic solutions and services for the world-wide market. It is the newest member of Gizelis Group and aims to continue the Group's success which has been operating in the field of sheet metal industry automations for 55 years by exporting more than 80% of its production.



The technical team is comprised by highly experienced engineers in robotics who have delivered a vast variety of projects in wide range of industrial verticals. Within our privately owned facilities of 6,500 sqm. located at Schimatari-Central Greece, we develop contemporary robotic applications and perform all necessary testing before shipment to assure high quality of products and services.

Gizelis Robotics SA is the best choice for modern automation systems when it comes to efficient and cost-effective development. Our goal is to lead the market through our solutions which offer rapid production capacity growth, higher product-services quality and flexibility by adapting to new trends and customer needs.

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Packing Solutions

We offer packing solutions in wide range of industrial verticals. Whatever the product; be it a circuit board or your snacks in a carton box, Gizelis Robotics contemporary solutions provide reliable process minimizing standstills.

At high-capacity rate, speed and repeatability are key factors for safe continuous process. Our solutions ensure high end efficient productivity.

Simplicity Efficiency Effectiveness

We promote simplicity and long system life; our designing team has taken care of maintenance by easy access to consumable parts. Lubrications and dedusting works are performed with minimum downtime.





Gizelis Robotics packing series has been exclusively developed to provide compact robotic solutions with minimum footprint making these systems ideal for tight spaces.

Packing Standard Solutions

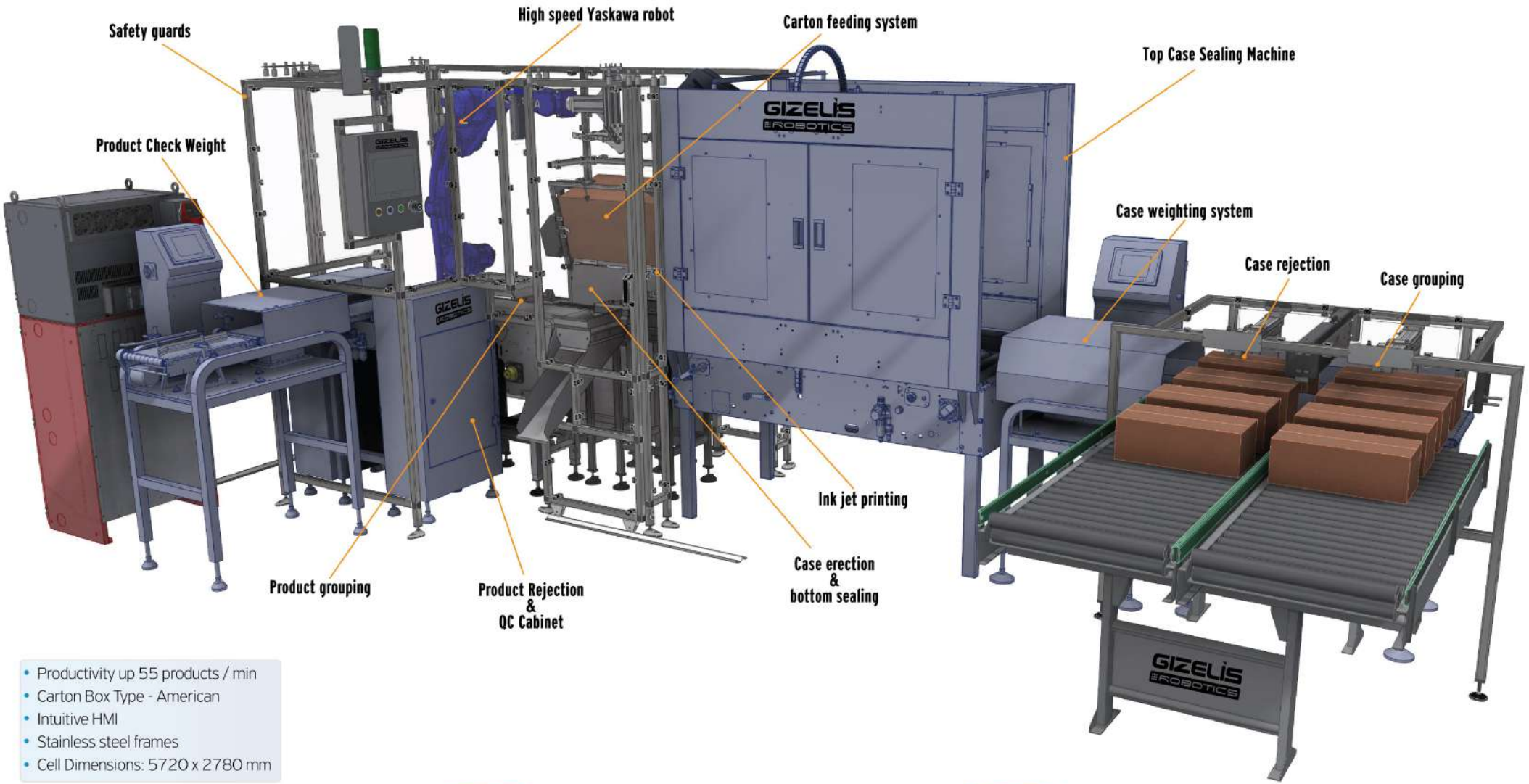
R Pack Standard

R Pack Series

When compact design is a must, **R Pack** provides the ultimate solution.

A complete system that provides **all key processes of packing**.

An ideal system for *light weight* products such as small pouches.



- Productivity up 55 products / min
- Carton Box Type - American
- Intuitive HMI
- Stainless steel frames
- Cell Dimensions: 5720 x 2780 mm

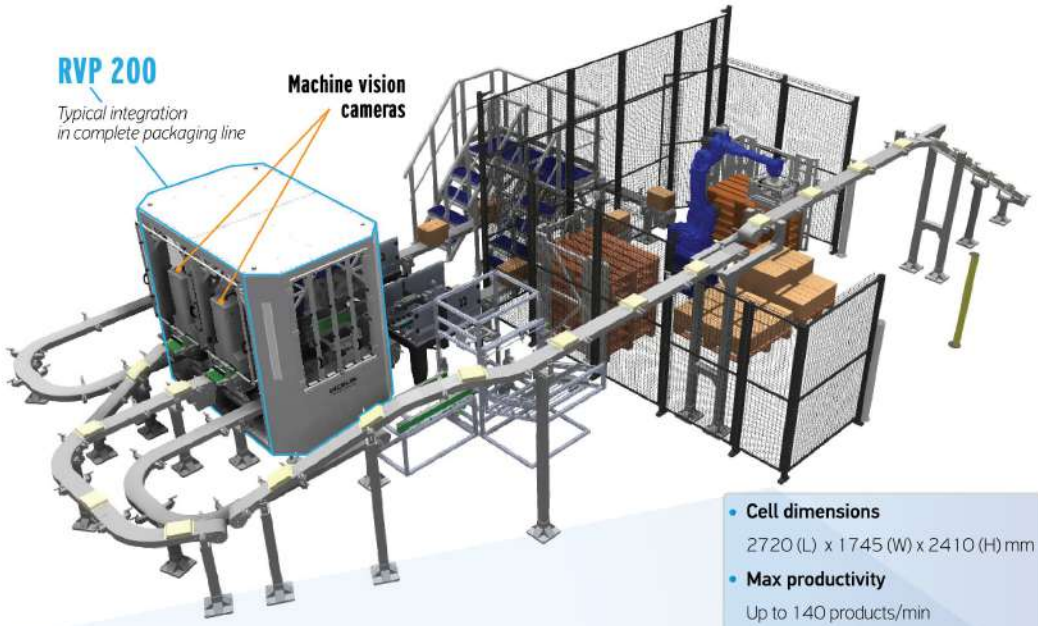
Packing Standard Solutions

RVP 200

Our dual robotic packing system **RVP 200** is a total solution when it comes to product handling in packing process. Randomly distributed products are conveyed into our system and a machine vision system parted by 2 cameras, detects the orientation, position and patterns of your products in order to grip and case pack them with our two flexible pneumatic grippers which are mounted on high speed and precise *Yaskawa robots*. Machine vision also assists in product rejection when not aligning with your specifications.

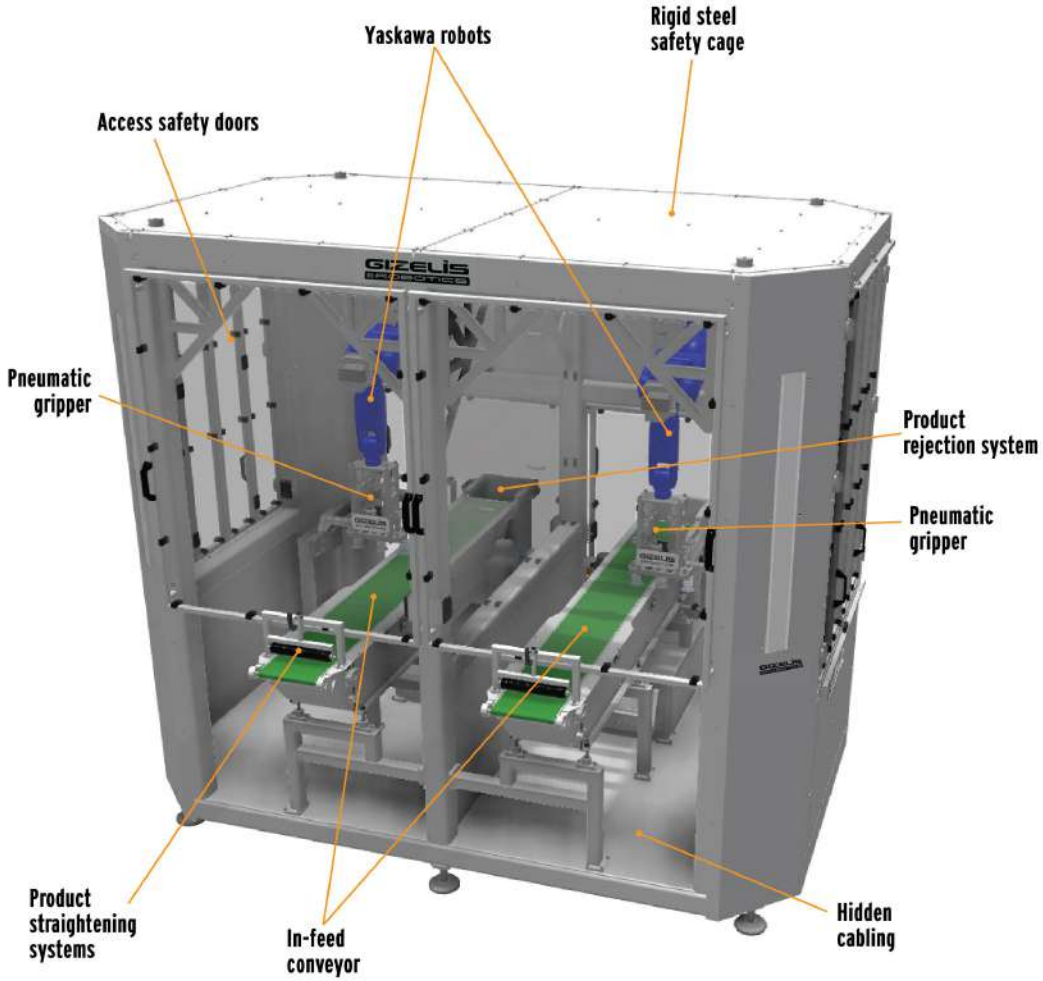
Additionally, **RVP 200** promotes safety and compact design, an ideal product for minimum footprint requirements.
More features
- *hidden cabling protect sensitive parts*
- *access door with electronic safety locks*
- *rigid steel base with predefined reference points for fast and easy installation setup.*

A complete system that provides all important and contemporary elements for a succesful packaging process.
An optimal automation for light weight products such as small pouches. Special food grade design implemented.

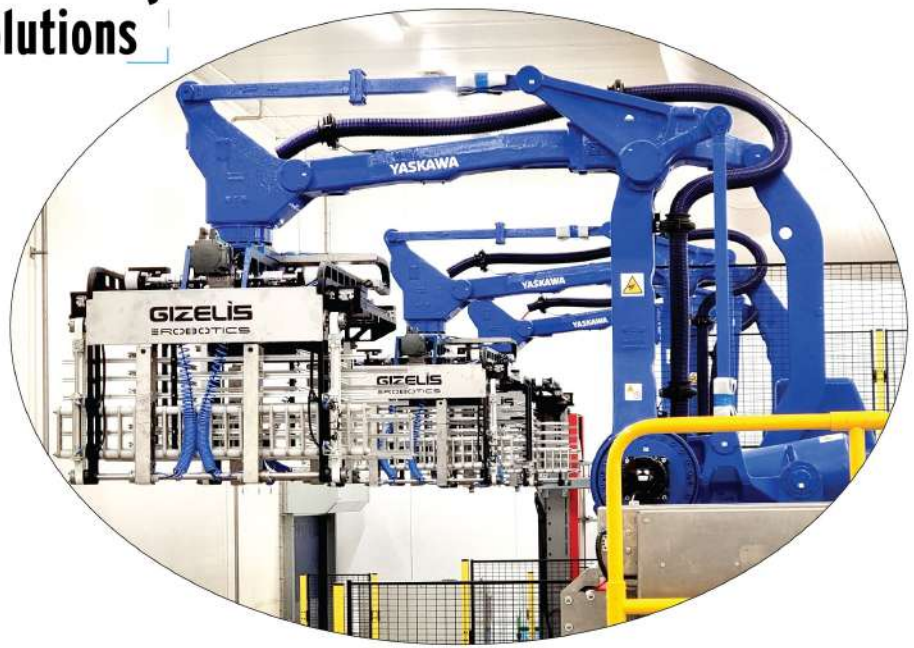


- **Cell dimensions**
  2720 (L) x 1745 (W) x 2410 (H) mm
- **Max productivity**
  Up to 140 products/min
- **Machine vision**

R Pack Series



Palletizing Solutions



Gizelis Robotics is offering a wide range of **custom** and **standard palletizing solutions** for any type of product. No matter the size of the project; be it a small entry level palletizing cell up to a complete palletizing solution; we can offer you a turn - key project for any capacity range.

For less demanding applications we have developed our standard palletizing solutions **Cell Pal Series** ranging from entry level palletizing solutions as **Cell Pass Boxy** and **Cell Pal Dual** up to more advanced systems as **Cell Pal Over / Under**, **Cell Pal Ultimate** and **Bag Palletizing Cell**.

Projects that are more demanding and carry higher complexity factor; Gizelis Robotics is offering custom made complete palletizing solutions of unique design for medium to high-capacity rates. Our solutions include **single product**, **layer** and **multi-layer palletizing process** along with supplementary equipment and services such as barcodes scanners, labelling machines, pallet wrapping machines and SCADA - Industry 4.0 platforms.

Cell Pal Series

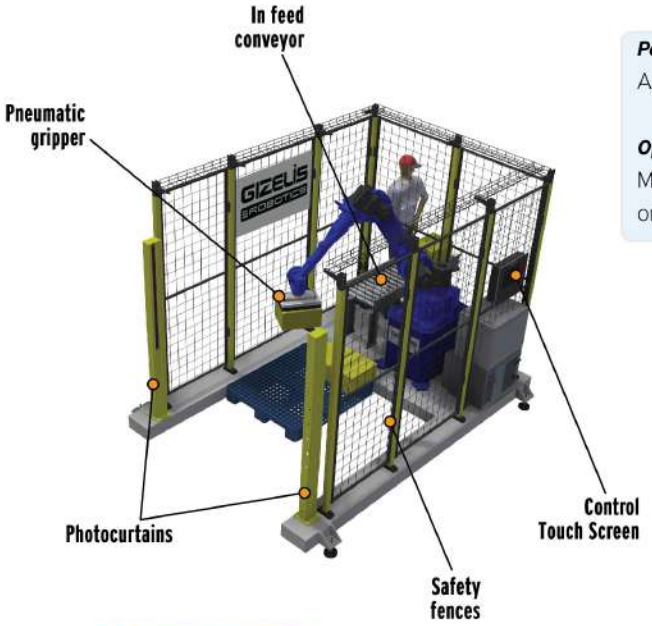
BOXY

Practically packed in a "box"; this is an entry level robotic cell for palletizing process. Powerful Yaskawa robot, able to handle up to 10 cases per minute and 50 kg. products, ensures total repeatability and zero product drop fall due to specially designed pneumatic gripper. **BOXY** can be moved from line to line due to its rigid metallic base.

Features

- Rigid steel construction
- Minimum footprint
- Control touch screen
- User friendly HMI
- Low maintenance
- Quick setup & start-up

Technical Specifications	
Cell dimensions	2700x2380x2500mm
Max case weight	Up to 50kg
Max productivity	Up to 10 cycles/min
Gripper	Flexible vacuum gripper
Max pallet height	2000mm
Safety guarding	Certified systems for robotic applications



Pallet types:
Any size (EU, US, UK)

Optionals
Mechanical
or electrical gripper

DUAL

Cell Pal Dual is an upgraded version of Cel Pal Boxy with double pallet positions. This new feature offers increased independency as it provides the operators with more available time before pallet changeover. A powerful Yaskawa robot, able to handle up to 10 cases per minute and 50kg product, ensures total repeatability and zero product fall due to specially designed pneumatic gripper. The system is can be moved easily and fast from line to line due to its rigid metallic base.

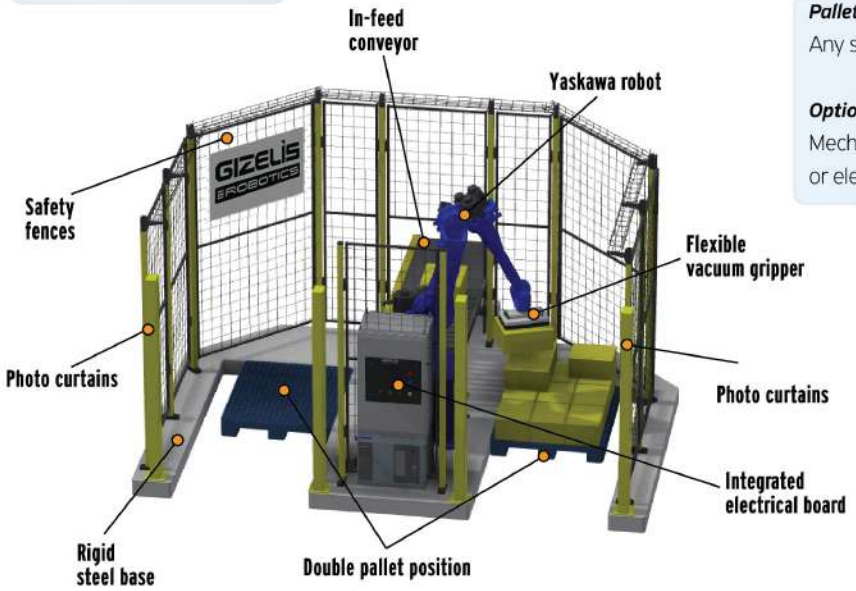
Features

- Double pallet positions
- Rigid steel construction
- Minimum footprint
- Control Touch Screen
- User friendly HMI
- Low maintenance
- Quick setup & start-up

Technical Specifications	
Cell dimensions	4000x3700x2500mm
Max case weight	Up to 50kg
Max productivity	Up to 10 cycles/min
Gripper	Flexible vacuum gripper
Max pallet height	2000mm
Safety guarding	Certified systems for robotic applications

Pallet types:
Any size (EU, US, UK)

Optionals
Mechanical
or electrical gripper



Cell Pal Series

Palletizing Standard Solutions

OVER / UNDER

Over/Under offers **easy and fast load/unload** function for high output production. Empty pallets are supplied on the bottom layer by a double layer chain conveyor and full pallets are discharged on the upper level. The system offers continuous production upon manual loading/unloading with pallet buffer.

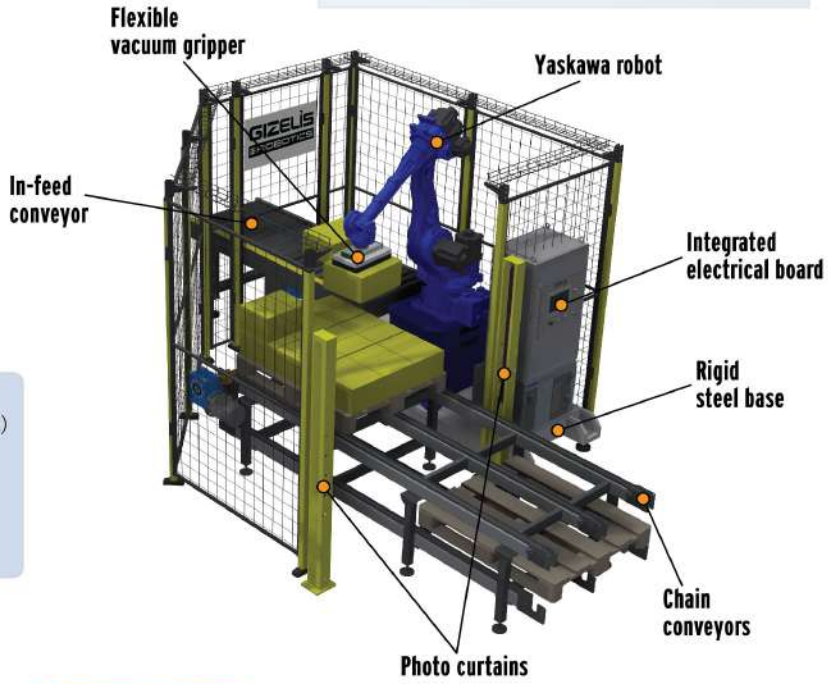
Features

- User-Friendly
- Cost-Effective
- Advanced Reliability
- Small Footprint
- Quick Start-up Cycles
- Low Maintenance

Technical Specifications	
Cell dimensions	4900x3200x2500mm
Max case weight	Up to 50kg
Max productivity	Up to 10 cycles/min
Gripper	Flexible vacuum gripper
Max pallet height	2000mm
Safety guarding	Certified systems for robotic applications

Pallet types:
Any size (EU, US, UK)

Optionals
Mechanical
or electrical gripper



Cell Pal Series

ULTIMATE

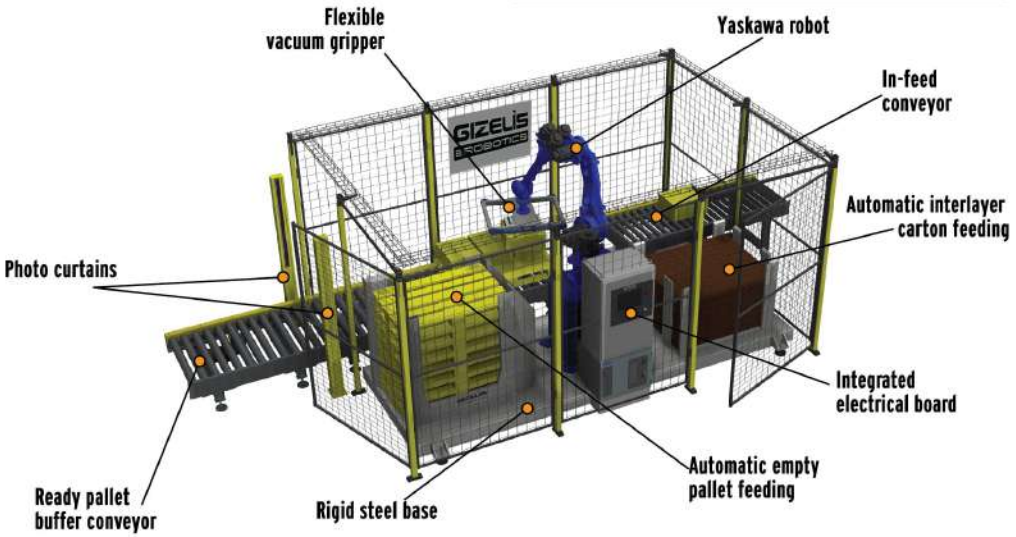
The most advanced system of *Cell Pall Series*, the **Ultimate** version offers a complete palletizing solution. With added features such as ***empty pallet stack***, ***interlayer carton feeding area*** and ***automatic empty pallet feeding gripper***; the system ensures continuous production without the need of short-term feeding and immediate ready pallet removal due to its large material storage and ready pallet buffer stations.

All components of **Cell Pal Ultimate** are installed on rigid steel base for fast system installation due to reference points specially designed with hidden and accessible cabling racks.

Pallet types:
Any size (EU, US, UK)

Optionals
Mechanical
or electrical gripper

Technical Specifications	
Cell dimensions	7000x3300x2500mm
Max case weight	Up to 50kg
Max productivity	Up to 10 CPM
Gripper	Flexible vacuum gripper
Max pallet height	2000mm
Safety guarding	Certified systems for robotic applications



Cobot Pal Standard Series

Basic

Features

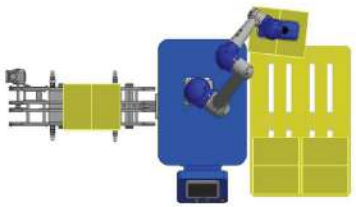
- Up to 10 robot cycles/min
- Product weight up to 8kg
- Up to 1350 mm pallet height
- 1 palletizing position
- Mobile system
- Very small footprint
  1500 (L) x 1500 (W) mm
- No safety fences
- Zone safety control
- Plug & Play solution
- Easily programmed
- AMR Ready



Key Components

- **Collaborative robot**
  Yaskawa HC10DT
- Controller YRC1000 micro
- Collaborative vacuum gripper
- Infeed plastic chain conveyor
- Intuitive HMI
- **Palletizing wizard software**
- Compact robot base with integrated electrical panel
- Safety scanners





Cobot Standard Basic is designed to provide a mobile robotic palletizing solution for carton boxes directly inline with your production line. Powered by Yaskawa HC10DT; the most advanced **collaborative robot** in the world; our system can handle capacities **up to • 10 cycles/minute • 8 kg product weight.** The system assures safety, outstanding repeatability and steady quality.

Safety fences are a thing of the past due to our **collaborative design** utilizing high-end safety scanner covering 360°. **Cobot Standard Basic** can be moved from point to point easily and fast due to its unique features without additional setup time requirements.

Cobot Pal Standard Series

PLUS

Cobot Standard Plus is designed to provide a mobile robotic palletizing solution for carton boxes directly inline with your production line. Powered by Yaskawa HC20DT; the most advance **collaborative robot** in the world; our system can handle capacities **up to • 10 cycles/minute • 18 kg product weight • 2000mm pallet height.** The system assures safety, outstanding repeatability and steady quality. Available with 2 palletizing positions.

Safety fences are a thing of the past due to our **collaborative design** utilizing high-end safety scanners covering 360°. **Cobot Standard Plus** can be moved from point to point easily and fast due to its unique features without additional setup time requirements.

Key Components

- **Collaborative robot**
  Yaskawa HC 20DT
- Controller YRC1000 micro
- Collaborative vacuum gripper
- Infeed plastic chain conveyor
- Intuitive HMI
- **Palletizing wizard software**
- Compact robot base with integrated electrical panel
- Safety scanners



Features

- Up to 10 robot cycles/min
- Product weight up to 18kg
- Up to 2000mm pallet height
- 1-2 palletizing position(s)
- Mobile system
- Very small footprint
  2500 (L) x 1500 (W) mm
- No safety fences
- Zone safety control
- Plug & Play solution
  Easily programmed





- AMR Ready

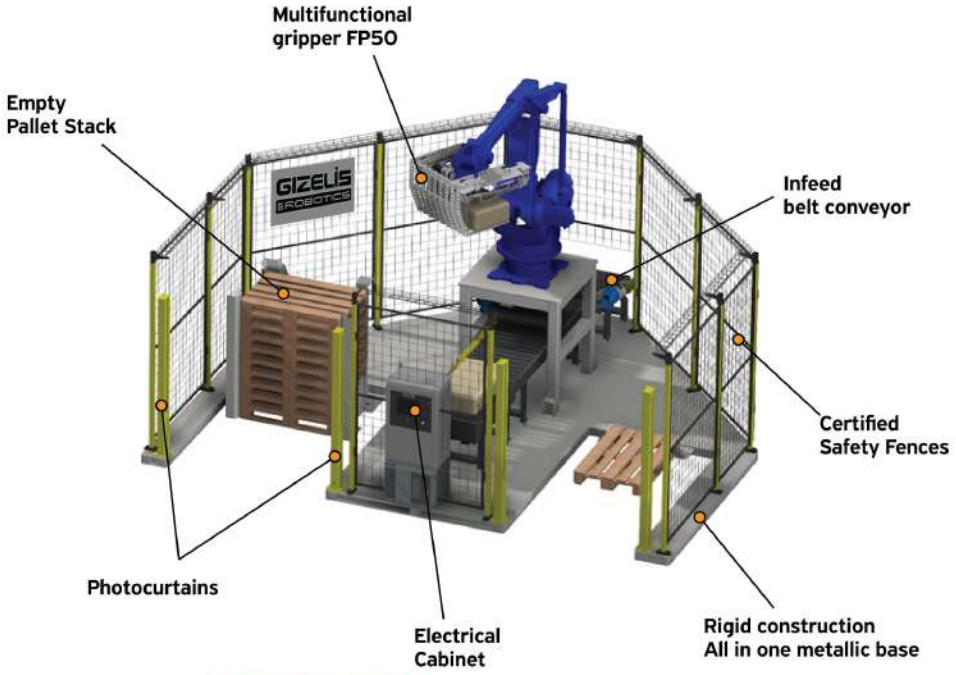
Bag Palletizing Cell

Bag Palletizing Cell

Bag Palletizing Cell utilizes a Yaskawa Robot and combines production speed, wide range of bag, different weights and precision handling. There are no peripheral equipment requirements due to its multi - functional gripper which is able to handle empty pallet feeding and any kind of bag material.

- Rigid steel construction.
- Minimum footprint.
- Multi - functional gripper.
- Control Touch Screen

- Automatic empty pallet handling.
- Product weight 20 - 50 kg.
- Productivity: Up to 15 cycles / min
- User friendly HMI
- Optional Equipment: Automatic ready pallet output



Awarded by one of the biggest yogurt producers; **Gizelis Robotics SA** has completed the largest palletizing project in Greece. Five production lines continuously feed our system with yogurt carton trays ; the product is lifted 3 meters above ground by 5 specially designed continuous flow lifters.

Plastic chain conveyors drive the carton trays into programming tables to form up to 5 full layers. Thereafter 3 Yaskawa robots **PL500** (500 kg payload) equipped with our own uniquely designed layer palletizing grippers deliver an astonishing capacity of 32 pallets/hour.

The entire project is parted by contemporary equipment, food grade materials, high end security systems and an intuitive software for user friendly experience. Easy access to operators and packing material stations has been provided.

Food grade modular plastic chain conveyors



Yaskawa PL500 robots
Gizelis Robotics layer grippers





Continuous product lift

Carton interlayer feeding with lifting system





Product layer programming table

Automatic empty pallet feeding system & roller conveyor carriage



Complete Robotic Layer Palletizing Line
Product Yogurt Display Carton Trays

Roller conveyors system output
LGV ready pallet pickup

Rotating roller conveyors

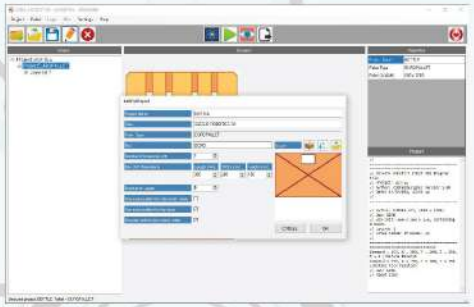
Palletizing Wizard Software

Gizelis robotics team has developed a unique intuitive software exclusively for standard and custom palletizing systems. Our **Palletizing Wizard** operation is easy and provides step-to-step assistance to create your own production recipe along with project name and product type. The operator is also able to input the dimensions of the product, label side orientation, number of layers and layer mirroring.

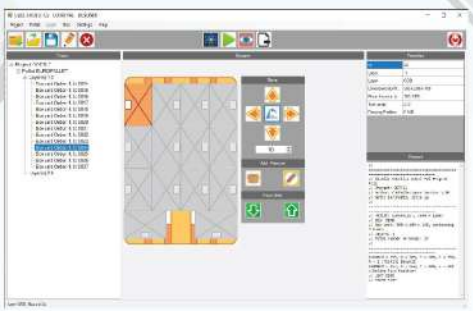
We have gone a step further and offer you a wizard feature. Once selected our software proposes palletizing formats according to your product sizing based on products/layer and least free pallet space after palletizing.

The operator may chose 1 of the options and the palletizing format is automatically created and loaded on the robot. No other action is needed to start automatic palletizing process.

This special feature provides customer flexibility, independency and eliminates system downtime. More features allow the operator to set label side on the product, manual pallet builder and layer mirroring.







Cell Pal Series

Specifications table

	BOXY	DUAL	OVER/UNDER	ULTIMATE
Application	Robotic palletizing			
Cell dimensions (mm)	2700 x 2380 x2500	4000 x 3700 x 2500	4900 x 3200 x 2500	7000 x 3300 x 2500
Max case weight	Up to 50 kg (see Grippers below)			
Max productivity	Up to 15 CPM			
Pallet sizes	1200 x 1000 mm, 1200 x 800 mm or custom size upon request			
Gripper	Vacuum - Standard version - Up to 20 kg Mechanical or Electrical - Optional Equipment - Up to 50 kg			
Max pallet height	Up to 2000 mm			
Safety guarding	Certified Systems for Robotic Applications			
Pallet handling	Manual		Semi-Automatic	Automatic
Support structure	Pre-assembled rigid steel base for simplified installation & mobility			
Control panel	Touch screen HMI 5.7" or 10.1" (optional)		Touch screen HMI 10.1"	
Software	Parametric palletizing program with Pallet Wizard			
Optional Equipment	Warranty extension	Bus interface gripper communication		

Air Grip World

An **all-in-one solution** for bottle handling robotic applications, **Air Grip World** end of line packaging system delivers continuous reliable production **for packaging** and **palletizing** processes to an unparalleled cost effective level.

- Strong, reliable and flexible product gripping.
- Carton box erection, packing and palletizing.
- Stainless steel components.
- Rigid steel construction.
- Minimum footprint requirements.
- Safety frame and guards.
- Multi – functional gripper.
- Bottle divider
- Product grouping.
- Carton Box up to 25 kg.
- Capacity up to 4 boxes / min
- Intuitive HMI.

Optionals:
- Interlayer sheet placement.
- Parametric palletizing programming.
- Automatic pallet conveying
- AMR pallet handling

Ideal for industrial vertical:
Breweries, Wineries,Soft Drinks, Pharmaceuticals, Chemicals.



GIZELIS ROBOTICS

Packing & Palletizing

Air Grip® World Twin

Air Grip World becomes more powerful by adding a twin robot.
The contemporary design in stainless steel key components ensures reliable, flexible and fast picking up of bottles, erecting cardboard boxes and finally palletizing these boxes for delivery.

- 2x MOTOMAN-GP50 with YRC1000 control system
- Air Grip Combo gripper (patent pending)
- Bottle table
- Box erector with magazine for cardboard boxes
- Box sealing with glue
- Safety fence

Technical data
Capacity
Output up to 10 boxes / min
Dimensions
L x W x H 4500 x 3500 x 2300 mm
Weight
2500 kg











GIZELIS ROBOTICS





Logistics

In warehousing, we provide turn-key automation solutions. Our experts perform an analysis of your needs and site in terms of floor conditions, safety parameters hazard zones and by processing the corresponding data we perform the system sizing, set the action plan, choose the IT appropriate interface and propose the ideal systems for your applications.

Gizelis Robotics SA product range include

- **AGV pallet trucks**
- **AGV pallet stackers**
- **AGV reach trucks**
- **AGV VNA trucks**

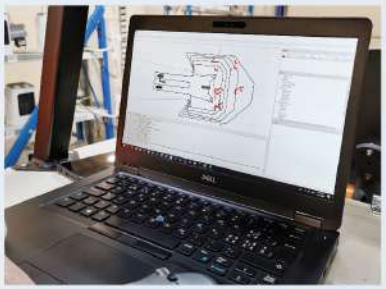
Utilizing advanced safety equipment such as safety scanners, 3D cameras and photoelectric sensors along with Bluebotics natural feature navigation software, we are able to perform traffic management, identification of crossing zones and define rule priority to deliver you the most efficient and safe solution in the market.

Our project team also is responsible for WMS/ERP communication and installation of our supervision software to a dedicated PC or server.

Once your project is complete, we extend our cooperation with maintenance contracts that include efficiency analytics and preventive maintenance to increase system lifetime.







- Turn-key solutions
- Simple & flexible navigation
- Traffic management
- Risk assessment
- Training schedule
- WMS/ERP communication
- Supervision software
- Dedicated PC / server
- Rapid ROI

Automatic Guided Vehicles





Air Grip

Simple, safe and flexible gripper for bottle handling.



GRIPPERS

The **Air Grip** bottle handling tool is designed to meet the requirements of reliable, flexible and speedy production process. It is easy to use, provides a long lifespan and handles the majority of glass or plastic bottles types.

RELIABLE **FLEXIBLE** **INNOVATIVE DESIGN**

Feedback from breweries, soft drinks producers and wineries already using Air Grip in their production is very positive! Bottles are lifted more securely; production line downtimes are eliminated and air pressure requirements is set lower than other conventional methods. Air Grip is an all-around cost-effective solution.

Air Grip Advantages

- Bottle necks held securely at high speed
- Stable and robust gripping heads
- Minimal maintenance needs
- Long life span, with minimum wear and tear
- Easy to clean
- Lightweight
- Prevents jammed caps











GRIPPERS

FP50

Robotic gripper suitable for palletizing bags made of any type of material such as paper, plastic or fabric within weight range of 20-50 kg.

The product is lifted from a roller conveyor via appropriate fork geometry design.
The palletizing of the bag is achieved by retracting a stable vertical component of the gripper thus releasing the bag in a horizontal movement.

During robot movement, the bag is stabilized via vertical mechanical pads, in order to maintain the desirable shape and geometry, while at the same time achieving high speed of the procedure with safety.

Technical Information

- Gripper dimensions (closed): 1020x850x695 mm
- Bag dimensions (max): 800x500x250 mm
- Product weight range: 20-50 kg
- Gripper weight: 120 kg

Basic features

- Robotic servo driven bag gripper
- Sturdy anodized aluminium components
- Vertical mechanical pad for product stability
- Pallet handling mechanism





SPIDER S25

Robotic gripper suitable for palletizing bags made of any type of material such as paper, plastic or fabric within weight range of 10-25 kg The product is lifted from a roller conveyor via appropriate fork geometry design.

The palletizing process is achieved by releasing the bag vertically thus achieving high speed and minimum robot cycle time. During robot movement, the bag is stabilized via vertical and side mechanical pads, in order to maintain the desirable shape and geometry, while at the same time achieving high speed with safety.





Technical Information

- Gripper dimensions (closed) 620x630x500mm
- Distance between centre of claws 100mm
- Bag dimensions (max) 800x500x250mm
- Product weight range 20-50kg
- Gripper weight 42kgr

Basic features

- Robotic bag gripper with vertical release
- Sturdy anodized aluminium construction
- Vertical & side mechanical pads for product stability
- Aluminium anodized components

GRIPPERS

PCP Duo

A dual-purpose gripper for case forming and packing solution for small to medium products. The case forming process takes place in matter of seconds reliably by robotic kinematics ensuring high level repeatability. **PCP DUO** gripper perfectly matches with carton boxes in a wide range of dimensions due to its flexibility in design.

Advanced components have been utilized for manufacturing of the gripper along with elegant design of anodized aluminium and stainless-steel parts.

Basic Features

- Sturdy anodized aluminum components
- Lightweight design
- Stainless steel parts

Technical Specifications

- Type: Pneumatic gripper
- Gripper dimensions: 400x200x500 mm
- Gripper Weight: 6 kg





SCV 3

Exclusively designed for demanding pick 'n' place and case packing applications; the **SCV3** grips your products firmly and quick release them for minimum robot cycle timing.

Advanced components have been utilized for the manufacturing of the gripper along with elegant design of anodized aluminium and stainless-steel parts.

Technical Specifications

- Type: Pneumatic gripper
- Gripper dimensions: 575x80x270 mm
- Gripper Weight: 5.5 kg
- Product Weight: 500 gr



Basic Features

- Lightweight design
- Stainless steel components
- Quick release pneumatics



LAYER GRIPPER V1

GRIPPERS KINEO

Specially designed for demanding layer palletizing applications; **Layer Gripper V1** offers unique product handling and process precision due to its servo motion control. We have implemented special care in key components design by adding anodized aluminium and stainless-steel parts providing both appropriate functionality and product elegance.

Layer Gripper V1 is equipped with a interlayer carton picking system. The gripper itself weights 385kg. and it is suitable for max. product of 130 kg. However due to its custom design the gripper can be modified for higher product weight capacity.



Technical Specifications	
Category	Robotic gripper
Type	Layer palletizing
Gripper dimensions	1640x1250x955 mm
Pallet sizes	1200x800 & 1200x1000 mm 1200x1200 & 1000x1000 mm
Gripper weight	385 kg
Max pallet layer weight	130 kg
Motion system	3 servo motors
Power	2.3 kW



Optionals
Interlayer carton picking system

KINEO automatic pallet handling system has been exclusively designed for empty pallet stacking and destacking processes directly in line with your production lines

It is added as supplementary equipment on top of any type of conveyors, either chain, belt or roller and it is PLC ready for fast and reliable connection to the main operating system.
Suitable also for any type of standard pallet type.
The pallet can be placed short or long side leading.

Kineo automatic pallet handling system is an efficient and reliable solution offered in an unparallel cost effective proposal.

- Small footprint
- Simple design
- Rigid construction
- Any type of pallet handling
- Up to 15 pallets stack (option for more)
- PLC Ready

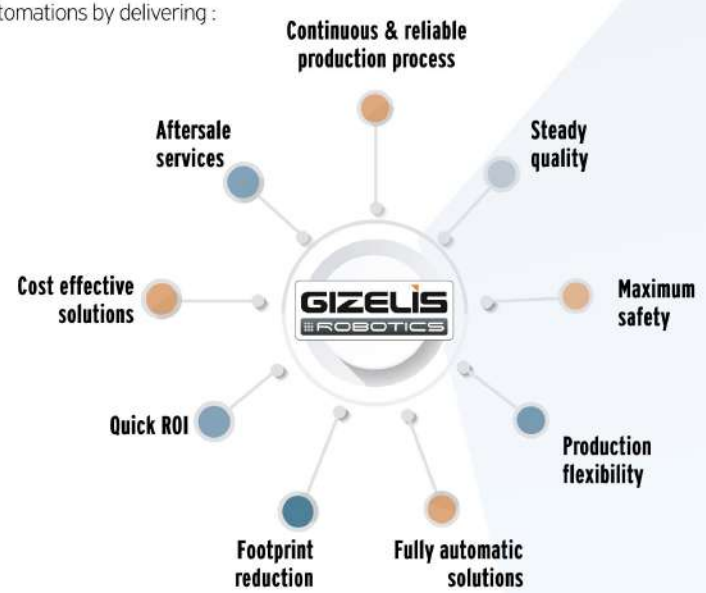








Gizelis Robotics team goals are to provide high end technical solutions based on contemporary and elegant design. Utilizing cutting edge components we shape your future automations by delivering :





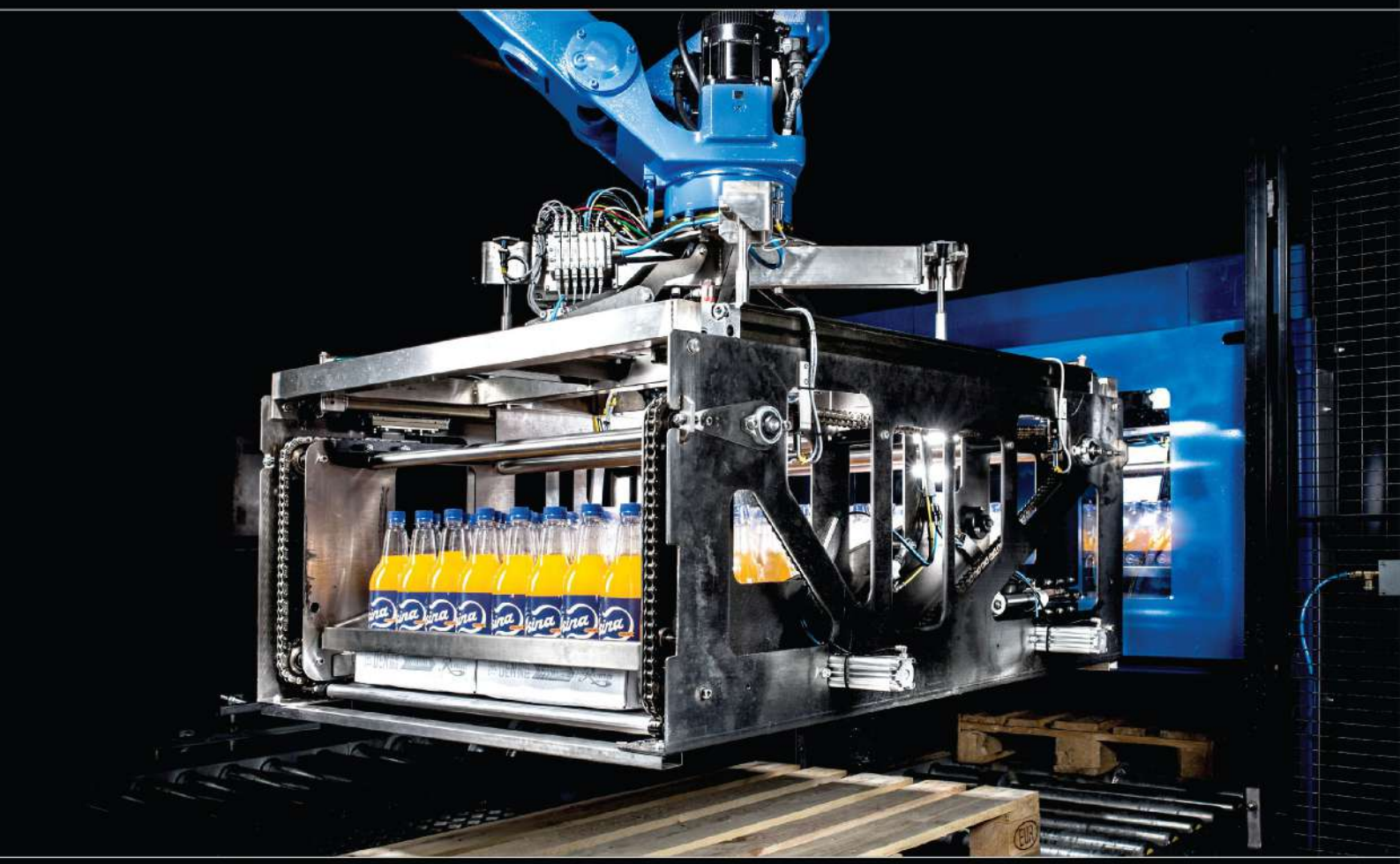
Worldwide Presence



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