МЕРИДИАН

Implementing industry 4.0

DEVELOPMENT AND INTEGRATION OF TECHNICAL SOLUTIONS

2024

MERIDIAN IS A DEVELOPER, A PRODUCER and AN INTEGRATOR

of industrial equipment, specializing in factory automation, digital labelling and inspection through vision.

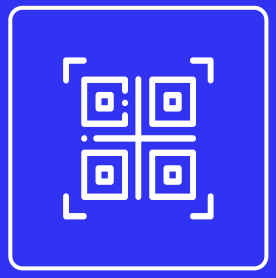
AUTOMATION

INDUSTRY 4.0

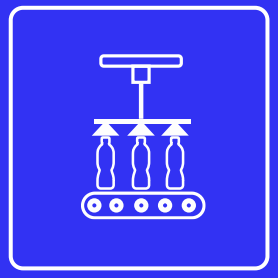
PRODUCTION

ROBOTISATION

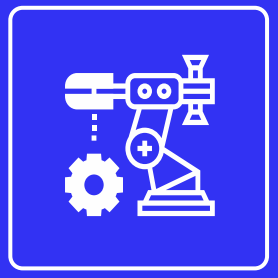
OUR DIRECTIONS OF PRODUCTION



Digital labelling



Automatic product stacking



Industrial robots

Machine vision

Conveyor systems

Project development from scratch

Equipment commissioning

Software development (L1/2/3) and 24/7 tech support

OUR SOLUTIONS

We develop and integrate solutions for various manufacturies

Semi-finished meat

Alcoholic and non-alcoholic drinks

Sauce products

Dairy products

Household chemicals

Cosmetics

Confectionery products

Medicines

Building materials

800 +
projects have
been realised

Work with customers and
partners from
countries **23**

MRDN

MORE THAN 100 +

largest customers work with us

Kellogg's
DANONE
BORJOMI
EKONIVA ЭКОНИВА
РУСАГРО группа компаний
МИЛКОМ
БАЛТИКА пивоваренная компания
Unilever
Русский Стандарт
AB InBev EFES

OUR RESIDENTS

Sk Сколково
ПЕРМСКАЯ ТОРГОВО-ПРОМЫШЛЕННАЯ ПАЛАТА
МОСКОВСКАЯ ТОРГОВО-ПРОМЫШЛЕННАЯ ПАЛАТА
НАУРР Национальная Ассоциация Участников Рынка Робототехники

EMPLOYEES	200 +
THE AUTHORISED CAPITAL	₽ 153 mln
THE PRODUCTION AREA	6 000 m²

KEY SPECIALISTS OF MERIDIAN

Key specialists have extensive experience in design, manufacture, operation, maintenance modern robotic, automated systems and support of external equipment.

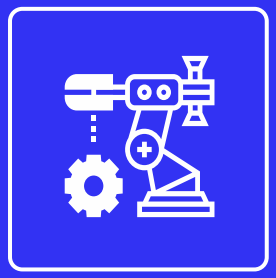
133

engineers

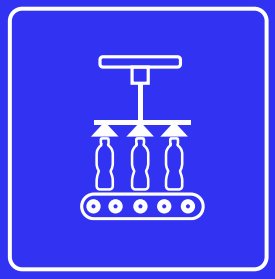
Engineers-designers and engineers-technologists; CAM specialists, instrumentation and technical support; programmers.

DEVELOPMENT, PRODUCTION AND IMPLEMENTATION OF CUSTOMISED TURNKEY SOLUTIONS FROM SCRATCH

Multi-level conveyor systems with integration into the main process equipment with control system from a single station



Proprietary robotic systems for laying products with individual grippers



Customised filling, stacking, labelling, packaging machines

Inspection system and quality control systems for finished products using vision

Applicator machine AM Applicator 60/120

Designed for the feeding and application of printed self-adhesive labels onto products or packages

Watch video

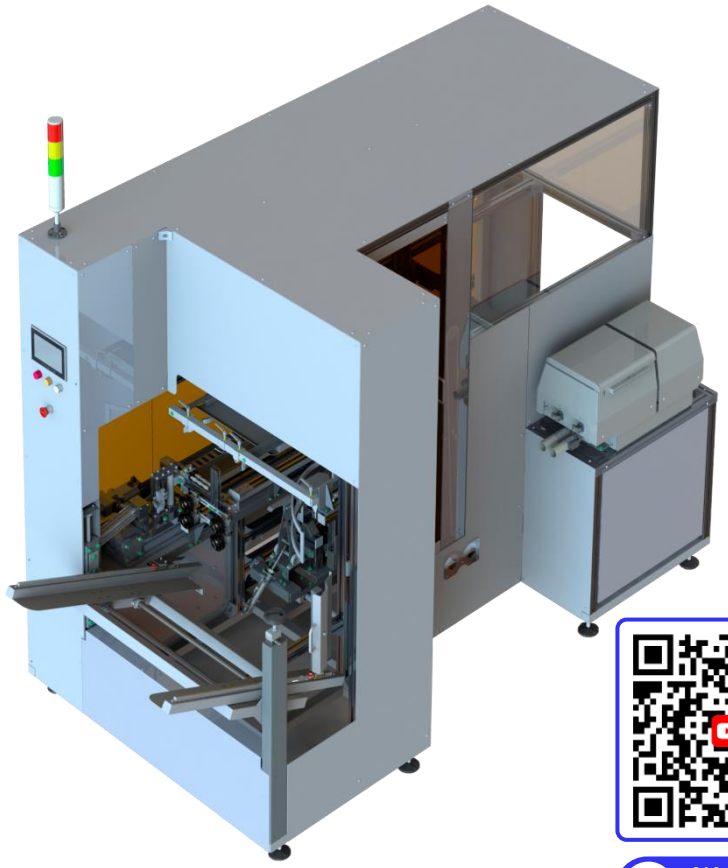
Features

- Flexible settings for adaptation on the production line
- HMI with Russian language interface
- Various design options: telescopic, straight, swivelling, folding
- Customised stand with adjustability, including angle of inclination
- Own production, availability of spare parts

Specifications	Value
Max label feed speed	From 60 to 120 m/min
Label unwinder parameters: max diameter / bushing diameter	400 mm / 76 mm
Length / max label strip width	10...600 mm / 10...160 (240) mm
Drive	Stepper motor, servo drive
Winding	External winding
Control	Touch panel
Power consumption	1,5 kW
Rated current	6,8 A
Voltage / frequency	220 V / 50 Hz
Protection class	IP 54

Automatic corrugated boxes shaper MDN BOX SHAPER TAPE/GLUE

Designed for forming boxes from corrugated cardboard blanks and gluing the bottom flaps with adhesive tape/hot glue



Watch video

Features

- Intuitive touch control
- Manual adjustment for different corrugated box formats
- Different access levels for setting process parameters
- Versions:

  1. Adhesive tape/hot glue
  2. Left/right

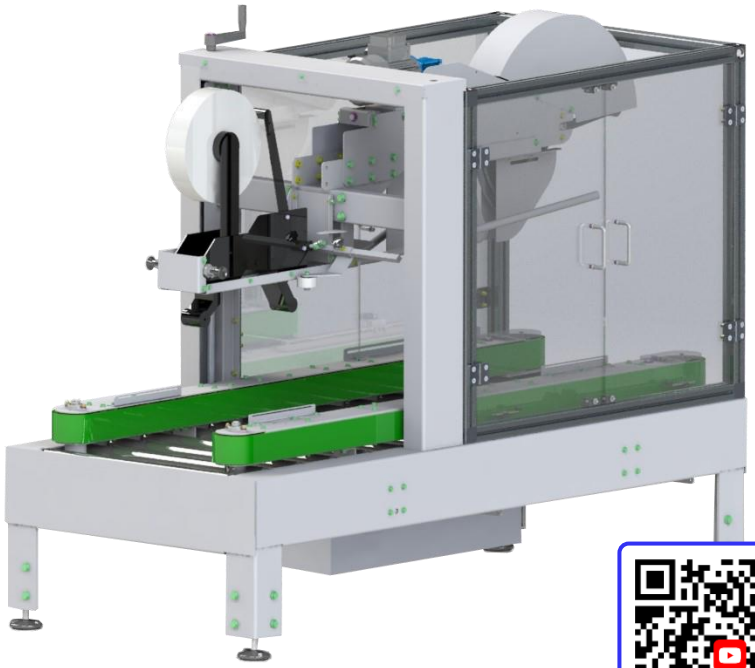
Corrugated box

Max length	415 mm
Width	150 – 365 mm
Height	200 – 400 mm

Specifications	Values
Overall dimensions (L-W-H)	2230 x 1300 x 1910 mm
Capacity	14 to 20 boxes/min
Box loading/unloading height	450 – 650 / 650 – 850 mm
System protection level	IP 54
Maximum power	0,75 kW
Supply voltage	220VAC, L/N/PE, 50Hz
Number of blanks in the magazine	Up to 50 pcs

Automatic corrugated box sealer MDN BOX SEALER TAPE

Designed for closing and taping the top flaps of corrugated cardboard boxes with adhesive tape



Watch video

Features

- Signal set for integration into a unified control system and remote error diagnosis
- Manual adjustment for different corrugated box formats
- Two versions:
  1. Left
  2. Right

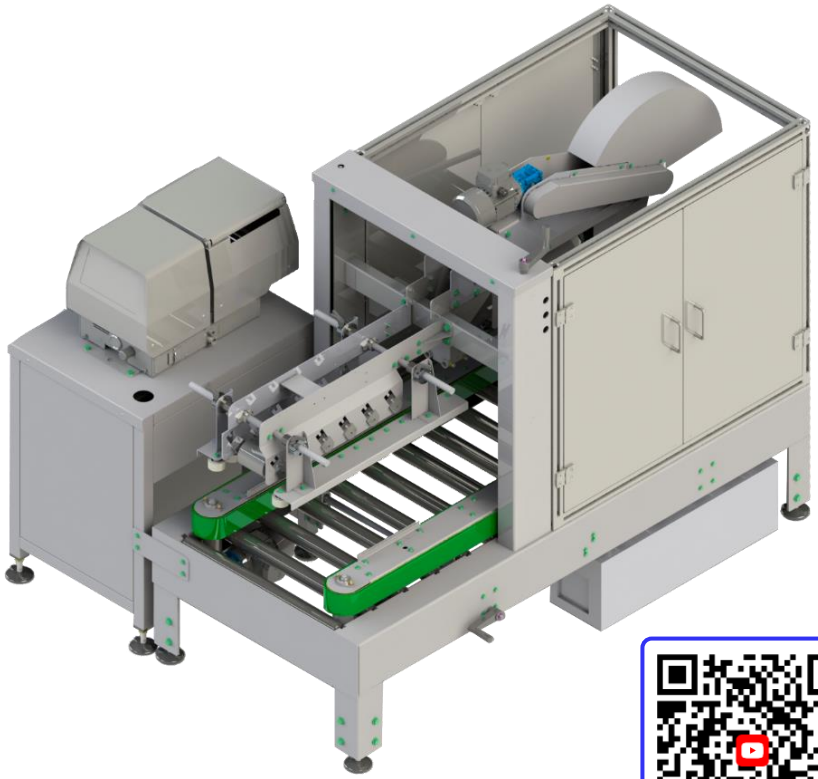
Corrugated box

Max length	415 mm
Width	150 - 365 mm
Height	200 - 400 mm

Specifications	Значение
Overall dimensions (L-W-H)	1850 x 820 x 1450 mm
Capacity	Up to 25 boxes/min
Box loading/unloading height	450 - 650 / 650 - 850 mm
Degree of system protection	IP 54
Maximum power	1,5 kW
Supply voltage	380VAC, 3L/N/PE, 50Hz

Automatic corrugated box sealer MDN BOX SEALER GLUE

Designed to close and seal top flaps of corrugated boxes with hot glue



Watch video

Features

- Signal set for integration into a unified control system and remote error diagnosis
- Manual adjustment for different corrugated box formats
- Two versions:
  1. Left
  2. Right

Corrugated box

Max length	415 mm
Width	150 - 365 mm
Height	200 - 400 mm

Specifications	Values
Overall dimensions (L-W-H)	1850 x 1370 x 1630 mm
Capacity	Up to 25 boxes/min
Box loading/unloading height	450 - 650 / 650 - 850 mm
Degree of system protection	IP 54
Maximum power	6,5 kW
Supply voltage	380VAC, 3L/N/PE, 50Hz
Glue reservoir capacity	4 liters
Max. glue melting speed	6 kg/h
Adhesive heating range	40 - 200 °C

Automatic corrugated box palletiser based on gantry drives

Designed for stacking packs on pallets

Смотреть сейчас

Features

- Possibility to equip with different types of grippers (depending on product shape and size)
- Selection of a recipe for palletising based on the geometric dimensions and weight of the corrugated boxes to be stacked.
- Changing the way products are placed on the pallet (by reprogramming), recipe support
- Accessories: set of gantry drives and box gripper on pneumatic suction cups

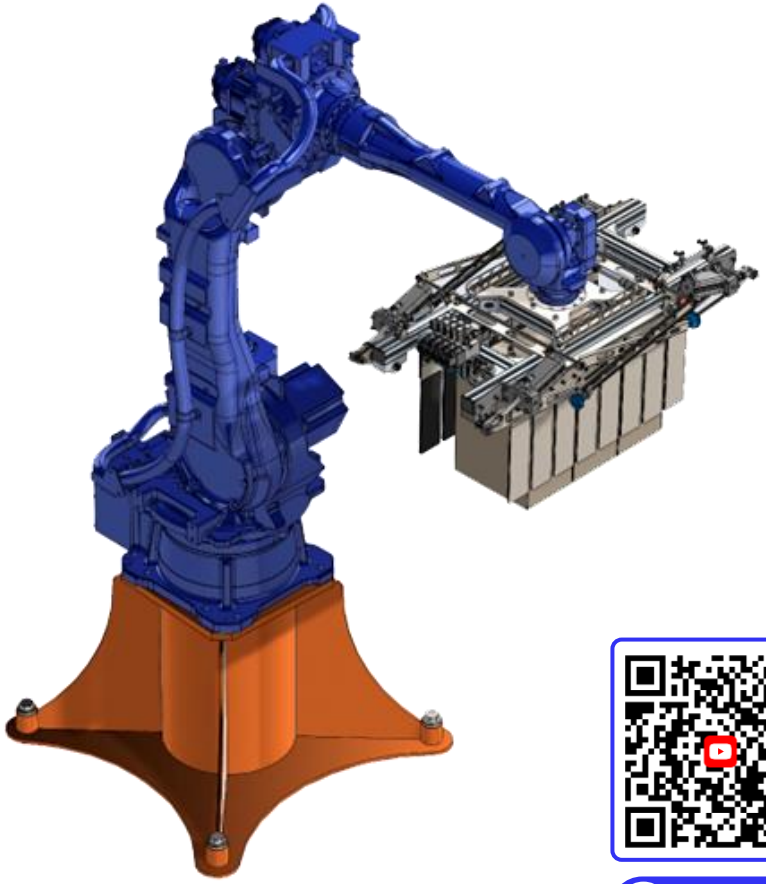
Corrugated box

Max length	415 mm
Width	150 - 365 mm
Height	200 - 400 mm

Specifications	Values
Overall dimensions (L-W-H)	1900 x 1500 x 2880 mm
Capacity	Up to 1000 boxes/hour
Load capacity (with gripper)	Up to 100 kg
Degree of system protection	IP 54
Maximum power	6,5 kW
Supply voltage	380VAC, 3L/N/PE, 50Hz
Design	Left

Automatic product palletiser based on industrial robot

Designed for stacking products with finished products on pallets made of wood, plastic, metal



Watch video

Features

- Possibility to equip with different types of grippers (depending on the shape and size of products)
- Design of the safety system according to the customer's company policy
- Changing the way products are stacked on the pallet (by reprogramming), recipe support
- Control by means of industrial controller
- Complete set: industrial robot and box gripper on pneumatic suction cups

Corrugated box

Max length	415 mm
Width	150 - 365 mm
Height	200 - 400 mm

Specifications	Values
Overall dimensions (L-W-H)	2120 x 2120 x 2010 mm
Capacity	Up to 1000 boxes/hour
Load capacity (with gripper)	Up to 75 kg
Degree of system protection	IP 54
Maximum power	4,5 kW
Supply voltage	380VAC, 3L/N/PE, 50Hz

Gantry stacker for finished products

Designed for stacking packages with finished products into corrugated boxes

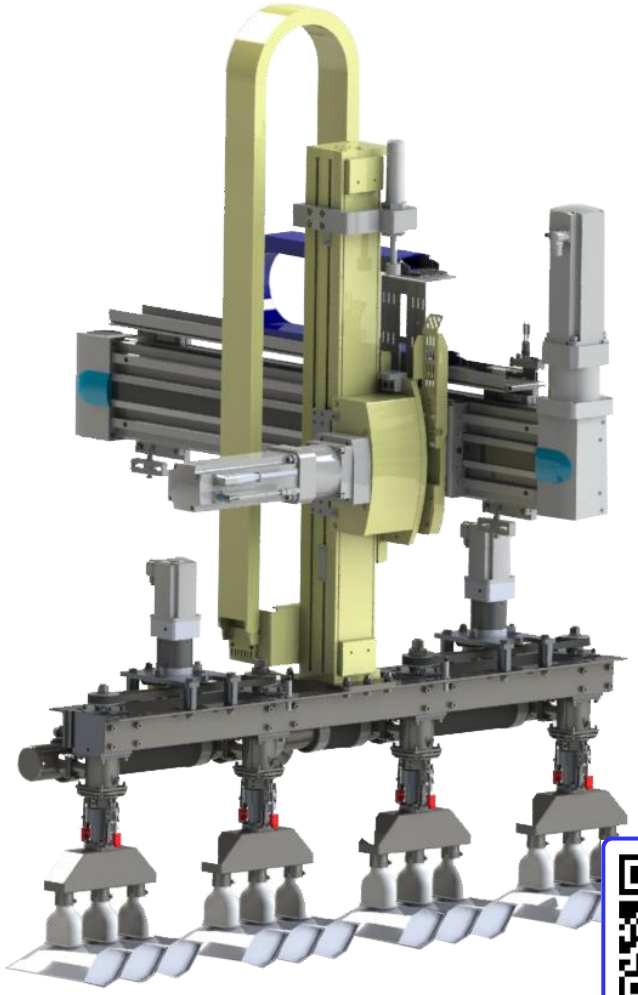
Features

- Linear drives and components manufactured in-house
- Possibility to equip with different types of grippers (depending on the shape and size of products)
- Industrial controller
- Simultaneous stacking in at least two boxes
- Safety guards for maintenance

Specifications	Values
Min overall dimensions (L-W-H)	2000 x 1800 x 3650 mm
Load capacity	Up to 150 kg
Capacity:	
Bottles	12 000 pcs/hour
Trays	6000 pcs/hour
Doy-pack, Flow-pack	7200 pcs/hour

Watch video

Grippers for finished product gantry stacker

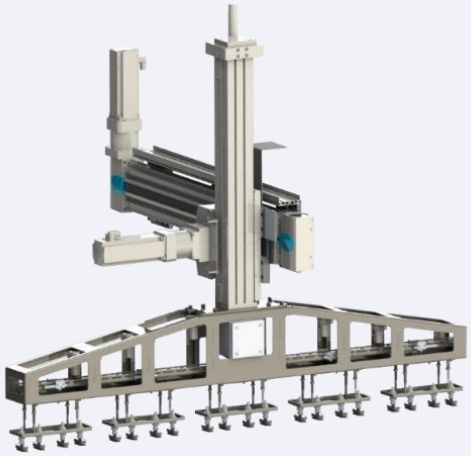


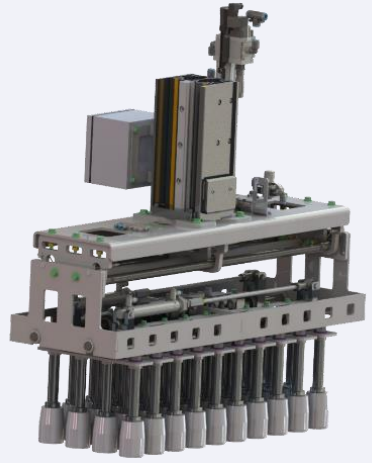
Watch video

Designed for gripping and holding products during transport, technological operations, packaging, etc.

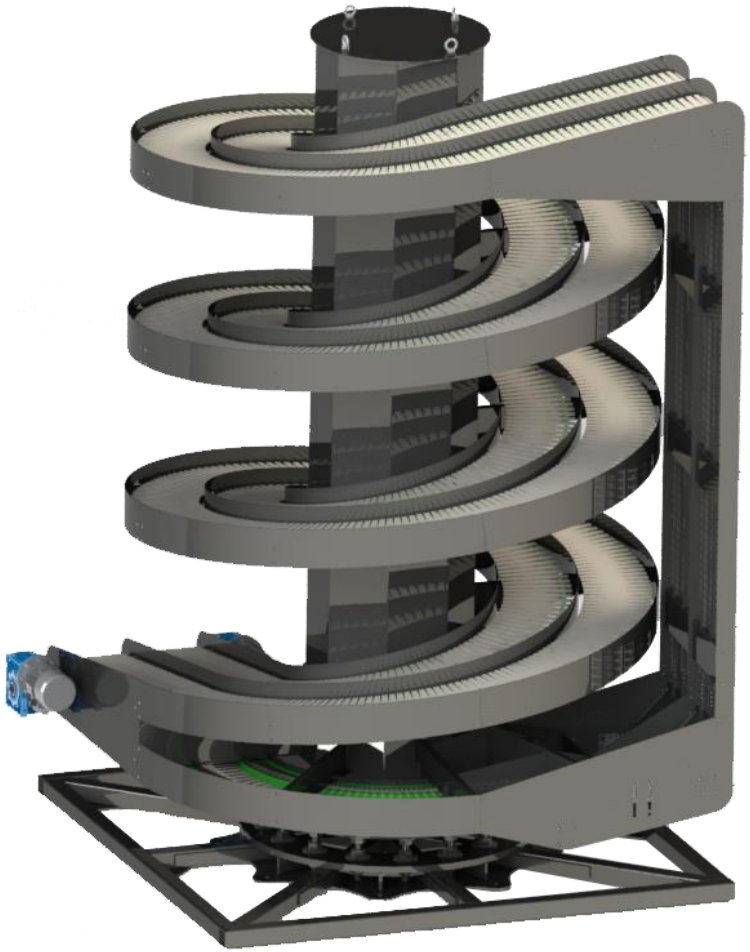
Features

- **Various options: vacuum, mechanical, pneumomechanical, magnetic**
- **Various variants of basing: basing (moving objects in a given area) / relocating (capable of to change the position of objects also in relation to themselves)**





Conveyor systems



They are intended for the movement and sorting of finished products and for the connection of production areas into a single technological process

Features

- **Different product handling options: inclined/horizontal vertical movement**
- **Different types of traction mechanism: belt/chain/roller.**
- **Different design options: telescopic/straight/swivelling/folding/indexed**
- **Various installation options: suspended/floor-mounted**
- **Modular design structure**

Watch video

MERIDIAN ADVANTAGES

Meridian is located on the territory of the RF, we have our own production facilities

We are responsible for quality and fulfil warranty obligations

We have a substantial reference list

We offer acceptable terms of project implementation and equipment delivery

We provide a full package of documentation for the equipment and software

We respond quickly to customer requests

24/7 tech support

We provide a complete cycle of machine and equipment manufacturing from development to integration at the customer's location

Flexible contract terms

We deal with the development of custom equipment and adaptation of standard products

SOFTWARE DEVELOPMENT OF ANY LEVEL OF COMPLEXITY

01 Development customised MES systems (levels L3-L5) for major international companies

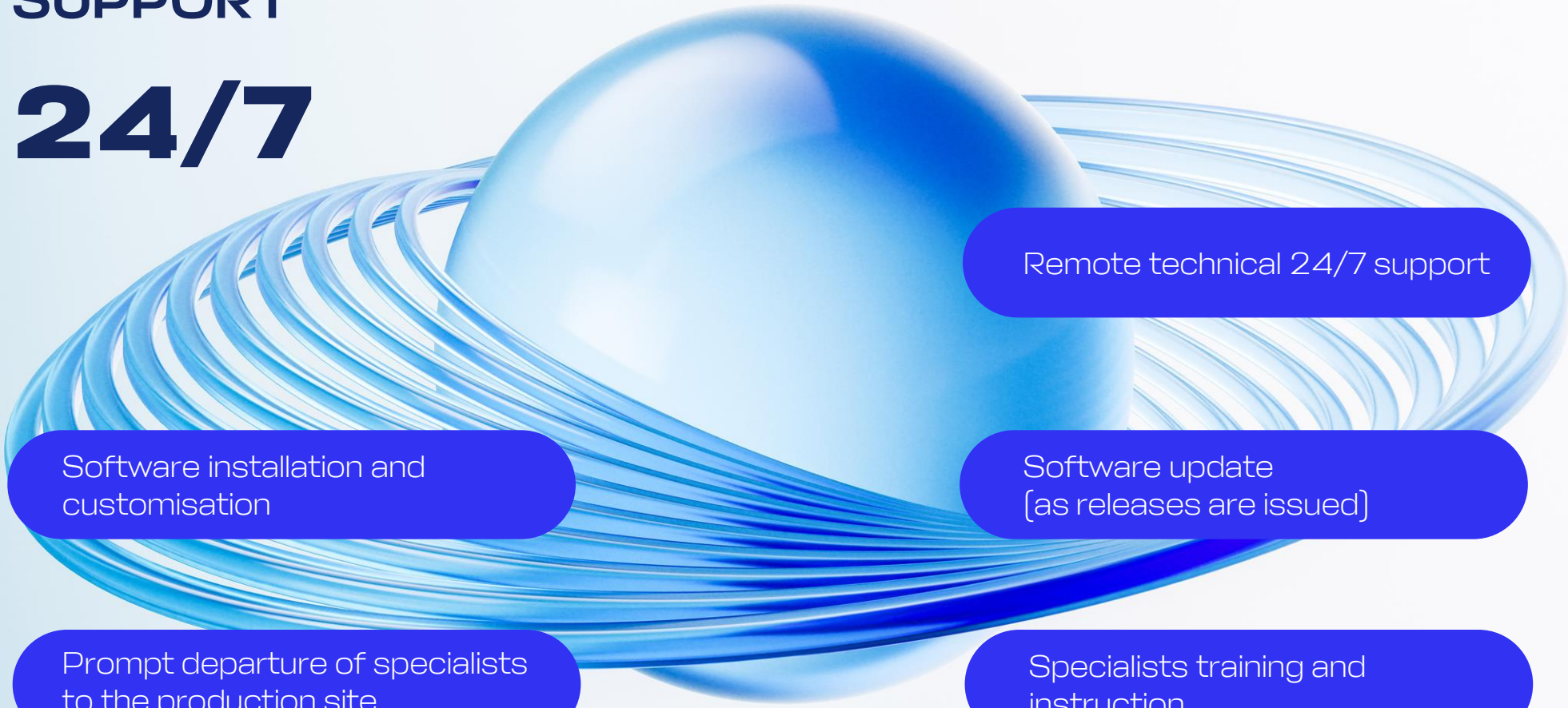
02 Software integration with customers accounting systems

03 Script, drivers and customised software development for industrial equipment

04 Equipment programming on a level L1 controllers

SERVICE SUPPORT

24/7



Remote technical 24/7 support

Software installation and customisation

Software update (as releases are issued)

Prompt departure of specialists to the production site

Specialists training and instruction

OUR PROJECTS

Team objectives:

Create equipment capable of operating in aggressive environment (enterosorbent suspension)

Ensure a capacity of up to 100 jars/min

Optimise manual labour (up to 20 people)

Design and build a filling plant with collaborative robots from scratch

Watch video

100% COMPLETE

POLISORB

ROBOTIC PACKAGING LINE WITH THE OPTION OF PIECE COUNTING/LABELLING (FAIR MARK)

POLISORB, 2019

OUR PROJECTS

Team objectives:

Outperform Spanish equipment manufacturer's analogue in terms of production speed

Achieve a paving capacity of 110pcs/min

Time from greenfield development to start-up - 6 months

Produce 9 robotic cells

100% COMPLETE

Watch video

RUSAGRO group

STACKING COMPLEX FOR DOY PACK

Rusagro group, 2022

OUR PROJECTS

Team objectives:

Equip 2 production halls with a transport system

Total conveyor length of more than 300 meters

Execution of the entire system "on hangers" up to a height of 5 meters

Using customer's current equipment with upgrades

Watch video

100% COMPLETE

Kellogg's

AUTOMATED SYSTEM PRODUCT TRANSPORT

Kellogg`s, 2022

OUR PROJECTS

Team objectives:

Establish a multi-stream rejection system from scratch

Comply with international requirements for equipment safety

Create a customised software solution

Equip 19 high-speed lines

100% COMPLETE

Watch video

Unilever

AUTOMATED LABELLING AND REJECTION PRODUCTS SYSTEM

Uniliver, 2023

OUR PROJECTS

Team objectives:

Line capacity up to 27,000 pcs/hour

Integration of the digital labelling system into robotic system

Ensure stacking of 30/50 ml vials

Optimise manual labour (up to 10 people)

100% COMPLETE

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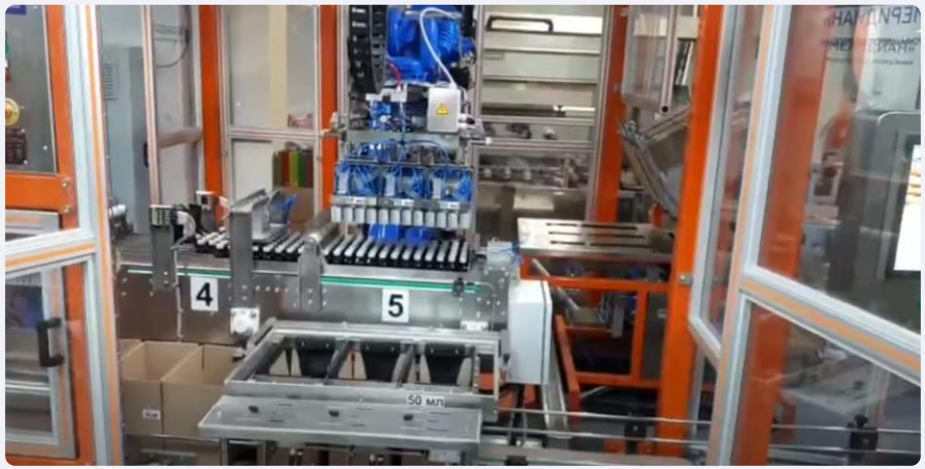
ГИППОКРАТ



ROBOTIC STACKING SYSTEM
AND PIECE-BY-PIECE COUNTING

Hippocrates, 2021

OUR PROJECTS

Team objectives:

2 production lines for wine bottling

Capacity of one line 6000 per hour

Time from development to start-up 6 months

Provide stacking of dividing grids in a box

Optimise manual labour (up to 18 people)

ROBOTIC SYSTEM BOTTLE STACKING

Massandra, 2019

Watch video

100% COMPLETE

OUR PROJECTS

Team objectives:

Line capacity 1000 boxes/hour

Production of a universal gripper capable of handling cardboard boxes, cardboard gaskets, pallets

Development of a flexible palletising system, adaptable to any box format

100% COMPLETE

Watch video

ЗОЛОТАЯ БАЛКА

ОСНОВАНО В 1889 ГОДУ

ROBOTIC SYSTEM OF PALLETISING AND STACKING

Agrofirm Zolotaya Balka, 2022

OUR PROJECTS

Team objectives:

Control system configuration

Trajectory programming KUKA robots

Organizing network communication between OMRON, WAGO, KUKA controllers

Optimise the operation of the existing stacking system. Increase efficiency by 30 %

100% COMPLETE

BIOCAD
Biopharmaceutical Company

ROBOTIC SYSTEM OF PALLETISING

Biocad, 2021

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