

№ Q210101.5480 05.04.2021

PAL 1100, Power Flex T1

COMMERCIAL OFFER DELIVERY AND MOUNTING OF AUTOMATIC GROUP PALLETIZING LINE

Technical requirements

- Bags of construction mix
- Weight of the bag is 25-30 kg
- Capacity is up to 800 units per hour
- Pallet 800x1200 mm

Contacts in Kyiv city

Contacts in Kryvyi Rih city

OUR CUSTOMERS

Our customers trust us because we effectively assist them in resolving issues in the field of production automation.



over **12** years

in the production
automation market

over **50**

of executed complex
automation projects

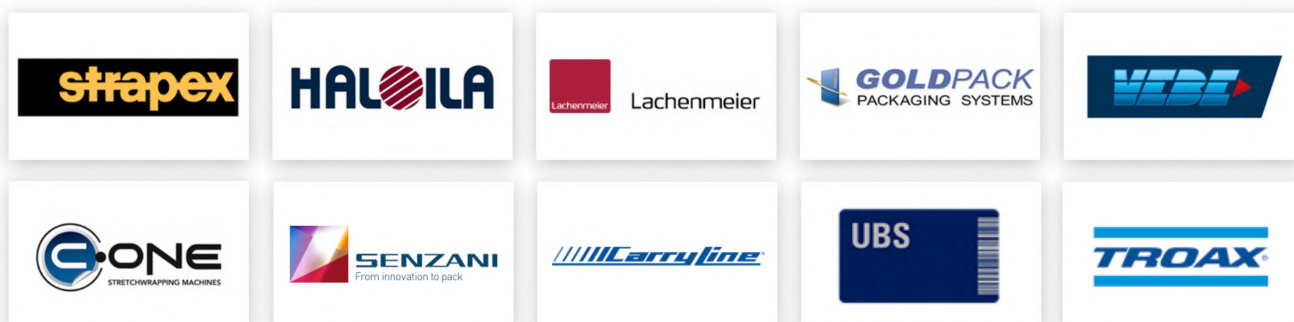
over **3000**

units of equipment installed at
the manufacturing facilities

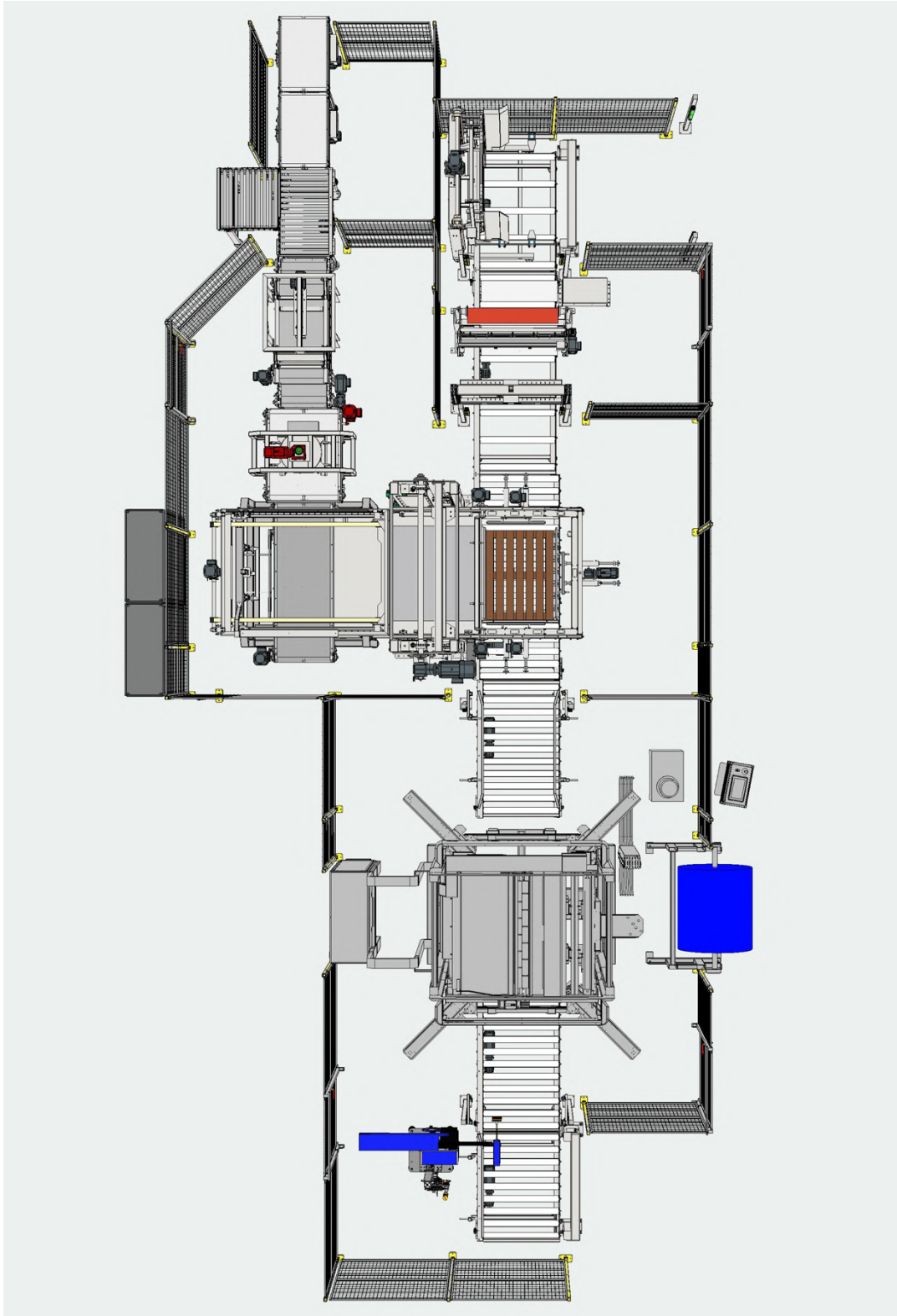
"SKLADPACK" COMPANY is a leader in the national production automation market in the field of stabilization and palletizing of products. It was founded as a private Ukrainian company in 2008. The company has made great contributions to the development of modern packaging solutions for various Industrial sectors in Ukraine throughout its operation.

WE SINCERELY VALUE THE TIME OF OUR CUSTOMERS and offer a full range of engineering solutions for production automation; palletizing and automation; packing, labeling and marking; and complete maintenance and support of your equipment. Our range of products include the most well-known packaging machines; stationary and mobile equipment; as well as industrial safety systems.

OFFICIAL DISTRIBUTOR

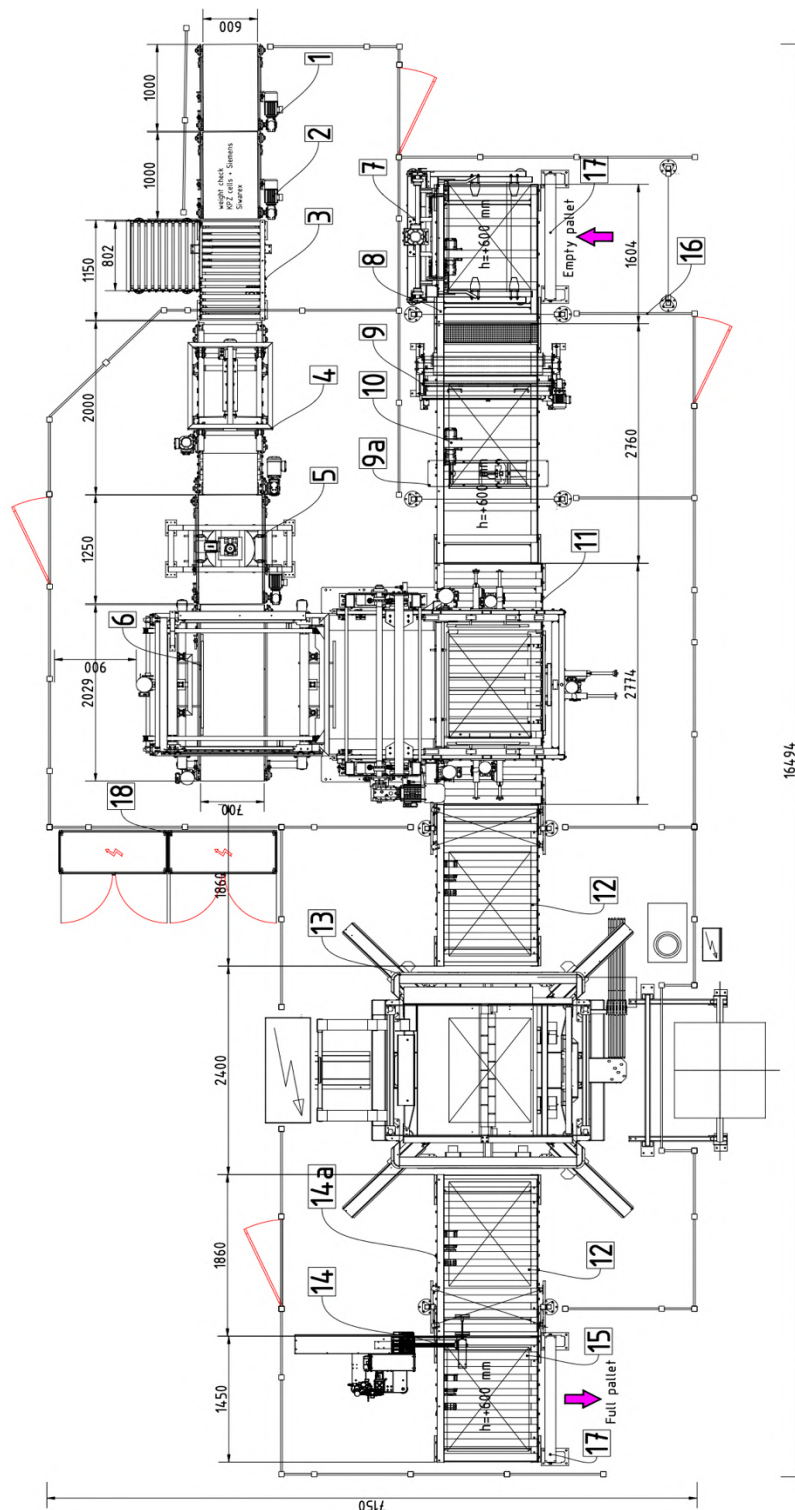


PROJECT VISUALIZATION



Layout for familiarization, location of units can be changed with the consent of the parties.

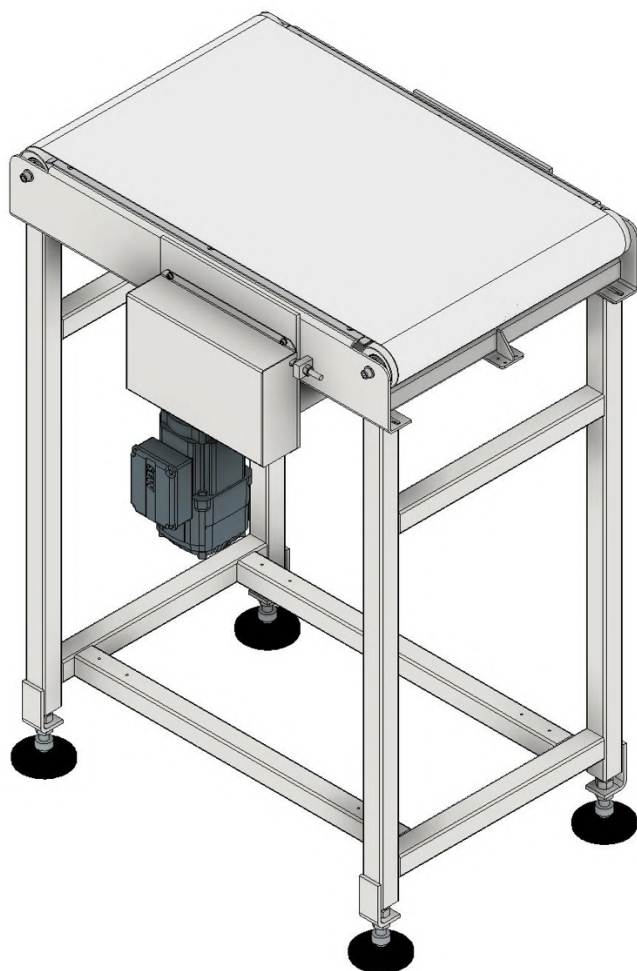
OVERALL DIMENSIONS OF THE AUTOMATIC COMPLEX



The complete configuration of the packaging complex, the location of the units can be amended upon agreement of the parties.

FEEDING BELT CONVEYOR TRA**Technical data**

Length	1000 mm
Width	600 mm
Motor	SEW
Reducer	SEW
Sensors	SICK / LEUZE
Rigid frame, painted steel	
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	



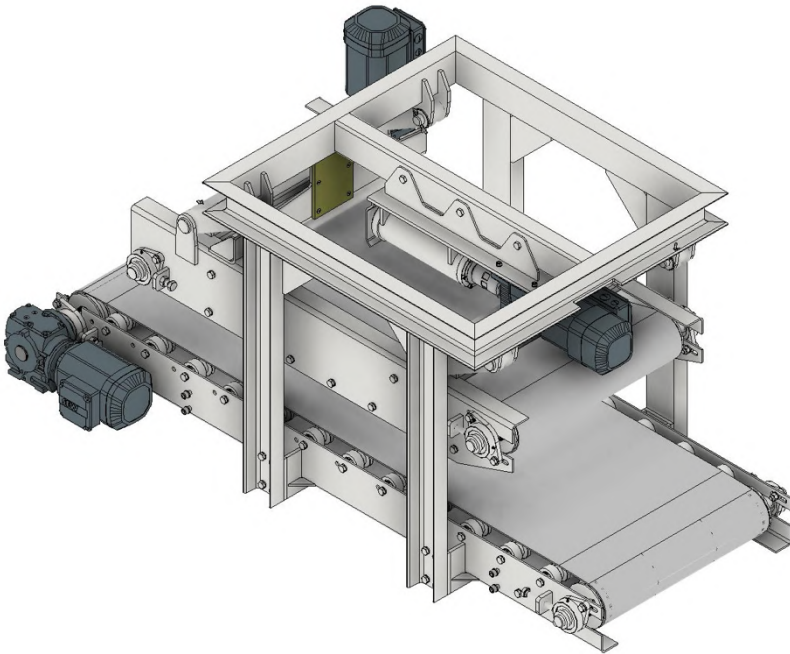
CONVEYOR WITH PUSHER FOR SELECTION TRR

Technical data	
Length	1150 mm
Width	600 mm + outlet conveyor
Motor	SEW
Reducer	SEW
Sensors	SICK / LEUZE
Pneumatics	FESTO / SMC
Rigid frame, painted steel	
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	



BAG FLATTENING DEVICE SEALING SYSTEM TRA

Technical data	
Length	2000 mm
Width	600 mm
Height	1400 mm
Motor	SEW
Reducer	SEW
Sensors	SICK / LEUZE
Product blockade	
Rigid frame, painted steel	
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	

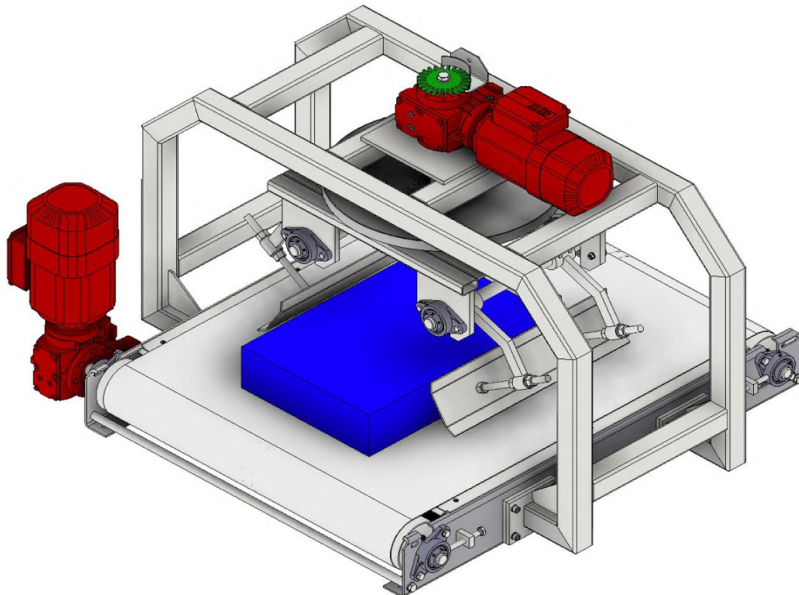


BAGS TURNING AND POSITIONING SYSTEM

Motorised rollers conveyor with a turning device that turns bags according to the palletisation program.

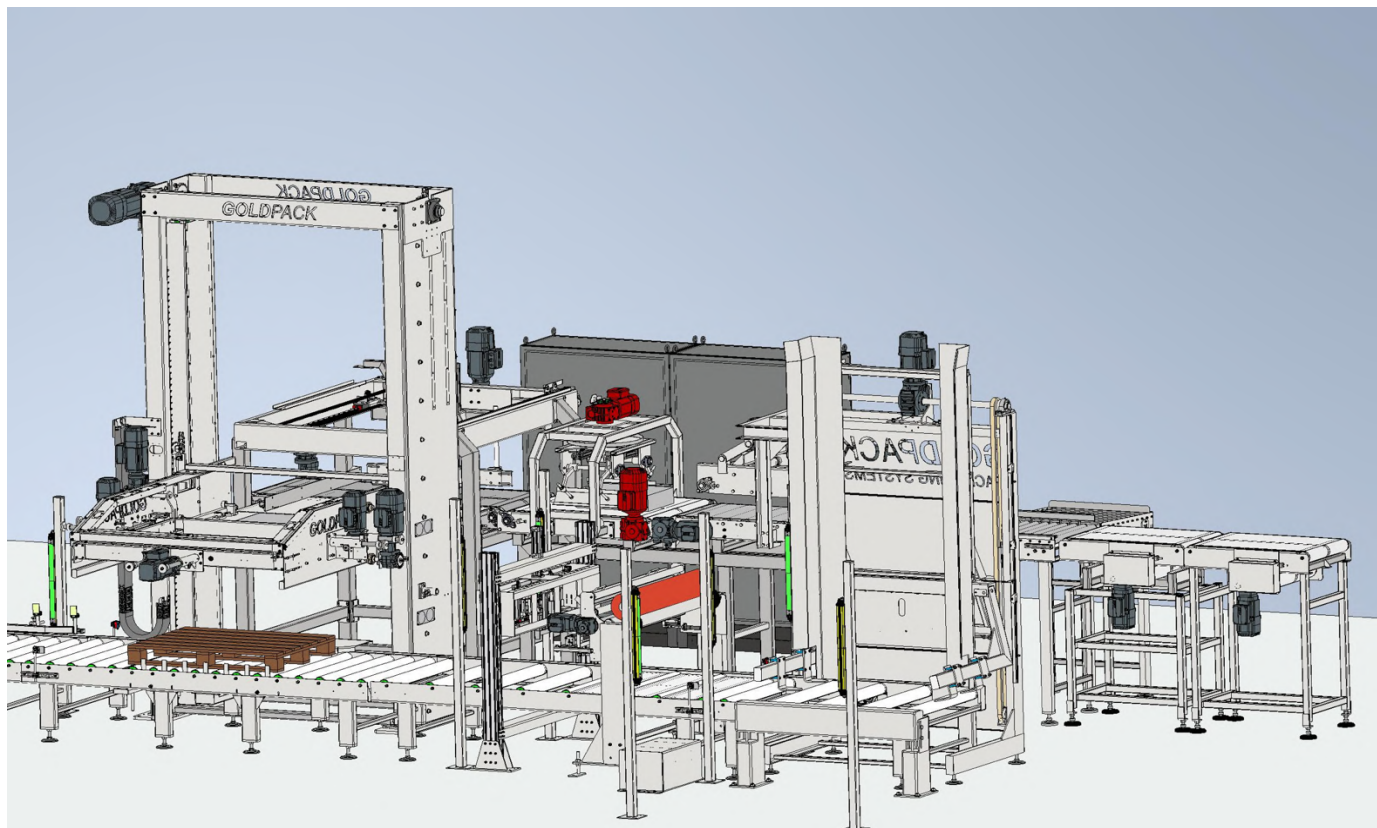
Technical data

Length	1250 mm
Width	1000 mm
Motor	SEW
Reducer	SEW
Sensors	SICK / LEUZE
Rigid frame, painted steel	
Hot galvanised rollers	
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	



Palletizer PAL 1100

Machine is designed to palletize bags onto pallets with high capacity. Palletizing is carried out on the principle of layers with the help of a folding plate system. Machine is PLC controlled that ensures high flexibility (possibility to store different configurations), reliability and easy operation, servicing and maintenance.



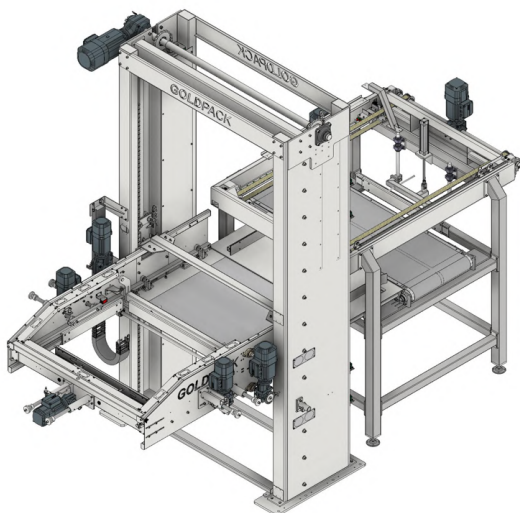
Operation

Properly formed bags come over the conveyor onto the palletizing system, which arranges them (with the help of photocell) according to a program that depends on desired configuration of bags on the pallet.

When the sufficient number of bags on the table is reached, the pusher pushes them onto the intermediate plate and further onto the double plate. In the meantime the next layer is being prepared on the intermediate plate. In the beginning the pallet is launched out of the empty pallet storage and stops on the palletizing station and the pushing plate pushes bags onto the pallet.

After the last layer of bags has been discarded onto the pallet, the full pallet (under condition that the next empty pallet is ready) is conveyed towards the exit.

ROW MOVEMENT MODULE



Technical data

Max. load on the pallet	1800 kg
Cargo	Product
Bags in a layer	3-15
Layers on the pallet	Min. 4 - Max. 12
Electricity	415V, 3-Ph, 60Hz
Cable entry	In electric cabinet, at the bottom
Control voltage	24 V DC
Control	PLC Siemens S7 1500
Compressed air supply	At the bottom
Compressed air	12/10 mm, 6 bar, 500 NL
Drives and reducers	LENZE / SEW
Pneumatics	FESTO / SMC
Color	RAL upon agreement

Functional description

- basic machine with motorized input line and pusher for formed layers. The whole layer is moved to the pallet by means of a transport plate;
- programmable product rotation is located in front of the palletizing station;
- fully assembled RITTAL electrical cabinet with wiring, controller and control panel;
- display for condition description and diagnostics.

MAINTENANCE

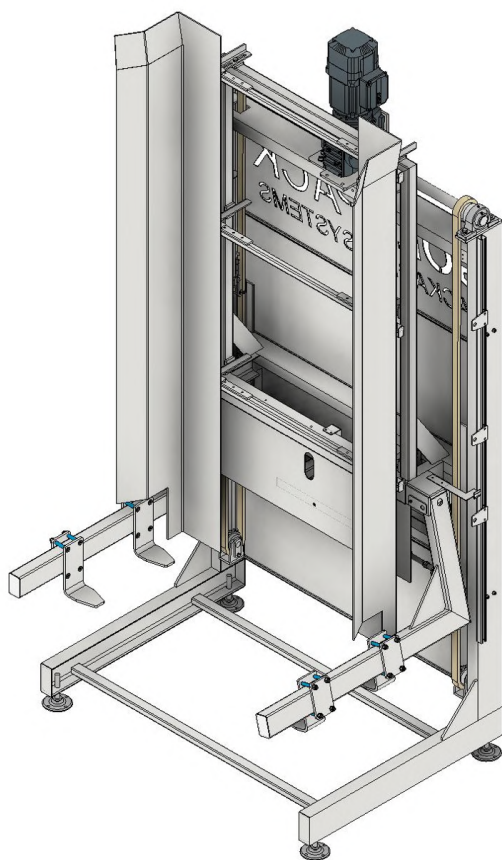
No special maintenance is required. According to the attached documentation, the preventive examination is performed once a year to identify possible defects that may have occurred in the period since the last examination. Regular monthly maintenance includes only a visual inspection of the machine and lubrication of the guides and chains and, of course, keeping the machine clean.

EMPTY PALLETS MAGAZINE MP15

The empty pallet storage is designed to automatically feed the empty pallets to the drive conveyor, which is part of the magazine. Storage capacity of 15 pallets.

Technical data

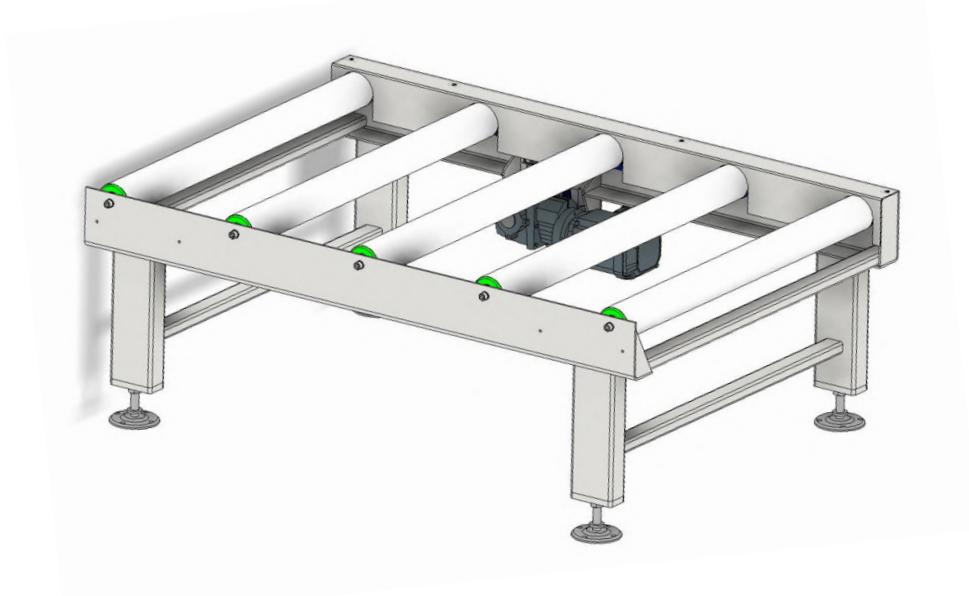
Pneumatics	FESTO / SMC
Motor	SEW
Reducer	SEW
Sensors	SICK / LEUZE
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	



ROLLER CONVEYOR VP for MP 15

Technical data

Length	1600 mm
Width	1000 mm
Height	600 mm
Max. pallet loading	800 кг
Roller diameter	90 mm
Motor	SEW
Reducer	SEW
Sensors	SICK / LEUZE
Chain drive	
Reversible	
Rigid frame, painted steel	
Supports are adjustable with screwing of legs	
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	



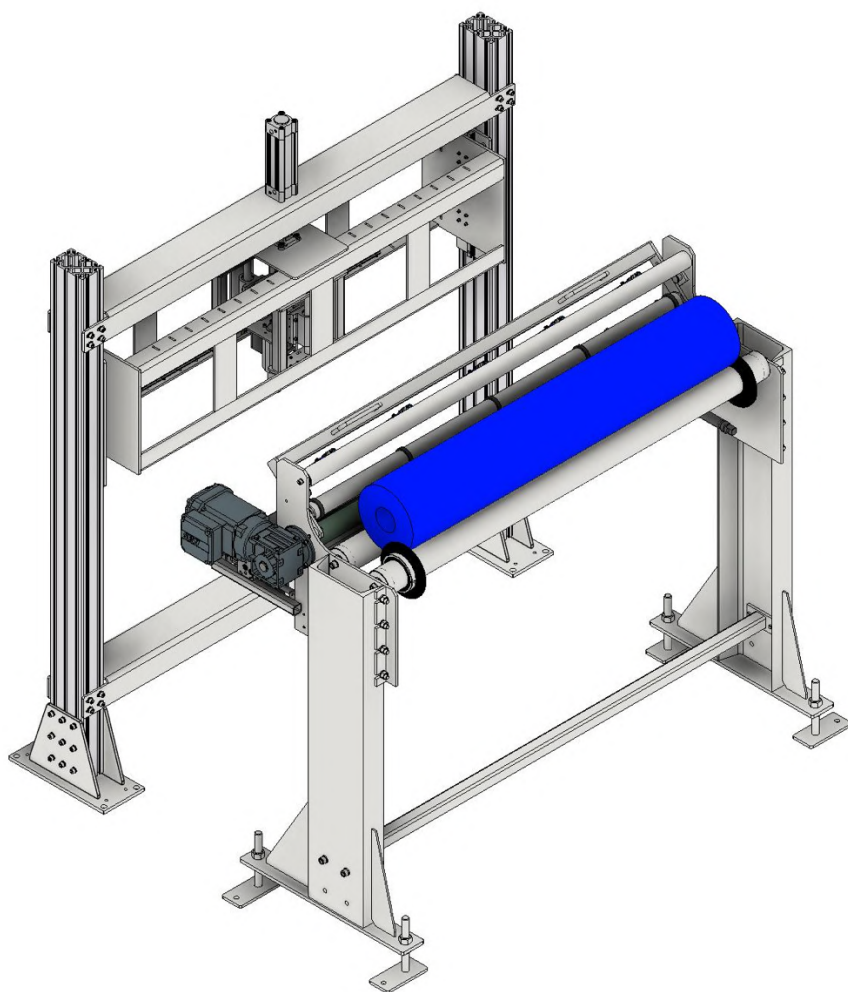
AUTOMATIC TOP SHEET DISPENSER ADF 100 with nailing device

Device for cutting and covering the film canvas on top of the pallet, easily integrated into the production line.

When the program for protection is turned on, the top sheet dispenser places the top sheet of film on the pallet.

Technical data

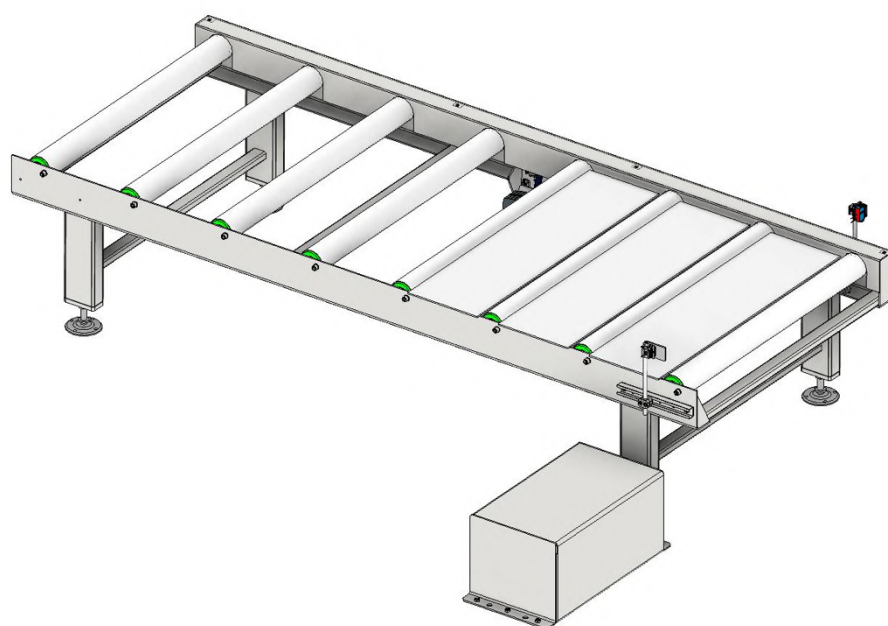
Film width	1800-2000 mm
The outer diameter of the roll	250 mm
Film thickness	50-80 μm



ROLLER CONVEYOR VP with a pedestrian platform

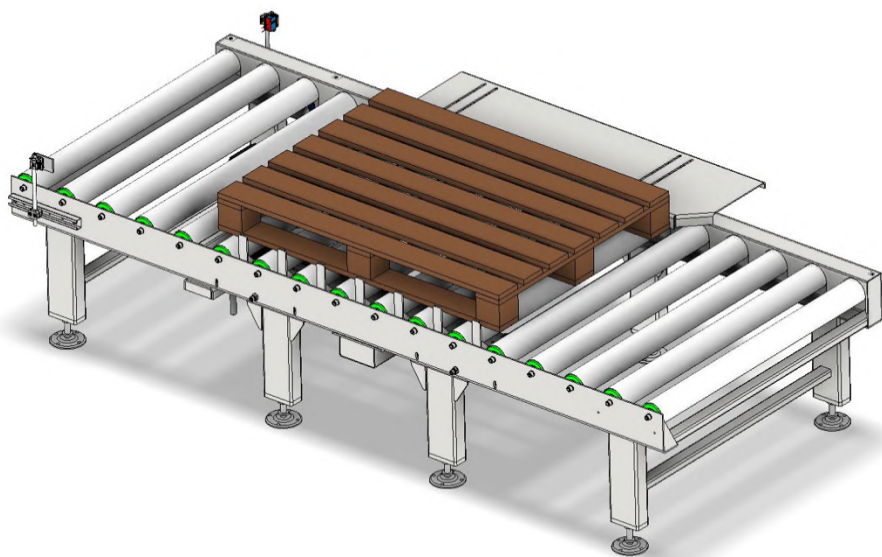
Technical data

Length	2750 mm
Width	1000 mm
Height	600 mm
Max. pallet loading	800 kg
Rollers diameter	90 mm
Motor	SEW
Reducer	SEW
Sensors	SICK / LEUZE
Chain drive	
Reversible	
Rigid frame, painted steel	
Supports are adjustable with screwing of legs	
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	



ROLLER CONVEYOR VP with PAL centering node

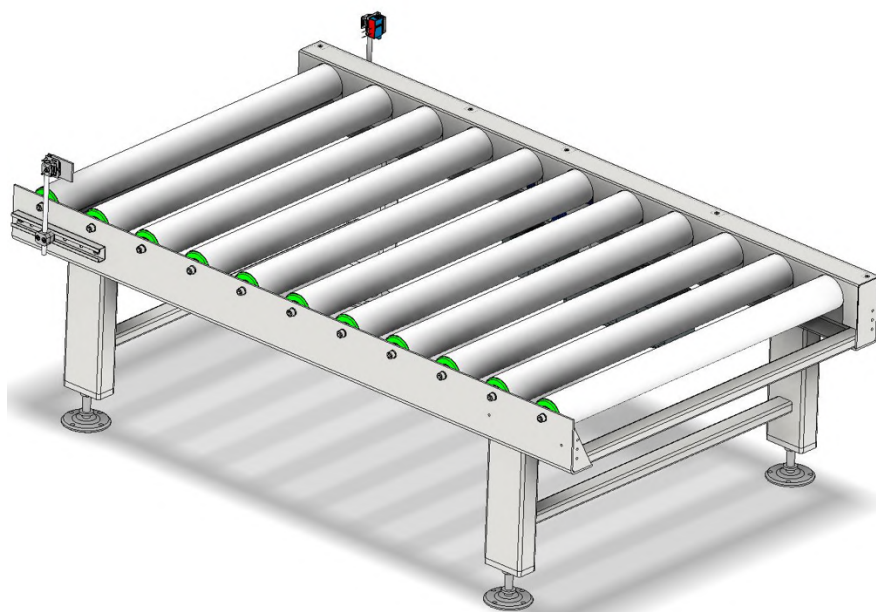
Technical data	
Length	according to the layout
Width	1000 mm
Height	600 mm
Max. pallet loading	1500 kg
Rollers diameter	90 mm
Motor	SEW
Reducer	SEW
Sensors	SICK / LEUZE
Chain drive	
Reversible	
Rigid frame, painted steel	
Supports are adjustable with screwing of legs	
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	



ROLLER CONVEYOR VP

Technical data

Length	according to the layout
Width	1000 mm
Height	600 mm
Max. loading on the pallet	1500 kg
Roller diameter	90 mm
Motor	SEW
Reducer	SEW
Sensors	SICK / LEUZE
Chain drive	
Reversible	
Rigid frame, painted steel	
Supports are adjustable with screwing legs	
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	



**LACHENMEIER “STRETCH-HOOD” TECHNOLOGY PALLET PACKING MACHINE,
“POWER FLEX T1” MODEL**

POWER FLEX T1 ADVANTAGES

Simplicity and durability	Patented controlled film feed system. Patent (EP 1 184 281).
	Minimum number of moving parts.
	Lightweight and energy efficient film stretching unit.
	Ability to use a film from 40 to 200 microns.
	Four chains with a chain drive provide the minimum wear and big stability in comparison with models with a lateral suspension.
High level of reliability	Unique combined vacuum-mechanical film opening system. Flawlessly opens a film of any type and quality.
	The system of the controlled film submission provides the maximum thickness of a film on product corners. Patent EP 1 184 281.
	Case control system, excludes the probability of cargo output without a film
	The film indication system provides adjustment of a film in the machine (an option for a film with a logo).
Safety and maintenance	Patented system for lowering the main part of the machine. Maintenance and service of the machine, replacement of a film occurs at the floor level.
	No need to climb stairs with tools.
	There is no need to stand on the assembly line to service the machine. Free access to all service units.
	Replaceable units (plates for soldering rather than for cutting of the film) are mounted on clamps and changed without tools.
Profitability	Minimal film use.
	Minimum consumption of electricity and air (costs are reduced by 73% and 35%, respectively, compared to previous models).
	The area occupied by the machine is reduced.
	The minimum expected service life of the machine is 20 years.
	Lachenmeier has been manufacturing packaging equipment for 40 years and has been a leader in stretch hood packaging for 20 years.
Spare parts warehouse	Availability of spare parts in stock.
Warranty	Extended warranty on the packaging machine.

PRODUCT PARAMETERS

Product type	Pallet (L x W), mm	Product dimensions (L x W), mm	Max. height	Movement direction
1	1200x800-1200	1200x800-1200	2200	Narrow side forward

Conveyor speed: 10-12 m/min

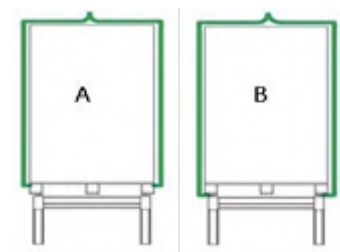
Conveyor height: 600mm

Pallet weight: max. 2000kg



Film wrapping onto the product:

- ✓ A: on the pallet
- ✓ B: under the pallet



Product type: -

Pallet centering: the cargo must be centered +/- 10 mm before entering the machine

Product centering: the cargo on the pallet must be centered with a deviation of not more than 100 mm in length and width

Film: stretch hood, recommended film thickness 70-180μ.

Productivity: up to 80 pallets per hour

MAIN EQUIPMENT

1. Frame of the machine with four shafts with the chain drive.

Provides vertical movement.

2. Top module.

Includes a film feeder and four movable grips for opening the film. The device for creating cases consists of film feed rollers, a double solder system and a film trimming element. The top module can be omitted for film replacement and maintenance.

3. Four units of film stretching - hydraulic system of stretching

Each unit is equipped with its own motor for wrapping the film and holding the film during stretching. Stretching units are driven by hydraulic cylinders. The central hydraulic station is located at the bottom of the packer.

4. The film feed control system during putting on of the case (patent EP 1 184 281)

When the case is stretched, a controlled amount of film is fed on the product. This helps to avoid thinning and damage to the film, especially at the corners of the product (the film at the corners remains 30% thicker). This system provides flat laying of a film on the top part of the cargo. The system saves up to 10% of the film due to vertical stretching.

5. Automatic positioning of film stretching units

The film stretching units are organized so as to ensure maximum film stretching efficiency for a given cargo dimensions. In the case of altering the film size in the future, the stretching process is being changed through the PLC controller.

6. Automatic measurement of the height of the goods

The height of each pallet is measured using photo sensors before the pallet enters the packer.

7. Film feeder device

Enables case formation. It consists of two sets of rollers for feeding the film, as well as the mechanism of soldering and trimming of the film. The knife is driven by a pneumatic cylinder. The mechanism of soldering and cutting of the film is arranged in such a way that the replacement of wearing parts can be done in a few minutes without the use of tools.

8. Pallet geometry check system

Provides control of dimensions of cargo during the tension of the case. In case the product stack was formed incorrectly, or the product has shifted during transportation, the system will automatically adjust the position of the film stretching units. If the edges of the product are outside the permissible range, the packaging cycle will be stopped with the conclusion of an error message to the control panel.

9. Internal chain conveyor

Placed in the machine. Pallets must be centered (+ \ - 1 cm) in the machine. The length of the conveyor corresponds to the length of the machine and has a speed regulator.

10. Floor dispenser for film

Enables usage of rolls with the maximum diameter of 1000 mm. Sensors allow you to determine the remainder of the film on the roll and issue warnings at a given level.

11. Control cabinet

Installed on the machine. The cabinet includes the Siemens Simatic S7 series controller. The front panel has a main switch, an emergency stop button, control buttons and a display for easy fault identification and for manual control. The control cabinet has a reserve of free space of 20%. Meets the following standards / norms: CE, EN / IEC.

12. Separate control panel

It is equipped with the emergency stop button, control buttons, the control module with the display for easy and simple diagnostics of errors in case of interruption of work and for manual control of the machine. The cable from the control cabinet to the control panel is included in the delivery.



SAFETY EQUIPMENT

13. Protective mesh fence around the perimeter of the packer, including 1 door with a mechanism for opening the network.

14. Light barrier.

One set is installed at the entrance and the other at the exit of the packer. The sensors stop the packer operation when trying to enter the machine from the front or rear.

Photocells for personal safety, category 4

1 set installed at the exit and 1 set from the side of the entrance to the machine and interrupt the operation of the machine, with unauthorized access to the machine through the entrance or exit.

Safety category 4 for optimal safety.

Lachenmeier machines are assembled and delivered in accordance with the following generally accepted integrated design directives:

- Mechanical Equipment Directive 1998 (98/37 / EC)
- EMC Directive - 1989 (89/336 / EEC)
- Low Voltage Directive - 1973 (73/23 / EEC).

OPTIONS

15. Teleservice (Siemens S7 PLC)

Enables our service engineers to track problems and make minimal software changes with the REX 300 modem cable. Ethernet Internet connection.

POWER FLEX T1 TECHNICAL DATA**Power supply:**

Power consumption: approximately 12 kW, main fuse max.63 A.

Operating voltage: 3 x 400 V, 50 Hz.

Control system voltage: 24 V, DC.

Protection level: IP 55 control panel, IP 54 packer (except for fans and solder system).

Energy consumption

An average of 0.03 kWh per packaging cycle.

Ambient temperature

Min. 0 ° max. 40 ° C

Max. relative humidity of 90% at 20 ° C.

Supply of compressed air

6 Bar

Air consumption

About 31.5 liters per cycle

Noise level

Approximately 66 db (a) at a distance of 1 m from the packer

Color

Frame RAL 7012

Conveyor RAL 7012

Fence RAL 7037

Control cabinet RAL 7035

Fim feeder device RAL 7012

Contacts in Kyiv city

Ukraine, 03680, Kyiv, Mykoly Hrinchenka st.,
4, Business Center "Horizon Park"



+38 (044) 500 91 63
+38 (067) 678 12 12

Contacts in Kryvyi Rih city

Ukraine, 50029, Kryvyi Rih,
Vatutina st., 31



+38 (056) 409 79 97
+38 (067) 694 12 12

Documentation

1 set of paper documentation and one on CDs (PDF format)

Manual in Russian language

Operator panel in Russian language tech. documentation and software

Signal exchange

1.0 - Login

1.1 - Signal from the customer - "Pallet at the entrance"

1.2 - Signal from Lachenmeier - "Entry allowed" and "Pallet accepted"

2.0 - Exit

2.1 - Signal from the client - "Exit allowed" and "Pallet received by the client"

2.2 - Signal from Lachenmeier - "Pallet ready for exit"

The above signals for input and output - Lachenmeier standard and included in the price.

The exchange takes place through a potential free contractor.

For an additional fee the signal exchange can be expanded with - "Machine good",

"Emergency stops loop", "pallet selection" and "signal exchange through

bus systems".

Film submission under the pallet

The film is fed exactly under the pallet, to achieve optimal tension and protection of the bottom.

Cable length

The cost includes a cable with a maximum length of 2 meters from the CPU to the machine.



POWER FLEX T1 LIST OF COMPONENTS

Configuration	
Terminal	Bopla, synthetic, RAL 7035 boxes
Photo sensors and inductive sensors	Sick
Pneumatics	Festo
Drive	SEW, winding motors, however, WEG
Cable channels	Nidax, galvanized

Control cabinet	
Cabinet	Rittal
Control system (PLC-control)	Siemens Simatic S7 CPU
Control panel	Siemens Touch panel
Frequency converter	Danfoss/SEW
Switch	Merlin Gerrin, lockable
Contactors and switches	Siemens
Relay	Pilz
Terminal boxes	Wago
Cable channels	Planet Wattohm, synthetic material
Transformer	Siemens

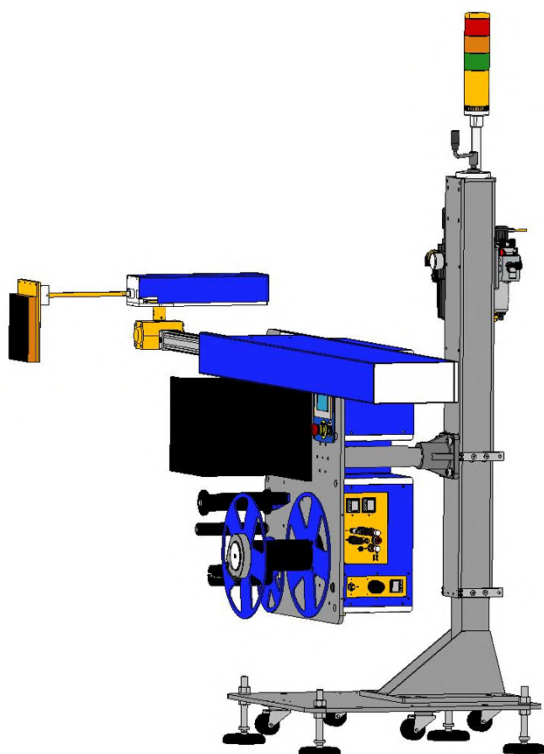
Cable between control cabinet and equipment	
Power cable	Lapp-Kabel min. 1,5 mm ²
Control cable	Lapp-Kabel min. 0,75 mm ²
Cable marking	Weidmuller, yellow

APPLICATOR APL35S

The UBS Print & Apply pallet labeling system is fully compatible with the most well-known Print Engine brands on the market: Zebra, Datamax, Sato and Avery Dennison, among others. Each branded printing device has maintenance, repair and spare parts services available worldwide through the manufacturer's reseller / distributors and / or a network of third-party service centers.

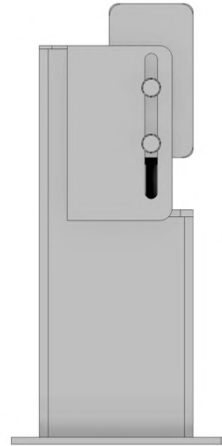
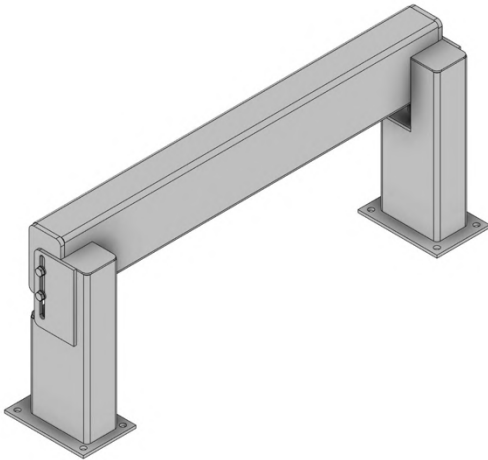
TECHNICAL DATA

Label size A6
Double-sided application technology
Ethernet data exchange
Photocell product detection
Barcode scanner on a pad
Slowing brake when unwrapping
Mechanical height adjustment of the machine
Applied label sealant
Low level detector for consumables
Appropriate part of the software

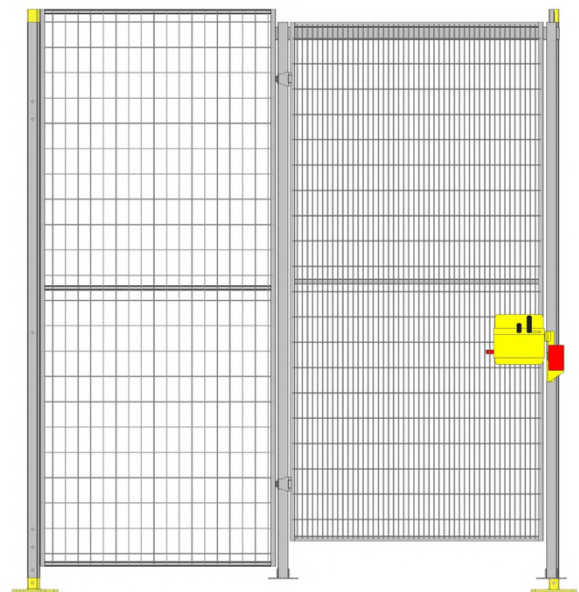
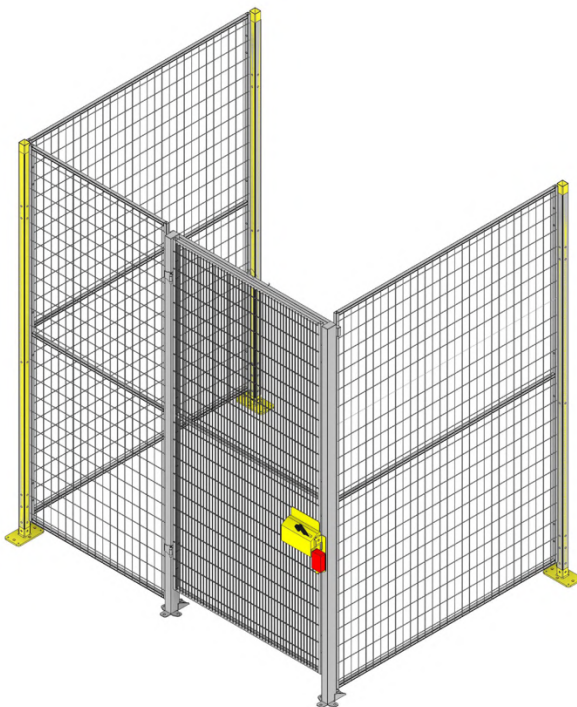


FORK TRUCK BLOCKADE

It is installed before conveyors and protects them from damages in case of collisions with unloaders.



TROAX SAFETY FENCE



- 2 m height;
- doors with safety microswitches and protective locks;
- emergency stop buttons located on the control cabinet and doors;
- safety sensors on the input and output conveyor;
- level of protection according to European standards.

CONTROL ELECTRICAL CABINET

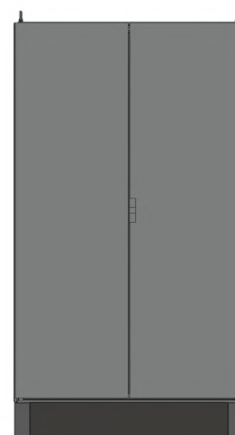
Fully equipped RITTAL electrical cabinet is located on the line (12m around the line).

Electricity 3Ph N Pe.

Complete cable line with cable channels.

Technical data

Electrical cabinet	RITTAL
Operator panel for conveyor system	
PLC	SIEMENS S7
Display	SIEMENS
Switches and keys	Telemecanique
Terminals	Weidmüller, Phoenix
Frequency converters	Mitsubishi
Security unit	SICK / Pepperl+Fuchs
Appropriate part of electrical equipment in electrical cabinet	
Appropriate part of programme equipment	



COMPONENTS - Goldpack

	According to customer's request
PLC	Siemens S7 upon customer's request - recommend Siemens S7 1500
Display	Siemens
Frequency converters	Mitsubishi
Motor	SEW
Reducer	SEW
Servo motors	SEW
Pneumatics	SMC
Pneumatic connectors	FESTO
Sensors	Pepperl+Fuchs
Photo cell	Sick
Light curtains	Leuze
Security units	Sick
Temperature control	Shinko
Terminals	Weidmüller, Phoenix
Relay	Weidmüller, Telemecanique
Transformers	Mean Well
Cables	Hellukabel
Electric cabinet	Rittal
Other electrical components	Klockner Mueller
Rollers	Interroll

➤ IP56 safety level



EQUIPMENT SPECIFICATION

EQUIPMENT		Q-ty
1.	TRA 1,0 belt feeding conveyor	1
2.	TRA 1,0 belt feeding conveyor with integrated KPZ bag weight module	1
3.	The conveyor with the pusher for selection of TRR 1,0 with the UTR1,0 conveyor	1
4.	TRA bag sealing system	1
5.	Bag turning and positioning system	1
6.	PAL 1100 palletizer (high-speed)	1
7.	MP15 empty pallet magazine	1
8.	VP 1,60 roller conveyor for MP15	1
9.	Automatic covering of the top layer of a film ADF 100	1
9a.	Nailing device for film fixation	1
10.	Roller conveyor VP 2.75 with a pedestrian platform	1
11.	VP 2,8 roller conveyor with centering unit for PAL	1
12.	VP 1,80 roller conveyor	2
13.	Power Flex T1 stretch-hood machine with internal conveyor	1
14.	APL35s applicator double-sided marking system A6	1
14a.	Weight module of KPZ pallets	1
15.	VP 1,45 roller conveyor	1
16.	Troax protective fence Input sensors, Sick output sensors Sick safety light barriers, category 4 Troax door blocker, etc. CE	1
17.	Movement restrictor with sensor	2
18.	Electrical cabinet and software	1
19.	Packaging	1
20.	Delivery	1
Integration		
21.	Mounting, training, testing (hotel, food and transport costs are included in the price)	1

COMMERCIAL CONDITIONS

Payment conditions

50% prepayment, 40% before shipment, 10% after signing the act of work performed

Delivery and customs clearance

Delivery and customs clearance is carried out by Skladpack: DDP, Ukraine, customer address

Delivery time

6-7 months

Validity of the offer

Until 31.12.2021

Warranty

24 months

Mounting and personnel training

“Skladpack” company carries out Mounting and set-up of the equipment, afterwards carries out correct equipment operation training, and also simulates emergencies, in which customer’s experts have to correct the mistake on their own without the help of “Skladpack” employees.

Mounting duration (approximately)

20 working days

PRELIMINARY CONDITIONS FOR SALE**Preparatory work carried out by the customer:**

1. Power supply must be carried out according to the drawings of Skladpack.
2. The equipment must be unloaded at the mounting site.
3. Providing qualified personnel to carry out the necessary work on the placement of equipment, connection of power supply, compressed air.
4. Ensuring the continuity of work on mounting, connection, commissioning and setting up of equipment performed by engineers of Skladpack.
5. When starting the line (with the proper functioning of all components and units) for the purpose of proper instruction (training) of the customer's personnel for operation and maintenance, operators and service personnel should not be distracted by any other work. Operators of all shifts are instructed all at once.

Works carried out by Skladpack:

1. Mounting (organization of the line installation process).
2. Connection of power supply of the equipment and laying of electric connections from boards of the equipment of Skladpack to an operator’s platform.
3. Start-up and testing of all functions of the line and packaging units using the customer's packaging materials.
4. Training of the customer's personnel on the rules of operation, maintenance and minor repairs of the line, immediately after start-up and inspection of all functions and modes of operation.

Completion of works:

Considered to be completed after the completion of all works specified in the previous section, upon the provision by engineers of a bilaterally signed Act of completion.

Contacts in Kyiv city

Ukraine, 03680, Kyiv, Mykoly Hrinchenka st.,
4, Business Center “Horizon Park”



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Contacts in Kryvyi Rih city

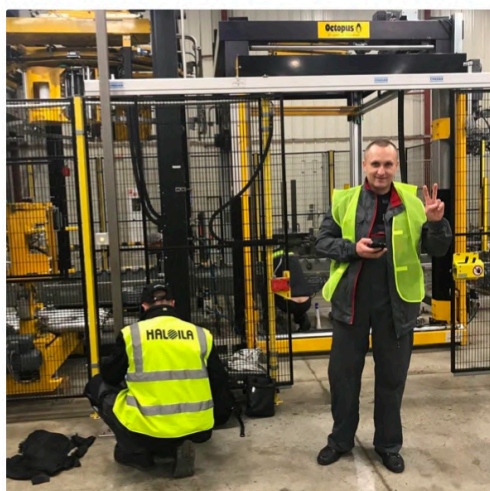
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BENEFITS OF WORKING WITH US

Buy high-quality, durable industrial equipment with a high life.



Customers of "Skladpack" receive highly skilled support during and after their purchase. The lifetime of our equipment is over 15 years. In any case, complete service is available for you every day, around the clock.

The products offered by our company are certified and meet all international quality standards. All equipment offered by our employees undergoes strict control processes and is ready for exploitation in any conditions. We thoroughly monitor this and choose our partners carefully.

Our main advantage is our individual approach to each customer. Highly skilled managers select the finished products, as well as offer individual development of complex systems.

"SKLADPACK" - IT'S TIME TO AUTOMATE!