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OFFER 2022

# WAREHOUSE AUTOMATION



**SORTER**

ON THE GROWTH PATH

ABOUT COMPANY



We are a company that has been providing solutions for comprehensive warehouse equipment and design of logistics systems in internal transport for over 20 years. We manufacture high-quality warehouse automation devices, including: sorters, conveyors, specialized systems, warehouse lifts and a wide range of products and complementary accessories. To produce them, we use subassemblies and components from leading manufacturers such as Siemens, SEW Eurodrive, Datalogic, Sick and Ammeraal Beltech. The devices we supply meet European standards and directives.

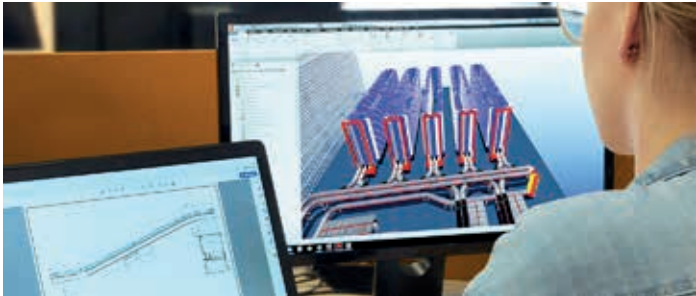
The A1 Sorter project is addressed to integrators and distribution companies from Europe. The wide range of solutions we propose allowsour clients to limit the number of suppliers, simplify the coordination of order execution and eliminate the risk of incorrect cooperationof devices and components. In order to improve communication, our partners receive access to a personal configuration panel. This modern IT device allows our clients to verify the price of selected elements as well as prepare and submit demand.We pay special attention to efficient and quick order processing. A large part of our products is ready for immediate shipment.

The A1 sorter is a highly reliable partner that helps companies take full advantage of business opportunities and enter the path of rapid development.

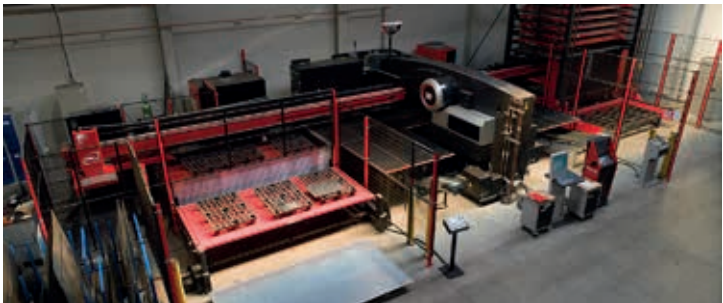
SPECIALIZED ENGINEERING STAFF

We carry out received orders with highly specialized engineering and technical staff. Through many years we have gained relevant experience and knowledge. We have undergone dozens of trainings and courses, and continuous improvement of skills allow us to professionally approach the investors' expectations and to present optimized solutions.

We have many tools thanks to which the project and offer presentation process is clear and understandable to the investor.



We uses the following tools: Demo 3D, Inventor, Solid Works and proprietary ICS tool. To meet the growing expectations of our clients, we are working on new solutions and improving existing ones at the same time. We cooperate with the University of Sciences and Technology in Bydgoszcz and invest in our research and development office.



MODERN MACHINERY PARK

To manufacture advanced products, it is necessary to use modern technologies. Therefore, from the beginning of our activity, we focus on the development of machinery.

Our production plant has been equipped with high-performance and advanced devices that guarantee the highest precision of manufacture. Production and technological processes are largely automated and robotized, which allows us to maintain consistent high quality products and full control over the timeliness of orders.

We use the following machines:

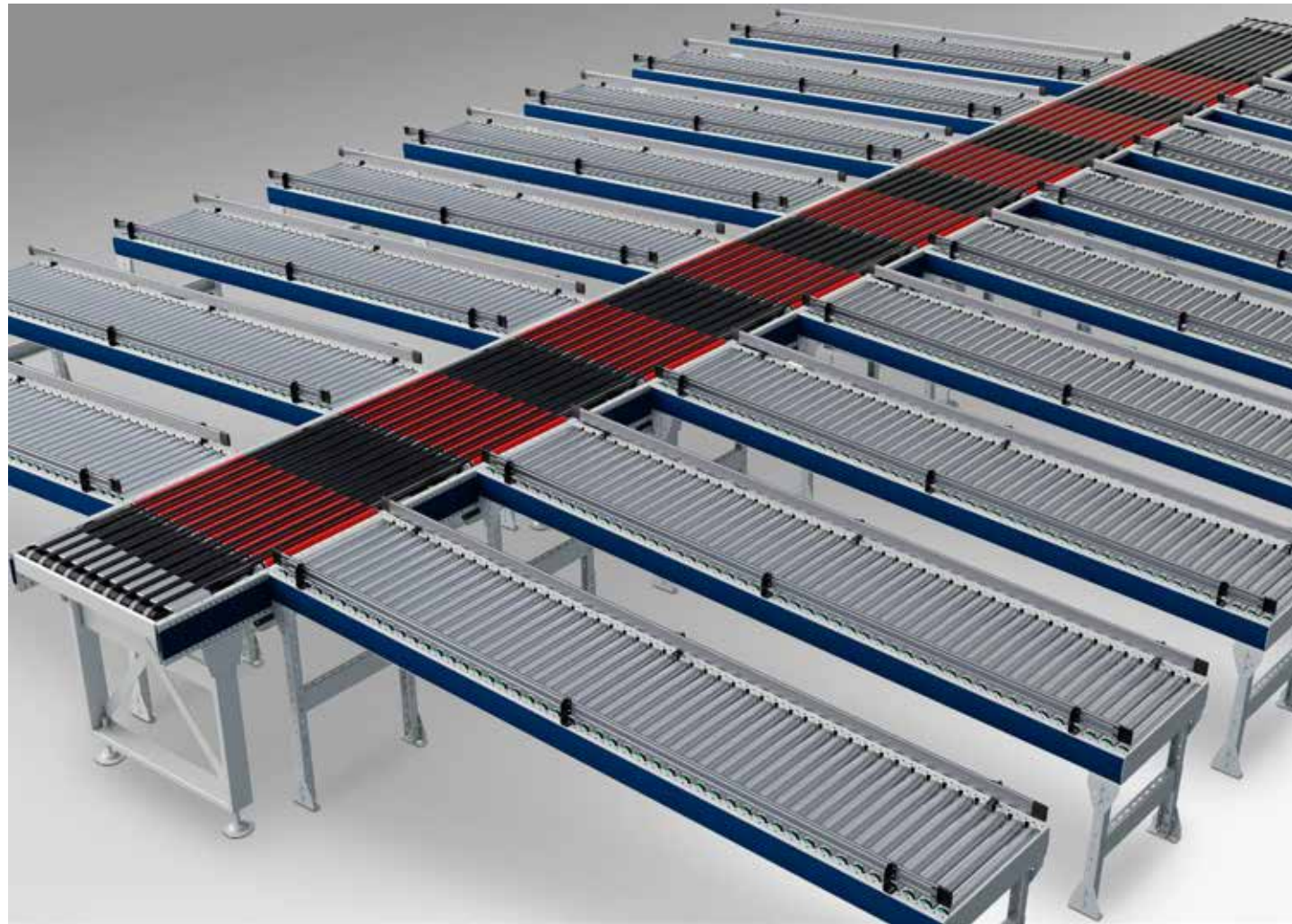
- Burkhardt H63 eccentric press
- HUAXIA and EHT Variopress 225 folders,
- Trumatic 5000R punch press,
- laser Trumpf 3530,
- AMADA 3610NT COMBI – laser + punch press,
- robot TRUBEND CELL7036,
- Roller bender Bendmak PRO80,
- sheet metal guillotine EHT TSS10-30.

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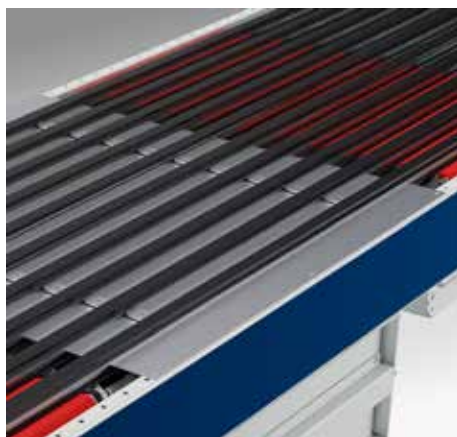


## SORTERS



The main task of sorters (sorting lines) in warehouses is to support the process of picking and distributing goods. They often become an inseparable element of the system of transport and transshipment of goods in retail, wholesale and e-commerce.

Sorting machines can identify the goods and - through other devices - carry them to the designated purpose, e.g. order picking point. In addition, they can be equipped with more functions, such as labeling, packaging, measuring dimensions and weight control.



## NARROW BELT SORTER



Narrow Belt Sorter uses a set of narrow straps to carry the product over the sorter's surface. In addition, the sorter is equipped with high-friction rollers to enable the dropping of goods. They allow the goods to be picked up from the conveyor for redirection under the 90° to the right or left. The continuous contact of the belt with the product ensures maximum guidance accuracy, which affects the sorting reliability.

**Technical specifications:**

- Products transported: cartons, boxes, trays
- Product dimensions: minimum 200 x 150 x 20 mm  
maximum 800 x 800 x 800 mm
- Conveyor: 500 mm - 1100 mm.
- Pop-Up's lifting: pneumatic
- Drive transmission element: Polyurethane belt
- Environmental temperature: 5°C - 40°C
- Weight of products: 0,25 - 50 kg
- Actual performance: for single up to 3000 packages/ h  
for double up to 6000 packages/ h
- Max speed: 1,5 m/s
- Number of stripes: 5-10
- Voltage type: 400 V



## CROSS BELT SORTER



Cross Belt Sorter is an automated device for sorting goods based on sales orders. The products are placed on large, four-sided trays, either manually or automatically. In the right place, the tape-tray directs the goods on it to one side or the other (right or left). The sorter can be oval, U-shaped or linear. The device's design is influenced by the available built-in space and the number of target channels and slots necessary to maximize system performance optimization. The Cross Belt Sorter allows to create several sorting areas in just one cycle.

**Technical specifications:**

- Products transported: cartons, boxes, trays, envelopes,
- Product dimensions: from 200 x 100 x 20 mm to 800 x 600 x 400 mm
- Conveyor width: 420, 620, 820 mm
- Drive of trays: electric rollers 24V
- Trolley drive transmission element: transport belt
- Environmental temperature: 0°C ÷ 40°C
- Weight of products: 0,10 - 25 kg
- Actual performance: up to 12000 packages/ h
- Max speed: 2 m/s
- Number of trolleys: individually according to client's needs
- Voltage type: 400V

## WHEEL SORTER

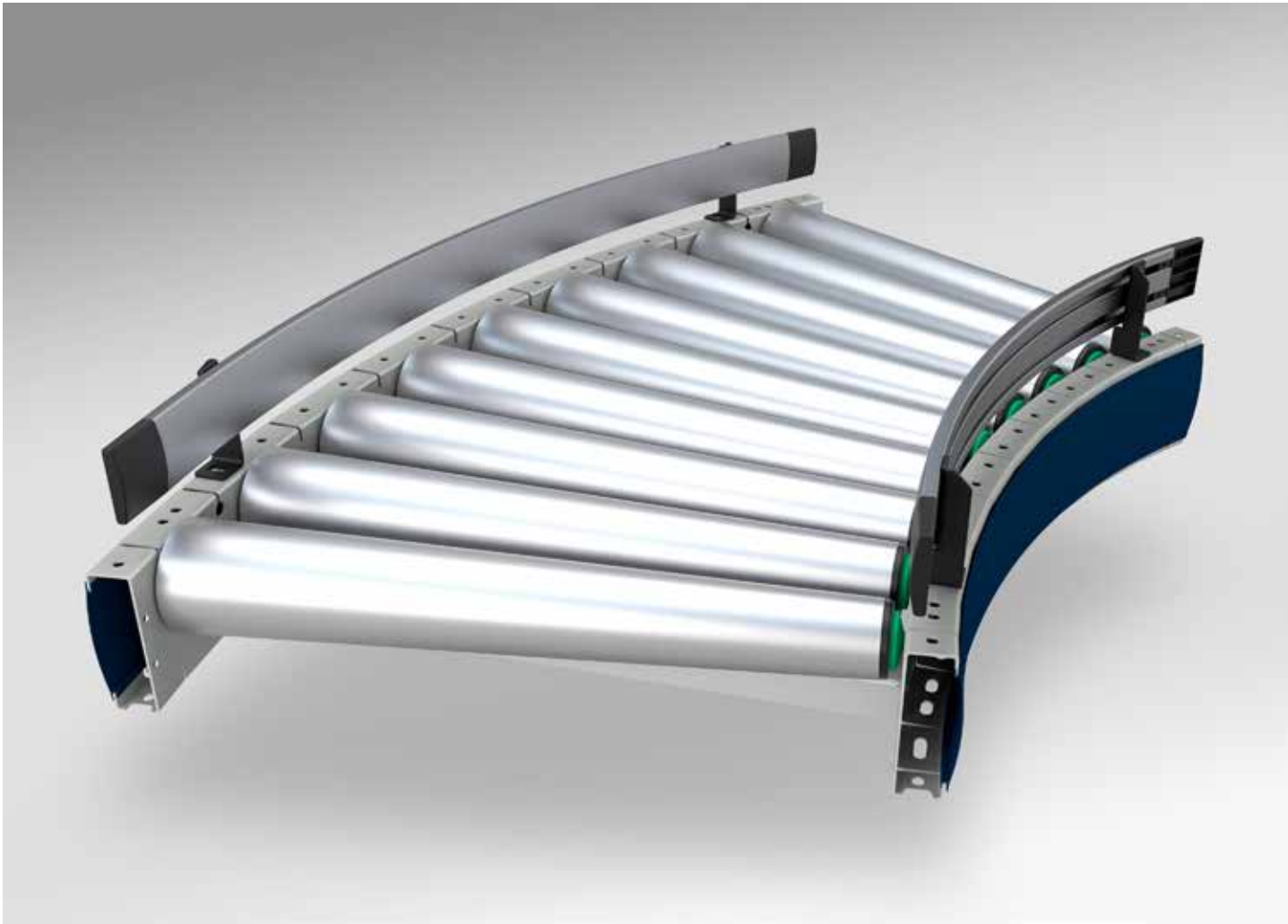


It consists of conveyor modules that allow to build any size sorter with strictly defined functionality. The modular design allows a quick and cheap modification and reconfiguration, i.e. replacement of any element and expansion of the system. To change the direction of the flow of the objects, a high-performance 24V diverter is used, and its additional advantage is the low level of emitted noise. The load, after changing direction, can continue to move at an angle of 30 °, 45 ° or 90 ° to the main line. Drop slots are available in several variants, e.g. as end stations with the use of gravity conveyors or zone conveyors for buffering parcels. The system does not require pneumatic installation. Changing the direction of the rollers in the switch is electrically controlled.

**Technical specifications:**

- Products transported: cartons, boxes, trays
- Product dimensions: minimum 200 x 100 x 20 mm maximum 1200 x 800 x 600 mm
- Conveyor width: 420, 620, 820 mm
- Drive of rolls: electric rollers 24V
- Drive transmission element: Ribbed belt / Polyurethane belt
- Environmental temperature: 0° C ÷ 40° C
- Weight of products: 0,25 - 32 kg
- Actual performance: up to 2700 packages/ h
- Max speed: 1 m/s
- Number of rolls: 2 ÷ 6
- Voltage type: 24V

GRAVITY CONVEYORS

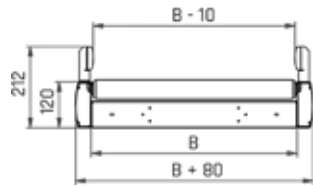
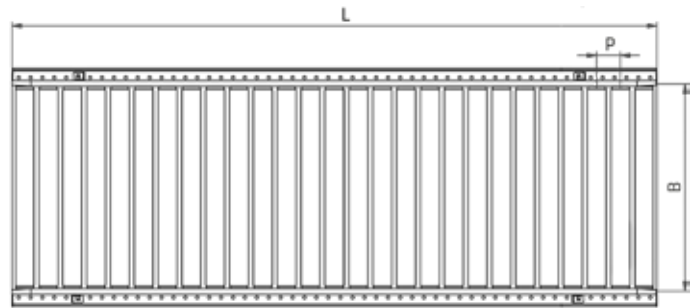


Gravity roller conveyors do not have their own drive source. Loads are moved due to their own weight and a properly selected angle of inclination - thanks to the force of gravity and manual shifting - manual force. Devices of this type are often used as buffers on transport lines, connectors and end stations. The systems with various angles and angle connectors give great freedom in configuring the systems.

Gravity roller conveyors are designed for loads of regular shapes - cartons, boxes, crates - weighing not more than 50 kg.



GRAVITY-STRAIGHT SECTION



The non-driven straight section of the gravity conveyor can be installed at an angle or horizontally. When set at an angle, the speed of the transported objects increases with the inclination to the ground. The device consists of a steel frame, simple gravity rollers and blends.

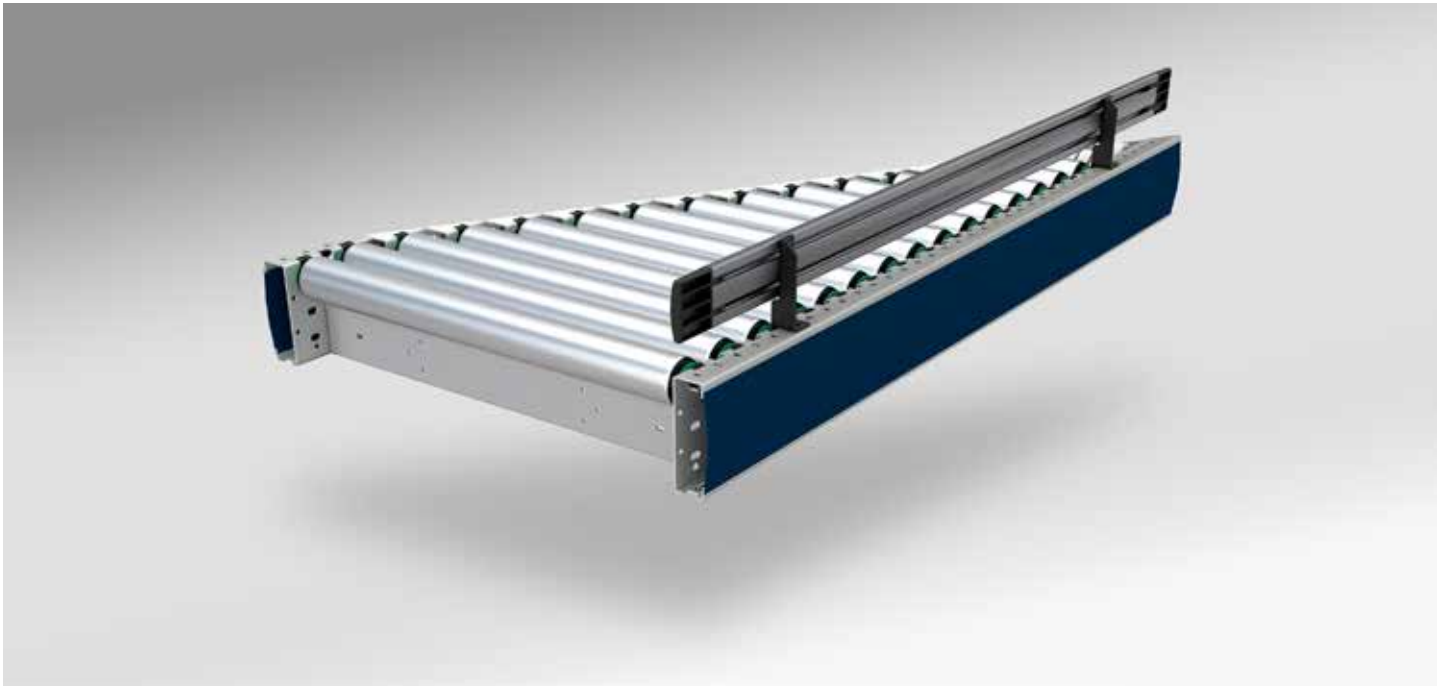
Technical specifications:

- Maximum load: 50 kg/m
- Environmental temperature: -5°C ÷ 40°C
- Speed depends on product and angle of inclination
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel

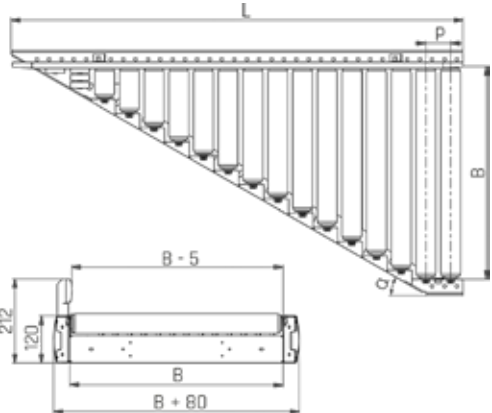
Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
L	Length of conveyor	500, 750, 1000, 1250, 1500, 1750, 2000, 2250, 2500 2750, 3000 mm
P	Roller pitch	62, 93, 125 mm



ROLLER INFEEED



The roller infeed, depending on the location, helps to put loads on the main line or lead them to the side line. With the angle of inclination of this section, the speed of transported objects increases. The device consists of a steel frame shaped at an angle of 30° or 45°, straight gravity rollers and plastic covers.



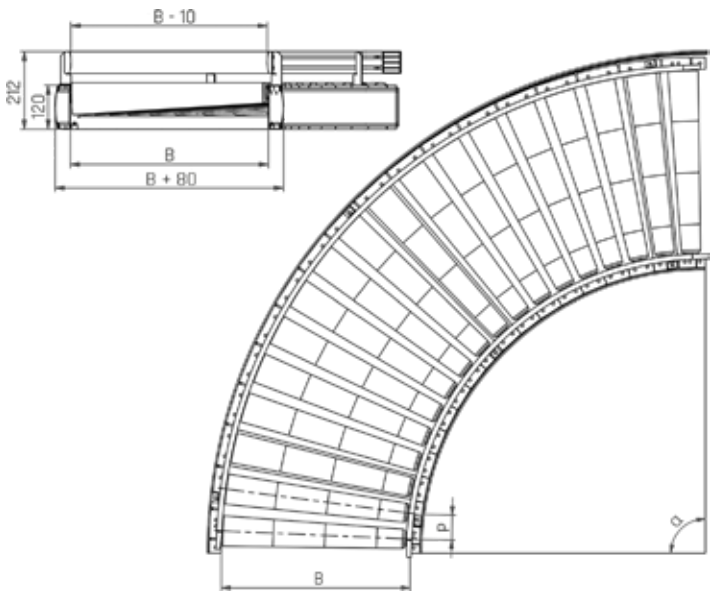
- Technical specifications:**
- Maximum load: 50 kg/m
  - Environmental temperature: -5°C ÷ 40°C
  - Speed depends on product and angle of inclination
  - Diameter of rollers: 50 mm
  - Roller surface material: Galvanized steel

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
L	Conveyor length	955 ÷ 1640 mm
P	Roller pitch	62 mm
α	Line connection angle	30°, 45°

GRAVITY ROLLER CURVE



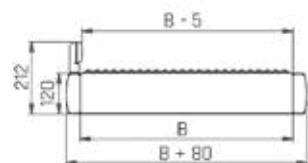
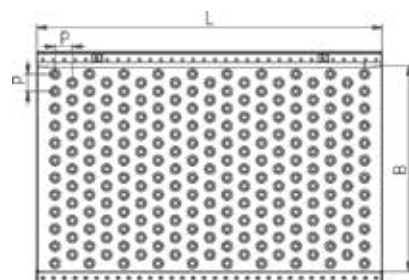
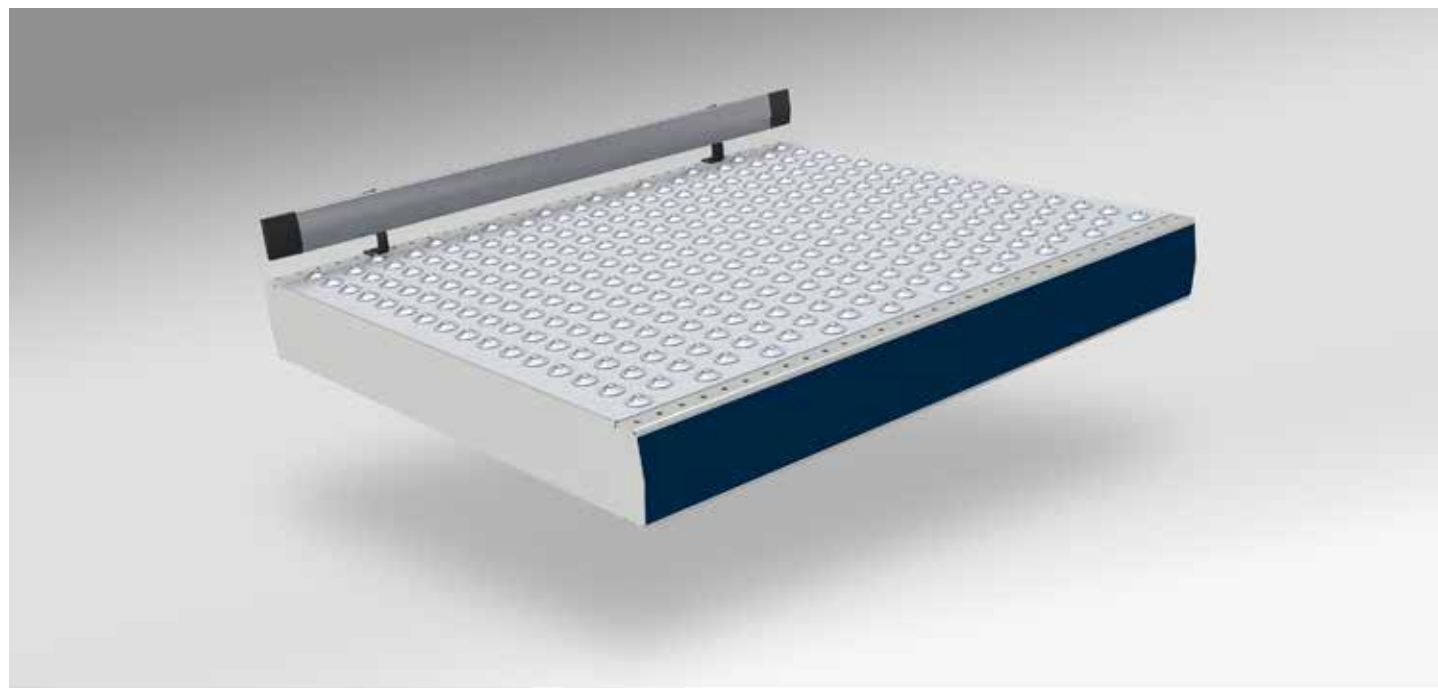
The gravitational curve changes the direction of movement of the object. Can be installed at an angle or horizontally. When set at an angle, the speed of transported objects increases in proportion to the degree of inclination. The device consists of a steel frame bent at an angle of 30°, 45°, 60° or 90°, tapered rollers and a plastic cover.



- Technical specifications:**
- Maximum load: 50 kg/m
  - Environmental temperature: -5°C ÷ 40°C
  - Speed depends on product and angle of inclination
  - Diameter of rollers: 50 mm
  - Roller surface material: Galvanized steel with PP covers

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
P	Roller pitch	73 mm
α	Arc angle	30°, 45°, 60°, 90°

## BALL TABLE



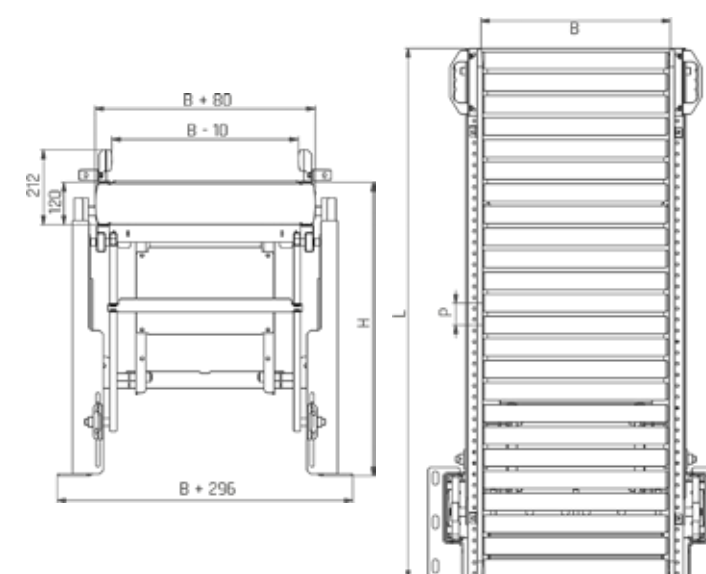
Ball transfer table helps to move products in any direction with little force. Mainly used at inspection or picking stations. The device consists of a steel frame, laminated chipboard, transport bearings and plastic covers.

**Technical specifications:**

- Maximum load: 50 kg/m
- Environmental temperature: 0°C ÷ 40°C
- Speed depends on product and angle of inclination
- Diameter of balls: 15,8 mm
- Balls surface material: Galvanized steel

Symbol	Explanation	Dimensions
B	Table width	420, 620, 820 mm
L	Table length	500, 750, 1000, 1250, 1500, 1750, 2000, 2250, 2500 2750, 3000 mm
P	Pitch of ball	50 mm

## INCLINED CONVEYOR GATE



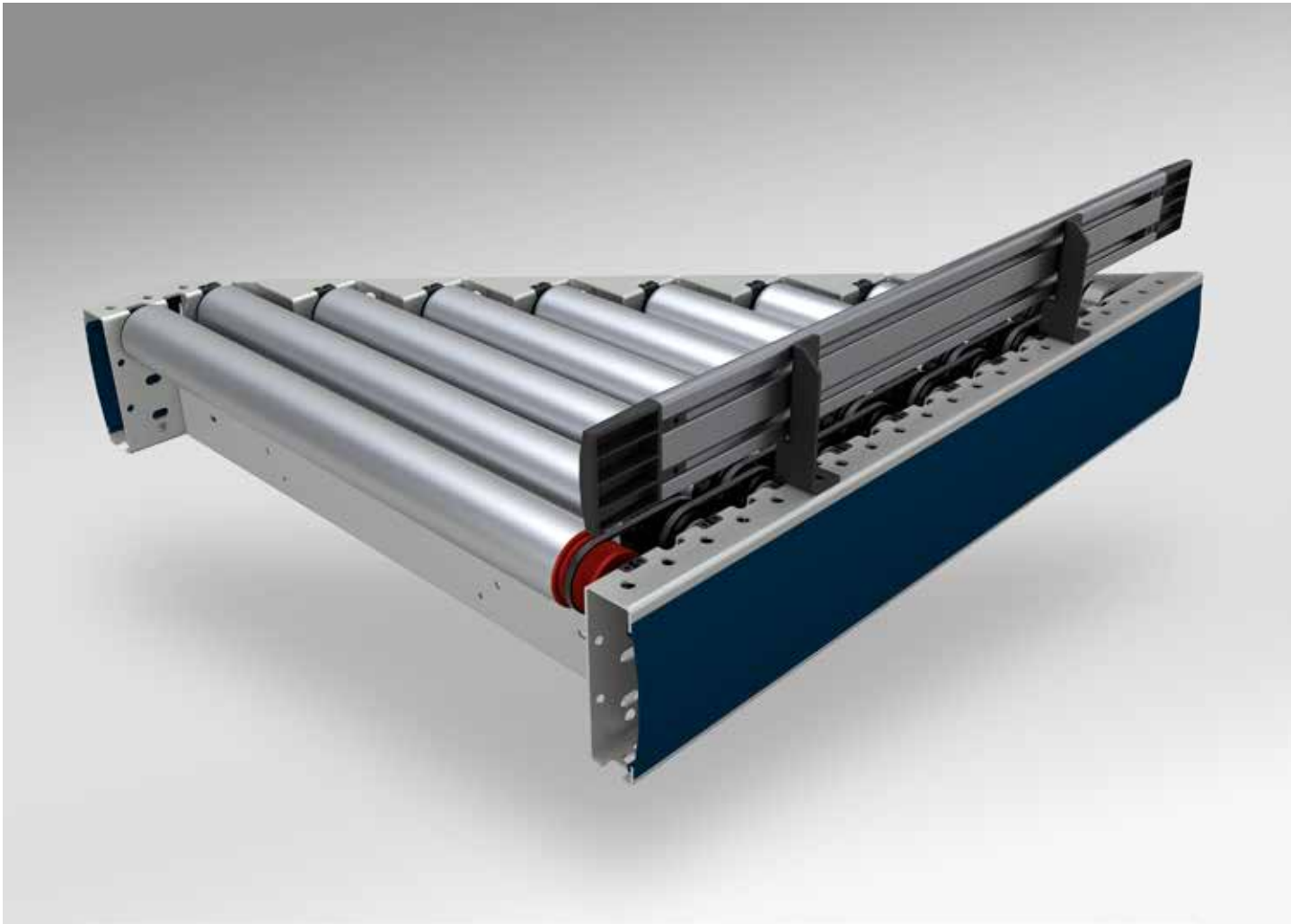
Lifted conveyor gate allows free passage through the conveyor main line. Lifting the gate stops transported loads until it is put down. The device consists of a steel frame of the conveyor, straight gravity rollers, lifting system and plastic covers.

**Technical specifications:**

- Maximum load: 50 kg/m
- Environmental temperature: 0°C ÷ 40°C
- Speed depended on product and angle of inclination
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
L	Length of conveyor	1500 mm
P	Roller pitch	62, 93, 125 mm
H	Height	600 ÷ 850 mm

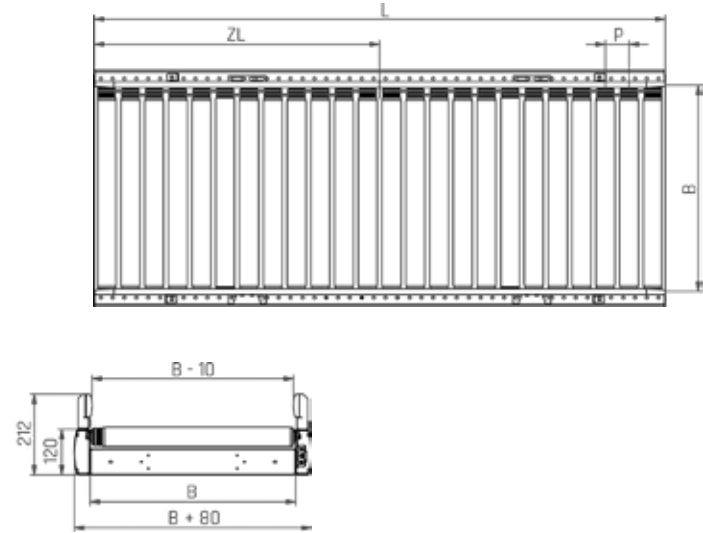
GRAVITY CONVEYORS



24V conveyors are driven by electric rollers connected by means of multi V-belts with other rollers. The design of this type of equipment allows it to be configured with other systems such as gravity conveyors, belt conveyors, transfers, switches and pop-up modules. Together with the extensive sensor system, they form a fully automated internal transport system. The main task of 24V conveyors is the accumulation of loads through separate buffer zones. Each zone is powered by a separate electric roller with the option of changing the speed or direction.



ZONE CONVEYOR



Zone conveyor supports the accumulation of objects in more complex lines. Each zone in the roller conveyor is programmed separately, which gives the possibility to adjust the speed and functionality of the zone. The conveyors are fully compatible with specialized devices such as transfers, divertors and pop-up modules. The device consists of a steel frame, electric rollers, PolyVee rollers, belts, controllers, sensors and blends.

Technical specifications:

- Maximum load: 50 kg/zone
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel
- Voltage type: 24V
- Drive transmission element: Ribbed belt
- Type of drive transmission: from roller to roller

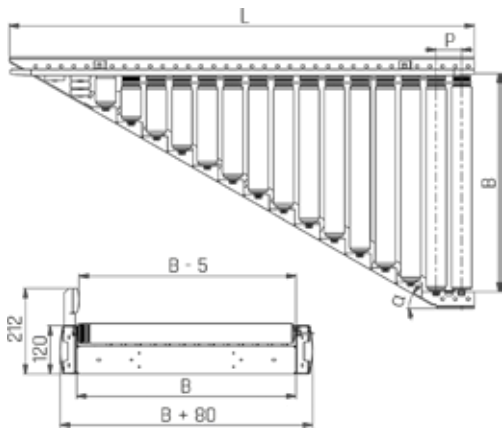
Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
L	Conveyor length	500, 750, 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000 mm
ZL	Zone length	500, 750, 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000 mm
P	Roller pitch	62, 93, 125 mm



ROLLER INFEEED DRIVE



The angle connector, depending on the location, helps to put loads on the main line or lead them to the side line. When entering the main line, it uses gaps in the flow of materials. Directly works with a diverter or pop-up. The device consists of a steel frame shaped at an angle of 30° or 45°, electric roller, PolyVee rollers, belts, controller, sensor and blend.

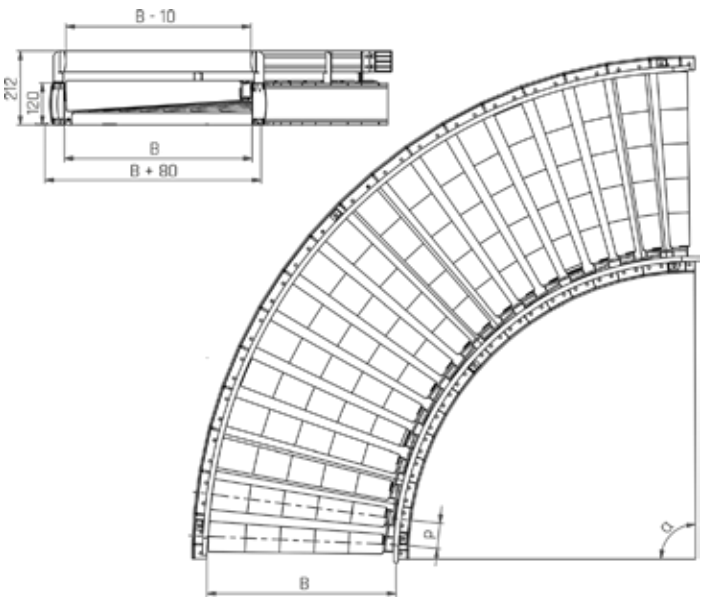


Technical specifications:

- Maximum load: 50 kg/zone
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel
- Voltage type: 24V
- Drive transmission element: Ribbed belt
- Type of drive transmission: from roller to roller

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
L	Conveyor length	955 ÷ 1640 mm
P	Roller pitch	62 mm
α	Line connection angle	30°, 45°

ROLLER CURVE DRIVE



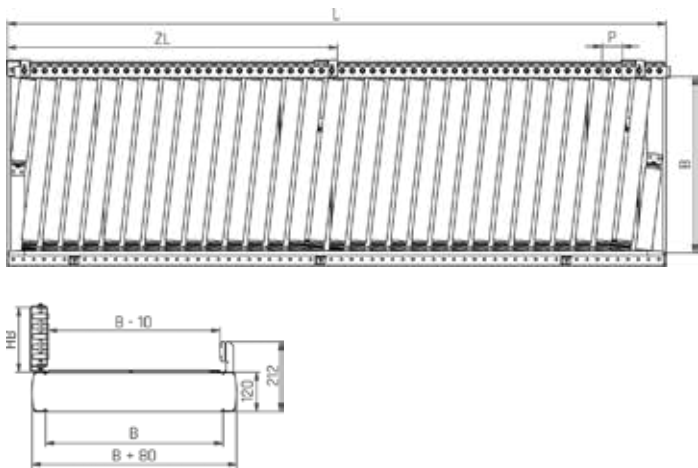
The roller curve changes the direction of cargo movement. The conical shape of the rollers allows the goods to be kept between the side profiles. The use of a controller enables no-pushing buffering. The device consists of a steel frame bent at an angle of 30°, 45°, 60° or 90°, electric roller, PolyVee tapered rollers, belts, controller, sensor and blends.

Technical specifications:

- Maximum load: 50 kg/zone
- Arc angle: 90°
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel with PP covers
- Voltage type: 24V
- Drive transmission element: Ribbed belt
- Type of drive transmission: from roller to roller

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
P	Roller pitch	73 mm
α	Arc angle	30°, 45°, 60°, 90°

POSITIONING ROLLER CONVEYOR



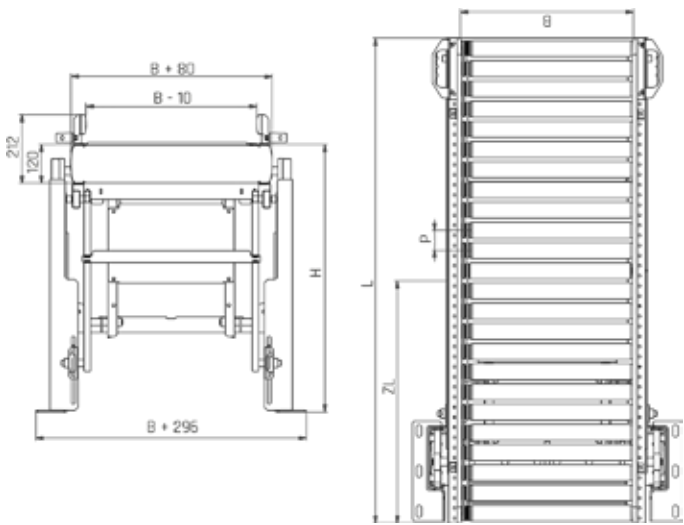
Positioning roller conveyor positions the item to the selected side in the band's profile. It is used when precision is required when changing the direction of movement of the transported load. It is recommended to place the leveling conveyor in front of the node equipped with specialized devices. The device consists of a steel frame, electric rollers, PolyVee rollers, belts, controllers, sensors and blends.

Technical specifications:

- Maximum load: 50 kg/zone
- roller skew: 6°
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel
- Voltage type: 24V
- Drive transmission element: Ribbed belt
- Type of drive transmission: from roller to roller

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
L	Conveyor length	2000 ÷ 3000 mm
ZL	Zone length	750 ÷ 1500 mm
P	Roller pitch	62, 93, 125 mm
HB	Band height	100, 150, 200 mm

ZONE GATE



Driven zone gate enables free passage through the conveyor main line. Raising the gate stops the transported loads until its put down back. It consists of a steel conveyor frame, electric rollers, PolyVee rollers, controllers, sensors, lifting system and blends.

Technical specifications:

- Maximum load: 50 kg/m
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel
- Voltage type: 24V
- Drive troansmission element: Ribbed belt
- Type of drive transmission: from roller to roller

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
L	Conveyor length	1500 mm
ZL	Zone length	500, 750, 1500 mm
P	Roller pitch	62, 93, 125 mm
H	Height	600 ÷ 850 mm



CONVEYORS 400V

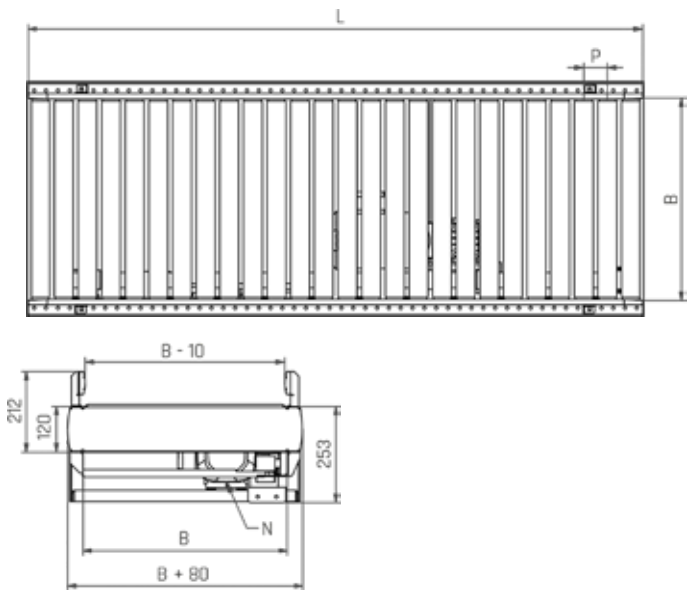


400V conveyors are driven by three-phase motors. The use of high power engines limits their number in the transport system, which reduces the costs of line construction and cost of product transport over long distances.

The system works with other devices such as: gravity conveyors, belt conveyors, 24V conveyors.



FLATBELT



The roller conveyor powered by 400V allows products to be transported over long distances up to 15 m - using only one motor. The drive from the electric motor is transmitted via a belt under the rollers. Due to the appropriate belt pressure, the friction force transfers high torque to the rollers, which ensures high efficiency of the conveyor.

Technical specifications:

- Maximum load: 50 kg/m
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel
- Voltage type: 400V
- Drive transmission element: Transmission belt
- Drive transmission type: From transmission belt to roller

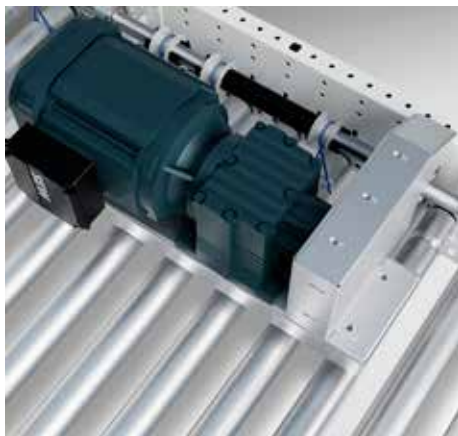
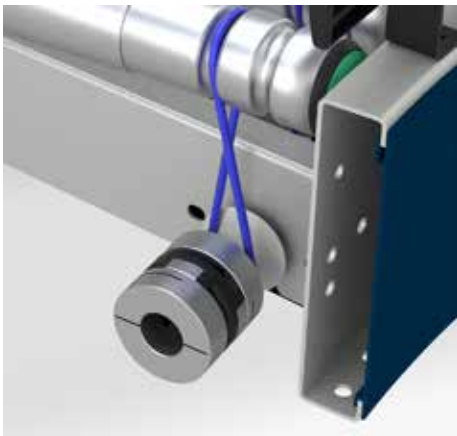
Symbol	Symbol Explanation	Dimension
B	Roller width	420, 620, 820 mm
L	Conveyor length	3000 ÷ 15000 mm
P	Roller pitch	62, 93, 125 mm
N	Motor power	0.75 ÷ 1,1 kW

LINESHAFT CONVEYORS

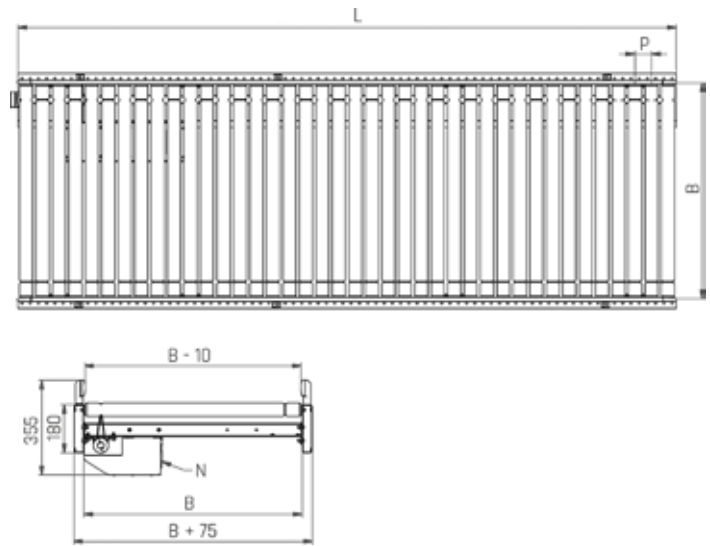


The lineshaft conveyor is a simple and very popular solution for transporting loads. The system requires a small number of drives, which significantly reduces the cost of the conveyor. One gearmotor can drive a line up to 15 meters long.

Drive transmission can also take place at the connection of a straight section with a curve or angle connector.



LINESHAFT DRIVE



Driven lineshaft is a conveyor driven by a royal shaft, which mediates in the drive of rollers by the engine. The drive module is a segment equipped with its own drive. It is a basic module that is connected to passive segments, curves and angle connectors in any configuration. The device consists of a steel frame, rollers, shaft, PU belts, motor and blends.

Technical specifications:

- Maximum load: 50 kg/m
- Environmental temperature: 0°C + 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel
- Voltage type: 400V
- Drive transmission element: Round polyurethane belt
- Type of drive transmission: from the drive shaft to roller

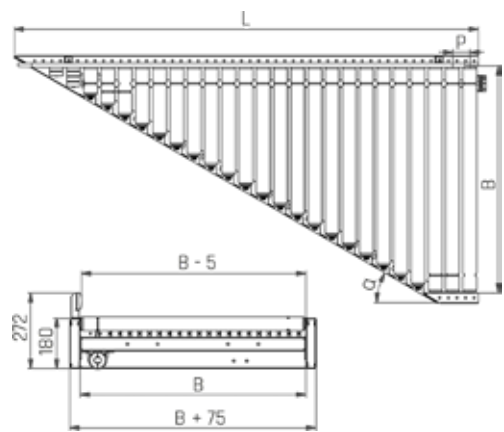
Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820, 1020 mm
L	Conveyor length	500, 750, 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000 mm
P	Roller pitch	62, 93, 104, 125 mm
N	Motor power	0.37 ÷ 1,5 kW



LINESHAFT INFEED



The lineshaft infeed depending on the location, helps to put loads on the main line or lead them to the side line. Connected with the drive module, they form a lineshaft system. The device consists of a steel frame shaped at an angle of 30° or 45°, rollers, shaft, PU straps and blends.



Technical specifications:

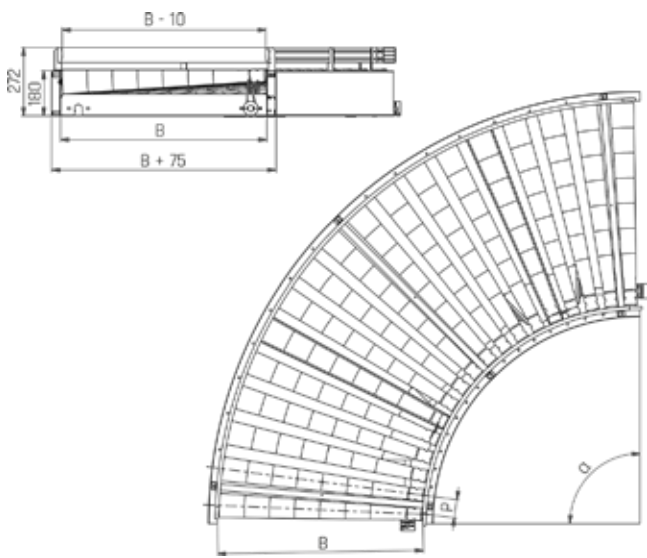
- Maximum load: 50 kg/m
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel
- Drive transmission element: Round polyurethane belt
- Type of drive transmission: from the drive shaft to roller

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820, 1020 mm
L	Conveyor length	1100 ÷ 1800 mm
P	Roller pitch	62 mm
α	Line connection angle	30°, 45°

LINESHAFT CURVE



The curve with royal shaft changes the direction of movement of the load. The conical shape of the rollers keeps objects between the side profiles. The curve connected to the driven module forms the lineshaft system. The device consists of a steel frame bent at an angle of 30°, 45°, 60° or 90°, rollers, shafts, PU straps and blends.

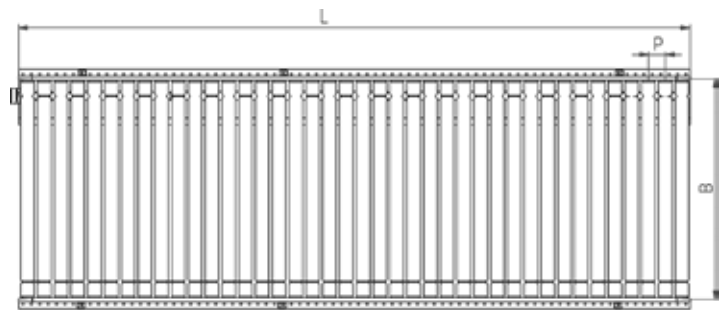


Technical specifications:

- Maximum load: 50 kg/m
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel with PP covers
- Drive transmission element: Round polyurethane belt
- Type of drive transmission: from the drive shaft to roller

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820, 1020 mm
P	Roller pitch	73 mm
α	Arc angle	30°, 45°, 60°, 90°

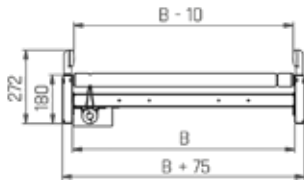
PASSIVE LINESHAFT



Passive Lineshaft is a segment that is not equipped with a drive. Several passive modules connected together with the drive module form the lineshaft system lines. The device consists of a steel frame, rollers, shaft, PU strips and blends.

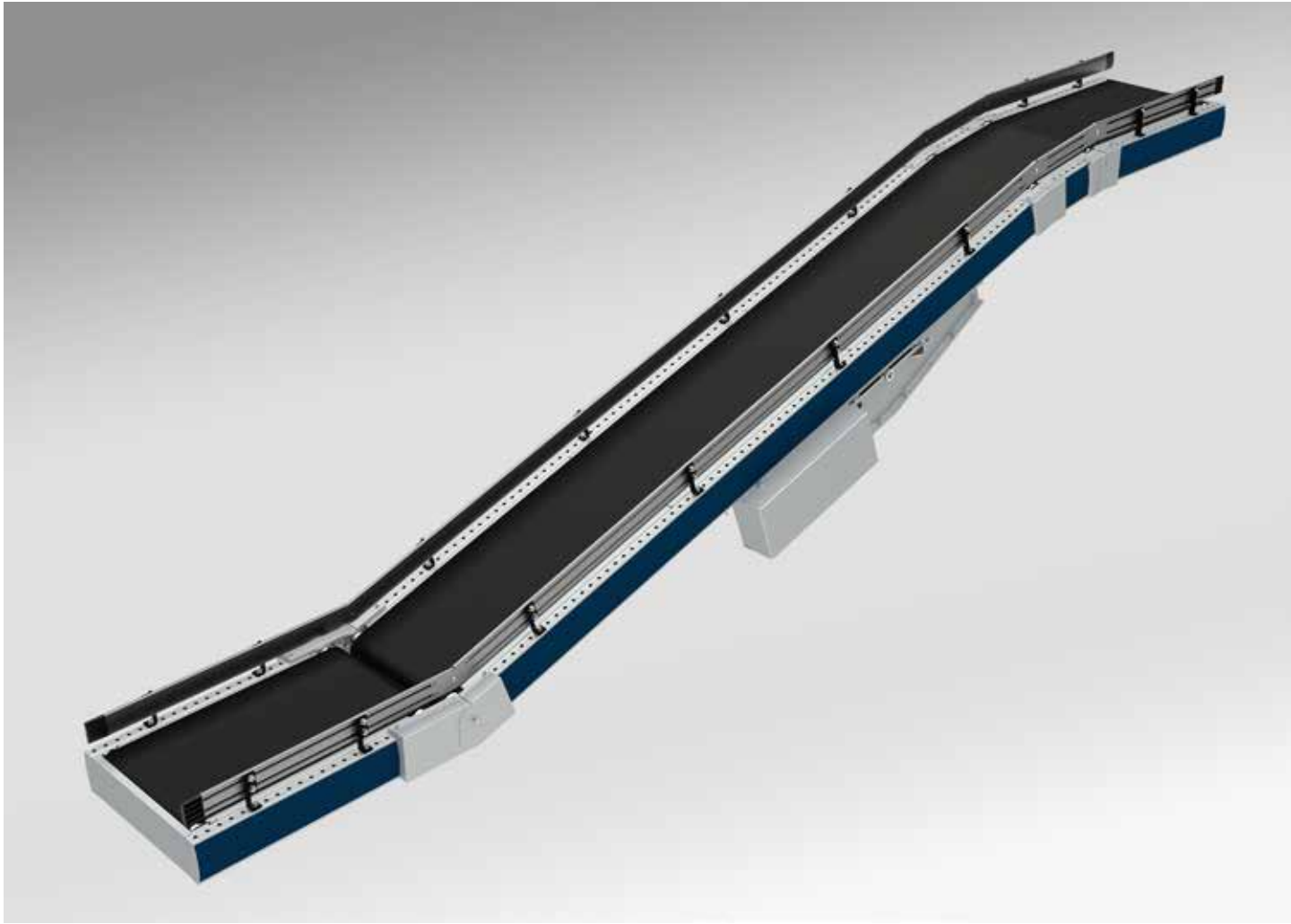
Technical specifications:

- Maximum load: 50 kg/m
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Diameter of rollers: 50 mm
- Roller surface material: Galvanized steel
- Drive transmission element: Round polyurethane belt
- Type of drive transmission: from the drive shaft to roller



Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820, 1020 mm
L	Conveyor length	500, 750, 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000 mm
P	Roller pitch	62, 83, 104, 125 mm

BELT CONVEYORS



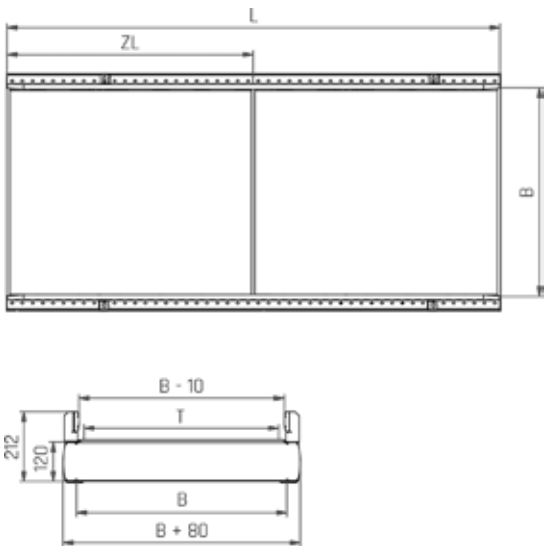
Belt conveyors are used to transport items of standardized shapes and of various sizes. The advantage of this type of equipment is very low noise and minimal vibration during operation. The use of an electric drive ensure a high smoothness of work and a large torque, which is available from the moment of commissioning.

Lifting belt conveyors are necessary for transporting objects between levels. They are characterized by high efficiency.





ZONE BELT CONVEYOR



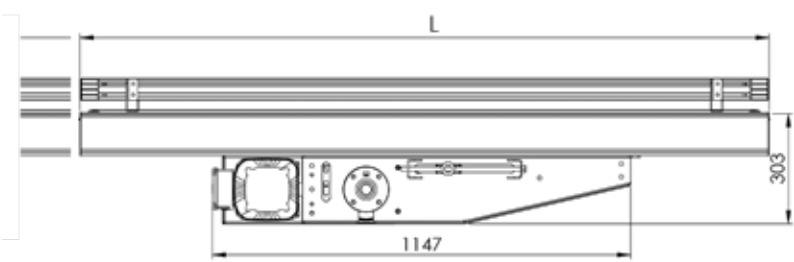
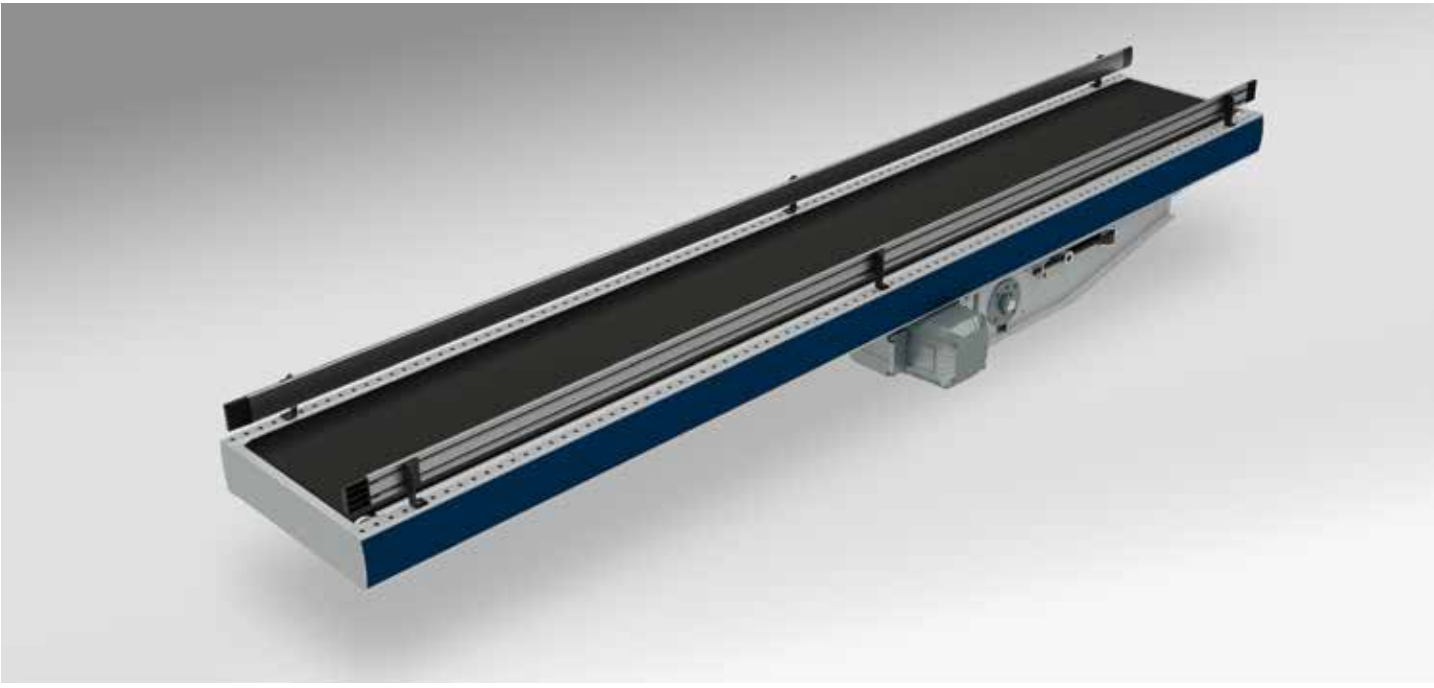
This type of conveyor combines the functionality of two systems, i.e. belt and 24V. Thanks to the belt structure that supports the transferred object over the entire surface of the base, the conveyor accumulates goods of various shapes and sizes. Each zone of the conveyor is driven by an electric roller - which allows to set the speed of goods flow for each zone separately. The device is made of a steel frame, electric rollers, rollers, belts, tensioners, controllers, sensors and blends.

Technical specifications:

- Maximum load: 30 kg/zone
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Belt material: Poliester i PVC
- Voltage type: 24V
- Drive transmission element: Transporting belt
- Type of drive transmission: from electronics to the transporting belt

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
T	Waist width	350, 550, 750 mm
L	Conveyor length	500, 750, 1000, 1250, 1500, 2000, 2250, 2500, 3000 mm
ZL	Zone length	500, 750, 1000, 1250 mm

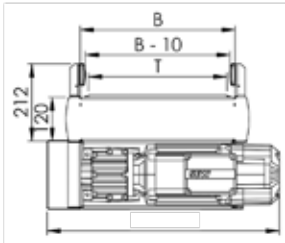
STRAIGHT BELT CONVEYOR



Highly efficient device designed to support the objects on the entire surface of its base. It is ideal for transporting small items, foil bags, or any packaging with an uncured bottom. The conveyor consists of a drive console, a steel frame, a transportation belt, and a system of tensioning and supporting rollers.

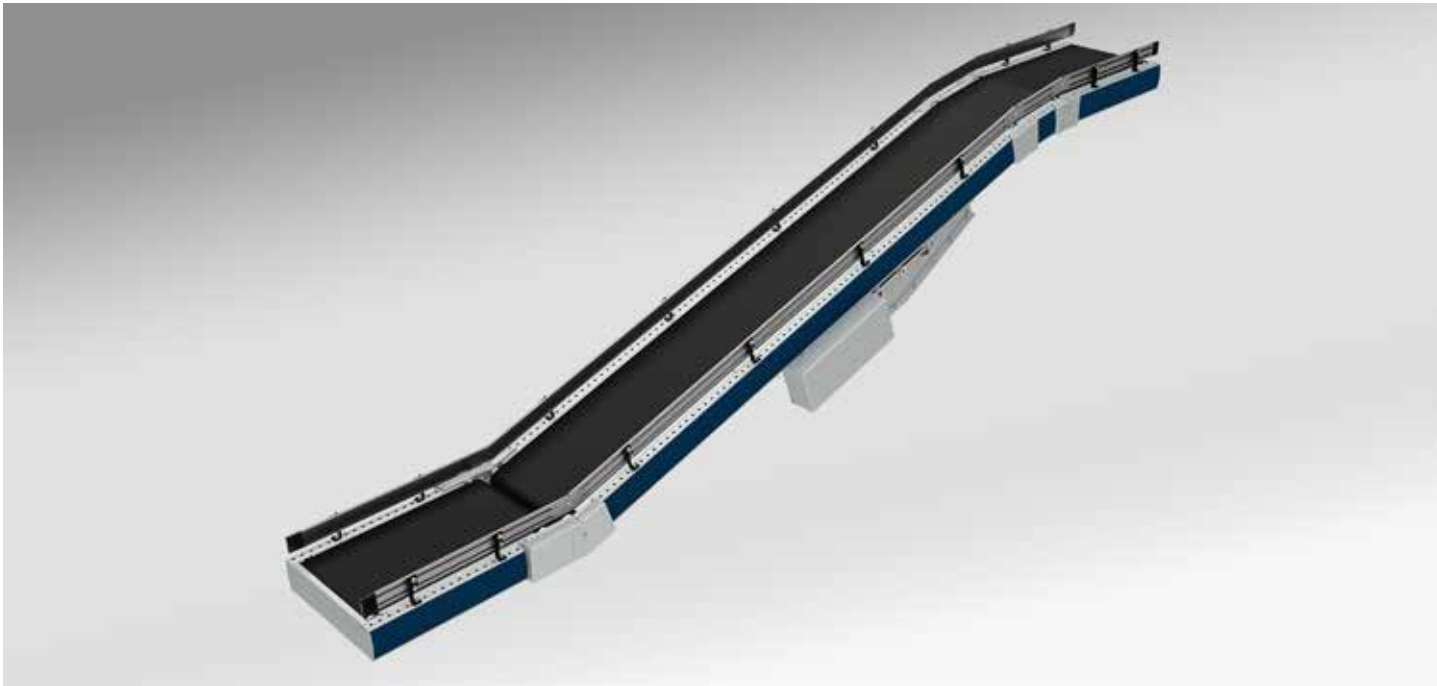
Technical specifications:

- Maximum load: 50 kg/m
- Ambient temperature: 0°C ÷ 40°C
- Maximum velocity: 1 m/s
- Belt material: polyester and PVC
- Tabletop material: galvanized steel
- Voltage: 400V
- Drive transfer element: transportation belt
- Drive transmission type: drive shaft to transportation belt.

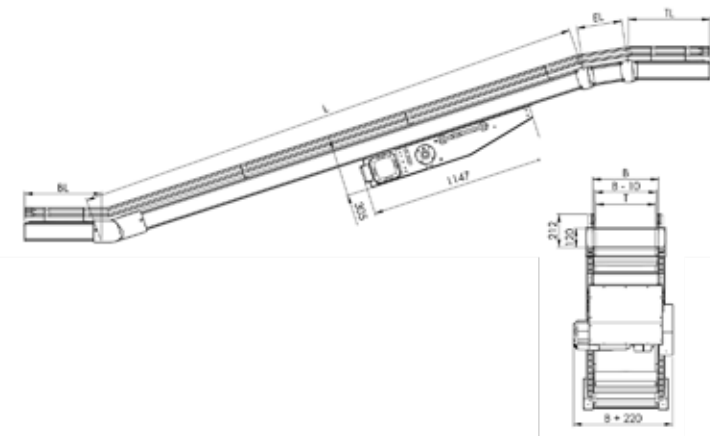


Symbol	Explanatio	Dimension
B	Width between profiles	420, 620, 820 mm
T	Belt width	380, 580, 780 mm
L	Conveyor length	1500 ÷ 15000 mm
N	Engine power	0,75 ÷ 2,2 kW

LIFTING BELT CONVEYOR



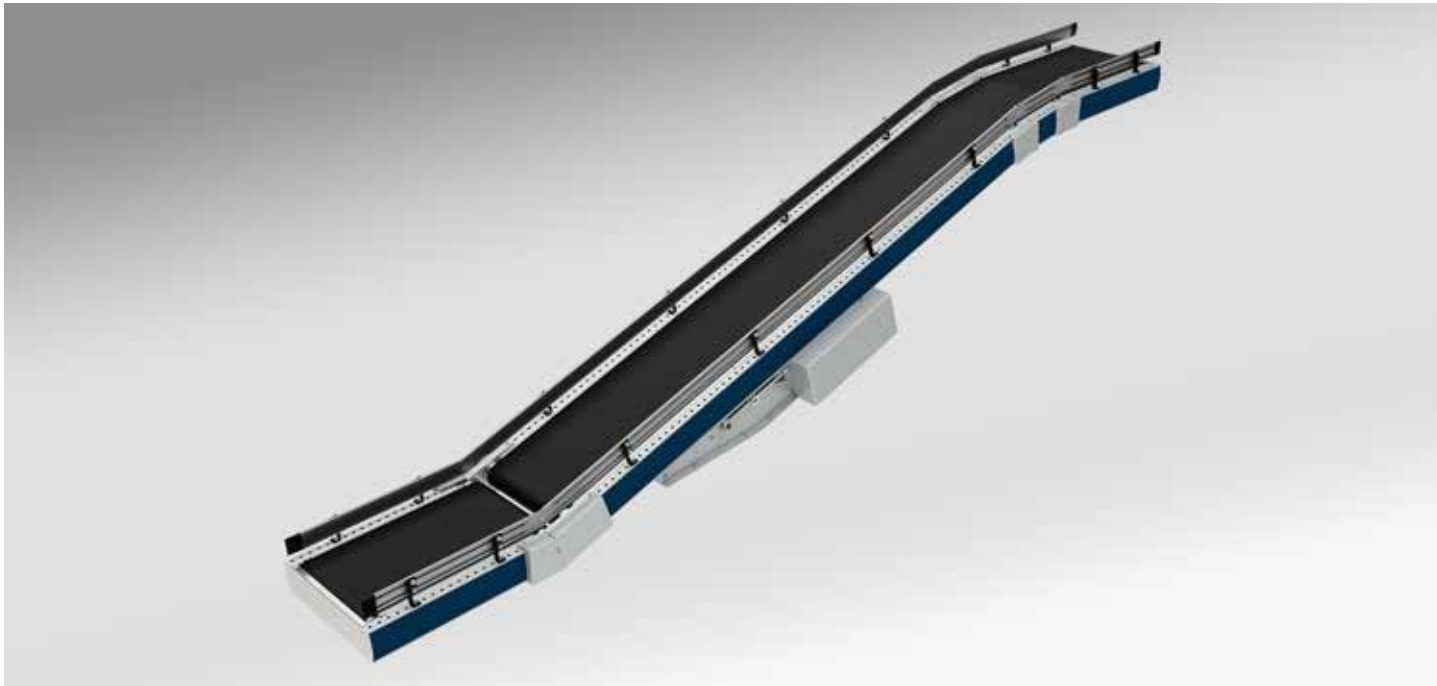
Used in places where it is necessary to transport the item at different levels. Thanks to the gentle upper and lower fractures, the object smoothly overcomes hills. The device consists of a drive console, steel frame, conveyor belts, tensioning belts, support rollers system and blends.



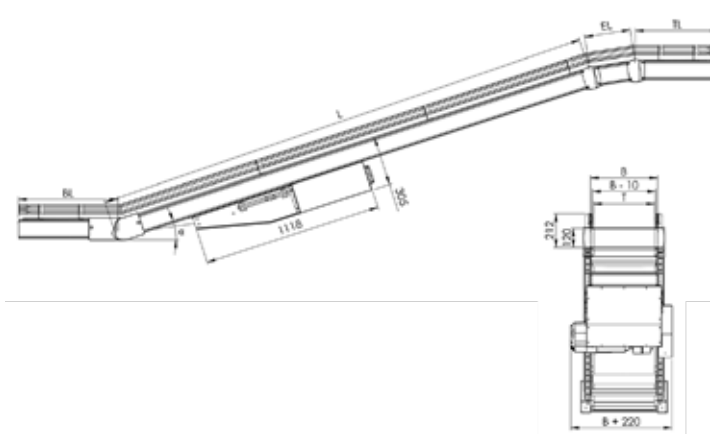
- Technical specifications:**
- Maximum load: 50 kg/m
  - Environmental temperature: 0°C ÷ 40°C
  - Max speed: 1 m/s
  - Belt material: Poliestere i PVC
  - Construction surface material: Galvanized steel
  - Voltage type: 400V
  - Drive transmission element: Transporting belt
  - Type of drive transmission: from the drive roller to the transporting belt

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
T	Waist width	380, 580, 780 mm
L	Conveyor length	1500 ÷ 12000 mm
BL / TL	Length of breaking	530 ÷ 1230 mm
N	Motor power	1,1 ÷ 4 kW
α	Tilt angle	max. 18°

INCLINED BELT CONVEYOR



Used in places where it is necessary to transport an object at different levels. Thanks to the gentle upper and lower breaks, the workpiece smoothly overcomes slopes. The device consists of a drive console, a steel frame, conveyor belts, and a system of tensioning and supporting rollers and blends.

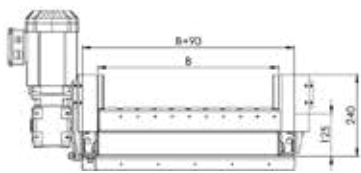
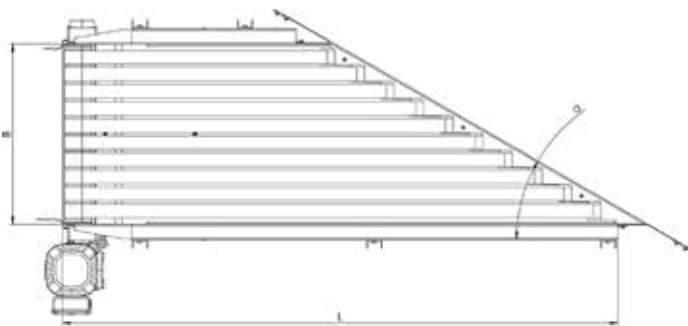


- Technical specifications:**
- Maximum load: 50 kg/m
  - Ambient temperature: 0°C ÷ 40°C
  - Maximum velocity: 1 m/s
  - Belt material: polyester and PVC
  - Tabletop material: galvanized steel
  - Voltage: 400V
  - Drive transfer element: transportation belt
  - Drive transmission type: drive shaft to transportation belt.

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
T	Belt width	380, 580, 780 mm
L	Conveyor length	1500 ÷ 12000 mm
BL / TL	Break length	630 ÷ 1230 mm
N	Motor power	0,75 ÷ 4 kW
α	Angle of inclination	max. 18°



BELT MERGE CONVEYOR



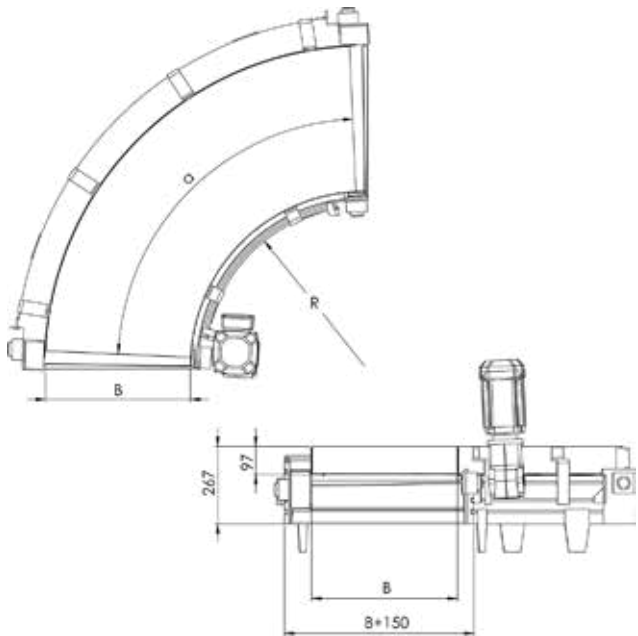
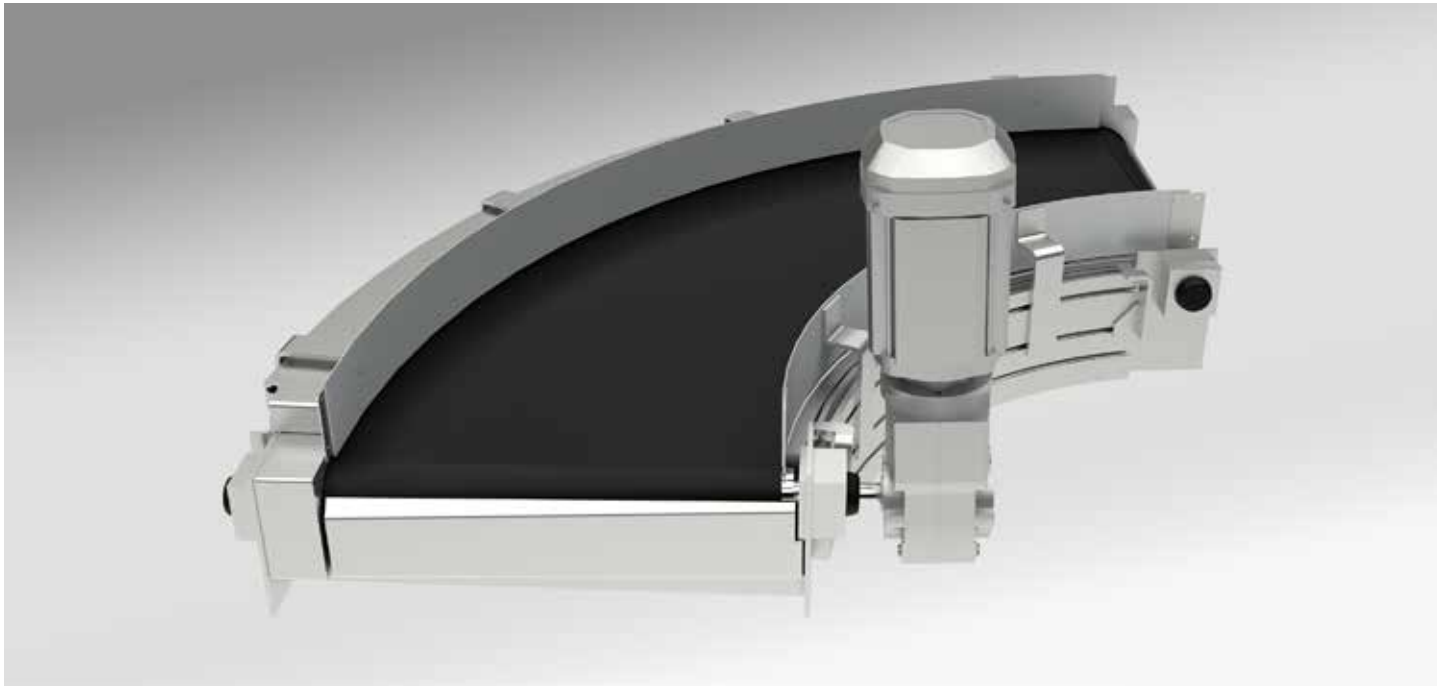
Depending on its positioning, the infeed belt conveyor (the angular belt switch) helps to guide loads onto the main line or out onto a side line. The device consists of a steel frame shaped to the appropriate drop angle, transmission belts, rollers, motor, and sensor.

Technical specifications:

- Maximum load: 50 kg/m
- Ambient temperature: 0°C ÷ 40°C
- Maximum velocity: 3 m/s
- Belt material: polyester and PVC
- Tabletop material: galvanized steel
- Voltage: 400V
- Drive transfer element: drive shaft
- Drive transmission type: drive shaft to transportation belt.

Symbol	Explanation	Dimensions
B	Width	530, 630, 830 mm
α	Line connection angle	30°, 45°
N	Motor power	0,55 ÷ 2,2 kW

BELT CURVE CONVEYOR



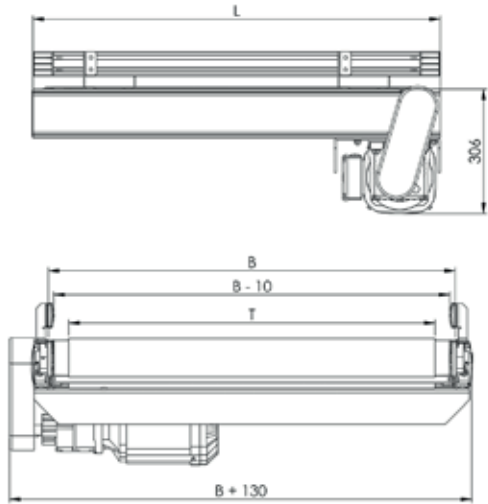
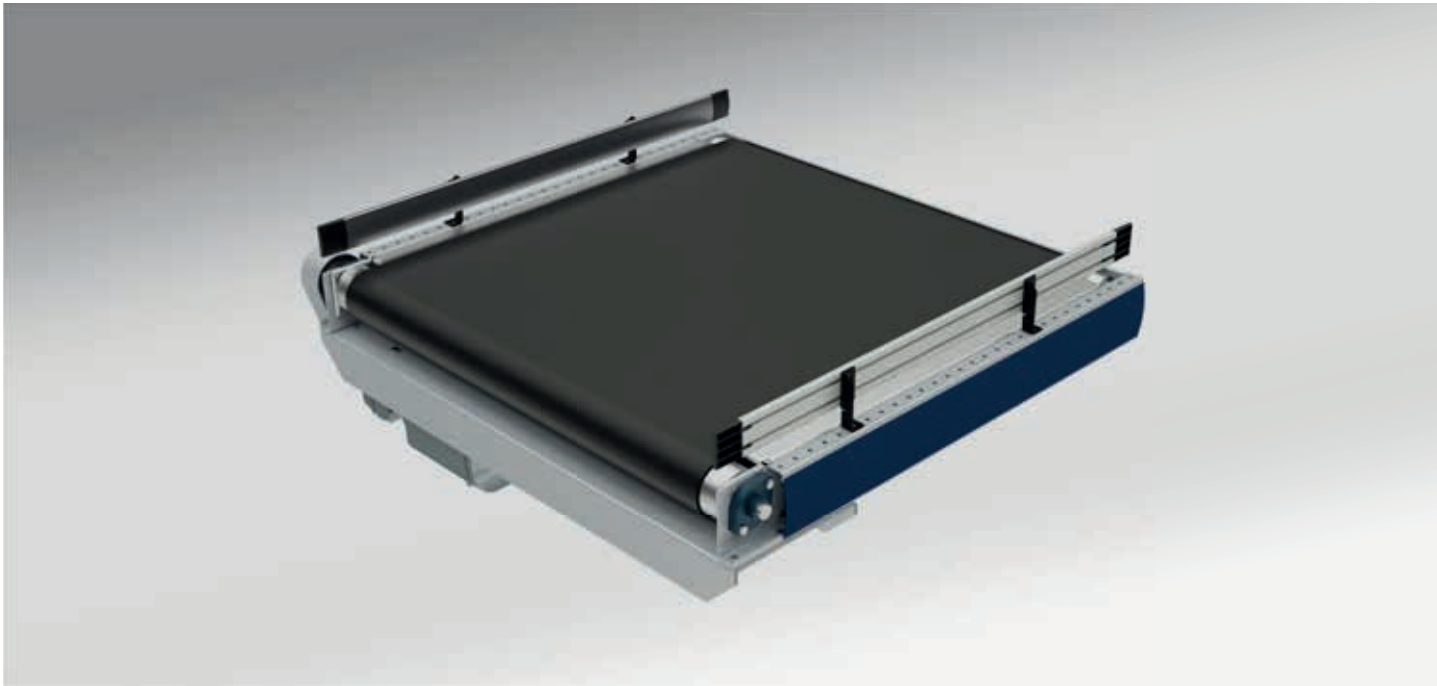
The belt curve changes the direction of the load. The belt guided in the profiles moves the objects without changing their position in relation to the slopes. The device consists of an aluminium frame, transmission belt, rollers, motor, and sensor.

Technical specifications:

- Maximum load: 50 kg/m
- Ambient temperature: 0°C ÷ 40°C
- Maximum velocity: 2.5 m/s
- Belt material: polyester and PVC
- Voltage type: 400V
- Tabletop material: galvanized steel
- Drive transmission elements: drive shaft
- Drive transmission type: drive shaft to conveyor belt

Symbol	Explanation	Dimensions
B	Width	500, 700, 900 mm
α	Angle	30°, 45°, 60°, 90°
N	Engine power	0,55 ÷ 2,2 kW

BUFFER BELT CONVEYOR



Highly efficient device, ideal for separating parcels before the sorting system. Thanks to its construction, it can operate in two directions alternately. It is adapted to support items with low rigidity. It consists of a drive console, steel frame, conveyor belt, system of tension rollers and blends.

Technical specifications:

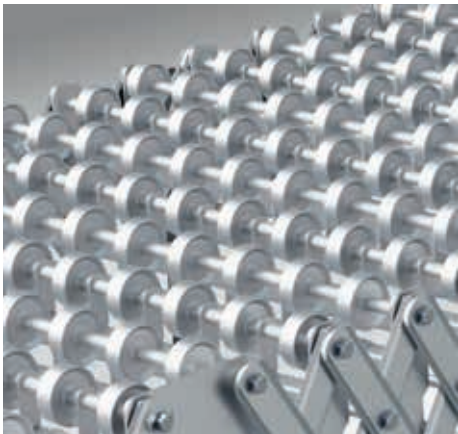
- Maximum load: 50 kg/m
- Environmental temperature: 0°C ÷ 40°C
- Speed: 1 m/s
- Belt material: Poliestere i PCV
- Voltage type: 400V
- Tabletop material: galvanized steel
- Drive transmission element: Transport belt
- Drive transmission type: drive shaft to transportation belt.

Symbol	Explanation	Dimensions
L	Length	750 ÷ 1250 mm
B	Width	420 ÷ 820 mm
T	Roller width	380, 580, 780 mm
N	Motor power	0,37 ÷ 1,1 kW

FLEXIBLE CONVEYORS

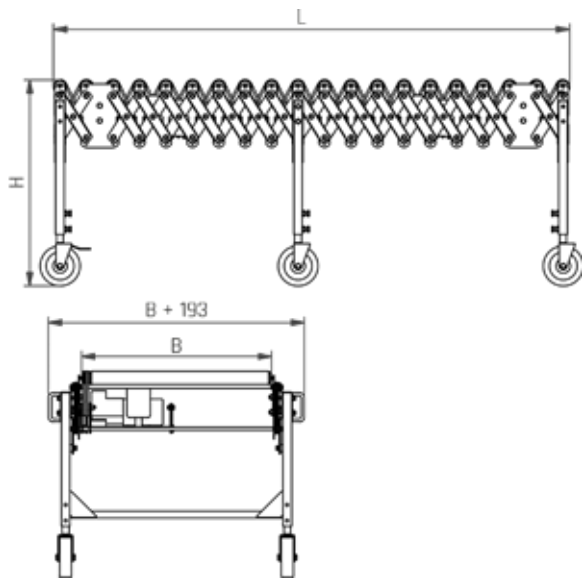


They are used in reloading zones, courier sorting centers and small companies. They streamline the loading and unloading of packages, filling the space between the loading zone and the vehicle. Thanks to the scissor system, the conveyor can be set in the shape of e.g. letters C, S, O and we can adjust its length.





DRIVEN FLEXIBLE CONVEYOR

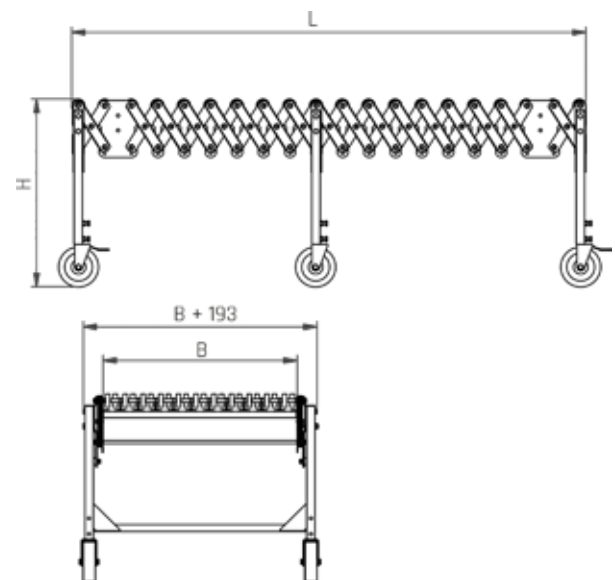


Flexible conveyor improves internal transport in logistics centers. Adjustable speed ensures adaptation of the device to the needs and allows control of the transport process. The maximum length of the conveyor when unfolded is three times greater than the rest length. This saves space during storage. Driven flexible conveyors are recommended for traditional goods transport systems, at cross-docking reloading and they cooperate well with production machines.

- Technical specifications:**
- Maximum load: 100 kg/m
  - Environmental temperature: 10°C ÷ 50°C
  - Speed: 5 - 35 m/s
  - Diameter of rollers: 50 mm
  - Roller surface material: Galvanized steel
  - Voltage type: 220 +/- 5%, 50/60 Hz

Symbol	Explanation	Dimensions
B	Width	610, 760 mm
L	Conveyor length	3275 ÷ 8735 mm
H	Conveyor height	730 ÷ 1040 mm

FLEXIBLE GRAVITY CONVEYOR



Flexible gravity conveyor with its specific rollers used, offers the greatest flexibility among devices in this category. Its undoubted advantage is the large load capacity of 450 kg/m. The maximum length after unfolding is four times the resting length. This saves space during storage. Flexible gravity conveyors are mainly used as buffers, connectors and end sections in warehouse automation systems.

- Technical specifications:**
- Maximum load: 450 kg/m
  - Environmental temperature: 5°C ÷ 50°C
  - Diameter of rollers: 48 mm
  - Roller surface material: Galvanized steel

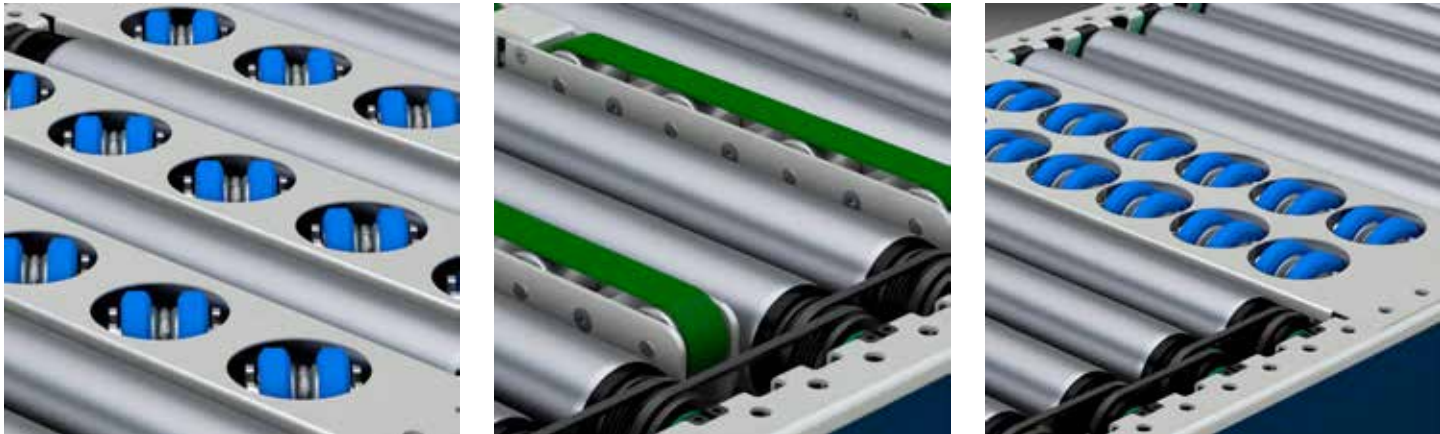
Symbol	Explanation	Dimensions
B	Width	1400, 1600, 1800, 2000 mm
H	Conveyor length	1430 ÷ 1830 mm
h	Conveyor height	685 ÷ 1085 mm

SPECIALIZED SYSTEMS

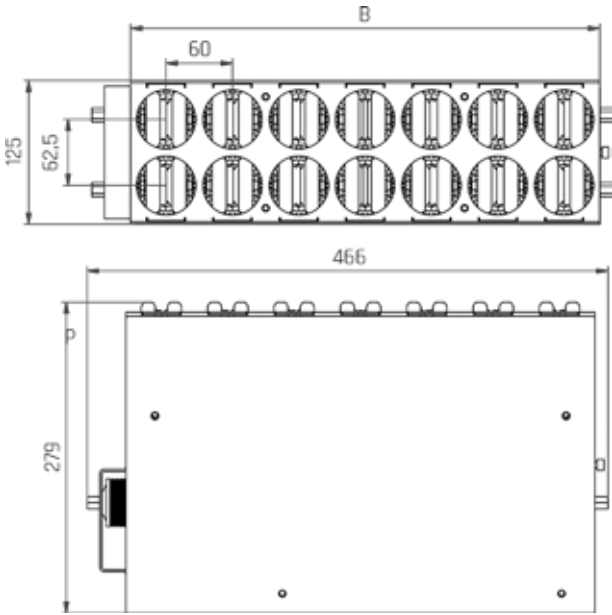


In complex warehouse automation systems it is necessary to use advanced devices in conveyor nodes. They support the redirection of objects to the side lines, change the direction of movement and arrangement.

All such devices are electrically powered - 24V.



DIVERTER



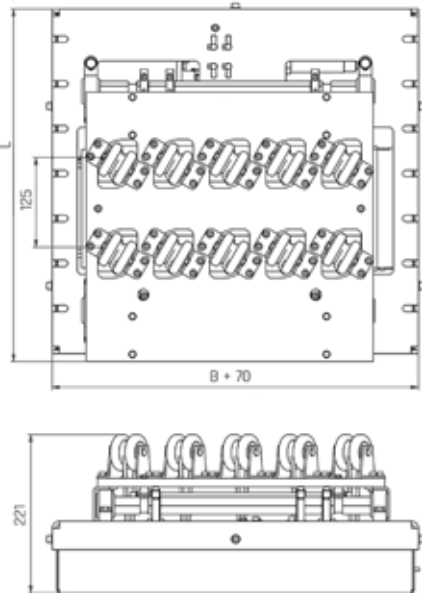
The diverter is used to direct objects to lines at an angle of 30°, 45° or 90°. Loads are redirected according to the setting of the rotary rollers. In some cases, it is possible to change the orientation of an object by 90°.

- Technical specifications:**
- Maximum load: 50 kg
  - Environmental temperature: 0°C ÷ 40°C
  - Max speed: 1 m/s
  - Driving angle: 30° / 45° / 90°
  - Number of rolls: 2
  - Voltage type: 24V
  - Drive transmission element: polyurethane belt
  - Type of drive transmission: from the drive roller to the roller

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm



POP-UP



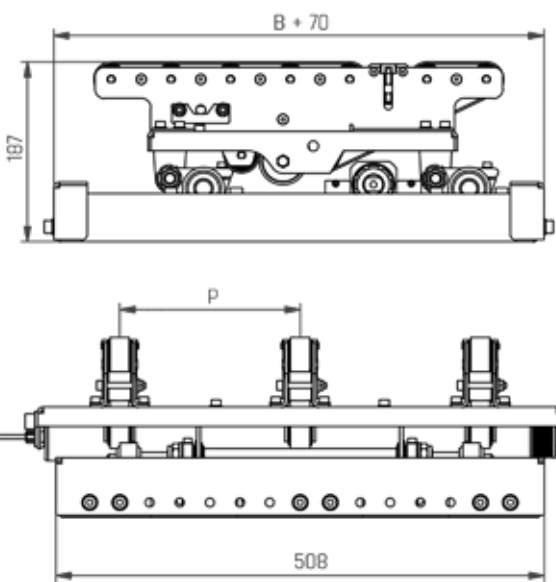
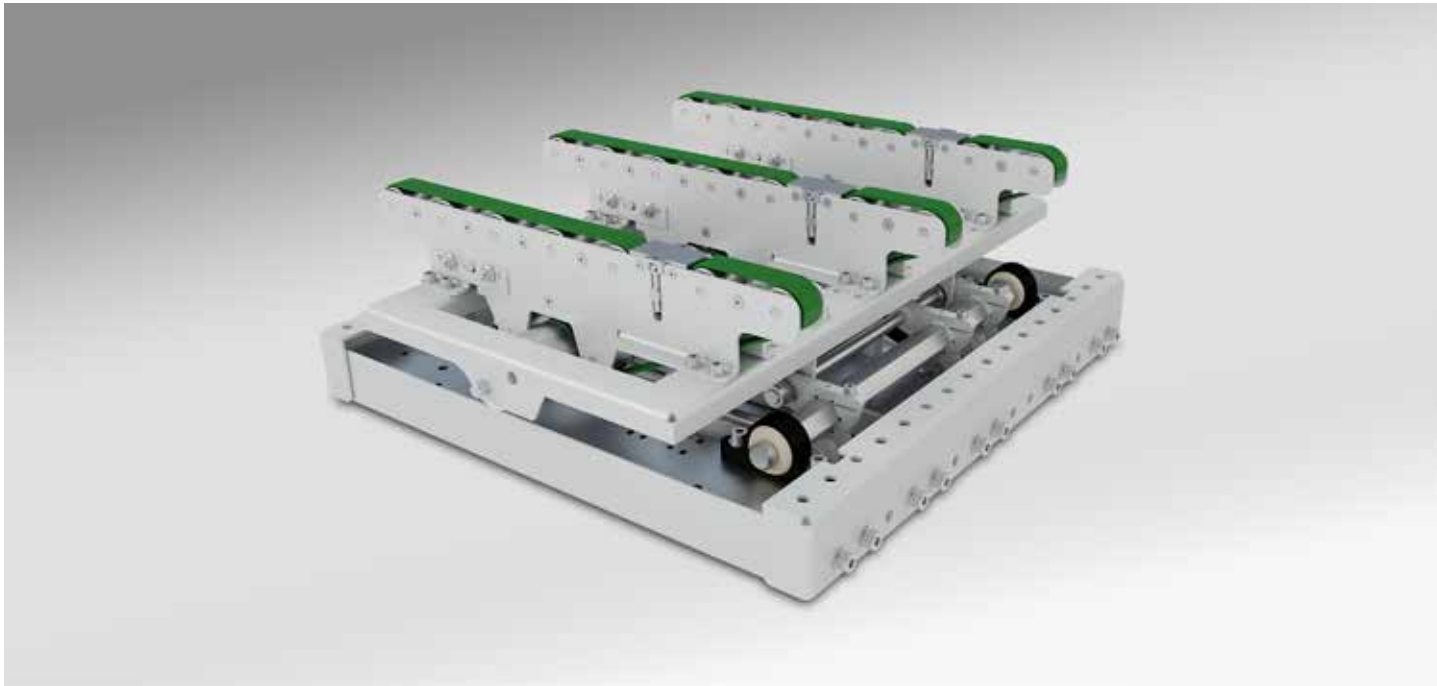
Pop-Up służy do przekierowania ładunków na linię ustawioną pod kątem 30° lub 45°. Przedmioty unoszone są za pomocą silnika elektrycznego, a następnie przemieszczane przez rolki pod odpowiednim, stałym kątem. W wypadku tego urządzenia, przedmiot nie zmienia orientacji położenia podczas przekierowania.

Technical specifications:

- Maksymalne obciążenie: 50 kg
- Temperatura otoczenia: 0°C ÷ 40°C
- Prędkość maksymalna: 1 m/s
- Kąt zjazdu: 30° / 45°
- Kierunek zjazdu: Prawy lub lewy
- Maksymalna ilość rzędów rolek: 6
- Rodzaj napięcia: 24V
- Element przekazujący napęd: Pasek poliuretanowy
- Rodzaj przekazania napędu: Z elektrorolki na rolkę

Symbol	Explanation	Dimensions
B	Szerokość rolki przenośnika	420, 620, 820 mm

BELT TRANSFER



The basic function of belt transfers used in warehouse automation systems is to shift the load between parallel or perpendicular lines (picking stations). Objects are lifted by means of an electric motor and then shifted to the side line by means of transmission belts. The load is transferred perpendicularly to the direction of travel with the simultaneous change of its orientation by 90°.

Technical specifications:

- Maximum load: 50 kg
- Environmental temperature: 0°C ÷ 40°C
- Max speed: 1 m/s
- Driving angle: 90°
- Maximum number of skids: 4
- Voltage type: 24V
- Drive transmission element: Transmission belt
- Type of drive transmission: from the drive roller to the drive belt

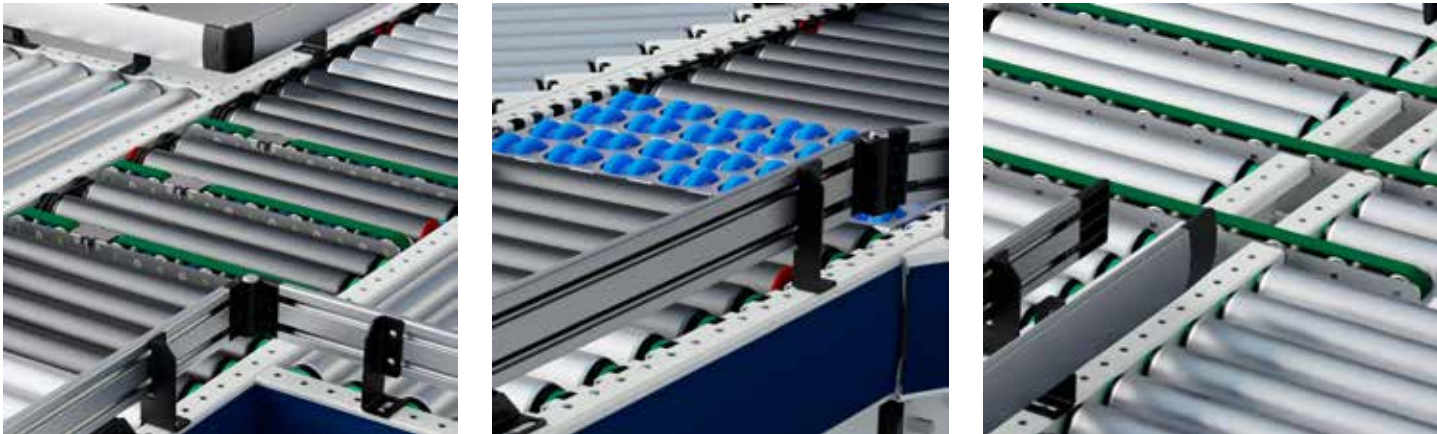
Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
P	Distance between skids	min. 125 mm

NODES



Conveyor nodes are used in complex systems serving several zones, including: receipts, picking, storage and dispatch.

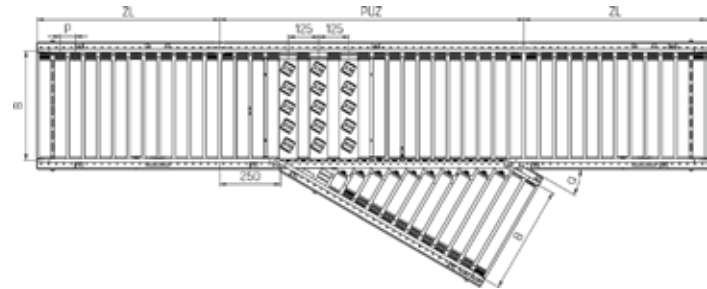
Thanks to the use of devices in this category, the transport system is gaining a multi-tasking role. Not only can it move loads, but also separate, accumulate, store and sort according to established criteria. Each configuration of the transport system offers different performance, which depends on the type of nodes used, the types and parameters of the conveyors and the type of transported loads.



ONE-SIDE REDIRECTION OF POP UP TYPE



Pop Up is used to redirect loads to a line set at an angle of 30° or 45°. When entering the zone of change of direction of movement, objects are lifted on rollers by means of an electric motor, and then moved at a suitable constant angle. As a result of this operation, the load is redirected to the side track. The device works with conveyors from the 24V-group.

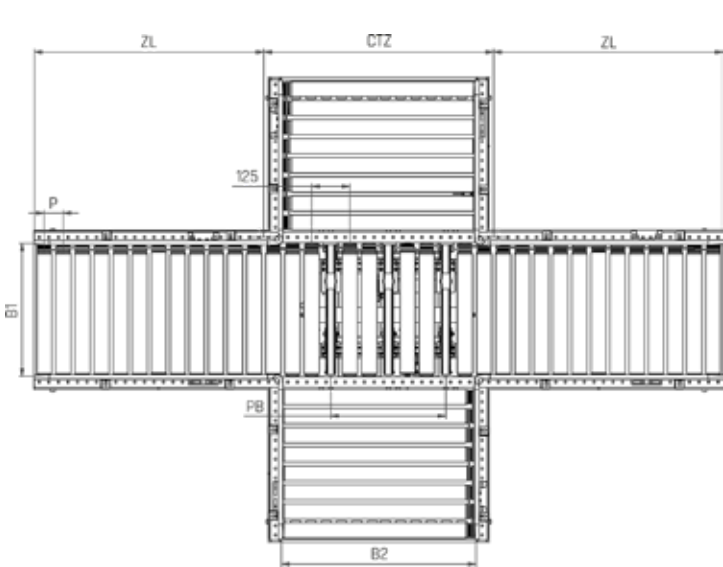


- Technical specifications:**
- Maximum load: 50 kg/m
  - Environmental temperature: 0°C ÷ 40°C
  - Max speed: 1 m/s
  - Diameter of rollers: 50 mm
  - Roller surface material: Galvanized steel
  - Voltage type: 24 V

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
ZL	Zone length	500 ÷ 3000 mm
PUZ	Pop-Up zone	min. 750 mm
P	Roller pitch	62, 93, 125 mm
α	Driving angle	30°, 45°



TRANSFER WITH A PERIPHERAL LINE DROP

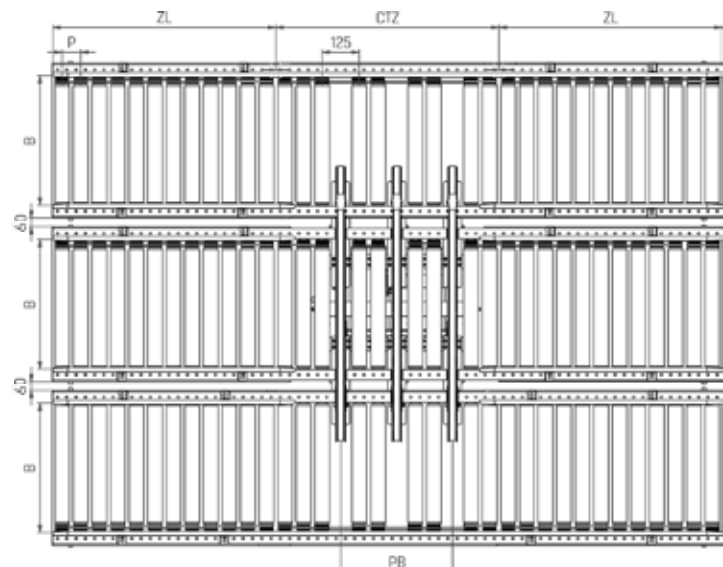


Node where the load is diverted from the main line to the perpendicular track. In order to be moved, objects are lifted on skids using an electric motor, and then transported to the proper line with transmission belts. As a result of this action, the transferred load changes the direction of movement. Perpendicular lines can be built of driven or gravity conveyors.

- Technical specifications:**
- Maximum load: 50 kg/m
  - Environmental temperature: 0°C + 40°C
  - Max speed: 1 m/s
  - Diameter of rollers: 50 mm
  - Roller surface material: Galvanized steel
  - Voltage type: 24 V

Symbol	Explanation	Dimensions
B1, B2	Roller width	420, 620, 820 mm
ZL	Zone length	500 ÷ 3000 mm
CTZ	Belt transfer zone	min. 750 mm
P	Roller pitch	62, 93, 125 mm
PB	Distance between skids	min. 125 mm, max. 375 mm

TRANSFER WITH A PARALLEL LINE DROP



Node where the load is redirected from the main line to the parallel track. To move, objects are lifted on skids by means of an electric motor, and then transported using transmission belts to an adjacent line. In order for the load to be transferred correctly, the device uses properly extended skids that fit into the frame of the adjacent conveyor. Parallel tracks are made of zone conveyors, in which the drive activates the rollers when the object has been placed completely on the surface of the conveyor.

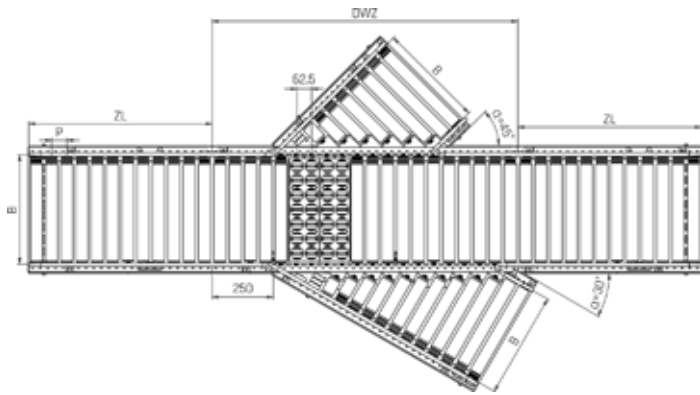
- Technical specifications:**
- Maximum load: 50 kg/m
  - Environmental temperature: 0°C + 40°C
  - Max speed: 1 m/s
  - Diameter of rollers: 50 mm
  - Roller surface material: Galvanized steel
  - Voltage type: 24 V

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
ZL	Zone length	500 ÷ 3000 mm
CTZ	Belt transfer zone	min. 750 mm
P	Roller pitch	62, 93, 125 mm
PB	Distance between skids	min. 125 mm, max. 375 mm

TWO-SIDE REDIRECTION DIVERTER TYPE



The diverter is used to redirect loads to lines set at an angle of 30° 45° or 90°. When the object approaches the junction conveyor line, the rollers are turned by an angle appropriate to the side track and the object is placed in it. In case the load is to continue traveling on the main line, the rollers are oriented according to the direction of movement. The device works with conveyors from the 24V-group.



- Technical specifications:**
- Maximum load: 50 kg/m
  - Environmental temperature: 0°C ÷ 40°C
  - Max speed: 1 m/s
  - Diameter of rollers: 50 mm
  - Roller surface material: Galvanized steel
  - Voltage type: 24 V

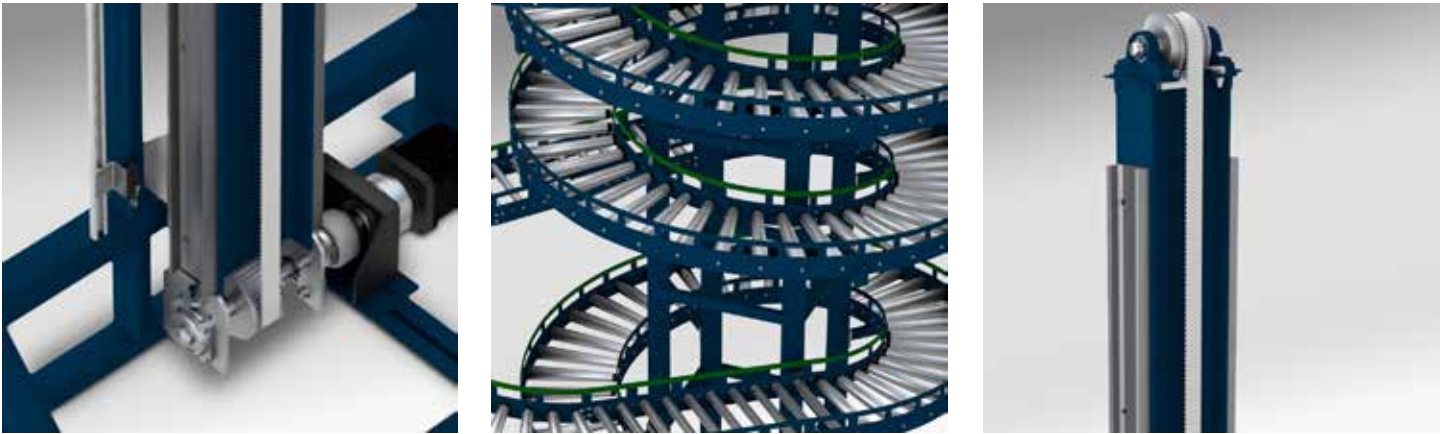
Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
ZL	Zone length	500 ÷ 3000 mm
DWZ	Diverter zone	min. 750 mm
P	Roller pitch	62, 93, 125 mm
α	Driving angle	30°, 45°, 90°

WAREHOUSE LIFTS



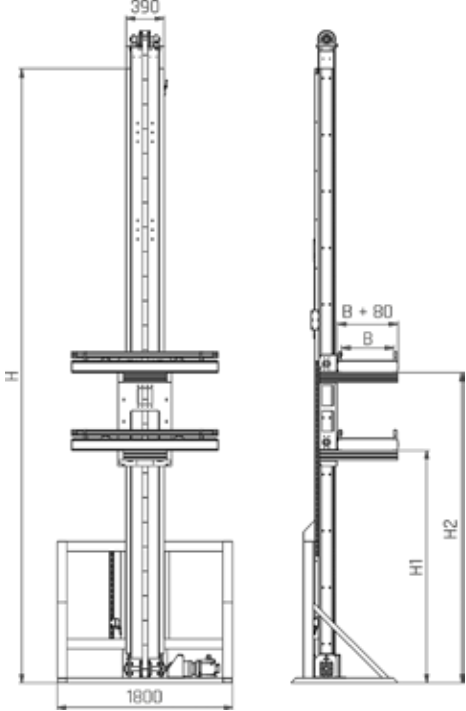
These are complex structures that enable vertical transport of objects on several floors. They occupy a small area, have high performance and high functionality.

We offer electrically operated vertical lifts cooperating with advanced automation systems and spiral lifts, which complement the multi-level buildings.





VERTICAL LIFT



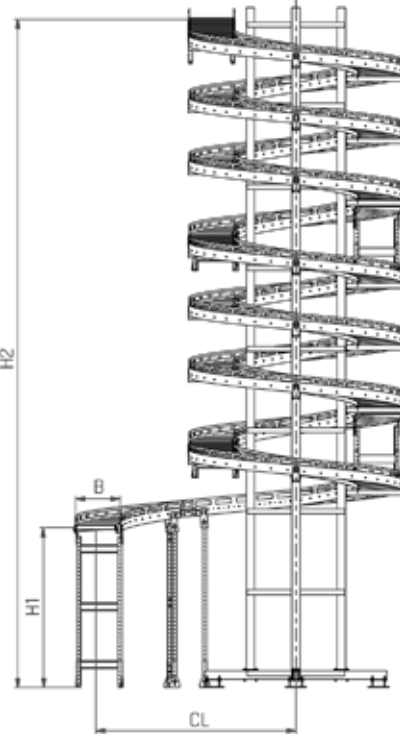
The vertical lift allows for the vertical transportation of objects up to four floors. All lifts are individually-designed according to customer requirements. The carriages are fully configurable in terms of width, number of zones, and band height. The complete set contains: stand, lift pole, and carriages - zone conveyors.

- Technical specifications:**
- Maximum load: 150 kg/m
  - Ambient temperature: 0°C ÷ 40°C
  - Maximum velocity: 2 m/s
  - Quantity of carriages: 1 ÷ 2
  - Motor type: motor with brake
  - Voltage type: 400V
  - Maximum motor power: 4 kW
  - Transmission element: synchronous belt

Symbol	Explanation	Dimensions
B	Conveyor roller width	420, 620, 820 mm
H1	Lower carriage height	min. 750 mm
H2	Upper carriage height	H1 + 800 mm
H	Elevator height	max. 12000 mm



SPIRAL LIFT



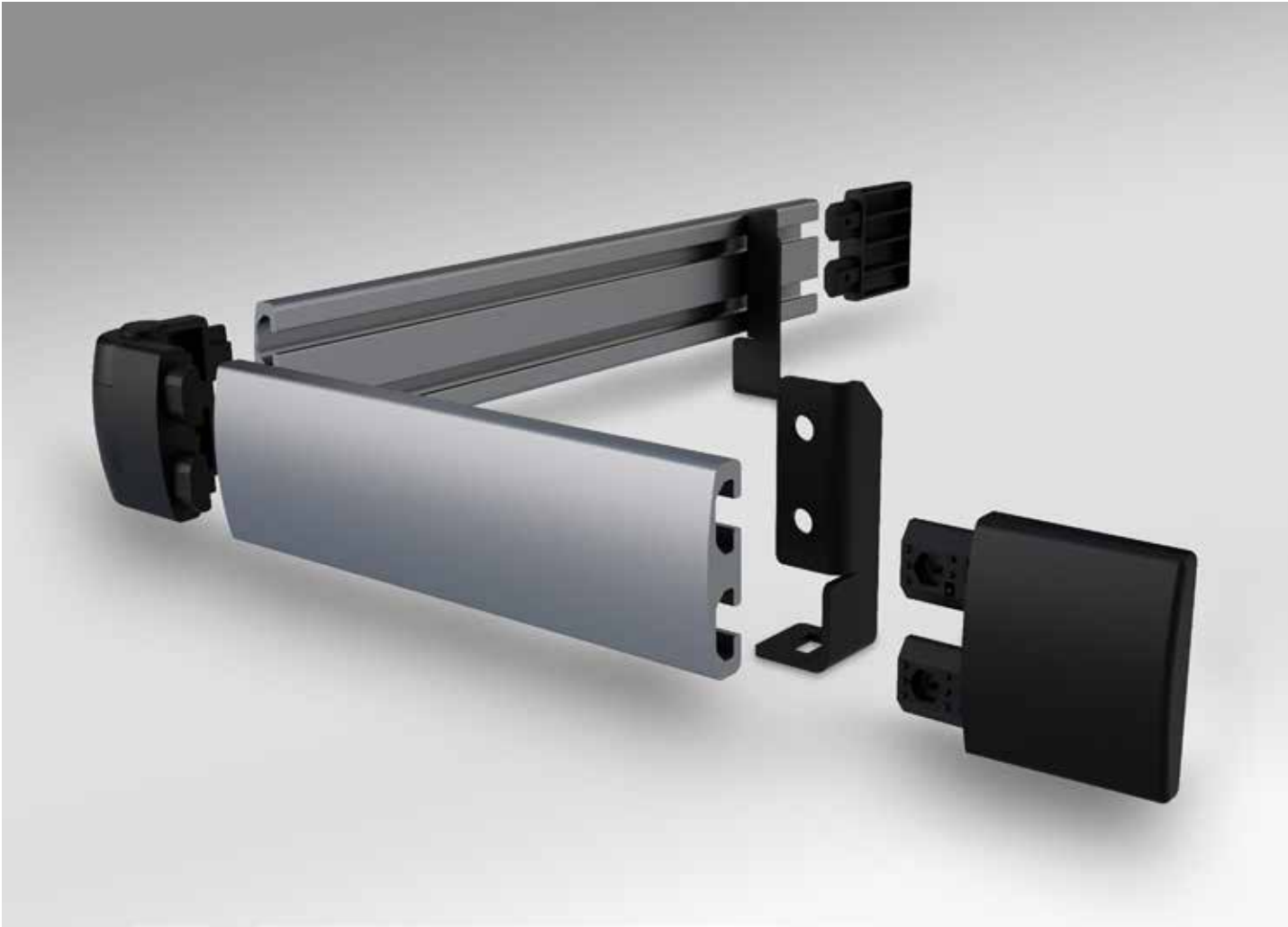
A spiral elevator is a solid structure built of gravity curves based on a support frame. Its dimensions depend on the transported objects and the place of installation. All elevators are individually designed according to customer needs. The devices are offered in a set including: supporting structure, gravitational arches, straight gravity sections and supports.

- Technical specifications:**
- Maximum load: 50 kg/m
  - Environmental temperature: -5°C ÷ 40°C
  - Speed depends on the product
  - Spiral pitch: 750 mm

Symbol	Explanation	Dimensions
B	Roller width	540 mm
H1	Height 1	Individually according to client
H2	Height 2	max. 12000 mm
CL	Line width	max. 920 mm



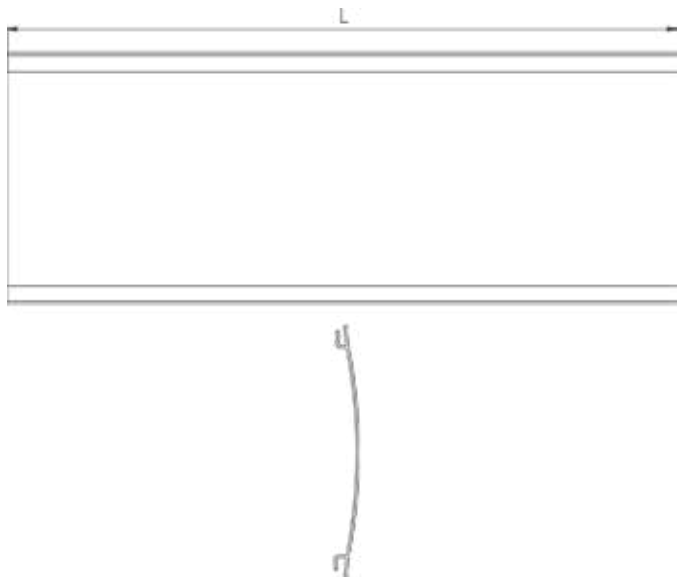
ACCESSORIES - PRZENOŚNIKI ROLKOWE



Complementary components allow the conveyors to be configured to suit the needs. Accessories are divided into mechanical and electrical. Mechanical elements are used to attach or stabilize conveyors. Electric ones increase the functionality of the system.



BLEND



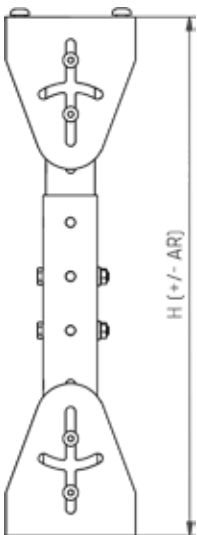
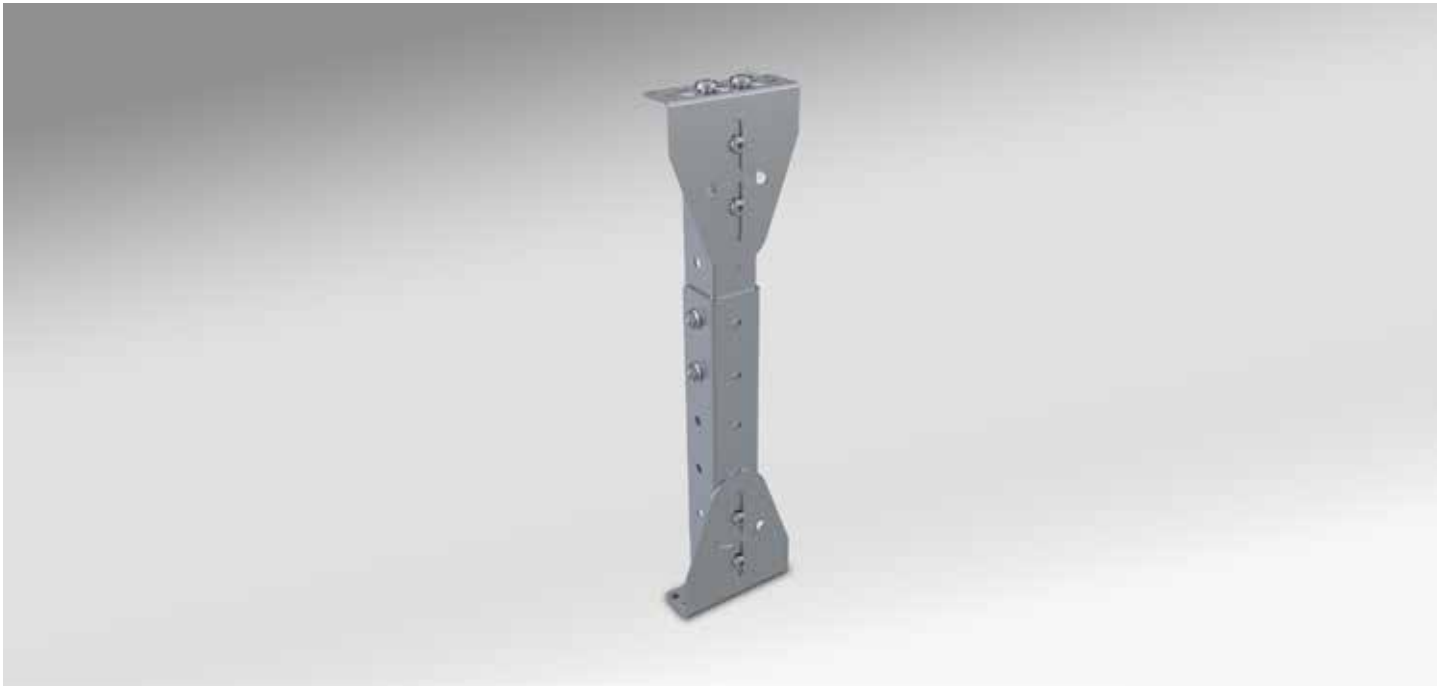
Blend is a cover made of PVC, whose task is to hide and protect the electrical installation located within the devices. In addition, it affects the aesthetic appearance of conveyors. Blends are available in three colors, and their length depends on the order.

- Technical specifications:**
- Material: PVC
  - Available in three colors: Orange, Blue, Grey
  - Length of blends depends on type of order

Symbol	Explanation	Dimensions
L	Length	max. 3000 mm



SINGLE SUPPORT

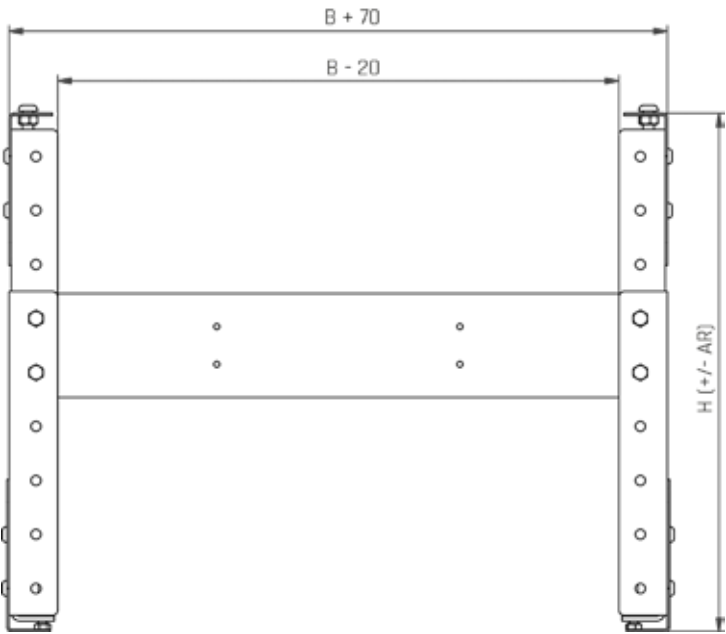


A single support is intended for fixing conveyors to the ground. Available height is in the range of 480 - 1880 mm with additional calibration useful to compensate for uneven ground. It is made of galvanized steel. The single support is used for angular entrances and 60 °, 90 ° arches.

- Technical specifications:**
- Maximum load: 150 kg
  - Minimum leg height: 480 mm

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
H	Leg height	480 ÷ 930 mm
AR	Adjustment range	80 mm

LIGHT SUPPORT

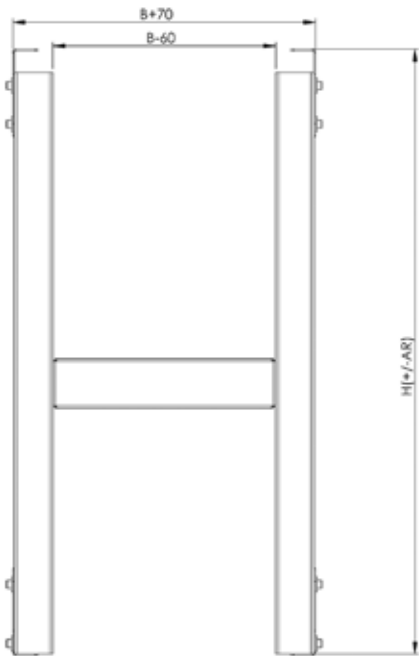


A support is intended for fixing conveyors to the ground. Available height is in the range of 480 - 1880 mm with additional calibration useful to compensate for uneven ground. It is made of galvanized steel. The light support can be used in all types of conveyors.

- Technical specifications:**
- Maximum load: 150 kg
  - Minimum leg height: 480 mm

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820 mm
H	Leg height	480 ÷ 930 mm
AR	Adjustment range	30 mm

HEAVY SUPPORT

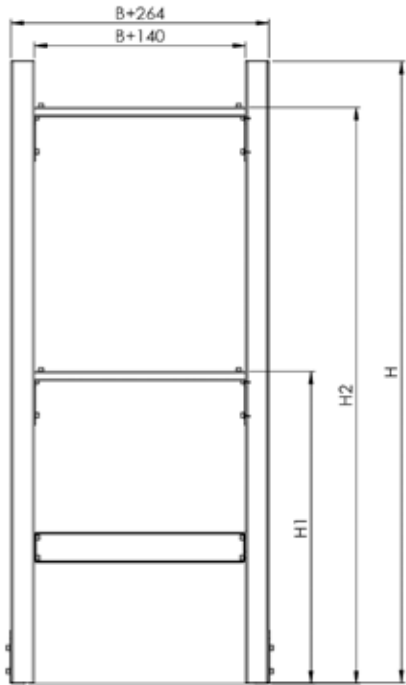


The support is intended for fixing conveyors to the ground. Available height in the range of 480 - 1880 mm with additional calibration useful to compensate for uneven ground. The heavy support is covered with a varnish coat. Heavy support can be used in each type of conveyors, especially in heavy load lines.

- Technical specifications:**
- Maximum load: 250 kg
  - Minimum leg height: 480 mm

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820, 1020 mm
H	Leg height	980 ÷ 2000 mm
AR	Adjustment rang	60 mm

STOREY SUPPORT



Storey support is intended for fixing conveyors to the ground. Available height 1880 mm with additional calibration useful to compensate for uneven ground. The support is made of galvanized steel. Heavy supports are used in the two or three storey lines.

- Technical specifications:**
- Maximum load: 250 kg
  - Minimum leg height: 480 mm

Symbol	Explanation	Dimensions
B	Roller width	420, 620, 820, 1020 mm
H	Wysokość podpory	2000 mm
H1	Wysokość pierwszego piętra	Min 200 mm
H2	Wysokość kolejnego piętra	Max 2000 mm
AR	Zakres regulacji	60 mm



## CONTROL CABINET A1/SS-01

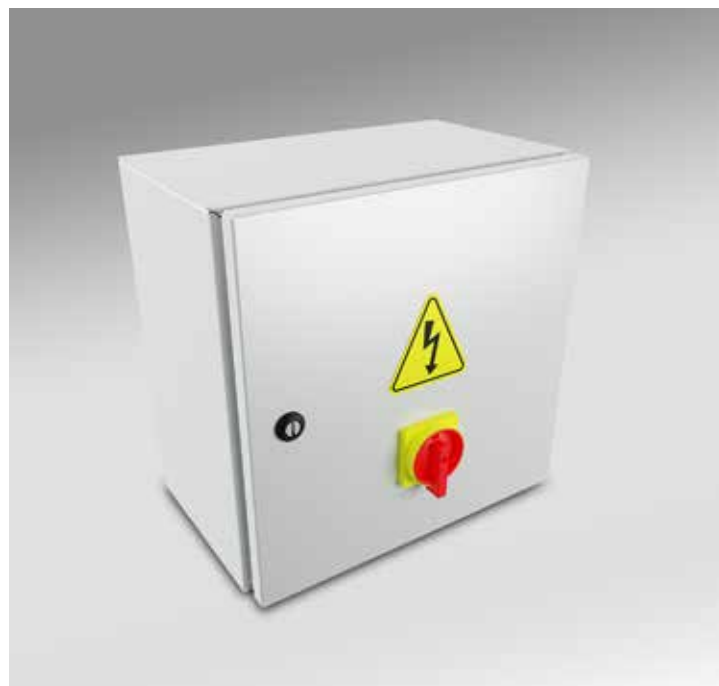


The A1 / SS-01 control cabinet is designed and constructed in accordance with the requirements of the customer's logistics system. It contains all mechanical and electrical components necessary to control devices. The large A1 / SS-01 control cabinet is designed to support complex automation systems that are expanded into several warehouse logistics zones, including: sorting stations, picking zones, transport to storage areas.

**Technical specifications:**

- Available in several sizes
- Works with all conveyors from our offer
- Optional PLC panel

## CONTROL CABINET A1/SS-02



The A1 / SS-02 control cabinet is designed to support simple automation systems. Most often used in lines where the goods are transported from point A to point B. Its small dimensions enable fixing to the structural elements of conveyor lines and do not require the separation of an individual installation zone.

**Technical specifications:**

- Available in several sizes
- Works with all conveyors from our offer
- Possibility to hang the cabinet under conveyor lines

## SENSOR



Sensors detect objects on conveyors and determine their location. They are installed on the conveyor frame together with a reflection mirror that reflects the impulse from the sensor. The kit includes a sensor with a cable and a handle.

**Technical specifications:**

- Way of functioning: reflection photo relay
- Detection range: 5 m
- Type of connection: 1 - 1,5 meter cable with M8 plug, 4 pin
- Material: F6000
- Dimensions: 60x19 mm

## REFLECTIVE PHOTOELECTRIC SENSOR



The reflective photoelectric sensor detects objects on conveyors and determines their position. Mounting adapters are supplied with the sensor.

**Technical specifications:**

- Sensor width: 420, 620, 820 mm

## ELECTROROLLER MODULE



The electroroller module is used to control a 24V drive. It additionally supports sensors cooperating with the drive. The module is designed for mounting on a conveyor profile.

**Technical specifications:**

- Material: plastic
- Power supply: 24V
- Communication: PROFINET
- Number of connectors for electrodes: 2
- Number of connectors for sensors: 2

## SCANNER

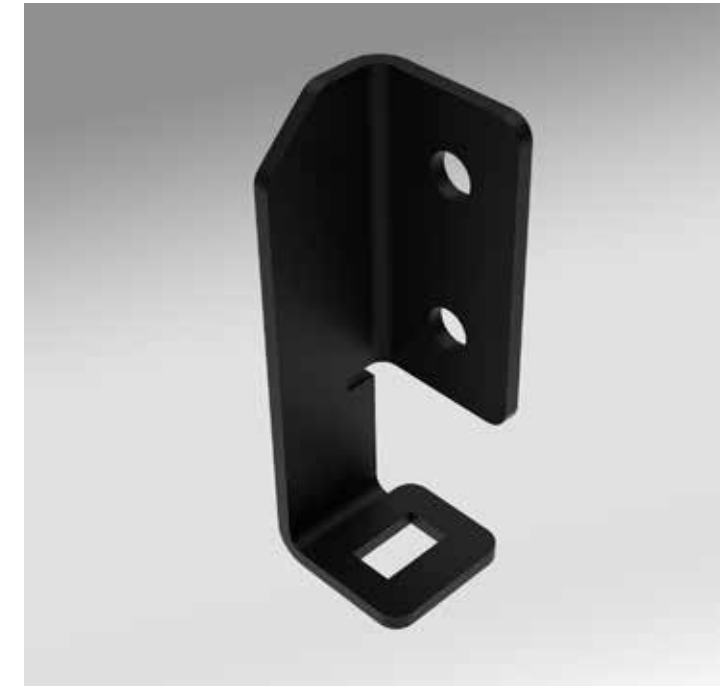


The scanner is a device designed to read information saved in the form of a bar code. The reader emits a light beam using a laser diode. A beam of light directed at the bar code reflects and returns to the scanner mirror.

**Technical specifications:**

- Reading point : from the side 105°
- Reading distance: 25 - 330 mm
- Type of connector: 0,9 meter cable with plug 15 pin

## STANDARD HOLDER

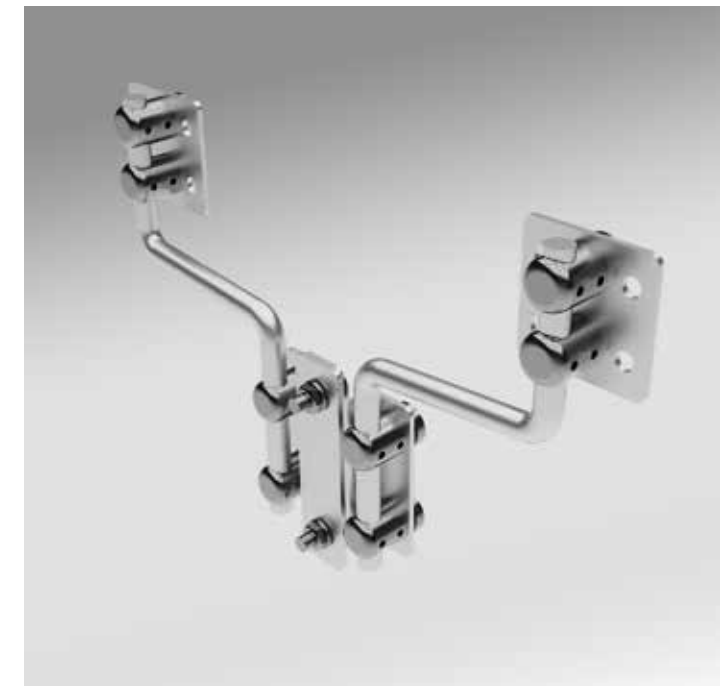


The standard holder is used to attach the band to any type of conveyor. The standard mounts are available in steel. Thanks to the specifically-prepared band, the holder can be mounted on any desired section of the band by mounting the holder every 31 mm.

**Product specifications:**

- Material: steel
- Color: RAL 9005
- Band height: 90 mm

## ADJUSTABLE HOLDER



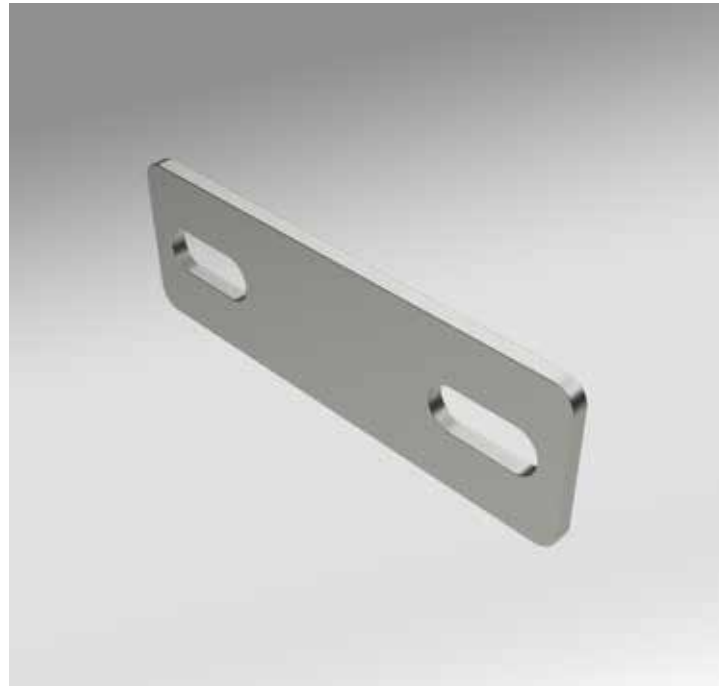
Used to fix the band on sections of curved conveyors. It is made of galvanized steel. Thanks to its adjustable construction, it allows to perfectly match curved band sections with straight ones.

**Technical specifications:**

- 180° adjustable
- Band height: 90 mm
- Material: galvanized steel



## CONNECTING PLATE

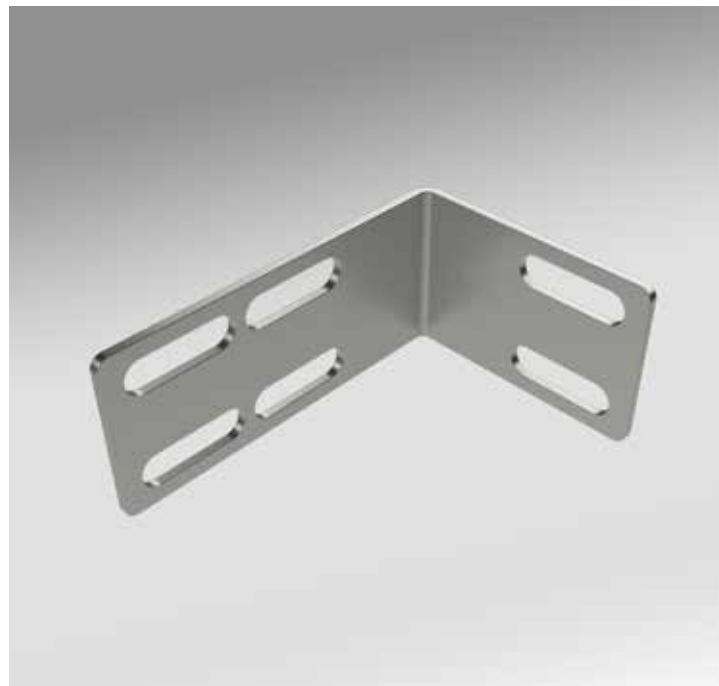


The connecting plate is made of thick galvanized sheet metal. It enables a fast and solid connection of a sloping gravitational module with another straight module. Each joining of modules requires two pieces of the connecting plate.

**Technical specifications:**

- Connector material: 3 mm galvanized sheet metal
- Perforated holes to fit any type of conveyor

## ANGLE CONNECTOR



The angle connector is made of a thick galvanized sheet metal. It enables a fast and solid connection of a sloping module with another straight module. Each joining of modules requires two pieces of the connectors.

**Technical specifications:**

- Connector material: 3 mm galvanized sheet metal
- Perforated holes to fit any type of conveyor

## STANDARD MODULE CONNECTOR

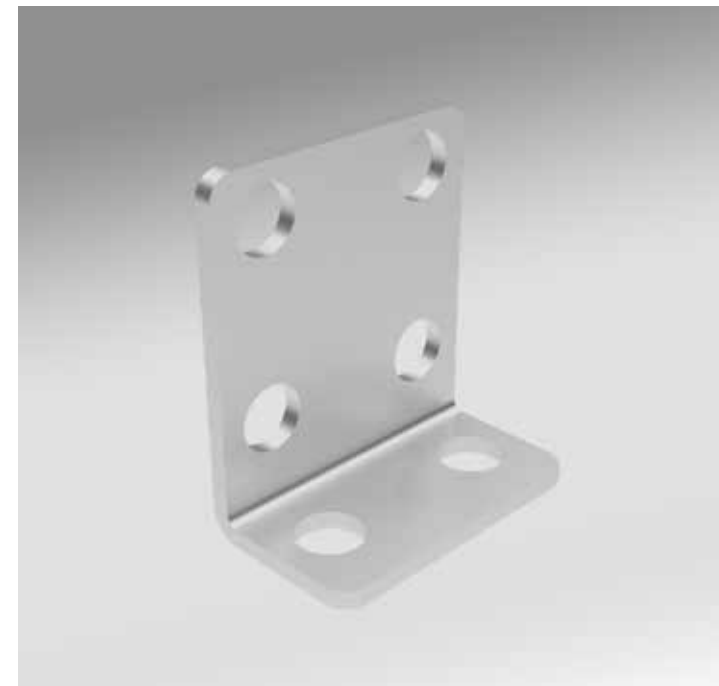


The standard module connectors are made of thick galvanized sheet metal. They allow for the quick and solid connection of the conveyor modules. Each joining of modules requires two pieces of the connectors.

**Technical specifications:**

- Connector material: 3mm galvanized sheet metal
- Perforated holes to fit any type of conveyor

## SPECIAL MODULE CONNECTOR

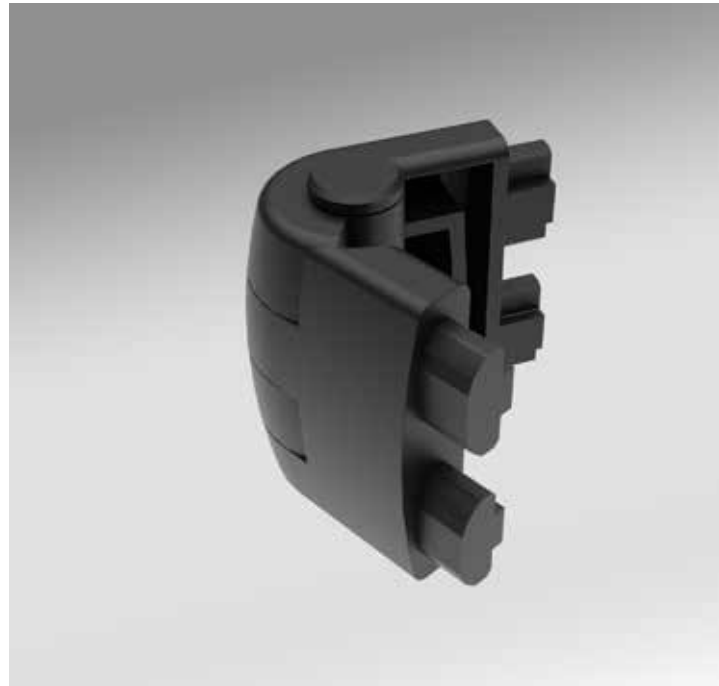


The connectors are made of thick galvanized sheet metal. They allow for a fast and solid connection of modules of curved conveyors, angled connectors. Each joining of modules requires two pieces of the connectors.

**Technical specifications:**

- Connector material: 3mm galvanized sheet metal
- Perforated holes to fit any type of conveyor

## ANGLE CONNECTOR

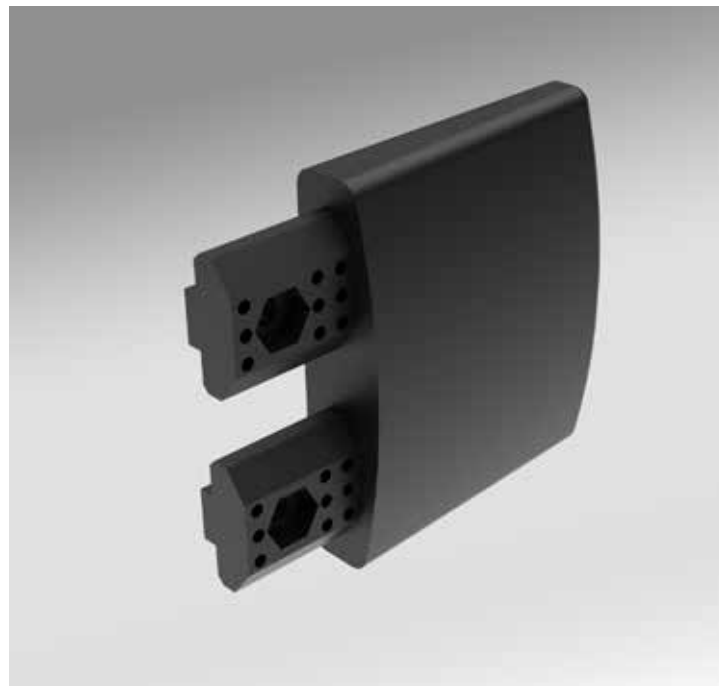


The angle connector is offered in polyamide in black color. It is used to connect banister profiles at any angle. Thanks to its movable structure it is possible to connect the band sections into one long piece without leaving gaps in which the load could get stuck.

**Technical specifications:**

- Material: polyamide
- Adjustment: 120°

## BAND ENDINGS



The band endings are offered in a polyamide version in black color which perfectly matches the conveyor bands. They are used to close the band and are applied at the ends of conveyor lines.

**Technical specifications:**

- Material: polyamide

## CONNECTOR



The connectors are made of galvanized steel. Careful workmanship and a perfect fit to the band allows the band sections to be joined together without any visible gaps between the profiles. The set includes clamping screws that allow for an immovable adjustment of the elements.

**Band components:**

- Material: galvanized steel
- Suitable for band gap size 8 mm

## STOP PLATE



The stop plate is used to block packages at the ends of gravity conveyors. Thanks to this element we can use gravity conveyor as a buffering element. The stop plate is attached to the upper surface of the conveyor side profiles.

**Technical specifications:**

- Material: 6 mm thick steel
- Dimensions: adapted to each conveyor width



## CURVED BAND



The curved band is used to protect the transported product from slipping off the conveyor line. Profiles are matched by rolling on sections of curves, connecting nodes, and changing direction to ensure the correct flow of cargo. We offer the bands in an aluminum version. The top edge of the band is 90 mm above the conveyor.

**Technical specifications:**

- Aluminum profile: 60 x 15 mm
- Shape adapted to the width of the conveyor curve



## STRAIGHT BAND



The straight band is used to protect the transported product from slipping off the conveyor line. We offer the aluminum version. The top edge of the band is located at a height of 90 mm above the conveyor.

**Technical specifications:**

- Aluminum profile: 60 x 15 mm



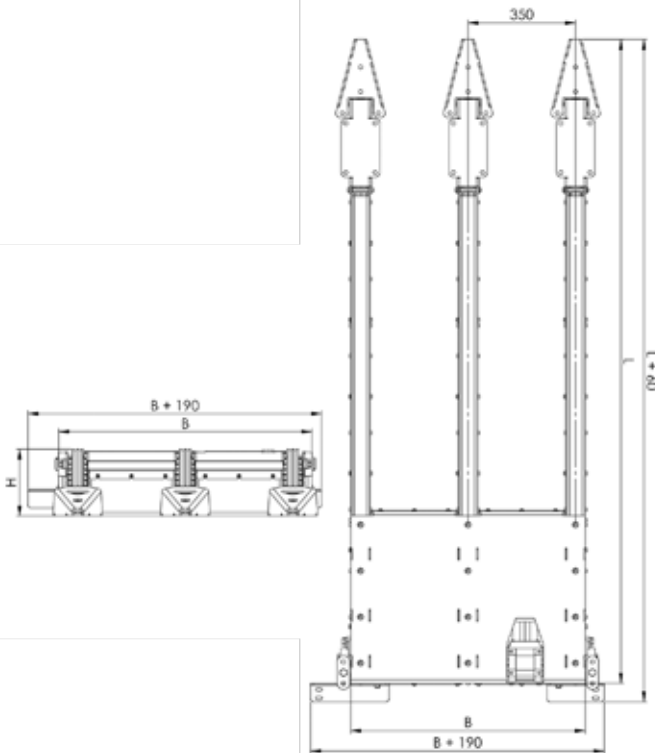
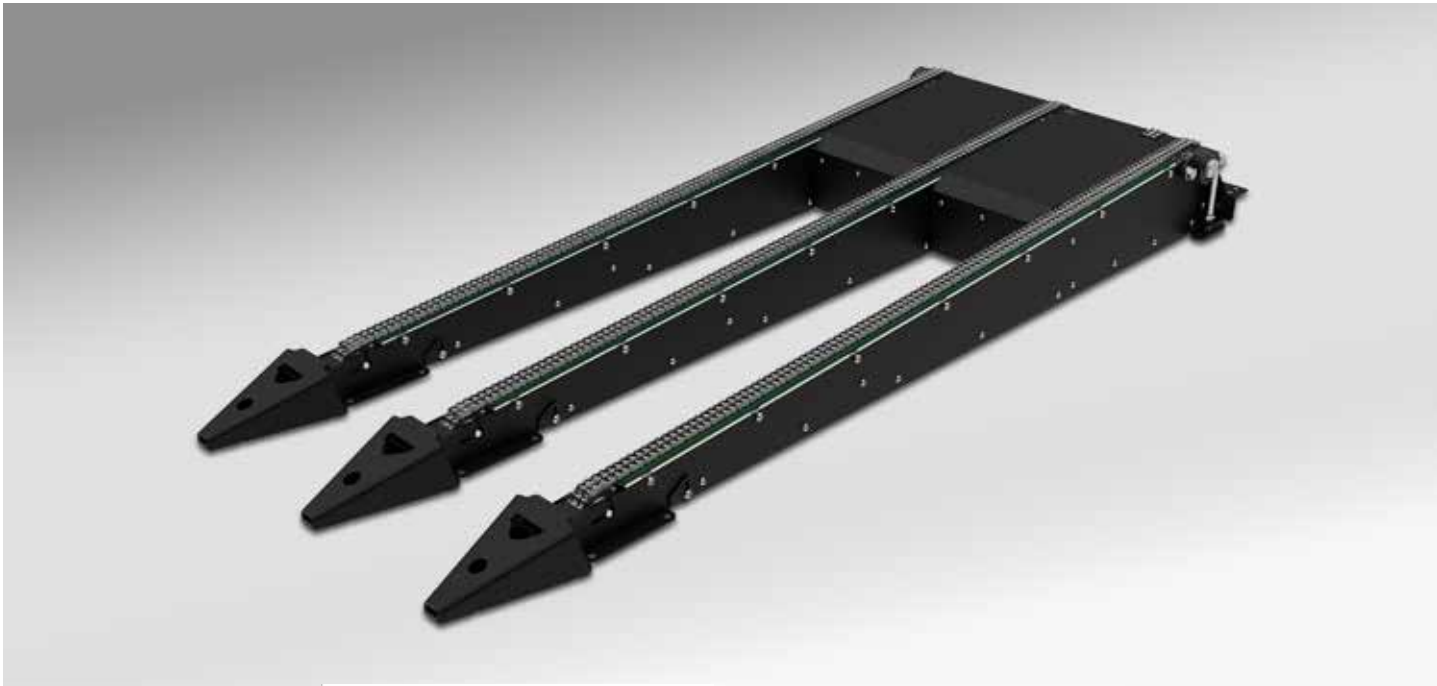
## PALLET CONVEYORS SYSTEM



Pallet conveyors make it possible to transport large items such as cartons and pallets. The pallet system minimizes the time needed to transport goods between different areas of the warehouse. By using an elevator, we can optimize the flow of goods through several floors.



INTRODUCTORY MODULE

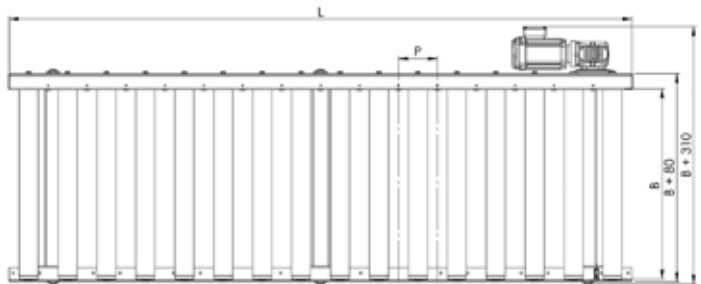


Pallet transport system - introductory module. Its purpose is to quickly and easily transport pallets and guide them to the transfer modules. The device consists of steel housing, chain guides, deflectors, shaft, and drive.

- Technical specifications:**
- Maximum load: 1200 kg
  - Ambient temperature: 0°C ÷ 40°C
  - Maximum speed: 0.3 m/s
  - Voltage type: 400 V
  - Chain: 10B2 run-up angle: 4° ÷ 6,5°
  - Power transmission elements: chain
  - Transmission type: drive shaft to chain

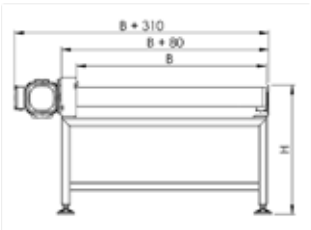
Symbol	Explanation	Dimensions
B	Width	760 mm
L	Conveyor length	2094 mm
H	Height	224 ÷ 309 mm
M	Maximum load	1200 kg

ROLLER PALLET CONVEYOR



The roller pallet conveyor is a device for the transportation of products utilizing the rotational movement of rollers. The drive used in this device is powered by 400V and can cooperate with control systems. The motor is driven by a single-row 10B chain, which transmits the rotation from roller to roller. This type of drive transmission allows to maintain high efficiency, reliability, and durability of the device. The unit consists of rollers, a drive unit, supporting profiles, a protective casing, and supports.

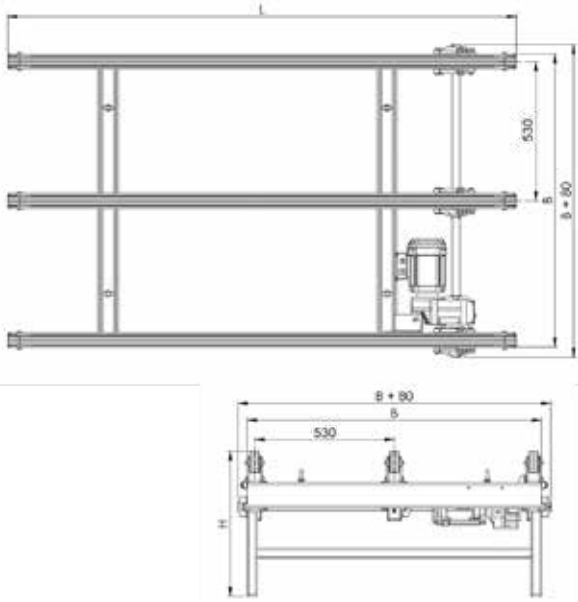
- Technical specifications:**
- Maximum load: 1200 kg
  - Ambient temperature: 0°C ÷ 40°C
  - Maximum speed: 0.3 m/s
  - Rollers diameter: 80, 89 mm
  - Voltage type: 400V
  - Rollers surface material: galvanized steel
  - Power transmission elements: chain
  - Transfer type of drive: roller to roller



Symbol	Explanation	Dimensions
B	Roller width	850 mm
L	Conveyor length	1458,5 ÷ 5840 mm
P	Roller pitch	182.5 mm
N	Motor power	0,37 ÷ 3 kW
H	Height	200 ÷ 650 mm



PALLET CHAIN CONVEYOR

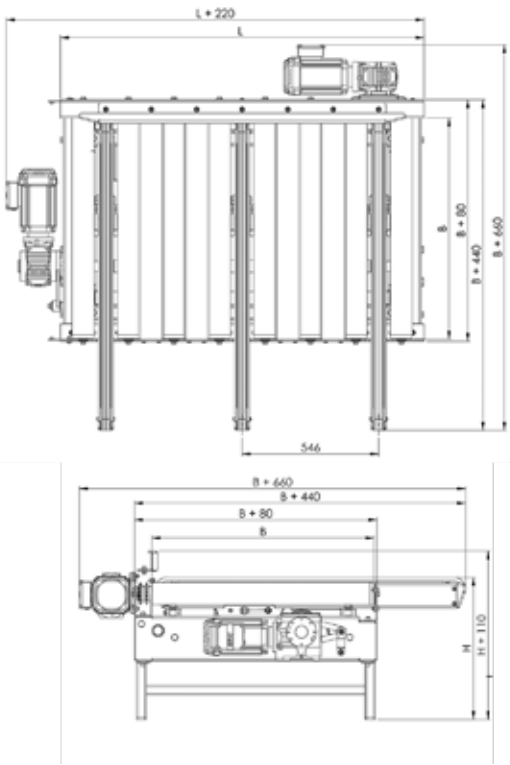


The pallet chain conveyor is a device that allows the lateral displacement of the transported material. The device is powered by a 400V engine and it is matched to cooperate with the drive system. The drive transmits rotary motion to the chains of dimension 10B2 by means of a coupled shaft and sprockets. The device consists of a drive, a shaft with sprockets, a tensioning system, sliding profiles, support profiles, and supports.

- Technical specifications:**
- Maximum load: 1200 kg
  - Ambient temperature: 0°C ÷ 40°C
  - Maximum speed: 0.3 m/s
  - Voltage type: 400 V
  - Transmission elements: chain
  - Transmission type: drive shaft to chain

Symbol	Explanation	Dimensions
B	Width	1090 mm
L	Conveyor length	1198 ÷ do 6000 mm
H	Height	330 ÷ 650 mm

CHAIN TRANSFER MODULE

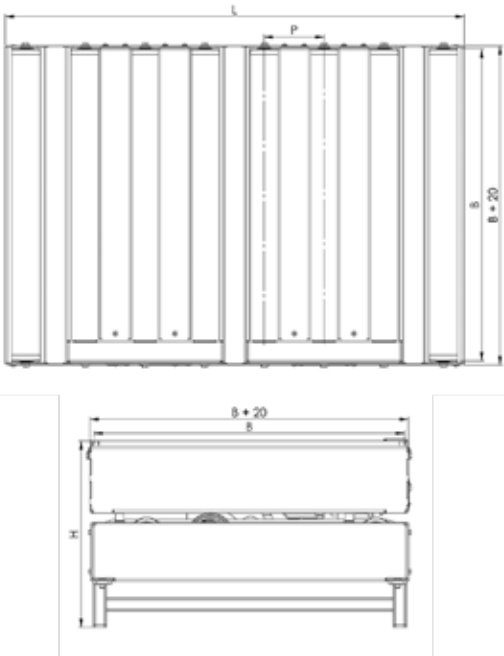


The chain transfer module is a segment equipped with its own drive. Its purpose is to transport pallets quickly and easily. The transfer is equipped with an additional chain and with two drive units in order to move the pallets along the transfer surface and to be able to guide the goods onto the perpendicular chain transfer module. The device consists of a steel frame, chain, rollers, shaft, and motor.

- Technical specifications:**
- Maximum load: 1200 kg
  - Ambient temperature: 0°C ÷ 40°C
  - Maximum speed: 0.3 m/s
  - Rollers diameter: 80 and 89 mm
  - Rollers surface material: galvanized steel
  - Voltage type: 400V
  - Power transmission elements: chain
  - Transmission type: drive shaft to roller
  - Lifting stroke : 40mm

Symbol	Explanation	Dimensions
B	Width	880 mm
L	Conveyor length	1450 mm
N	Motor power	0,37 ÷ 3 kW
H	Height	330 ÷ 650 mm

ROLLER TRANSFER



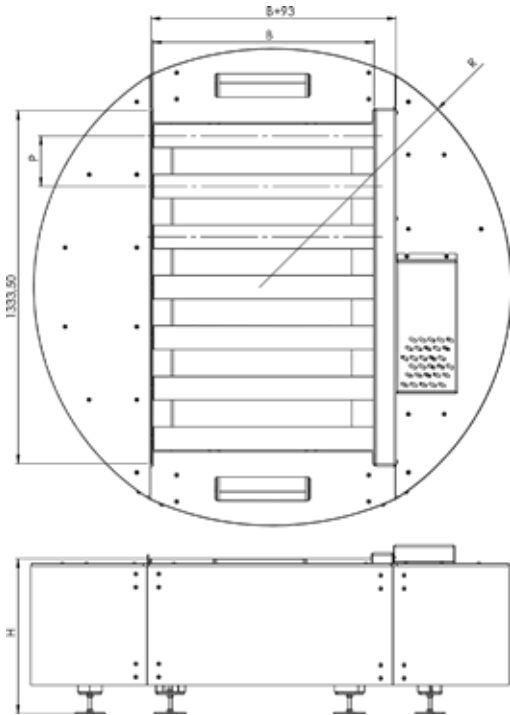
The roller transfer is a segment equipped with its own drive powered by 400V. Its task is to change the transfer direction of selected pallets leading to a perpendicular roller module. The drive from the electric motor is transmitted by a chain. The device consists of a steel frame, rollers, shaft, and motor.

Technical specifications:

- Maximum load: 1200 kg
- Ambient temperature: 0°C ÷ 40°C
- Maximum speed: 0.3 m/s
- Rollers diameter: 80 and 89 mm
- Rollers surface material: galvanized steel
- Power transmission elements: chain
- Type of drive transmission: drive shaft to roller and roller to roller
- Lifting stroke: 40 mm

Symbol	Explanation	Dimensions
B	Working width	890 mm
L	Roller pitch	1470 mm
N	Device diameter	0,37 ÷ 3 kW
H	Height	330 ÷ 650 mm

TURNTABLE



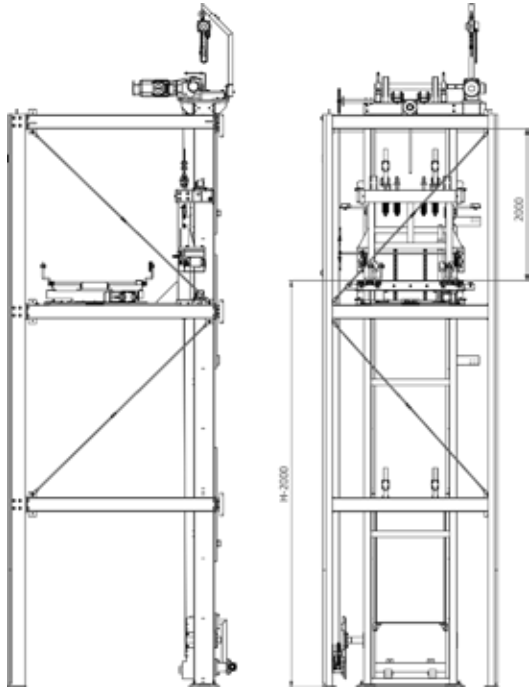
A turntable is a device whose main task is to change the direction of the transported material by making a rotary motion in the range of 0° to 180°. The device is an element of a transport line cooperating with roller conveyors. The turntable consists of a module responsible for the rotary movement of the device and a module containing a roller conveyor. The roller conveyor module allows for the transportation of material corresponding to the euro pallet standard (1200 x 800 x 144 mm) and the industrial pallet (1200 x 1000 x 144 mm).

Technical specifications:

- Maximum load: 1200 kg
- Ambient temperature: 0°C ÷ 40°C
- Roller diameter: 80 and 89 mm
- Voltage type: 400V
- Power transmission elements: toothed ring

Symbol	Explanation	Dimensions
B	Working width	850, 1050 mm
P	Roller pitch	182,5 mm
R	Device diameter	1650, 1800 mm
H	Height	330 ÷ 650 mm

PALLET LIFT



The pallet lift is an ideal solution for automated pallet handling and a perfect complement to the straight roller conveyors in a pallet transport system and the introduction module. The pallet lift is equipped with a roller conveyor that picks up and transfers pallets in a very short time. Loading and unloading of pallets can be done in two directions thanks to the lift's turntable. The centering of the pallet is done automatically, which ensures a high level of accessibility and prevents the damage of goods or the system. Integrated lift speed control and powerful braking systems ensure a high level of safety.

Technical specifications:

- Maximum load: 1000 kg
- Ambient temperature: 0°C ÷ 40°C
- Motor type: motor with brake
- Voltage type: 400V
- Maximum motor power: 8kW
- Transmission elements: synchronous belt
- Speed of infeed/outfeed conveyor: 0,3 m/s

Symbol	Explanation	Dimensions
H	Lift height	10000 mm
A	Lift width	2900 mm
B	Lift depth	2338 mm

PALLET CONVEYORS ACCESSORIES



Used in loading zones, courier sorting offices, and small companies. They improve the loading and unloading of parcels by filling the space between the loading zone and the vehicle. Thanks to the use of a scissor system, the conveyor can be set in the shape of e.g., letter C, S, O, and its length can be adjusted.





LOADING BUMPER



The introduction of the pallet on the device can be done in several ways. When the product is loaded or taken onto the conveyor, an element which secures the device is necessary. Such an additional element is the bumper. It allows for the positioning and proper placement of the load on the conveyor as well as taking the load from the conveyor. This element protects not only the user but also the system, which results in a longer durability of the solution.

- Technical specifications:**
- Length: 1524 mm
  - Width: 930 ÷ 1130 mm
  - Height: 350 ÷ 1000 mm

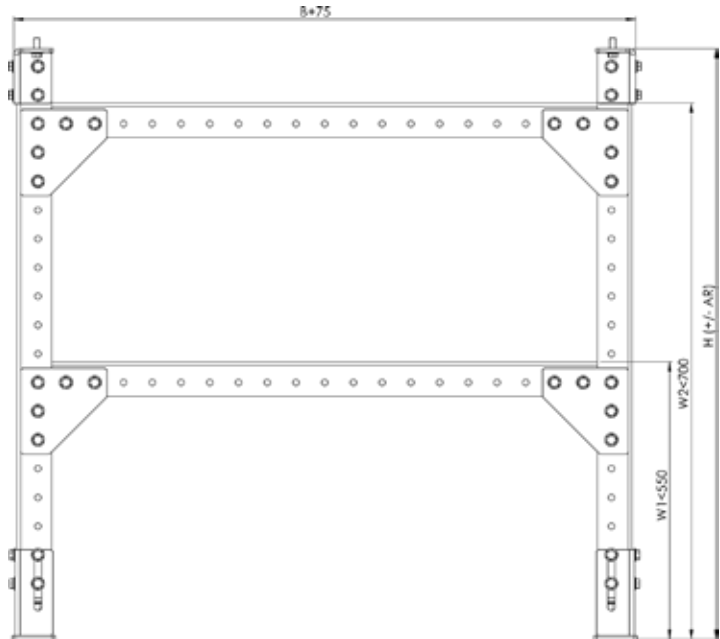
LIGHT BUMPERS



Light bumpers have many usages in automation. Its main task is to stop the transported material in the right place, to position it, and to allow the product to be transported to the next process. It is an indispensable piece of equipment in automated transport systems because it can be applied to many solutions and can work with many devices.

- Technical specifications:**
- Maximum retained weight: 35 kg
  - Width: 800 ÷ 1250

SUPPORT



The support is an inseparable element of conveyors allowing for pallet transport. The support enables the transfer of material at a pre-set height within the range of 350 to 1000 mm with additional adjustment to compensate for uneven grounds. The support is used for roller and chain conveyors.

- Technical specifications:**
- Maximum load: 750 kg

Symbol	Explanation	Dimensions
B	Width of the transported material	850 ÷ 1050 mm
H	Height of the transported material	350 ÷ 1000 mm
AR	Adjustment range	50 mm

PACKING BENCHES

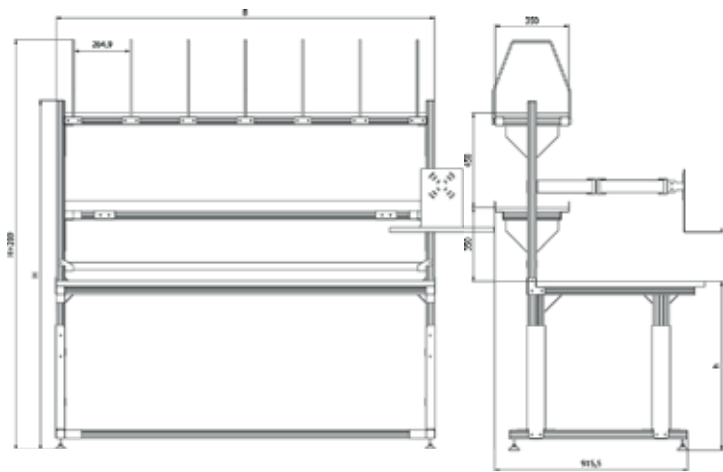


Specialized, modular packing benches are equipped - depending on the model - with automatic or manual height adjustment of the top. They increase the ergonomics and comfort of work of the packing person. They optimize the space and significantly reduce the time of packing operations.

Higher efficiency obtained thanks to the use of tables translates into a measurable financial advantage. Our product is available in many functional variants due to the possibility of using additional elements. We offer packing benches made of aluminum and steel profiles.



PACKING BENCH RGX-001A



Specialized, modular packing bench for order picking with manual height adjustment of the top. The table structure is made of high quality aluminum profile and dedicated connecting elements.

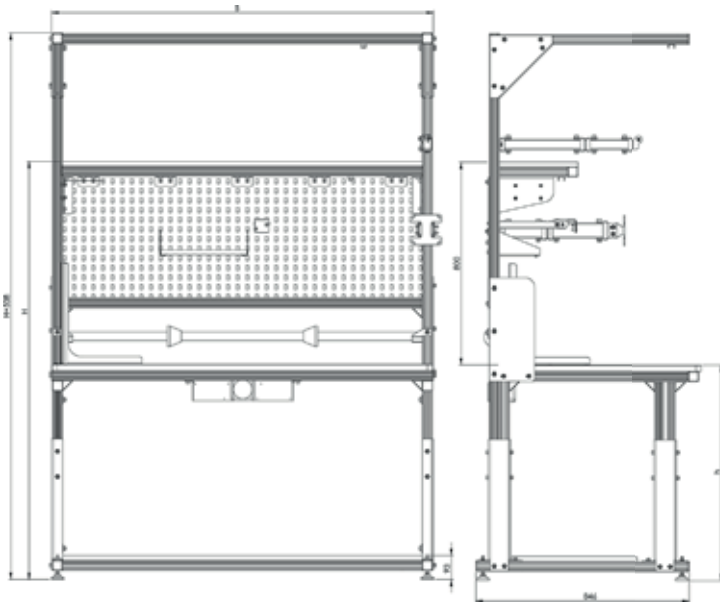
The picture presents a basic bench which can be extended with more elements.

Technical specifications:

- Durable, stable and light construction made of aluminum profiles
- Optimized ergonomics
- Adjustable height of table top and shelf
- Adjustable top shelf with a separator for cartons
- Steel, powder-coated shelf
- 25 mm laminated worktop, reinforced edges 2mm(ABS)
- Leveling supports for placing the bench on uneven ground

Symbol	Explanation	Dimensions
B	Table width	1400, 1600, 1800, 2000 mm
H	Table height	1650 ÷ 1900 mm
h	Table height adjustment	750 ÷ 1000 mm

PACKING BENCH RGX-002A



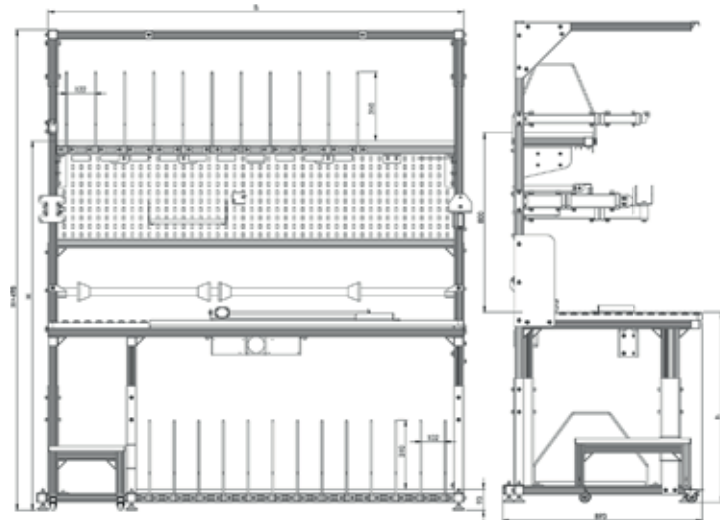
Specialized, modular packing bench for order picking with manual height adjustment of the top. The table structure is made of high quality steel profile and dedicated connecting elements. The picture presents a basic bench. It is made from aluminum profiles.

Technical specifications:

- The picture presents a basic bench. It is made from aluminum profiles.
- The construction is durable, stable and light with optimized ergonomics.
- The height of table tops and shelves can be regulated.
- The bench has extended frame with lighting of the workplace.
- Laminated table-top 25 mm (PE 1000 table-top as an option).
- Reinforced edges 2 mm (ABS).
- Legs with regulated hight.
- Perforated panel.
- 6 electric sockets 230V.
- Optional accessories: stretch roller, handles for a monitor, a fan and a scanner.

Symbol	Explanation	Dimensions
B	Table width	1400, 1600, 1800, 2000 mm
H	Table height	2000 ÷ 2300 mm
h	Table height adjustment	700 ÷ 1000 mm

PACKING BENCH RGX-003A



Specialized, modular packing bench for order picking with manual height adjustment of the top. The table structure is made of high quality steel profile and dedicated connecting elements. The picture presents a basic bench.

Specyfikacja produktu:

- The picture presents a basic bench. It is made from aluminum profiles.
- The construction is durable, stable and light with optimized ergonomics.
- The height of table tops and shelves can be regulated.
- The bench has extended frame with lighting of the workplace.
- Laminated table-top 25 mm (PE 1000 table-top as an option).
- Reinforced edges 2 mm (ABS).
- Legs with regulated hight.
- Perforated panel.
- 6 electric sockets 230V.
- Table for label printer.
- Shelf with carton separators.
- Optional accessories: stretch roller, handles for a monitor, a fan and a scanner.

Symbol	Explanation	Dimensions
B	Table width	1400, 1600, 1800, 2000 mm
H	Table height	2000 ÷ 2300 mm
h	Table height adjustment	700 ÷ 1000 mm



## SELF-GUIDED C4060



A1 Sorter C4060 is a small-sized (40x60x21cm) smart AGV platform with just 29 kg of weight. This autonomous vehicle provides the handling of small inner loads (both production and logistics) in a safer, more fluent and efficient way. The C4060 model can be equipped with different types of load carriers.

**Technical specifications:**

- Load capacity: 100 kg
- Speed: up to 1,5 m/s
- Navigation type: SLAM navigation
- Dimensions: 40 x 60 x 21 cm (W x L x H)
- Weight: 29 kg (without the load carrier)

## AUTOMATED GUIDED VEHICLE AGV -PALLET G130 2.0



Fully automated loading, unloading and transport of pallets is a task for the smart AGV pallet carrier by A1 Sorter. The G130 Gen 2.0 is a combination of hi-tech with attractive design.

**Technical specifications:**

- Load capacity: 1200 kg
- Speed: up to 1,5 m/s
- Navigation type: SLAM lidar navigation (+/- 1 cm)
- Dimensions: 1663 x 604 x 827 mm (W x L x H) without a mast
- Signal main mast: Standard height 2235 mm
- Weight: 222 kg
- Lifting height: 240 mm from floor
- Turning diameter: 1704 mm or 1783 mm with Euro pallet
- Drive concept: omni-directional
- Fork height: 90 mm
- Fork length: 1300 mm



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