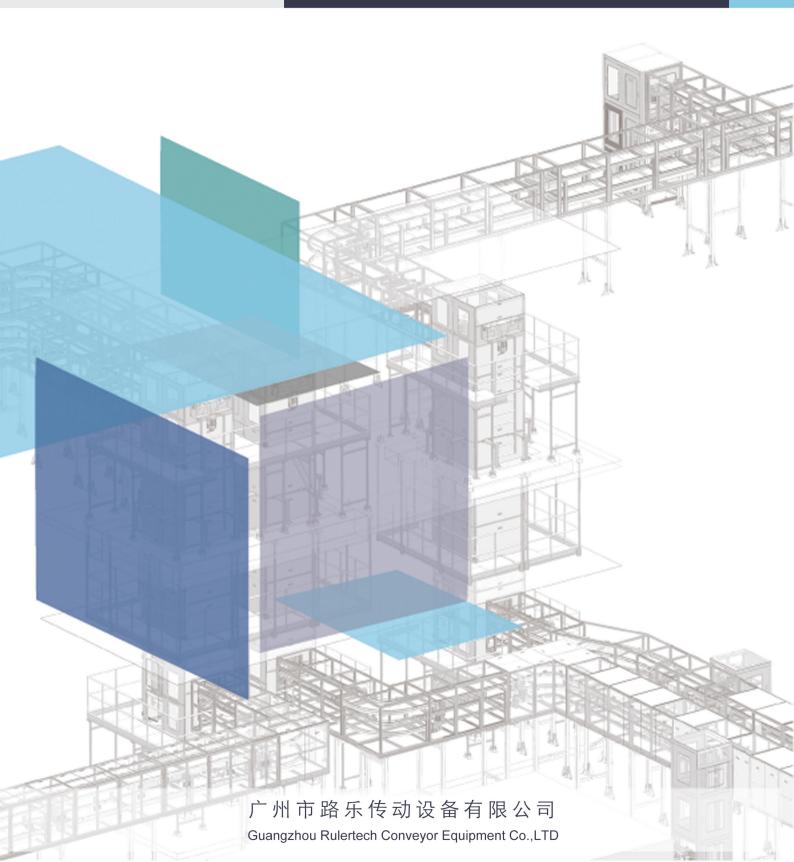


# 路乐传动系统

Rulertech Conveyor System





工装输送系统专家



## **Symbols**



Max.permissible load



Toothed belt



Heavy-duty roller chain



Production sites with oil contamination



Belt



Rounded belt



Suitable for use in clean rooms



Flat top chain



Duplex chain



Suitable for use in ESD sensitive areas



Standard roller chain



RC workpiece pallet



Max. permissible load per cm



Heavy-duty rollers



Packaging unit=minimum order quantity

Orders must be placed in multiples of minimum order quantity

Delivery unit=delivery quantities

Delivery quantities must be multiples of the delivery unit.



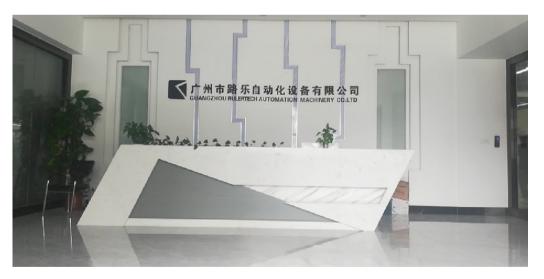
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## **Company profile**

Established in 2017, Guangzhou Rulertech Conveyor Co, Ltd specialises in the design, production, sales and integrated service provision of workpiece conveying systems. The company has its autonomous brand Rulertech, with its product Rulertech RC Conveyor, an automated production line conveyor system suitable for in-line assembly and testing. According to customer requirements, we provide suitable conveyor systems based on scientific layout principles and non-standard integration of mechanical, electrical and information control systems.

At present, we have successfully promoted RC conveyor systems with toothed belts, flat belts and single-speed roller chains, as well as related support equipment such as curving modules, lift transverse modules, lift positioning modules, stop gates and other standardised modular equipment. Our applications are extensive and diversified, including new energy vehicles power cell and cell module assembly, PACK section assembly, new energy vehicles motor flexible rotor assembly, silent testing, new energy vehicles electric control system and power supply system assembly, CNC material transport and distribution, mobile phone testing, automatic home appliance assembly and testing, etc. The quality of our products has been verified and approved by a large number of users.







## The Development Course

## **History and milestones**

## 2016

#### Conceptual and start-up stage

Idea for the creation of a domestic brand of industrial conveyor systems, detailed market research conducted;

## 2017

#### **Development, Experimentation**

Product structure optimization, looked for suppliers;

## 2018

#### **Founding of Rulertech**

Extensive durability tests, trials with various customers, refinement of VI, creation of logo, slogans, completion of catalog, promotional videos, etc. First appearance at the Shenzhen Automation Exhibition;

## 2019

#### Full participation in the market

Participated in 10 major industry exhibitions; established sales and after-sales teams; developed 3D selection modeling and independent module software; completed molds for core product component batch production, started independent production;

## 2020-2023

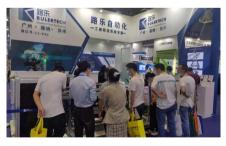
#### **Business expansion**

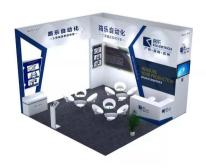
Became an important player in the market, rapidly increasing application in lithium battery and power cell assembly, 3C and other industries, as well as companion applications such as robot loading and unloading, dust cover, corridor, packaging, agv connection, depanelization, test room, robot workstation, etc.













## Rulertech RC workpiece conveyor system introduction RULE RC TRAY SYSTEM

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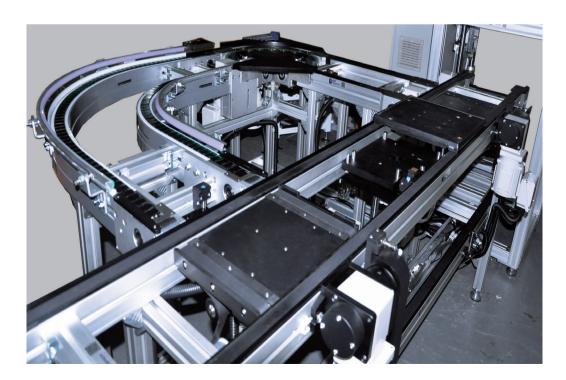


The RC workpiece pallet conveyor systems are called "industrial Lego", with a maximum permissible single pallet load of 240KG, the conveyor system consists of various modules to meet the needs of different product production and transfer movement requirements, and can be customized to meet special assembly requirements. The modular structure allows designers to plan and design production lines in a "building block" fashion that can easily be reused and rearranged.

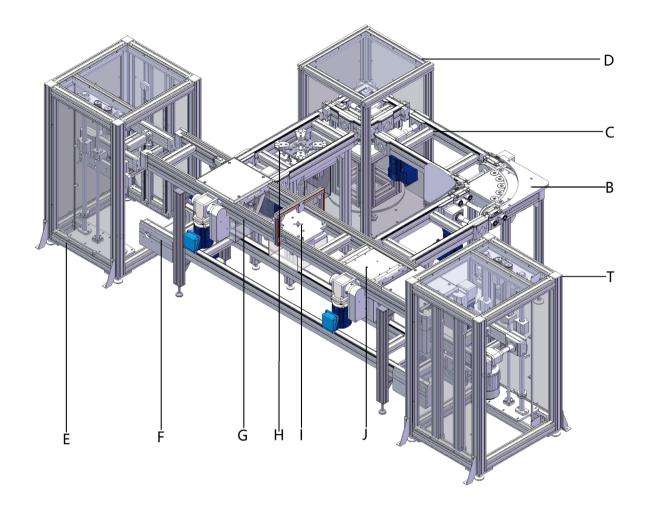
The system consists of a large number of modular components that can be flexibly designed to suit different production conditions and line layouts without the need for additional components.

- ·Four conveyor medium: toothed belts, belts, flat top chains, accumulated roller chains, flexible combinations
- $\cdot$  Size of the workpiece pallet from 160mmx160mm to 1200mmx1200mm, one size per 20mm, can be customized according to product size
- $\cdot$  Maximum permissible single pallet load is 240KG including the unladen weight of the pallet itself.

The RC conveyor system offers a large number of predefined functional modules such as curving, lift transverse modules, lift positioning modules etc. This helps to reduce design time and effort, as well as to increase line reliability and durability.







- T LFP Rodless cylinder lifter
- CV90 curving В
- C LFP Rodless cylinder lifter
- D TU Rotating table
- E LFS Screw lifter
- F BC workpiece pallet conveyor section
- G RT workpiece pallet conveyor section
- H HR lift rotary unit
- HP lift positioning unit
- J HT-TB lift transverse unit



Rulertech RC workpiece conveying system shows a combination of horizontal and vertical circulation. It can be flexibly arranged according to the customer's production requirements, using different modular units to layout for fast and efficient production (non-standard customization possible, call for inquiry).



Principles of operation

RULERTECH

Measure Your Production

On an assembly line workpieces have to be transported from one station to another using a transfer system. Workpiece pallets are conveyed by friction on two constantly moving belts, toothed belts, flat top chains, accumulation roller chains or rounded belts. A workpiece on the workpiece pallets is transported through all the processing stages. Information about destination and processing stage are carried in the workpiece pallet memory. The workpiece pallet is stopped by stop gates at stations (areas for manual work or automatic stations), while the conveyor continues moving.

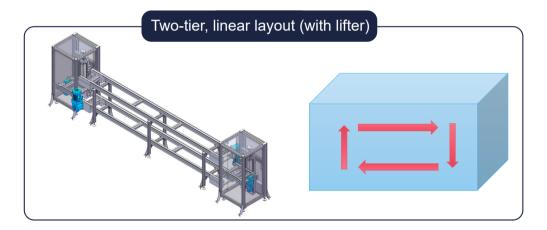


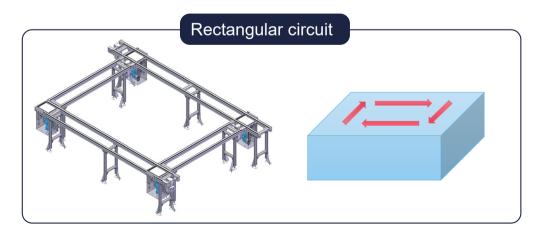
Production line layout planning

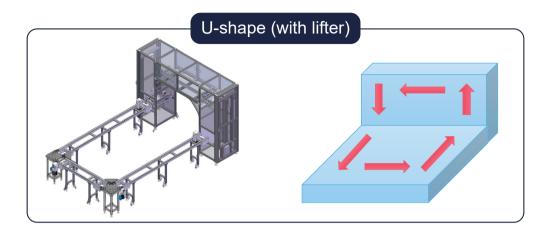
When planning the layout of a system, it is very important to understand the individual needs, goals and priorities of a user. Complex assembly operations often require a very flexible system. This may be due to:

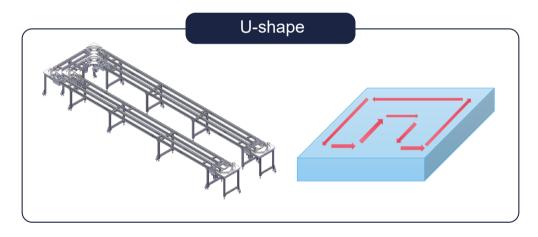
- · Very frequent changeovers
- · Cycle problems due to different models
- · Differences in the work done at each station
- · Frequent product changes
- · Large fluctuations in the number of workpieces
- $\cdot$ Long running time at bottleneck stations, unable to meet overall production beat and process balance

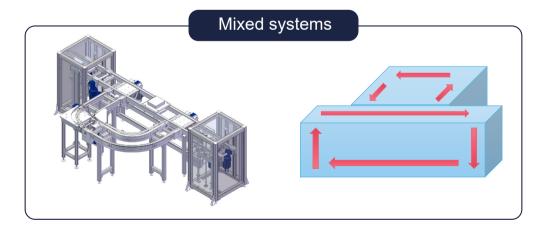
In such cases, it is practical to transfer the workpiece pallet off the main conveyor (main circuit) into a shunt system which is independent of the main cycle. The term main circuit is used to describe workplaces or stations arranged in series. A shunt is when workpiece pallets are directed out of the main circuit for processing independently of the main cycle, and then reintegrated in the main circuit.









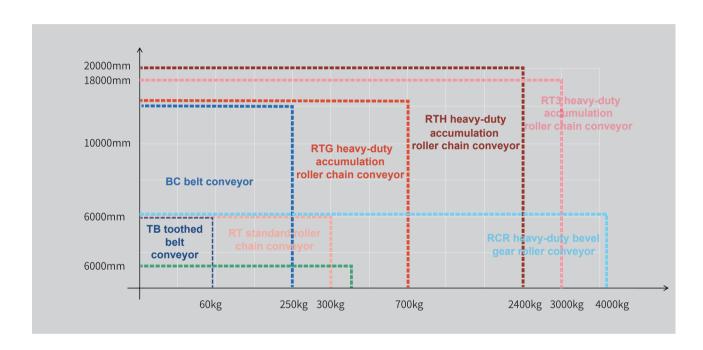


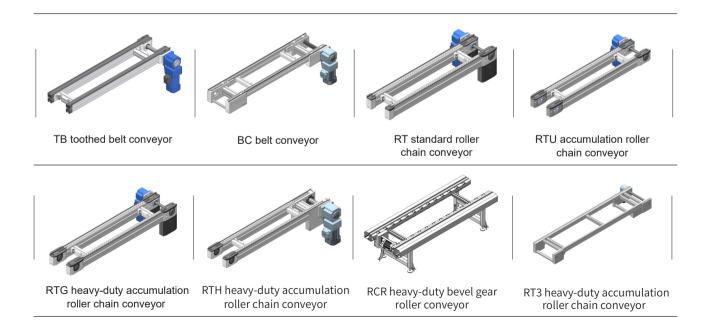


## **Choosing the** conveyor system RULERTECH

Choosing the appropriate conveyor system requires consideration of the weight of the workpiece, the characteristics of the production process, and the requirements of the particular production environment.

Rulertech RC conveyor systems offer a wide range of functional modules to meet different weight, speed, positioning accuracy, control and environmental requirements.





## Choosing the conveyor medium:

#### The load carrying capacity of a workpiece pallet results from:

The combination of conveyor medium, glide profiles, and workpiece pallet material.

The surface length of the pallet in contact with the conveyor medium in the transfer direction.

	TB conveyor section	BC conveyor section	CU curved conveyor section	RT conveyor section	RT3 series	RCR series
Conveyor medium				088S	1288	<b>100</b> 000
Glide material made of steel			1.5 kg	2.0 kg	4.0 kg	max. load on each set of bevel gear roller is 200KG
Glide material made of plastic	1.0 kg	1.0 kg	1.0 kg	1.5 kg		
Max. permissible loading weight	60 KG	250 KG	90 KG	2400 KG	3000 KG	4000 KG



Max. permissible load per cm



Max. permissible load per conveying section unit







# Applicable Environmental Condition

- RC conveyor systems are manufactured with high-quality materials to ensure continuous use. They are resistant to lubrication and cleansing agents that are common in an industrial environment.
- Standard working temperature:  $+5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ ,  $-5^{\circ}\text{C} \sim +60^{\circ}\text{C}$  when load is reduced by 20%; max.
- Working environment temperature: -25°C ~+70°C
- Relative humidity: 5~85% without condensing equipment;
- Air pressure: >84KP, altitude <1400m; When load is reduced by 15%, the system can be installed at altitudes higher than 1400m.
- All of the components and parts in RC conveyor systems are ESD-compatible or available in ESD-compatible design. They can thus principally be used in ESD protected areas.
- The RC conveyor system is suitable for oily industrial environments and roller chains are recommended as the preferred conveyor medium.





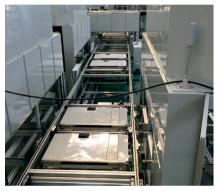
Typical
Application
Scenarios
RULERTECH
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New energy vehicles battery assembly



New energy vehicles motor assembly



New energy vehicles cell modules assembly



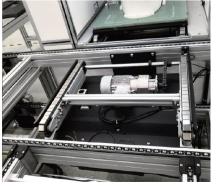
Auto Parts Assembly



Mobile phone (camera) precision assembly



Server & PC assembly



Household appliances assembly



Education and training demonstration



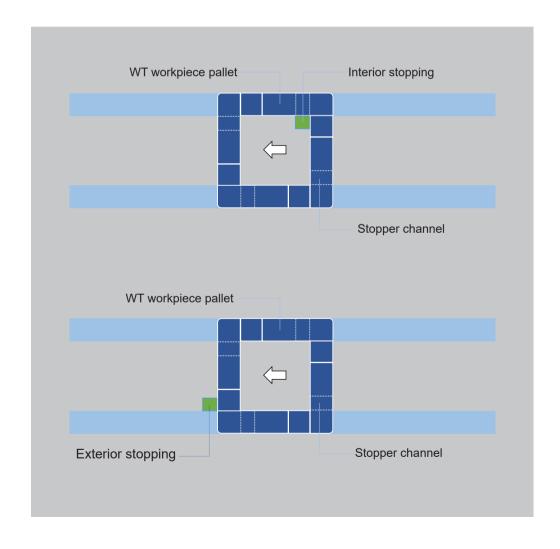
## Rulertech RC workpiece pallet system RULE RC TRAY SYSTEM

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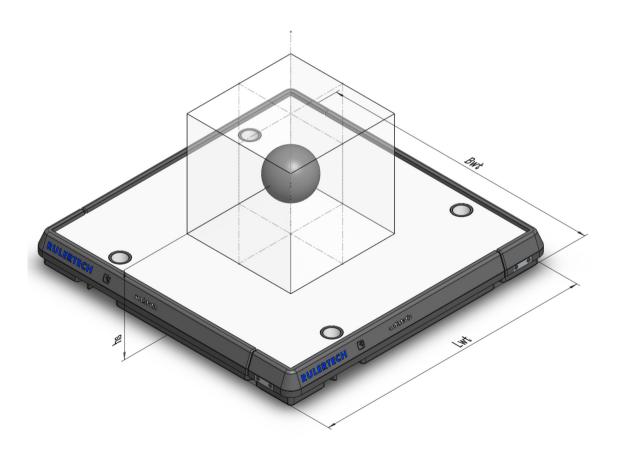
- Rulertech offers two types of workpiece pallet to meet individual requirements. WT pallets are suitable for medium, small and light load. WTH pallets are suitable for heavy loads.
- A workpiece pallet is composed of frame, positioning bushings and carrying plate. The frame is made of wear-rssistant polymer, it's suitable for different conveyor medium and load, there's no need for extra wear strips; There are three sizes of positioning bushing: 5mm, 8mm, 12mm, depending on the thickness of the carrying plate; The carrying plates aremade of aluminum or steel to fufill different load requirments and working condition.
- Integrated positioning bushings enable defined positioning of the incoming workpiece in the processing station.
- Metal sensors are installed at side and in the bottom of the pallet, which are used for the
  proximity switch to detect the position of the pallets, and control the pallets by electrical
  signals.
- Anti-static.
- There is stopper channel left on each sides of the pallet frame, the stopper can be stopped either at the exterior or interior of the pallet.





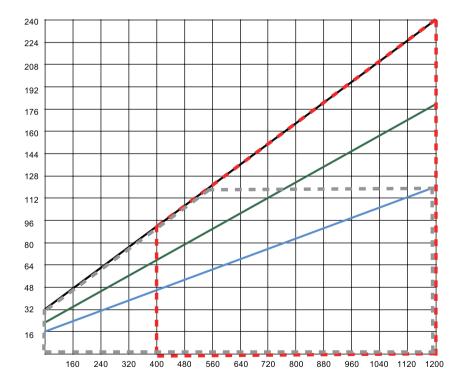
Workpiece pallet operation principles

- On an assembly line workpieces have to be transported from one station to another using a transfer system. The workpiece pallets hold the workpieces, and transported through all the processing stages. Workpiece pallets are conveyed by friction on two constantly moving belts, toothed belts, flat top chains, accumulation roller chains or rounded belts. The workpiece pallet is stopped by stop gates at stations (areas for manual work or automatic stations), while the conveyor continues moving.
- To ensure the best conveying process, it is necessary to use the geometric center part of the
  workpiece pallet carrier plate to bear the weight as much as possible. When the workpiece
  weight distribution is uneven, we recommend choosing a larger sized pallet and carrying
  plate.
- Generally we recommend that:
  - (1) The load should be positioned in the center of the workpiece pallet
- (2) The center of gravity should not exceed a height hs of 1/2 Bwt (Bwt<Lwt)

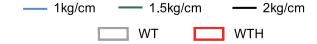


Choosing the Workpiece pallet

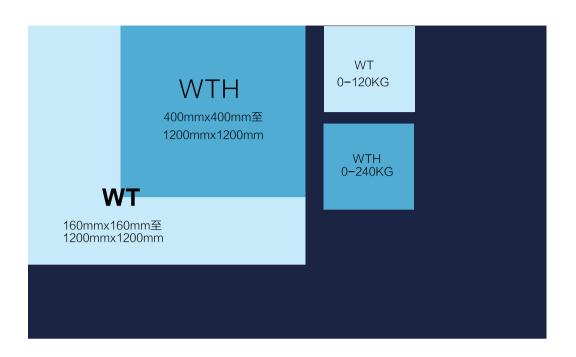
- The load of the workpiece pallet is usually composed of the weight of the workpiece pallet itself and the load of the workpiece pallet (workpiece, fixture, etc.), In order not to exceed the maximum permissible surface pressure of the conveyor media, the permissible weight range of the workpiece pallet is recommended as below:
- (1)WT workpiece pallet frame with 5mml steel or aluminium carrying plate for load<80KG.
- (2)WT workpiece pallet frame with 8mm aluminium carrying plate for loads between 80KG to 120KG.
- (3)WTH workpiece pallet frame with 12mm aluminium carrying plate for loads between 120KG to 240KG.
- The surface length of the workpiece pallet on the conveyor medium and the different unit loading capacity of different conveying media will also Influence the load on a single workpiece pallet in the following ranges:
- (1) The load of a single pallet shall not exceed the max. permissible load of the pallet frame in contact with the conveying medium in transfer direction.
- (2)160mmx160mm ~ 1200mmx1200mm, WT workpiece pallet recommended
- (3)400mmx400mm ~1200mmx1200mm, WTH workpiece pallet recommended
- (4) Workpiece pallets are available in continuous sizes from 160mm to 1200mm per 20mm to accommodate different workpiece geometries, if necessary, multiple workpieces can be placed on one workpiece pallet.

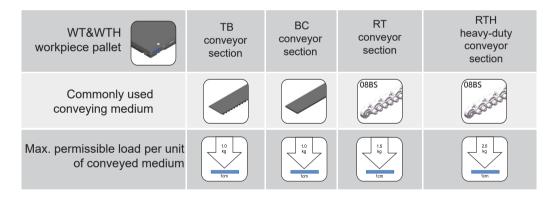


Standard size of the workpiece pallet (mm)

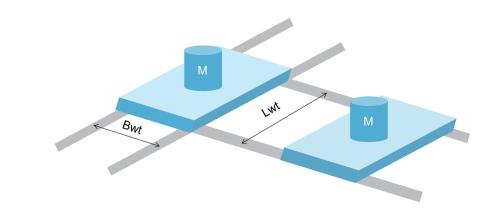


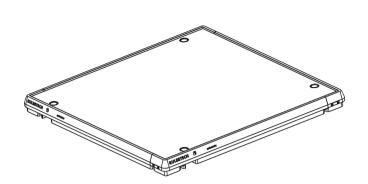






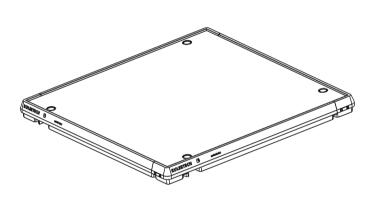
• Please note that in the case of nonsquare workpiece pallets, the shorter side determines the max. permissible workpiece pallet loading weight.





WT workpiece pallet





WTH workpiece pallet



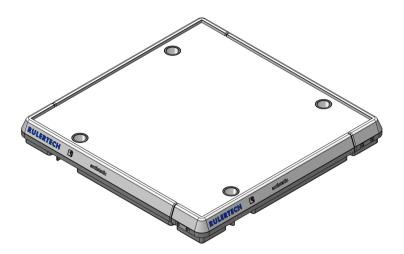


- Rulertech provides workpiece pallet in complete or partial assembly for the convenience of our customers.
- Customers can choose the pallet size, loading specifications, delivery form, etc. according to the actual design situation.
- Call for inquiries for non-standard or special requirements









#### WT workpiece pallet

- WT workpiece pallet adopts reinforced plastic steel structure, stable and durable.
- Suitable for belts, toothed belts, flat top belts, accumulation roller chains and flat top chains.
- Polymer material frame modules, steel or aluminium carrying plates.
- Thickness of carrying plates : 5mm, 8mm, 12mm
- · Size available in every 20mm, wide range of design options
- · Metal sensor at side and bottom of the pallet, pallet position detection possible with proximity switches
- Positioning bushing positioning accuracy +0.1mm
- Anti-static
- 840 standard sizes, widely suitable for various workpiece models
- Workpiece pallet dimensions from 400 x 400 mm and above are delivered with 2  $\sim$  4 additional holes for bolts as standard.

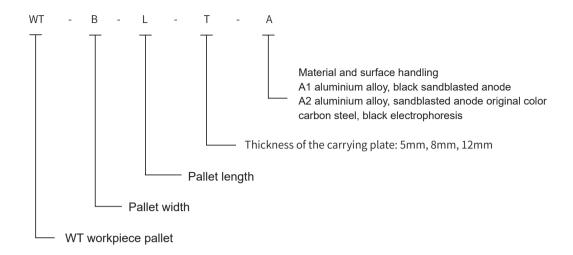
Scope of delivery: carrying plates frame modules connection kits positioning bushings

Condition of delivery: Assembled

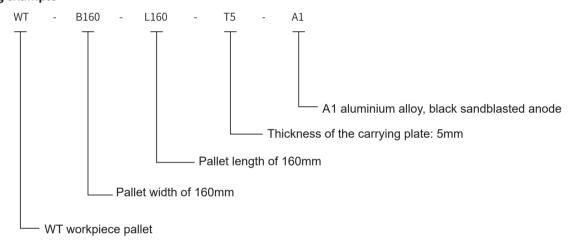
#### **Parameters**

Bwt pallet width (mm)	160 ~ 1200
Lwt pallet length (mm)	160 ~ 1200
Max. permissible load (kg)	120

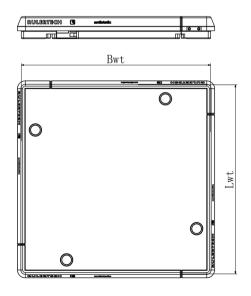
#### Part number description



#### Ordering example



#### **Specification schematic**



#### Please contact us for:



- Additional mounting holes and special requirements for flatness
- Material, thickness, surface handling requirements
- Other non-standard requirements

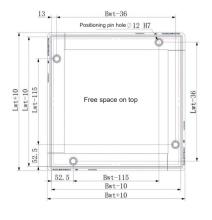


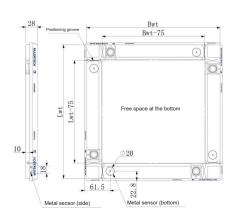
#### **Order information**

Product name	Bwt x Lwt (one standard size per 20mm)	Product model
WT workpiece pallet	160x160~320(160,220,240,280,300,320)	WT-B160-L160-T(carrying plate thickness)-A/B
WT workpiece pallet	220x220~440(220,240,280,300 ,320,340,360,380,400,420,440)	WT-B220-L(220~440)-T(carrying plate thickness)-A/B
WT workpiece pallet	240x240~480(240,280,300,320, 340,360,380,400,420,440,480)	WT-B240-L(240~480)-T(carrying plate thickness)-A/B
WT workpiece pallet	280x280~560	WT-B280-L(280~560)-T(carrying plate thickness)-A/B
WT workpiece pallet	300x300~600	WT-B300-L(300~600)-T(carrying plate thickness)-A/B
WT workpiece pallet	320x320~640	WT-B320-L(320~640)-T(carrying plate thickness)-A/B
WT workpiece pallet	340x340~680	WT-B340-L(340~680)-T(carrying plate thickness)-A/B
WT workpiece pallet	360x360~720	WT-B360-L(360~720)-T(carrying plate thickness)-A/B
WT workpiece pallet	380x380~760	WT-B380-L(380~760)-T(carrying plate thickness)-A/B
WT workpiece pallet	400x400~800	WT-B400-L(400~800)-T(carrying plate thickness)-A/B
WT workpiece pallet	420x420~840	WT-B420-L(420~840)-T(carrying plate thickness)-A/B
WT workpiece pallet	440x440~880	WT-B440-L(440~880)-T(carrying plate thickness)-A/B
WT workpiece pallet	460x460~920	WT-B460-L(460~920)-T(carrying plate thickness)-A/B
WT workpiece pallet	480x480~960	WT-B480-L(480~960)-T(carrying plate thickness)-A/B
WT workpiece pallet	500x500~1000	WT-B500-L(500~1000)-T(carrying plate thickness)-A/B
WT workpiece pallet	520x520~1040	WT-B520-L(520~1040)-T(carrying plate thickness)-A/B
WT workpiece pallet	540x540~1080	WT-B540-L(540~1080)-T(carrying plate thickness)-A/B
WT workpiece pallet	560x560~1120	WT-B560-L(560~1120)-T(carrying plate thickness)-A/B
WT workpiece pallet	580x580~1160	WT-B580-L(580~1160)-T(carrying plate thickness)-A/B
WT workpiece pallet	600x600~1200	WT-B600-L(600~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	620x620~1200	WT-B620-L(620~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	640x640~1200	WT-B640-L(640~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	660x660~1200	WT-B680-L(680~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	680x680~1200	WT-B680-L(680~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	700x700~1200	WT-B700-L(700~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	720x720~1200	WT-B720-L(720~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	740x740~1200	WT-B740-L(740~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	760x760~1200	WT-B760-L(760~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	780x780~1200	WT-B780-L(780~1200)-T(carrying plate thickness)-A/B

#### **Order information**

Product name	Bwt x Lwt (one standard size per 20mm)	Product model
WT workpiece pallet	800x800~1200	WT-B800-L(800~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	820x820~1200	WT-B820-L(820~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	840x840~1200	WT-B840-L(840~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	860x860~1200	WT-B860-L(860~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	880x880~1200	WT-B880-L(880~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	900x900~1200	WT-B900-L(900~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	920x920~1200	WT-B920-L(920~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	940x940~1200	WT-B940-L(940~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	960x960~1200	WT-B960-L(960~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	980x980~1200	WT-B980-L(980~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	1000×1000~1200	WT-B1000-L(1000~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	1020x1020~1200	WT-B1020-L(1020~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	1040×1040~1200	WT-B1040-L(1040~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	1060x1060~1200	WT-B1060-L(1060~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	1080×1080~1200	WT-B1080-L(1080~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	1100×1100~1200	$\label{eq:WT-B1100-L(1100~1200)-T} WT\text{-B1100-L} (1100~1200)\text{-T} (\textbf{carrying plate thickness})\text{-A/B}$
WT workpiece pallet	1120x1120~1200	WT-B1120-L(1120~1200)-T(carrying plate thickness)-A/B
WT workpiece pallet	1140x1140~1200	$\label{eq:WT-B1140-L(1140~1200)-T} WT\text{-B1140-L} (1140~1200)\text{-T} (\textbf{carrying plate thickness})\text{-A/B}$
WT workpiece pallet	1160x1160~1200	$\label{eq:WT-B1160-L(1160~1200)-T} WT\text{-B1160-L} (1160~1200)\text{-T} (\textbf{carrying plate thickness})\text{-A/B}$
WT workpiece pallet	1180x1180~1200	$\label{thm:wt-bound} \mbox{WT-B1180-L} (1180 \sim 1200) - T (\mbox{carrying plate thickness}) - A/B$
WT workpiece pallet	1200×1200~1200	WT-B1200-L(1200~1200)-T(carrying plate thickness)-A/B





Customers can calculate the relevant dimensions according to the pallet drawing. Contact Rulertech engineers for questions or special requirements.









#### WTH workpiece pallet

- WTH workpiece pallet adopts reinforced plastic steel structure, stable and durable.
- Suitable for belts, toothed belts, flat top belts, accumulation roller chains and flat top chains.
- PA+PE frame modules, steel or aluminium carrying plates.
- Thickness of carrying plates available: 8mm, 12mm.
- Size available in every 20mm, wide range of design options.
- Metal sensor at side and bottom of the pallet, pallet position detection possible with proximity switches.
- Positioning bushing positioning accuracy ±0.1mm .
- Anti-static
- 713 standard sizes, widely suitable for various workpiece models.
- Workpiece pallet dimensions from 400 x 400 mm and above are delivered with 2  $\sim$  4 additional mounting holes for bolts as standard.

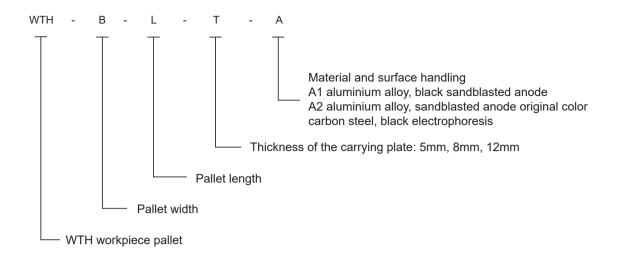
Scope of delivery: carrying plates frame modules connection kits positioning bushings

Condition of delivery: Assembled

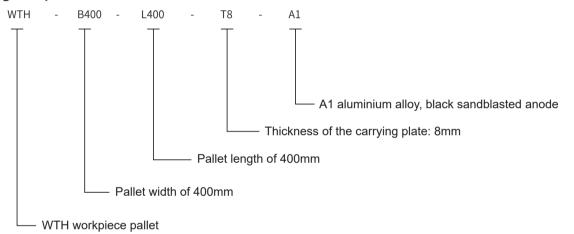
#### **Parameters**

Bwt pallet width (mm)	400 ~ 1200
Lwt pallet length (mm)	400 ~ 1200
max. permissible load (kg)	120

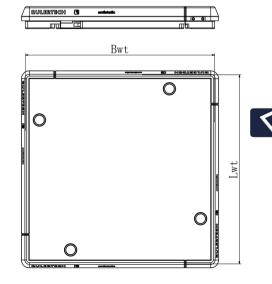
#### Part number description



#### Ordering example



#### **Specification schematic**



#### Please contact us for:

- Additional mounting holes and special requirements for flatness
- · Material, thickness, surface handling requirements
- Other non-standard requirements

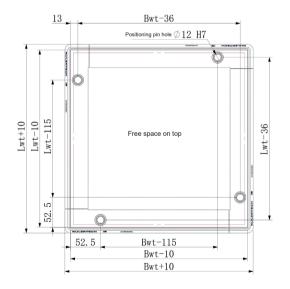


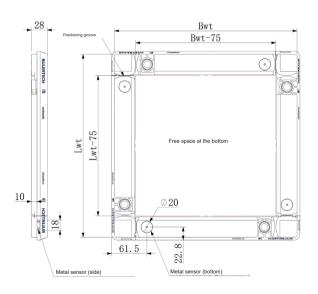
#### Order information

Product name	Bwt x Lwt (one standard	d size per 20mm) Product model	
WTH workpiece pallet	400×400 ∼ 800	WTH-B400-L (400 $\sim$ 800) -T (carrying plate thickness) -	A/B
WTH workpiece pallet	420×420 ∼ 840	WTH-B420-L (420 $\sim$ 840) -T (carrying plate thickness) - $\iota$	A/B
WTH workpiece pallet	440×440 ~ 880	WTH-B440-L(440 $\sim$ 880)-T(carrying plate thickness)- $\iota$	A/B
WTH workpiece pallet	460×460 ∼ 920	WTH-B460-L(460 $\sim$ 920)-T(carrying plate thickness)- $\iota$	A/B
WTH workpiece pallet	480×480 ∼ 960	WTH-B480-L(480 $\sim$ 960)-T(carrying plate thickness)- $\iota$	A/B
WTH workpiece pallet	500×500 ∼ 1000	WTH-B500-L (500 $\sim$ 1000) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	520×520 ∼ 1040	WTH-B520-L(520 $\sim$ 1040)-T(carrying plate thickness)-	-A/B
WTH workpiece pallet	540×540 ∼ 1080	WTH-B540-L(540 $\sim$ 1080)-T(carrying plate thickness)-	-A/B
WTH workpiece pallet	560×560 ∼ 1120	WTH-B560-L(560 $\sim$ 1120)-T(carrying plate thickness)-	-A/B
WTH workpiece pallet	580×580 ∼ 1160	WTH-B580-L (580 $\sim$ 1160) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	600×600 ∼ 1200	WTH-B600-L (600 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	620×620 ~ 1200	WTH-B620-L(620 $\sim$ 1200)-T(carrying plate thickness)-	-A/B
WTH workpiece pallet	640×640 ~ 1200	WTH-B640-L(640 $\sim$ 1200)-T(carrying plate thickness)-	-A/B
WTH workpiece pallet	660×660 ∼ 1200	WTH-B660-L(660 $\sim$ 1200)-T(carrying plate thickness)-	-A/B
WTH workpiece pallet	680×680 ∼ 1200	WTH-B680-L (680 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	700×700 ∼ 1200	WTH-B700-L (700 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	720×720 ~ 1200	WTH-B720-L (720 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	740×740 ~ 1200	WTH-B740-L (740 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	760×760 ∼ 1200	WTH-B760-L (760 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	780×780 ∼ 1200	WTH-B780-L (780 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	800×800 ∼ 1200	WTH-B800-L (800 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	820×820 ∼ 1200	WTH-B820-L (820 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	840×840 ~ 1200	WTH-B840-L(840 $\sim$ 1200)-T(carrying plate thickness)-	-A/B
WTH workpiece pallet	860×860 ∼ 1200	WTH-B860-L (860 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	880×880 ∼ 1200	WTH-B880-L (880 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	900×900 ∼ 1200	WTH-B900-L (900 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	920×920 ~ 1200	WTH-B920-L (920 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	940×940 ~ 1200	WTH-B940-L (940 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
WTH workpiece pallet	960×960 ∼ 1200	WTH-B960-L (960 $\sim$ 1200) -T (carrying plate thickness) -	-A/B
-			

#### **Order information**

Product name	Bwt x Lwt (one standard size	per 20mm)	Product model
WTH workpiece pallet	980×980 ∼ 1200	WTH-B980-L	$(980 \sim 1200)~$ -T $~$ (carrying plate thickness) -A/B
WTH workpiece pallet	1000×1000 ∼ 1200	WTH-B1000-L	(1000 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1020×1020 ∼ 1200	WTH-B1020-L	(1020 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1040×1040 ∼ 1200	WTH-B1040-L	(1040 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1060×1060 ∼ 1200	WTH-B1060-L	(1060 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1080×1080 ∼ 1200	WTH-B1080-L	(1080 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1100×1100 ∼ 1200	WTH-B1100-L	(1100 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1120×1120 ∼ 1200	WTH-B1120-L	(1120 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1140×1140 ∼ 1200	WTH-B1140-L	(1140 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1160×1160 ∼ 1200	WTH-B1160-L	(1160 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1180×1180 ∼ 1200	WTH-B1180-L	(1180 $\sim$ 1200) -T (carrying plate thickness) -A/B
WTH workpiece pallet	1200×1200	WTH-B1	200-L1200-T (carrying plate thickness) -A/B





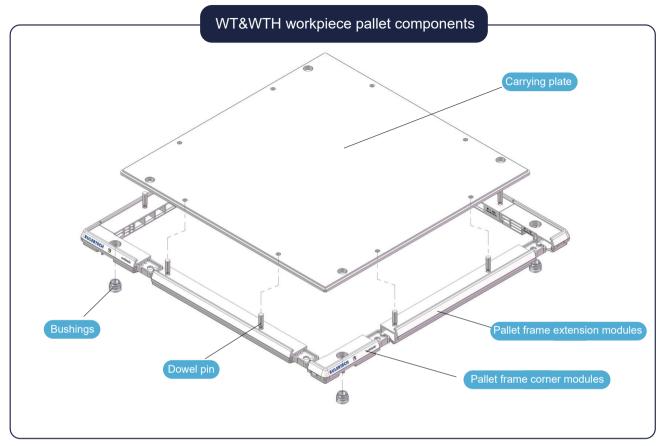


Customers can calculate the relevant dimensions according to the pallet drawing. Contact Rulertech engineers for questions or special requirements.





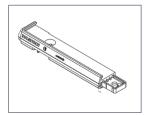




#### WT&WTH workpiece pallet components

RC workpiece pallet system provides components for customers to complete the assembly according to their own requirements.

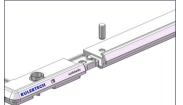
#### WT & WTH work piece pallet components:



Standard frame modules include corner modules and extension modules, made of high quality engineering plastics, strong and durable.



the carrying plate and the frame modules, enable defined positioning of the incoming pallets in the processing station with lifting units.



Positioning bushings connect Dowel pins reinforce connection Carrying plate carry and between extension modules transfer workpiece steadily and carrying plates for pallets through workstations to dimensions >400mm.



finish the work process.



160 frame corner module, 160mm in length

WT: PA engineering plastic

WTH: PA+PE engineering plastic

Ordering number: WT: WT-L-160 WTH: WTH-L-160



240 frame corner module, 240mm in length

WT: PA engineering plastic

WTH: PA+PE engineering plastic

Ordering number: WT: WT-L-240

WTH: WTH-L-240



320 frame corner module, 320mm in length

WT: PA engineering plastic

WTH: PA+PE engineering plastic

Ordering number:

WT: WT-L-320

WTH: WTH-L-320



400 frame corner module, 400mm in length

WT: PA engineering plastic

WTH: PA+PE engineering plastic

Ordering number:

WT: WT-L-400

WTH: WTH-L-400



60 frame extension module, 60mm in length

WT: PA engineering plastic

WTH: PA+PE engineering plastic

Ordering number:

WT: WT-L-60L

WTH:WTH-L-60L



320 frame extension module, 320mm in length

WT: PA engineering plastic

WTH: PA+PE engineering plastic

Ordering number:

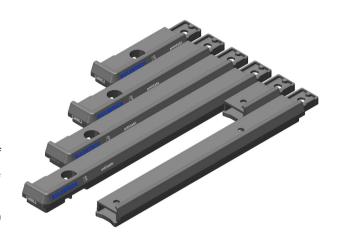
WT: WT-L-320L

WTH:WTH-L-320L



#### Frame modules size combination:

- Frame size=width Bwt\*2+ length Lwt\*2
- Lwt<2Bwt</li>
- Size available every 20mm
- Max. size 1200mm\*1200mm
- To choose size of frame modules of a certain size of workpiece pallet, check in the workpiece pallet frame modules combination list, from left to right according to Bwt, from right to left according to Lwt, then use (Bwt\*2+Lwt\*2) to calculate.

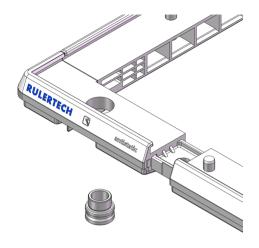


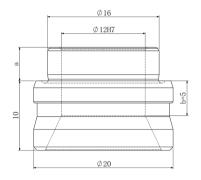
## Workpiece pallet frame modules combination list

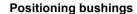
Unilateral Bwt(mm)	WTL- 160	WTL- 240	WTL- 320	WTL- 400	WTL- 320L	WTL- 60L	Unilateral Lwt(mm)
160	1						160
220	1					1	220
240		1					240
280	1					2	280
300		1				1	300
320			1				320
340	1					3	340
360		1				2	360
380			1			1	380
400				1			400
420		1				3	420
440			1			2	440
460				1		1	460
480	1				1		480
500			1			3	500
520				1		2	520
540	1				1	1	540
560		1			1		560
580				1		3	580
600	1				1	2	600
620		1			1	1	620
640			1		1		640
660	1				1	3	660
680		1			1	2	680
700			1		1	1	700
720				1	1		720
740		1			1	3	740

Unilateral Bwt(mm)	WTL- 160	WTL- 240	WTL- 320	WTL- 400	WTL- 320L	WTL- 60L	Unilateral Lwt(mm)
760			1		1	2	760
780				1	1	1	780
800	1				2		800
820			1		1	3	820
840				1	1	2	840
860	1				2	1	860
880		1			2		880
900				1	1	3	900
920	1				2	2	920
940		1			2	1	940
960			1		2		960
980	1				2	3	980
1000		1			2	2	1000
1020			1		2	1	1020
1040				1	2		1040
1060		1			2	3	1060
1080			1		2	2	1080
1100				1	2	1	1100
1120	1				3		1120
1140			1		2	3	1140
1160				1	2	2	1160
1180	1				3	1	1180
1200		1			3		1200

Contact Rulertech engineers for any further questions.



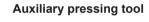




- Work with the diamond pin on the lift module to enable defined positioning of the incoming workpiece
- Support workpiece pallet in the lift module
- · Connect the carrying plate to the frame module
- Material: SKD61 HRC50 hardened steel

Product name	Size	Product model	Delivery unit
Positioning bushing	D20 X 5	SL-A4.8	1
Positioning bushing	D20 X 8	SL-A8	1
Positioning bushing	D20 X 12	SL-A12	1

- Size A must match with the thickness of the carrying plate
- Size 12H7: indicates status prior pressing, after pressed by auxiliary tools, maintain tolerances 12H7 in area B

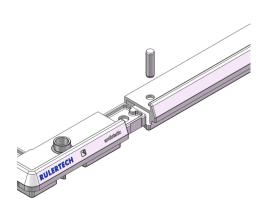


- To ensure repetition vertical integration
- · To ensure positioning bushings mounted within positioning accuracy range

Product name	Product model	Delivery unit
Auxiliary pressing tool	WT-Press	1



Place order directly for this item

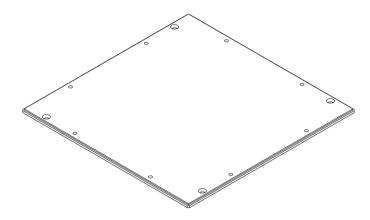


#### Dowel pin

- To connect frame corner modules with extension modules to carrying plates
- Material: steel

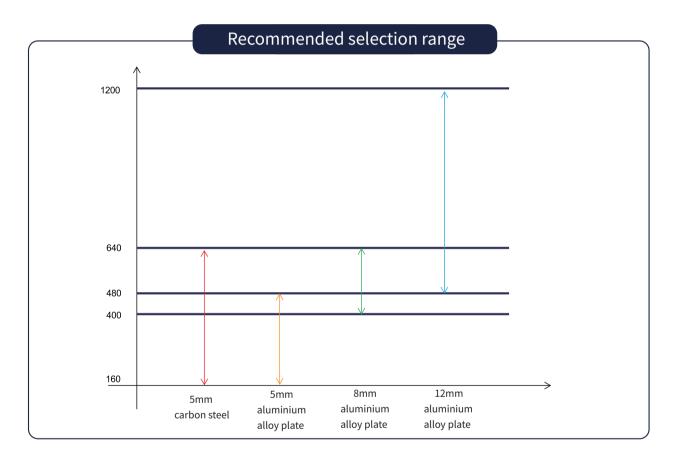
Product name	Product model	Delivery unit
Dowel pin	WT-Pin	100





#### **Carrying plate**

- To hold the fixture and the workpiece
- Completely drilled and ready for assembly
- Material :
  - (1) 5mm thick carbon steel
  - (2) 5mm/8mm/12mm thick aluminium alloy



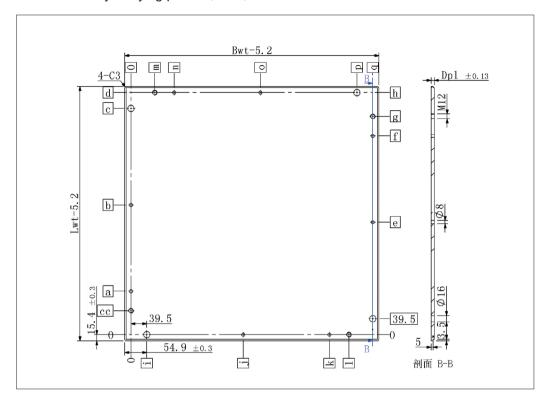
#### Standard material and surface treatment methods

Material	Surface treatment method	Delivery unit
Carbon steel	Electrophoresis black	5mm
Aluminium alloy	Oxide sandblasting natural color	5mm/8mm/12mm
Aluminium alloy	Oxide sandblasting black	5mm/8mm/12mm

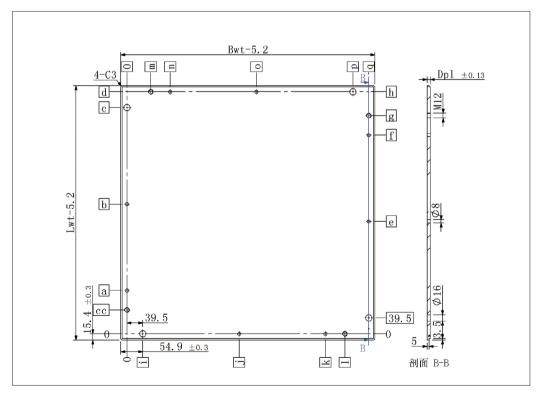
_ 1						wei	aht of	the carrying plate	(ka)							
Bwt (mm)	Lwt (mm)	flatness P (mm)	Lwt(mm)	4.81	mm thick carbon steel (35kg/m²)	Lwt (mm)	Ť	n thick aluminium alloy (14kg/m²)	Lwt (mm)	8mm	thick aluminium alloy (23kg/m²)	Lwt (mm)	12.7m	m thick aluminium alloy (34.7kg/m²)		
` /	160	0.3	160	0.9	( Lwt each additional 20mm increases weight of the plate by	160	0.37	( Lwt each additional 20mm increases weight of the plate	,		(23kg/III )	(111111)		(34.7kg/III )		
160	220~240	0.3	220~240	1.23	0.11KG)  ( Lwt each additional 20mm increases weight of the plate by	220~240	0.51	by 0.04KG) ( Lwt each additional 20mm increases weight of the plate								
	280~320	0.3	280~320	1.57	0.11KG)  ( Lwt each additional 20mm increases weight of the plate by	280~320	0.65	by 0.04KG) ( Lwt each additional 20mm increases weight of the plate								
	220~240	0.3	220~240	1.69	0.11KG) ( Lwt each additional 20mm increases weight of the plate by	220~240	0.7	by 0.04KG)  ( Lwt each additional 20mm increases weight of the plate								
220	280~340	0.3	280~340	2.16	0.16KG)  ( Lwt each additional 20mm increases weight of the plate by	280~340	0.89	( Lwt each additional 20mm increases weight of the plate								
	360~440	0.5	360~440	2.77	0.16KG)  ( Lwt each additional 20mm increases weight of the plate by	360~440	1.14	by 0.06KG)  ( Lwt each additional 20mm increases weight of the plate								
	240	0.3	240	2.02	0.16KG)  ( Lwt each additional 20mm increases weight of the plate by	240	0.83	by 0.06KG)  ( Lwt each additional 20mm increases weight of the plate								
240	280~300	0.3	280~300	2.35	0.17KG)  ( Lwt each additional 20mm increases weight of the plate by	280~300	0.97	by 0.07KG)  ( Lwt each additional 20mm increases weight of the plate	400~480	2.22	( Lwt each additional 20mm increases weight of the plate by 0.11KG)					
	320~480	0.5	320~480	2.69	0.17KG)  ( Lwt each additional 20mm increases weight of the plate by	320~480	1.11	by 0.07KG)  ( Lwt each additional 20mm increases weight of the plate			by 0.11KG)					
280	280~440	0.5	280~560	2.74	0.17KG)  ( Lwt each additional 20mm increases weight of the plate by	280~480	1.13	by 0.07KG)  ( Lwt each additional 20mm increases weight of the plate	400~560	2.59	( Lwt each additional 20mm increases weight of the plate					
200	460~560	0.6	200 500	2.11	0.20KG)	200 100	1.15	by 0.08KG)	100 300	2.55	by 0.13KG)  ( Lwt each additional 20mm					
300	300~420 440~600	0.5	300~600	3.15	( Lwt each additional 20mm increases weight of the plate by 0.21KG)	300~480	1.3	( Lwt each additional 20mm increases weight of the plate by 0.08KG)	400~600	2.77	increases weight of the plate by 0.14KG)					
220	320~380	0.5	222 642	2.50	( Lwt each additional 20mm	222 422	1.40	( Lwt each additional 20mm	400 640		( Lwt each additional 20mm	100 610	5.00	( Lwt each additional 20mm		
320	400~640	0.6	320~640	3.58	increases weight of the plate by 0.23KG)	320~480	1.48	increases weight of the plate by 0.09KG)	400~640	2.96	increases weight of the plate by 0.14KG)	480~640	5.32	increases weight of the plate by 0.22KG)		
340	340~360 380~680	0.5 0.6	340~640	4.04	( Lwt each additional 20mm increases weight of the plate by 0.24KG)	340~480	1.67	( Lwt each additional 20mm increases weight of the plate by 0.10KG)	400~640	3.14	( Lwt each additional 20mm increases weight of the plate by 0.16KG)	480~680	5.65	( Lwt each additional 20mm increases weight of the plate by 0.24KG)		
360	360~620 640~720	0.6	360~640	4.54	( Lwt each additional 20mm increases weight of the plate by 0.25KG)	360~480	1.87	( Lwt each additional 20mm increases weight of the plate by 0.10KG)	400~640	3.33	( Lwt each additional 20mm increases weight of the plate by 0.16KG)	480~720	5.99	( Lwt each additional 20mm increases weight of the plate by 0.25KG)		
380	380~600	0.6	380~640	5.05	( Lwt each additional 20mm increases weight of the plate by	380~480	2.08	( Lwt each additional 20mm increases weight of the plate	400~640	3.51	( Lwt each additional 20mm increases weight of the plate	480~760	6.32	( Lwt each additional 20mm increases weight of the plate		
300	620~760	0.8	300 040	3.03	0.27KG)	300 400	2.00	by 0.11KG)	100 010	5.51	by 0.18KG)	400 100	0.52	by 0.26KG)		
400	400~560 580~760	0.6	400~640	5.6	( Lwt each additional 20mm	400~480	2.31	( Lwt each additional 20mm increases weight of the plate	400~640	3.7	( Lwt each additional 20mm	480~800	6.65	( Lwt each additional 20mm		
400	760~800	1	400-040	400~640	400~640	3.0	increases weight of the plate by 0.28KG)	400 400	2.51	by 0.12KG)	100 040	3.1	increases weight of the plate by 0.18KG)	480 800	0.03	increases weight of the plate by 0.26KG)
	420~540	0.6						(1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-			( Lwt each additional 20mm					
420	560~720	0.8	420~640	6.17	( Lwt each additional 20mm increases weight of the plate by	420~480	2.55	( Lwt each additional 20mm increases weight of the plate by 0.12KG)	420~640	4.07	increases weight of the plate by 0.2KG)	480~840	6.99	( Lwt each additional 20mm increases weight of the plate by 0.29KG)		
	740~840	1			0.3KG)			5, 6.121.0)						by 0.251(G)		
	440~520	0.6			( Lwt each additional 20mm			( Lwt each additional 20mm increases weight of the plate			Lwt each additional 20mm			( Lwt each additional 20mm		
440	540~680	0.8	440~640	6.78	increases weight of the plate by 0.3KG)	440~480	2.8	by 0.12KG)	440~640		increases weight of the plate by 0.2KG)	480~880	7.32	increases weight of the plate by 0.30KG)		
	700~880 460~500	0.6														
460	520~660	0.8	460~640	7.41	( Lwt each additional 20mm increases weight of the plate by	460~480	3.05	( Lwt each additional 20mm increases weight of the plate	460~640	4.89	( Lwt each additional 20mm increases weight of the plate	480~920	7.65	( Lwt each additional 20mm increases weight of the plate		
	660~920	1	1		0.32KG)			by 0.14KG)			by 0.21KG)			by 0.32KG)		
100	480~620	0.8	400.040		( Lwt each additional 20mm	400			400 040		( Lwt each additional 20mm	400.000	7.00	( Lwt each additional 20mm		
480	640~960	1	480~640	8.06	increases weight of the plate by 0.34KG)	480	3.33	Max. length recommended	480~640	5.32	increases weight of the plate by 0.22KG)	480~960	7.98	increases weight of the plate by 0.34KG)		
500	500~600	0.8	500 640	0.75	( Lwt each additional 20mm				500 640	F 70	( Lwt each additional 20mm	500 1000	0.66	( Lwt each additional 20mm increases weight of the plate		
500	620~1000	1	500~640	8.75	increases weight of the plate by 0.35KG)				500~640	5.78	increases weight of the plate by 0.23KG)	500~1000	8.66	by 0.35KG)		
520	520~580	0.8	520, 640	0.46	( Lwt each additional 20mm				520, 640	6.25	( Lwt each additional 20mm	520 1040	0.27	( Lwt each additional 20mm		
520	600~1040	1	520~640	9.46	increases weight of the plate by 0.37KG)				520~640	6.25	increases weight of the plate by 0.24KG)	520~1040	9.37	increases weight of the plate by 0.36KG)		
540	540~560	0.8	E40 C40	10.2	( Lwt each additional 20mm				540~640	6.74	( Lwt each additional 20mm	E40 1000	10.1	( Lwt each additional 20mm increases weight of the plate		
540	580~1080	1	540~640	10.2	increases weight of the plate by 0.38KG)				540~640	0.74	increases weight of the plate by 0.25KG)	540~1080	10.1	by 0.38KG)		
560	560~1120	1	560~640	10.9 8	( Lwt each additional 20mm increases weight of the plate by 0.39KG)				560~640	7.24	( Lwt each additional 20mm increases weight of the plate by 0.26KG)	560~1120	10.87	( Lwt each additional 20mm increases weight of the plate by 0.38KG)		
580	580~1140	1.2	580~640	11.7	( Lwt each additional 20mm increases weight of the plate by 0.41KG)				580~640	7.77	( Lwt each additional 20mm increases weight of the plate by 0.27KG)	580~1160	11.66	( Lwt each additional 20mm increases weight of the plate by 0.40KG)		
600	600~1200	1	600: 640	12.6	( Lwt each additional 20mm				600, 640	0 22	( Lwt each additional 20mm	600-1200	12 47	( Lwt each additional 20mm		
600	1120~1200	1.2	600~640	12.6	increases weight of the plate by 0.42KG)				600~640	8.32	increases weight of the plate by 0.27KG)	600~1200	12.47	increases weight of the plate by 0.42KG)		
620	620~1060 1060~1200	1 1.2	620~640	13.4 5	( Lwt each additional 20mm increases weight of the plate by 0.44KG)				620~640	8.88	( Lwt each additional 20mm increases weight of the plate by 0.29KG)	620~1200	13.32	( Lwt each additional 20mm increases weight of the plate by 0.43KG)		
	640~1040	1.2			o(o)									( Lwt each additional 20mm		
640	1040~1200	1.2	640	15.3	Max. length recommended				640	9.46	Max. length recommended	640~1200	14.19	increases weight of the plate by 0.45KG)		
	1040~1200	1.2								5.10		0.0 1200		by 0.45KG)		

Bwt	Lwt	flatness P					W	eight of the carryi	ng plate	(kg)				
(mm)	(mm)	(mm)	Lwt(mm)	4.8n	nm thick carbon steel (35kg/m²)	Lwt (mm)		n thick aluminium alloy (14kg/m²)	Lwt (mm)		thick aluminium alloy (23kg/m²)	Lwt (mm)	12.7mr	m thick aluminium alloy (34.7kg/m²)
660	660~1000	1			(cong)	()		(g )	,			660~1200	15.09	( Lwt each additional 20mm
000	1000~1200	1.2										000*1200	13.09	increases weight of the plate by 0.46KG)
680	680~960	1										680~1200	16.02	( Lwt each additional 20mm increases weight of the plate
	980~1200	1.2												by 0.47KG)
700	700~940 960~1200	1.2										700~1200	16.98	( Lwt each additional 20mm increases weight of the plate by 0.48KG)
	720~920	1												
720	920~1200	1.2										720~1200	17.96	( Lwt each additional 20mm increases weight of the plate by 0.50KG)
	740~880	1												( Lwt each additional 20mm
740	880~1200	1.2										740~1200	18.97	increases weight of the plate by 0.52KG)
	760~860	1												( Lwt each additional 20mm
760	880~1200	1.2										760~1200	20.01	increases weight of the plate by 0.53KG)
780	780~840	1										780~1200	21.08	( Lwt each additional 20mm increases weight of the plate
100	860~1200	1.2										700 1200	21.00	by 0.54KG)
800	800~820	1										800~1200	22.18	( Lwt each additional 20mm increases weight of the plate
	840~1200	1.2												by 0.55KG)
820	820~1200	1.2										820~1200	23.3	( Lwt each additional 20mm increases weight of the plate by 0.57KG)
840	840~1200	1.2										840~1200	24.45	( Lwt each additional 20mm increases weight of the plate by 0.58KG)
860	860~1200	1.2										860~1200	25.63	( Lwt each additional 20mm increases weight of the plate by 0.59KG)
880	880~1200	1.2										880~1200	26.83	( Lwt each additional 20mm increases weight of the plate by 0.61KG)
900	900~1200	1.2										900~1200	28.07	( Lwt each additional 20mm increases weight of the plate by 0.62KG)
920	920~1200	1.2										920~1200	29.33	( Lwt each additional 20mm
940	940~1200	1.2										940~1200	30.62	( Lwt each additional 20mm
960	960~1200	1.2										960~1200	31.93	( Lwt each additional 20mm increases weight of the plate
980	980~1200	1.2										980~1200	33.28	by 0.67KG)  ( Lwt each additional 20mm increases weight of the plate
1000	1000~1200	1.2										1000~1200		by 0.68KG)  ( Lwt each additional 20mm increases weight of the plate
1020	1020~1200	1.2										1020~1200		by 0.69KG)  ( Lwt each additional 20mm increases weight of the plate
														by 0.71KG)  ( Lwt each additional 20mm
1040	1040~1200	1.2										1040~1200		increases weight of the plate by 0.72KG)
1060	1060~1200	1.2										1060~1200	38.93	( Lwt each additional 20mm increases weight of the plate by 0.74KG)  ( Lwt each additional 20mm
1080	1080~1200	1.2										1080~1200	40.42	increases weight of the plate by 0.76KG)
1100	1100~1200	1.2										1100~1200		by 0.76KG)
1120	1120~1200	1.2										1120~1200	43.46	( Lwt each additional 20mm increases weight of the plate by 0.78KG)
1140	1140~1200	1.2										1140~1200	45.03	( Lwt each additional 20mm increases weight of the plate by 0.79KG)
1160	1160~1200	1.2										1160~1200	46.63	( Lwt each additional 20mm increases weight of the plate by 0.80KG)
1180	1180~1200	1.2										1180~1200	48.25	( Lwt each additional 20mm increases weight of the plate by 0.81KG)
1200	1200~1200	1.2										1200~1200	49.90	Max. length recommended

## Aluminium alloy carrying plate (8mm)



## Aluminium alloy carrying plate (12mm)



Parameters for reference only, not for processing.

Contact Rulertech engineers for any further questions.



	Features of the carrying plate	
Bwt(mm)	Lwt(mm)≥Bwt	Flatness p (mm)
160	€320	0.3
220	≤340	0.3
	≪440	0.5
240	≤300	0.3
	≤480	0.5
280	≤440	0.5
200	≤560	0.6
300	≤420	0.5
300	≤600	0.6
320	≤380	0.5
320	≤640	0.6
240	≤360	0.5
340	≤680	0.6
200	€620	0.6
360	≤720	0.8
200	≤600	0.6
380	≤760	0.8
	≤560	0.6
400	≤760	0.8
	≤800	1
	≤540	0.6
420	≤720	0.8
	≤840	1
	≤520	0.6
440	≤680	0.8
	≤880	1
	≤500	0.6
460	≤660	0.8
-100	≤920	1
	≤620	0.8
480	€020 ≤960	1
	≤960 ≤600	0.8
500	€000 ≤1000	0.8
520	≤580	0.8
	≤1040	1
540	≤560	0.8
	≤1080	1
560	≤1120	1
580	≤1140	1
	1160	1.2
600	≤1120	1
	≤1200	1.2
620	≤1060	1
	≤1200	1.2
640	≤1040	1
U <del>1</del> U	≤1200	1.2

Features of the carrying plate						
Bwt(mm)	Lwt(mm)≥Bwt	Flatness p (mm)				
660	≤1000	1				
660	≤1200	1.2				
C00	≤960	1				
680	≤1200	1.2				
700	≤940	1				
700	≤1200	1.2				
720	≤920	1				
720	≤1200	1.2				
740	≤880	1				
740	≤1200	1.2				
760	€860	1				
760	≤1200	1.2				
780	€840	1				
780	≤1200	1.2				
800	€820	1				
800	≤1200	1.2				
840 880 900	≤1200	1.2				
	≤1200	1.2				
	≤1200	1.2				
920	≤1200	1.2				
940	≤1200	1.2				
960	≤1200	1.2				
980	≤1200	1.2				
1000	≤1200	1.2				
1020	≤1200	1.2				
1040	≤1200	1.2				
1060	≤1200	1.2				
1080	≤1200	1.2				
1100	≤1200	1.2				
1120	≤1200	1.2				
1140	≤1200	1.2				
1160	≤1200	1.2				
1180	≤1200	1.2				
1200	≤1200	1.2				

Thickness of the carrying plate	Material	Empty weight per 400mm <sup>2</sup>
5mm	Carbon steel	0.016kg
5mm	Aluminium alloy	0.005kg
8mm	Aluminium alloy	0.009kg
12mm	Aluminium alloy	0.013kg





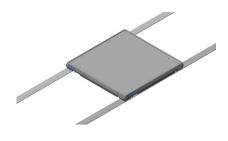
- Six types of conveyor depending on conveying medium: TB (toothed belts), BC (flat top belts), RT (accumulation roller chain) RT3 (accumulation roller chain), RHS(rubber coated rollers)
   RCR (heavy-duty roller)
- Single Workpiece pallet loads up to 240KG
- Non-standard design for workpiece pallets used on RCR heavy-duty bevel gear rollers conveyor section, max. permissible load per set of heavy-duty rollers up to 120KG
- Accumulation operation
- Can be combined with curve modules, lift transverse units, rotary modules, and other control modules to provide solutions for different production layouts
- Application scenarios: new energy vehicles motors assembly, car parts production, new energy vehicles batteries assembly, 3C and household appliances production etc..

	TB conveyor section	BC conveyor section	RT conveyor section	RT3 conveyor section	RHS conveyor section	RCR conveyor section
Conveyor medium			08BS	12BS		
Steel friction material			2.0 kg	4.0 kg	Load carrying capacity ≤ 35kg/m	Permissible load per heavy-duty roller set ≤ 120kg
Plastic friction material	1.0 kg	1.0 kg	1.5 kg			
Max. permissible load per unit	60 KG	250 KG	2400 KG	3000 KG	200 KG	4000 KG





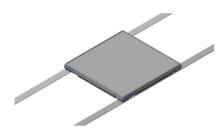
- Belts/ toothed belts and flat top belts are suitable for light to medium conveying loads in dry and clean work conditions. Accumulation roller chains are suitable for heavy loads in rough and oily environment.
- Please note that in the case of nonsquare workpiece pallets, the shorter side determines the permissible workpiece pallet loading weight.
- Max. load for accumulation operation must not exceed the max. permissible load of the conveyor section.



Toothed belt conveyor section TB, TBM







Belt conveyor section BC



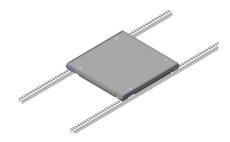




Accumulation rollers conveyor section RT, RTU, RTG, RTH RT-C, RTU-C, RTG-C, RTH-C



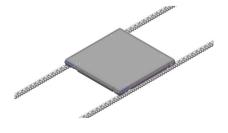




Flat top chains conveyor section RTK





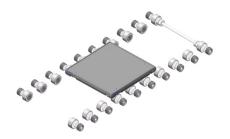


 $\begin{tabular}{ll} Accumulation rollers conveyor section \\ RT3 \ , \ RTU3 \end{tabular}$ 





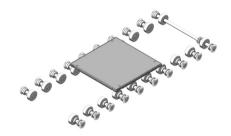




High-speed conveyor section RHS







Heavy-duty bevel gear roller conveyor section







Conveyor section sliding doors MG







## Connection parts











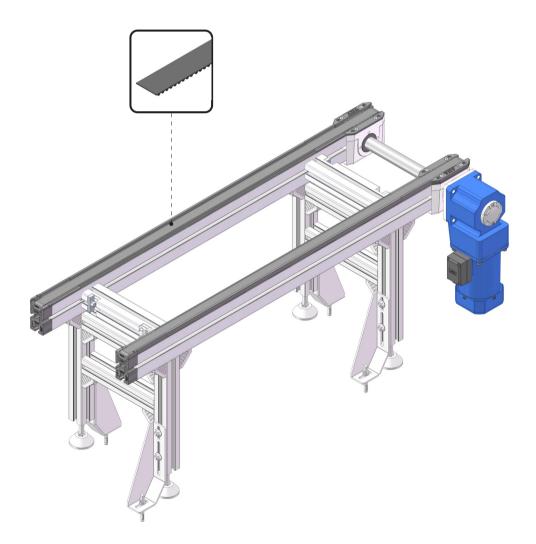






## **Toothed belt conveyor section module**

- It is mainly used in systems with light conveying loads in dry, clean environment, suitable for small to medium sized workpiece pallets; suitable for transportation segments with narrow width; flat, flexible, suitable for narrow conveying width;
- Reverse conveying possible, suitable for shorter section segments;
- Often used for assembly of lightweight products, features such as a low risk of drawing in and quiet operation, facilitate use at manual assembly stations
- · Permissible surface load of up to 1 kg/cm;
- Application: 3C, new energy vehicles batteries assembly, household appliances, car parts assembly etc.





- Suitable for clean environment
- Please note that in the case of non-square workpiece pallets,
   the shorter side determines the permissible workpiece pallet loading weight









## TB toothed belt conveyor section (driven from the starting end)

- Independent motor
- · Accumulation operation, anti-static
- · Reverse conveying possible
- Workpiece pallet loads for accumulation operation 60KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 63 decibels
- Motor power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

## Recommended accessories:

Bracket kits; Connection kits; Leg sets

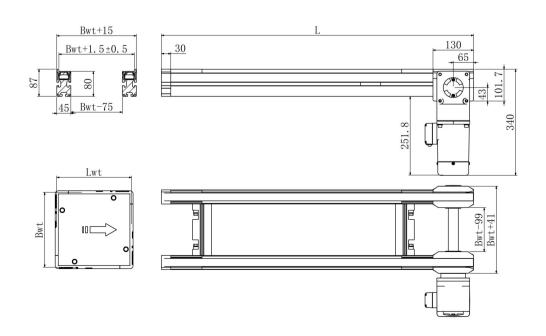
## Condition of delivery:

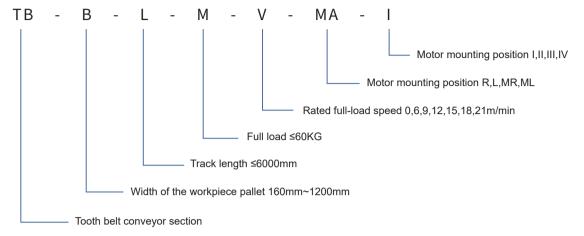
Full set (Assembled) / Delivery in parts



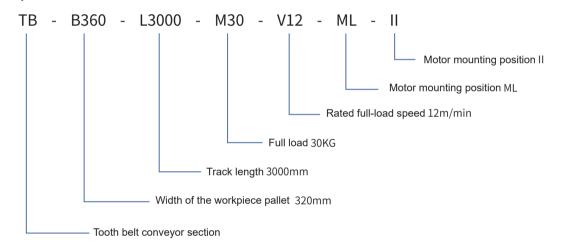
#### **Parameters**

Width of the workpiece palletBwt(mm)	160 ~ 1200
Track length L(mm)	300 ~ 6000
Conveying medium	T5 toothed belt (Black, Anti-static)
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency(Hz)	50/60
Motor mounting position	R,L,MR,ML
Motor power connection	Terminal box
Motor mounting position	I , II , III , IV

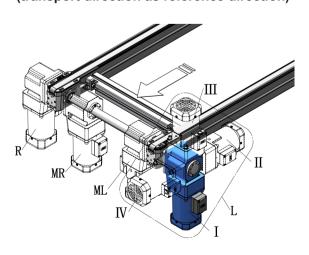




#### Ordering example



## Motor mounting position schematic diagram (transport direction as reference direction)





- Full-load nominal transportation speed not recommended to exceed 21m/min
  - Vn=0 means without motor and without gear
  - Full-load nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request
  - Motor can be mounted in the middle of conveyor section when track width B≥240mm
  - Reverse conveying reduce the load capacity by 30%

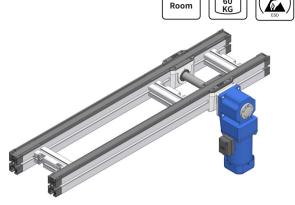


## TBM toothed belt conveyor section (driven from intermediate section)

- Independent motor
- · Accumulation operation, anti-static
- A change to the conveying direction (reverse conveying) possible
- Max. permissible load for accumulation operation up to 60KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 63 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

Recommended accessories:
Bracket kits; Connection kits; Leg sets
Condition of delivery:

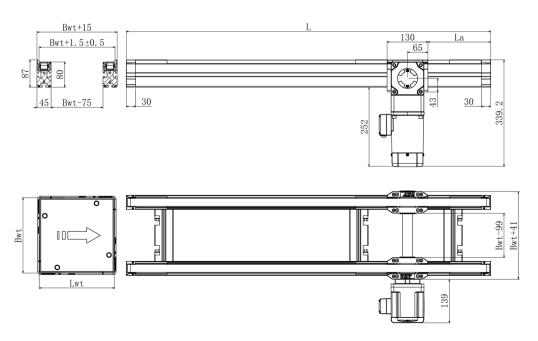
Full set (Assembled) / Delivery in parts

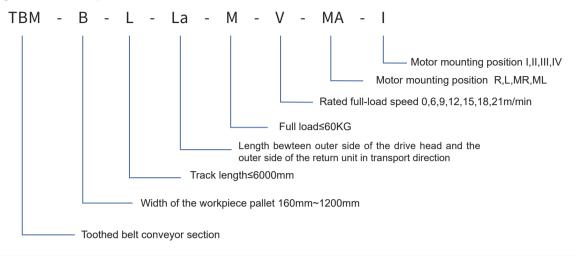


Clean

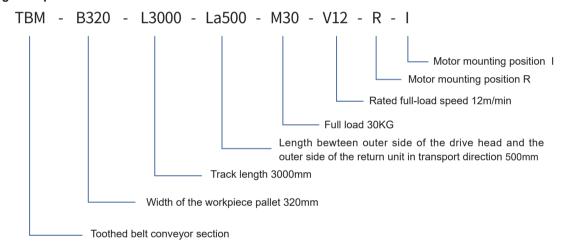
## **Parameters**

Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	300 ~ 6000
Length bewteen outer side of the drive head and the outer side of the return unit in transport direction La(mm)	100 ~ 5700
Conveying medium	T5 toothed belt (Black, Anti-static)
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage(V)	220/380
Frequency(HZ)	50/60
Motor mounting position	R,L,MR,ML
Motor power connection	Terminal box
Motor mounting position	I,II,III,IV

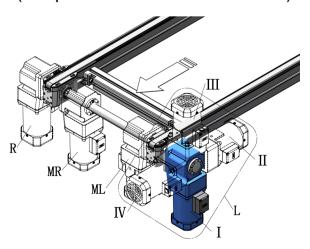




## Ordering example



## Motor mounting position schematic diagram (transport direction as reference direction)



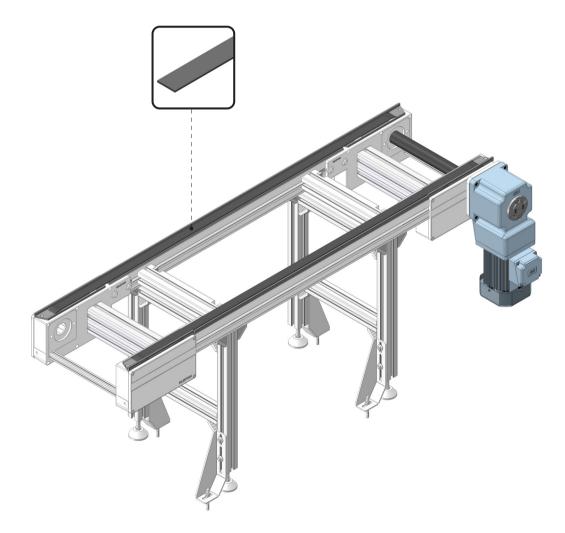


- Full-load nominal transportation speed not recommended to exceed 21m/min
  - Vn=0 means without motor and without gear
  - · Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - · Other frequency requirements on request
  - Motor can be mounted in the middle of conveyor section when track width B≥240mm
  - Reverse conveying reduce the load capacity by 30%



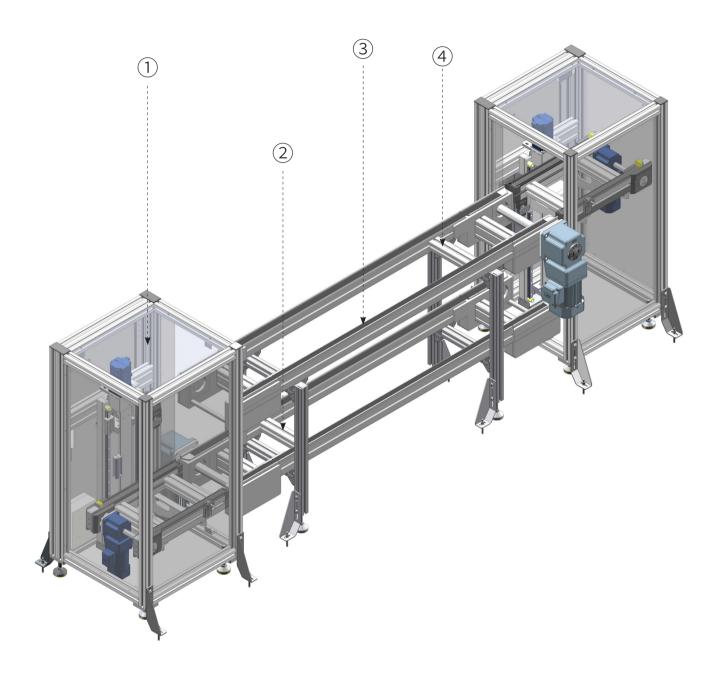
## **Belt conveyor section**

- Mainly used in systems with light conveying loads in dry, clean environment, suitable for small to medium sized workpiece pallets; suitable for transportation segments with narrow width;
- Belt is specially economical conveyor medium, primarily utilized on longer section segments;
- Reverse conveying not recommended;
- Mainly used for assembly of lightweight products, features such as a low risk of drawing in and quiet operation, facilitate use at manual assembly stations;
- Permissible surface load of up to 1 kg/cm;
- Application: 3C, new energy vehicles batteries assembly, household appliances, car parts etc..





- Suitable for clean environment
- Please note that in the case of non-square workpiece pallets, the shorter side determines the permissible workpiece pallet loading weight



## Reference configuration

1. LFS standard lead screw pair lifter	3. Belt conveyor section
2. Two-tier leg sets	4. Conveyor section crossbeam









## **Belt conveyor section**

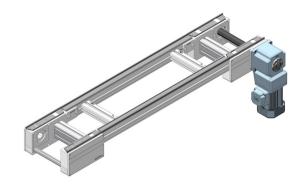
- Independent motor
- · Accumulation operation possible, anti-static
- Film base flat belt, reverse conveying not possible
- Max. permissible load for accumulation operation up to 250KG
- Motor mounting either on left side or right side of conveyor section in direction of transport
- Noise below 63 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available



Bracket kits; Connection kits; Leg sets

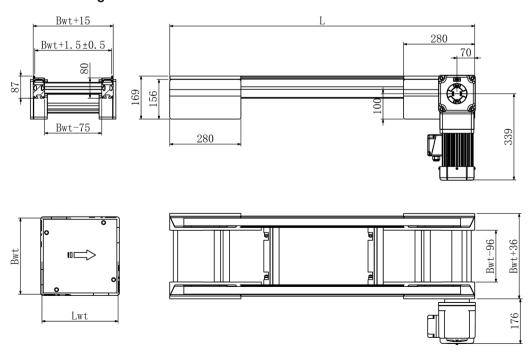
## Condition of delivery:

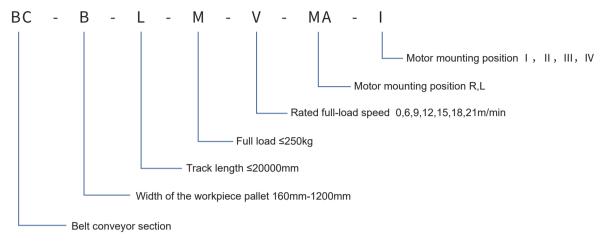
Full set (Assembled) / Delivery in parts



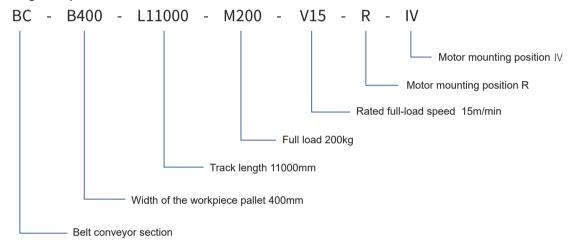
## **Parameters**

Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	660 ~ 20000
Conveying medium	Flat belt (Black, Anti-static)
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L
Power connection	Terminal box
Motor mounting position	I , II , III , IV

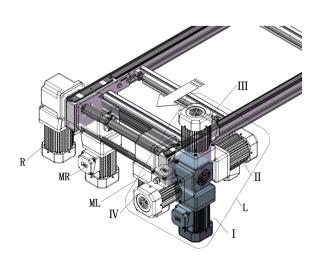




## Ordering example



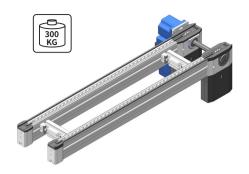
## Motor mounting position schematic diagram (transport direction as reference direction)





- Full-load nominal transportation speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request
- Motor can be mounted in the middle of conveyor section when track width B≥240mm

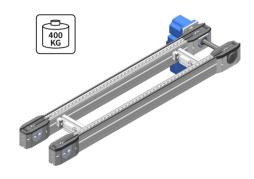




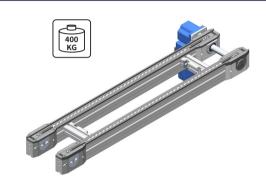
RT accumulation roller chains conveyor section



RT-C accumulation roller chains conveyor section



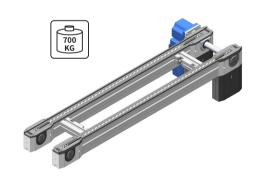
RTU accumulation roller chains conveyor section



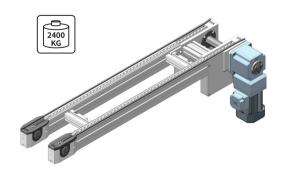
RTU-C accumulation roller chains conveyor section



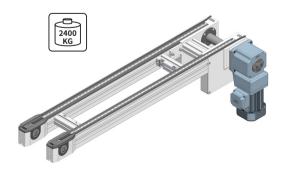
RTG accumulation roller chains conveyor section



RTG-C accumulation roller chains conveyor section



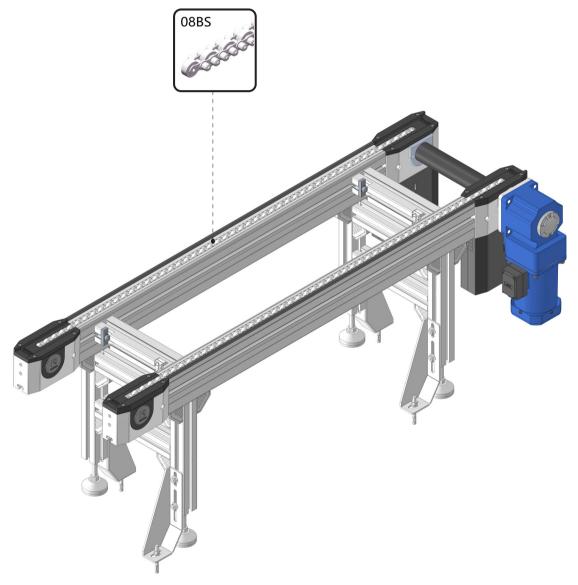
RTH accumulation roller chains conveyor section



RTH-C accumulation roller chains conveyor section

## Accumulation roller chain conveyor section

- Accumulation roller chains are suitable for transmission in oily condition and work environment with production emissions, suitable for larger sized workpiece pallets.;
- Accumulation roller chains not only reduce the accumulated pressure generated by the stop gate, but also quickly restore the original conveying speed after the station operation is complete;
- Conveying medium using steel friction material permissible load 2kg/cm
- Conveying medium using plastic friction material permissible load 1.5kg/cm
- Applications: Lithium battery module, PACK, auto parts, motor assembly etc..



- Highly adaptable, suitable for oily and harsh environments
- Please note that in the case of non-square workpiece pallets,
   the shorter side determines the permissible workpiece pallet loading weight









## RT accumulation roller chains conveyor section

- Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- Tensioning at ends
- Max. permissible load for accumulation operation up to 300KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in transport direction
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

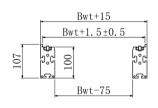
## Recommended accessories:

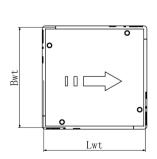
Bracket kits; Connection kits; Leg sets

#### Condition of delivery:

Full set (Assembled) / Delivery in parts

## Schematic diagram

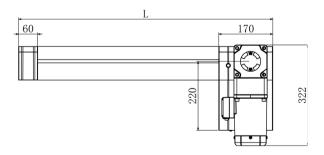


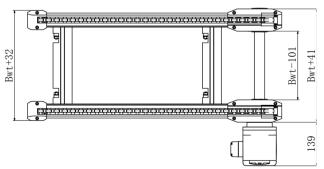


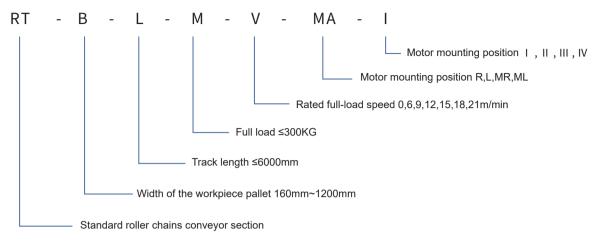


#### **Parameters**

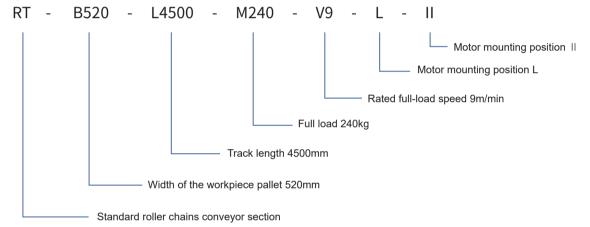
Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	340 ~ 6000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML
Power connection	Terminal box
Motor mounting position	1 , II , III , IV



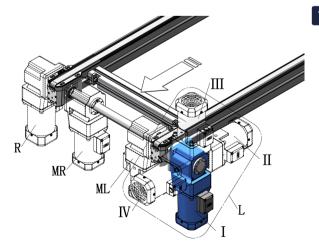




## Ordering example



## Motor mounting position schematic diagram (transport direction as reference direction)



- Single speed accumulation roller chains, pitch 12.7mm
  - Full-load speed not recommended to exceed 21m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request
  - Motor can be mounted in the middle of conveyor section when track width B≥240mm









## RTU accumulation roller chains conveyor section

- · Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- Tail tensioning
- Max. permissible load for accumulation operation up to 400KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

#### Recommended accessories:

Bracket kits; Connection kits; Leg sets

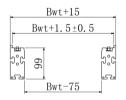
#### Condition of delivery:

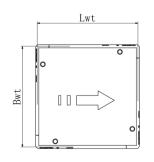
Full set (Assembled) / Delivery in parts

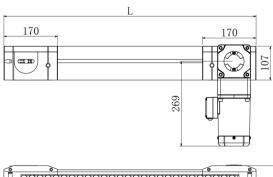
#### **Parameters**

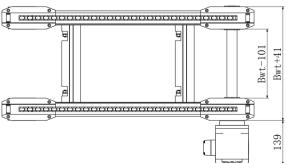
Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	400 ~ 2000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML
Power connection	Terminal box
Motor mounting position	I , II , III , IV

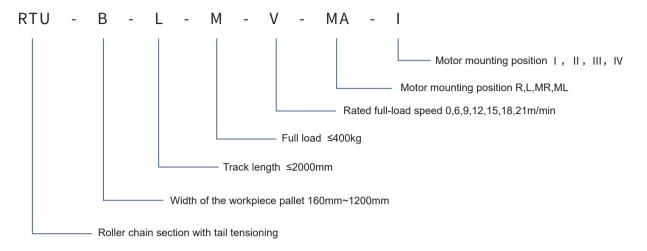






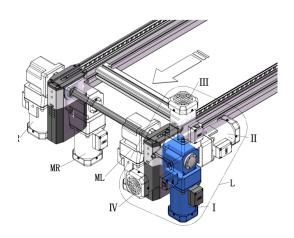






## Ordering example

## Motor mounting position schematic diagram (transport direction as reference direction)





- Single speed accumulation roller chains, pitch 12.7mm
- Full-load speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request
- Motor can be mounted in the middle of conveyor section when track width B≥240mm









## RTG accumulation roller chains conveyor section

- Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- · Starting end tensioning roller chains
- Max. permissible load for accumulation operation up to 700KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- · Non-standard customization available

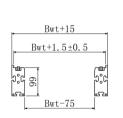
## Recommended accessories:

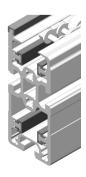
Bracket kits; Connection kits; Leg sets

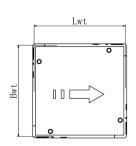
## Condition of delivery:

Full set (Assembled) / Delivery in parts

## **Schematic diagram**



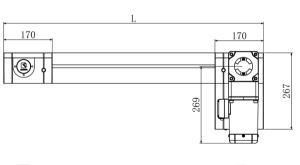


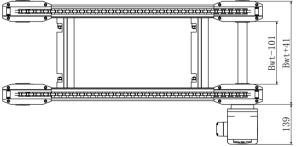


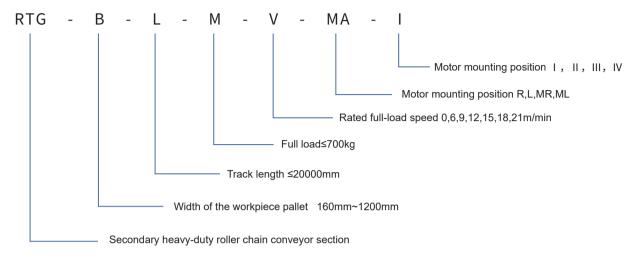


#### **Parameters**

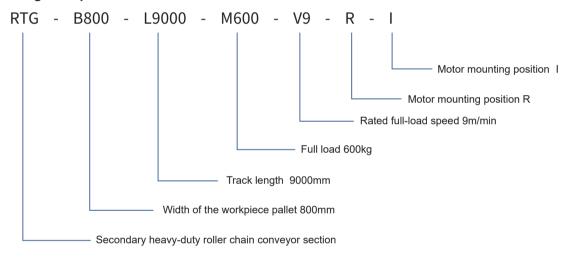
Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	440 ~ 20000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML
Power connection	Terminal box
Motor mounting position	I , II , III , IV



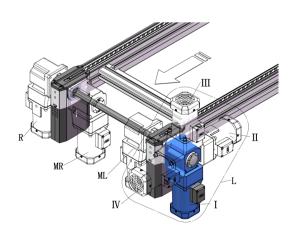




## Ordering example



Motor mounting position schematic diagram (transport direction as reference direction, diagram does not represent the type of motor)





- Single speed accumulation roller chains, pitch 12.7mm
- Full-load speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- · Other frequency requirements on request
- Motor can be mounted in the middle of conveyor section when track width B≥240mm









## RTH accumulation roller chains conveyor section

- Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- · Starting end tensioning chain
- · Heavy-duty roller chains
- Max. permissible load for accumulation operation up to 2400KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

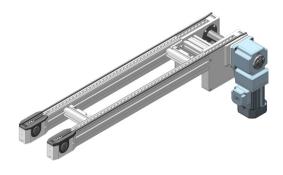
## Recommended accessories:

Bracket kits; Connection kits; Leg sets

#### Condition of delivery:

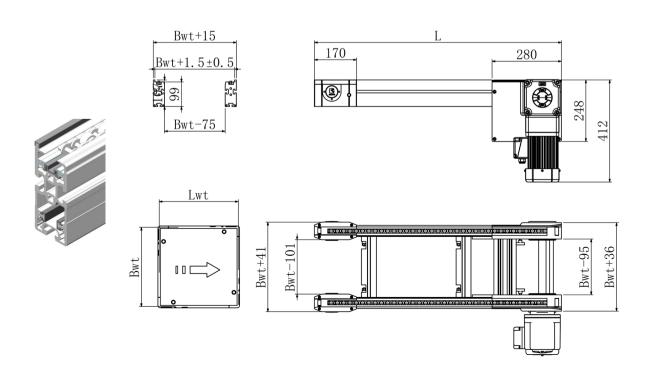
Full set (Assembled) / Delivery in parts

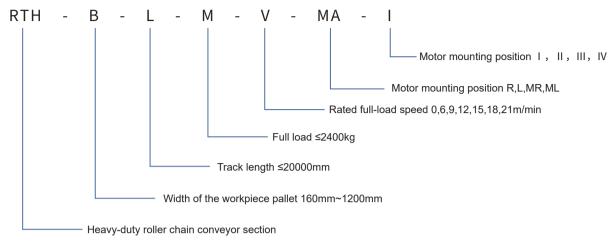
#### Schematic diagram



#### **Parameters**

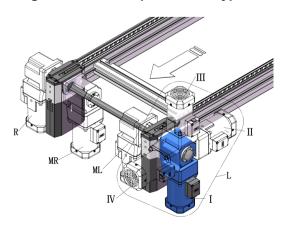
Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	550 ~ 20000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML
Power connection	Terminal box
Motor mounting position	I , II , III , IV





## Ordering example

Motor mounting position schematic diagram (transport direction as reference direction, diagram does not represent the type of motor)





- Single speed accumulation roller chains, pitch 12.7mm
  - Full-load speed not recommended to exceed 21m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request
  - Motor can be mounted in the middle of conveyor section when track width B≥240mm









## RT-C accumulation roller chains conveyor section

- Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- Starting end tensioning chain
- Max. permissible load for accumulation operation up to 300KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Type C profiles prevents small parts and foreign objects from falling into the chain section, which could cause unnecessary scratches
- Non-standard customization available

## Recommended accessories:

Bracket kits; Connection kits; Leg sets

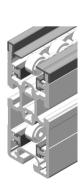
## Condition of delivery:

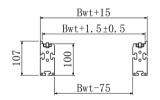
Full set (Assembled) / Delivery in parts

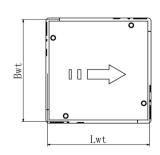


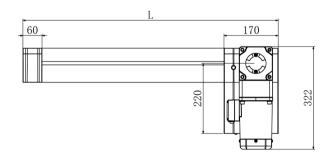
#### **Parameters**

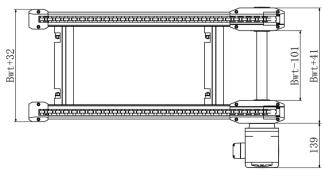
Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	340 ~ 6000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML
Power connection	Terminal box
Motor mounting position	I , II , III , IV

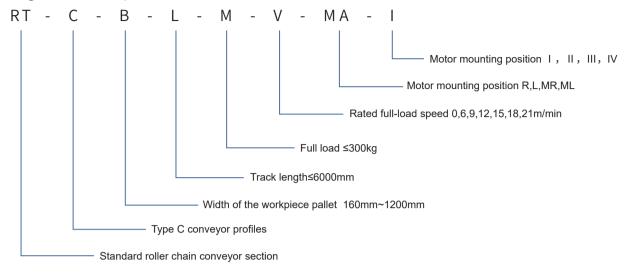




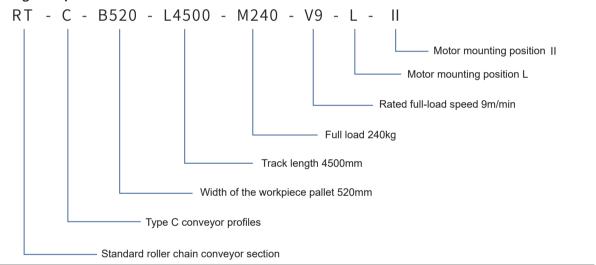




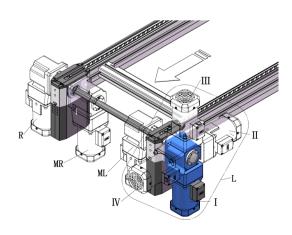




#### Ordering example



Motor mounting position schematic diagram (transport direction as reference direction, diagram does not represent the type of motor)





- Single speed accumulation roller chains, pitch 12.7mm
- Full-load speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request
- Motor can be mounted in the middle of conveyor section when track width B≥240mm









## RTU-C accumulation roller chains conveyor section

- · Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- · Starting end tensioning chain
- Max. permissible load for accumulation operation up to 400KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Type C profiles prevents small parts and foreign objects from falling into the chain section, which could cause unnecessary scratches.
- · Non-standard customization available

#### Recommended accessories:

Bracket kits; Connection kits; Leg sets

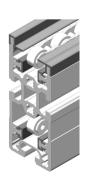
#### Condition of delivery:

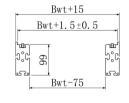
Full set (Assembled) / Delivery in parts

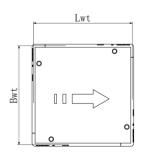


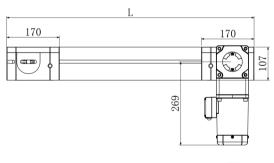
#### **Parameters**

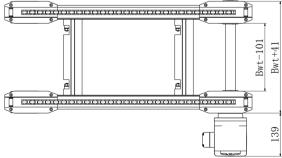
Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	400 ~ 2000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML
Power connection	Terminal box
Motor mounting position	I , II , III , IV

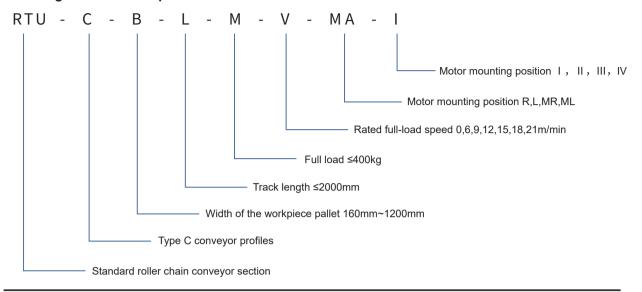




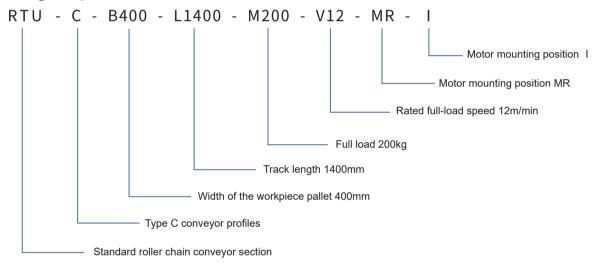




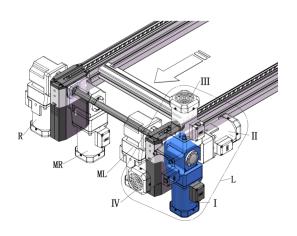




## Ordering example



Motor mounting position schematic diagram (transport direction as reference direction, diagram does not represent the type of motor)





- Single speed accumulation roller chains, pitch 12.7mm
- Full-load speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- · Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- · Other power supply or voltage requirements on request
- · Other frequency requirements on request
- Motor can be mounted in the middle of conveyor section when track width B≥240mm









#### RTG-C accumulation roller chains conveyor section

- Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- · Tail end tensioning chain
- Max. permissible load for accumulation operation up to 700KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Type C profiles prevents small parts and foreign objects from falling into the chain section, which could cause unnecessary scratches
- Non-standard customization available

#### Recommended accessories:

Bracket kits; Connection kits; Leg sets

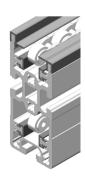
#### Condition of delivery:

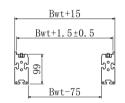
Full set (Assembled) / Delivery in parts

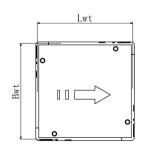


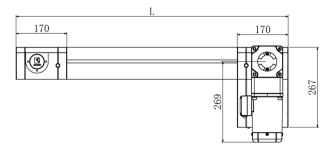
#### **Parameters**

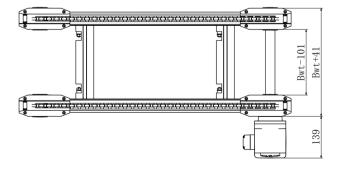
Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	440 ~ 20000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML
Power connection	Terminal box
Motor mounting position	I , II , III , IV

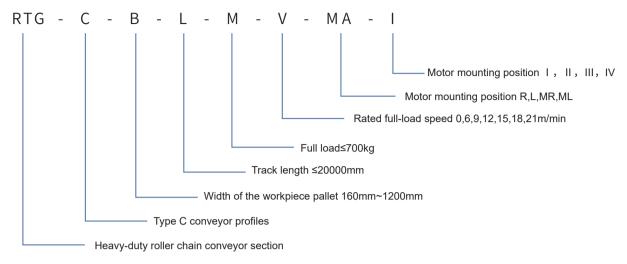




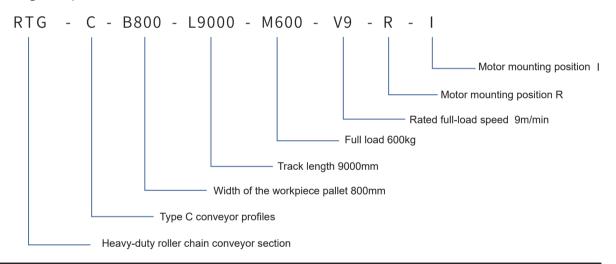




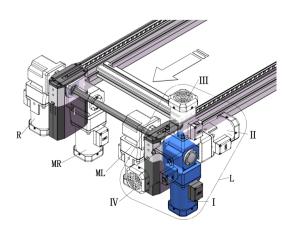




## Ordering example



Motor mounting position schematic diagram (transport direction as reference direction, diagram does not represent the type of motor)





- Single speed accumulation roller chains, pitch 12.7mm
  - Full-load speed not recommended to exceed 21m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request
  - Motor can be mounted in the middle of conveyor section when track width B≥240mm









## RTH-C accumulation roller chains conveyor section

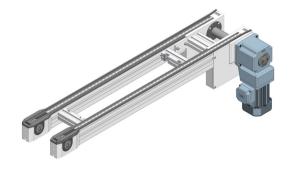
- Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- · Starting end tensioning chain
- Heavy-duty conveyor section
- Max. permissible load for accumulation operation up to 2400KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Prevents small parts and foreign objects from falling into the chain section, which could cause unnecessary scratches.
- · Non-standard customization available

## Recommended accessories:

Bracket kits; Connection kits; Leg sets

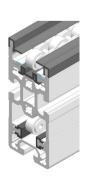
## Condition of delivery:

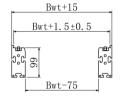
Full set (Assembled) / Delivery in parts

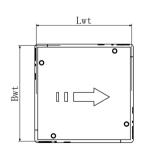


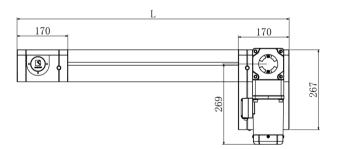
#### **Parameters**

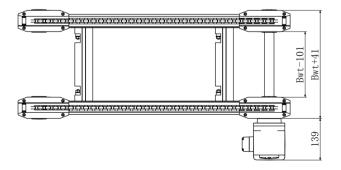
Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	550 ~ 20000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML
Power connection	Terminal box
Motor mounting position	I , II , III , IV

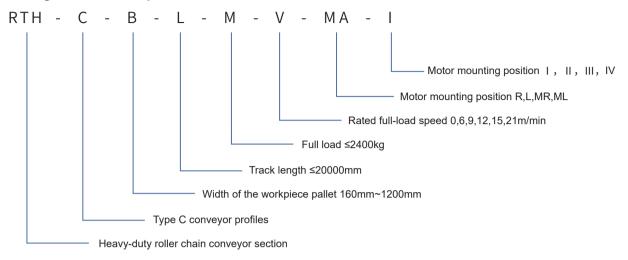




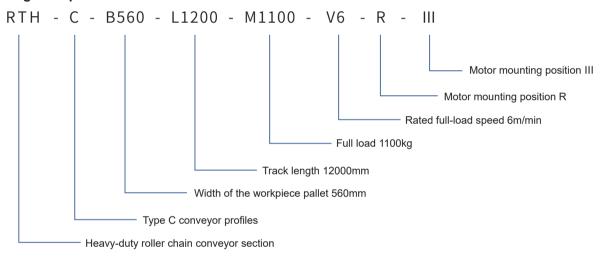




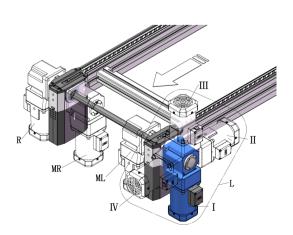




## Ordering example



# Motor mounting position schematic diagram (transport direction as reference direction, diagram does not represent the type of motor)



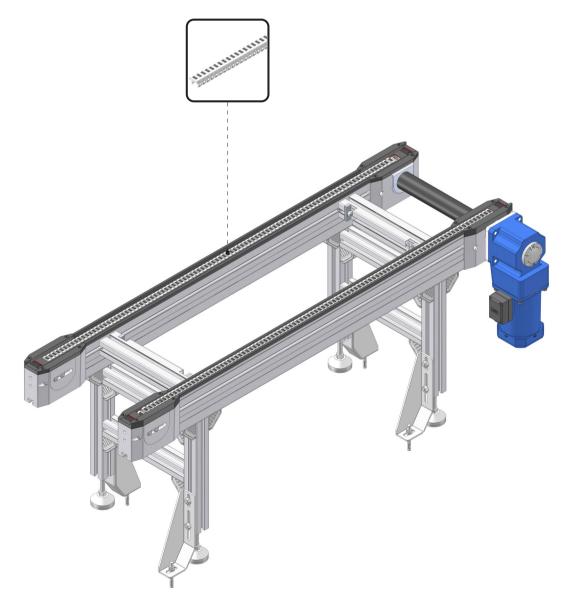


- Single speed accumulation roller chains, pitch 12.7mm
- Full-load speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request
- Motor can be mounted in the middle of conveyor section when track width B≥240mm



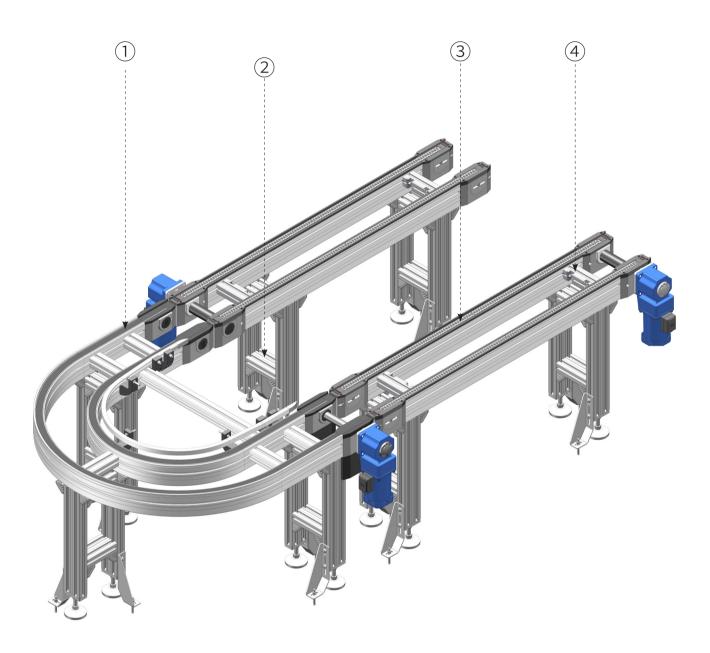
## Flat top chains conveyor

- Suitable for oily production environment with production emissions
- The independent rolling of the small rollers on flat top chains not only reduces the cumulative pressure generated by the stopper, but also allows a quick resume to the original speed after the Station operation by the acceleration element.
- Plastic friction material, permissible surface load 1kg/cm
- Applications: lithium battery modules, PACK, car parts, motors assembly





- Highly adaptable, suitable for oily and harsh environments
- Please note that in the case of non-square workpiece pallets, the shorter side determines the permissible workpiece pallet loading weight



# Reference configuration

1.CUA180 curve with accumulation operation	3.Flat top chains conveyor
2. One level leg sets	4. Conveyor section crossbeam











#### RTK flat top chains conveyor section

- Independent motor
- · Accumulation operation possible, anti-static
- Flat top chains, reverse conveying not possible
- Starting end tensioning chain
- Max. permissible load for accumulation operation up to 200KG
- Motor mounting either on inner/outer left side or inner/outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

#### Recommended accessories:

Bracket kits; Connection kits; Leg sets

#### Condition of delivery:

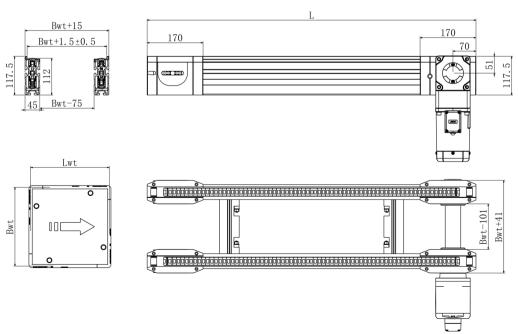
Full set (Assembled) / Delivery in parts

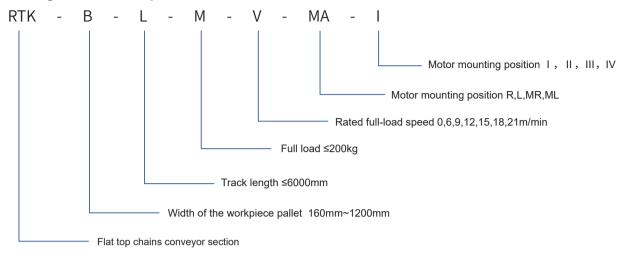


#### **Parameters**

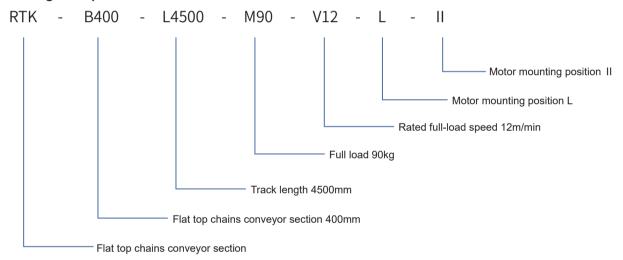
Width of the workpiece pallet Bwt(mm)	160 ~ 1200
Track length L(mm)	400 ~ 6000
Conveying medium	Flat top chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML
Power connection	Terminal box
Motor mounting position	I , II , III , IV

#### Schematic diagram

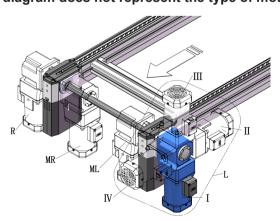




#### Ordering example



# Motor mounting position schematic diagram (transport direction as reference direction, diagram does not represent the type of motor)



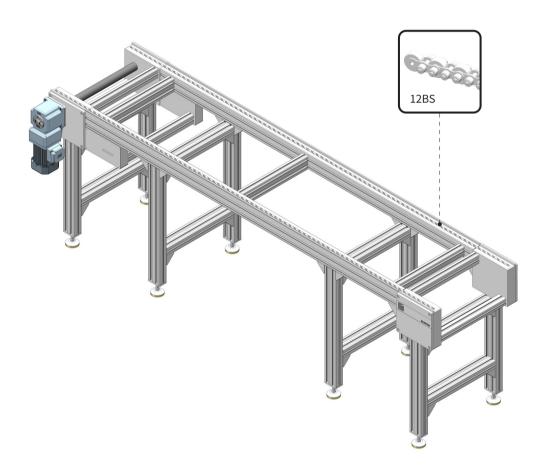


- Flat top chains, pitch 12.7mm
- Full-load speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request
- Motor can be mounted in the middle of conveyor section when track width B≥240mm



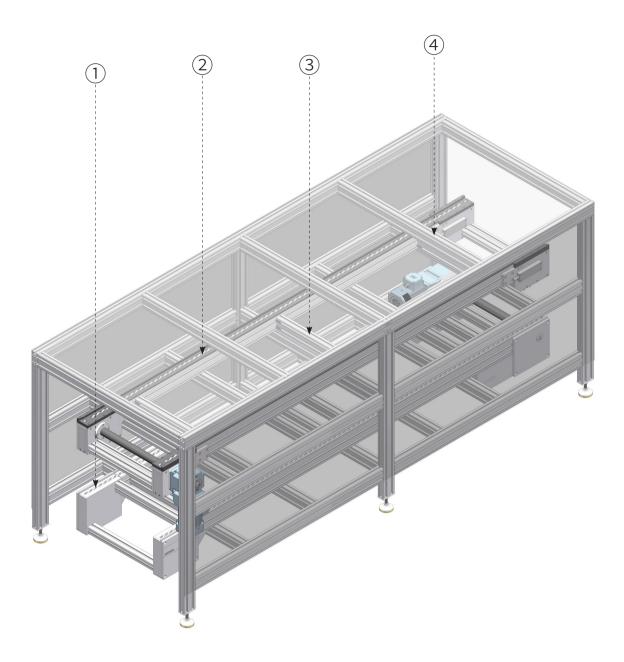
#### RT3 conveyor

- Conveyor medium: 12BS accumulation roller chains
- Load carrying capacity of the 12BS roller chains ≤ 4kg/cm
- Accumulable, suitable for oily production environment with production emissions, suitable for larger sized workpiece pallets. Accumulation roller chains not only reduce the cumulative pressure generated by the stopper, but also allow a quick resume to the original speed after the station operation by the acceleration element.
- Can be combined with curve modules, lift transverse units, rotary modules, and other control modules to provide solutions for different production layouts.
- Applications: automation assembly and testing of new energy motors, car parts, new energy cell modules, 3C etc..





- Highly adaptable, suitable for oily and harsh environments
- Please note that in the case of non-square workpiece pallets,
   the shorter side determines the permissible workpiece pallet loading weight



# Reference configuration

1.RT3 roller chain conveyor section	3. Conveyor section crossbeam
2.RTU3 roller chain conveyor section	4. Protective frame and cover











#### RT3 roller chain conveyor section

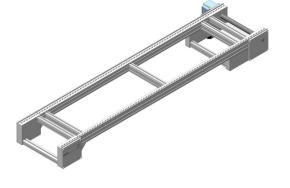
- Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- Starting end tensioning chain
- · Heavy-duty conveyor section
- Max. permissible load for accumulation operation up to 3000KG
- Motor mounting either on outer left side or outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

#### Recommended accessories:

Bracket kits; Connection kits; Leg sets

#### Condition of delivery:

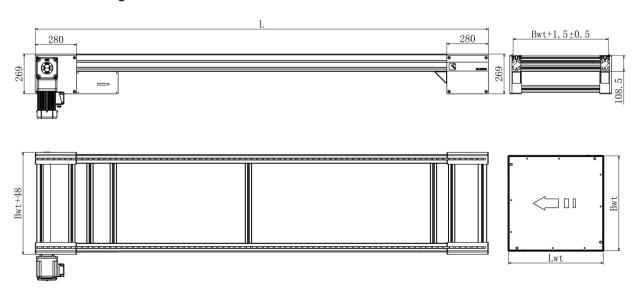
Full set (Assembled) / Delivery in parts

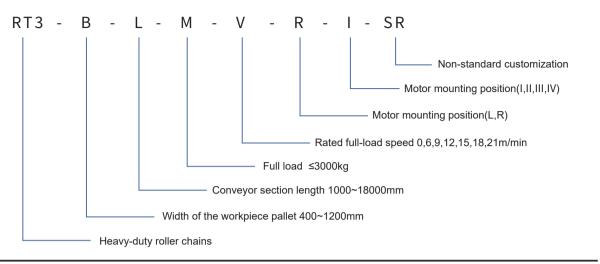


#### **Parameters**

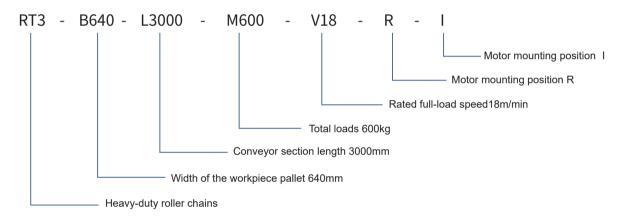
Width of the workpiece pallet Bwt(mm)	400 ~ 1200
Track length L(mm)	1000 ~ 18000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L
Power connection	Terminal box
Motor mounting position	I , II , III , IV

#### Schematic diagram

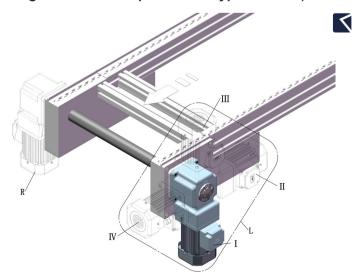




#### Ordering example



Motor mounting position schematic diagram (transport direction as reference direction, diagram does not represent the type of motor)



- Accumulation roller chains, pitch 19.05mm
  - Full-load speed not recommended to exceed 21m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request











#### RTU3 roller chain conveyor section

- Independent motor
- · Accumulation operation possible, anti-static
- Accumulation roller chains, reverse conveying possible
- Tail end tensioning chain
- Heavy-duty conveyor section
- Max. permissible load for accumulation operation up to 2500KG
- Motor mounting either on outer left side or outer right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- · Non-standard customization available

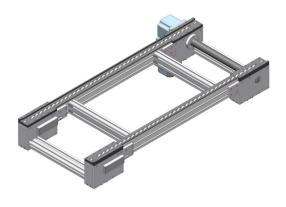
#### Recommended accessories:

Bracket kits; Connection kits; Leg sets

#### Condition of delivery:

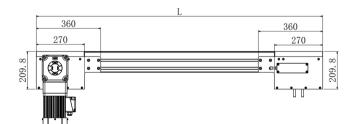
Full set (Assembled) / Delivery in parts

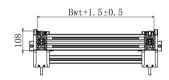
#### Schematic diagram

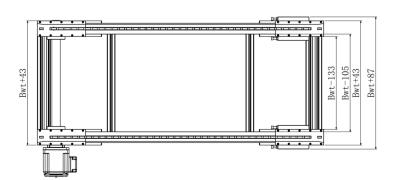


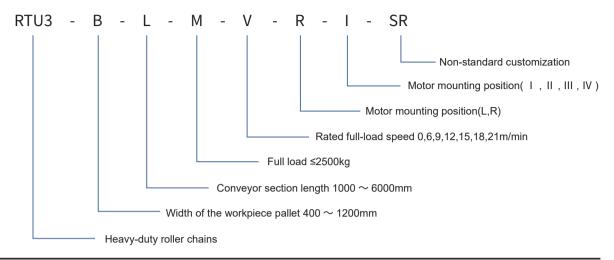
#### **Parameters**

Width of the workpiece palletBwt(mm)	400 ~ 1200
Track length L(mm)	1000 ~ 6000
Conveying medium	Steel roller chains
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L
Power connection	Terminal box
Motor mounting position	I, II, III, IV

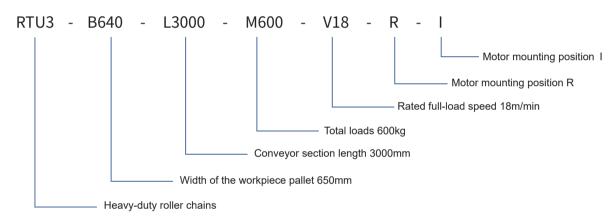




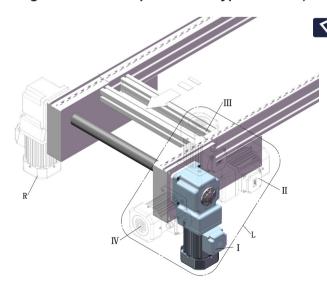




#### Ordering example



Motor mounting position schematic diagram (transport direction as reference direction, diagram does not represent the type of motor)

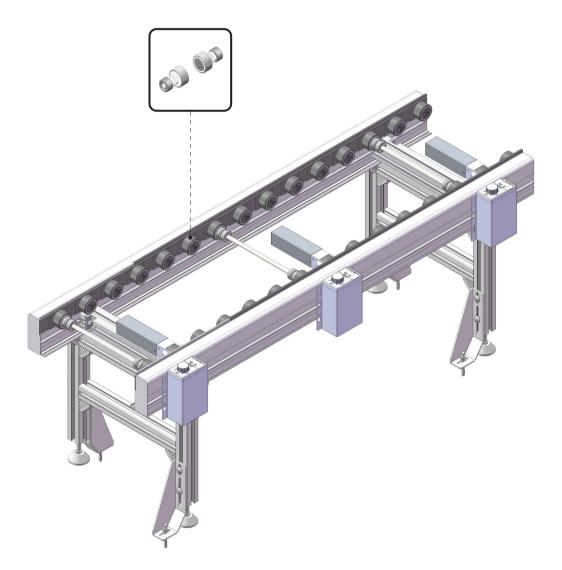


- Accumulation roller chains, pitch 19.05mm
  - Full-load speed not recommended to exceed 21m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request



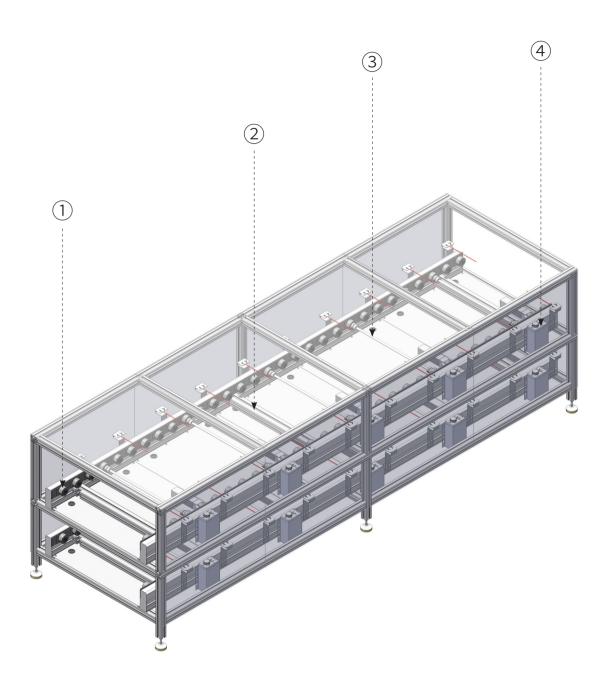
#### **RHS** conveyor

- · Conveyor medium: rubber coated rollers
- Load carrying capacity ≤ 35kg/m
- Accumulation operation possible, high-speed conveyor, suitable for dry and clean environment and a conveying speed of up to 120m/ min, suitable for small and medium size workpiece pallets
- Can be combined with curve modules, lift transverse units, rotary modules, and other control
  modules to provide solutions for different production layouts
- Applications: automation assembly and testing of new energy motors, car parts, new energy cell modules, 3C etc..





- High-speed conveyor, able to meet higher production rhythms requirements
- Please note that in the case of non-square workpiece pallets,
   the shorter side determines the permissible workpiece pallet loading weight



# Reference Configuration diagram

1. Rollers	3. Cross connector
2. Conveyor section crossbeam	4. Protective frame and cover











#### **RHS high-speed conveyor section**

- Multiple motors linkage drive
- Accumulation operation possible, anti-static
- Rubber coated roller chains, reverse conveying possible
- Maximum drive load for a single set of motors is 30kg
- Motor mounting either on inner left side or inner right side of conveyor section in direction of transport
- Noise below 65 decibels
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

#### Recommended accessories:

Bracket kits; Connection kits; Leg sets

#### Condition of delivery:

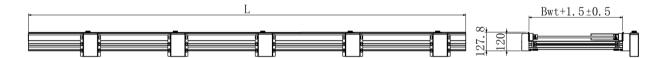
Full set (Assembled) / Delivery in parts

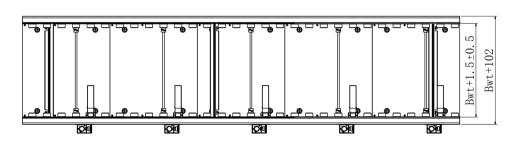


#### **Parameters**

Width of the workpiece pallet Bwt(mm)	320 ~ 640
Track length L(mm)	400 ~ 6000
Conveying medium	rubber coated rollers
Nominal full-load speed Vn(m/min)	20,40,60,80,100,120
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Power connection	MR,ML
Power connection	Terminal box

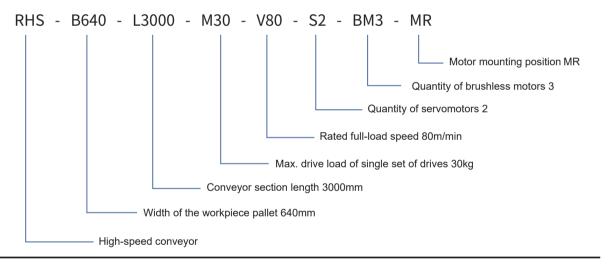
#### Schematic diagram





# Ordering number description RHS - B - L - M - V - S - BM - MR Motor mounting position (ML,MR) Quantity of brushless motors Quantity of servomotors Rated full-load speed 20,40,60,80,100,120m/min Max. drive load of single set of drives 30kg Conveyor section length 400 ~ 6000mm Width of the workpiece pallet 320 ~ 640mm

#### Ordering example





- Full-load speed not recommended to exceed120m/min
- Vn=0 means without motor and without gear

High-speed conveyor

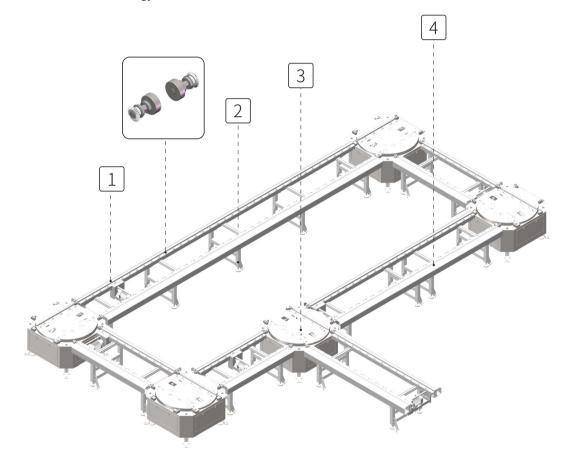
- Nominal transportation speed configurable
- Max. width 640mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request





- Conveyor medium: bevel gear rollers
- Suitable for conveying in oily production environments with production emissions, suitable for larger size workpiece pallets
- Max. load of each set of bevel gear rollers 

  ≤ 120kg
- Can be combined with curve modules, lift transverse units, rotary modules, and other control modules to provide solutions for different production layouts
- Applications: automation assembly and testing of new energy motors, car parts, new energy cell modules, 3C etc..



1.RCR conveyor section	2.LS1-RCR leg sets
3.TUH heavy-duty rotay unit	4.RCR conveyor with secondary section









#### RCR heavy-duty bevel gear rollers conveyor

- Independent motor
- · Accumulation operation possible, anti-static
- Bevel gear rollers, reverse conveying possible
- Max. permissible load of each set of bevel wheels up to 120KG
- Two-thirds of the workpiece pallet length  $\geqq$  three sets of rollers and spacing
- · Combinable with standard Rulertech rotay unit
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

#### Recommended accessories:

Bracket kits; connection kits; leg sets

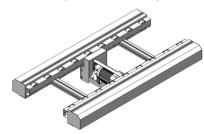
#### Condition of delivery:

Full set (assembled) / delivery in parts

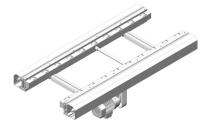
#### Motor mounting position schematic diagram



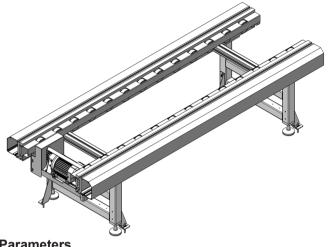
MRM: Motor mounted at start end of conveyor (transfer direction)



MRM: Motor mounted on conveyor mid-section



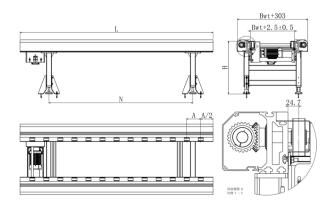
L II (R II):Motor mounted on section sides



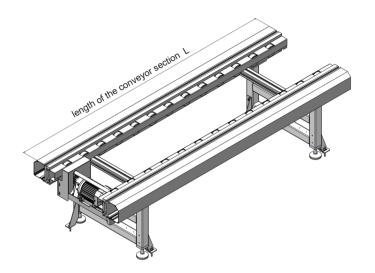
#### **Parameters**

Width of the workpiece pallet Bwt(mm)	240 ~ 1200
Length of the workpiece pallet Lwt(mm)	480 ~ 1200
Track length L(mm)	1000 ~ 6000
Nominal full-load speed Vn(m/min)	0,6,9,12,15
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	MR, MRM, L II, R II
Power connection	Terminal box
Roller spacing (mm)	160,200,250
Bevel gear mounting method	BG1, BG2

#### Schematic diagram



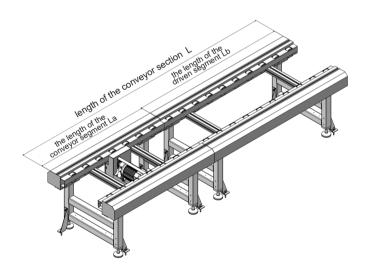




#### **RCR** conveyor section

Conveyor section consists of one conveyor unit

- · Solid and reliable
- · Easy to extend or adjust



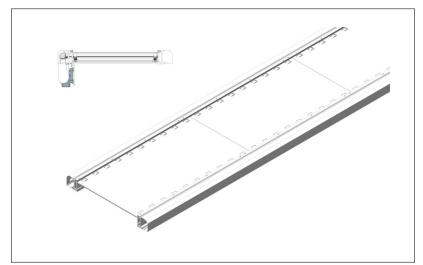
#### **RCR** conveyor section segmented

Conveyor section consists more than two segments, driven via king shaft

- · Combinable, easy to extend
- · Easy to transport
- · Easy to assembly
- · Segment length is a multiple of the roller spacing, for example, when roller spacing is 160, segment length could be 960, 1280 etc.



- Heavy-duty bevel gear rollers
  - Full-load speed not recommended to exceed 15m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - · Other frequency requirements on request



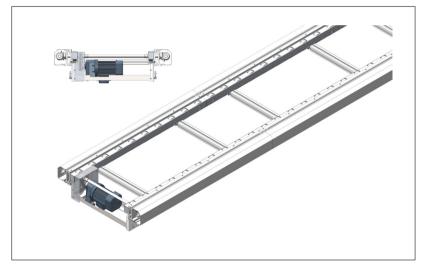
#### Cantilevered one-sided bevel gear drive:

Simple construction

Easy assembly (no code)



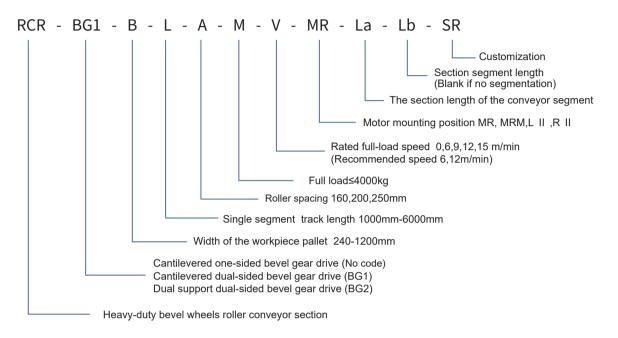
Compact construction, relative complex commissioning compare to one-sided drive (BG1)



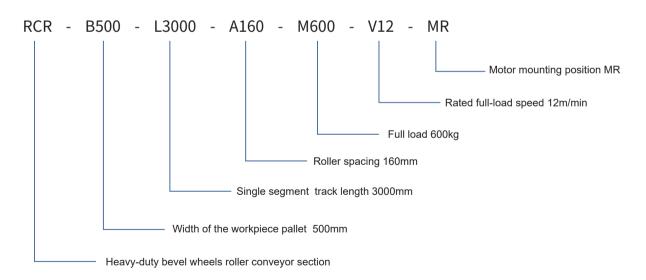
# Dual support dual-sided bevel gear drive:

More even force application Smoother operation (BG2)

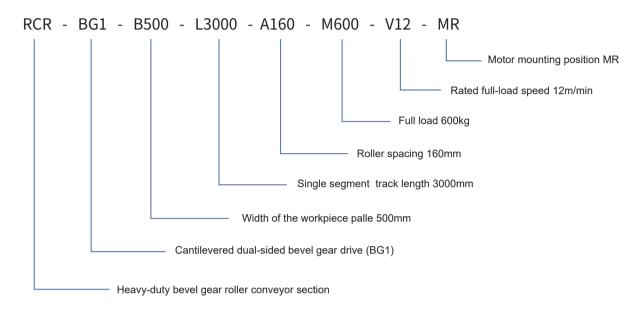




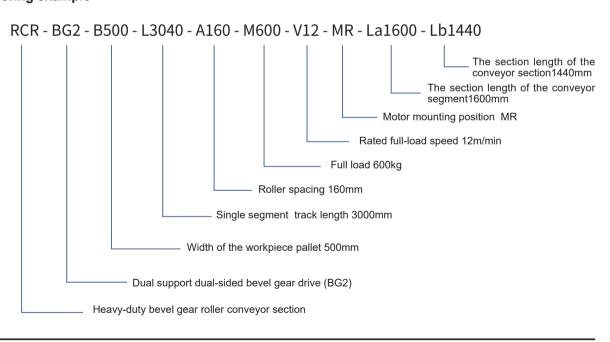
#### Ordering example



#### Ordering example



#### Ordering example











#### MG mobile gate

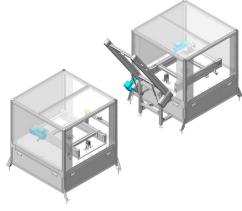
- The MG mobile gate allows manual opening of access to the interior of the conveyor section for maintenance or service purposes
- Length of the conveyor section L=width of the conveyor section Lc+500mm
- Total space requirement= width of the conveyor section Lc+535mm
- Combinable with TB, BC, RT conveyor etc.
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available



Bracket kits, Connection kits, Leg sets, Pneumatic springs, Mounting kits, Lock devices, Safety switch set,Bracket kits; Connection kits; Leg sets

#### Condition of delivery:

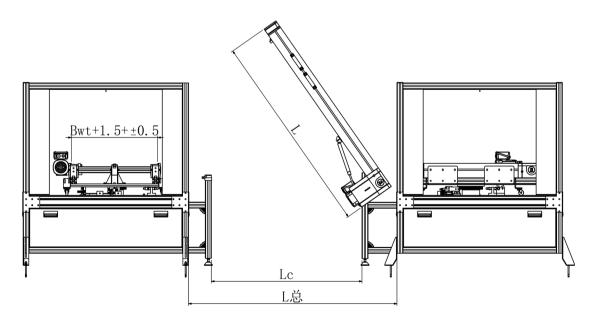
Delivery in parts

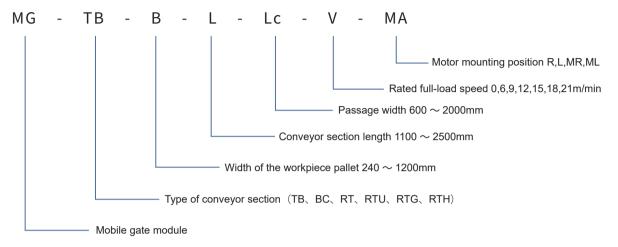


#### **Parameters**

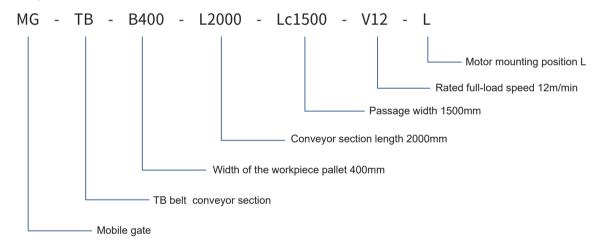
Width of the workpiece pallet Bwt(mm)	240 ~ 1200
Track length L(mm)	1100 ~ 2500
Width of passage Lc(mm)	600 ∼ 2000
Nominal full-load speed Vn(m/min)	0,6,9,12,15,18,21
Type of drives	Direct drive
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Motor mounting position	R,L,MR,ML

#### Schematic diagram





#### Ordering example

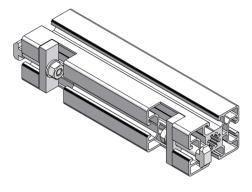




- Heavy-duty bevel gear rollers
  - Full-load speed not recommended to exceed 21m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - · Other power supply or voltage requirements on request
  - · Other frequency requirements on request







#### **CK-P** conveyor section crossbeam

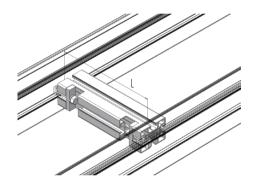
- · Made of 4560 aluminum profiles
- · Traverse fixture of conveyor tracks
- · Ensure parallelism of conveyor tracks
- Set crossbeams every 1000~1500 mm along conveyor section
- · Model number CK-P-L, figures behind L indicate length of the crossbeam

#### Scope of delivery:

Processed 4560 aluminum profiles, Fastening kits

#### Condition of delivery:

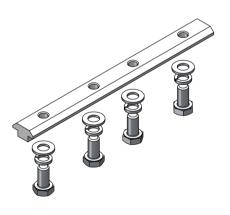
Assembled/ delivery in parts



#### Assembly schematic

Ordering Model	Description
CK-P-L	Conveyor section crossbeam

Ordering example	Description
CK-P-B320	Conveyor section crossbeam



#### DP-S1 longitudinal one-line connection kit

- · Used to connect two conveyor profiles more than six meters long, or special requirements to connect conveyor profiles longitudinally.
- · Used to ensure the deflection and stiffness of the longitudinal connection of the conveying section

Scope of delivery: Connectors, Fastening kits

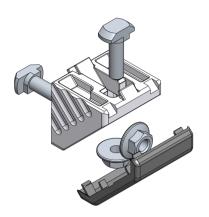
Condition of delivery: Assembled



#### **Assembly schematic**

Ordering Model	Description
DP-S1	Longitudinal connection kit





#### **Bracket connection kit**

- · For Rigid connection to leg sets and other profiles along conveyor section
- Ensure stability and reliability of the overall system
- When two profiles are connected sideways at the same time, only one corner connector is needed

#### Scope of delivery:

4545 corner connectors, T-bolts, Hexagonal flange nuts,

4545 corner connector cover

#### Condition of delivery:

Assembled/ delivery in parts



#### **Assembly schematic**

Ordering Model	Description	Ordering unit
DP-BR-KIT	Bracket kits	1
DP-BR	4545 corner connectors	100
DP-T	T-bolts	100
DP-BO	Hex flange nuts	100
DP-G	Corner connector covers	100

Труе	Fmax	Mmax	Mmax	Mmax
45/45	3000N	60N	160N	-



#### **Profile seal strips**

· Sealing profile channels, prevent dust and debris, maintain aesthetics

Scope of delivery: Seal strips Condition of delivery: Spare parts



#### Assembly schematic

Ordering Model	Description	Ordering unit
DP-P-BL	Profile seal strips, black, 2m	10
DP-P-GR	Profile seal strips, black, 2m	10



Non-standard customization available, call for inquiries.





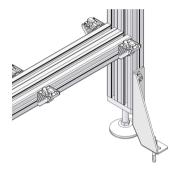


#### **Ground bracket kit**

- · Used to fix leg sets to the floor
- · Ensure stability and reliability of the overall system

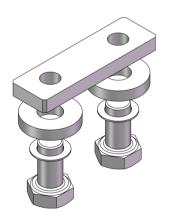
Scope of delivery: T-bolts, Hex flange nuts, Expansion Bolts

Condition of delivery: Delivery in parts



#### **Assembly schematic**

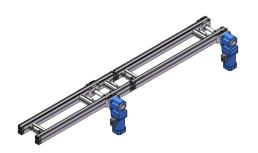
Ordering Model	Description	Ordering unit
DP-GR-KIT	Ground bracket kit	1
DP-GR	4545 corner connectors	100
DP-T	T-bolts	100
DP-BO	Hex flange nuts	100
DP-GBO	Expansion Bolts	100



#### D-R conveyor section connection kit

• Used to connect and secure drive head and drive tail to conveyor section longitudinally

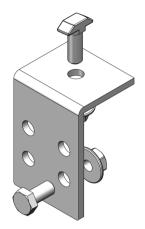
Scope of delivery: Connectors, Fastening kits Condition of delivery: Full set (Assembled)



#### Assembly schematic

Ordering Model	Description
D-R	Conveyor section connection kit

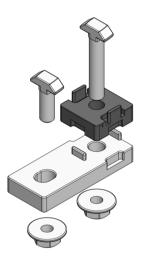




#### D-RS1 conveyor section connection kit

- Used to connect and secure drive head and drive tail to longitudinal conveyor section
- Used to connect and fix drive head and drive tail to conveyor section transversely

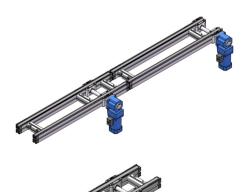
Scope of delivery: Connectors, Fastening kits Condition of delivery: Full set (Assembled)



#### D-RS2 conveyor section connection kit

- Used to connect and secure drive head and drive tail to conveyor section longitudinally
- Used to connect and fix drive head and drive tail to conveyor section transversely

Scope of delivery: Connectors, Fastening kits Condition of delivery: Full set (Assembled)





Ordering Model	Description
D-RS1	Conveyor section connection kit
D-RS2	Conveyor section connection kit



# Longitudinal conveyor section

		Drive head								
	ТВ	TBM	ВС	RT	RTU	RTG	RTH	СВ	CV	CU
Drive tail										
ТВ	D-RS2	D-R	D-RS1	D-RS2	D-RS2	D-RS2		D-RS2	D-RS2	D-RS1
TBM	D-RS2	D-R	D-RS1	D-RS2	D-RS2	D-RS2		D-RS2	D-RS2	D-RS1
ВС	D-RS1	D-RS1						D-RS1	D-RS1	D-RS1
RT	D-RS2	D-RS2		D-R	D-R	D-R	D-RS1		D-RS2	D-RS1
RTU	D-RS2	D-RS2		D-R	D-R	D-R	D-RS1		D-RS2	D-RS1
RTG	D-RS2	D-RS2		D-R	D-R	D-R	D-RS1		D-RS2	D-RS1
RTH	D-RS2	D-RS2		D-R	D-R	D-R	D-RS1			D-RS1
СВ	D-RS2	D-R	D-RS1	D-RS2	D-RS2	D-RS2	D-RS1	D-RS2	D-RS2	D-RS2
CV	D-R	D-R	D-RS1	D-RS2	D-RS2	D-RS2	D-RS1	D-R	D-R	D-R
CU	D-RS1	D-RS1	D-RS1	D-R	D-R	D-R	D-RS1	D-RS1	D-RS1	D-R

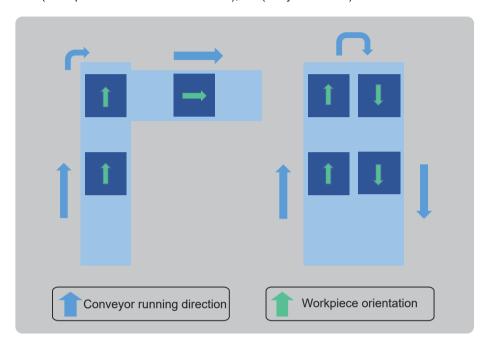
# Transverse conveyor section

	Conveyor section profiles		
	TB/TBM/BC	RT/RTU/RTG/RTH	
Drive end	D-RS2	D-RS2	
ТВ	D-RS2	D-RS2	
ТВМ	D-RS1	D-RS1	
BC	D-RS2	D-RS2	
RT	D-RS2	D-RS2	
RTU	D-RS2	D-RS2	
RTG	D-RS2	D-RS2	
RTH	D-RS2	D-RS2	
Rotary end			
ТВ	D-RS2	D-RS2	
ТВМ	D-RS2	D-RS2	
BC	D-RS1	D-RS1	
RT	D-RS2	D-RS2	
RTU	D-RS2	D-RS2	
RTG	D-RS2	D-RS2	
RTH	D-RS1	D-RS1	





- Curves are used to change the direction of a workpiece pallet and to keep the orientation of the workpiece (the front is always the front)
- Depending on the transport medium and function, we offer four types of curves: CB (toothed belts, without drive), CV (round belt, with and without drive), CU (flat top chains accumulable curves), TU (rotay unit curve)









CV90 round belt curve



CV180 round belt curve



CU90 arc curve



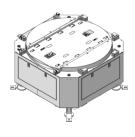
CUA180 arc curve



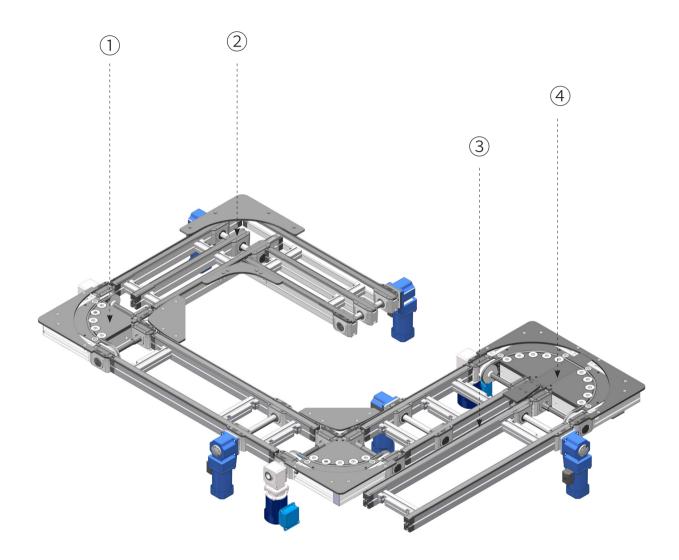
CUA180 arc curve



TU90 rotay unit



**TUH rotay unit** 



# CB/CV Curve modules

# Reference configuration

1.CV90 round belt ancillary curve	3.Standard toothed belt conveyor
2.CB toothed belt curve	4.CV180 round belt ancillary curve

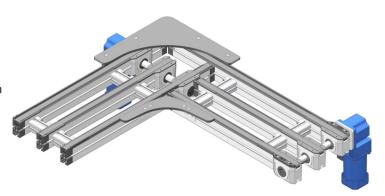






#### **CB** curve

- 90 degree curve
- No additional drive is necessary for the curve function
- · Workpiece pallet loads up to 60 kg
- · Conveyor medium: toothed belts, anti-static
- · Curve without accumulation operation
- Noise below 65 decibels
- · Non-standard customization available

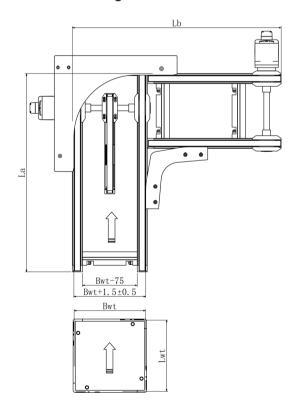


#### Recommended accessories:

Bracket kits; Connection kits; Leg sets, Workpiece pallet stopper, Workpiece pallet sensors Condition of delivery:

Full set (Assembled) / Delivery in parts

#### Schematic diagram

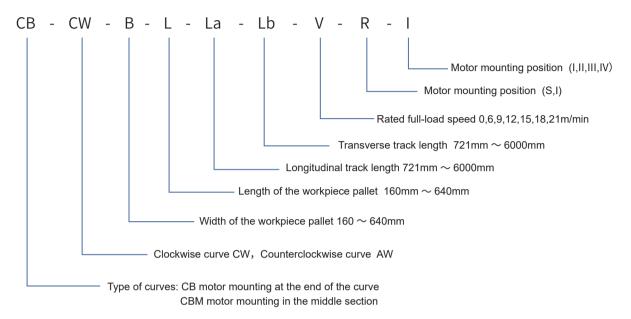


#### **Parameters**

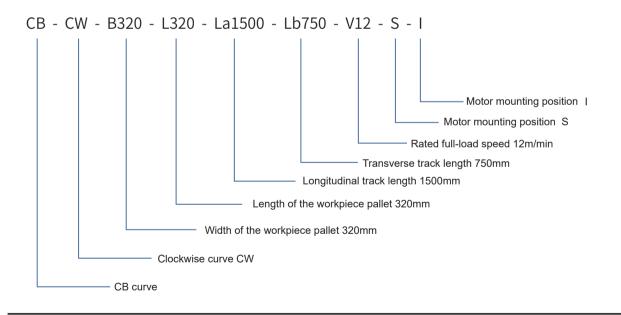
Bwt Width of the workpiece pallet(mm)	160 ~ 640
Lwt Length of the workpiece pallet(mm)	160 ~ 640
Bwt×Lwt Size combinations(mm)	160×160 ∼ 640×640
Rated full-load speed Vn(m/min)	0,6,9,12,15,18, 21
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Curve direction	CW= Clockwise, AW=Counterclockwise
Motor mounting position	S(outer side), I(inner side)
Motor mounting position	I, II, III, IV



- Full-load speed not recommended to exceed 21m/min
  - Vn=0 means without motor and without gear
  - · Nominal transportation speed configurable
  - Max. width 640mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request
  - Motor not available mounting in the middle of the conveyor section



#### Ordering example



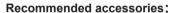






# CV90 round belt curve

- 90° curve
- · Suitable for oil-free environments
- · Workpice pallet loads up to 20kg
- · Conveyor medium: round belt, anti static
- Arc curve with not accumulation operation
- Noise below 65 decibels
- Motor mounted on the outer side (S),in conveyor mid-section (M)(Bwt ≥ 320mm)
- Non-standard customization available



Bracket kits; Connection kits; Leg sets;

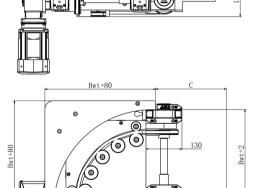
Workpiece pallet stopper;

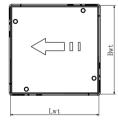
Workpiece pallet sensors

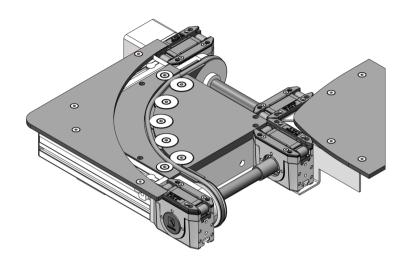
#### Condition of delivery:

Full set (Assembled) / Delivery in parts

#### Schematic diagram





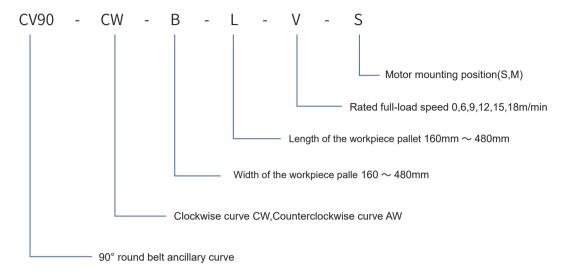


#### **Parameters**

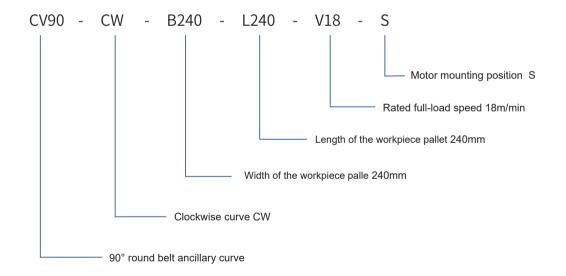
Bwt Width of the workpiece pallet(mm)	160 ~ 480
Lwt Length of the workpiece pallet(mm)	160 ~ 480
Bwt×Lwt Size combinations(mm)	160×160 ∼ 480×480
Rated full-load speed Vn(m/min)	0,6,9,12,15,18
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Curve direction	CW=Clockwise, AW=Counterclockwise
Motor mounting position	S, M



- Full-load speed not recommended to exceed 18m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 480mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request



#### Ordering example



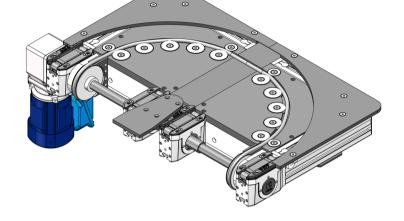






#### CV180 round belt ancillary curve

- 180° curve
- · Suitable for oil-free environments
- · Workpice pallet loads up to 20kg
- · Conveyor medium: round belt, anti static
- Arc curve with not accumulation operation
- Noise below 65 decibels
- Motor mounted on the outer side (S), in conveyor mid-section (M) (Bwt ≥ 320mm)
- · Non-standard customization available



#### Recommended accessories:

Bracket kits; Connection kits; Leg sets;

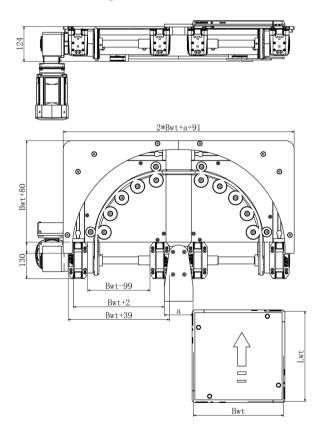
Workpiece pallet stopper;

Workpiece pallet sensors

#### Condition of delivery:

Full set (Assembled) / Delivery in parts

#### Schematic diagram

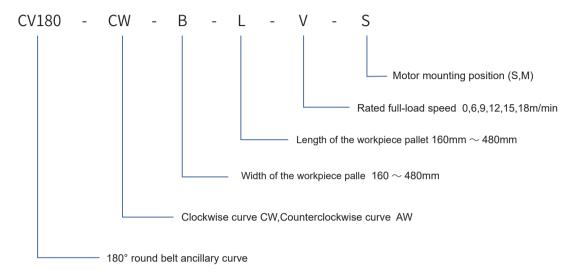


#### **Parameters**

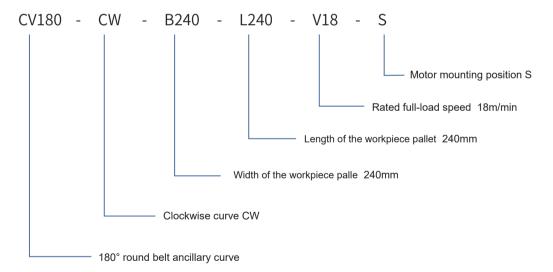
Bwt Width of the workpiece pallet(mm)	160 ~ 480
Lwt Length of the workpiece pallet(mm)	160 ~ 480
Bwt×Lwt Size combinations(mm)	160×160 ∼ 480×480
Rated full-load speed Vn(m/min)	0,6,9,12,15,18
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Curve direction	CW=Clockwise AW=Counterclockwise
Motor mounting position	S, M



- Full-load speed not recommended to exceed 18m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 480mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - · Other frequency requirements on request



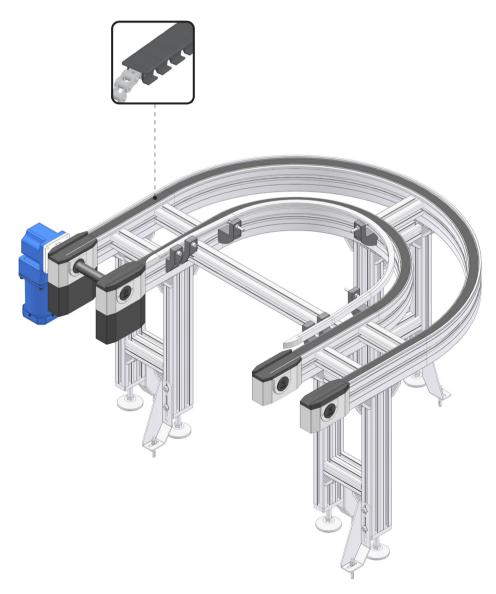
#### Ordering example





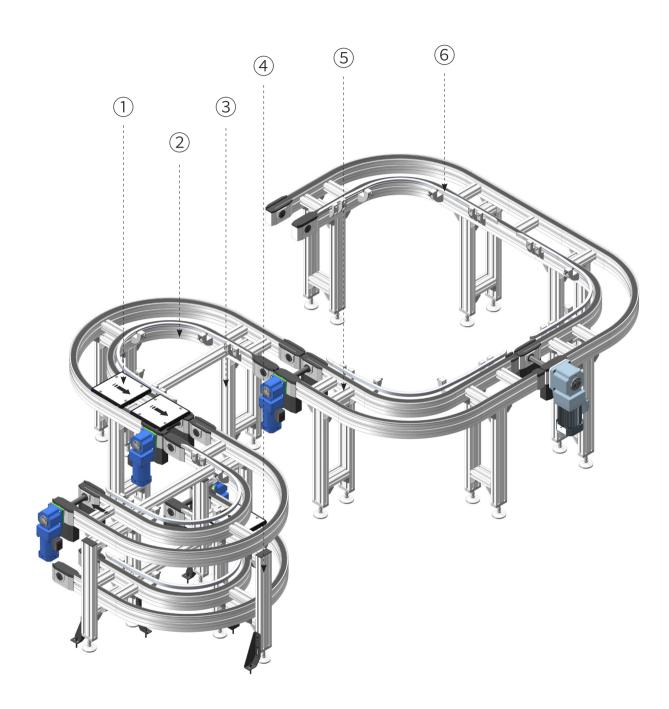
# **Arc curve Conveyor**

- Conveyor medium: flat top chains, anti-static
- Suitable for oil-free environments, curve with accumulation operation, without occupying production beat;
- Workpice pallet loads up to 90kg;
- Can be combined with curve modules, lift transverse units, rotary modules, and other control modules to provide solutions for different production layouts
- Applications: automation assembly and testing of new energy motors, car parts, new energy cell modules,
   3C etc..





- Independent motor drive
- Please note that in the case of non-square workpiece pallets, the shorter side determines the permissible workpiece pallet loading weight



# Reference configuration

1. Workpiece pallet	4. Two-tier leg set
2. CUA180 curve	5. CU90 curve
3. Single layer leg set	6. CUA180 curve











# CU90 curve

- Independent motor drive
- Curve with accumulation operation, without occupying production beat
- · Suitable for oil-free environments
- · Workpice pallet loads up to 90kg
- · Conveyor medium: flat top chains, anti-static
- · Reverse conveying not possible
- Noise below 63 decibels
- Motor mounted on the left side (L) or right side (R) of the conveyor section in direction of transport
- Non-standard customization available

# Recommended accessories:

Bracket kits; Connection kits; Leg sets;

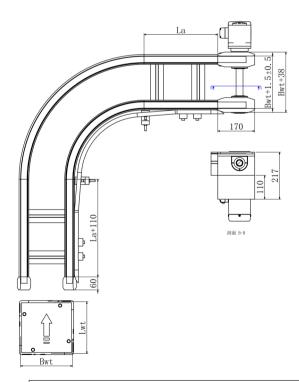
Workpiece pallet stopper;

Workpiece pallet sensors

# Condition of delivery:

Full set (Assembled) / Delivery in parts

# Schematic diagram



Lwt and La combinations							
Lwt	≤ 240	≤ 320	≤ 400	≤ 480	≤ 640	≤ 800	≤ 1040
La	340	420	500	580	505	640	860

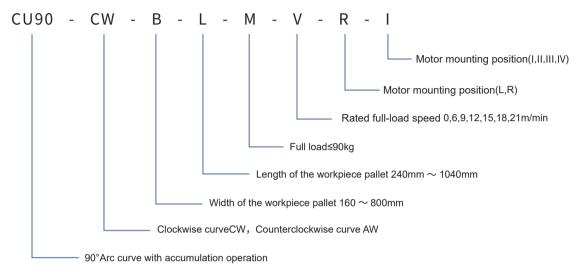


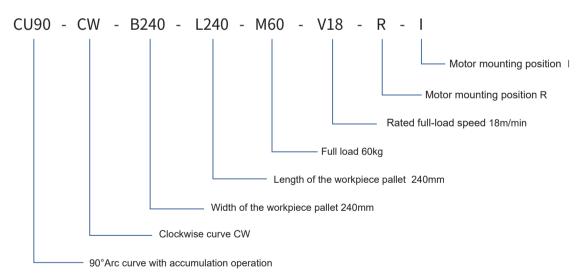
# **Parameters**

Bwt Width of the workpiece pallet(mm)	160 ~ 800
Lwt Length of the workpiece pallet(mm)	240 ~ 1040
	160×240; 320
	240×240; 320; 400
Bwt×Lwt	320×240; 320; 400; 480
Size combination(mm)	400×240; 320; 400; 480; 640
(Common Specification)	480×320; 400; 480; 640; 800
	640×400; 480; 640; 800; 1040
	800×480; 640; 800; 1040
Rated full-load speed Vn(m/min)	0,6,9,12,15,18,21
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Curve direction	CW=Clockwise, AW=Counterclockwise
Motor mounting position	L, R
Motor mounting position	I , II , III , IV
Recommended motor power(W)	200,250,370
Exterior Guardrail	when Lwt≥ 640mm



- Arc curve with accumulation operation
- Full-load speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 800mm, size available every 20mm
- · Other power supply or voltage requirements on request
- Other frequency requirements on request















# CU90 curve with accumulation operation (non-standard product)

- · Independent motor drive
- Curve with accumulation operation, without occupying production beat
- · Workpice pallet loads up to 90kg
- · Conveyor medium: flat top chains, anti-static
- Reverse conveying not possible
- · Noise below 65 decibels
- Motor mounted on the left side (L) or right side (R) of the conveyor section in direction of transport
- · Non-standard customization available

# Recommended accessories:

Bracket kits; Connection kits; Leg sets;

Workpiece pallet stopper;

Workpiece pallet sensors

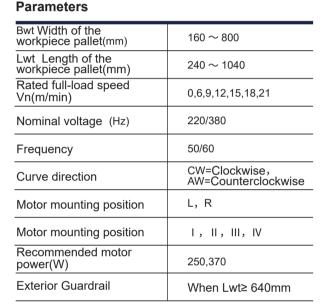
# Condition of delivery:

Full set (Assembled) / Delivery in parts

# 

La, Lb non-standard customization available
340 ≤ La ≤ 2000
340 ≤ Lb ≤ 2000



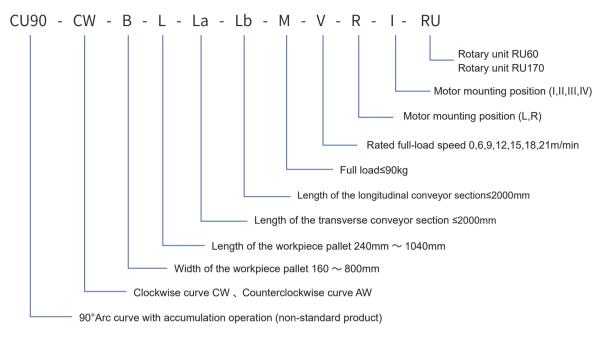


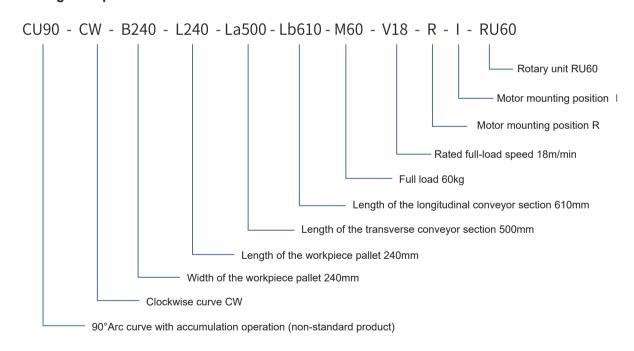
Choose 60mm When 500 ≤difference between La+Lb and standard value≤ 1000, and M ≤ 80kg

Choose 170mm When difference between La+Lb and standard value > 1000, and M > 80kg



- Arc curve with accumulation operation
- Full-load speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- · Nominal transportation speed configurable
- Max. width 800mm, size available every 20mm
- · Other power supply or voltage requirements on request
- · Other frequency requirements on request















# CUA180 curve with accumulation operation

- · Independent motor drive
- · Curve with accumulation operation, without occupying production beat
- Suitable for oil-free environments
- · Workpice pallet loads up to 90kg
- · Conveyor medium: flat top chains, anti-static
- · Reverse conveying not possible
- Noise below 65 decibels
- Motor mounted on the left side (L) or right side (R) of the conveyor section in direction of transport
- · Non-standard customization available

# Recommended accessories:

Bracket kits; Connection kits; Leg sets;

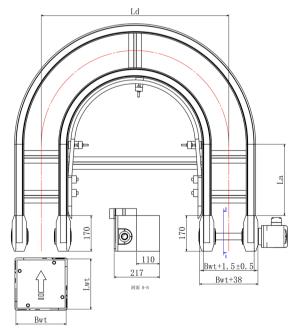
Workpiece pallet stopper;

Workpiece pallet sensors

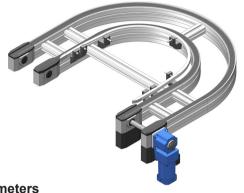
# Condition of delivery:

Full set (Assembled) / Delivery in parts

# Schematic diagram



Lwt and La combinations							
Lwt	≤ 240	≤ 320	≤ 400	≤ 480	≤ 640	≤ 800	≤ 1040
La	340	420	500	580	505	640	860



Parameters	
Bwt Width of the workpiece pallet(mm)	160 ~ 800
Lwt Length of the workpiece pallet(mm)	240 ~ 1040
	160×240; 320
	240×240; 320; 400
Bwt×Lwt	320×240; 320; 400; 480
Size combination(mm) (Common Specification)	400×240; 320; 400; 480; 640
(Common Opecinication)	480×320; 400; 480; 640; 800
	640×400; 480; 640; 800; 1040
	800×480; 640; 800; 1040
Rated full-load speed Vn(m/min)	0,6,9,12,15,18,21
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Curve direction	CW=Clockwise, AW=Counterclockwise
Motor mounting position	L,R
Motor mounting position	I , II , III , IV
Recommended motor power(W)	200,250,370
Exterior guardrail	When Lwt≥ 640mm

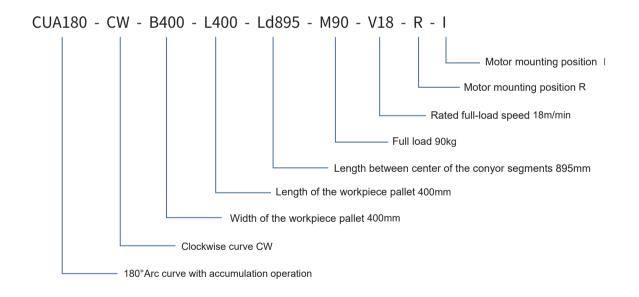


- Arc curve with accumulation operation
- Full-load speed not recommended to exceed 21m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 800mm, size available every 20mm
- Other power supply or voltage requirements on request
- · Other frequency requirements on request

# Ordering number description CUA180 - CW - B - L - Ld - M - V - R - I Motor mounting position(I,II,III,IV) Motor mounting position(L,R) Rated full-load speed 0,6,9,12,15,18,21m/min Full load ≤90kg Length between center of the conyor segments≥895mm;≤2000mm Length of the workpiece pallet 240mm ~ 1040mm Width of the workpiece pallet 160 ~ 800mm Clockwise curve CW, Counterclockwise curve AW

# Ordering example

180°Arc curve with accumulation operation













# CUA180 curve with accumulation operation

- · Independent motor drive
- · Curve with accumulation operation, without occupying production beat
- Suitable for oil-free environments
- · Workpice pallet loads up to 90kg
- · Conveyor medium: flat top chains, anti-static
- · Reverse conveying not possible
- Noise below 65 decibels
- Motor mounted on the left side (L) or right side (R) of the conveyor section in direction of transport
- · Non-standard customization available

# Recommended accessories:

Bracket kits; Connection kits; Leg sets;

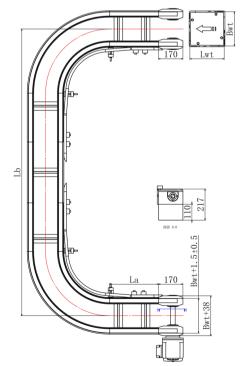
Workpiece pallet stopper;

Workpiece pallet sensors

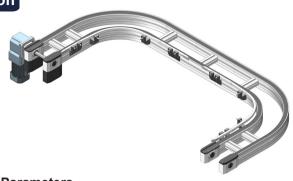
# Condition of delivery:

Full set (Assembled) / Delivery in parts

# Schematic diagram



Lwt and La combinations							
Lwt	≤ 240	≤ 320	≤ 400	≤ 480	≤ 640	≤ 800	≤ 1040
La	340	420	500	580	505	640	860

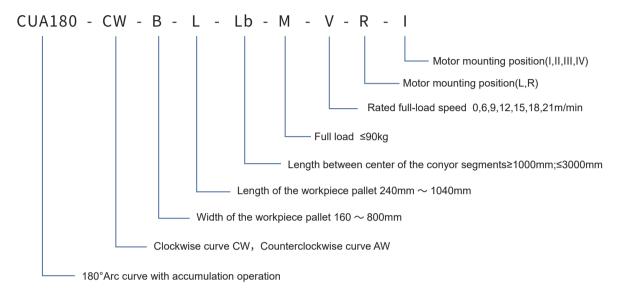


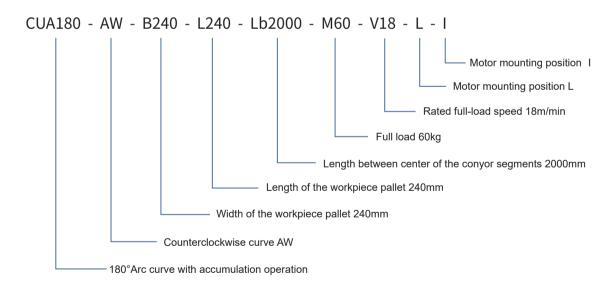
# **Parameters**

Bwt Width of the workpiece pallet(mm)	160 ~ 800
Bwt Length of the workpiece pallet(mm)	240 ~ 1040
	160×240; 320
	240×240; 320; 400
Bwt×Lwt	320×240; 320; 400; 480
Size combination(mm) (Common Specification)	400×240; 320; 400; 480; 640
(Common Specification)	480×320; 400; 480; 640; 800
	640×400; 480; 640; 800; 1040
	800×480; 640; 800; 1040
Rated full-load speed Vn(m/min)	0,6,9,12,15,18,21
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Curve direction	CW=Clockwise, AW=Counterclockwise
Motor mounting position	L,R
Motor mounting position	I , II , III , IV
Recommended motor power(W)	200,250,370
Exterior Guardrail	When Lwt≥ 640mm



- Arc curve with accumulation operation
- Full-load speed not recommended to exceed 25m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 800mm, size available every 20mm
- Other power supply or voltage requirements on request
- · Other frequency requirements on request











# TU90° rotay unit

- 90° rotation
- Suitable for oil-free environments
- · Workpice pallet loads up to 120kg
- Note that the height of the rotary unit H ≥ h+ workpiece pallet and workpiece total height h1+100
- · Conveyor medium: accumulation roller chain, anti-static
- Curve with not accumulation operation
- Standard cylinder rotation or motor rotation
- Motor mounted on the inner side of the conveyor section in direction of transport
- Non-standard customization available

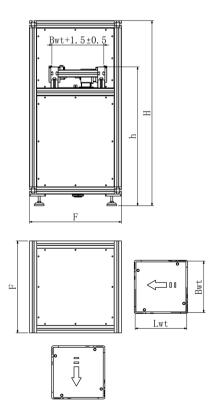
# Recommended accessories:

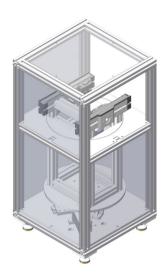
Workpiece pallet stopper; Workpiece pallet sensors

# Condition of delivery:

Full set (Assembled) / Delivery in parts

# Schematic diagram

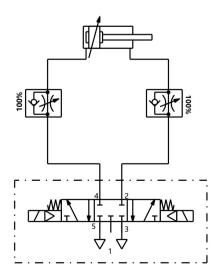


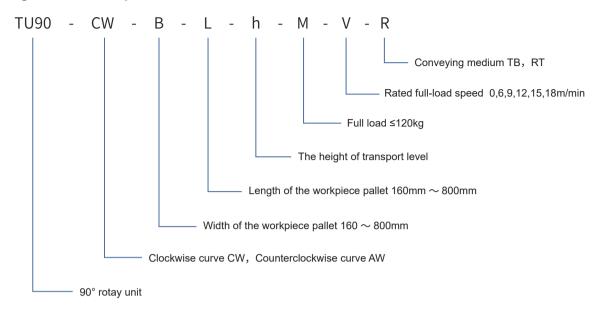


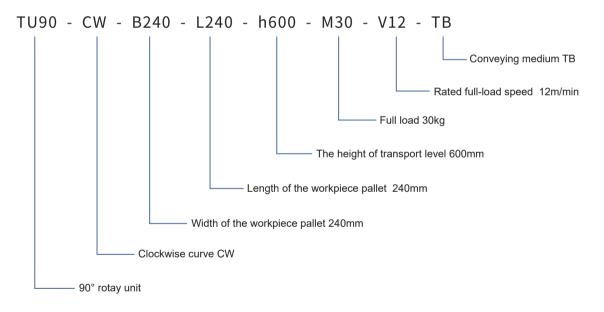
# **Parameters**

Bwt Width of the workpiece pallet(mm)	160 ~ 800
Lwt Length of the workpiece pallet(mm)	160 ~ 800
Bwt×Lwt Size combination(mm)	160×160 ∼ 800×800
Rated full-load speed Vn(m/min)	0,6,9,12,15,18
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Curve direction	CW=Clockwise, AW=Counterclockwise
Motor mounting position	M( mounted on the inner side )

# **Electrical diagram**









- Full-load speed not recommended to exceed 18m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 800mm, size available every 20mm
  - When B < 240mm, Please confirm with Rulertech engineers
  - Other power supply or voltage requirements on request
  - · Other frequency requirements on request









# **TUH rotay unit**

- · Independent motor drive
- · Anti-static, without accumulation operation
- Conveyor medium:antic static rollers, max. permissible loads up to 240kg
- Bevel gear rollers,max. permissible loads up to 600kg
- Reverse conveying possible
- Allows the workpiece pallet to be turned 90° or 180° while its conveying direction remains unchanged
- Power connection either with cable/ plug (AT=S) or terminal box (AT=K)
- Non-standard customization available

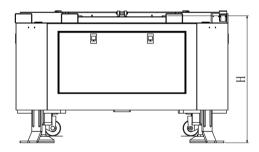
# Recommended accessories:

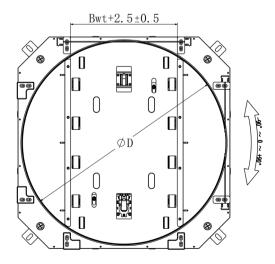
Bracket kits; Connection kits; Leg sets,

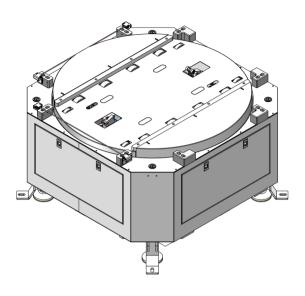
# Condition of delivery:

Full set (Assembled) / Delivery in parts

# Schematic diagram





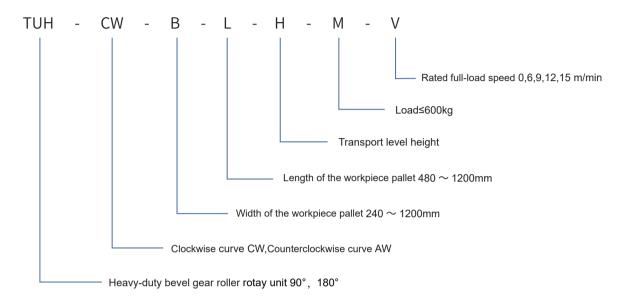


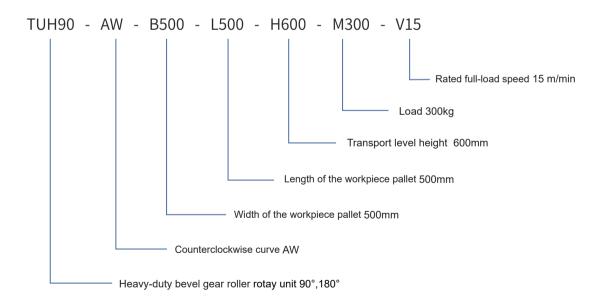
# **Parameters**

Width of the workpiece pallet Bwt(mm)	240 ~ 1200
Length of the workpiece pallet Lwt(mm)	480 ~ 1200
Transport level height H	Customized with conveyor units
The type of turn drive	Motor drive, Cylinder drive
Rated full-load speed Vn(m/min)	0,6,9,12,15
Nominal voltage (V)	220/380
Frequency (Hz)	50/60
Power connection	Terminal box
Roller spacing(mm)	160,200,250
Bevel gear mounting method	BG1, BG2
Rotation direction	CW(Clockwise), AW(Counterclockwise)
	·



- Heavy-duty bevel gear rollers or anti-static rollers
  - Full-load speed not recommended to exceed 15m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - · Other frequency requirements on request







# Lift transverse modules RULERTECH

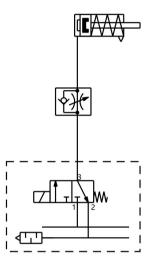
- Also called transverse conveyor unit, it changes the conveying direction of the workpiece pallet and also to create a branch in the pallet path to the individual processing stations
- Lift transverse units move vertically and horizontally
- Carrying loads up to 240KG
- Main categories: HT standard series, HTM medium-load series, HTH heavy-lead series





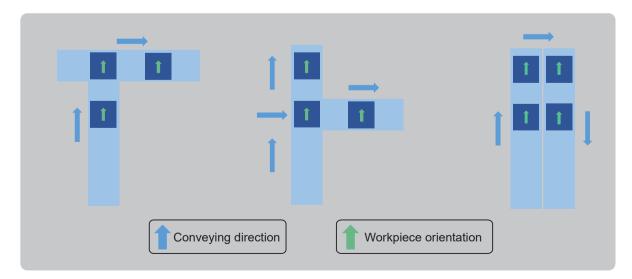
# **Vertical movement**

- The vertical movement can be positioned in two positions:
   Lower transport position (15 mm below transport level). In this low position a workpiece pallet is also released onto a longitudinal conveyor section when the lug cam is raised.
  - Higher transverse conveying position (10 mm above transport level of longitudinal conveyor), in this position, workpiece pallet is locked on the transverse unit to finish the transverse movement.
- Electrical schematic diagram



# **Horizontal movement**

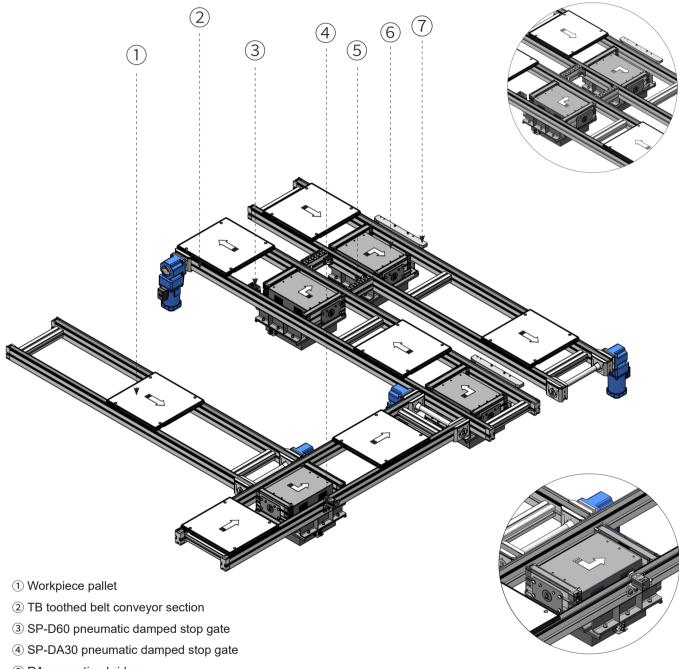
- Lift transverse unit moves workpiece pallet from longitudinal conveyor section to transverse section and vice
- Two lift transverse units combined can move and transfer pallet between two parallel conveyor section
- Workpiece orientation remains unchanged during transverse movement or transition between two parallel conveyor sections



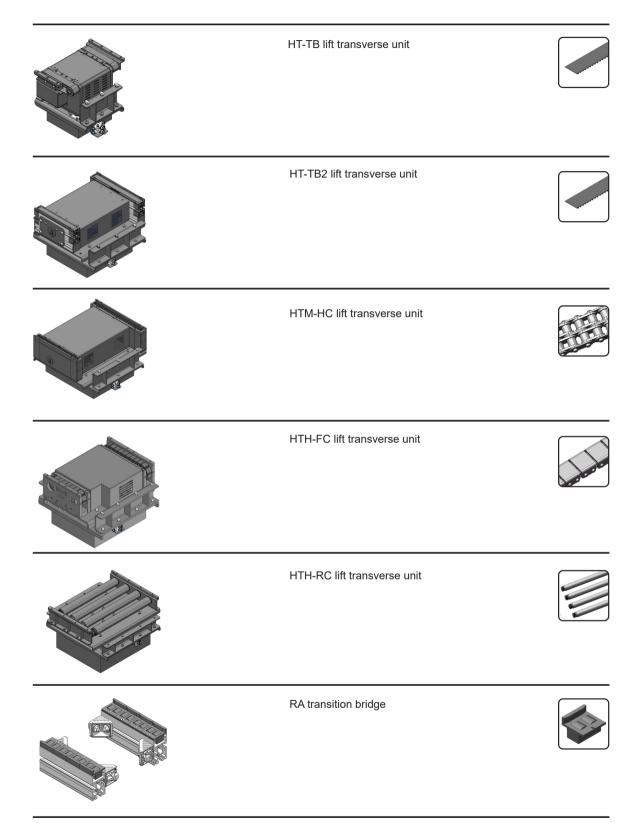


# Lift transverse units configuration schematic

- Can be combined with stop gate to realize transition from transverse section to longitudinal section;
- · Can be combined with connection bridge when parallel transverse sections are used with lift transverse units;
- · Multi-directional transportation of workpiece pallet, reducing transport time and improving productivity



- **⑤** RAconnection bridge
- 6 HT-TB2 lift transverse
- 7 SP-S rocker











# **HT-TB lift transverse unit**

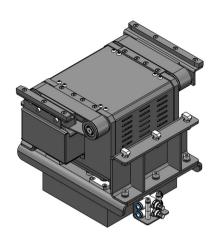
- · Lift transverse unit moves workpiece pallet from longitudinal conveyor section to transverse section and vice versa
- · Suitable for oil-free environments
- Workpiece pallet loads up to 25KG
- · Conveyor medium: Belt, anti-static
- Transfer one pallet at a time
- · Reverse transportation possible, two-way transportation
- Non-standard customization available



SP-N standard stop gate; SP-W one-directional stop gate; SP-R return stop gate; SP-DA30 two-directional stop gate;SP-S rocker;RA connection bridge

# Condition of delivery:

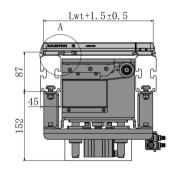
Full set (Assembled) / Delivery in parts

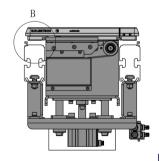


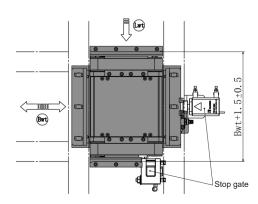
# **Parameters**

Bwt(mm) Width of the workpiece pallet	240 ~ 320
Lwt(mm) Length of the workpiece pallet	240 ~ 320
Bwt(mm)×Lwt(mm) Size combinations	240×240 ~ 320×320
Rated full-load speed Vn(m/min)	0,6,9,12,15,18
Nominal voltage(V)	220/380
Frequency (Hz)	50/60

# Schematic diagram





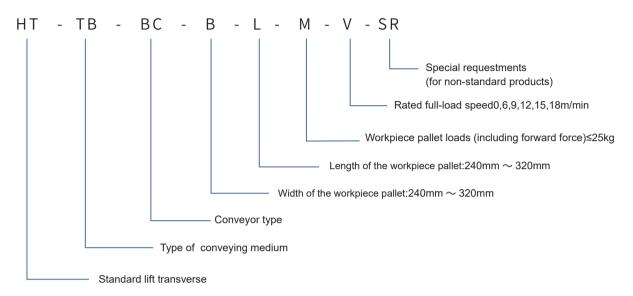


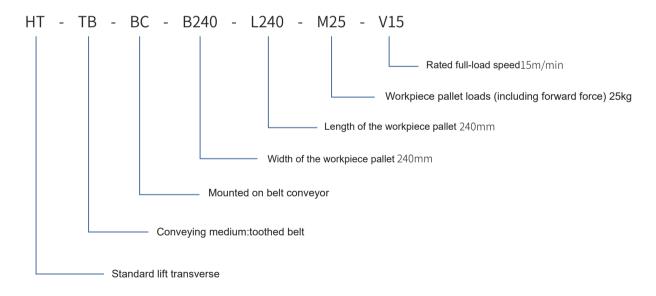


View A enlarged



- Full-load speed not recommended to exceed 18m/min
- Vn=0 means without motor and without gear
- · Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Max. length 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- · Other frequency requirements on request













# **HT-TB2 lift transverse unit**

- Lift transverse unit moves workpiece pallet from longitudinal conveyor section to transverse section and vice versa
- · Suitable for oil-free environments
- · Workpiece pallet loads up to 60KG
- · Conveyor medium: Toothed belt, anti-static
- Transfer one pallet at a time
- Reverse transportation possible, two-way transportation
- Non-standard customization available

# Recommended accessories:

SP-N standard stop gate;SP-W one-directional stop gate;SP-R return stop gate;SP-D60 pneumatic stop gate;SP-DA30 two-directional stop gate;SP-DA100 two-directional stop gate;SP-S rocker;RA connection bridge

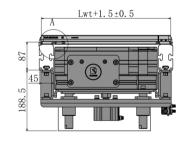
# Condition of delivery:

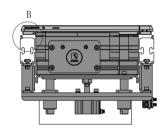
Full set (Assembled) / Delivery in parts

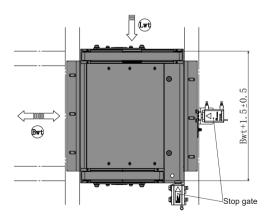
# **Parameters**

Bwt(mm) Width of the workpiece pallet	340 ~ 640
Lwt(mm) Length of the workpiece pallet	340 ∼ 640
Bwt(mm)×Lwt(mm) Size combinations	340×340 ∼ 640×640
Rated full-load speed Vn(m/min)	0,6,9,12,15,18
Nominal voltage (V)	220/380
Frequency(Hz)	50/60

# Schematic diagram





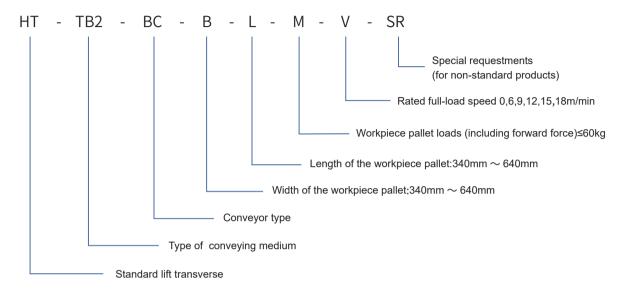


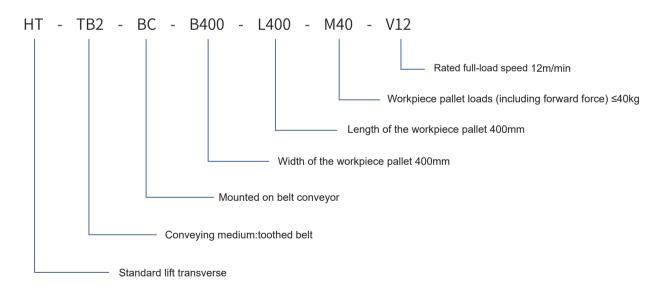






- Full-load speed not recommended to exceed 18m/min
- Vn=0 means without motor and without gear
- · Nominal transportation speed configurable
- Max. width 640mm, size available every 20mm
- Max. length 640mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request







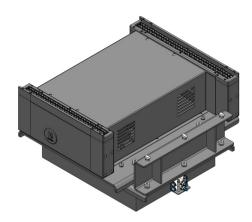






# **HTM-HC lift transverse unit**

- Lift transverse unit moves workpiece pallet from longitudinal conveyor section to transverse section and vice versa
- · Suitable for oily environments
- Workpiece pallet loads up to 120KG
- · Conveyor medium:duplex chain, anti-static
- · Transfer one pallet at a time
- Reverse transportation possible, two-way transportation
- Non-standard customization available



# Recommended accessories:

SP-N standard stop gate; SP-W one-directional stop gate; SP-R return stop gate; SP-D60 pneumatic stop gate; SP-D100pneumatic stop gate; SP-D200pneumatic stop gate; SP-DA100two-directional stop gate; SP-S rocker; RA connection bridge

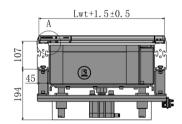
# Condition of delivery:

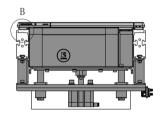
Full set (Assembled) / Delivery in parts

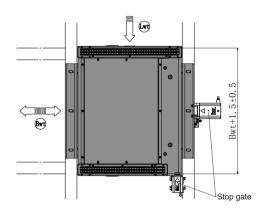
# **Parameters**

Bwt(mm) Width of the workpiece pallet	400 ~ 640
Lwt(mm) Length of the workpiece pallet	400 ~ 640
Bwt(mm)×Lwt(mm) Size combinations	400×400 ∼ 640×640
Rated full-load speed Vn(m/min)	0,6,9,12,15,18
Nominal voltage (V)	220/380
Frequency(Hz)	50/60

# Schematic diagram





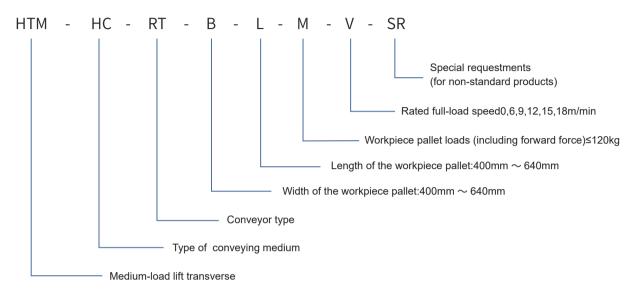


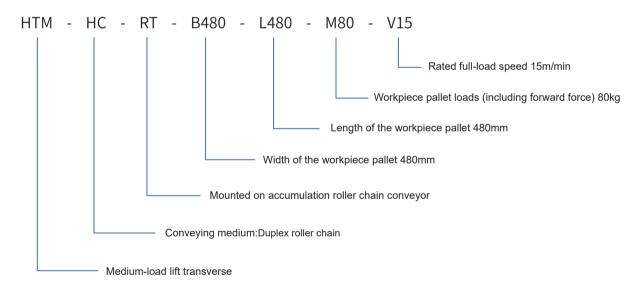






- Full-load speed not recommended to exceed 18m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 640mm, size available every 20mm
- Max. length 640mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request













# **HTH-FC lift transverse unit**

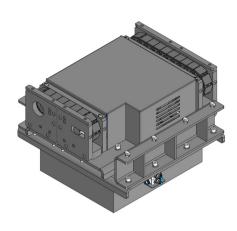
- Lift transverse unit moves workpiece pallet from longitudinal conveyor section to transverse section and vice versa
- · Suitable for oily environments
- Workpiece pallet loads up to 240KG
- Conveyor medium: flat top duplex roller chain, anti-static
- Transfer one pallet at a time
- Reverse transportation possible, two-way transportation
- Non-standard customization available



SP-N standard stop gate; SP-W one-directional stop gate; SP-R return stop gate; SP-D60 pneumatic stop gate; SP-D100pneumatic stop gate; SP-D200pneumatic stop gate; SP-DA100two-directional stop gate; SP-S rocker; RA connection bridge

# Condition of delivery:

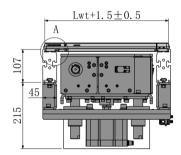
Full set (Assembled) / Delivery in parts

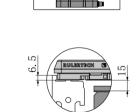


# **Parameters**

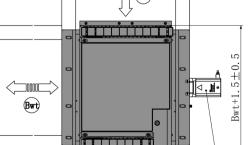
Bwt(mm) Width of the workpiece pallet	400 ~ 640
Lwt(mm) Length of the workpiece pallet	400 ~ 640
Bwt(mm)×Lwt(mm) Size combinations	400×400 ∼ 640×640
Rated full-load speed Vn(m/min)	0,6,9,12,15,18
Nominal voltage (V)	220/380
Frequency(Hz)	50/60

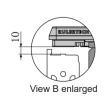
# Schematic diagram





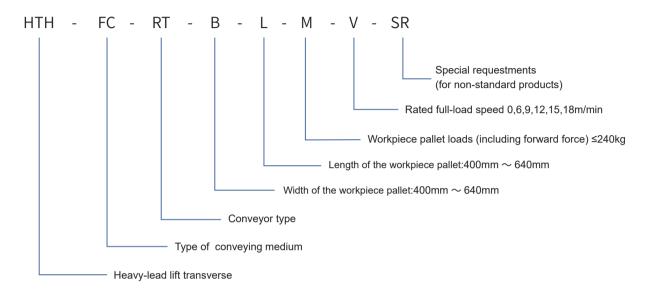
View A enlarged

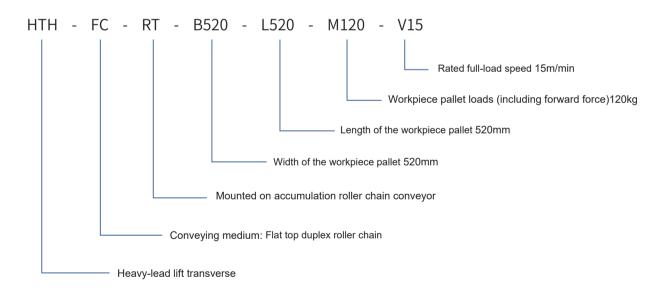




Stop gate

- Full-load speed not recommended to exceed 18m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 640mm, size available every 20mm
- Max. length 640mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request













# **HTH-RC lift transverse unit**

- Lift transverse unit moves workpiece pallet from longitudinal conveyor section to transverse section and vice versa
- · Suitable for oily environments
- · Workpiece pallet loads up to 240KG
- · Conveyor medium: Rollers
- Transfer one pallet at a time
- Reverse transportation possible, two-way transportation
- Non-standard customization available

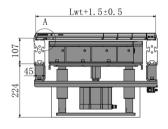


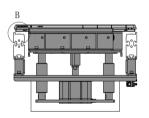
SP-N standard stop gate;SP-W one-directional stop gate; SP-R return stop gate;SP-D100pneumatic stop gate;SP-D200pneumatic stop gate;SP-DA100two-directional stop gate;SP-S rocker;RA connection bridge

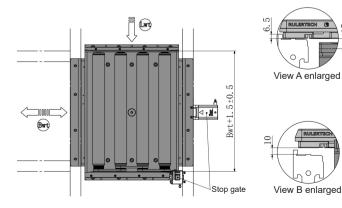
# Condition of delivery:

Full set (Assembled) / Delivery in parts

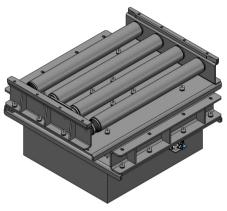
# Schematic diagram









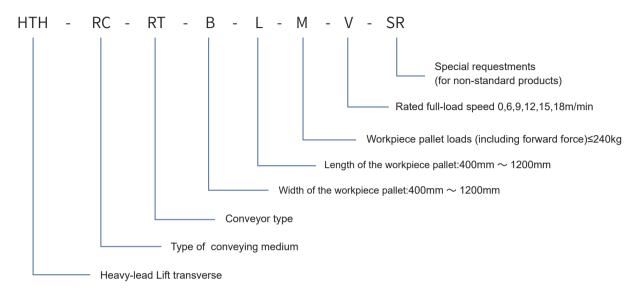


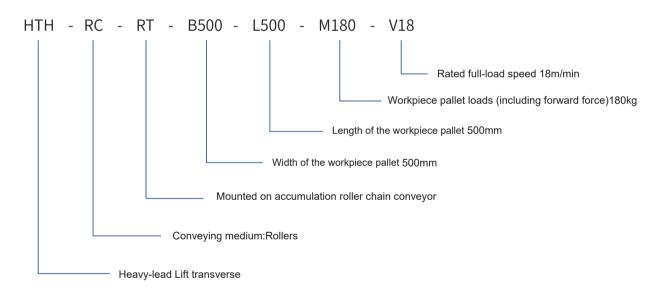
# **Parameters**

Bwt(mm) Width of the workpiece pallet	400 ~ 1200
Lwt(mm) Length of the workpiece pallet	400 ~ 1200
Bwt(mm)×Lwt(mm) Size combinations	400×400 ∼ 1200×1200
Rated full-load speed Vn(m/min)	0,6,9,12,15,18
Nominal voltage(V)	220/380
Frequency (Hz)	50/60



- Full-load speed not recommended to exceed 18m/min
- Vn=0 means without motor and without gear
- · Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Max. length 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request



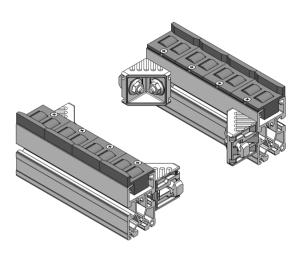










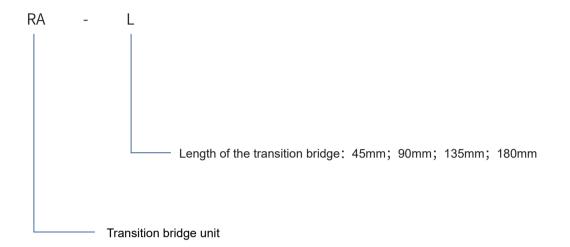


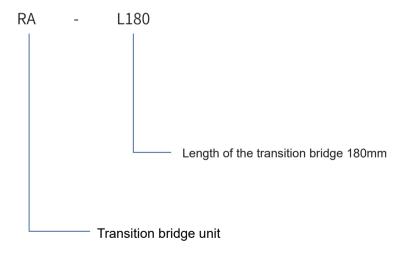
# **RA** transition bridge

- Used with two lift transverse units to transfer workpiece pallet between two parallel conveyor sections
- Workpiece pallet loads up to 240KG
- Anti-static
- No additional drive
- Suitable for oily environments
- Conveying medium: Transition rollers
- Four standard specifications:45mm、90mm、135mm、 180mm
- Non-standard customization available

Recommended accessories: Corner connector kit

# Schematic diagram Bwt+1. $5 \pm 0.5$ Bwt-7586

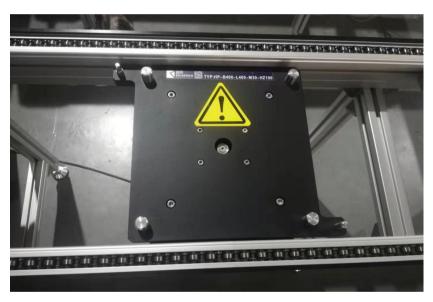


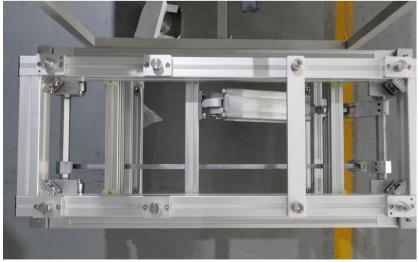


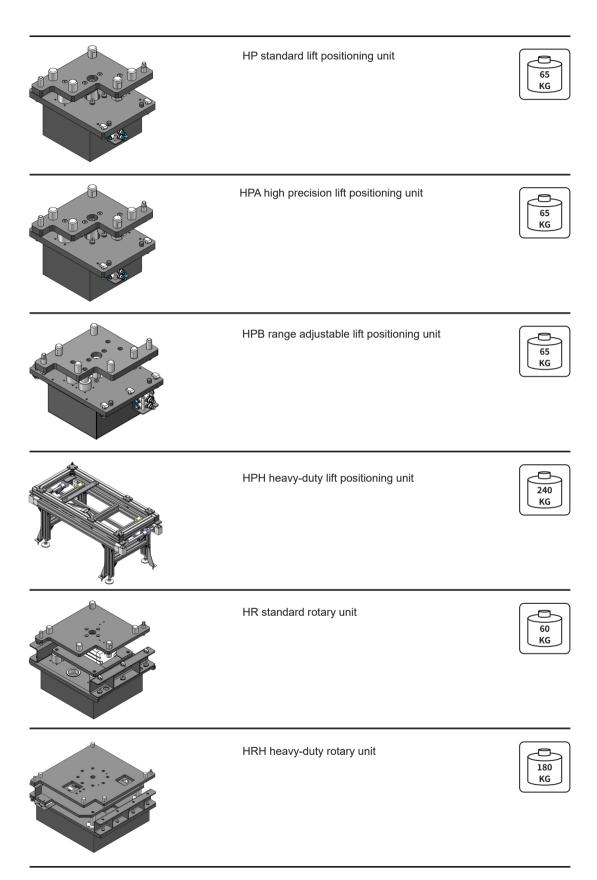


# Lift positioning modules RULERTECH MAGAZITY YOUR POOLAGEO

- For positioning a workpiece pallet in a processing station that requires a high degree of positioning accuracy
- Max. permissible loads up to 240KG, max. accuracy ±0.05mm
- Rulertech offers following lift position modules:
  - ·HP standard lift position module
  - ·HPA high precision lift position module
  - ·HPB stroke range adjustable lift position module
  - ·HPH heavy-duty lift position module













# **HP** standard lift positioning unit

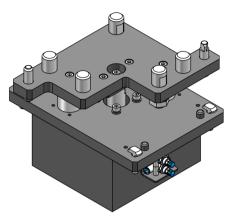
- Repetition accuracy ±0.1mm
- Workpiece pallet loads(including forward force) up to 65kg
- Lift positioning one pallet at a time
- Lift the workpiece pallet 3mm over transport level
- Non-standard customization available



SP-N standard stop gate;SP-W one-directional stop gate; SP-R return stop gate;SP-D60pneumatic stop gate;SP-D100pneumatic stop gate;SP-DA100two-directional stop gate;SP-S rocker

# Condition of delivery:

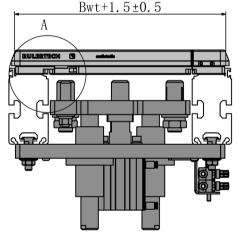
Full set (Assembled) / Delivery in parts

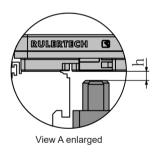


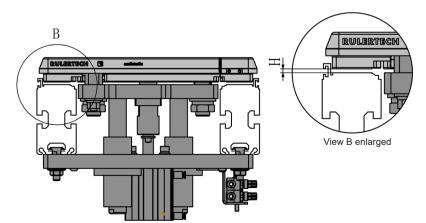
# **Parameters**

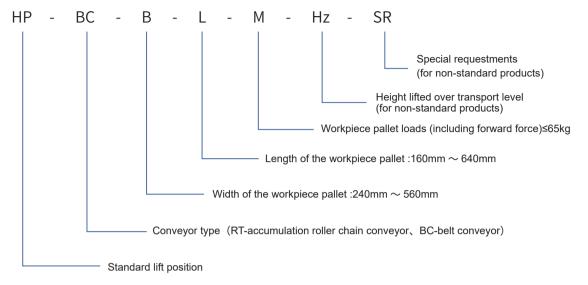
Bwt(mm) Width of the workpiece pallet	240 ~ 560
Lwt(mm) Length of the workpiece pallet	160 ~ 640
Bwt(mm) × Lwt(mm) Size combinations	240×160 ~ 560×640

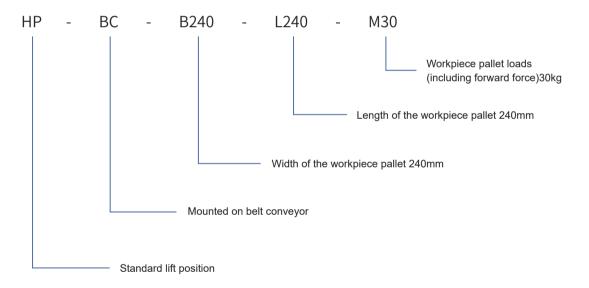
# Schematic diagram













- Non-standard customization available when loads and forward force exceeds 65KG
- Non-standard customization for special stroke range requirements
- Non-standard customization available
- Max. width 560mm, size available every 20mm
- Max. length 640mm, size available every 20mm
- Other frequency requirements on request







# **HPA** high precision lift positioning unit

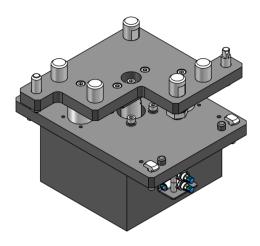
- Repetition accuracy ±0.05mm, used with dowel pin and workpiece pallet position bushing
- Workpiece pallet loads(including forward force) up to 65kg
- · Lift positioning one pallet at a time
- Lift the workpiece pallet 3mm over transport level
- Non-standard customization available



SP-N standard stop gate;SP-W one-directional stop gate; SP-R return stop gate;SP-D60pneumatic stop gate;SP-D100pneumatic stop gate;SP-DA30two-directional stop gate;SP-DA100two-directional stop gate;SP-S rocker

# Condition of delivery:

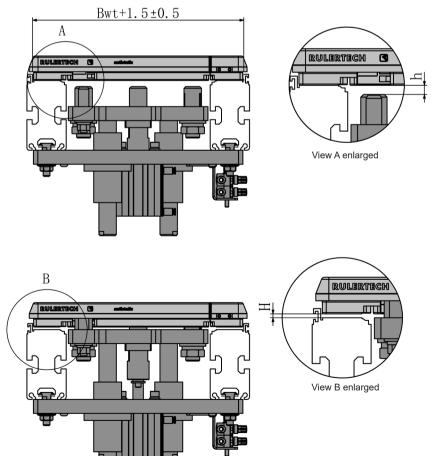
Full set (Assembled) / Delivery in parts

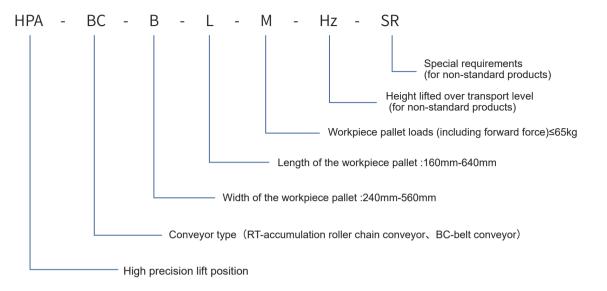


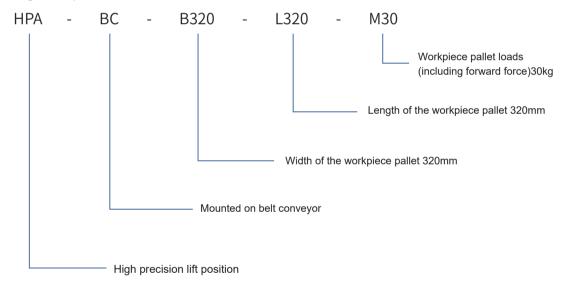
# **Parameters**

Bwt(mm) Width of the workpiece pallet	240 ~ 560
Lwt(mm) Length of the workpiece pallet	160 ~ 640
Bwt(mm)×Lwt(mm) Size combinations	240×160 ~ 560×640

# Schematic diagram









- Non-standard customization available when loads and forward force exceeds 65KG
- Non-standard customization for special range requirements
- Non-standard customization available
- Max. width 560mm, size available every 20mm
- Max. length 640mm, size available every 20mm
- Other frequency requirements on request







# HPB range adjustable lift positioning unit

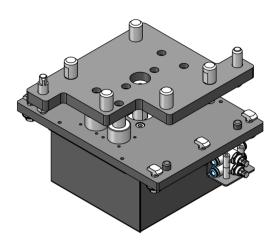
- Repetition accuracy ± 0.1mm
- Workpiece pallet loads(including forward force) up to 65kg
- · Lift positioning one pallet at a time
- · Lifts workpiece pallets from transport level, range adjustable from 2.5 to 10mm
- Non-standard customization available

# Recommended accessories:

SP-N standard stop gate; SP-W one-directional stop gate; SP-R return stop gate; SP-D60pneumatic stop gate;SP-D100pneumatic stop gate;SP-DA30twodirectional stop gate; SP-DA100two-directional stop gate;SP-S rocker

# Condition of delivery:

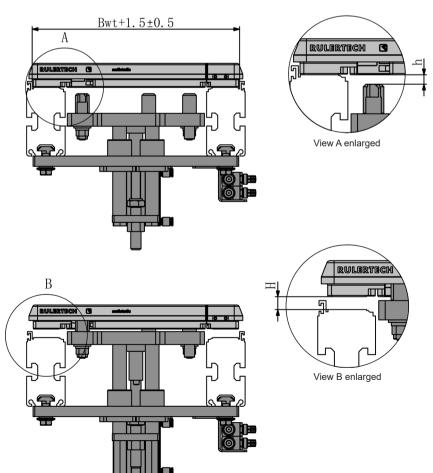
Full set (Assembled) / Delivery in parts

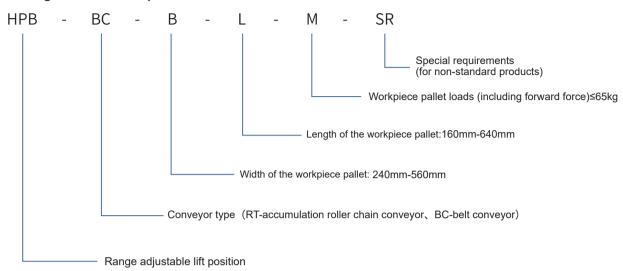


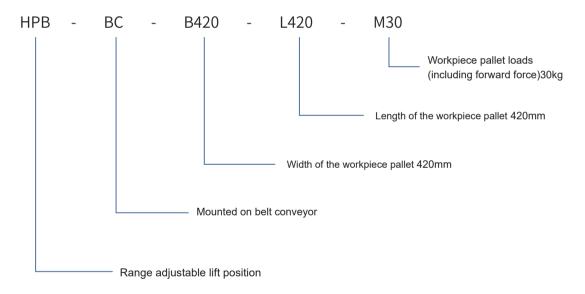
# **Parameters**

Bwt(mm) Width of the workpiece pallet	240 ~ 560
Lwt(mm) Length of the workpiece pallet	160 ~ 640
Bwt(mm)×Lwt(mm) Size combinations	240×160 ~ 560×640

# Schematic diagram









- Non-standard customization available when loads and forward force exceeds 65KG
- Non-standard customization for special range requirements
- Non-standard customization available
- Max. width 560mm, size available every 20mm
- Max. length 640mm, size available every 20mm
- Other frequency requirements on request

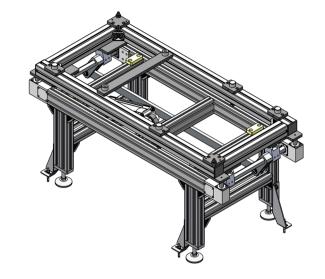






# HPH heavy-duty lift positioning unit

- Repetition accuracy ± 0.3mm
- Workpiece pallet loads(including forward force) up to 240kg
- Pallets can be locked in by forward pressure when lifted
- Lift positioning one pallet at a time
- Lift the workpiece pallet 5mm over transport level
- Cam-linkage mechanism
- Non-standard customization available



#### Recommended accessories:

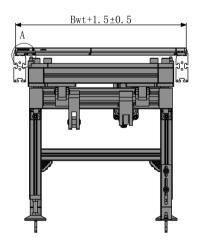
SP-N standard stop gate; SP-W one-directional stop gate; SP-R return stop gate; SP-D100pneumatic stop gate; SP-D200 pneumatic stop gate; SP-DA100two-directional stop gate; SP-S rocker

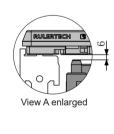
#### Condition of delivery:

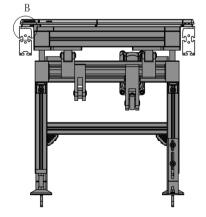
Full set (Assembled) / Delivery in parts

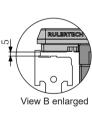
#### **Parameters**

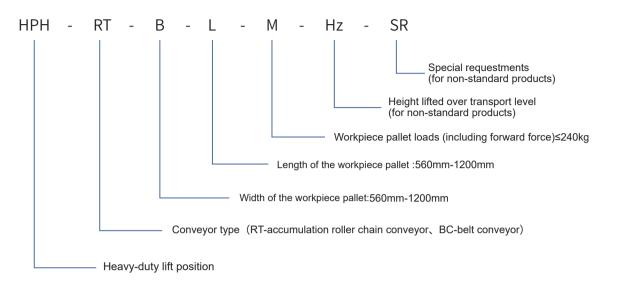
Bwt(mm) Width of the workpiece pallet	560 ∼ 1200
Lwt(mm) Length of the workpiece pallet	560 ∼ 1200
Bwt(mm)×Lwt(mm) Size combinations	560×560 ∼ 1200×1200

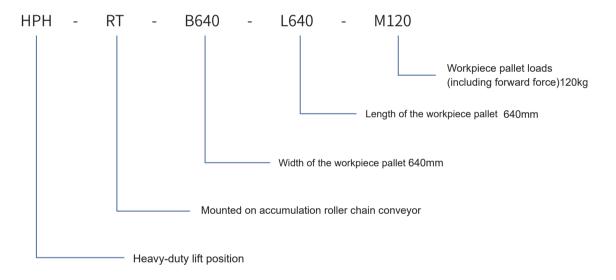












- Non-standard customization available when loads and forward force exceeds 240KG
- Non-standard customization for special range requirements
- Non-standard customization available
- Max. width 1200mm, size available every 20mm
- Max. length1200mm, size available every 20mm
- Other frequency requirements on request







# HR standard rotary unit

- Used to change workpiece pallet conveying direction
- Workpiece pallet loads(including forward force) up to 60kg
- One directional change of workpiece pallet per lift
- The lift cylinder lifts the workpiece pallets, the rotation cylinder rotates the workpiece pallets by 90 or 180 degrees
- Lifts workpiece pallet over transport level by 15, 50 or 100mm
- Non-standard customization available

#### Recommended accessories:

SP-N standard stop gate;SP-W one-directional stop gate; SP-R return stop gate;SP-D60pneumatic stop gate;SP-D100pneumatic stop gate;SP-DA30two-directional stop gate;SP-DA100two-directional stop gate;SP-S rocker

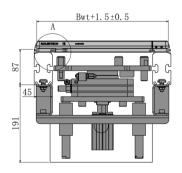
#### Condition of delivery:

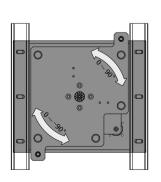
Full set (Assembled) / Delivery in parts

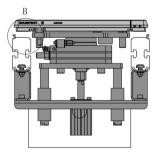
#### **Parameters**

Bwt(mm) Width of the workpiece pallet	240 ~ 560
Lwt(mm) Length of the workpiece pallet	240 ~ 560
Bwt(mm)×Lwt(mm) Size combinations	240×240 ∼ 560×560

# Schematic diagram



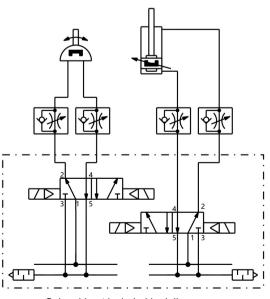




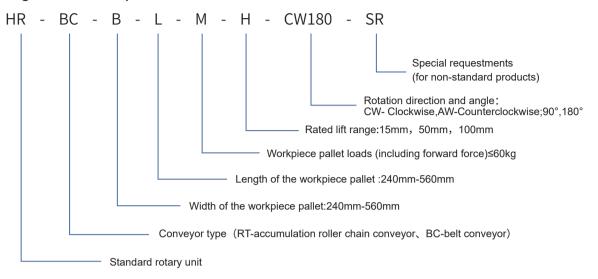


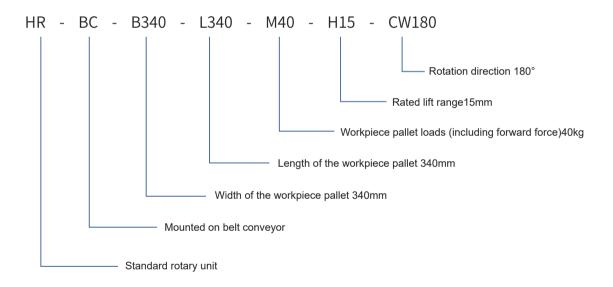


# Electrical schematic diagram



Solenoid not included in delivery scope







- Non-standard customization available when loads and forward force exceeds 60KG
- Non-standard customization for special range requirements
- Non-standard customization for special rotation angle available
- Non-standard customization available
- Max. width 560mm, size available every 20mm
- Max. length 560mm, size available every 20mm
- Other frequency requirements on request

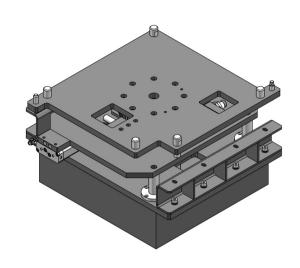






# HRH Heavy-duty lift rotary unit

- Used to change workpiece pallet conveying direction
- Workpiece pallet loads(including forward force) up to 180kg
- · One directional change of workpiece pallet per lift
- When pallets lifted by horizontal cylinder, vertical cylinder drive the gear to deliver 90 degree rotation
- Lifts workpiece pallet over transport level by 15, 50 or 100mm
- Non-standard customization available



#### Recommended accessories:

SP-N standard stop gate;SP-W one-directional stop gate; SP-R return stop gate;SP-D60pneumatic stop gate;SP-D100pneumatic stop gate;SP-D200pneumatic stop gate;SP-DA100two-directional stop gate;SP-S rocker

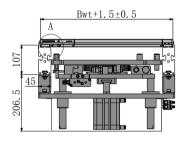
# Condition of delivery:

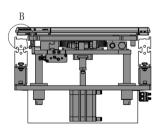
Full set (Assembled) / Delivery in parts

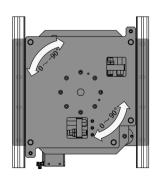
#### **Parameters**

Bwt(mm) Width of the workpiece pallet	460 ~ 1200
Lwt(mm) Length of the workpiece pallet	460 ~ 1200
Bwt(mm)×Lwt(mm)	460×460 ∼ 1200×1200
Size combinations	100 100 1200 1200

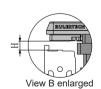
### Schematic diagram



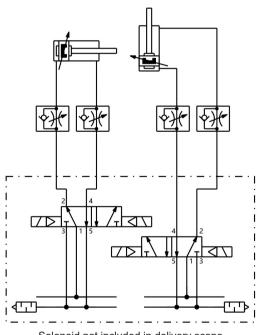




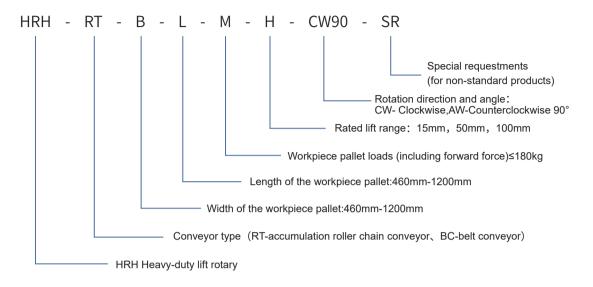


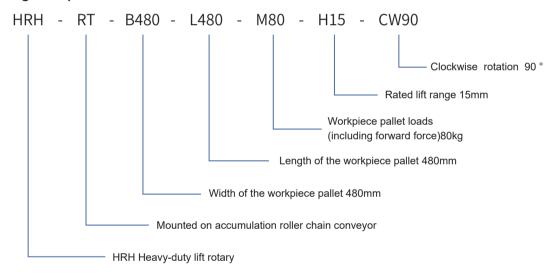


# **Electrical schematic diagram**



Solenoid not included in delivery scope





- Non-standard customization available when loads and forward force exceeds180KG
  - Non-standard customization for special range requirements
  - Non-standard customization for special rotation angle available
  - Non-standard customization available
  - Max. width 1200mm, size available every 20mm
  - Max. length 1200mm, size available every 20mm
  - · Other frequency requirements on request





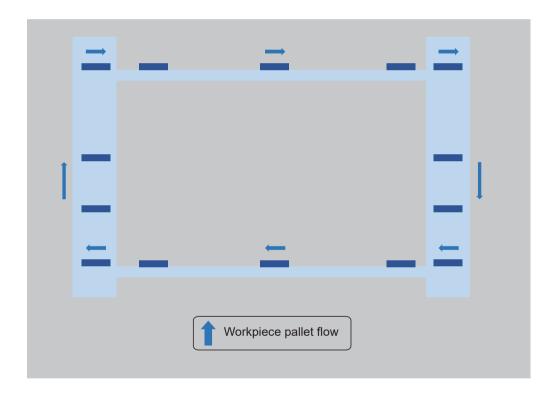
- · Lifts and moves workpiece pallet between the upper conveyor section and the lower conveyor section to complete the loop flow
- · Workpieces are processed and tested in the upper conveyor section through workstations, empty workpiece pallets are then conveyed through the lower conveyor section
- Lift unit moves vertically and horizontally, horizontal movement is done by conveyor section on the lift unit, and vertical movement is done by lead screw pair, cylinder, chain device and other mechanisms
- Maximum loads up to 240KG depend on design
- Two types of lifting unit depending on working mechanism, continuous lifter and Intermittent lifter
- Continuous lifter:
  - (1) LFC continuous lifter
- Intermittent lifter
  - (1) LFB standard toothed belt lifter
  - (2) LFP standard rodless lifter
  - (3) LFS standard lead screw pair lifter
  - (4) LFE standard cylinder lifter
  - (5) LFL Aerial lifter
  - (6) LFN Aerial lifter



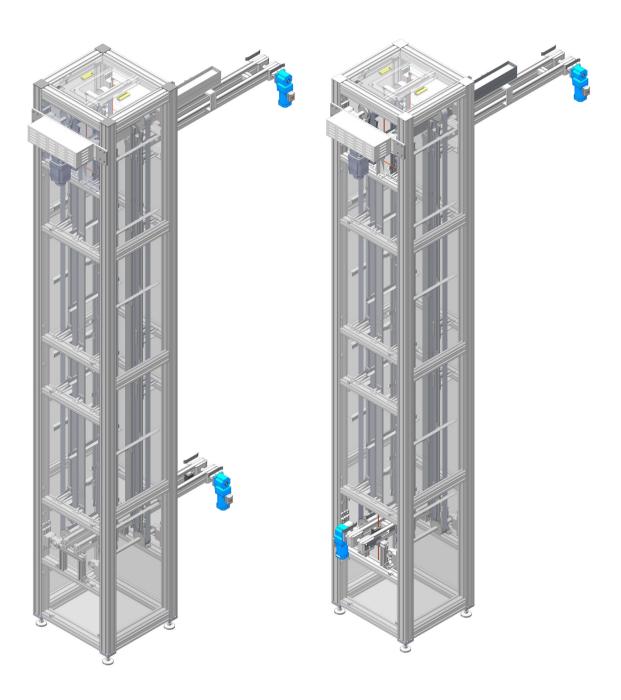


# **Movement schematic**

- Conveyor section on lifting unit moves workpiece pallet horizontally
- Vertical movement is done by lead screw pair, cylinder, chain device and other mechanisms
- Two mirroring lifts, upper conveyor section and lower conveyor section form a loop



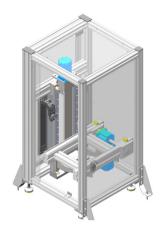




LFC continuous lifter







LFB standard toothed belt lifter

LFP standard rodless lifter

LFS standard lead screw pair lifter





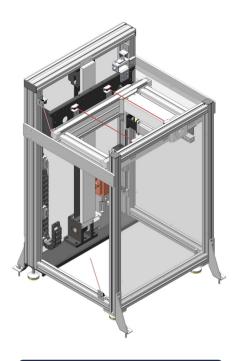


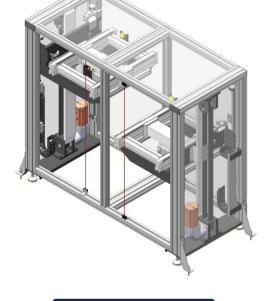
LFL Aerial lifter



LFN Aerial lifter







C:Half closed protective cover

S:Double row lift

- The standard default protective covers are all closed covers; Add C in ordering number for half closed protective cover, e.g. LFB-C stands for standard toothed belt lift with half closed protective cover
- The standard default lift units are all single row lifter; Add S in ordering number for double row lift, e.g. LFB-S stands for double row standard toothed belt lift
- Contact Rulertech engineers for any further questions



- Full-load speed not recommended to exceed 18m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 640mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request







# LFC continuous lifter

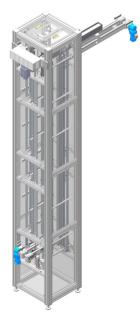
- Used to move workpiece pallets on the conveyor section from one transport level to another
- Continuous lifting and lowering in one direction, can achieve very fast production rhythm, Solves production rhythm bottleneck problems due to long lifting distance
- Spacing between workpiece pallets depending on production rhythm
- · Workpiece pallet weight up to 20KG, overall loads up to 200KG
- · Anti-static conveying medium
- According to the workpiece pallet flow direction, the continuous lift is divided into two types, C type and S type, C type same side in and out, S type opposite side in and out

#### Recommended accessories:

SP-N standard stop gate;SP-W one-directional stop gate; SP-R return stop gate;SP-D60pneumatic stop gate;SP-D100pneumatic stop gate;SP-D200pneumatic stop gate

#### Condition of delivery:

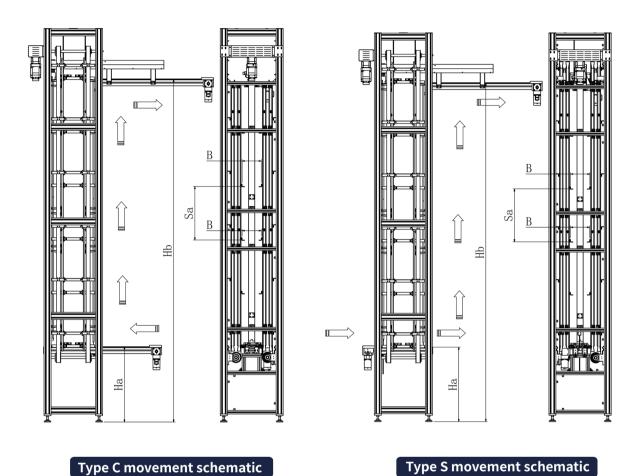
Full set (Assembled) / Delivery in parts



# **Parameters**

Width of the workpiece pallet Bwt(mm)	240 ~ 640	
Length of the workpiece pallet Lwt(mm)	240 ~ 640	
Bwt×Lwt(mm) Size combinations	240×240 ~ 640×640	
Horizontal joint conveyor section	0.6.9.12.15.18	
Rated speed Vn(m/min)	0,0,3,12,13,10	
Type of horizontal conveyor section	TB、BC、RT	
Vertical workpiece pallet spacing (mm)	$200 \sim 800$ (Depend on the workpiece and production rhythm)	
Vertical conveying medium	1 (Toothed belt) 、2 (chain)	
Nominal voltage (V)	220/380	
Frequency (Hz)	50/60	
Type of workpiece pallet flow	C(same side in and out) S(opposite side in and out)	

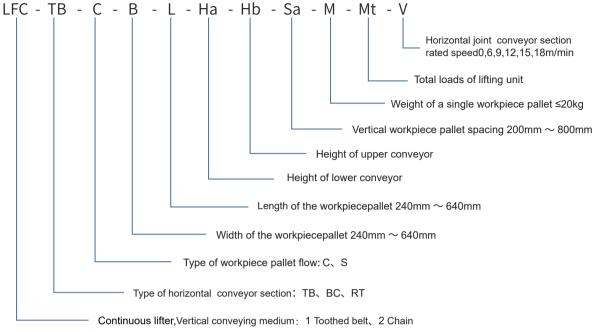


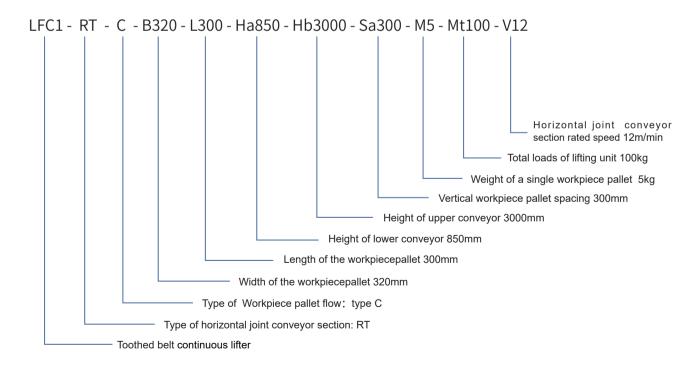




- Full-load speed not recommended to exceed 18m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 640mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request

# Ordering number description LFC - TB - C - B - L











# LFB standard toothed belt lifter

- Used to move workpiece pallets on the conveyor section from one transport level to another
- · Vertical conveying medium: toothed belt
- Minimum height above ground 250mm
- Workpiece pallet weight up to 60kg, depending on the length of the joint conveyor section and conveying medium
- · Anti-static conveyor medium
- Frame made of aluminum profile with teal / colorless transparent PVC sheet, non-standard customization available
- The beat time is sum of the entry time t1+ the lift time t2+ exit time t3 of the feeder section

#### Recommended accessories:

SP-N standard stop gate; SP-W one-directional stop gate; SP-R return stop gate; SP-D60pneumatic stop gate

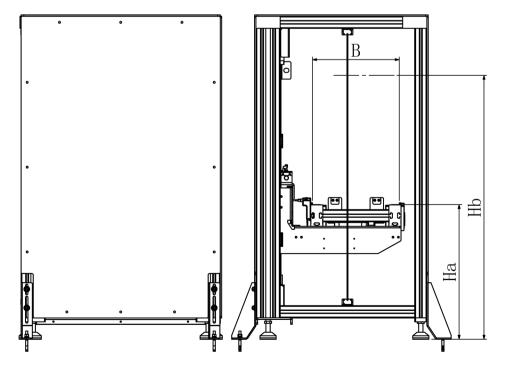
# Condition of delivery:

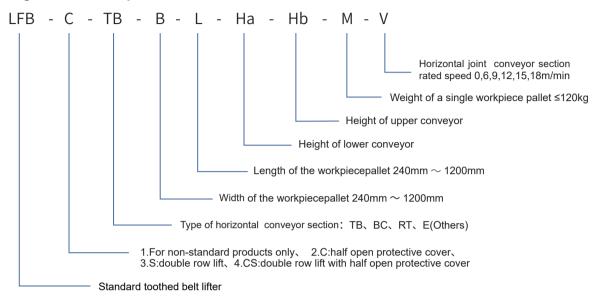
Full set (Assembled) / Delivery in parts

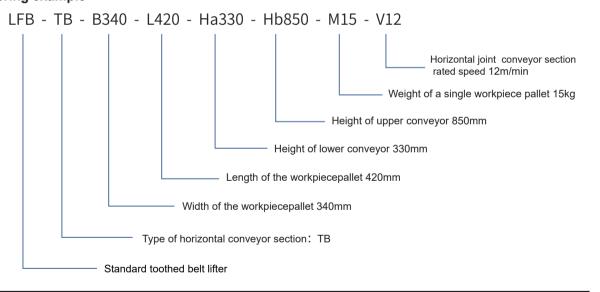


#### **Parameters**

Width of the workpiece pallet Bwt(mm)	240 ~ 1200
Length of the workpiece pallet Lwt(mm)	240 ~ 1200
Bwt×Lwt(mm) Size combinations	240×240 ~ 640×640
Horizontal joint conveyor section	0,6,9,12,15,18
Rated speed Vn(m/min)	0,0,9,12,13,16
Type of horizontal conveyor section	ТВ
Vertical conveying medium	Toothed belt
Nominal voltage(V)	220/380
Frequency(Hz)	50/60









- Full-load speed not recommended to exceed 18m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 640mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request







# LFP standard rodless lifter

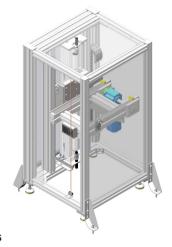
- Used to move workpiece pallets on the conveyor section from one transport level to another
- · Vertical drive mechanism: rodless cylinder
- Minimum height above ground 250mm
- Workpiece pallet weight up to 240kg, depending on the length of the joint conveyor section and conveying medium
- · Anti-static conveyor medium
- Frame made of aluminum profile with teal / colorless transparent PVC sheet, non-standard customization available
- The beat time is sum of the entry time t1+ the lift time t2+ exit time t3 of the feeder section

#### Recommended accessories:

SP-N standard stop gate; SP-W one-directional stop gate; SP-R return stop gate; SP-D60pneumatic stop gate; SP-D100pneumatic stop gate; SP-D200pneumatic stop gate

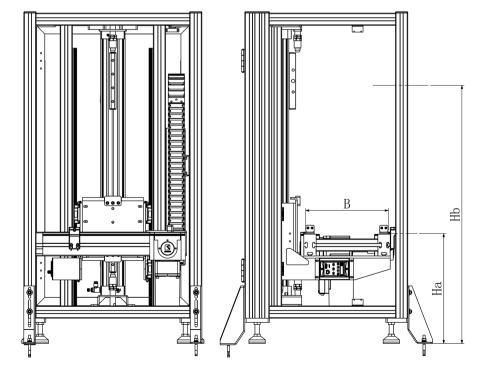
# Condition of delivery:

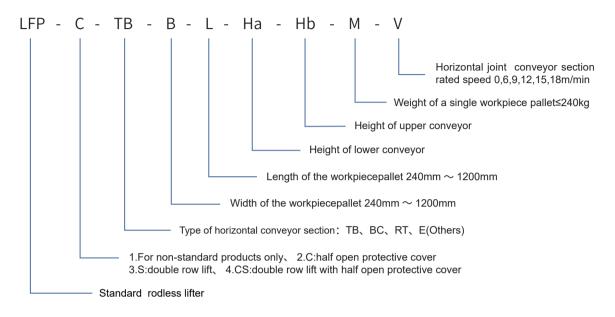
Full set (Assembled) / Delivery in parts

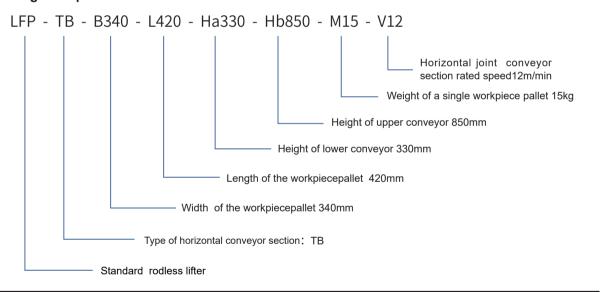


#### **Parameters**

Width of the workpiece pallet Bwt(mm)	240 ~ 1200	
Length of the workpiece pallet Lwt(mm)	240 ~ 1200	
Bwt×Lwt(mm) Size combinations	240×240 ~ 1200×1200	
Horizontal joint conveyor section	0.6.9.12.15.18	
Rated speed Vn(m/min)	0,0,3,12,13,10	
Type of horizontal conveyor section	TB、BC、RT	
Vertical drive mechanism	Rodless cylinder	
Nominal voltage(V)	220/380	
Frequency(Hz)	50/60	









- Full-load speed not recommended to exceed 18m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request



# LFS standard lead screw pair lifter

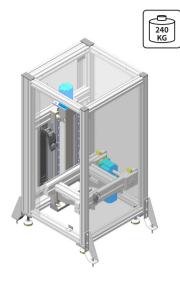
- Used to move workpiece pallets on the conveyor section from one transport level to another
- · Vertical drive mechanism: lead screw pair
- · Minimum height above ground 250mm
- · Workpiece pallet weight up to 240kg, depending on the length of the joint conveyor section and conveying medium
- Anti-static conveyor medium
- Frame made of aluminum profile with teal / colorless transparent PVC sheet, non-standard customization available
- The beat time is sum of the entry time t1+ the lift time t2+ exit time t3 of the feeder section

#### Recommended accessories:

SP-N standard stop gate; SP-W one-directional stop gate; SP-R return stop gate; SP-D60pneumatic stop gate; SP-D100 pneumatic stop gate; SP-D200pneumatic stop gate

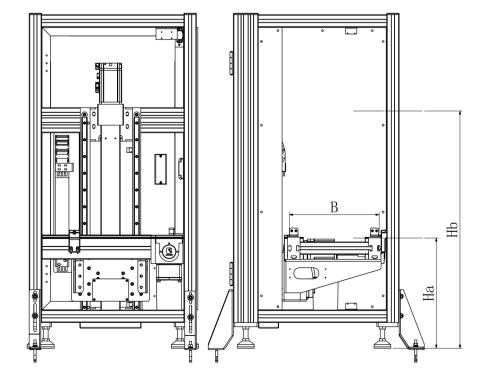
# Condition of delivery:

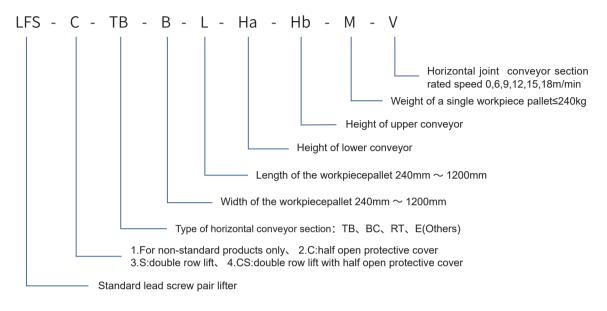
full set (Assembled) / Delivery in parts

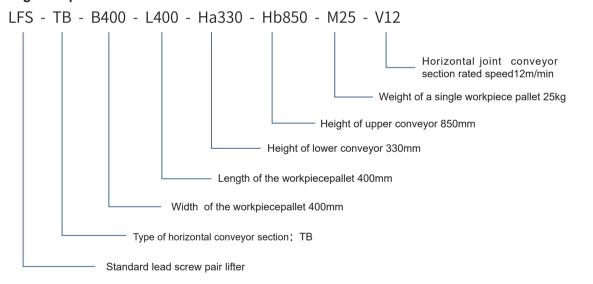


#### **Parameters**

Width of the workpiece pallet Bwt(mm)	240 ~ 1200	
Length of the workpiece pallet Lwt(mm)	240 ~ 1200	
Bwt×Lwt(mm) Size combinations	240×240 ~ 1200×1200	
Horizontal joint conveyor section	0.6.0.10.15.10	
Rated speed Vn(m/min)	0,6,9,12,15,18	
Type of horizontal conveyor section	TB、BC、RT	
Vertical drive mechanism	Lead screw pair	
Nominal voltage(V)	220/380	
Frequency(Hz)	50/60	









- Full-load speed not recommended to exceed 18m/min
  - Vn=0 means without motor and without gear
  - Nominal transportation speed configurable
  - Max. width 1200mm, size available every 20mm
  - Other power supply or voltage requirements on request
  - Other frequency requirements on request







# LFE Economical cylinder chain lifter

- Used to move workpiece pallets on the conveyor section from one transport level to another
- · Vertical drive mechanism: rod cylinder and chains
- The minimum height of the lower conveyor section above the ground is limited by the cylinder stroke
- Workpiece pallet loads up to 240KG, depending on the length of the joint conveyor section and conveying medium
- · Anti-static conveyor medium
- Frame made of aluminum profile with teal / colorless transparent PVC sheet, non-standard customization available
- The beat time is sum of the entry time t1+ the lift time t2+ exit time t3 of the feeder section

#### Recommended accessories:

SP-N standard stop gate;SP-W one-directional stop gate; SP-R return stop gate;SP-D60pneumatic stop gate;SP-D100pneumatic stop gate;SP-D200pneumatic stop gate

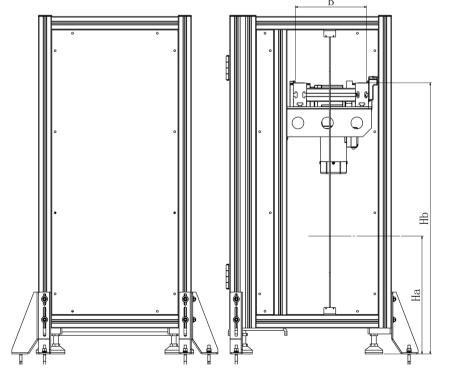
### Condition of delivery:

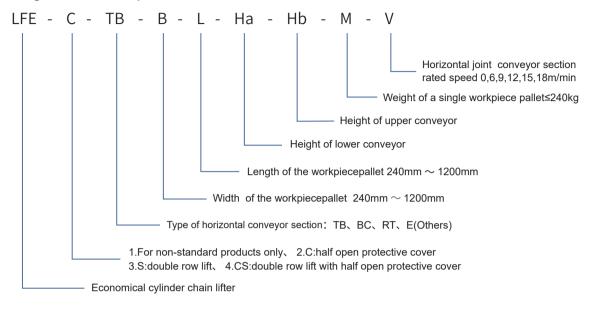
Full set (Assembled) / Delivery in parts

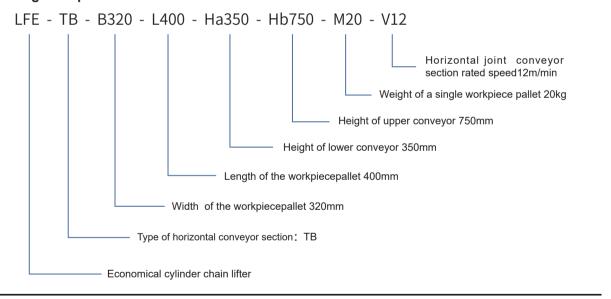


#### **Parameters**

Width of the workpiece pallet Bwt(mm)	240 ~ 1200	
Length of the workpiece pallet Lwt(mm)	240 ~ 1200	
Bwt×Lwt(mm) Size combinations	240×240 ~ 1200×1200	
Horizontal joint conveyor section	0.6.0.40.45.40	
Rated speed Vn(m/min)	0,6,9,12,15,18	
Type of horizontal conveyor section	TB、BC、RT	
Vertical drive mechanism	Cylinder and chains	
Nominal voltage(V)	220/380	
Frequency(Hz)	50/60	









- Full-load speed not recommended to exceed 18m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request







# **LFL Aerial lifter**

- Used to move workpiece pallets on the conveyor section from one transport level to another
- Vertical drive mechanism: toothed belt, chains and lead screw pair etc.
- Lower section minimum height above the ground 200mm, upper section maximum height above the ground 10m
- Workpiece pallet loads up to 120KG, depending on the length of the joint conveyor section and conveying medium
- Frame made of aluminum profile with teal / colorless transparent PVC sheet, non-standard customization available
- The beat time is sum of the entry time t1+ the lift time t2+ exit time t3 of the feeder section

#### Recommended accessories:

SP-N standard stop gate;SP-W one-directional stop gate; SP-R return stop gate;SP-D60pneumatic stop gate;SP-D100pneumatic stop gate;SP-D200pneumatic stop gate

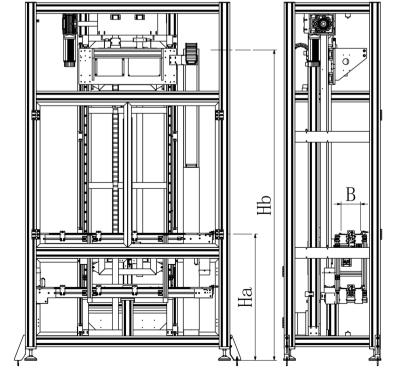
### Condition of delivery:

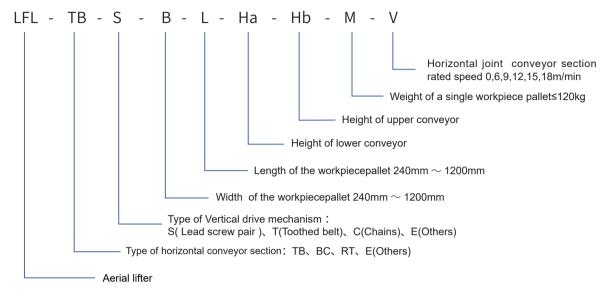
Full set (Assembled) / Delivery in parts

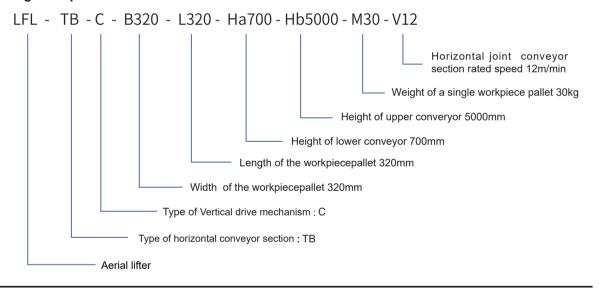


#### **Parameters**

Width of the workpiece pallet Bwt(mm)	240 ~ 640
Length of the workpiece pallet Lwt(mm)	240 ~ 640
Bwt×Lwt(mm) Size combinations	240×240 ~ 640×640
Horizontal joint conveyor section	0.6.0.12.15.10
Rated speed Vn(m/min)	0,6,9,12,15,18
Type of horizontal conveyor section	TB、BC、RT
Vertical drive mechanism	Cylinder+ chains, Lead screw pair, Toothed belt
Nominal voltage(V)	220/380
Frequency(Hz)	50/60









- Full-load speed not recommended to exceed 18m/min
- Vn=0 means without motor and without gear
- Nominal transportation speed configurable
- Max. width 1200mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request



# **LFN Aerial lifter**

- Used to move workpiece pallets on the conveyor section from one transport level to another
- Vertical drive mechanism: toothed belt, chains and lead screw pair etc
- Lower section minimum height above the ground 200mm, upper section maximum height above the ground 10m
- Workpiece pallet loads up to 120KG, depending on the length of the joint conveyor section and conveying medium
- Frame made of aluminum profile with teal / colorless transparent PVC sheet, non-standard customization available
- The beat time is sum of the entry time t1+ the lift time t2+ exit time t3 of the feeder section

### Recommended accessories:

SP-N standard stop gate;SP-W one-directional stop gate; SP-R return stop gate;SP-D60pneumatic stop gate;SP-D100pneumatic stop gate;SP-D200pneumatic stop gate

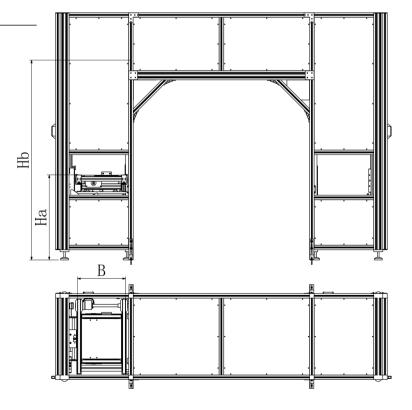
### Condition of delivery:

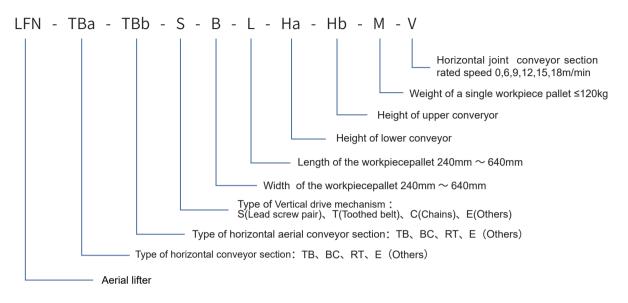
Full set (Assembled) / Delivery in parts

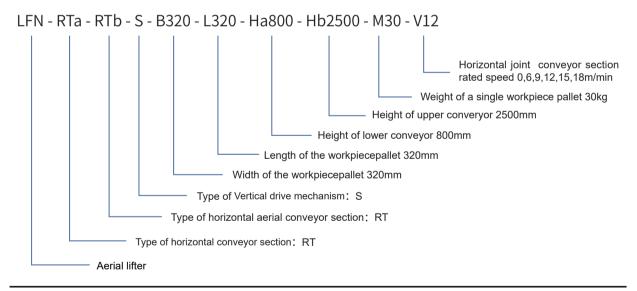


#### **Parameters**

Width of the workpiece pallet Bwt(mm)	240 ~ 640
Length of the workpiece pallet Lwt(mm)	240 ~ 640
Bwt×Lwt(mm) Size combinations	240×240 ~ 640×640
Horizontal joint conveyor section	0,6,9,12,15,18
Rated speed Vn(m/min)	0,0,9,12,13,16
Type of horizontal conveyor section	TB、BC、RT
Vertical drive mechanism	Cylinder+ chains, Lead screw pair, Toothed belt
Nominal voltage(V)	220/380
Frequency(Hz)	50/60









- Full-load speed not recommended to exceed 18m/min
- Vn=0 means without motor and without gear
- · Nominal transportation speed configurable
- Max. width 640mm, size available every 20mm
- Other power supply or voltage requirements on request
- Other frequency requirements on request





- · Support the conveyor section and modules
- · Categories:
  - LS1 lightweight single level leg sets, LS2 lightweight two-tier leg sets, LSH1 heavy-duty single level leg sets, LSH2 heavy-duty two-tier leg sets, LS3 Lightweight double row two-tier leg sets, LSH3A Heavy-duty double row two-tier leg sets, LSH3B heavy-duty double row two-tier leg sets and bevel gear rollers conveyor leg sets
- Lightweight leg sets made of 45X45 european standard aluminum profiles
- Heavy-duty leg sets made of 45X90 european standard aluminum profiles
- 1-1.5m leg sets distance recommended, depending on the structure and loads of the conveyor section
- · Customization possible according to the actual structure and environment

# Note: LS1 and LS2 do not suitable for CU curve conveyor



# Lightweight single level leg sets LS1

- Support conveyor section
- · 45X45 european standard aluminum profiles
- Anti-static

#### Recommended accessories:

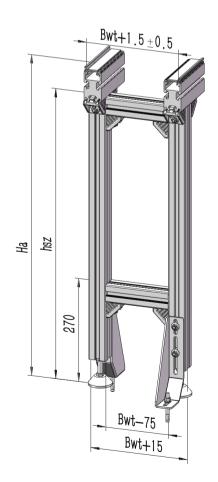
Profiles; Fastening materia; Connection kits;

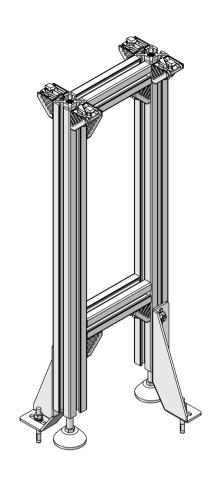
Support feet

# Condition of delivery:

Assembled

# Schematic diagram





### **Parameters**

Bwt Width of the workpiece pallet (mm)	160 ~ 1200	
Ha upper level transport level (mm)	350 ~ 2100	
Longth of the aluminum profiles-		

Length of the aluminum profiles=

Ha-height of the conveyor section profiles above the ground-90 Hsz(height of legs)=Ha- height of the conveyor section profiles above the ground

Type of the conveyor section	BC\TB	RT	CU
Height of the conveyor section profiles above the ground(mm)		100	100



- Different height of conveyor section profiles above the ground for different type of conveyor section
  - · Support feet height-adjustable
  - Max. width 1200mm, size available every 20mm
  - Other Special requirements on request



# **Lightweight two-tier leg set LS2**

- Used to support upper and lower conveyor section
- 45X45 european standard aluminum profiles
- Anti-static

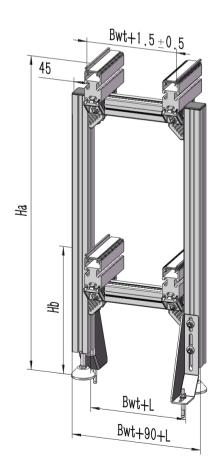
### Recommended accessories:

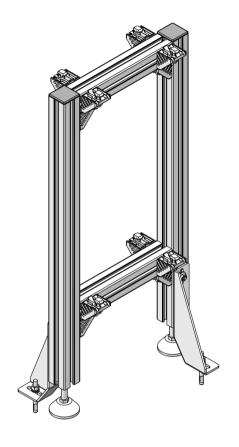
Profiles; Fastening materia; Connection kits; Support feet

# Condition of delivery:

Assembled

### Schematic diagram





#### **Parameters**

Bwt Width of the workpiece pallet (mm)	160 ~ 1200
Ha upper level transport level (mm)	350 ~ 2100
Hb lower level transport level (mm)	> 250

Length of the aluminum profiles=

Ha-height of the conveyor section profiles above the ground-90 hsz(height of legs)=Ha- height of the conveyor section profiles above the ground

Type of the conveyor section	BC\TB	RT
Height of the conveyor section profiles above the ground(mm)	80	100
L(mm)	17	17



- Different height of conveyor section profiles above the ground for different type of conveyor section
  - Support feet height-adjustable
  - Max. width 1200mm, size available every 20mm
  - Other Special requirements on request

# Heavy-duty single level leg sets LSH1

- Support conveyor section
- 45X90 european standard aluminum profiles
- Anti-static

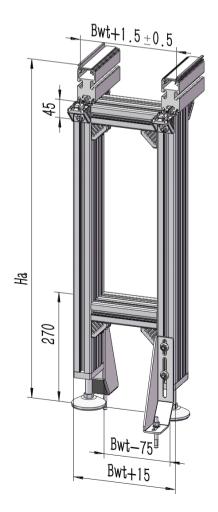
# Recommended accessories:

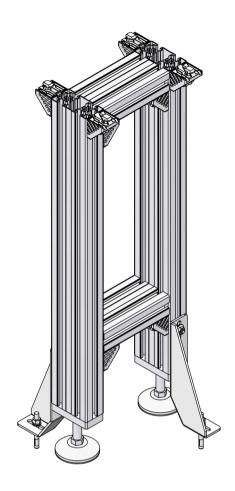
Profiles; fastening materia; connection kits; support feet

### Condition of delivery:

Assembled

# Schematic diagram





#### **Parameters**

Bwt Width of the workpiece pallet (mm)	160 ~ 1200
Ha upper level transport level (mm)	350 ~ 2100
Length of the aluminum profiles=	

Ha-height of the conveyor section profiles above the ground-105 hsz(height of legs)=Ha- height of the conveyor section profiles above the ground

Type of the conveyor section	BC\TB	RT	CU
Height of the conveyor section profiles above the ground(mm)	80	100	100



- Different height of conveyor section profiles above the ground for different type of conveyor section
  - Support feet height-adjustable
  - Max. width 1200mm, size available every 20mm
  - Other Special requirements on request

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# Heavy-duty two-tier leg sets LSH2

- Used to support upper and lower conveyor section
- 45X90 european standard aluminum profiles
- Anti-static

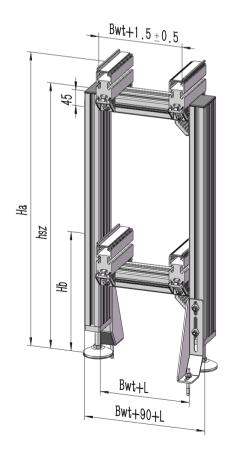
#### Recommended accessories:

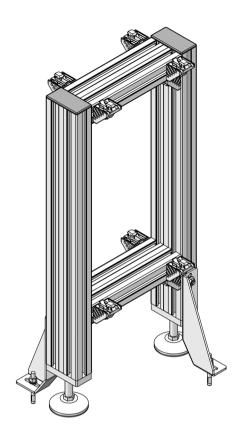
Profiles; Fastening materia; Connection kits; Support feet

#### Condition of delivery:

Assembled

### Schematic diagram





#### **Parameters**

Bwt Width of the workpiece pallet (mm)	160 ~ 1200
Ha upper level transport level (mm)	350~2100
Hb lower level transport level (mm)	> 250

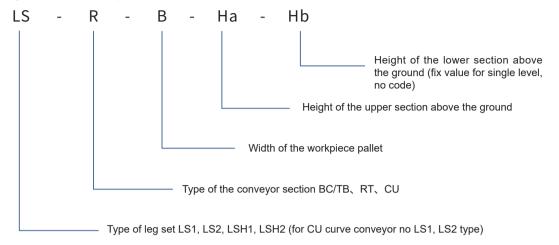
Length of the aluminum profiles=

Ha-height of the conveyor section profiles above the ground-105 hsz(height of legs)=Ha- height of the conveyor section profiles above the ground

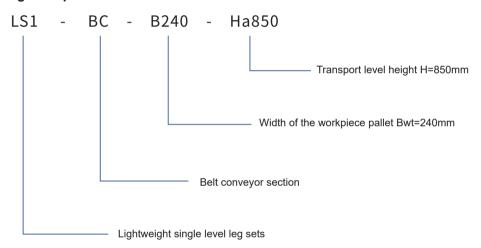
Type of the conveyor section	BC\TB	RT	CU
Height of the conveyor section profiles above the ground(mm)	80	100	100
L(mm)	17	17	65

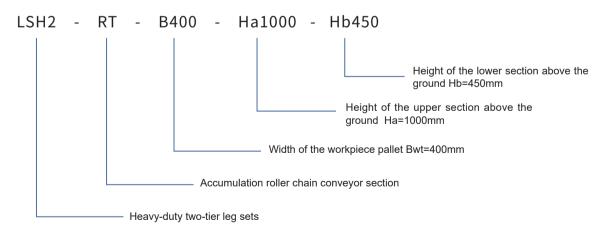


- Different height of conveyor section profiles above the ground for different type of conveyor section
  - Support feet height-adjustable
  - Max. width 1200mm, size available every 20mm
  - Other Special requirements on request



# Ordering example 1







# Lightweight double row two-tier leg sets LS3

- Used to support upper and lower conveyor section
- 45X45 european standard aluminum profiles
- Anti-static

#### Recommended accessories:

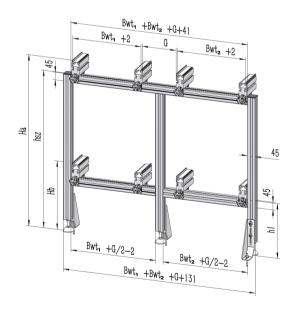
Profiles; Fastening materia; Connection kits;

Support feet

### Condition of delivery:

Assembled

# Schematic diagram



#### **Parameters**

Bwt Width of the workpiece pallet (mm)	$160 \sim 1200$
Ha upper level transport level (mm)	$350 \sim 2100$
Hb lower level transport level (mm)	> 250
Length of the aluminum profiles 1=	
Ha-height of the conveyor section profiles above	the ground-90
Length of the aluminum profiles 2 =	
Ha-height of the conveyor section profiles above	the ground-115
hsz(height of legs)=Ha- height of the conveyor se above the ground	ection profiles

Type of the conveyor section	BC\TB	RT
Height of the conveyor section profiles above the ground(mm)	80	100



- Different height of conveyor section profiles above the ground for different type of conveyor section
  - Support feet height-adjustable
  - Max. width 1200mm, size available every 20mm
  - Other Special requirements on request

# Heavy-duty double row two-tier leg sets LSH3A

- Used to support upper and lower conveyor section
- 45X90 european standard aluminum profiles
- Anti-static

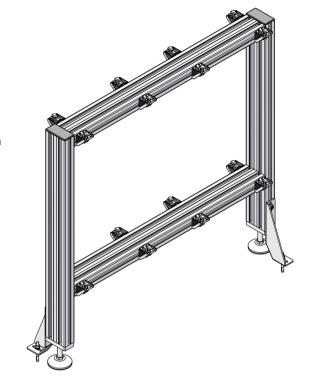
#### Recommended accessories:

Profiles; Fastening materia; Connection kits;

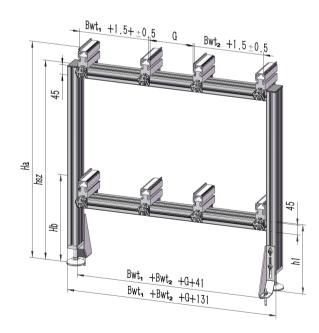
Support feet

### Condition of delivery:

Assembled



# Schematic diagram



#### **Parameters**

Bwt Width of the workpiece pallet (mm)	160 ~ 480
Ha upper level transport level (mm)	350~2100
Hb lower level transport level (mm)	> 250
Length of the aluminum profiles 1=	
Ha-height of the conveyor section profiles above the ground-90	

Type of the conveyor section	BC\TB	RT
Height of the conveyor section profiles above the ground(mm)	80	100

hsz(height of legs)=Ha- height of the conveyor section profiles

above the ground



- Different height of conveyor section profiles above the ground for different type of conveyor section
  - · Support feet height-adjustable
  - Max. width 1200mm, size available every 20mm
  - Other Special requirements on request



# Heavy-duty double row two-tier leg sets LSH3B

- Used to support upper and lower conveyor section
- 45X90 european standard aluminum profiles
- Anti-static

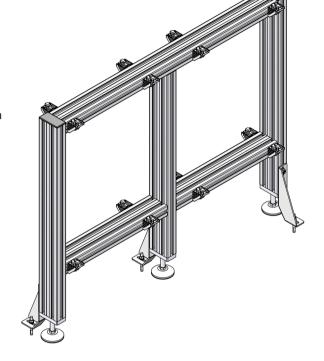
#### Recommended accessories:

Profiles; Fastening materia; Connection kits;

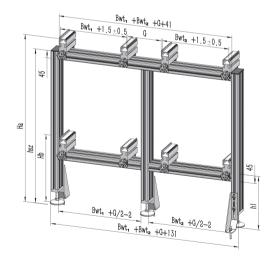
Support feet

### Condition of delivery:

Assembled



# Schematic diagram



## **Parameters**

Bwt Width of the workpiece pallet (mm)	480 ∼ 1200	
Ha upper level transport level (mm)	350 ~ 2100	
Hb lower level transport level (mm)	> 250	
Length of the aluminum profiles 1=		
Ha-height of the conveyor section profiles above the ground-105		

Length of the aluminum profiles 1= Ha-height of the conveyor section profiles above the ground-160

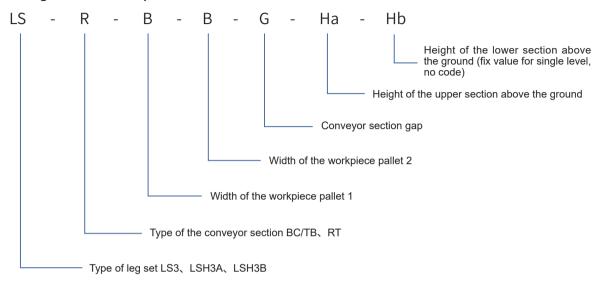
hsz(height of legs)=Ha- height of the conveyor section profiles above the ground

Type of the conveyor section	BC\TB	RT
Height of the conveyor section profiles above the ground(mm)	80	100

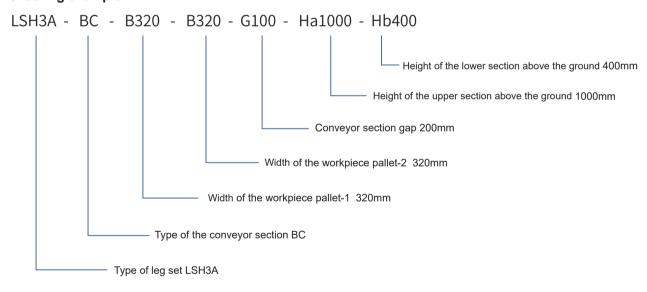


- Different height of conveyor section profiles above the ground for different type of conveyor section
  - · Support feet height-adjustable
  - Max. width 1200mm, size available every 20mm
  - Other Special requirements on request

### Ordering number description



### Ordering example





### LS1-RCR Leg sets

- Support conveyor section
- Made of 60X60X4 square tube profiles
- · Welded structure, solid and reliable, light gray baking paint protection
- Anti-static

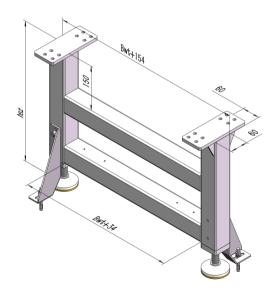
### Recommended accessories:

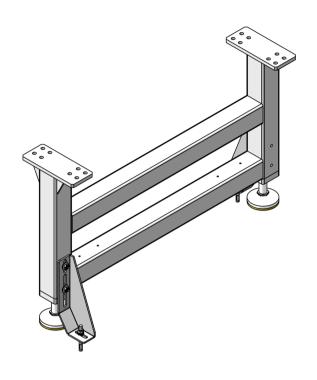
Fastening materia; Connection kits; Support feet

### Condition of delivery:

Assembled

### Schematic diagram





### **Parameters**

Bwt Width of the workpiece pallet (mm)	240 ~ 1200
Height of transport level Ha(mm)	240 ~ 1200
Type of the conveyor section	RCR
Length of the aluminum profiles 1=  Ha-height of the conveyor section profiles above	e the ground-106

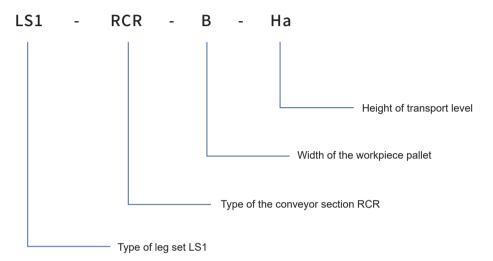
hsz(height of legs)=Ha- height of the conveyor section profiles above the ground

Type of the conveyor section	RCR
Height of the conveyor section profiles above the ground(mm)	125

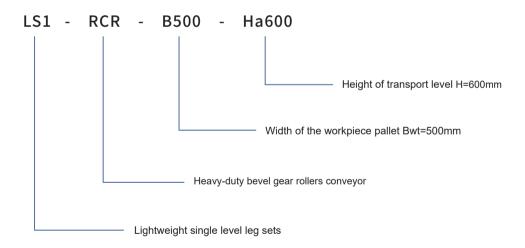


- Different height of conveyor section profiles above the ground for different type of conveyor section
  - Support feet height-adjustable
  - Max. width 1200mm, size available every 20mm
  - Please call us for non-standard requirements

### **Number description**



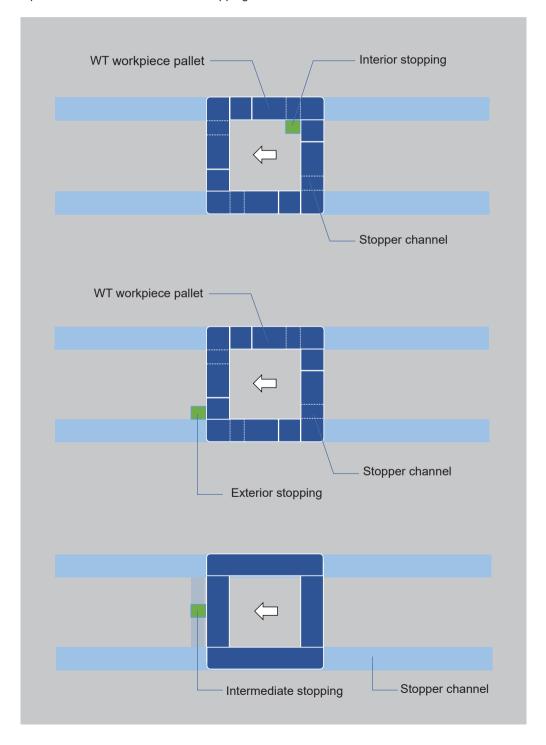
### Ordering example



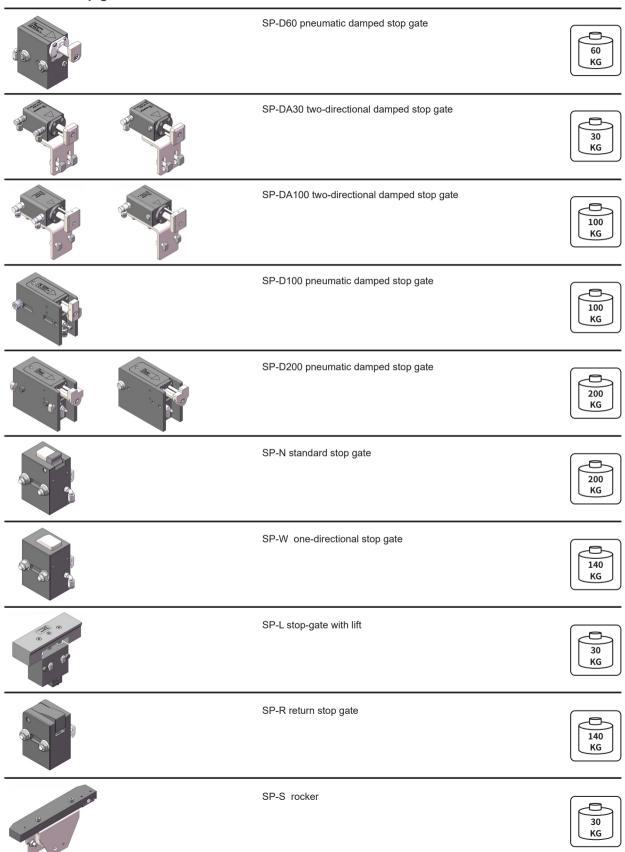


## **Transportation** control units RULERTECH

- To efficiently complete the production rhythm and motion logic, the workpiece pallets need to be controlled by RC standard control units for stopping, dividing, accumulating, position sensing and other functions.
- When using WT or WTH standard pallets, stoppers are mounted on the inner side of the conveyor profiles for side stopping.
- When using non-standard pallets, stoppers are mounted on the additional transverse profiles to conduct intermediate stopping.



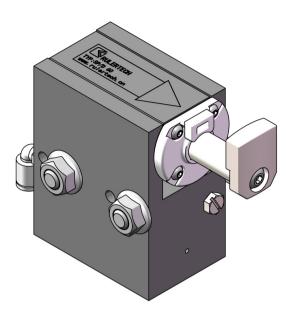
### SP series stop gate

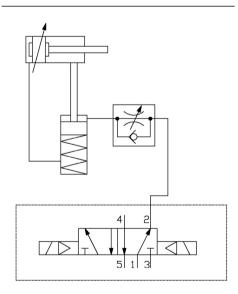














- Workpiece pallet transport speed affects the maximum stopping load of the stop gate
  - Compressed air connection required 4~6 bar
  - Pneumatic quick release coupling, 4mm diameter
  - Please call us for non-standard requirements

### SP-D60 pneumatic damped stop gate

- Pneumatic stop gate
- Stop and separate workpiece pallets smoothly, dampers reduce rebound force on the stop gate
- Infinitely adjustable damping within a range via adjustment screw on the back of the stop gate
- Workpiece pallet loads up to 60KG including forward force
- Can be opened without causing abrasion on the surface of the workpiece pallet
- Anti-static
- Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

### Recommended accessories:

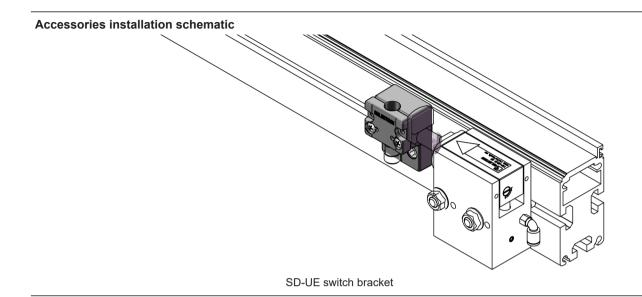
SD-UE switch bracket, M12 proximity switch, Fastening kits, Connection kit

Condition of delivery: Fully assembled

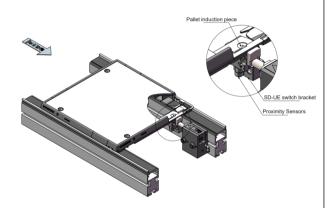
### **Parameters**

Permissible total workpiece pallet load M(kg)	Rated speed V(m/min)
60	6
40	9
35	12
30	15
30	18
24	24

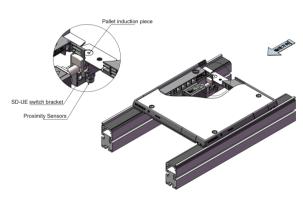
Ordering Model	Description
SP-D60	Pneumatic stop gate



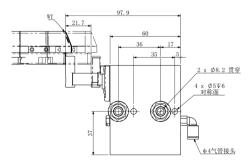
### **Application scenarios**

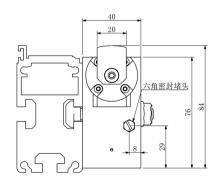


Proximity sensor mounted on the SD-UE switch bracket, when the sensor Proximity sensor mounted on the SD-UE switch bracket, when proximity sensor senses the incoming of the pallet, it cuts off the air source of the stop gate, stop gate on exterior of the pallet stops pallet slowly at the corresponding position.



senses the incoming of the pallet, it cuts off the air source of the stop gate, stop gate inside of the pallet slowly stops pallet at the corresponding position.

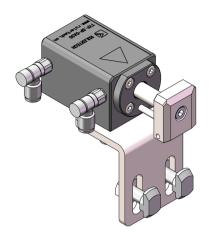




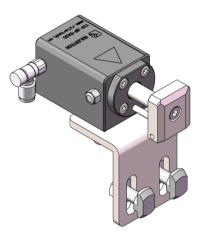




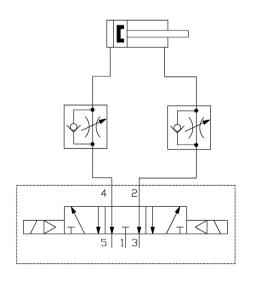




SP-DA30



SP-DA30-S



### SP-DA30 two-directional damped stop gate

- · Pneumatic stop gate
- · Can be used with lift transverse unit Conducts stopping and releasing of the workpiece pallet, able to stop from inner-side of the pallet
- Two-directional damped stop gate
- · Infinitely adjustable damping within a range via adjustment screw on the back of the stop gate
- · Workpiece pallet loads up to 30KG including forward force
- · Can be opened without causing abrasion on the surface of the workpiece pallet
- Anti-static
- Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

### Recommended accessories:

SD-STswitch bracket, SD-UEswitch bracket, M12 proximity switch, fastening kits, Connection kit

Condition of delivery: Fully assembled

### **Parameters**

Permissible total workpiece pallet load M(kg)	Rated speed V(m/min)
30	6
30	9
30	12
15	15
15	18

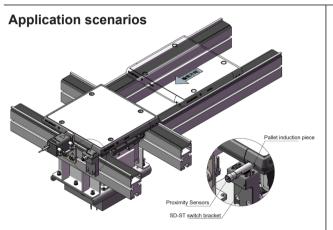
Ordering Model	Description	Remarks
SP-DA30	Two-directional stop gate	Both sides Pneumatically controlled
SP-DA30-S	Two-directional stop gate	One sides Pneumatically controlled



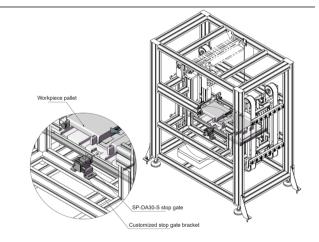
- Workpiece pallet transport speed affects the maximum stopping load of the stop gate
  - Compressed air connection required 4~6 bar
  - · Magnetic switch standard NPN type, please notice if you need PNP type
  - Pneumatic quick release coupling, 6mm diameter
  - Please call us for non-standard requirements

## Accessories installation schematic

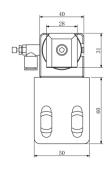
SD-ST switch bracket

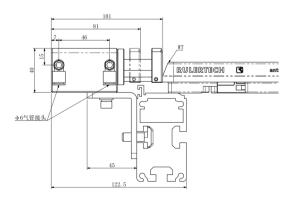


Used with lift transverse unit, ensure traversed pallet stops smoothly in the conveyor section. SD-ST switch bracket mounted with proximity sensor, which are used to monitor whether a workpiece pallet is standing at a stop gate or has passed it.



Stop gate mounted in the lifting unit stops the pallet at the corresponding position

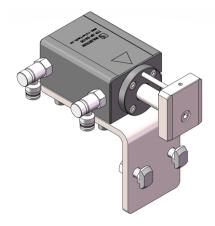




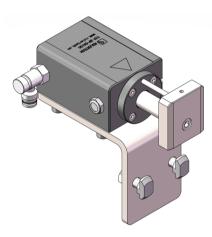




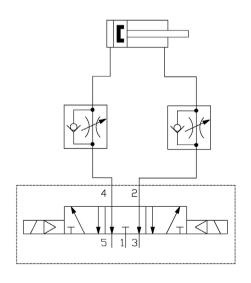




SP-DA100



SP-DA100-S



### SP-DA100 two-directional damped stop gate

- Pneumatic stop gate
- Can be used with lift transverse unit Conducts stopping and releasing of the workpiece pallet, able to stop from inner-side of the pallet
- · Two-directional damped stop gate
- Infinitely adjustable damping within a range via adjustment screw on the back of the stop gate
- Workpiece pallet loads up to 100KG including forward force
- Can be opened without causing abrasion on the surface of the workpiece pallet
- Anti-static
- Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

### Recommended accessories:

SD-STswitch bracket, SD-UEswitch bracket,M12 proximity switch , fastening kits, Connection kit

Condition of delivery: Fully assembled

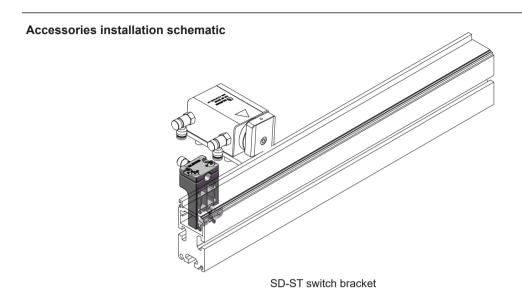
### **Parameters**

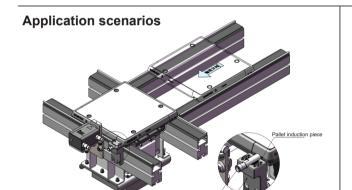
Permissible total workpiece pallet load M(kg)	Rated speed V(m/min)
100	6
100	9
100	12
55	15
55	18

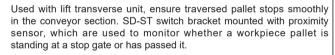
Ordering Model	Description	Remarks
SP-DA100	Two-directional stop gate	Both sides Pneumatically controlled
SP-DA100-S	Two-directional stop gate	One sides Pneumatically controlled



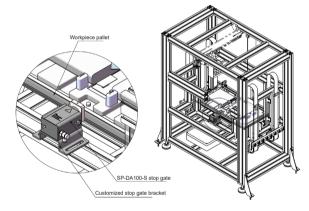
- Workpiece pallet transport speed affects the maximum stopping load of the stop gate
- Compressed air connection required 4~6 bar
- Magnetic switch standard NPN type, please notice if you need PNP type
- Pneumatic quick release coupling, 6mm diameter
- Please call us for non-standard requirements



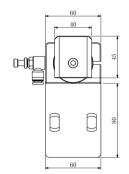


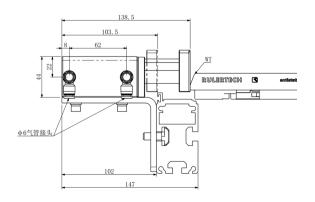


SD-ST switch bracket



Stop gate mounted in the lifting unit stops the pallet at the corresponding position

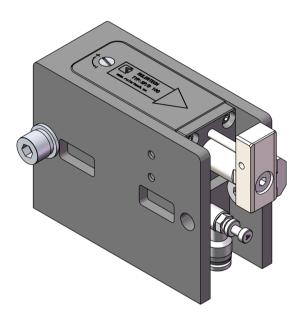


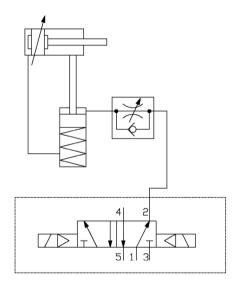














- Workpiece pallet transport speed affects the maximum. stopping load of the stop gate
  - · Compressed air connection required 6 bar
  - Pneumatic quick release coupling, 4mm diameter
  - · Please call us for non-standard requirements

### SP-D100 pneumatic damped stop gate

- Pneumatic stop gate
- · Can be used with lift transverse unit Conducts stopping and releasing of the workpiece pallet, able to stop from inner-side of the pallet
- · Two-directional damped stop gate
- Infinitely adjustable damping within a range via adjustment screw on the back of the stop gate
- · Workpiece pallet loads up to 100KG including forward
- · Can be opened without causing abrasion on the surface of the workpiece pallet
- Anti-static
- Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

### Recommended accessories:

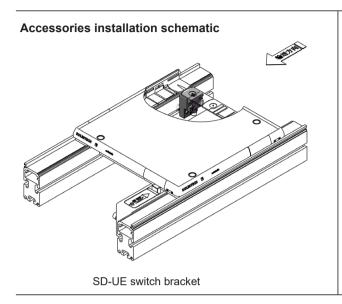
SD-UE switch bracket, M12 proximity switch, Fastening kits, Connection kit

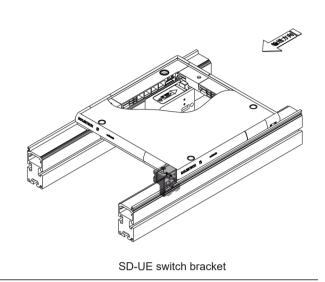
Condition of delivery: Fully assembled

### **Parameters**

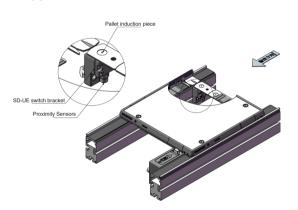
Permissible total workpiece pallet load M(kg)	Rated speed V(m/min)
100	6
100	9
80	12
60	15
40	18
20	24

Ordering Model	Description
SP-D100	Pneumatic stop gate

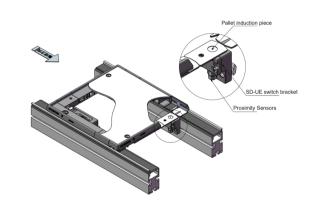




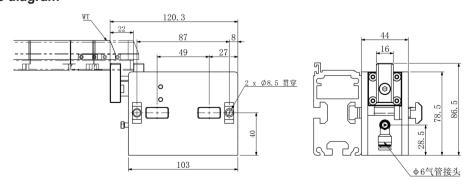
### **Application scenarios**



Stop gate on exterior of the pallet stops the pallet slowly, SD-UE switch Stop gate on interior of the pallet stops the pallet slowly, SD-UE switch bracket mounted with proximity sensor, which are used to monitor bracket mounted with proximity sensor, which are used to monitor whether a workpiece pallet is standing at a stop gate or has passed it.



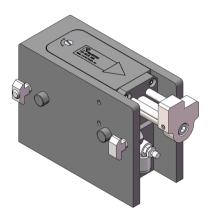
whether a workpiece pallet is standing at a stop gate or has passed it.



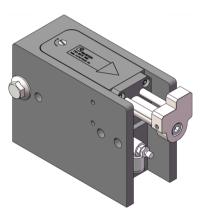




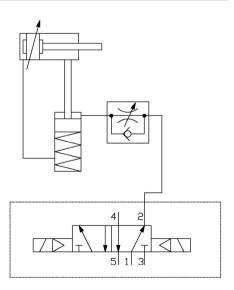




SP-200-L



SP-200-R



### SP-D200 pneumatic damped stop gate

- · Pneumatic stop gate
- · Stop gate stop on interior and exterior of the workpiece pallet
- · Stop and separate workpiece pallets smoothly, dampers reduce rebound force on the stop gate
- · Infinitely adjustable damping within a range via adjustment screw on the back of the stop gate
- Workpiece pallet loads up to 200KG including forward force
- Can be opened without causing abrasion on the surface of the workpiece pallet
- Anti-static
- · Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

### Recommended accessories:

SD-UE switch bracket, M12 proximity switch, Fastening kits, Connection kit

Condition of delivery: Fully assembled

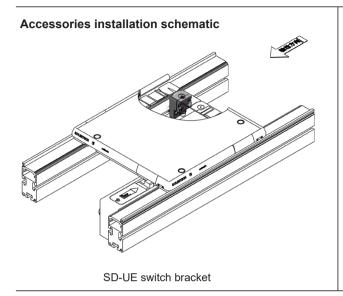
### **Parameters**

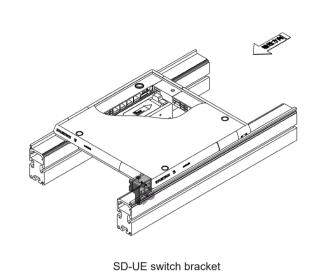
Permissible total workpiece pallet load M(kg)	Rated speed V(m/min)
200	6
140	9
100	12
100	15
100	18
55	24
35	30

Ordering Model	Description	Remarks
SP-D200-L	Pneumatic stop gate	Stops from exterior of the pallet surface
SP-D200-R	Pneumatic stop gate	Stops from interior of the pallet surface



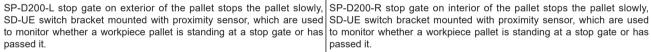
- Workpiece pallet transport speed affects the maximum stopping load of the stop gate
  - Compressed air connection required 4~6 bar
  - · Pneumatic quick release coupling, 6mm diameter
  - Please call us for non-standard requirements

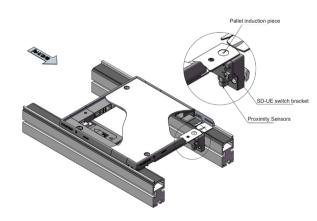




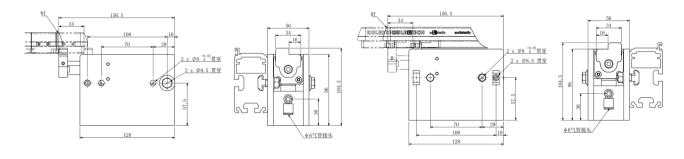
### **Application scenarios**







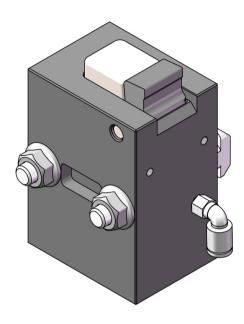
passed it.

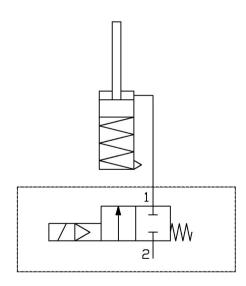














- Workpiece pallet transport speed affects the maximum stopping load of the stop gate
  - Compressed air connection required 4~6 bar
  - Pneumatic quick release coupling, 4 mm diameter
  - Please call us for non-standard requirements

### SP-N standard stop gate

- Pneumatic stop gate
- · Stop and separate workpiece pallets smoothly, dampers reduce rebound force on the stop gate
- Infinitely adjustable damping within a range via adjustment screw on the back of the stop gate
- · Workpiece pallet loads up to 200KG including forward force
- Can be opened without causing abrasion on the surface of the workpiece pallet
- Anti-static
- · Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

### Recommended accessories:

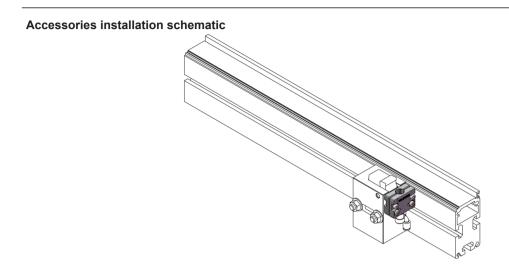
SD-UV switch bracket, M12 proximity switch, Fastening kits, Connection kit

Condition of delivery: Fully assembled

### **Parameters**

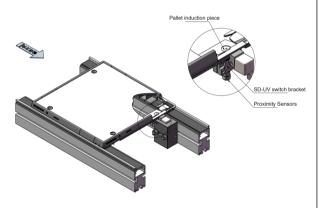
Permissible total workpiece pallet load M(kg)	Rated speed V(m/min)
200	6
140	9
100	12
100	15
100	18
55	24
35	30

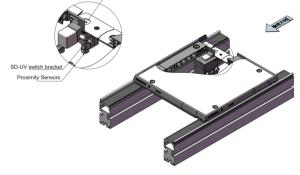
Ordering Model	Description
SP-N	Pneumatic stop gate



## SD-UV switch bracket

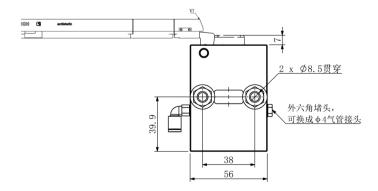
### **Application scenarios**

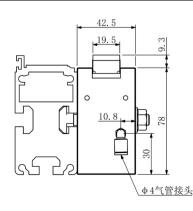




SD-UV switch bracket mounted with proximity sensor, which are used SD-UV switch bracket mounted with proximity sensor, which are used to monitor whether a workpiece pallet is standing at a stop gate or has to monitor whether a workpiece pallet is standing at a stop gate or has passed it, when sensor senses the incoming pallet, it cuts off the air passed it, when sensor senses the incoming pallet, it cuts off the air source, SP-N stop gate on the exterior of the pallet stops the pallet at source, SP-N stop gate on the interior of the pallet stops the pallet at corresponding position.

corresponding position.

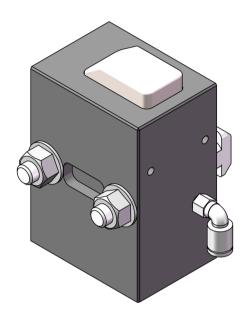


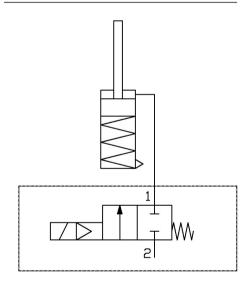














- Workpiece pallet transport speed affects the maximum stopping load of the stop gate
  - Compressed air connection required 4~6 bar
  - Pneumatic quick release coupling, 4 mm diameter
  - Please call us for non-standard requirements

### SP-W one-directional stop gate

- Pneumatic stop gate
- In an unpressurized state, the stop gate is held in the lock position by a spring, when the compressed air is released, the spring lift the stopper block and complete the stopping action and stop one or more pallets on defined position
- Workpiece pallet loads up to 140KG including forward force
- Can be opened without causing abrasion on the surface of the workpiece pallet
- Stop gates are used to stop, let through, separate and divert workpiece pallets
- · Stops pallets coming in from one direction
- Anti-static
- Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

### Recommended accessories:

SD-UV switch bracket, M12 proximity switch, Fastening kits, Connection kit

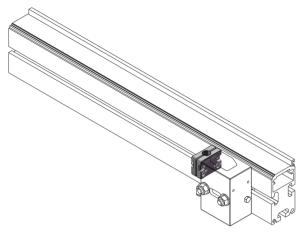
Condition of delivery: Fully assembled

### **Parameters**

Permissible total workpiece pallet load M(kg)	Rated speed V(m/min)
140	6
90	9
70	12
50	15
30	18

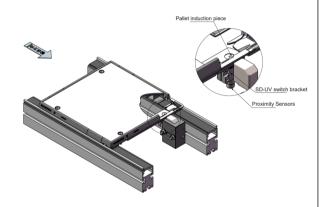
Ordering Model	Description
SP-W	One-directional stop gate

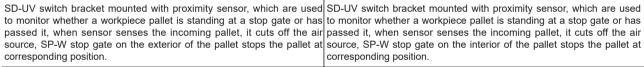
### Accessories installation schematic

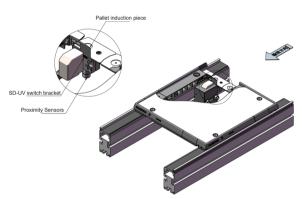


SD-UV switch bracket

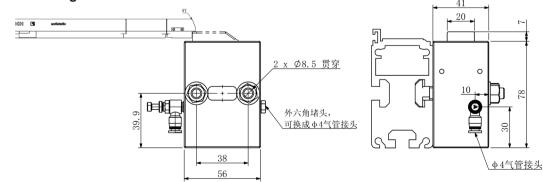
### **Application scenarios**







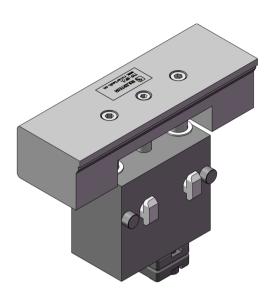
corresponding position.

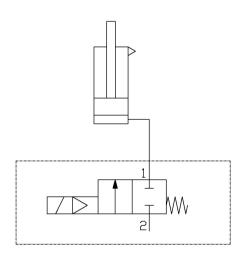














- Workpiece pallet transport speed affects the maximum stopping load of the stop gate
  - Compressed air connection required 4~6 bar
  - · Pneumatic quick release coupling, 4 mm diameter
  - Please call us for non-standard requirements

### SP-L stop-gate with lift

- · Pneumatic stop gate
- Stop and separate workpiece pallets smoothly, dampers reduce rebound force on the stop gate
- Infinitely adjustable damping within a range via adjustment screw on the back of the stop gate
- Workpiece pallet loads up to 30KG including forward force
- · Can be opened without causing abrasion on the surface of the workpiece pallet
- Anti-static
- Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

### Recommended accessories:

SD-UV switch bracket, M12 proximity switch, Fastening kits, Connection kit

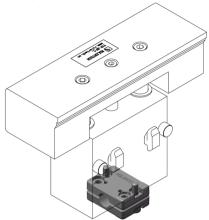
Condition of delivery: Fully assembled

### **Parameters**

Permissible total workpiece pallet load M(kg)	Rated speed V(m/min)
30	6
30	9
20	12
10	15
10	18

Ordering Model	Description
SP-L	Stop-gate with lift

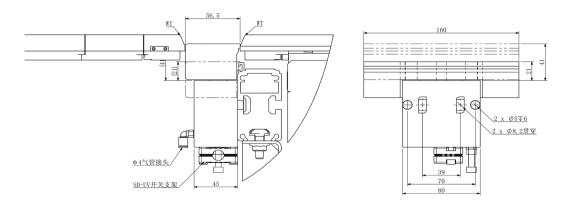
### **Accessories installation schematic**



SD-UV switch bracket

# Application scenarios REMEDOR DO NOTE: The pale with Insurement and the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the histograph of the conveyor Sections IN the pale with Insurement at the pale with Insurement at

The SP-L stop gate is mounted at the intersection of the conveyor sections and can change the direction of the pallet. For example, when the pallet reaches the traverse position, the pallet will be conveyed to the left when the stop gate lift is raised; when the stop gate lift is lowered, the pallet will be conveyed forward. Note: The guide edge of the conveyor section where the lift gate is mounted should be removed to avoid interference between the block and the guide edge.











- · Mechanical stop gate
- To prevent the pallet from rebounding off other stop gates
- Workpiece pallet loads up to 140KG including forward force
- Can be opened without causing abrasion on the surface of the workpiece pallet
- Under normal conditions, the stop block is lifted by a spring, after the pallet has passed, it prevents the pallet from rebounding against the conveying direction
- Anti-static
- Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

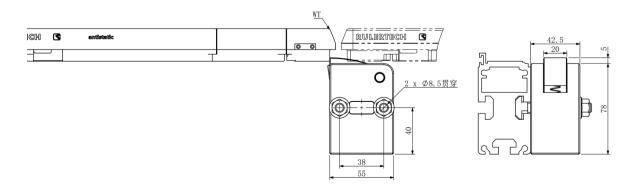
### Recommended accessories:

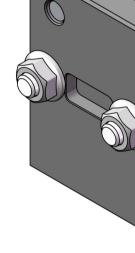
SD-UE switch bracket, M12 proximity switch, Fastening kits, Connection kit

Condition of delivery: Fully assembled

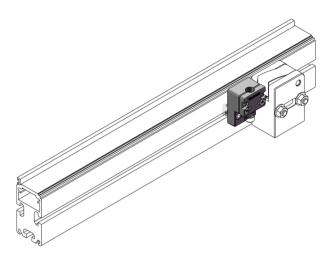
### **Ordering information**

Ordering Model	Description
SP-R	Return stop gate



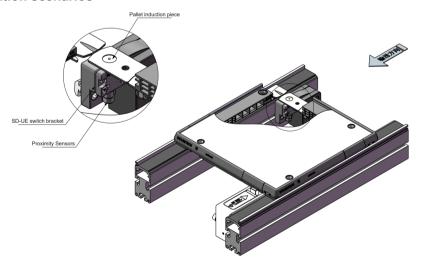


### **Accessories installation schematic**



SD-UE switch bracket

### **Application scenarios**



Used with other models of exterior stop gates to prevent pallet bounce back and improve stopping position accuracy.

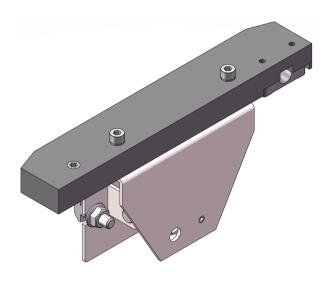


Mainly applied to accumulation rollers conveyor section









### **SP-S rocker**

- · Mechanical stop gate
- For workpiece pallet recognition
- As a damped stop for workpiece pallets in the transverse conveyor
- Workpiece pallet loads up to 30KG including forward force
- Add rockers or stoppers if workpiece pallets load exceeds rated load
- · Can be opened without causing abrasion on the surface of the workpiece pallet
- Anti-static
- Stop gates have mounting areas for proximity switches which are used to monitor the position of the workpiece pallet

### Recommended accessories:

SD-UV switch bracket, SD-UE switch bracket, fastening kits, Connection kit

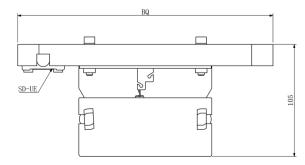
Condition of delivery: Fully assembled

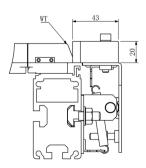
### **Ordering information**

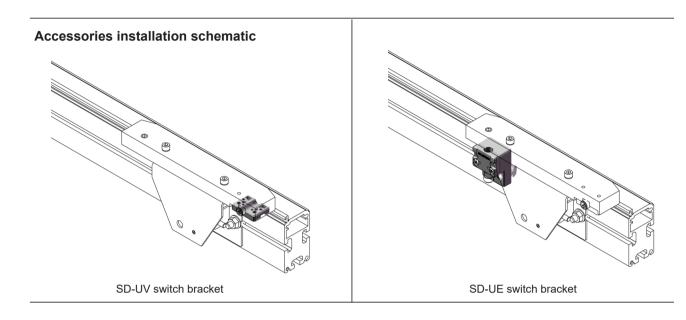
Ordering Model	Description
SP-S (Length mm)	Rocker

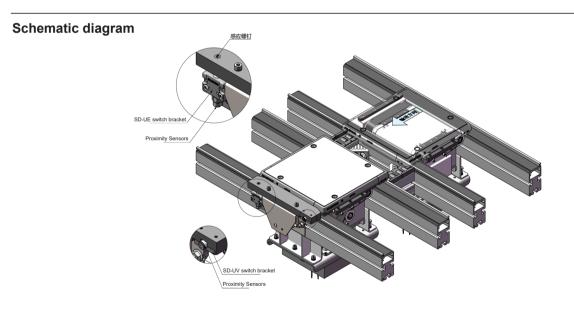
### Ordering example

Ordering Model	Description
SP-S240	Length of the rocker BQ=240mm







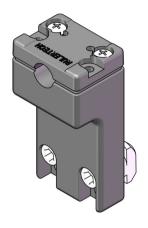


Used as a stop gate for bigger sized transverse pallets.

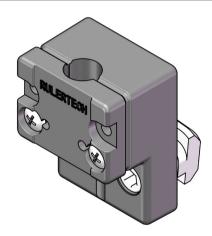
Please call us for non-standard requirements



### SD-ST switch bracket



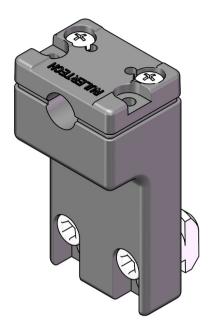
### **SD-UE** switch bracket



### **SD-UV** switch bracket







### **SD-ST switch bracket**

- Used to fix proximity sensors, monitor the state of the pallets
- · Detects the position of the pallet side
- Mounted on the lock hole on the side of the conveyor section

### Recommended accessories:

Sensor distance≥ 4mm、Length of the sensor 50mm、M12

### Scope of delivery:

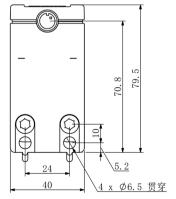
Bracket kits, Fastening kits

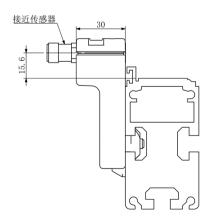
### Condition of delivery:

Fully assembled

### **Ordering information**

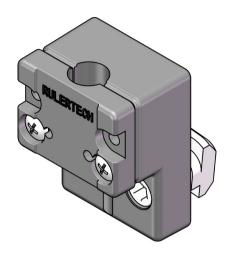
Ordering Model	Description
SD-ST	Switch bracke











### **SD-UE** switch bracket

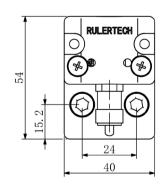
- Used to fix proximity sensors, monitor the state of the pallets
- · Detects the position of the pallet bottom
- Mounted on the lock hole on the side of the conveyor section

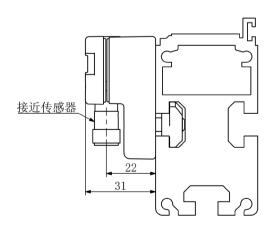
Recommended accessories: Sensor distance≥ 4mm、M12

Scope of delivery: Bracket kits, Fastening kits Condition of delivery: Fully assembled

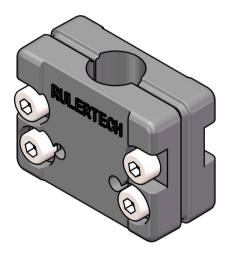
### **Ordering information**

Ordering Model	Description
SD-UE	Switch bracke









### **SD-UV** switch bracket

- Used to fix proximity sensors, monitor the state of the pallet and other stop gates
- Detects the position of the pallet bottom or state of other stop gates
- Mounted in stop gate mounting position

**Recommended accessories:** Sensor distance≥ 4mm、M12

Scope of delivery: Bracket kits, Fastening kits
Condition of delivery: Fully assembled

### **Ordering information**

Ordering Model	Description
SD-UV	Switch bracke

## Schematic diagram 18.5 9.25 RULERTECH 接近传感器



## Success stories RULERTECH

01

## New energy vehicles industry

NEV battery: Gotion, CALB, BYD, CATL, SVOLT...... NEV motor: BYD, , INOVANCE Automotive......



**02**\_\_

## **3C Industry**

Communication: Foxconn, Inspur, Sugon Consumer Electronics: TP-Link, DJI



03

## Other industry

CNC: WASU

Household appliances: BGY Education system: Rhein-koester





## Case 1 Power battery cell assembly line

- End-user: Customer B
- Industry: New energy vehicles
- Product: Lithium iron phosphate battery cells
- Integrator/Customer: Cantech

### **Description:**

- Length of the conveyor 600m
- Belt conveyor, accumulation roller chains conveyor, flat top chains conveyor with workpiece pallets
- Production Rhythm 2S
- 8 ABB robotics, 10 winding machine, 23 IWIS indexing turntables







生配置从1 生配置从1 卷线7









### Case 2

### Power battery cell assembly line

• End-user: Customer G

• Industry: New energy vehicles

• Product: Ternary lithium battery cells

• Integrator/Customer: Cantech

### **Description:**

### Power battery cell assembly line

- Floor area 10000 m<sup>2</sup>, length of the conveyor 600m
- RC belt conveyor, single speed roller chains conveyor with workpiece pallets
- Production Rhythm 4.5S











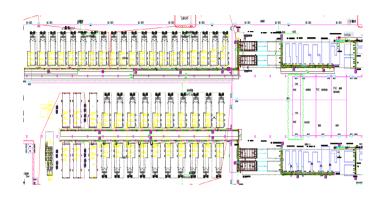
### Case 3 Power battery cell assembly line

• End-user: Customer F

Industry: New energy vehiclesProduct: Power battery cells

• Integrator/Customer: Lyric

- Power battery cell assembly line (stacking and assembly)
- TB & RT conveyor
- Floor area: 300000 m<sup>2</sup>
- 124 workstations
- Weight of workpiece 30KG
- Production rhythm 60ppm
- Two-tier reflow, linear layout











### Case 4

### Power battery cell assembly line

• End-user: Customer F

• Industry: New energy vehicles

• Product: Power battery cells

• Integrator/Customer: YH

- Power battery cell assembly (stacking)
- RT/BC/TB conveyor, lift transverse units, accumulative curves, lift positioning units
- Floor area 3600 m<sup>2</sup>
- 20 automatic workstations
- Production rhythm 16ppm
- Two-tier reflow, mixed layout





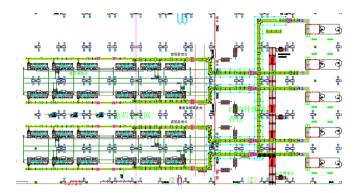




### Case 5 Power battery cell assembly line

- End-user:Customer ZCXH (Chengdu)
- Industry: New energy vehicles
- Product: Power battery cells
- Integrator/Customer: XD

- Power battery cell assembly line (stacking and assembly)
- BC/TB conveyor, lift transverse units, curves, lift positioning units, lift rotary units
- Floor area: 3600 m<sup>2</sup>
- Production rhythm 32ppm
- Two-tier reflow, mixed layout







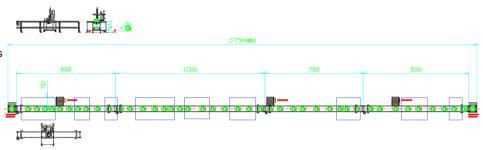






## Case 6 Power battery cell assembly line

- End-user: Customer TW
- Industry: New energy vehicles
- Product: Power battery cells
- Integrator/Customer: HMX



- Power battery cell assembly
- TB/RT conveyor, 9 workstations, workpiece weight 30KG, production rhythm 8ppm
- Floor area: 74 m<sup>2</sup>
- Two-tier reflow, linear layout



#### Case 7 Power battery cell assembly line

• End-user: Customer C

• Industry: New energy vehicles

• Product: Power battery cells

• Integrator/Customer: YH

#### **Description:**

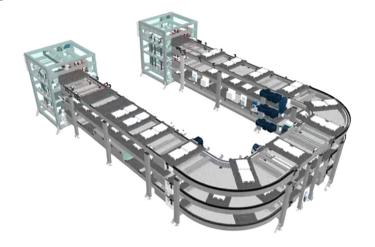
- Power battery cell assembly

- PSL high-speed conveyor, TB& RT conveyor

- Workpiece weight 1.5KG, production rhythm 22ppm

- Floor area: 160 m<sup>2</sup>

- Three-tier reflow, U-shape layout











#### Power battery module welding assembly line

• End-user: Customer G

• Industry: New energy vehicles

• Product: Pouch cell modules

• Integrator/Customer: LY

#### **Description:**

#### Pouch cell module assembly line

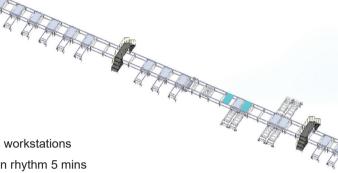
- TB/RT conveyor

- Floor area: 192 m<sup>2</sup>

- 7 automatic workstations, 13 manual workstations

- Workpiece weight 140 KG, production rhythm 5 mins

- Two-tier reflow, linear layout









#### JMA1-CIR module assembly line

• End-user: Customer ZCXH

• Industry: New energy vehicles

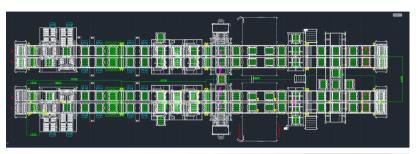
• Product: Prismatic cell modules

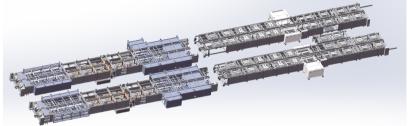
• Integrator/Customer: DZ

#### **Description:**

#### Prismatic cell module assembly line

- RT conveyor, heavy-duty rollers conveyor
- Floor area 140 m<sup>2</sup>
- 8 automatic workstations5 manual workstations
- Workpiece weight 90 KG
- Production rhythm 85s
- Two-tier reflow, linear layout









#### JMA1-CIR module assembly line

• End-user: Customer HC

• Industry: New energy vehicles

• Product: Prismatic cell modules

• Integrator/Customer: SKQ

#### **Description:**

## Energy storage prismatic cell module assembly line

- Heavy-duty rollers conveyor
- Floor area 140 m<sup>2</sup>
- 8 automatic workstations5 manual workstations
- WEorkpiece weight 350 KG
- Production rhythm 12 cells/min
- Two-tier reflow, linear layout









#### Case 11 JMA1-CIR module assembly line

• End-user: Customer ZY

• Industry: New energy vehicles

• Product: Pouch cell modules

• Integrator/Customer: XS

# 2500

#### **Description:**

## Energy storage prismatic cell module assembly line

- RCR bevel gear roller conveyor
- Floor area 200 m<sup>2</sup>
- 25 automatic workstations, 3 manual workstations
- Workpiece weight 250 KG
- Production rhythm 12 ppm
- Two-tier reflow, linear layout











#### Case 1 DM4.0 Motor flexible rotor assembly

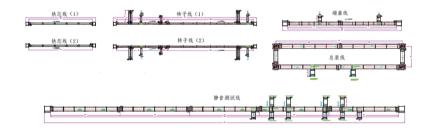
• End-user: Customer B

• Industry: New energy vehicles

• Product: Motor flexible rotors

• Integrator/Customer: CZ

- TB/RT conveyor
- Floor area 240 m²
- 52 automatic workstations, 25manual workstations
- Workpiece weight 150 KG
- Production rhythm 3 mins
- Two-tier reflow, linear layout









#### Case 2 Motor power supply assembly line

• End-user: Customer B

• Industry: New energy vehicles

• Product: Motor power supply

• Integrator/Customer: DM

# 40 28 11 11 20 30 20 11 11 120 11

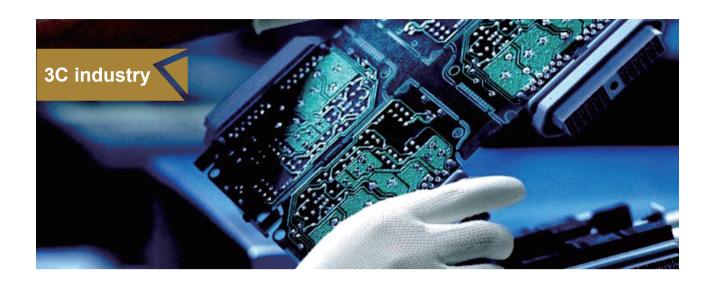
- Motor power supply assembly line
- RT roller chain conveyor+ lift transverse unit +rotary unit+lifter
- Floor area 208 m<sup>2</sup>
- 27 automatic workstations, 7manual workstations
- Production rhythm 3mins
- U-shape (with lifter), planar reflow











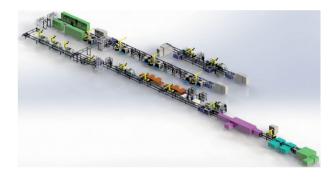
#### Server automatic assembly line

• End-user: Customer F

• Industry: 3C • Product: Server

• Integrator/Customer: Cantech

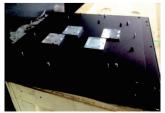
- TB, BC, RT conveyor with workpiece pallets
- Floor area 990 m<sup>2</sup>, length of the conveyor 125m
- 27 automatic workstations, 7manual workstations
- Production rhythm 2 mins
- 15 loading machine, 15 lifting units













机箱自动下料

调试段

机箱可靠性测试

人工机箱装配线

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#### Case 2 PC semi-automatic assembly line

• End-user: Customer I

• Industry: 3C Product: PC

• Integrator/Customer: Cantech

#### **Description:**

- Including automatic motherboard assembly line, computer case manual assembly and testing line



- Production rhythm 90s
- Floor area 182 m<sup>2</sup>
- 2 loading machine, 2 computer casing unloading machine, 2 lifters,6 automatic workstations, 12 manual workstations

机箱&辅料箱 自动上料

主板自动化装配线















#### Server semi-automatic assembly line Case 3

• End-user: Customer AL

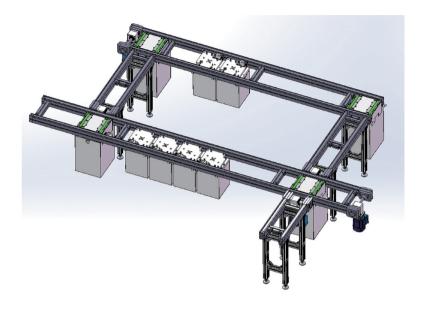
• Industry: 3C Product: Server

• Integrator/Customer: Cantech

- Including automatic motherboard assembly line, computer case manual assembly and testing line
- RT single speed roller chains conveyor
- Production rhythm 90s
- Floor area 182 m<sup>2</sup>
- 2 loading machine, 2 computer casing unloading machine, 2 lifters, 6 automatic workstations, 12 manual workstations







#### Case 4 Mobile phone film testing line

• End-user: Customer AL

• Industry: 3C

Product: Mobile phone Integrator/Customer: OTF

#### **Description:**

#### Mobile phone film testing

- TB conveyor + HT lift transverse units+ HP positioning units
- Floor area 11.52 m²
- 6 automatic workstations,
  Reserve 4 automatic workstations
- Production rhythm:27S CT=27s
- Planar reflow layout











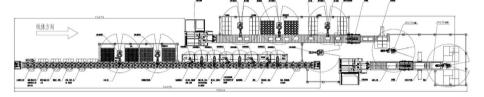
#### Food shredder assembly line

• End-user: Customer XX

• Industry: Household appliances

• Product: Food shredder

• Integrator/Customer: Cantech



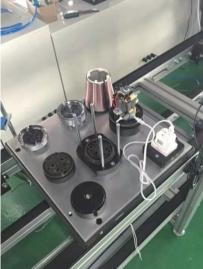
#### **Description:**

#### Food shredder automatic assembly line

TB conveyor section +BC conveyor section +HP positioning units

- Floor space 180m²
- 18 automatic workstations, 6 manual workstations
- Production rhythm:15S
- Two-tier loop, linear layout









### Case 6 Electricity meter testing

• End-user: Customer GR

• Industry: 3C

Product: Mobile phone Integrator/Customer: CL

#### **Description:**

#### Electricity meter testing line

- Floor space 400m<sup>2</sup>

- 34 automatic workstations
- Workpiece weight 13 KG
- Production rhythm 2-5S
- Planar reflow













#### CNC material distribution

• End-user: Customer DQ

· Industry: Machinery Manufacturing

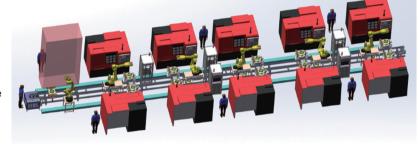
• Product: Servo Motor • Integrator/Customer: HS

#### **Description:**

Servo motor top cover manufacturing line

- RT conveyor section, double screw clamp lift positioning unit

- Floor space 200m²
- 10 automatic workstations
- Production rhythm: 30S
- Two-tier loop, linear layout









#### Case 2 Smart home industry

• End-user: Customer BGY

• Industry: Smart home appliances

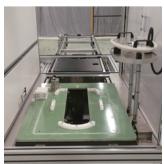
Product: Smart toilet

• Integrator/Customer: Cantech

- Smart toilet semi-automatic assembly line
- RT conveyor section, lift transverse units, lift rotary units, lifting units
- Floor space 200m²
- 8 automatic workstations, 4 manual workstations
- Production rhythm :50S
- Two-tier loop, linear layout













#### Low voltage variable-frequency drive assembly line

• End-user: Customer SF

· Industry: Electrical equipment manufacturing

• Product: Low voltage variable-frequency drive

• Integrator/Customer: Cantech

#### **Description:**

#### Low voltage variable-frequency drive assembly and testing line

- Floor space 140m<sup>2</sup>

- 10 workstations, semi-automatic assembly and testing line

- Workpiece weight 5KG

- Production rhythm : 2mins

- Two-tier loop, U-shape layout





### Case 4 Speaker assembly and testing line

• End-user: Customer 3G

• Industry: Household appliances

• Product: Home speaker

• Integrator/Customer: JC

#### **Description:**

#### Home speaker assembly and testing

- TB & BC conveyor section

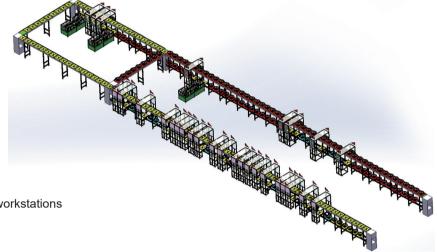
- Floor space 600m<sup>2</sup>

- 22 automatic workstations, 7manual workstations

- Workpiece weight 16 KG

- Production rhythm: 4 mins

- Two-tier loop, U-shape layout







### Teaching and training

• End-user: Customer LKS

• Industry: Teaching and training

• Integrator/Customer: Cantech

#### **Description:**

#### Home speaker assembly and testing

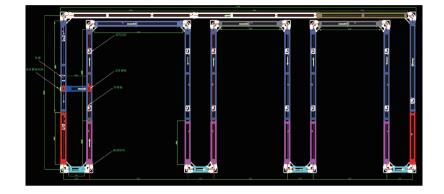
- Floor space 128 m<sup>2</sup>

- 20 automatic workstations

- Workpiece weight 10kg

- Production rhythm :20s

- Planar U-shape layout









#### **Customer list**































































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#### **Technical notes**

#### Features

- The Rulertech conveying system is a mature structure consists of different modules, which can be combined to realize various production conveying logic.

#### Layout planning

- Rulertech offers effective training for layout planning, installation, commissioning and maintenance.

#### Delivery scope

- We offer standard mechanism modules, which in general do not include sensors, solenoid valves and related electrical components necessary for the conveyor control process and small pneumatic parts.

#### CE Certification

-Rulertech conveyor systems comply with the relevant specifications for mechanical components in the CE certification and assume the responsibilities specified in the certification.

#### System durability features

-Can be used in the manufacturing industry in common environments such as water, grease, mineral oil, detergent, etc., for environments with high temperature, strong corrosion, chemical reagents, please contact our engineers.

#### Cautions for conveyor medium

- High viscous fluids caused by high temperatures may lead to system failure.
- If the object in contact with belts or toothed belts has its own lubrication characteristics, there is a possibility that the driving force will be reduced due to slippage.
- Roller chains can be cleaned with chain lubricants or cleaning agents, such as rust remover.



#### Technical data and notes

#### Modifications and re-design

All materials and standard module components of Rulertech conveyor systems can be redesigned and reused. For more information on modifications and re-design, please contact our engineers.

#### Working pressure

-Working pressure 4 to 6 bar under general compressed air standard.

#### Maintenance

-The Rulertech conveyor system is maintenance free, except in some scenarios where external lubrication is required, such as automatic lubricators.

#### Wear

-Rulertech conveyor systems are subject to a certain amount of wear and tear during operation, which does not affect the functional safety of the system during its service life.

The following measures can effectively reduce wear and tear

- Shut down the conveyor section when the system is not running.
- Operation at fix speed
- Minimize workpiece pallet weight within design limits
- Prevent unnecessary accumulation by reasonable arrangement of the workpiece pallets
- Prevent debris and dust from falling into the conveyor section

#### · Loads, speed and wear

-There is a linear relationship between load and wear and between speed and wear, i.e. the greater the associated loads, the greater the proportional increase in wear; the greater the associated speed, the greater the proportional increase in wear.

#### · Dynamic influence of conveying speed

-At higher operating speed, the impulse of the workpiece pallet will act on the stop gate and be subjected to the force causing the pallet to rebound. In such cases, it is recommended to dampened stop gates for belt conveyors and a combination of stop gates and return stop gates for roller chain conveyors.

#### Overload

- Overloading of the conveyor section may damage the conveying medium, the motor and the drive teeth.
- -Overloading of pneumatic components may result in failure of function



### Control function plan

Active module	Description
S	Storage
NS	Non-storage
S	Set
R	Reset
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Non-storing triggering of a time function (with cycle time T3).  After it has been concluded, a switch function is triggered.

#### **Common Abbreviations**

WT = Workpiece pallet

SP = Stop gate

S = Sensor

Y.. = Valve

Z = Cylinder

LT = Longitudinal conveying section

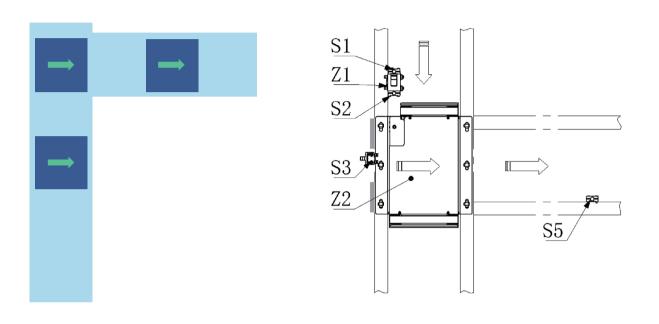
QT = Transversal conveyor section

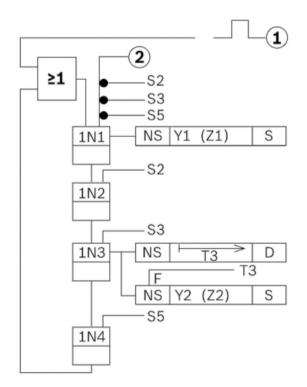
1 = Release pulse after startup

2 = Cycle operation



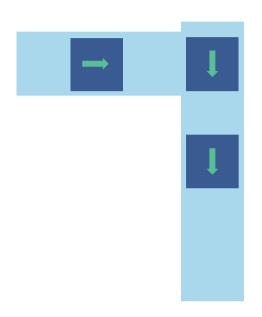
#### Transfer to secondary section

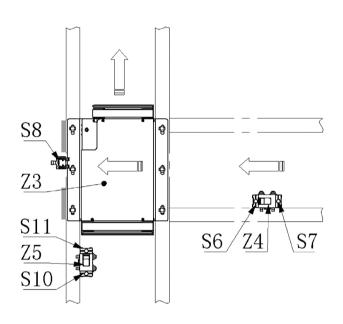


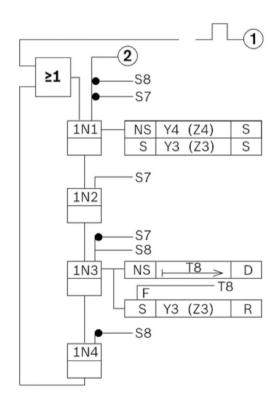


S2	= WT behind SP(Z1)
S3	= WT at HT (Z2)
Т3	= Delaying time
S5	= Activate main conveyor section
Y1	= Main conveyor section
Y2	= Lift cylinder

#### Transfer to main conveyor section



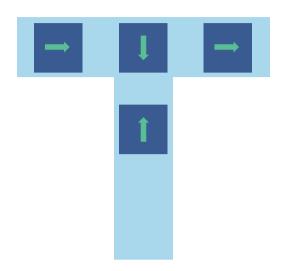


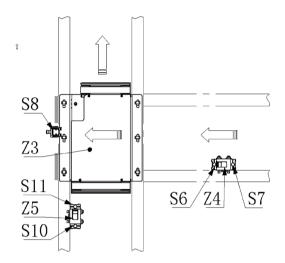


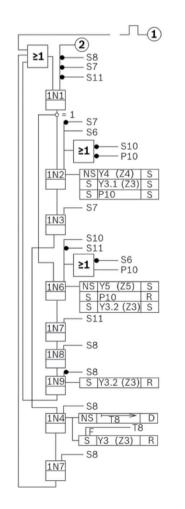
S7	=WT behind SP(Z4)
S8	= WT at HT
T8	= Delaying time
Y3	= Lift cylinder HT(Z3)
Y4	= secondary conveyor section



#### **Divert to secondary section**

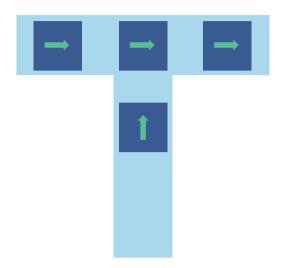


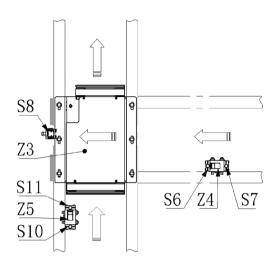


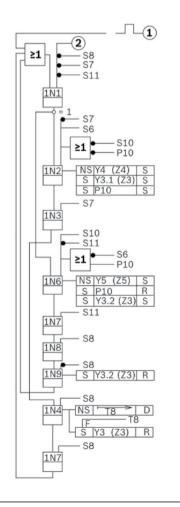


S2	= WT behind SP(Z1)
S3	= WT at HT
Т3	= Delaying time
S5	= Activate secondary section
Y1	= Main conveyor section SP(Z1)
Y2	= Lift cylinder HT(Z2)
P10	= Priority for main conveyor section
A1	= with release signal recognition system (0=divert to secondary section 1=release to main section)

#### Transfer to main conveyor section



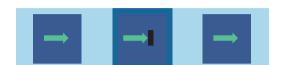


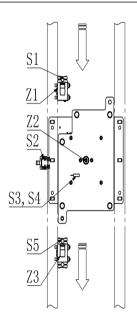


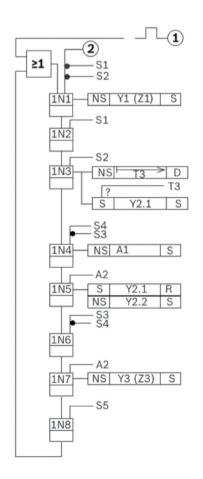
S6	= WT before SP(Z4)
S7	= WT behind SP(Z4) (Activate secondary section )
S8	= WT on HT (Z4)
S10	= WT before SP5(Z5)
S11	= WT behind SP5(Z5)
T8	= Delaying time
Y3	= Lift cylinder HT(Z3)
Y4	= secondary conveyor sectionSP(Z4)
Y5	= Main conveyor section SP(Z5)
P10	= Priority for main conveyor section



## Lift positioning at conveyor section







S1	=WT behind SP1
S2	= WT arrival
S3	= Lift from bottom position
S4	= Lift from upper position
S5	= WT behind SP2
Y1	= SP1 (Z1) release
Y2	= WT lift
Y3	= SP2 (Z3) release
A1	= Activating process
A2	= Ending process



#### **Motor selection instructions**

- three-phase five-wire system
- Overload protection circuit should be configured
- Rulertech only provides the reference data of the corresponding module motor, the specific parameters are still subject to data provided by the motor manufacturer

M - 2 1	Maximum load	Vn(m/min)	50Hz Motor power 60Hz Motor p				
Module	(KG)		V(m/min)	(KW)	V(m/min)	(KW)	
		18	18.0	0.25	18.0	0.29	
TD /TDM /OD /UT TD /		15	15.0	0.25	14.4	0.29	
TB/TBM/CB/HT-TB/   HTH-TB	60	12	12.0	0.25	10.8	0.22	
		9	9.0	0.18	8.7	0.22	
		6	6.0	0.18	5.4	0.22	
		18	18.5	0.45	18.9	0.42	
		15	15.7	0.37	13.4	0.42	
	150	12	11.2	0.37	13.4	0.42	
		9	8.5	0.37	10.2	0.42	
ВС		6	5.7	0.18	6.8	0.22	
ВС		18	18.5	0.75	18.9	0.86	
		15	15.7	0.75	15.7	0.86	
	250	12	10.9	0.75	11.1	0.63	
		9	9.2	0.55	8.9	0.42	
		6	5.9	0.37	5.9	0.22	
		18	18.5	0.25	16.6	0.22	
RT/CU90/CU180/		15	13.9	0.18	13.3	0.22	
TUH/HT-HC/HTH- FC/HTH-RC/HTX-	300	12	11.1	0.18	11.1	0.22	
FC/HTH-RC/HTX- HP/HTH-RC		9	9.2	0.18	8.3	0.22	
		6	5.5	0.18	6.7	0.22	
		18	18.5	0.37	17.5	0.45	
		15	14.6	0.37	14.5	0.45	
RTU/RTG	700	12	12.0	0.37	11.5	0.45	
		9	9.6	0.37	9.0	0.45	
		6	5.9	0.37	5.5	0.3	
		18	16.8	0.55	15.8	0.45	
		15	13.2	0.37	15.8	0.45	
	1200	12	10.4	0.37	12.5	0.45	
		9	8.1	0.25	9.8	0.3	
RTH		6	5.4	0.18	6.5	0.22	
		18	16.8	0.75	17.2	0.86	
		15	14.4	0.75	14.3	0.86	
	2400	12	11.9	0.75	12.0	0.86	
		9	8.4	0.55	8.1	0.42	
		6	5.4	0.37	6.5	0.42	
		18	15.8	0.09	19	0.1	
	30	15	13.2	0.09	15.8	0.1	
HT-TB/CV90/CV180		12	10.6	0.09	12.7	0.1	
		9	8.3	0.09	10	0.1	
		6	5.7	0.09	6.8	0.1	

- Not including all functional modules , please contact Rulertech engineers for further questions.
  - · Some functional modules such as rotary unit, lifting unit, etc. contain conveying sections of various conveying medium, please refer to the motor power reference table to select parameters according to different conveying medium.
  - Non-standard customization available, call for inquiries





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