

# MODULAR FLAT TURNING CONVEYOR



CONVEYOR GUIDE CO.,LTD.

บริษัท คอนเวเยอร์ ไกด์ จำกัด



Innovative



Smart



Safety

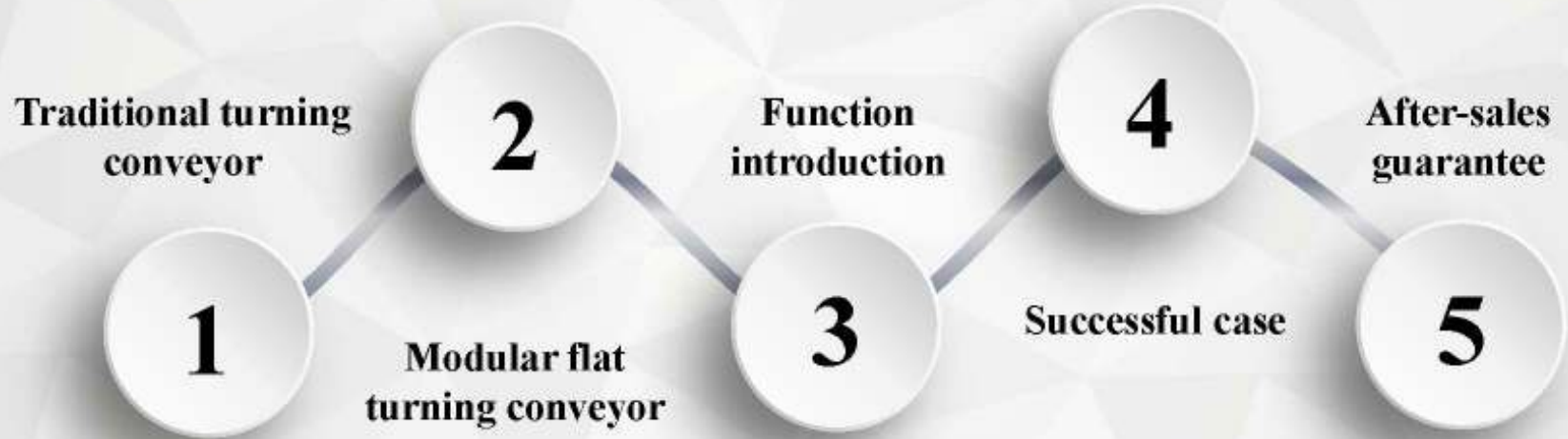


Energy saving

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## Contents





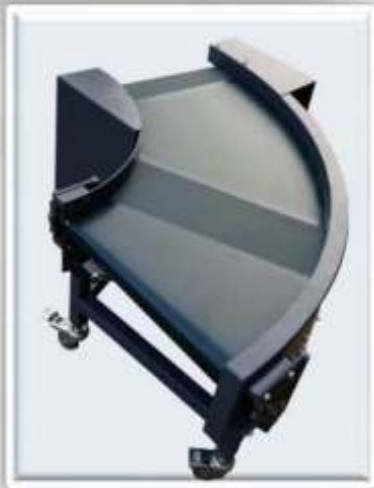
PART 01

# Traditional turning conveyor

- Application overview
- Defect analysis
- Development trend

## Application overview

### PVC turning conveyor



As a favorite product of noiseless workshop, it has occupied printing, logistics and electronics markets in recent years, but due to the short service life and difficult maintenance resulting from complex structure and weak body, it is on the decline.

### Roller turning conveyor



The standardized production of spare and accessory parts and simple body structure make it possess immeasurable value in the industries of logistics, and back-end box packaging. However, its defects such as big clearance, big shake, serious excursion and blocking, etc. restrict its long-term application in the market. .

## Application overview



### Chain-slat turning conveyor



By virtue of flexible line layout and simple installation and maintenance, it distinguishes itself in the industries of beverage, logistics, medicine, labeling, etc. and is replacing traditional belt conveyor with great momentum.

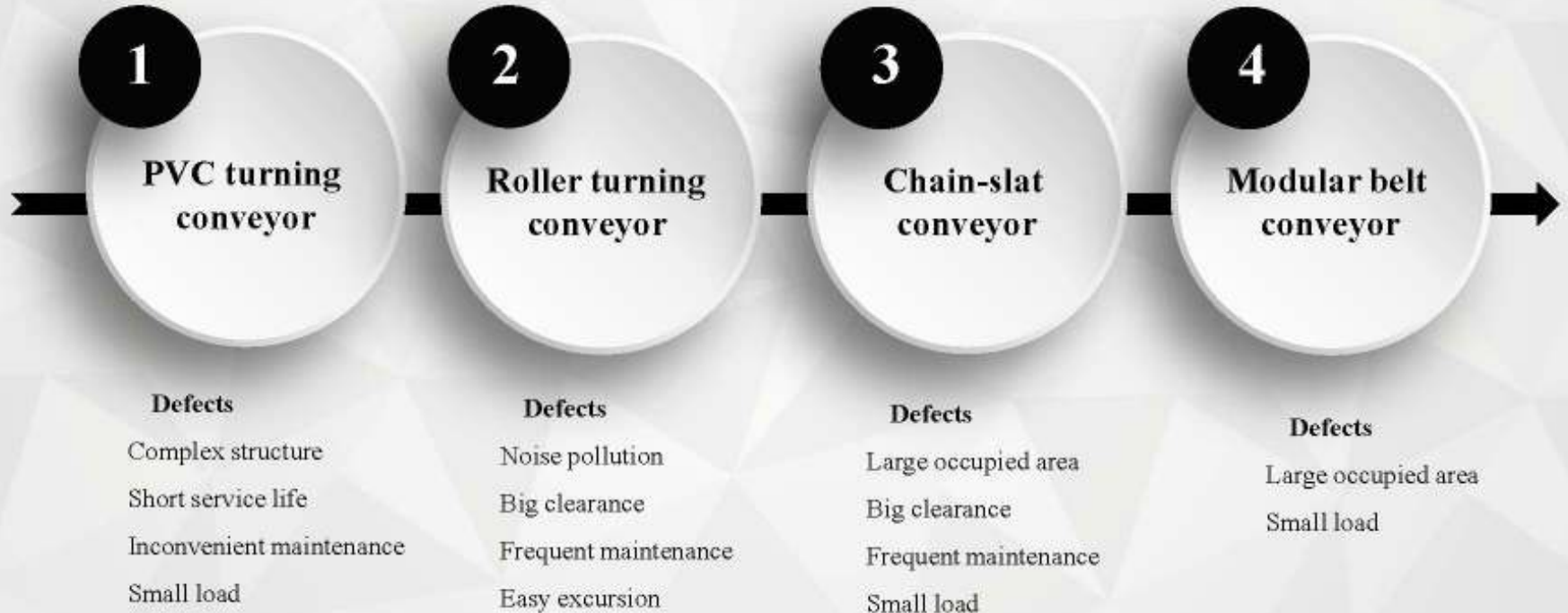


### Modular belt conveyor



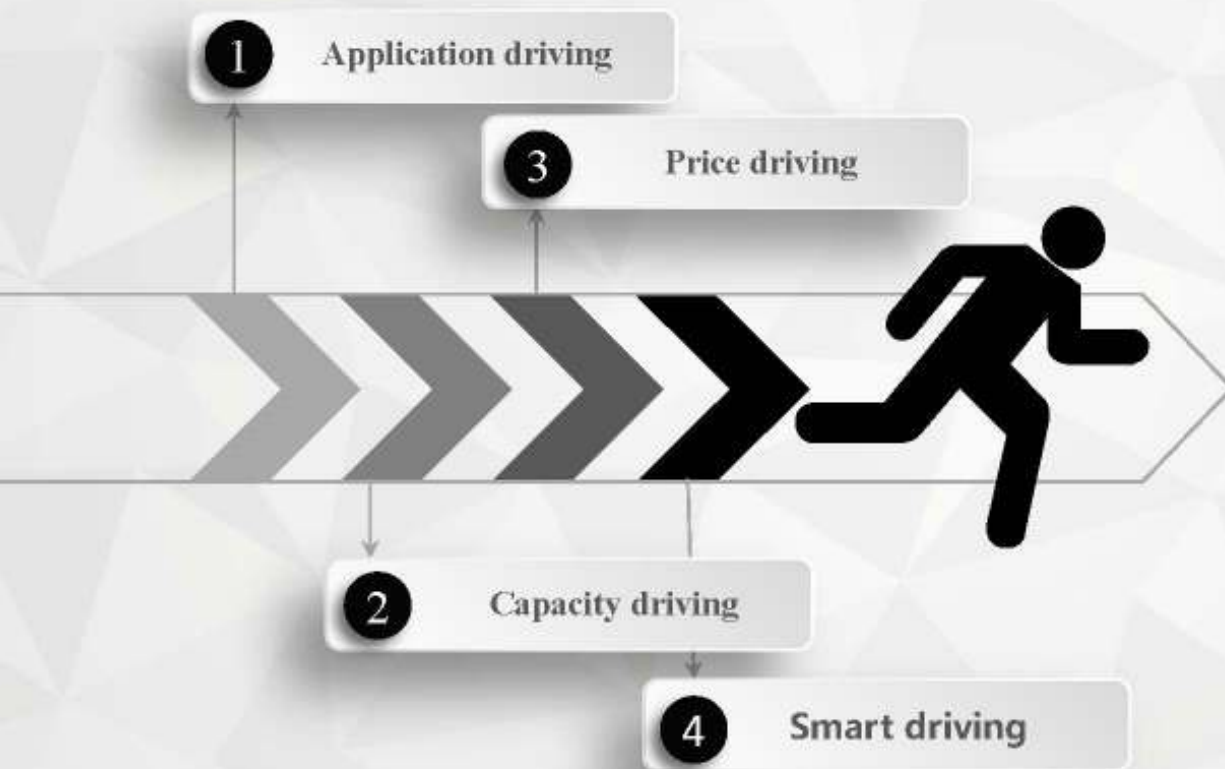
Its multi-material and multi-specification appearance enables it to be utilized in all application environments of all industries. And with the advantages of simple disassembly, assembly and maintenance as well as no repair, it is the best choice for all terminal users.

## Defect analysis





## Development trend



Development course of turning conveyor products since their birth: Roller turning conveyor was used initially by terminal customers to replace manual lifting, and then PVC belt conveyor is used to transport bulk cargo smoothly, which is driven by application. From the manufacturing of single machine to mass production, much standardized processing and production equipment is added due to the driving of capacity. And with the increase in capacity, when the balance of supply and demand of market is realized, competition enables price driving to become the primary element. When traditional technology is unable to satisfy the changing demands of terminal customers, the driving of Smart becomes new scenery. Future is for modular flat turning conveyor.



## PART 02

# Modular flat turning conveyor

- Background of emergence
- Product advantage
- Compared with traditional turning conveyor



## Background of emergence

### Background of emergence

#### **Global plants are confronted with the same problems**

Shortage of land for workshop

Increasing quantity demanded

Long downtime for after-sales  
service

Increase of manufacturing cost

Improvement in automation

Are you still worried about the difficult replacement of  
conveyor belt due to its complex structure?

Are you still bothering about the slow order placement of  
turning conveyor belt?

Are you still angry about the easy deformation of traditional  
PVC turning conveyor belt and cracking of joint part?

Are you still troubled by the sudden failure of turning  
conveyor belt?

Are you still anxious about the slow conveying and small load  
of turning conveyor?

Are you still finding ways to make the belt of turning  
conveyor available in terms of resistance to chemicals, low  
temperature and high temperature or available in other special  
application environment, etc.?

## Product advantage

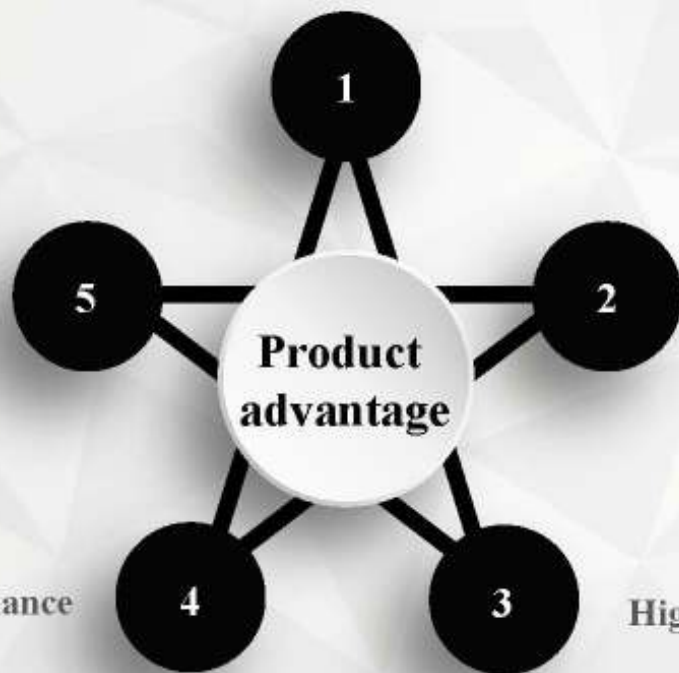
Small occupied land

Widely application

High speed

Big load

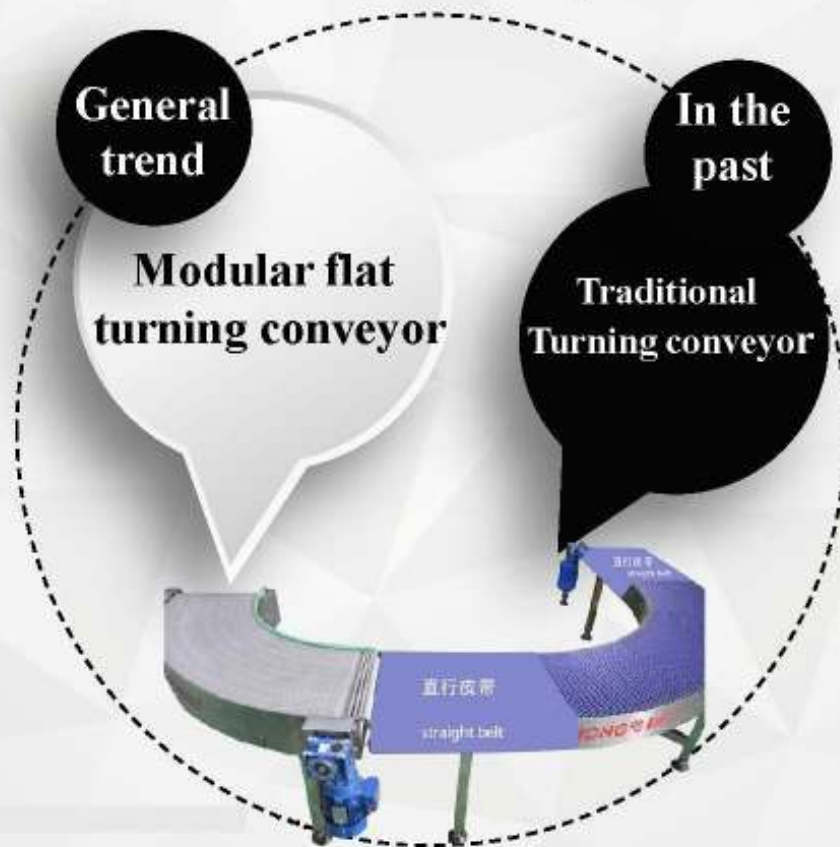
Fast maintenance



HS-2000A modular flat turning conveyor belt boasts stable operation, and fixed structure design, which avoids the disadvantages of the linear segment presentation of general turning modular network at the driving end. HS-2000A modular flat turning conveyor belt can replace the surplus linear segment design with various included angles, which saves the mechanical manufacturing cost and makes the assembly line layout the most space-saving operation mode. HS-2000A flat modular turning conveyor belt adopts Sprocket drive, and the belt is made with special compound plastic steel material (meanwhile, new materials can be developed as required, such as strong acid and strong base resistant, high-temperature resistant, low temperature resistant, anti-static, etc.), which can withstand instantaneous impact, and low friction coefficient, and show the strength of extension more than 10 times greater than the general PVC turning conveyor belt; it adopts Sprocket drive, so it can withstand high speed and heavy load, suitable for logistics conveying of various light and heavy loads of paper industry, printing industry, beverage industry, package industry, etc. And it is your best choice for maintaining stable assembly line.

## Compared with traditional conveyors

Currently, HS-2000A modular flat turning conveyor belt developed by HONGSBELT is designed with modular network structure, and takes sprockets as the driving mode, which avoids the disadvantage of skidding, and makes it maintain the most stable operation condition in the conveying process. Its driving sprocket shaft hole is designed as hexagon parallel to opposite side of 41.5mm, and the corresponding hexagonal axis steel with the standard specification of 41mm is taken as drive shaft. Apart from the superiority in easy accessibility of raw material and easy processing, it also solves the floating effect arising from the string movement of quadrilateral axis used by general modular belt, thus ensuring more stable operation.



A: Traditional PVC belt turning conveyor has very short service life, for its unstable bearing parts are on fragile PVC conveyor belt, and the structure of conveying machinery is also too large. Besides, it takes the smooth rollers as drive, easily causing low tension and skidding, and even past service and effect on production. In addition, the unstable PVC conveyor belt products easily produce sudden fracture of joints, and cause the bend of belt and off tracking.

B: Traditional roller turning conveyor has its unstable bearing parts on fragile roller, which makes the bearing short service life, and also makes a lot of noise. In addition, the large space between rollers directly affects its limitation on goods conveying. Especially, when chemical products are conveyed, it is easier to cause corrosion on roller, which causes a lot of costs for parts replacement, and increases surplus production costs.



## PART 03

# Function introduction

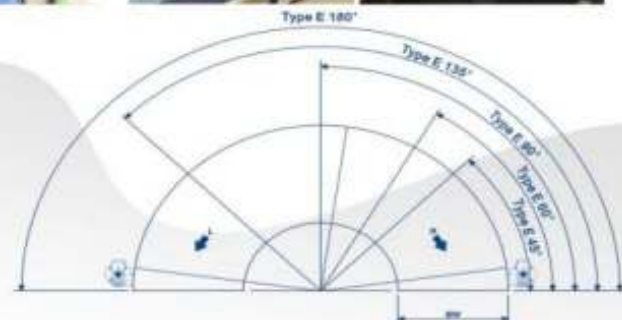
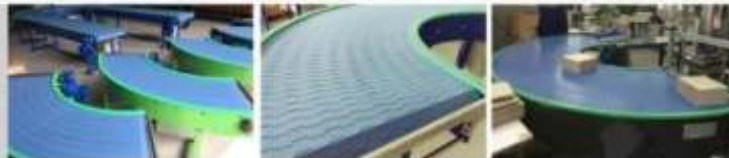
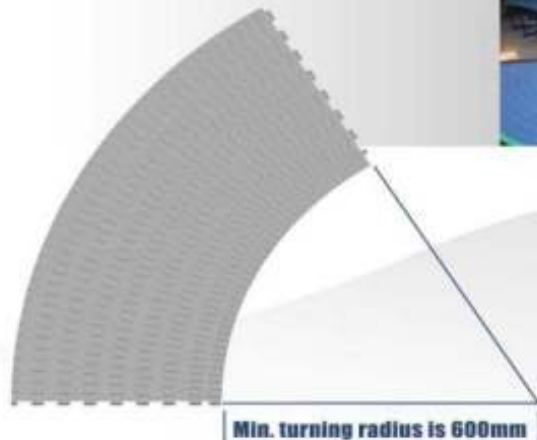
- Function introduction
- Design introduction
- Complete Conveyor display



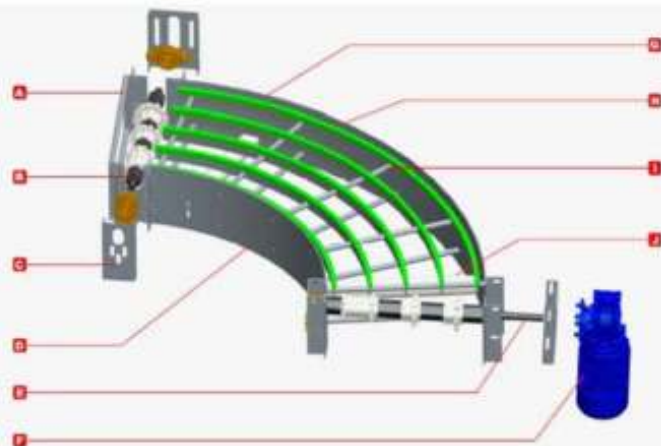
## Function introduction

The new generation of turning conveyor belt finally comes out – a brand new turning conveyor product developed by HONGBELT with regard to logistics conveying

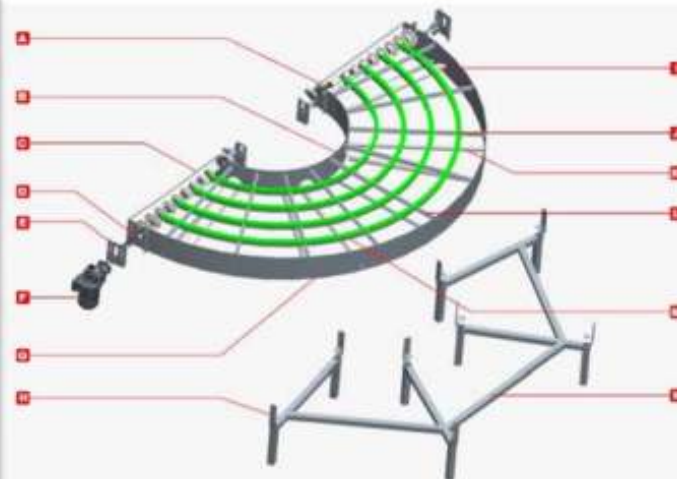
The matched 2000A modular flat turning conveyor belt will not change the inner radius with the change of width of conveyor belt, namely, the inner radius will not increase along with the increase of width. The inner radius of the conveyor is only 600mm, and has the extended width of space of 100mm and the maximum width of 1,500mm. It can withstand the heavy load of 1t goods, and realize the maximum speed of 120m, which can satisfy the requirements of high speed for goods conveying in airports, as well as extensive logistics conveying requirements. Also it can achieve the conveying at various angles, and is applicable to 30° , 45° , 60° , 90° , 120° , and 180° turning conveyors.



## Design display



1 连杆A	Connection A	2 电机	Motor
3 被动轴	Driven shaft	4 机身外侧板	Outside plate
5 轴承座框	Bearing frame	6 托条	PE strips
7 机身内侧板	Inside plate	8 连杆B	Connection B
9 传动轴	Driving shaft	10 辊筒	Roller



1 被动轴	Driven shaft	11 机身挂板	Frame hook
2 机身内侧板	Inside plate	12 辊筒	Roller
3 连杆C	Connection C	13 托条	PE strips
4 传动轴	Driving shaft	14 连杆A	Connection A
5 轴承座框	Bearing frame	15 连杆B	Connection B
6 电机	Motor	16 支撑部	Supporting plate
7 机身外侧板	Outside plate	17 支撑架	Support plate



## Design display

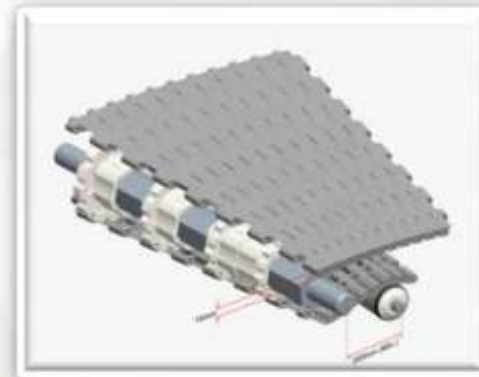
### Compulsive drive Sprocket

eliminates slip and off tracking of conveyor belt, and maintains steady conveying..



### Hexagonal transmission shaft

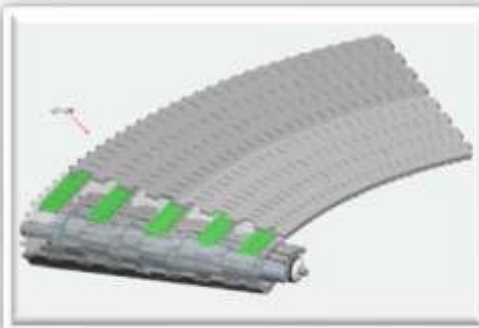
Raw material of transmission shaft made of hexagonal rolled steel can be easily obtained and manufactured, and thus eliminates the float effect of quadrangle axis applied on most of modular conveyor belts.



## Design display

### Supporting sliding rail

Steel structure at the bottom embedded with macromolecule wear-resisting plate is taken as the supporting conveyer belt, greatly decreases force of friction, speeds up conveying, lowers wear of conveyer belt, and improves service life.



### Technical parameters

Offer all-round technical parameters of conveyer belt, convenient for design and mechanical application for designers, and offer tensile and adaptive temperature of four materials in order to assist users with correct model selection under particular circumstances.

Fixed Radius: 600mm  
Minimum Width: 200mm  
Open Area: 0%  
Approved: FDA  
Rod:  $\varnothing$  5.0mm  
Flight: No  
Side Guard: No  
Curve: Yes



#### Data

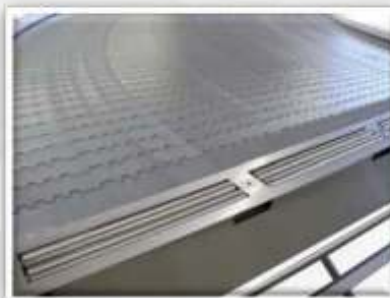
Belt Material	Belt Strength		Temperature	
	Straight		℃ (min.)	℃ (max.)
	Kg/M(BW)	N/M(BW)		
Polypropylene	1800	18000	1	100
Polyethylene	1550	15500	-60	80
Acetal	2640	26400	-40	80
Nylon	2230	22300	1	180

BW - Belt Width

## Design display

### Transition processing description

Use small roller of steel material or balls to transmit, and transmit objects to next conveyor belt steadily and seamlessly.

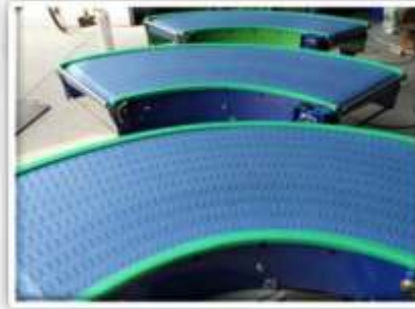


### Internal tangent decreases friction

Use new designed internal tangent and frictional spherical guide of zero resistance, with less noise and long service life. It is a breakthrough of turning product series and symbolizes a new height.



## Display of complete conveyor





PART 04

# Successful case

- Field application
- Display of partners



## Field application

### Logistics



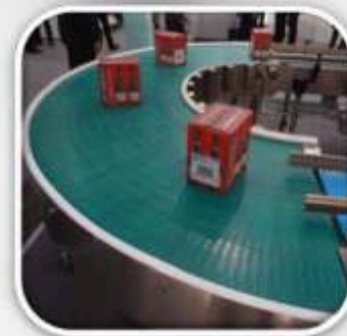
### Household appliances



### Beverage



### Beer



HONGSBELT has taken the lead in flat turning conveyor for 15 years and has accumulated rich experience, valuable knowledge on application of flat turning system and modular flat turning belt. So far, we have installed over 5,000 flat turning conveyors as field application cases, with no failure, of which we are proud.



## Field application

**Vegetable**



**Fruit**



**Printing**



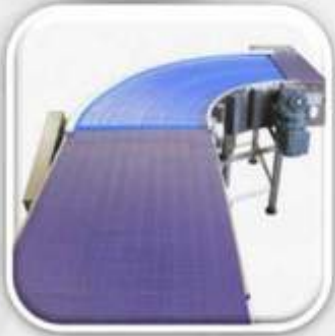
**Printing**



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## Field application

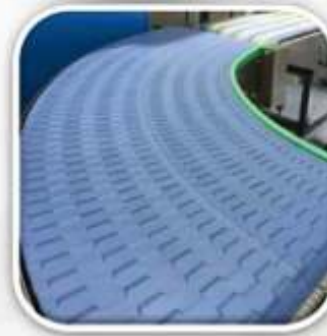
**Food**



**Cement**



**Shoemaking**

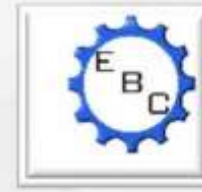


**Ceramic**



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## Foreign partners



## Foreign partners





## Foreign partners



## Foreign partners







PART 05

# After-sales guarantee

- Guarantee for delivery time
- After-sales response
- Fast maintenance

## Guarantee for delivery time

**Standardization**

**Advanced equipment**

**Accessory inventory**

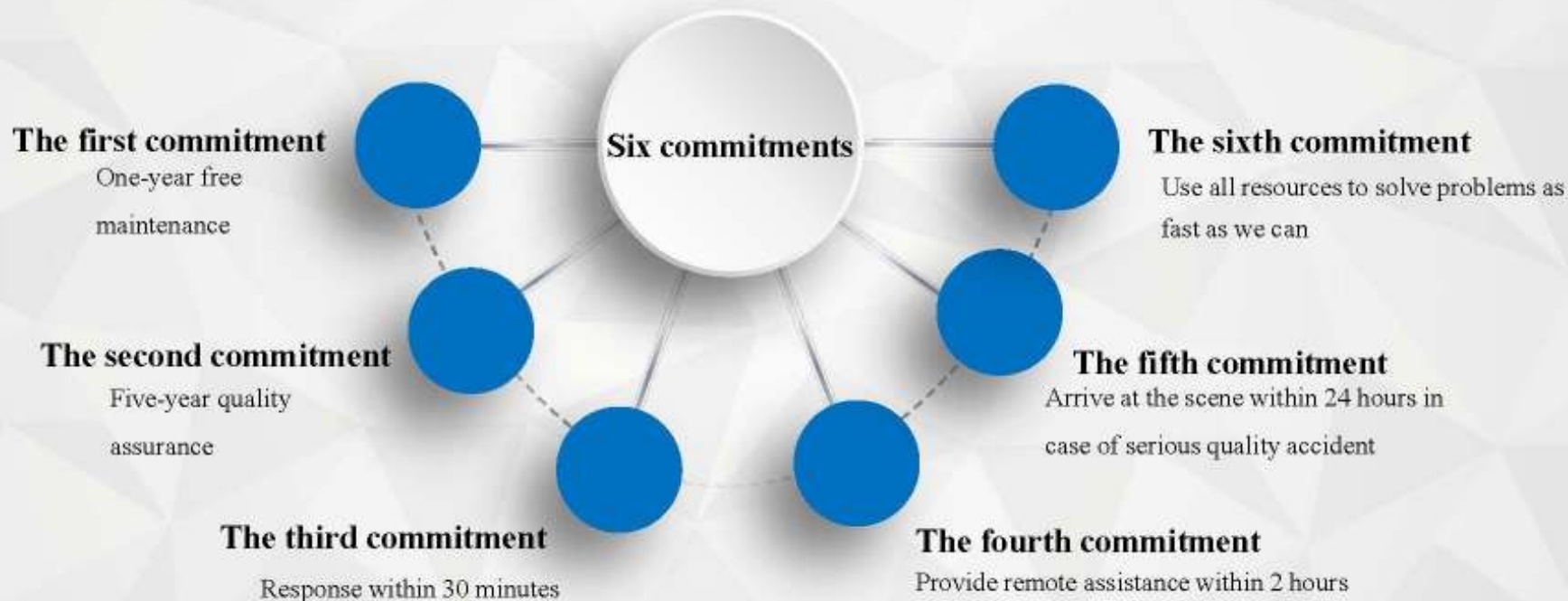
**Mass production**

**Immediate  
schedule for production**



1. Standard production process and assembly sequence to meet the requirement of mass production.
2. Bring in advanced foreign processing equipment with higher precision so as to ensure quality and appearance.
3. Related accessories of conveying equipment are all in stock, and the conveyor belt is self-produced to ensure immediate schedule for production.
4. Delivery within appointed time after the drawings are confirmed, and leave the factory after successful pilot run.

## After-sales response



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## Fast maintenance

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Tools: one straight screwdriver, one hard thin steel wire and one plier



## Fast

## maintenance

At the middle openings of the flat turning conveyor, use straight screwdriver to align the locking plate so as to unclench it.





## Fast maintenance

Then move to the center of the tangent line of conveyor, use inserted rods to push out the inserted rods in the corresponding round hole with thin steel wire





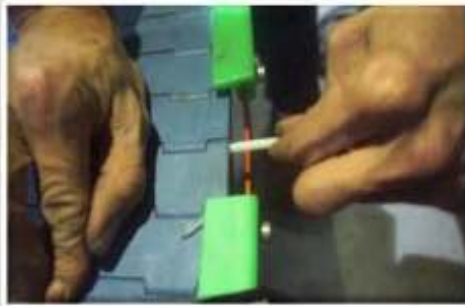
## Rapid maintenance



Complete it  
within one  
minute



The  
disassembling  
is finished



After selection of the conveyor belt which needs to be removed, disassemble it based on the above instruction, and then assemble it



After inserting the rods, use pliers to lock the locking nail

**Thank you**



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