

COMPANY INTRODUCTION

400+

More than 400 national patents and software
copyright certification qualifications

70+

A R&D innovation team of over 70 people

180000+

Three major production bases covering
180000 square meters

120+

More than 120 after-sales service teams
from countries and regions around the world

20+

20 years of deep cultivation in the field of
intelligent conveyor system solutions

5000+

Conveyor solutions



Specializing, refined,
and innovative



National High-tech
Enterprise



Complies with
ISO9001:2005
quality management system



Obtaining international
CE certification



Over 400 national level
patent certificates



Intellectual Property
Standardization System
Certification



Logistics and Technology
Association Product
Technology
Innovation Award



Obtaining FDA
certification
in the United States



Huanan Xinhai
University of Science
and Technology First
Huanan Xinhai
Joint Engineering Laboratory

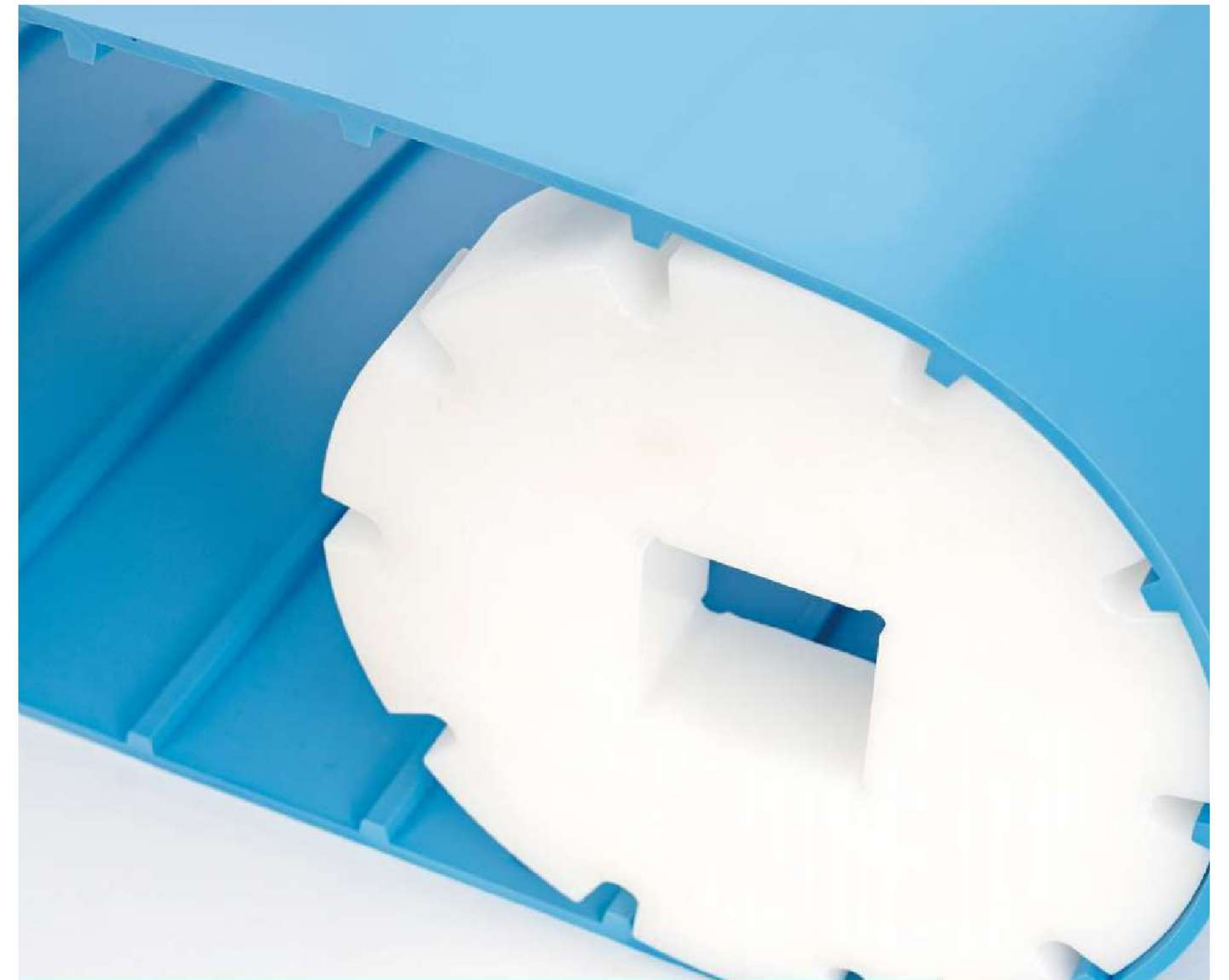


Shenzhen Longgang
Top 50 Innovative
Enterprises

Founded in 2005, HUANANXINHAI is a leading intelligent conveying terminal provider in China. It is committed to the research and development and production of modular belts and modular intelligent conveying equipment. Its products are widely used in food, beverage, corrugated, tires, intelligent warehousing, express logistics, and other industrial automation fields. It has formed a complete industrial chain integrating independent core technologies, core components, leading products and industry conveying system solutions. It has the ability to provide one-stop conveying solutions, providing customers with competitive, safe and reliable products, solutions and services, and continuously creating value for customers.

01 TPU CONVEYOR BELT

CONVEYING, MOVES THE WORLD FORWARD!



01

HONG'S BELT **Thermoplastic Polyurethane (TPU) Conveyor Belts**

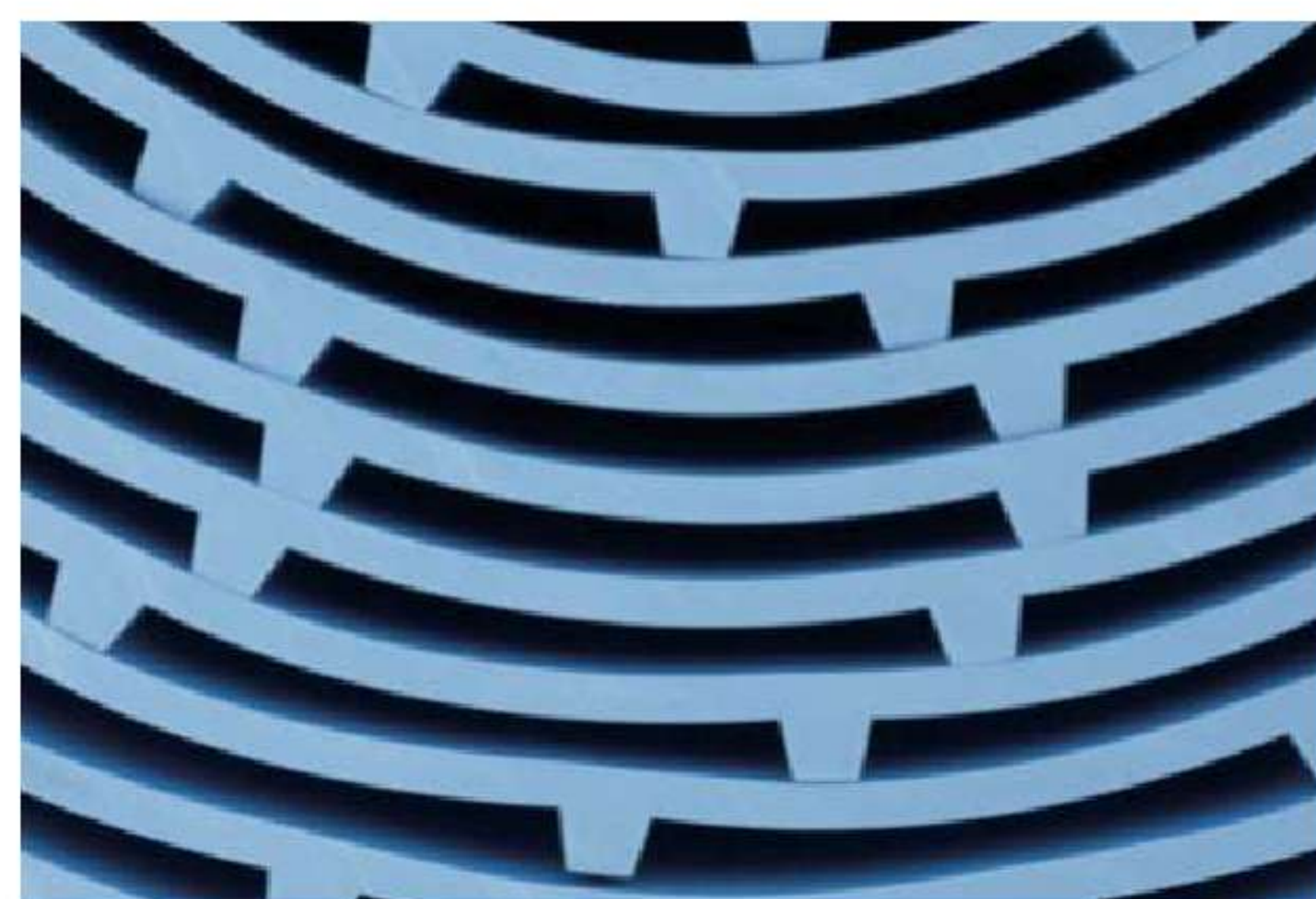
A new type of conveyor belt integrating multiple mature technologies. In order to meet the strict hygiene requirements of the food processing industry, HONG'S BELT combines the advantages of traditional conveyor belts with the characteristics of low-tension, positive-drive plastic modular belts to launch a new generation of conveyor belt products.

02

Material Advantages Brought by Special Processes

 Does Not Absorb Water	 Does Not Absorb Oil	 Does Not Absorb Odors
 No Bacteria Growth	 No Delamination	 Easy to Clean

No fabric threads material reduces conveyor belt contamination



No Fabric Threads(TPU Belt)



Traditional Conveyor Belt

03

Use advanced antibacterial materials to ensure that the conveyor belt does not mold



HONG'S BELT Thermoplastic Polyurethane (TPU) Conveyor Belts All products meet the testing standards

TPU conveyor belts can effectively inhibit bacterial growth, avoid infection of conveyed products, and provide customers with a safe and healthy use environment



Traditional Conveyor Belt



TPU Conveyor Belt

Traditional Conveyor Belt VS TPU Conveyor Belt

The friction between polyester fabric and equipment can cause damaged fibers to fall into food, posing a health hazard. On the other hand, damaged fibers can be caught in equipment, causing equipment downtime and posing a high risk.

Carefully selected materials, combined with a one-time extrusion molding process, completely eliminate the risk of fiber shedding, addressing food hygiene concerns and effectively solving the risk of fabric contamination.

Traditional conveyor belts have many dead corners and cannot be fully cleaned. In addition, cleaning requires a large amount of clean water and chemicals, which increases manpower and time costs.

The surface is highly smooth, with rounded edges and no dead corners or cracks, solving the problem of debris, dirt, and organic matter accumulation. Multiple tests have proven that the consumption of water and cleaning agents is significantly reduced, minimizing maintenance costs to the greatest extent.

A damp or heavily oily environment can accelerate the surface cracking of traditional conveyor belts, increasing food hygiene risks. Additionally, the fabric layers of traditional fabric conveyor belts have a higher water absorption capacity, making them prone to bacterial growth over extended use.

The superior density of TPU conveyor belts can completely prevent water and oil stains from penetrating the belt, effectively extending its lifespan.

Frequent cleaning with warm water and disinfectants will accelerate the aging of the conveyor belt, reducing the adhesive strength between layers and causing delamination. This makes the conveyor belt unable to meet daily usage requirements.

The TPU conveyor belt series has excellent hydrolysis resistance, allowing the belt to maintain good performance even when exposed to humid and hot environments for extended periods.

Exposure to low-temperature environments will cause a rapid decline in performance, with the joints of the conveyor belt beginning to become brittle and damaged.

With good low-temperature resistance, the easy-to-clean belt series can maintain its toughness and operate stably in low-temperature environments.

Zero risk of fabric contamination

Low-cost cleaning and maintenance

Excellent sealing & waterproof performance

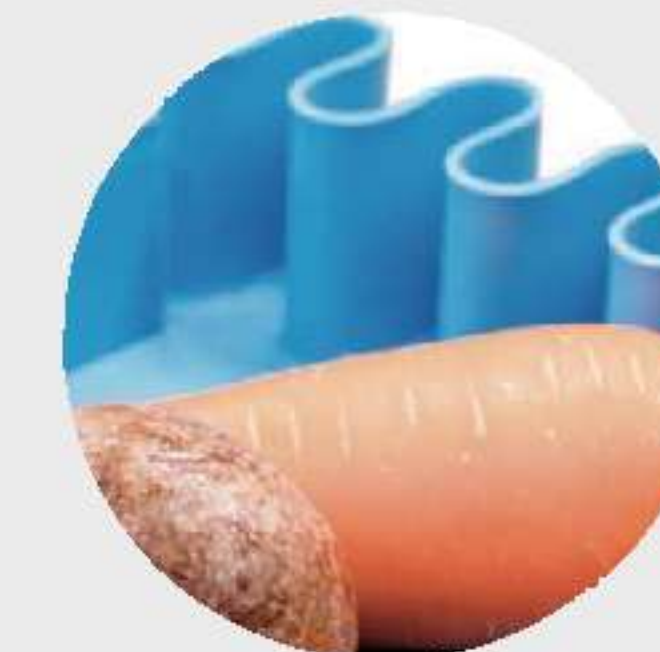
No aging or delamination issues

Stable and robust performance in low-temperature operation

04 Applicable Industries



1



2



3



4

Meat Processing

- Does not mold when in contact with blood or water
- Convenient cleaning of animal fats



Fruits & Vegetables

- High-density & resistant to hydrolysis



Frozen Foods

- No cracking during low-temperature conveyance



Fried Food

- Oil and corrosion resistant
- No residual odors



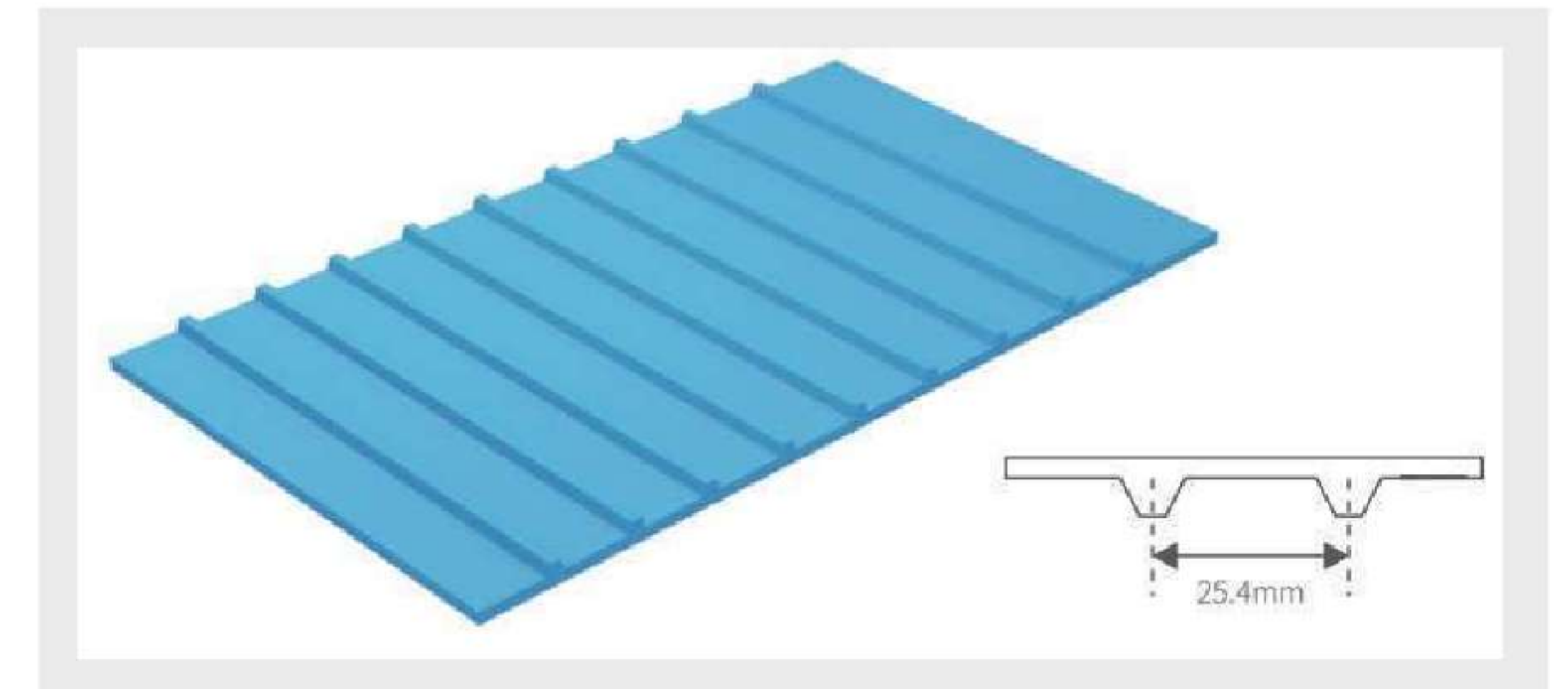
TPU CONVEYOR BELT SERIES

CONVEYING, MOVES THE WORLD FORWARD!

HS-25 Series

HS-25 Series Reference

Suitable for situations where small wheel diameter and light load are required for conveyor equipment connection.



Technical parameters

Series Model	Color	Material	Hardness	Antimicrobial	Thickness (mm)	Tooth Height (mm)	Maximum Load (kg/m ²)	Temperature Range of Use	Surface Pattern	Pitch (mm)	Minimum Pitch Diameter (mm)
HS-25-U28Y	Blue	TPU	90A	Level 1	2.8	3	210	-5/+80	Smooth	25.4	80.25
HS-25-U23	Blue	TPU	50D	Level 1	2.3	3	80	-5/+80	Smooth	25.4	64.2
HS-25-W28Y	White	TPU	90A	Level 1	2.8	3	210	-5/+80	Smooth	25.4	80.25
HS-25-W23	White	TPU	50D	Level 1	2.3	3	80	-5/+80	Smooth	25.4	64.2
HS-25-DU28Y	Dark Blue	TPU	90A	Level 0	2.8	3	210	-20/+60	Smooth	25.4	80.25
HS-25-DU23	Dark Blue	TPU	50D	Level 0	2.3	3	80	-20/+60	Smooth	25.4	64.2
HS-25-MW28Y	Cream	TPU	90A	Level 0	2.8	3	210	-20/+60	Smooth	25.4	80.25
HS-25-MW23	Cream	TPU	50D	Level 0	2.3	3	80	-20/+60	Smooth	25.4	64.2

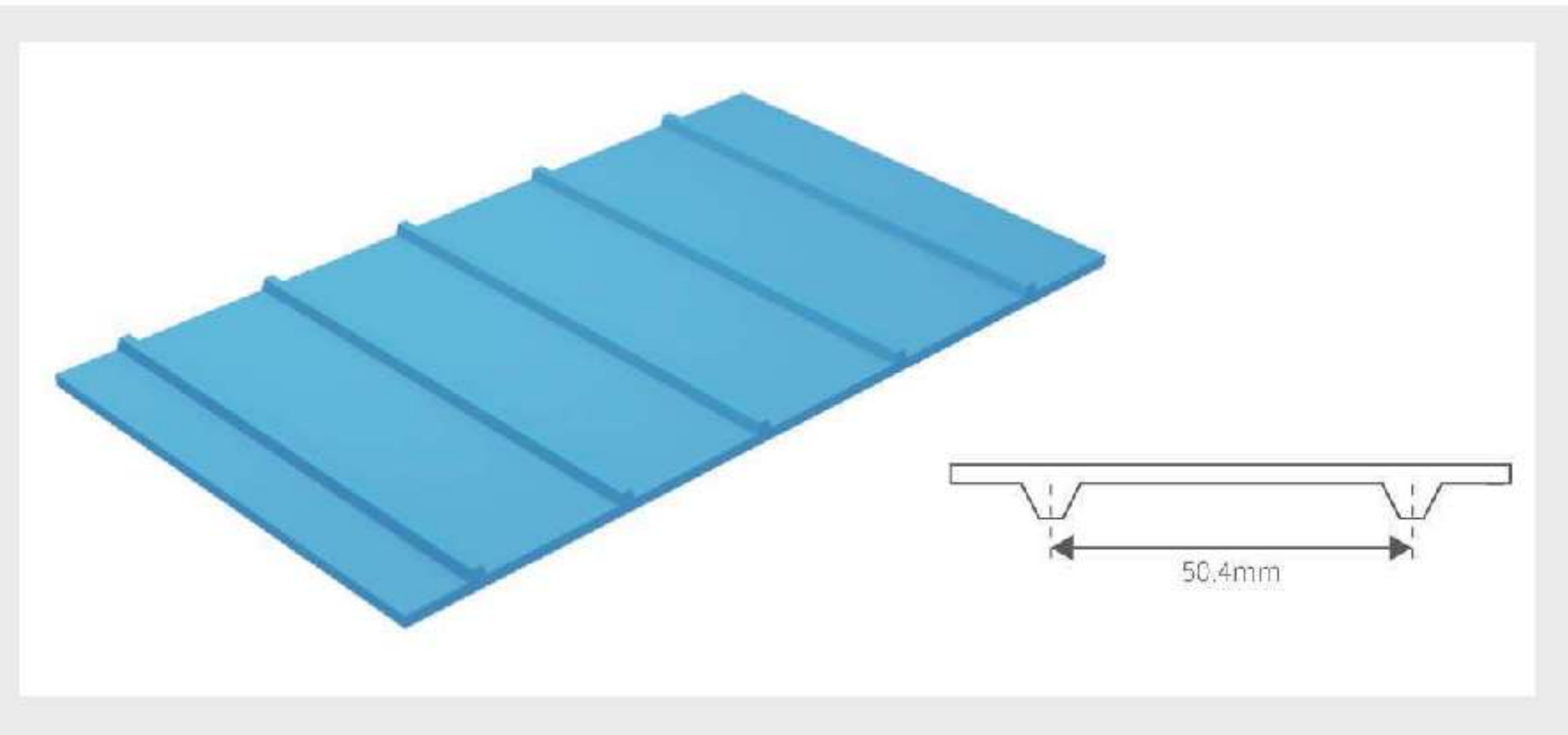
Sprocket & Parameters

Sprocket	Model	Number of Teeth	Outside Diameter (mm)	Thickness (mm)	Material	Inner Hole Shape	Inner Hole Specifications (mm)	Schematic Diagram
Driving Wheel	HS-25-8E	8	64.2	30	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driving Wheel	HS-25-10E	10	80.25	30	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driving Wheel	HS-25-12E	12	96.3	30	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driving Wheel	HS-25-14E	14	112.35	30	POM/PA/PE	Square Bore Round Bore	40 25-35	

HS-50 Series

HS-50 Series Reference

HS-25 series upgraded, with enhanced load-bearing capacity, suitable for use with larger wheel diameters.



■ Technical parameters

Series Model	Color	Material	Hardness	Antimicrobial	Thickness (mm)	Tooth Height (mm)	Maximum Load (kg/m ²)	Temperature Range of Use	Surface Pattern	Pitch (mm)	Minimum Pitch Diameter (mm)
HS-50-U30	Blue	TPU	50D	Level 1	3.0	4	110	-5/+80	Smooth	50.4	128.4
HS-50-W30	White	TPU	50D	Level 1	3.0	4	110	-5/+80	Smooth	50.4	128.4
HS-50-U30Y	Blue	TPU	90A	Level 1	3.0	4	220	-5/+80	Smooth	50.4	128.4
HS-50-W30Y	White	TPU	90A	Level 1	3.0	4	220	-5/+80	Smooth	50.4	128.4
HS-50-U46Y	Blue	TPU	90A	Level 1	4.6	4	240	-5/+80	Smooth	50.4	128.4
HS-50-U30Y/G	Blue	TPU	90A	Level 1	3.0	4	220	-5/+80	Golf	50.4	128.4
HS-50-DU30	Dark Blue	TPU	50D	Level 0	3.0	4	110	-20/+60	Smooth	50.4	128.4
HS-50-MW30	Cream	TPU	50D	Level 0	3.0	4	110	-20/+60	Smooth	50.4	128.4
HS-50-DU30Y	Dark Blue	TPU	90A	Level 0	3.0	4	220	-20/+60	Smooth	50.4	128.4
HS-50-MW30Y	Cream	TPU	90A	Level 0	3.0	4	220	-20/+60	Smooth	50.4	128.4

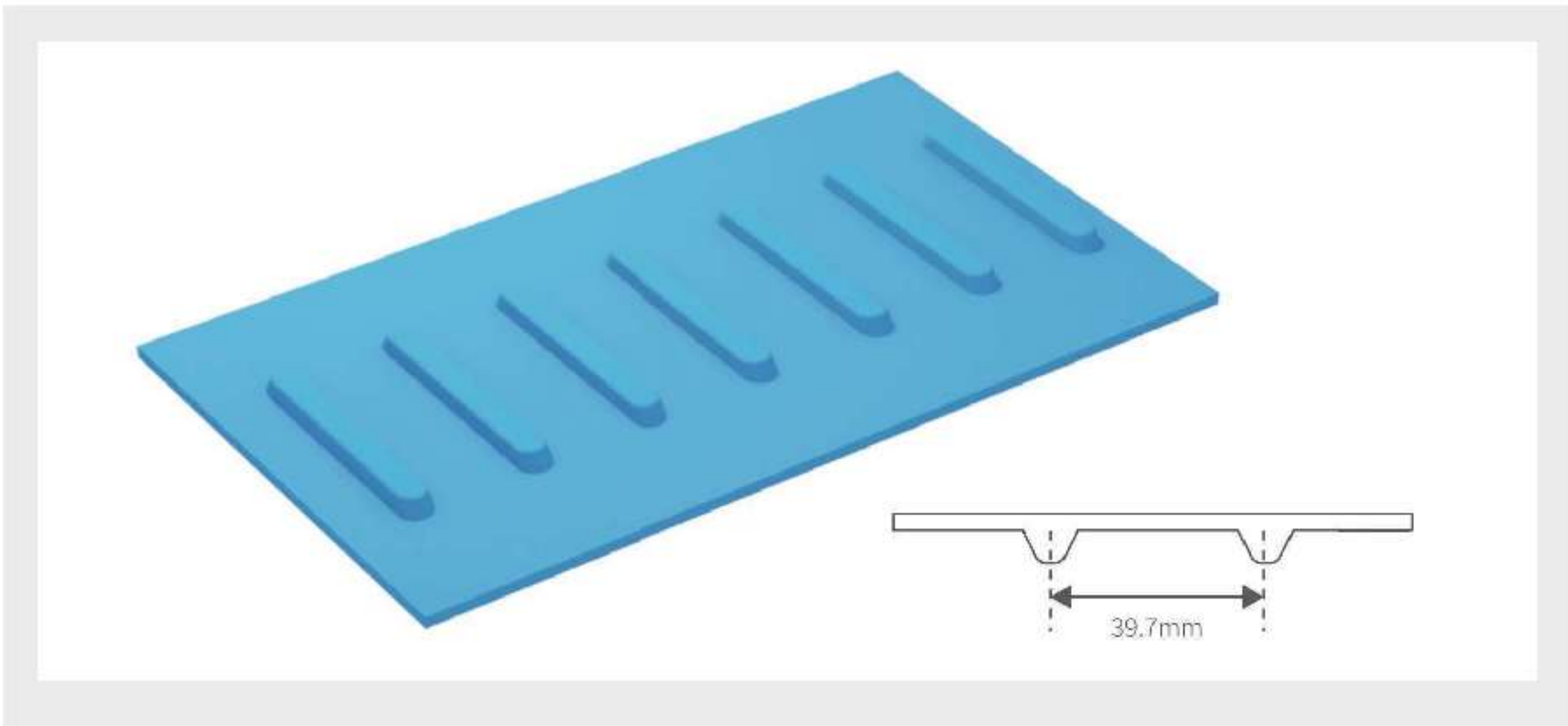
■ Sprocket & Parameters

Sprocket	Model	Number of Teeth	Outside Diameter (mm)	Thickness (mm)	Material	Inner Hole Shape	Inner Hole Specifications (mm)	Schematic Diagram
Driving Wheel	HS-50-8E	8	128.4	30	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driving Wheel	HS-50-10E	10	160.5	30	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driving Wheel	HS-50-12E	12	192.61	30	POM/PA/PE	Square Bore Round Bore	40 25-35	

HS-40 Series

HS-40 Series Reference

The design with center drive makes the conveyor surface smoother, and bottom cleaning easier.



■ Technical parameters

Series Model	Color	Material	Hardness	Antimicrobial	Thickness (mm)	Tooth Height (mm)	Maximum Load (kg/m ²)	Temperature Range of Use	Surface Pattern	Pitch (mm)	Minimum Pitch Diameter (mm)
HS-40-U30	Blue	TPU	50D	Level 1	3.0	8	120	-5/+80	Smooth	39.7	101.15
HS-40-W30	White	TPU	50D	Level 1	3.0	8	120	-5/+80	Smooth	39.7	101.15
HS-40-U30Y	Blue	TPU	90A	Level 1	3.0	8	220	-5/+80	Smooth	39.7	101.15
HS-40-W30Y	White	TPU	90A	Level 1	3.0	8	220	-5/+80	Smooth	39.7	101.15
HS-40-DU30	Dark Blue	TPU	50D	Level 1	3.0	8	120	-20/+60	Smooth	39.7	101.15
HS-40-MW30	Cream	TPU	50D	Level 1	3.0	8	120	-20/+60	Smooth	39.7	101.15
HS-40-DU30Y	Dark Blue	TPU	90A	Level 1	3.0	8	220	-20/+60	Smooth	39.7	101.15
HS-40-MW30Y	Cream	TPU	90A	Level 1	3.0	8	220	-20/+60	Smooth	39.7	101.15

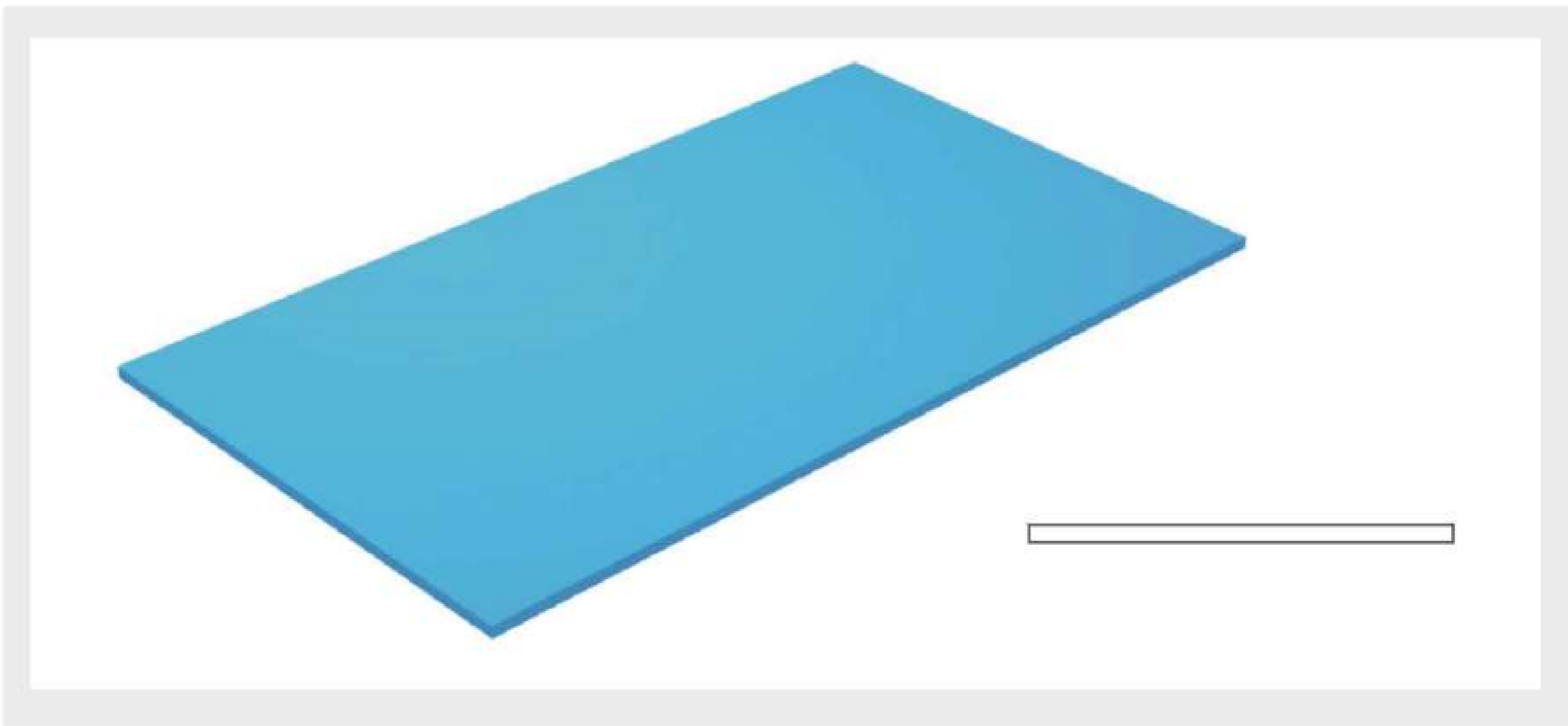
■ Sprocket & Parameters

Sprocket	Model	Number of Teeth	Outside Diameter (mm)	Thickness (mm)	Material	Inner Hole Shape	Inner Hole Specifications (mm)	Schematic Diagram
Driving Wheel	HS-40-8E	8	101.15	90	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driving Wheel	HS-40-10E	10	126.43	90	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driving Wheel	HS-40-12E	12	151.72	90	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driven Wheel	HS-50-8E	8	101.15	150	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driven Wheel	HS-50-10E	10	126.43	150	POM/PA/PE	Square Bore Round Bore	40 25-35	
Driven Wheel	HS-50-12E	12	151.72	150	POM/PA/PE	Square Bore Round Bore	40 25-35	

HS-00 Series

HS-00 Series Reference

Direct installation and use without altering the original mechanical structure.

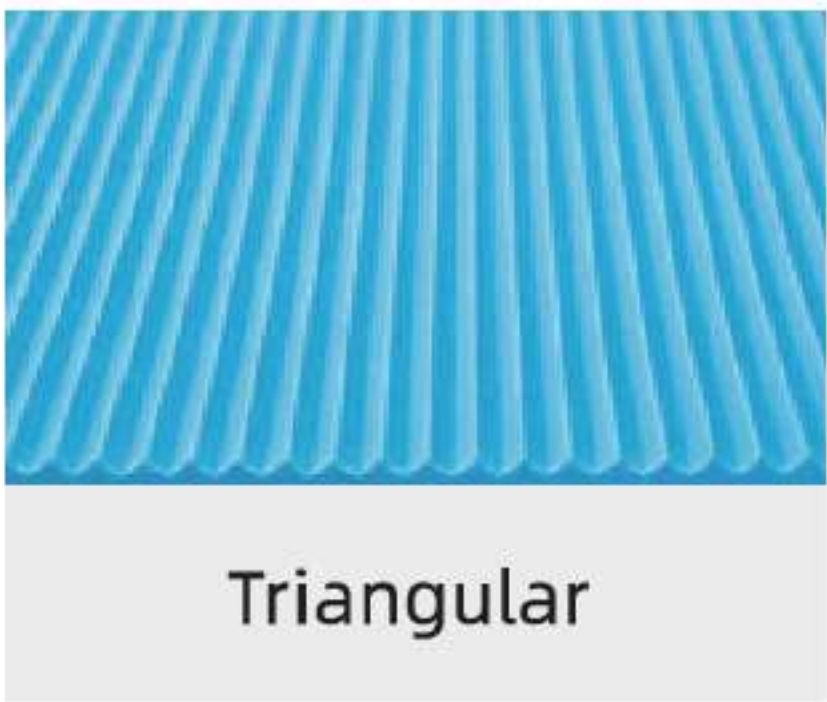


■ Technical parameters

Series Model	Color	Material	Hardness	Antimicrobial	Tooth Height (mm)	Maximum Load (kg/m²)	Temperature Range of Use	Surface Pattern	Minimum Pitch Diameter (mm)
HS-00-U20Y/AM	Blue	TPU	85A	Level 1	2.0	160	-5/+80	Flat (Smooth/Glossy)	40
HS-00-W20Y/AM	White	TPU	85A	Level 1	2.0	160	-5/+80	Flat (Smooth/Glossy)	40
HS-00-U30Y/AM	Blue	TPU	85A	Level 1	3.0	180	-5/+80	Flat (Smooth/Glossy)	50
HS-00-W30Y/AM	White	TPU	85A	Level 1	3.0	180	-5/+80	Flat (Smooth/Glossy)	50
HS-00-U30Y/AG	Blue	TPU	85A	Level 1	3.0	180	-5/+80	Smooth/Golf	50
HS-00-U30Y/AS	Blue	TPU	85A	Level 1	3.0	180	-5/+80	Smooth/Triangular	50
HS-00-DU30Y/AM	Dark Blue	TPU	50D	Level 0	3.0	180	-20/+60	Flat (Smooth/Glossy)	60
HS-00-DU30Y/AG	Dark Blue	TPU	50D	Level 0	3.0	180	-20/+60	Smooth/Golf	60



Golf



Triangular



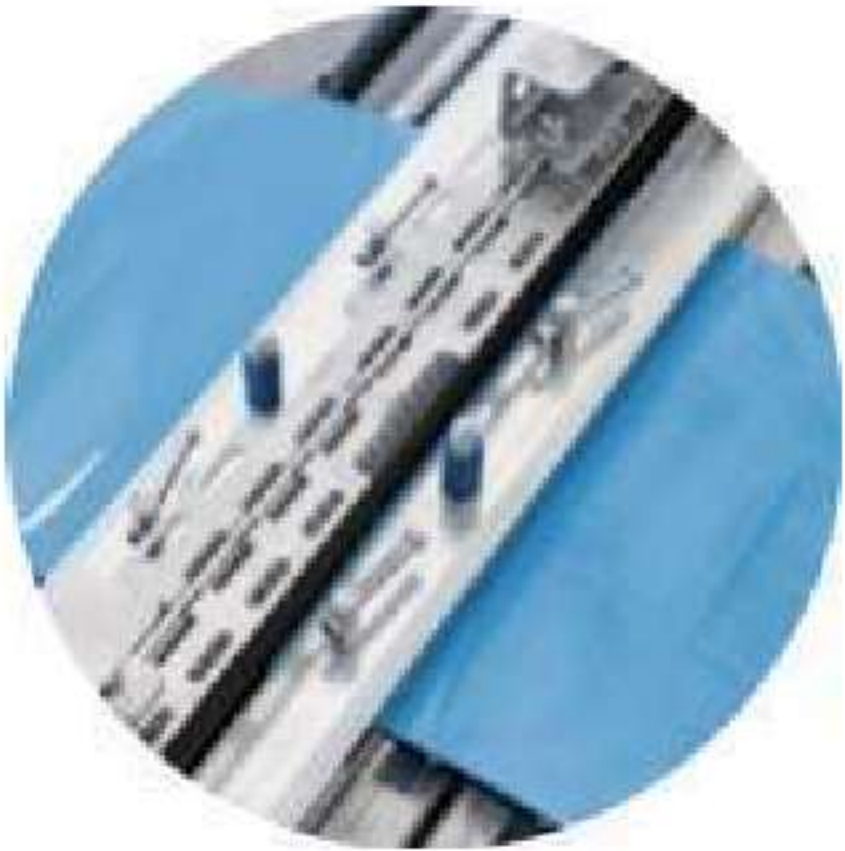
Horizontal Stripes



Flat (Glossy/Smooth)

Connecting Equipment

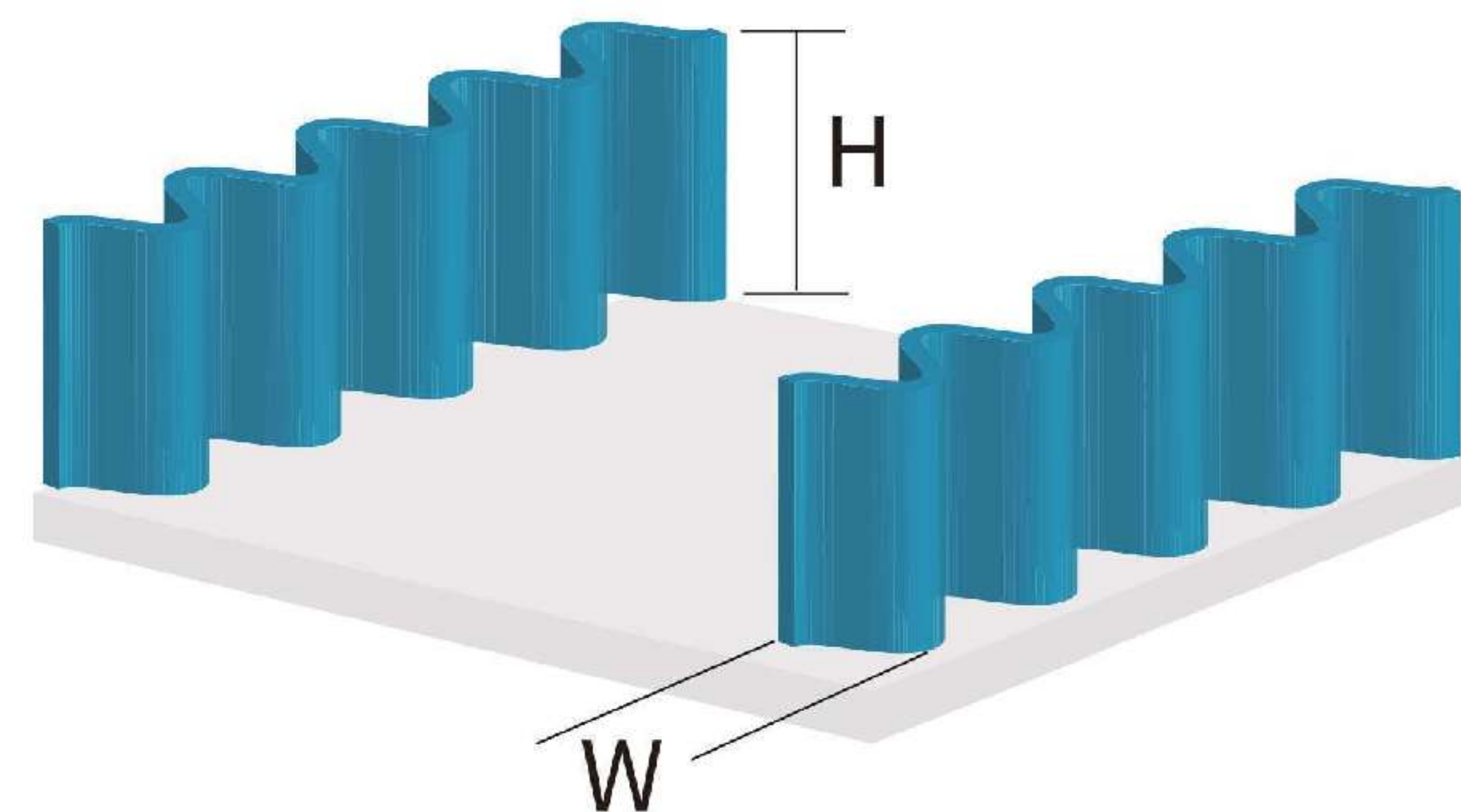
During the production process, conveyor belt breakages caused by mechanical failures can occur. To enable timely repair and production recovery, HUAN ANXINHAI has introduced a quick coupling machine. This machine is simple and convenient to operate, allowing for on-site installation and repair of conveyor belts.



PRODUCT ACCESSORIES

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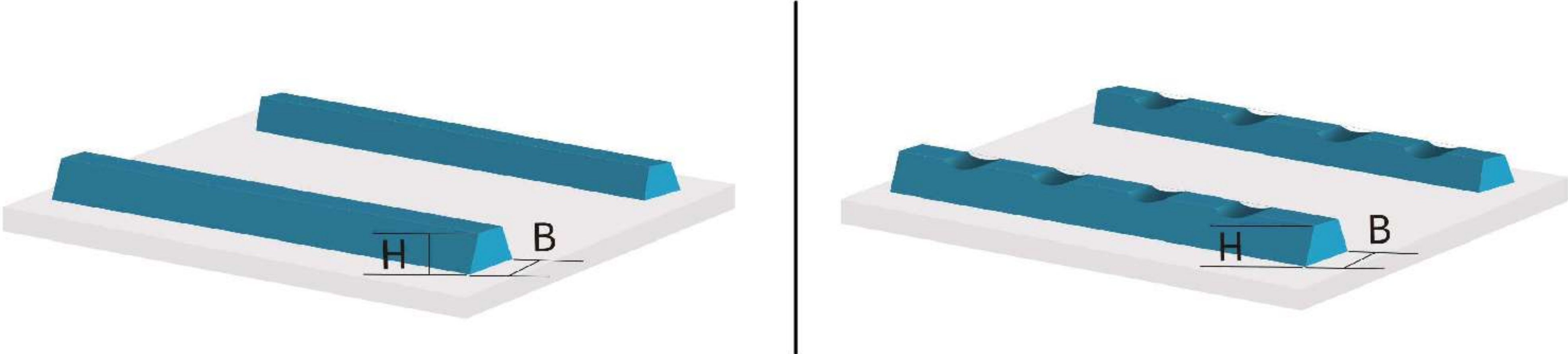
Sidewall



- To prevent material from falling and improve operational stability.
- To enhance conveyor efficiency.

Model	Color	Sidewall Height Range H (mm)	Thickness (mm)	Sidewall Width (mm)	Hardness
HS-UKS+Height	Blue	10 ~ 120	2	30/35/40/50	85A
HS-WKS+Height	White	10 ~ 120	2	30/35/40/50	85A
Note: Specifications and colors can be customized according to customer requirements					

Guides



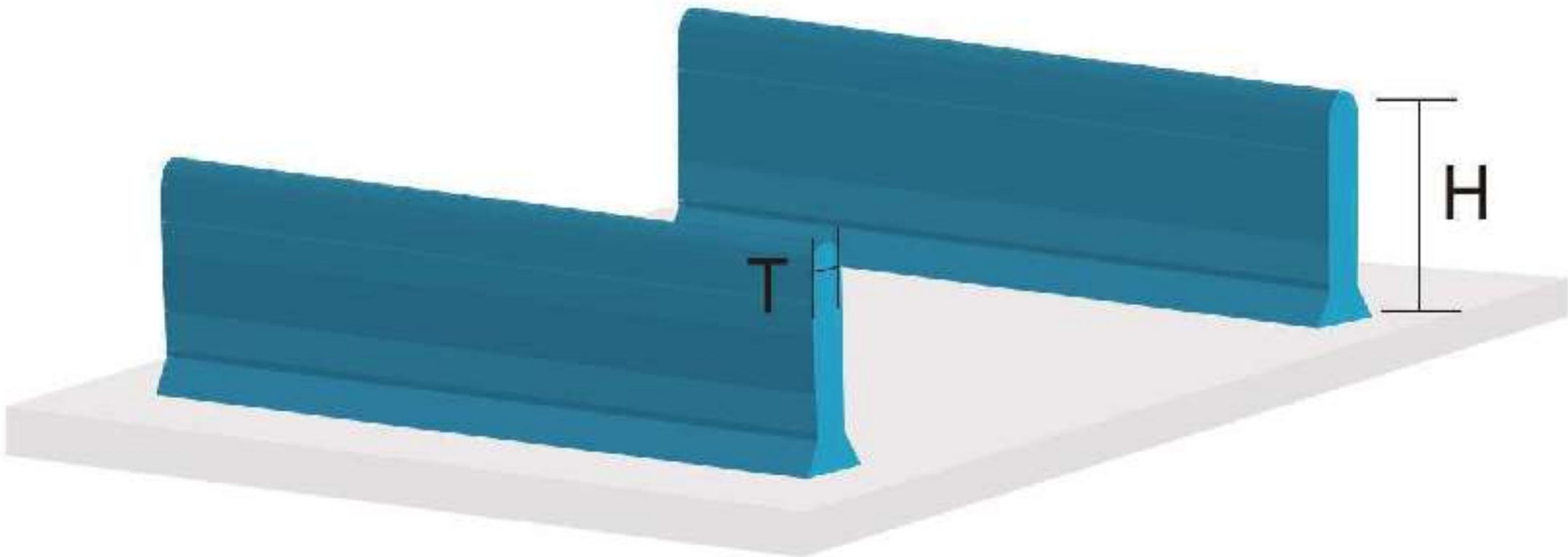
- To prevent conveyor belt deviation

Model	Color	Guide Specifications		Minimum pulley diameter for toothed belt (mm)	Minimum pulley diameter for non-toothed belt (mm)	Hardness	Teeth
		B	H				
HS-D5	Blue White	5	3	25	30	70A	●
HS-D6	Blue White	6	4	30	35	70A	●
HS-D8	Blue White	8	5	35	45	70A	●
HS-D10	Blue White	10	6	45	50	70A	●
HS-D13	Blue White	13	8	60	70	70A	●
HS-D17	Blue White	17	11	90	100	70A	●
HS-TD10	Blue White	10	10		80	70A	

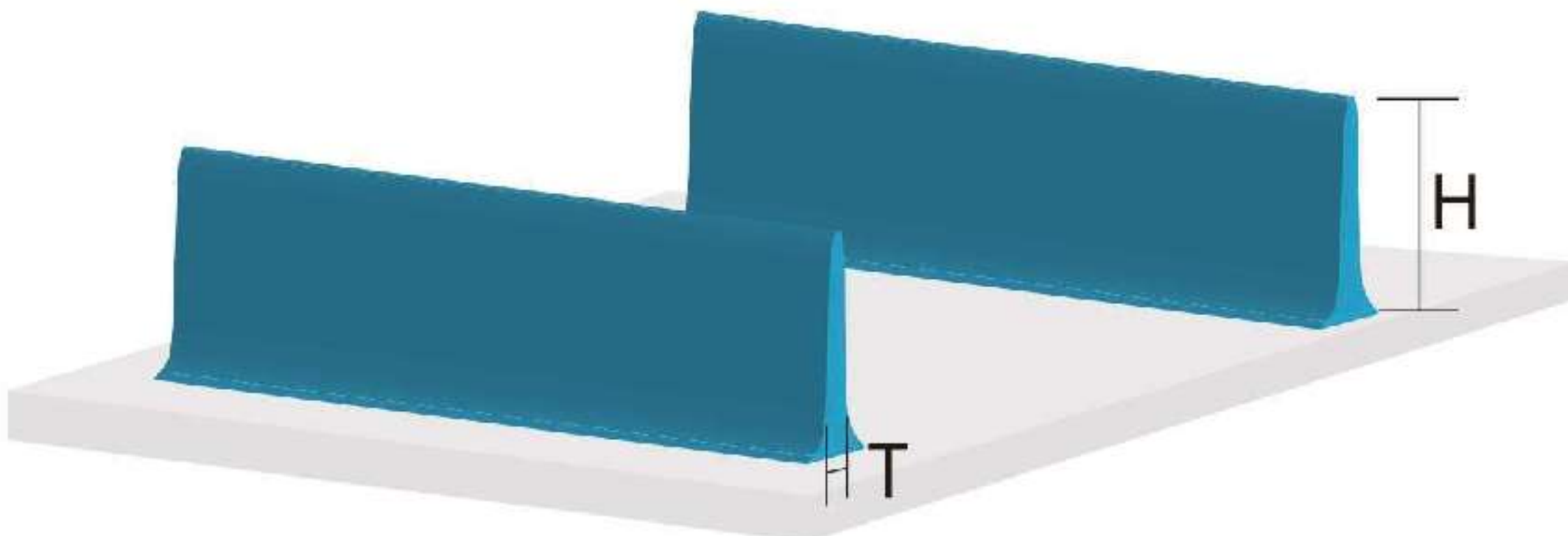
Note: Use the minimum wheel diameter as the parameter for the belt's front side; guide bars can be customized in specifications and colors according to customer requirements.

Flight

- Reinforced Flight



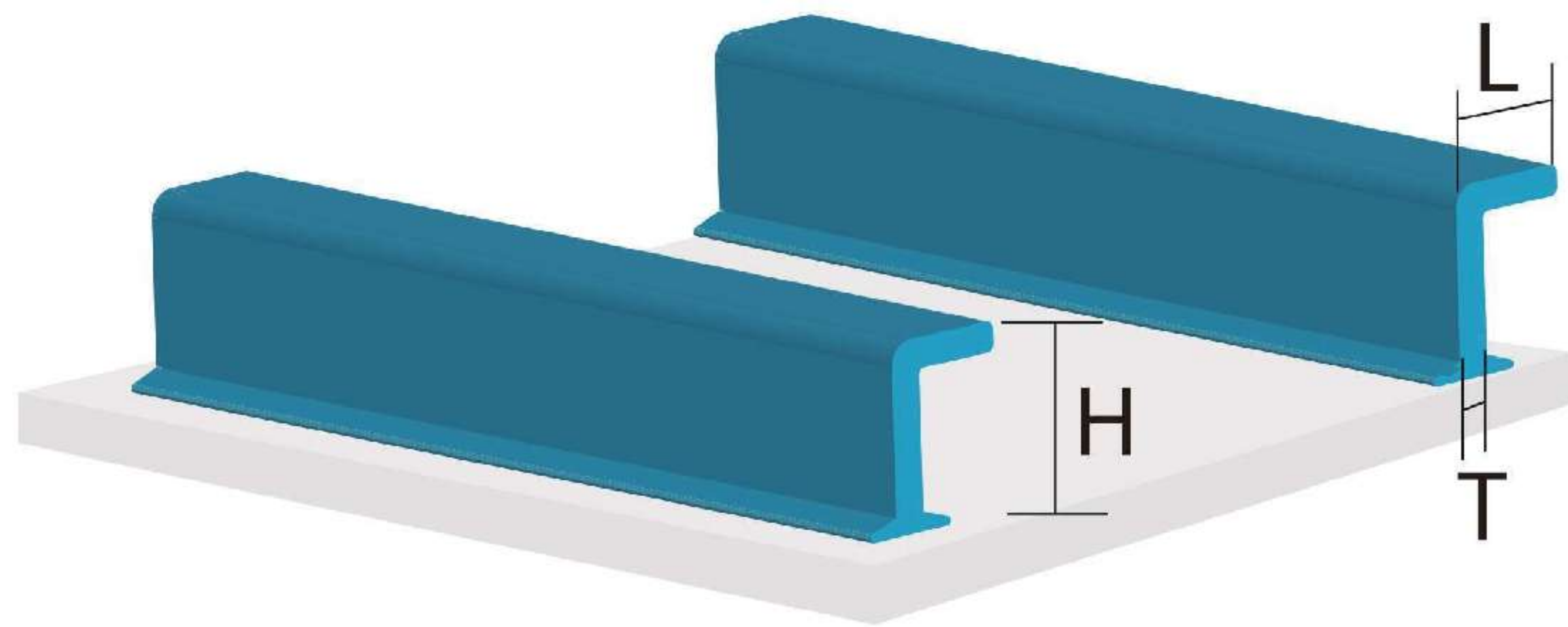
- Straight Flight



Model	Color	Flight Height (mm)	Thickness (mm)	Hardness
HS-UKTX-Height	Blue	10~120	5	85A
HS-WKTX-Height	White	10~120	5	85A
HS-UKT-Height	Blue	10~120	4	85A
HS-WKT-Height	White	10~120	4	85A

Note: Specifications and colors can be customized according to customer requirements.

L-Shaped Flight



- Resolved the issues of material spillage and loss during inclined and horizontal transportation.

MODEL	COLOR	Flight Height (mm)	Thickness (mm)	Bend Length (mm)	Hardness
HS-UKTL-50	Blue	50	5.5	30	85A
HS-UKTL-50	Blue	70	5.5	30	85A
HS-UKTL-50	Blue	90	5.5	30	85A
HS- UKTL-50	Blue	110	5.5	40	85A
HS-WKTL-50	White	50	5.5	30	85A
HS-WKTL-50	White	70	5.5	30	85A
HS-WKTL-50	White	90	5.5	30	85A
HS-WKTL-50	White	110	5.5	40	85A

Note: Specifications and colors can be customized according to customer requirements.

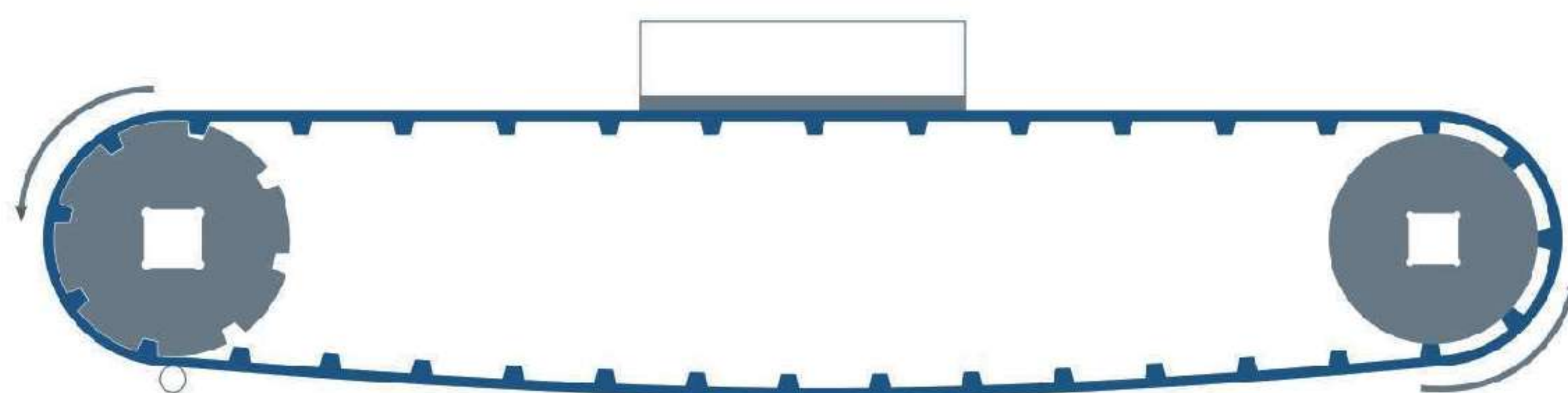
CONVEYOR STRUCTURE

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Drive Mechanism

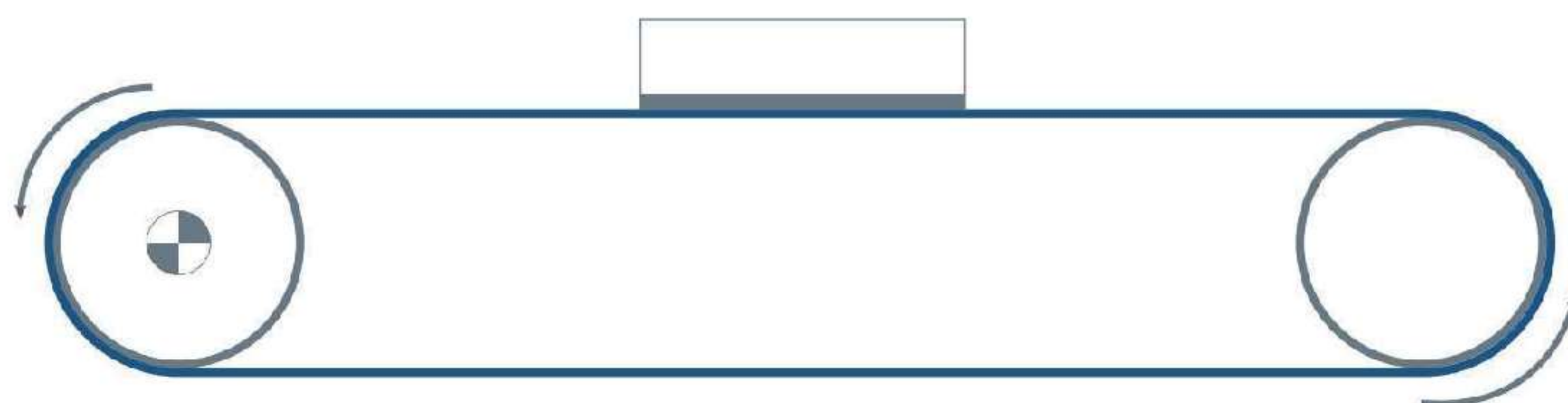
The HONGSBELT TPU conveyor belt series employs two different drive modes to meet the conveying needs of different sections.

01 Gear Drive



The unique meshing transmission design of TPU conveyor belts primarily utilizes the parallel extrusion teeth on the belt surface to interlock with grooves on the pulleys for power transmission. This design significantly enhances the reliability and stability of the conveyor system. Simultaneously, it operates with an integrated guiding mechanism to reduce belt tension and deviation, facilitating maintenance and saving operational space for customers. This design also extends the service life of the conveyor belt.

02 Friction Drive



Friction drive is a common driving mode that relies on the frictional force generated when the belt and pulleys are tightened to drive objects on the surface of the conveyor belt. The Keling Clean Flat Homogeneous Belt can be used without altering the existing friction drive mechanical structure, meeting the conveying requirements of certain special sections and achieving long-term hygienic use in environments.

HS-40 Series Conveyor Structure

A traditional conveyor consists of the following components:

- Drive Pulley
- Idler Pulley of the Slider Bed Belt Tensioning Device, composed of multiple UHMW (Ultra-High Molecular Weight) engineering plastic support bars
- Additional Support Rollers based on conveyor belt width and conveyed material weight
- Swivel Wheel
- Anti-Slip Toothed Roller

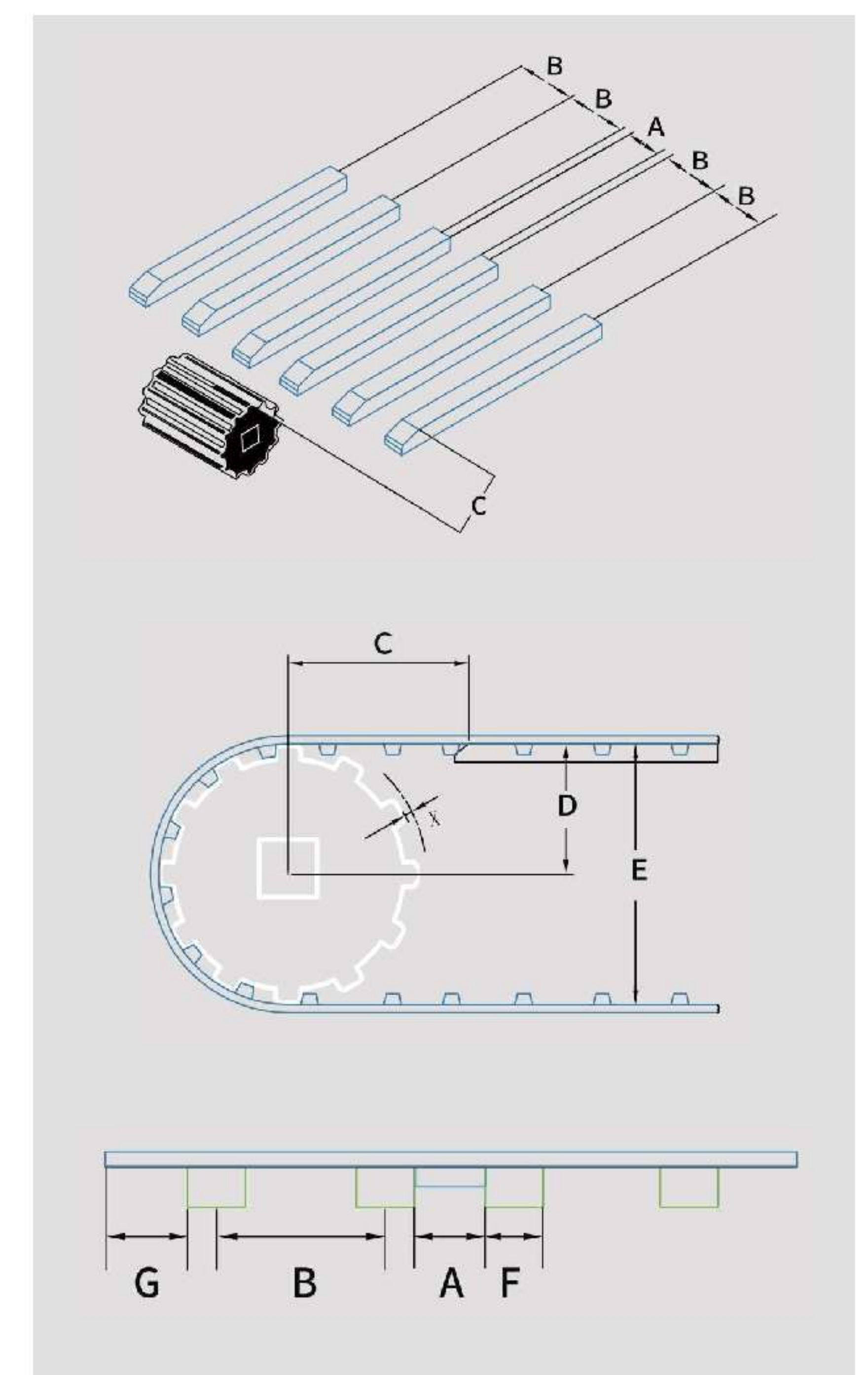


- For long conveyors handling heavy materials, it is recommended to use roller beds.

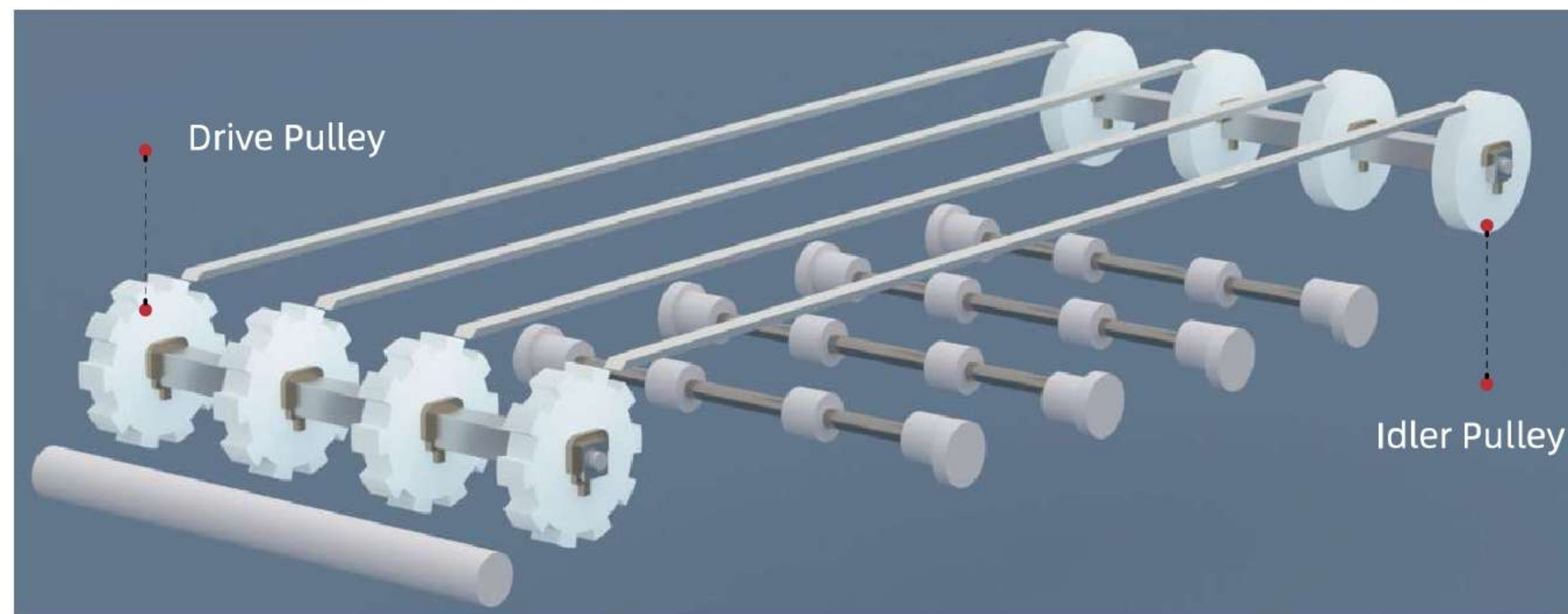
- It is recommended to use UHMW (Ultra-High Molecular Weight) engineering plastic support bars as the slider bed for conveyor systems.

Recommended size specifications:

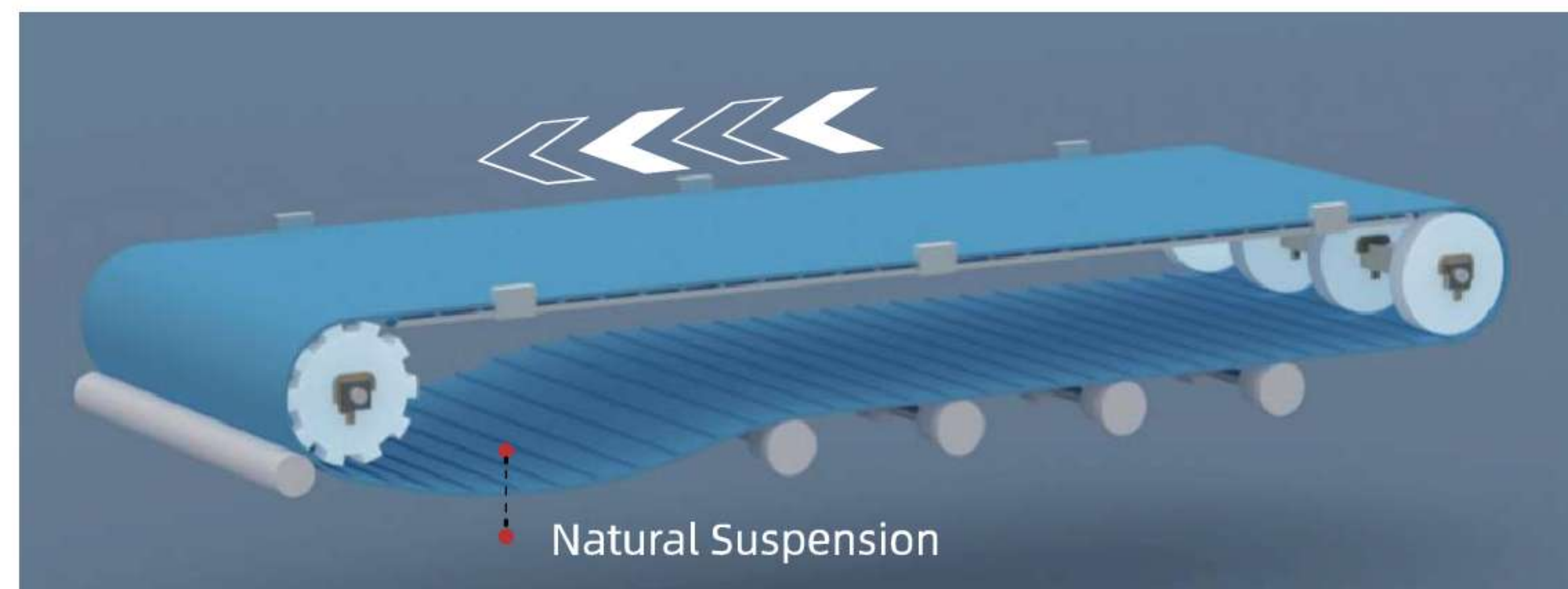
- A** Spacing between guide support bars on both sides of the conveyor belt teeth: 85 millimeters
- B** Spacing between the remaining support bars: 100-150 millimeters
- C** The distance between the drive pulley and the front end of the support bars depends on the cross-section of the support bars and the support bar frame. "C" should be as small as possible, but a gap "X" of no less than 20 millimeters should be maintained.
- D** The distance from the center of the drive pulley to the surface of the support bar: half the outer diameter of the drive pulley.
- E** Conveyor belt engagement diameter = Drive pulley outer diameter + Conveyor belt thickness
- F** Support bar width: 25-50 millimeters
- G** Maximum distance between conveyor belt edge and support bar: 50 millimeters



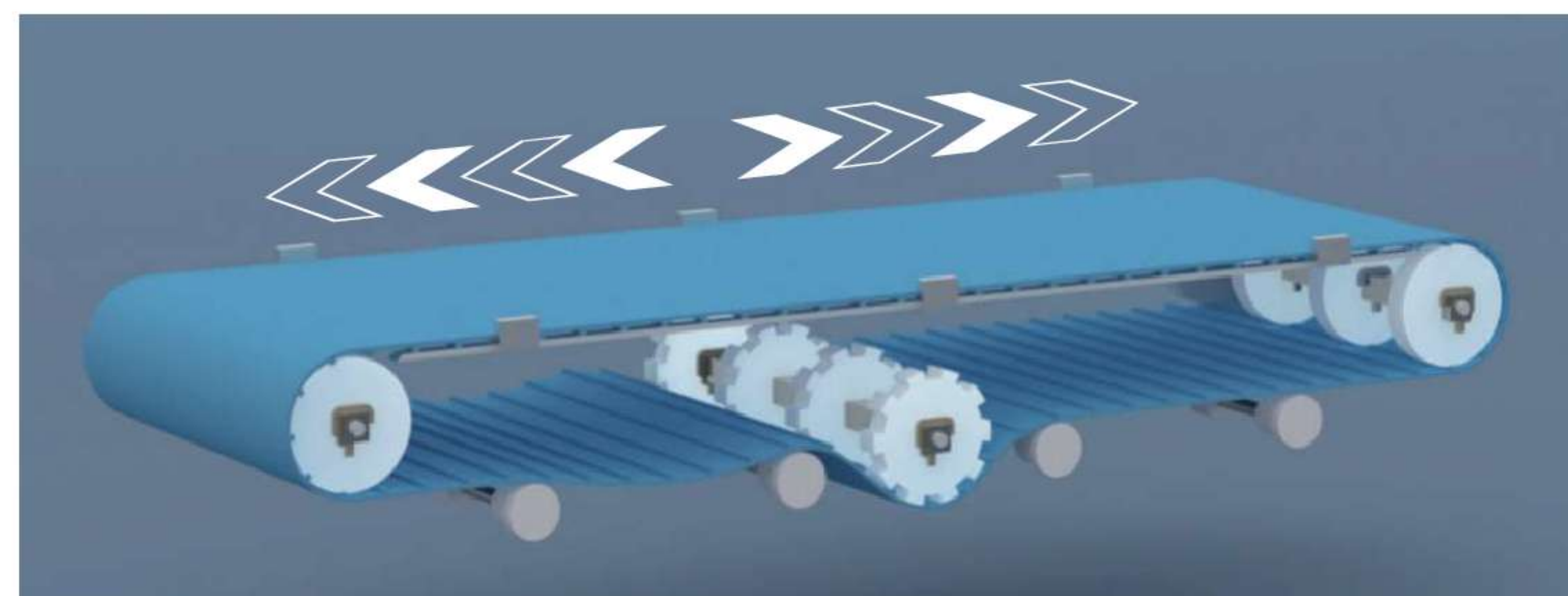
HS-25/HS-50 Series Conveyor Structure



Horizontal Conveying



Bidirectional Conveying

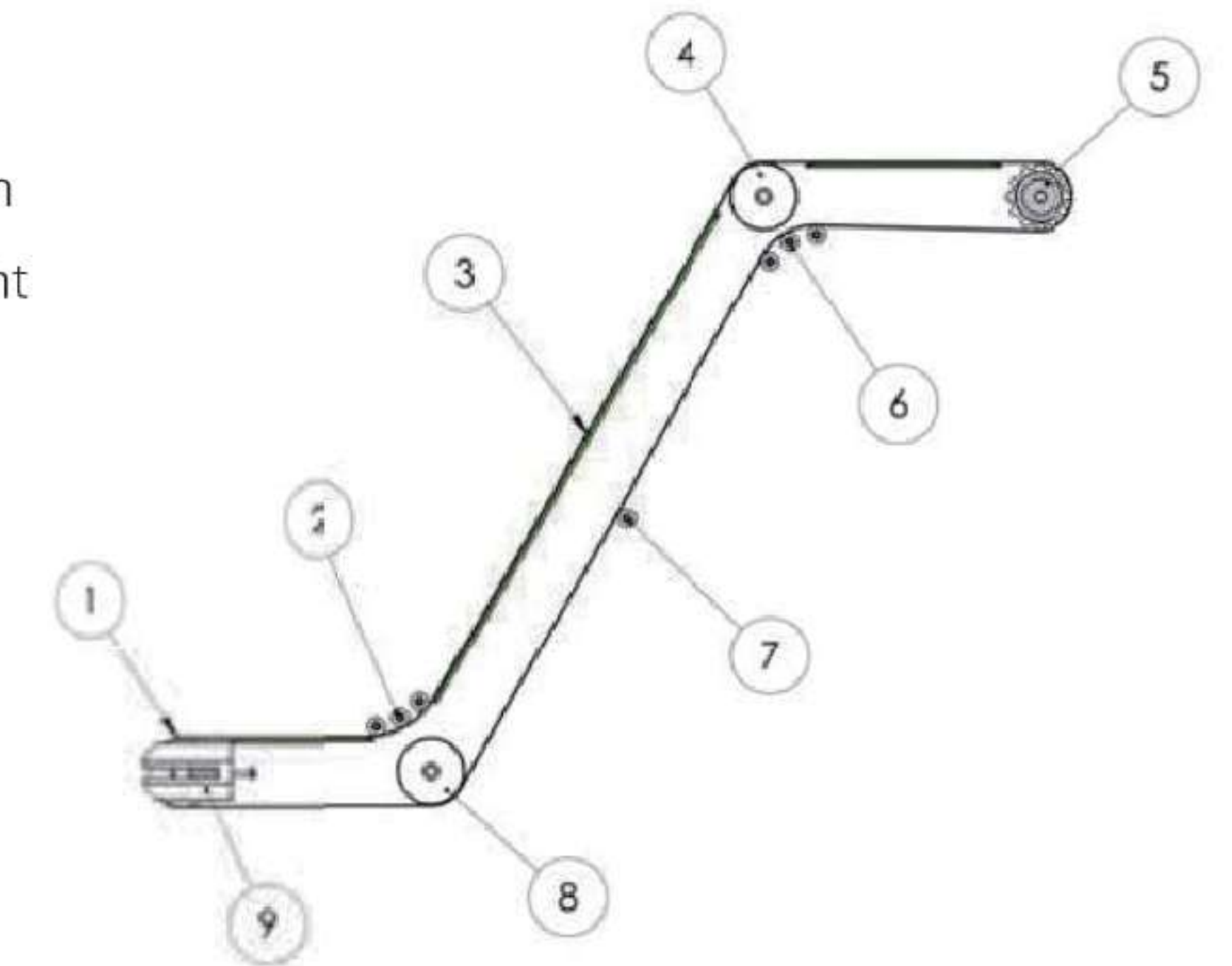


Z-Shaped Conveyor Structure

Z-shaped conveyors are typically used for elevating materials. Hongsbelt homogeneous easy-to-clean belts are absolutely ideal for such applications.

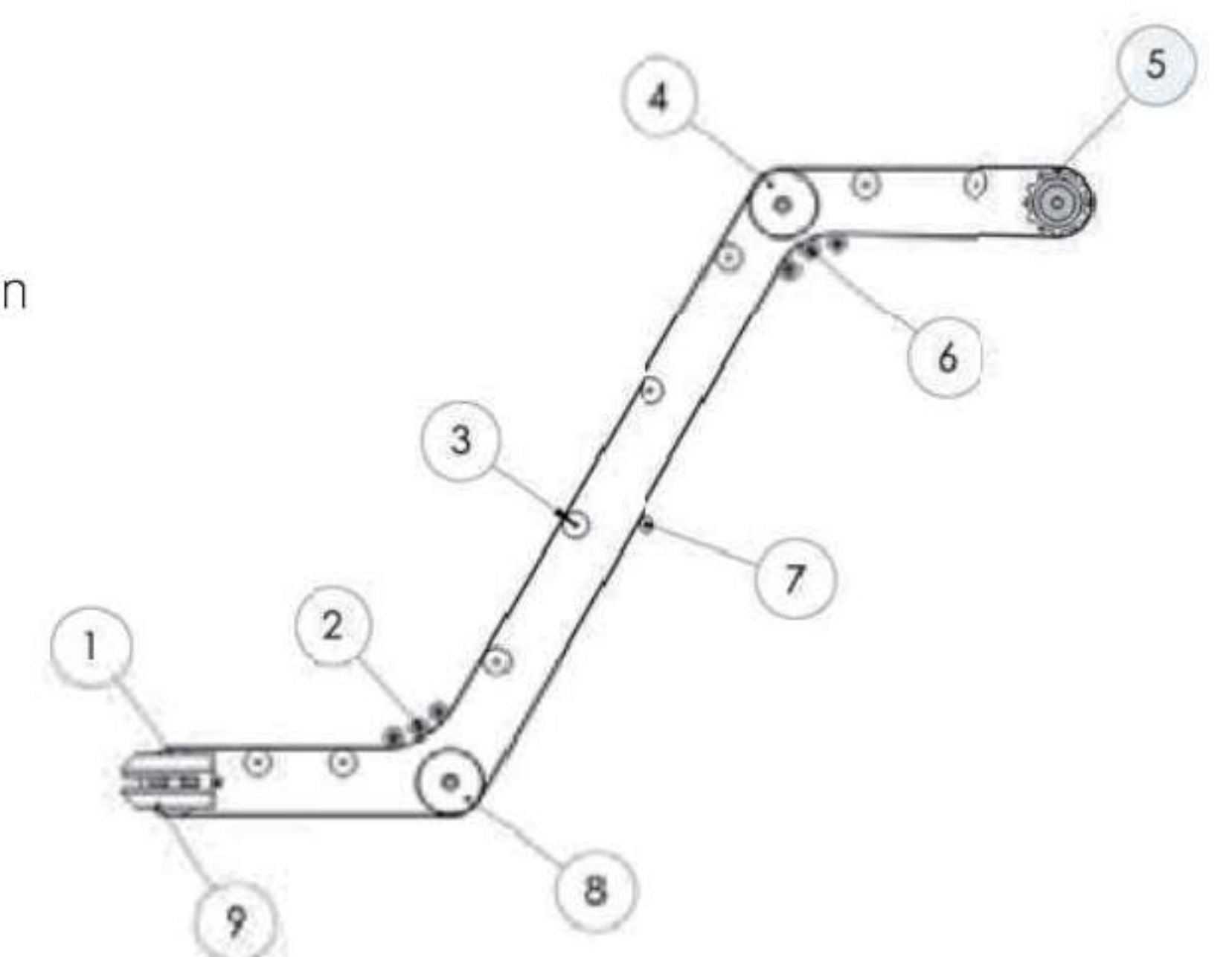
Construction of slider bed with UHMW Ultra-High Molecular Weight engineering plastic support bars

1. Idler Pulley
2. Roller Assembly: Horizontal to Incline Conveyor Transition
3. Incline Slider Bed with UHMW Ultra-High Molecular Weight Engineering Plastic Support Bars
4. Top Rollers: Incline to Horizontal Conveyor Transition
5. Drive Pulley
6. Roller Assembly: Horizontal to Decline Return Transition
7. Return Idler
8. Bottom Rollers: Decline to Horizontal Return Transition
9. Idler Pulley Tensioning Device



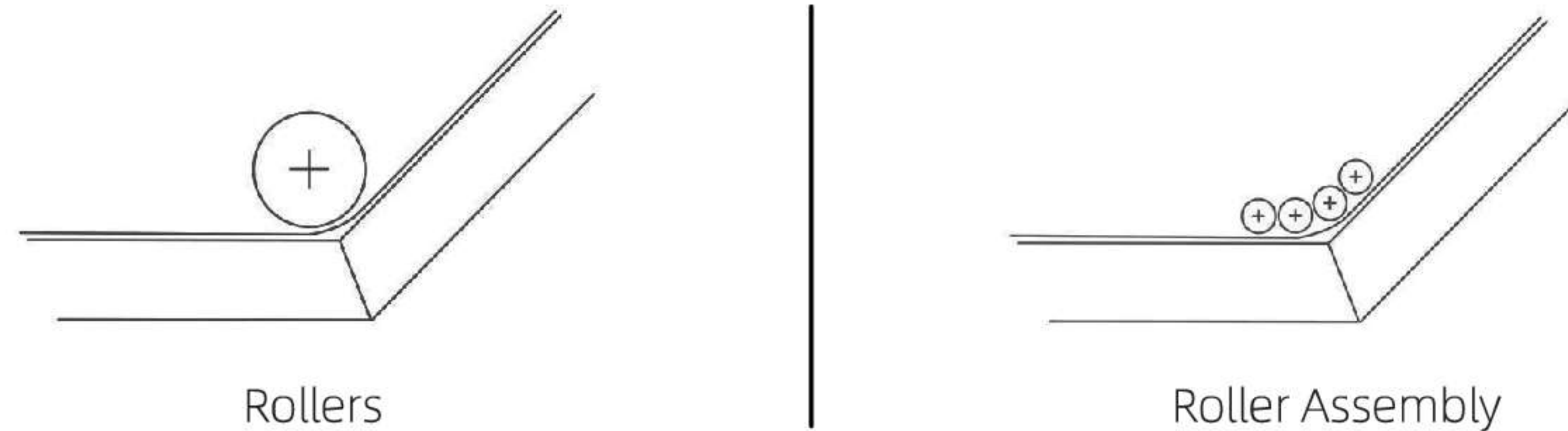
Roller Bed Construction

1. Idler Pulley
2. Roller Assembly: Horizontal to Incline Conveyor Transition
3. Roller Bed
4. Top Rollers: Incline to Horizontal Conveyor Transition
5. Drive Pulley
6. Roller Assembly: Horizontal to Decline Return Transition
7. Return Idler
8. Bottom Rollers: Decline to Horizontal Return Transition
9. Idler Pulley Tensioning Device

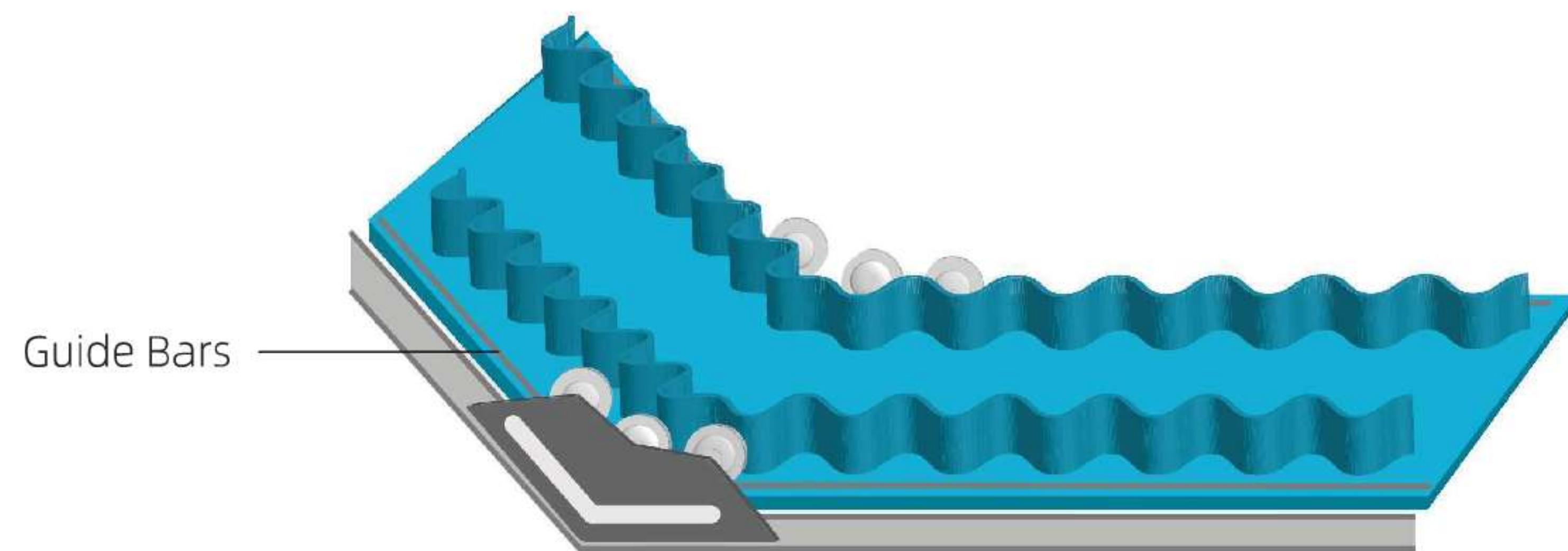


Note: In the transition zones (2 and 4), the conveyor belt will offset towards the center of curvature of the conveyor's bending structure, resulting in high tension and friction on the components in this area. Therefore, using roller assemblies in these two transitions to minimize tension and friction is crucial.

Two configuration options for the transition zones



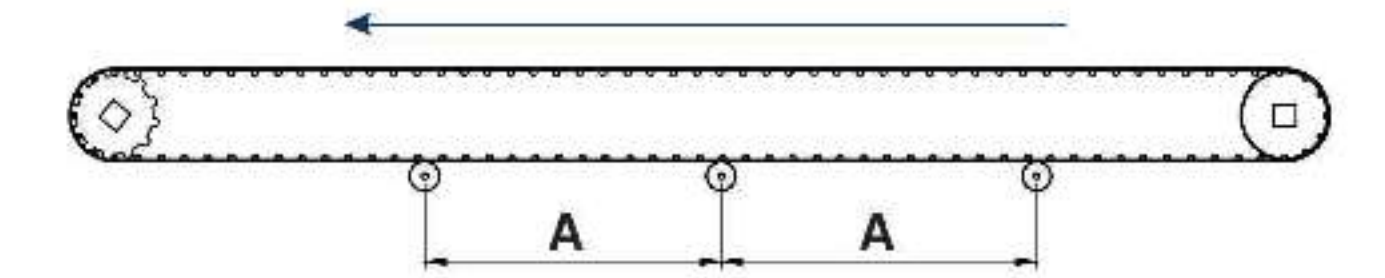
The curvature angle of the conveyor belt should be as large as possible and should not be less than the minimum diameter of the drive pulley used for the conveyor belt and its components. A larger curvature angle reduces wear. For sections with a large bending angle, using roller assemblies composed of small rollers is the most convenient option.



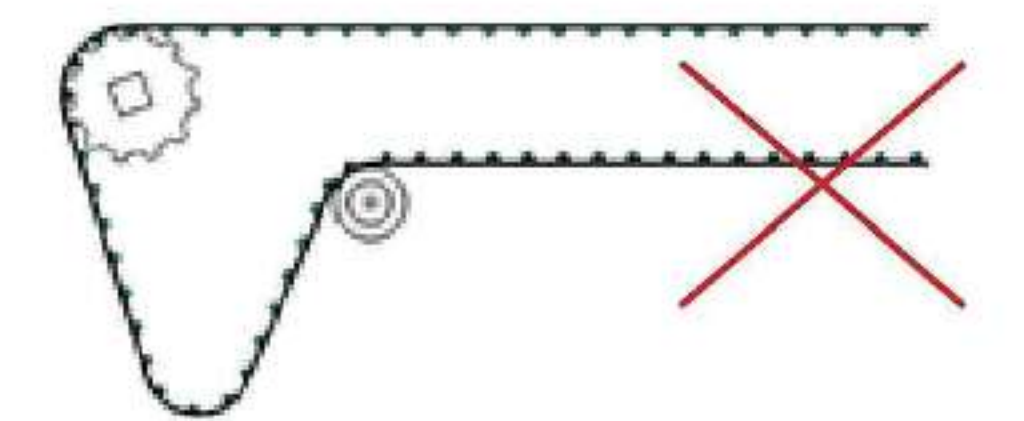
For conveyor belts with widths of 600 millimeters or more, we recommend using guide bars on both sides of the belt's front surface. These guide bars help maintain stable operation of the conveyor belt in transition zones using V-groove wheels (see diagram). This method is recommended.

Pivot Wheel

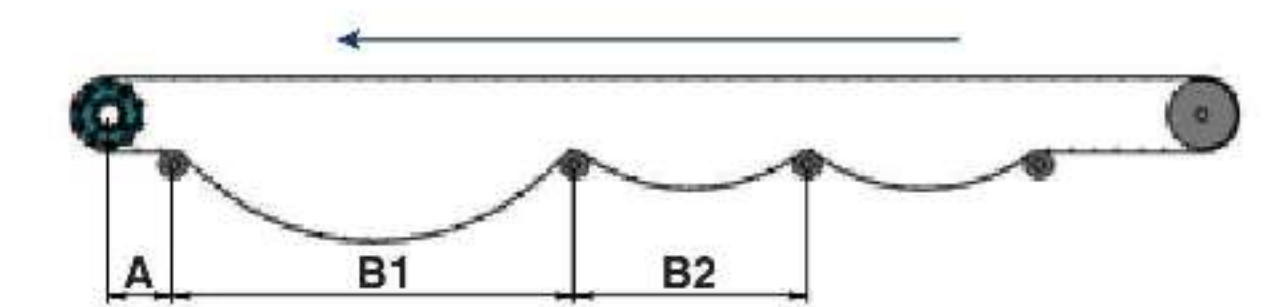
If the conveyor has a tensioning device (tightener) and the conveyor belt has been tensioned by 0.3-0.5%, then the conveyor can operate regardless of how pivot wheels are positioned. Typically, the maximum distance "A" between pivot wheels is 1.5 meters.



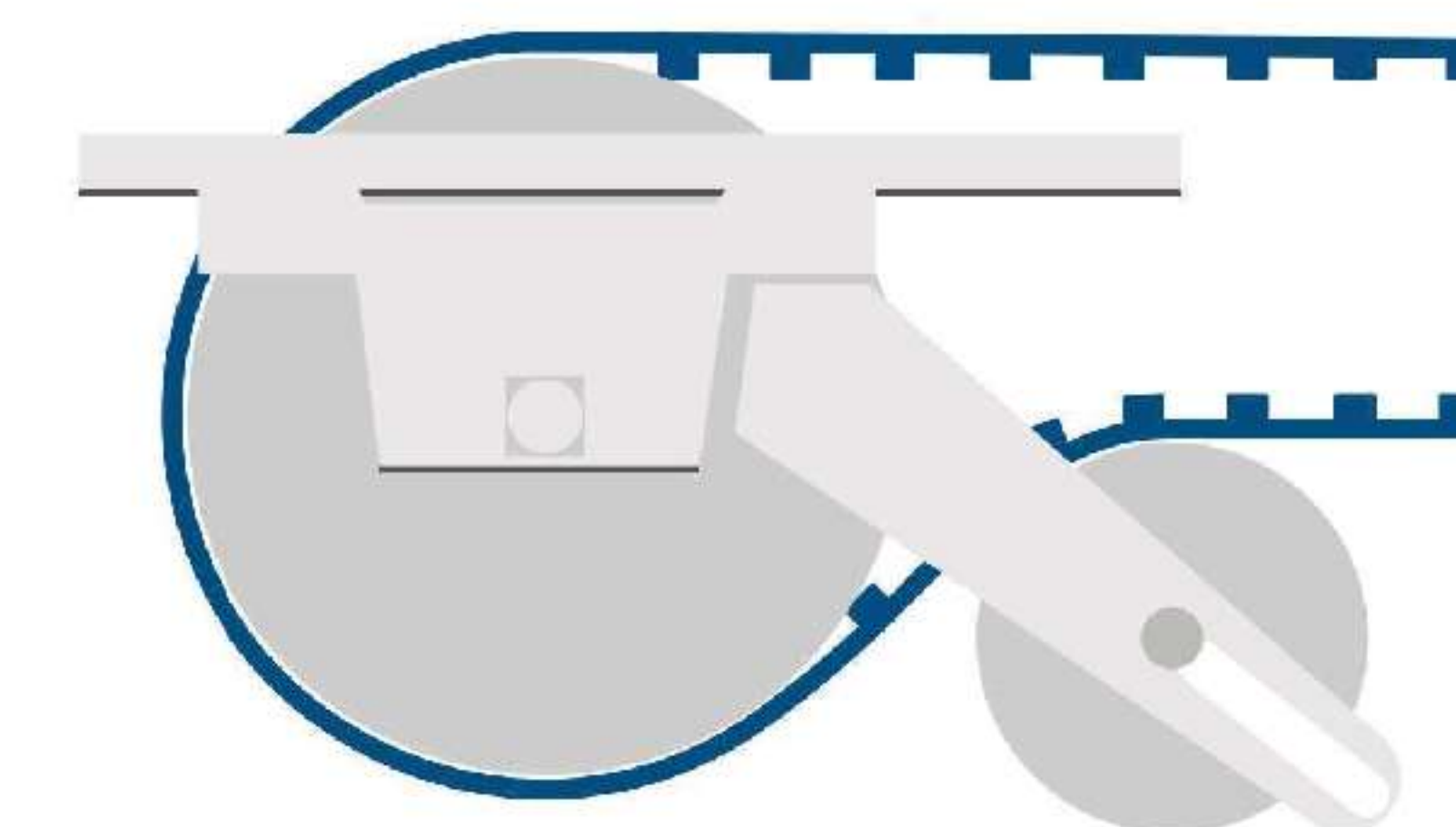
The conveyor belt is allowed to sag between pivot wheels. However, the key focus is to prevent the conveyor belt from loosening near the drive pulley to avoid disengagement between the belt teeth and the pulley teeth during operation.



The spacing between pivot wheels should be optimized based on the weight of the conveyor belt to prevent slackening near the drive pulley. When positioning one pivot wheel, it is beneficial to allow a longer distance before placing another pivot wheel. This spacing allows the weight of the conveyor belt to cause it to sag in that section rather than near the drive pulley.



Anti-Slip Idler Roller



The anti-slip idler roller increases the engagement angle between the drive pulley and the conveyor belt, thereby preventing disengagement. It is widely used for conveying heavy materials or preventing tooth jumping due to other reasons. It is installed very close to the drive pulley to prevent slackening of the conveyor belt between them.

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