GUAN DONG ZI DONG HUA
Guandong
Automation

苏州市观东精密自动化有限公司
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目录
CATALOGUE

SCOPE OF APPLICATION

□ Product packaging industry

cosmetics

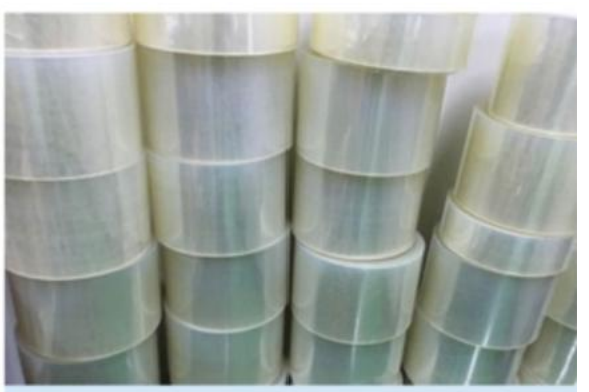
food

Sanitary paper towels

□Precision assembly industry

Electronic assembly

Wire Detection



Applying a film to electronic products

□Precision manufacturing industry

automobile parts

Motor function testing

Watch assembly

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

SCOPE OF APPLICATION

New energy industry

Battery production line

Screw machine assembly

Electric vehicle

Printing Industry

Book gluing

Printing and spraying

screen printing

Medical Manufacturing Industry

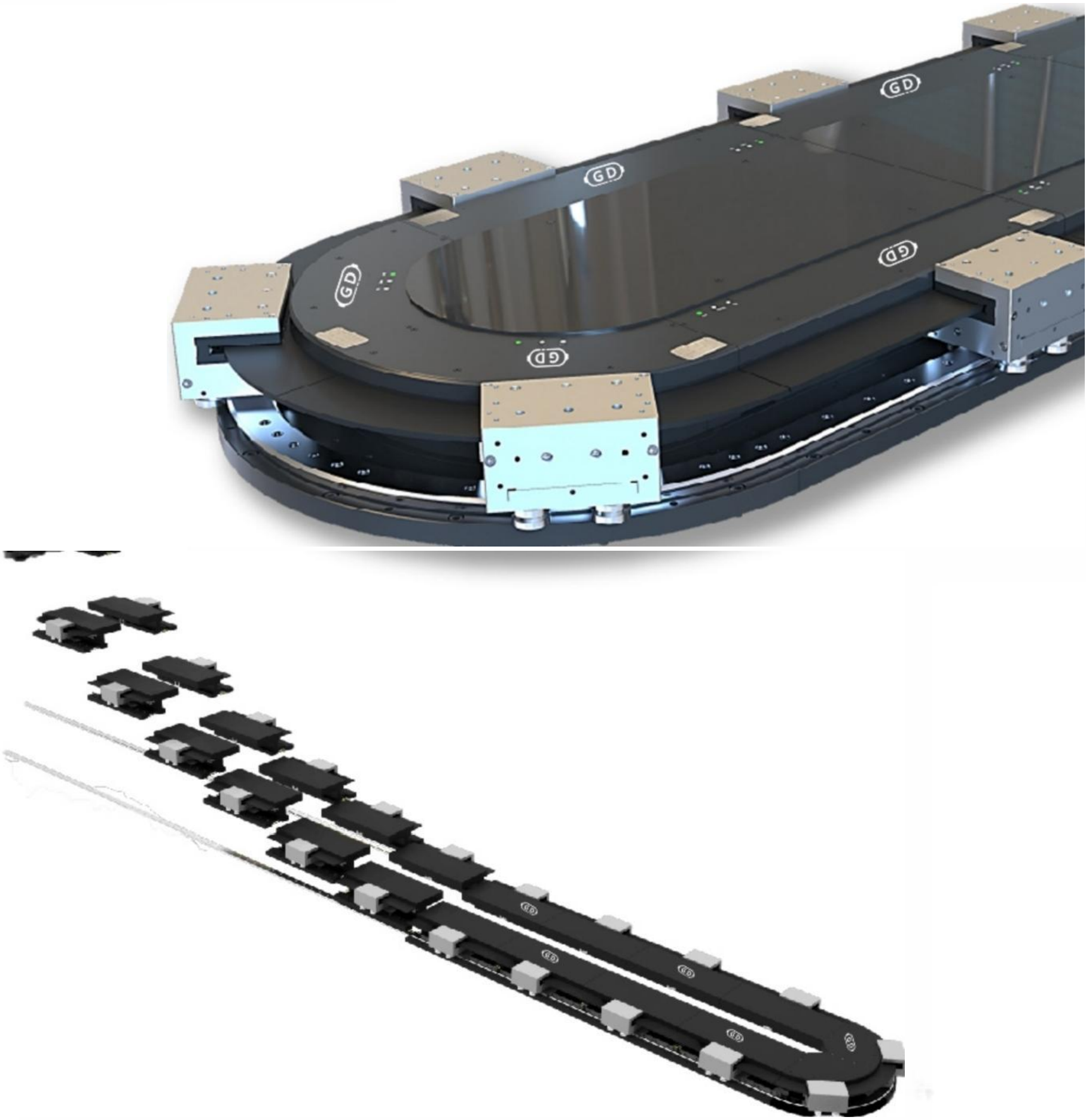
Medical equipment testing

pharmaceutical liquid filling

Pharmaceutical transportation

Intelligent magnetic drive conveyor line

Magnetic drive conveyor line and artificial intelligence



GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

About Us

INTRODUCTION

Department of Systems Engineering
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CtyU-isrsiyoiHarg Keng

Guangdong Technion
ksræe Insttute cf Technology
广东以色列理工学院

An innovative enterprise specializing in the research, development and application of magnetic levitation conveying systems, linear guides, arc guides, circular guide rail systems, intelligent vision IE, and AI dual-arm industrial robots. The company is committed to creating high-performance, high-efficiency and high-stability magnetic levitation assembly line products by introducing and absorbing internationally advanced magnetic levitation technologies and combining independently developed innovative concepts, so as to provide customers with intelligent, flexible and green production line solutions.

Adhering to the orientation of customer needs, we continuously improve product quality and service levels. The company has a professional R&D team with strong technical research and development capabilities and innovation capabilities. It has in-depth cooperation with research institutions such as City University of Hong Kong and Guangdong Technion - Israel Institute of Technology to conduct comprehensive and in -depth research on cutting-edge technologies such as magnetic levitation technology, magnetic levitation control technology, and AI algorithms. Combining with application scenarios, we serve intelligent manufacturing with leading technologies, first-class products and deeply customized application solutions.

Our products are widely applied in various fields such as automobile manufacturing, electronic product assembly, and food packaging. With the characteristics of high efficiency, stability and environmental friendliness, they have won high praise from numerous customers. In the future, the company will continue to uphold the core values of "innovation, collaboration, pragmatism and efficiency", constantly optimize its products and services, and contribute to advancing the realization of the strategic goal of "Made in China 2025" for intelligent manufacturing.

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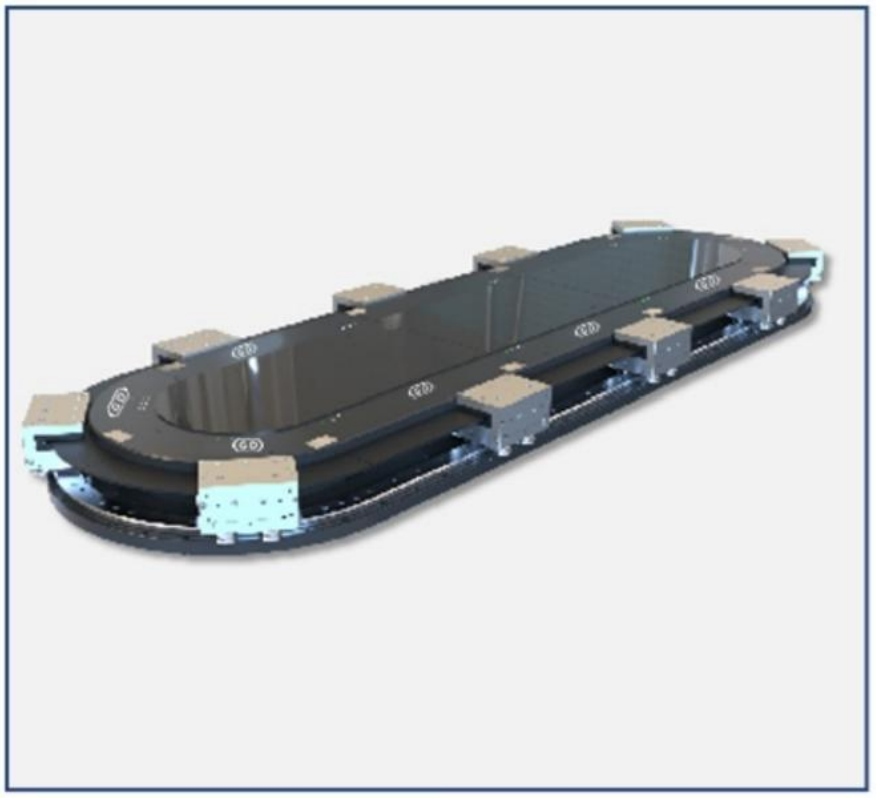
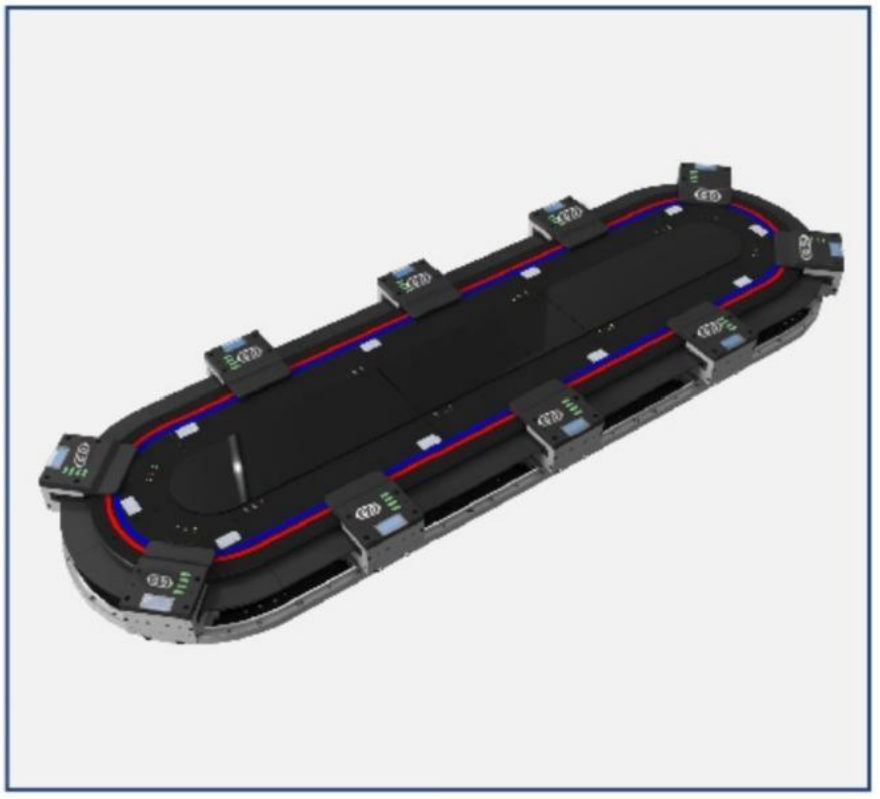
GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

MAGNETIC DRIVE PIPELINE SYSTEM

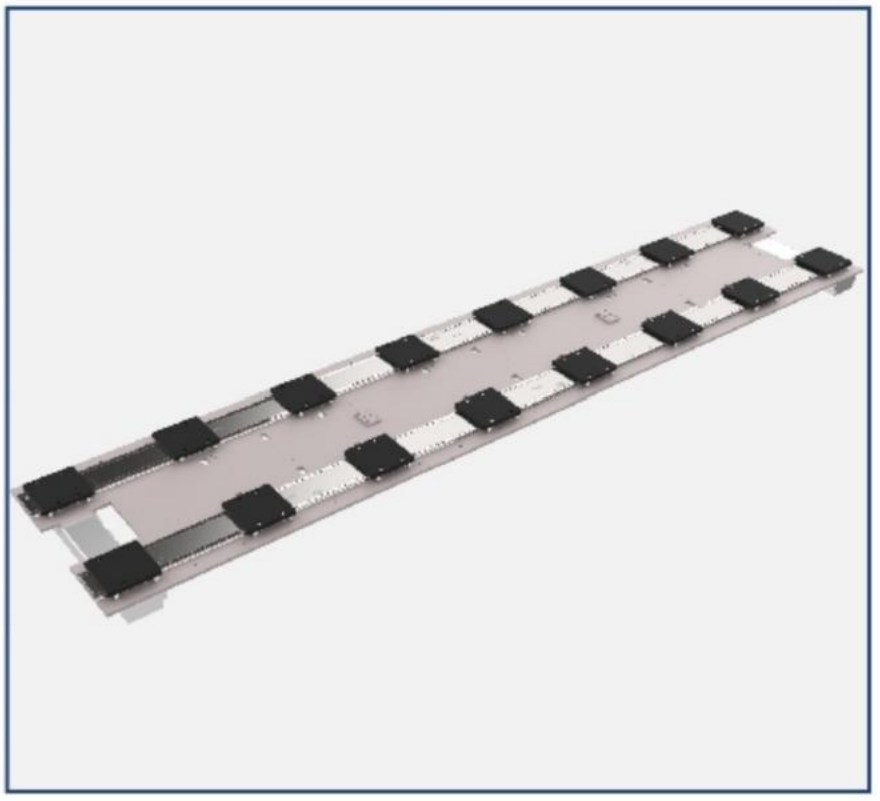


Standard circular magnetic drive line



Wireless power supply magnetic drive line

Diverging and converging magnetic drive line



Dual-track heavy-duty magnetic drive line

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

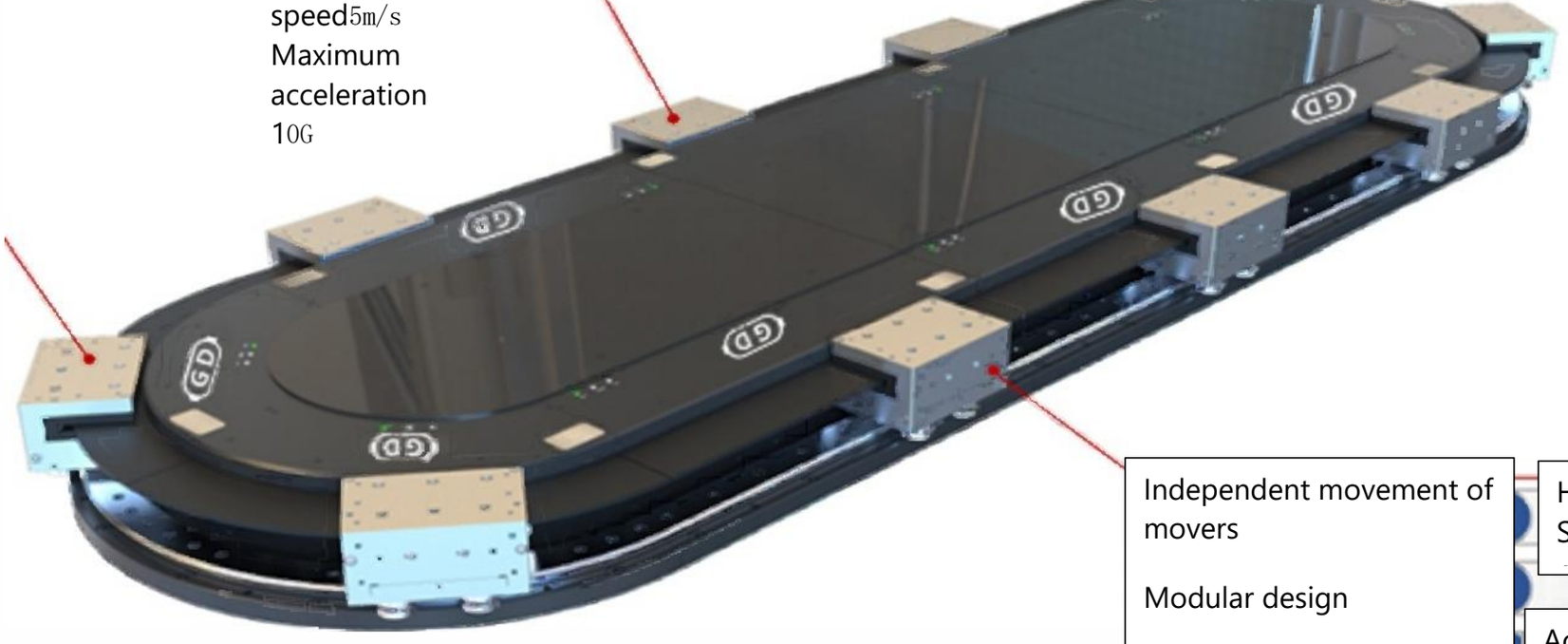
Standard Circular Magnetic Drive Line - Overview

High speed

Maximum speed5m/s
Maximum acceleration 10G

High precision

Maximum repeat positioning accuracy ±10μm, absolute position without zero return.



Independent movement of movers

Modular design

Real-time monitoring of motion status

High flexibility
Supports up to 1024

Adjust station information at any time

After assembling one linear module or +N linear modules, it can operate independently from the upper computer through serial port teaching.

Load	Rated thrust	Peak thrust	Maximum number of movers supported
0kg~40kg	**90N**	**280N**	1024pieces

- A single mover moves independently, can follow and stop at any position, making it easy to realize intelligent and flexible production lines.
- It can easily realize linkage control with execution units such as industrial robots, making the design of automated production lines simpler.
- There is no intermediate transmission mode, which can easily achieve high-speed and high-precision positioning. The positioning accuracy of the conveying system can meet most requirements.
- The conveying system can be designed in a modular manner, which improves the interchangeability and universality of production line components. There is no need to redesign the conveying equipment for new production lines.
- It can be designed into racetrack-shaped, circular, square tracks as well as three-dimensional structures, featuring high flexibility and easily meeting different production needs.

90° arc segment + Straight segment + Mover + Power supply + Yuantu Intelligent

- Electromagnetic winding
- Drive controller
- Arc guide rail
- Displacement sensor
- Mechanical structure
- The radian of the arc segment is optional.

- Electromagnetic winding
- Drive controller
- V-shaped linear guide rail
- Displacement sensor
- Mechanical structure
- The length of the straight segment is optional.

- Kinetochore structure
- Kinetochore roller
- Permanent magnet
- Absolute value magnetic stripe
- The width of the mover is optional. **(60mm-160mm)**

- Input:**AC 220V**
- power:5KW
- Output:**0-90VDC**
- Voltage and power are optional.

- Optional intelligent camera (48 megapixels)
- Intelligent motion control software
- 13-inch touch display screen
- Handheld wireless debugging capability

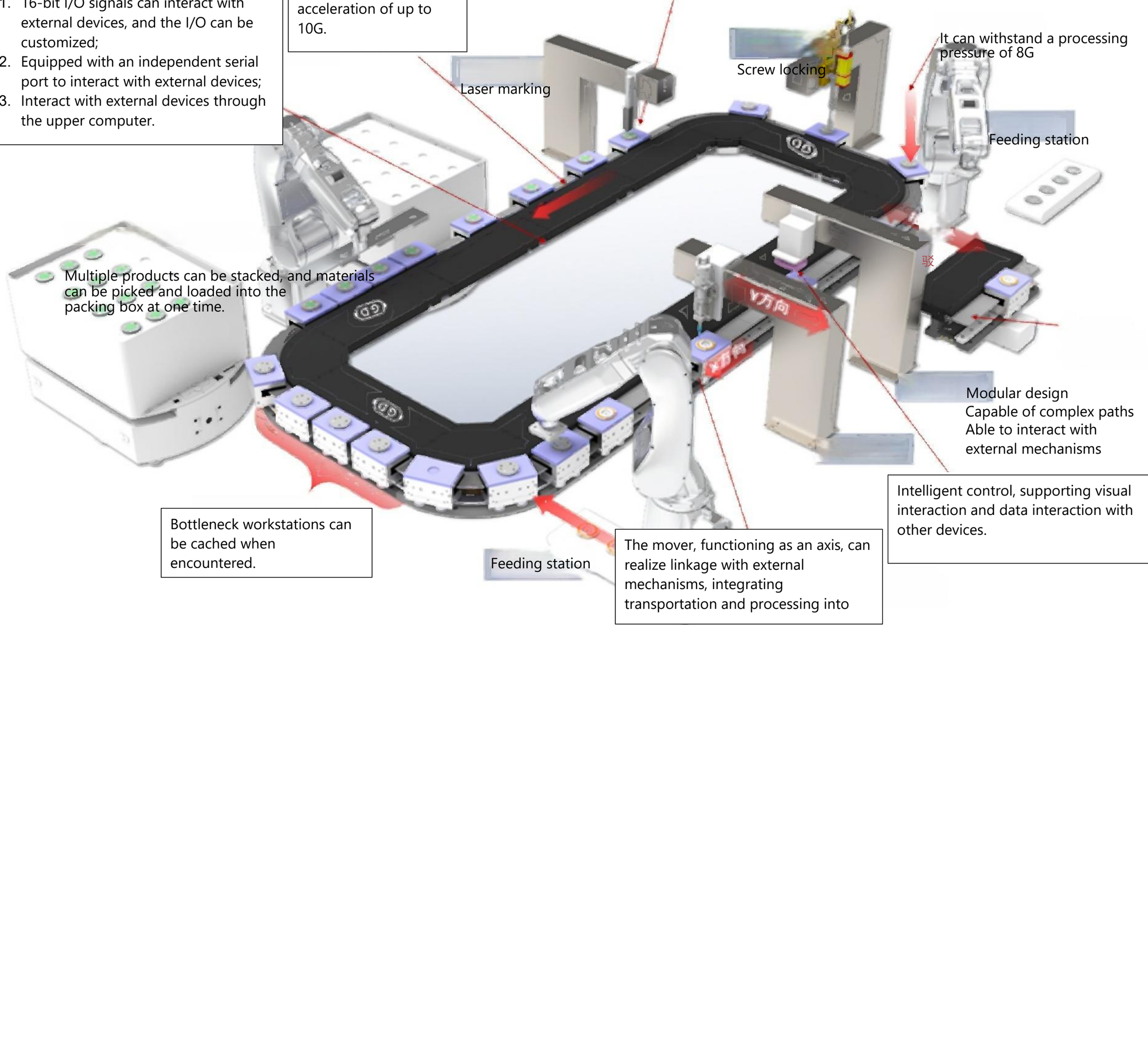
GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

Standard annular magnetic drive line - Applications

Methods for interacting with external devices:

1. 16-bit I/O signals can interact with external devices, and the I/O can be customized;
2. Equipped with an independent serial port to interact with external devices;
3. Interact with external devices through the upper computer.

It can automatically accelerate and decelerate according to the distance from the previous mover, with an acceleration of up to 10G.



Intelligent control, supporting visual interaction and data interaction with other devices.

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

Overview of Wireless Power Supply Magnetic Drive Line

Yuantu has achieved a qualitative leap in equipment flexibility through wireless power supply technology:

High speed
◆ Wireless power supply enables continuous non-frog-style power supply to the mover and synchronous real-time data transmission.
◆ Wireless power supply technology allows both processing and quality control to be directly implemented on the mover during operation.
◆ Sufficient power and high-speed communication with the control system simplify the connection of sensors and actuators.
◆ Data communication between each mover is conducted in real time, enabling the triggering of specific events at precise positions, and allowing simultaneous inspection and measurement during product handling, processing, and conveying.

Circular line
◆ Wireless power supply technology provides users with the possibility to implement brand-new solutions.

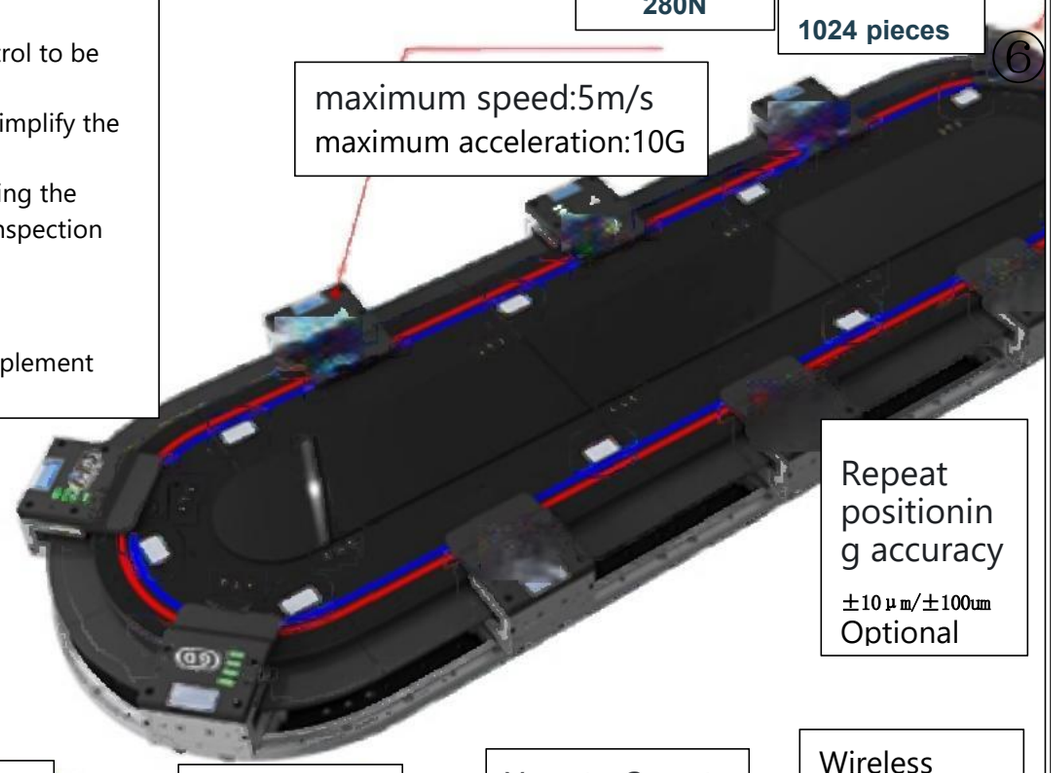
Load
0kg~40kg

Instantaneous force
90N

Peak stiffness force
280N

Maximum number of external movers
1024 pieces

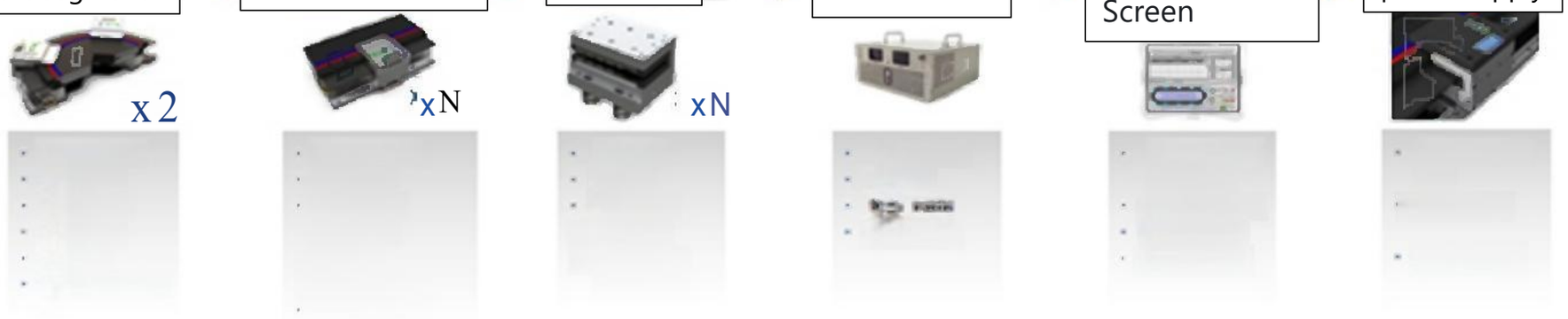
maximum speed:5m/s
maximum acceleration:10G



Repeat positioning accuracy
±10μm/±100um Optional

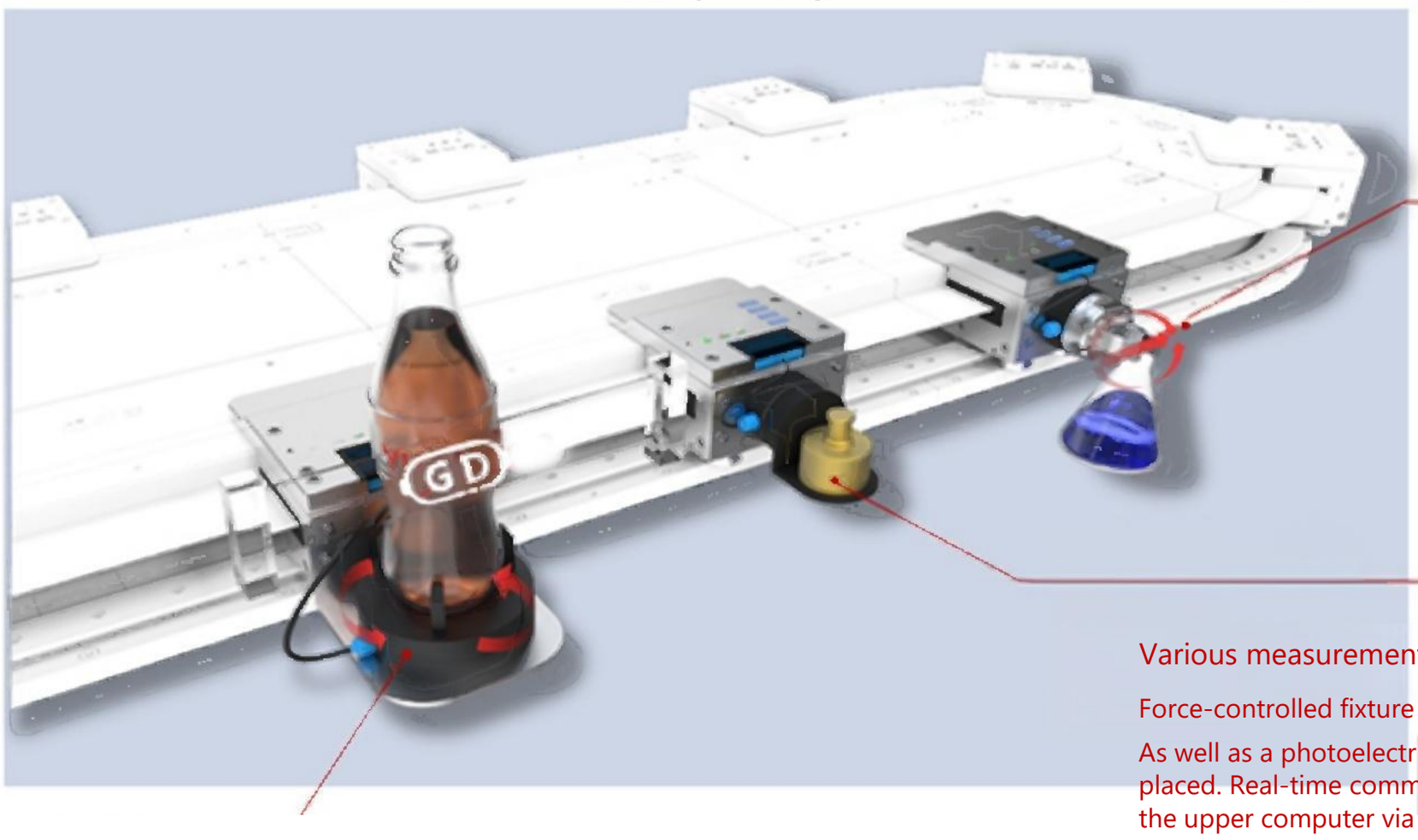
180-degree arc segment

180-degree arc segment + Straight segment + Mover + Power supply + Yuantu Smart Screen + Wireless power supply



Product	Circular line
• Load • Repeat positioning accuracy • Maximum movement speed • Maximum acceleration • Rated thrust • Peak thrust • Equipment input voltage • External communication interface • Wireless power supply module	• 0~40kg • Optional±10μm /±100μm • 5m/s • 10g • 90N • 280N • 220V 50/60HZ • EtherCAT, TCP communication 24V 5A(Optional)

Wireless Power Supply Magnetic Drive Line - Applications



Supports the installation of various processing peripherals

For example, installing electric clamping fixtures opens up more possibilities for the processing process.

Various measurement sensors can be installed

Force-controlled fixture

As well as a photoelectric sensor for detecting whether a product has been placed. Real-time communication enables the sensor values to be transmitted to the upper computer via wireless communication.

Precise positioning

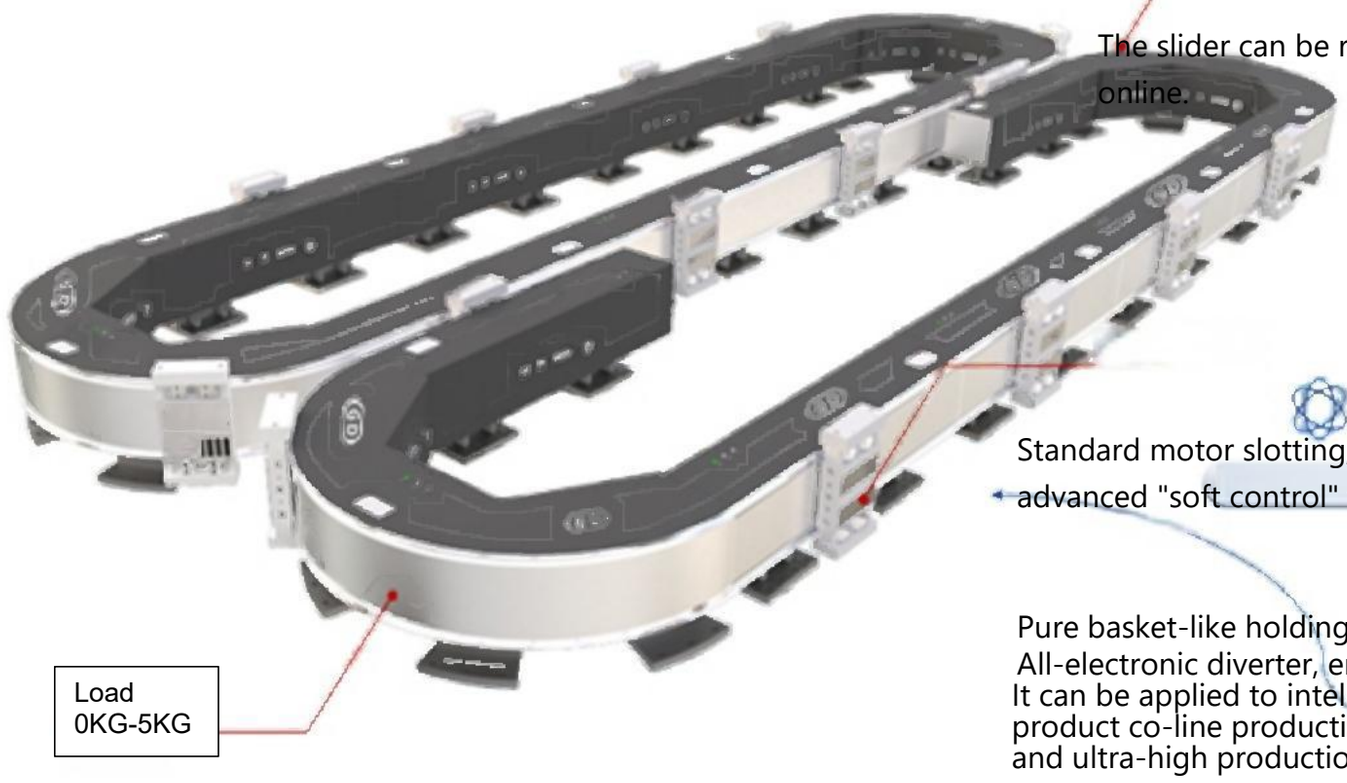
Can rotate or adjust other postures with an accuracy of ±10μm.

Wireless power supply module

Wireless power supply module Small size and high power	Contactless continuous power supply output：24V 10A
Fixture torque control	Achieve precise torque control over the gripper
Real-time measurement	Real-time measurement during the conveying process

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

Shunt and Converge Magnetic Drive Line - Overview



Repeat positioning accuracy Optional

±10m±100um Optional

The slider can be replaced online.

Load 0KG-5KG

- Load
- Repeat positioning accuracy
- Maximum movement speed
- Maximum acceleration
- Rated thrust
- Peak thrust
- Equipment input voltage
- External communication interface

- Loop line
- 0-5kg
- Optional ±10um/±100um
- 4m/s
- 10g
- 45N
- 120N
- 220V 50/60HZ
- EtherCAT、TCPcommunication

Standard motor slotting, application of movers, specific guide rails, and advanced "soft control" technology

Make machine adaptation possible

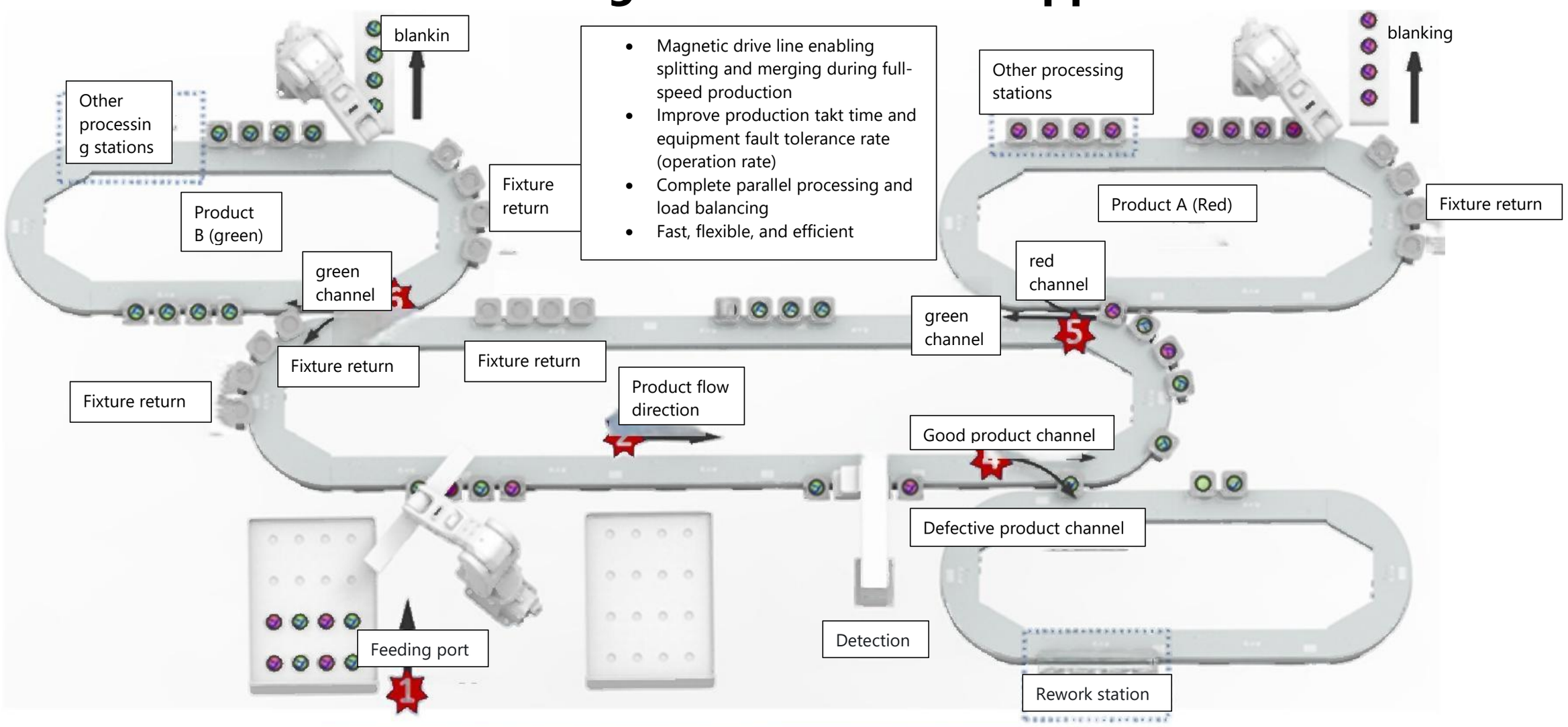
Pure basket-like holding

All-electronic diverter, enabling flexible and automatic multi-track product diversion. It can be applied to intelligent manufacturing fields such as small-batch and multi-product co-line production, combined packaging, personalized product customization, and ultra-high production takt.

Arc segment + Straight segment + Mover + Power supply + Yuantu Smart Screen =

Arc segment	Straight segment	Mover	Power supply	Yuantu Smart Screen
				
• Motor stator • Drive controller • Guide rail • Displacement magnetic grid ruler	• Motor stator • Drive controller • Guide rail • Displacement magnetic grid ruler	• Motor stator • Drive controller • Guide rail • Displacement magnetic grid ruler	• Motor stator • Drive controller • Guide rail • Displacement magnetic grid ruler	• Motor stator • Drive controller • Guide rail • Displacement magnetic grid ruler

Shunt and Confluence Magnetic Drive Line - Application



- Magnetic drive line enabling splitting and merging during full-speed production
- Improve production takt time and equipment fault tolerance rate (operation rate)
- Complete parallel processing and load balancing
- Fast, flexible, and efficient

The track design is flexible, the equipment occupies a small space, and can be combined into any shape.

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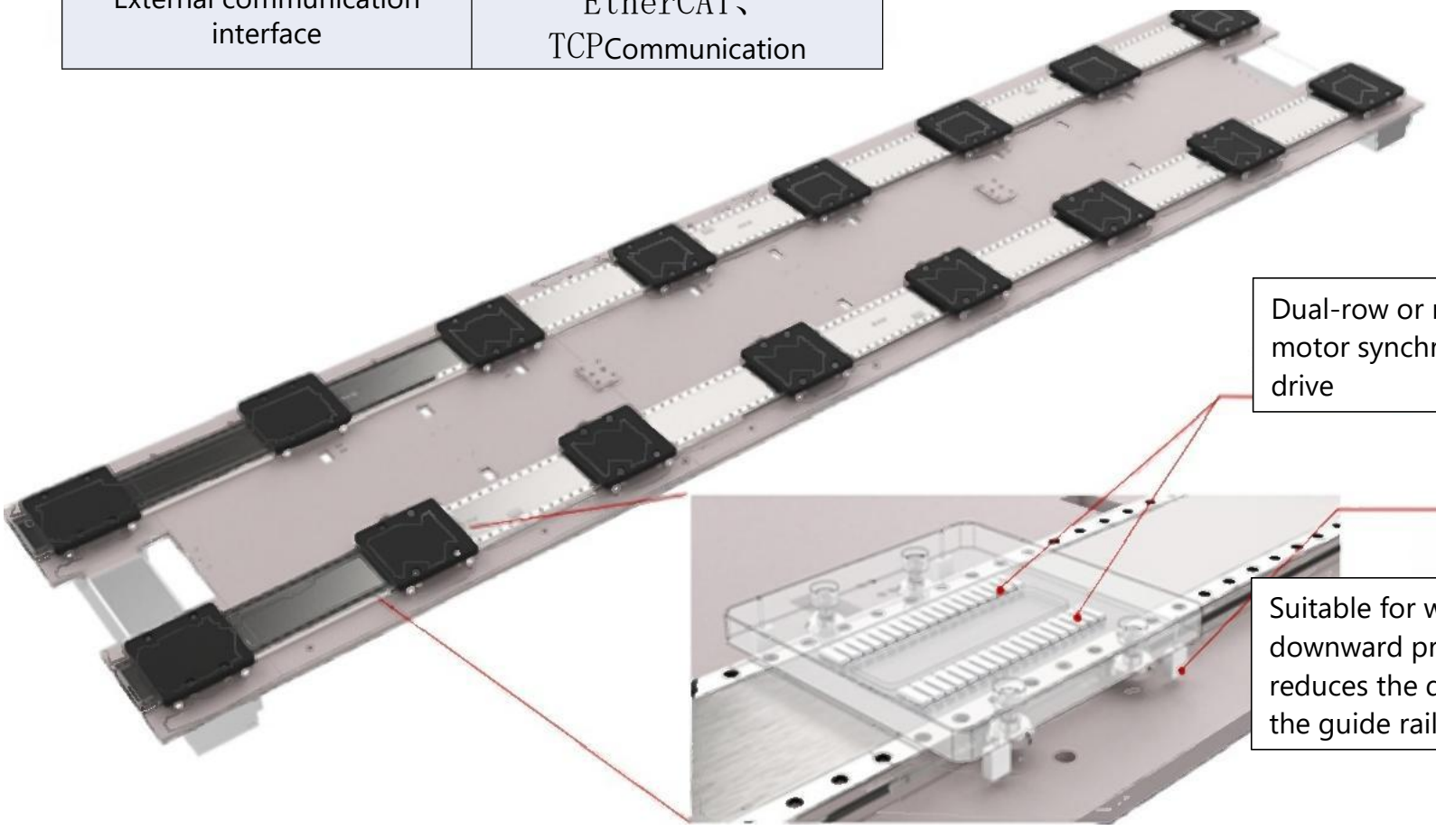
□Dual-track heavy-duty magnetic drive line

Yuantuke can customize dual-track or multi-track heavy-duty magnetic drive conveyor lines with large carriers and high load capacity specifically for industries such as automotive, home appliances, and electrical machinery.

Product	Loop line
load	0~1000kg (Customization)
Repeat positioning accuracy	Optional ±10μm/±100μm
Maximum movement speed	2m/s
Maximum acceleration	5g
Rated thrust	customization
Peak thrust	customization
Equipment input voltage	220\380V 50/60HZ
External communication interface	EtherCAT、TCPCommunication



Magnetic drive assembly line system

Explanation of Module Models

TOE-W1-Z L2-A-T-J2

coding	1	2	3	4
Repeat positioning accuracy	+001	+0. 02	+0. 05	+0. 10

coding	Position feedback
J	Absolute value
A	Incremental type

coding	Guide rail type
T	High-precision V-shaped guide rail
0	Standard V-shaped guide rail
N	No guide rail included

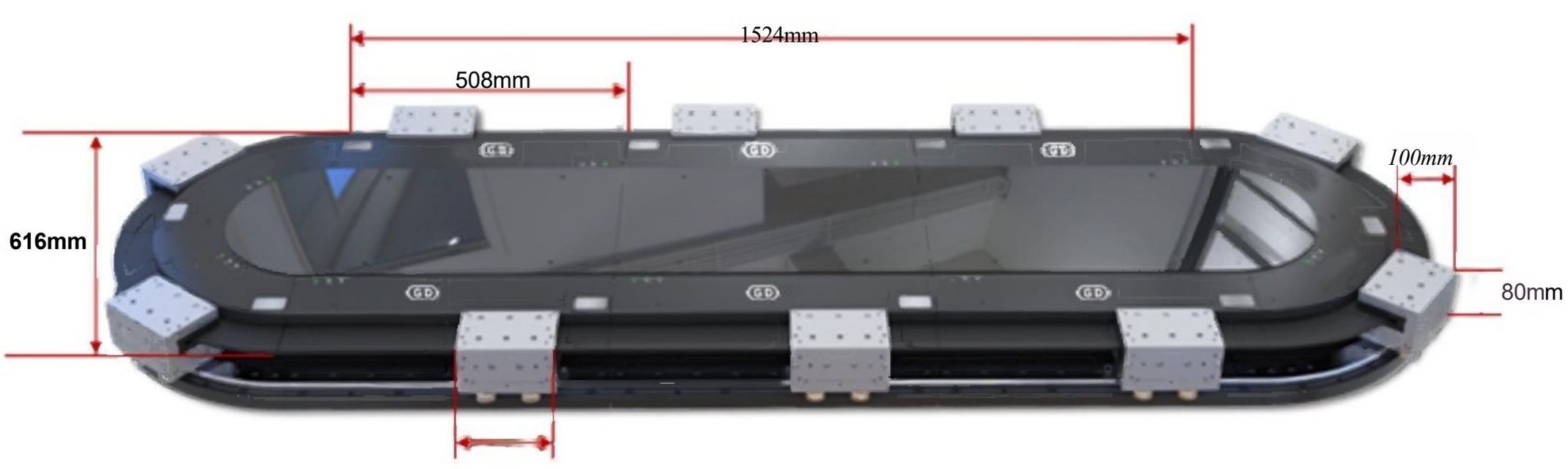
coding	Continuous thrust (N)	Peak thrust (N)	Rotor length (mm)	load (kg)
A	73	250	106	0-40
B	146	500	190	
C	219	750	140*2	
D	292	1000	140*3	Heavy-duty type, customizable

L (Length)		D (Arc diameter)	
L1	252mm	D1	616mm
L2	504mm		
L3	756mm		
L4	1008mm		
L5	Customization	D2	Customization

W(Coreless group)		Y(Cored group)	
coding	subseries	coding	subseries
W1	Standard Intelligent Magnetic Drive Line	Y1	Standard Intelligent Magnetic Drive Line
W2	Wireless Power Magnetic Drive Line	Y2	Wireless Power Magnetic Drive Line
W3	Shunt and Confluence Magnetic Drive Line	Y3	Shunt and Confluence Magnetic Drive Line
WT	Rail-less Magnetic Drive Line	YT	Rail-less Magnetic Drive Line
WZ	Planar Magnetic Levitation Assembly Line	YZ	Planar Magnetic Levitation Assembly Line

coding	Module type
Z	Linear module
O	Outer arc module
C	Inner arc module
S	S-shaped module
A	Customized special-shaped modules

coding	Product Series
E	Maglev Conveying System
V	Intelligent vision products
A	Related to industrial AI robots



Available according to different thrusts.

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

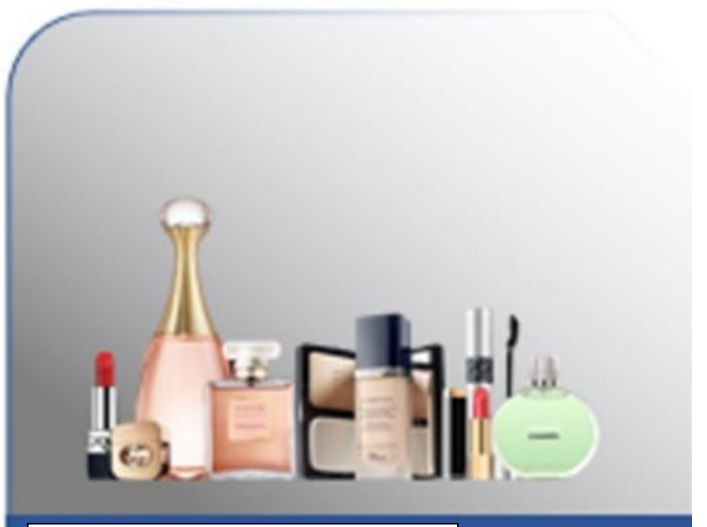
MAGNETIC DRIVE PIPELINE SYSTEM

☐ Application scenarios

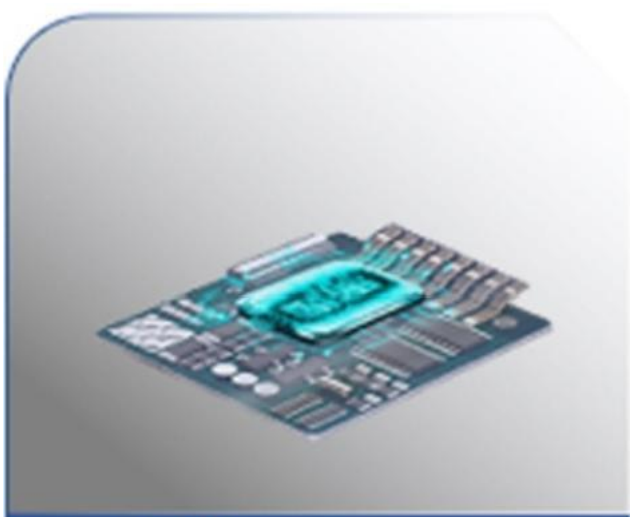
3C electronics

Automotive parts and components

Liquid crystal display screen



Daily chemical products



Semiconductor chips

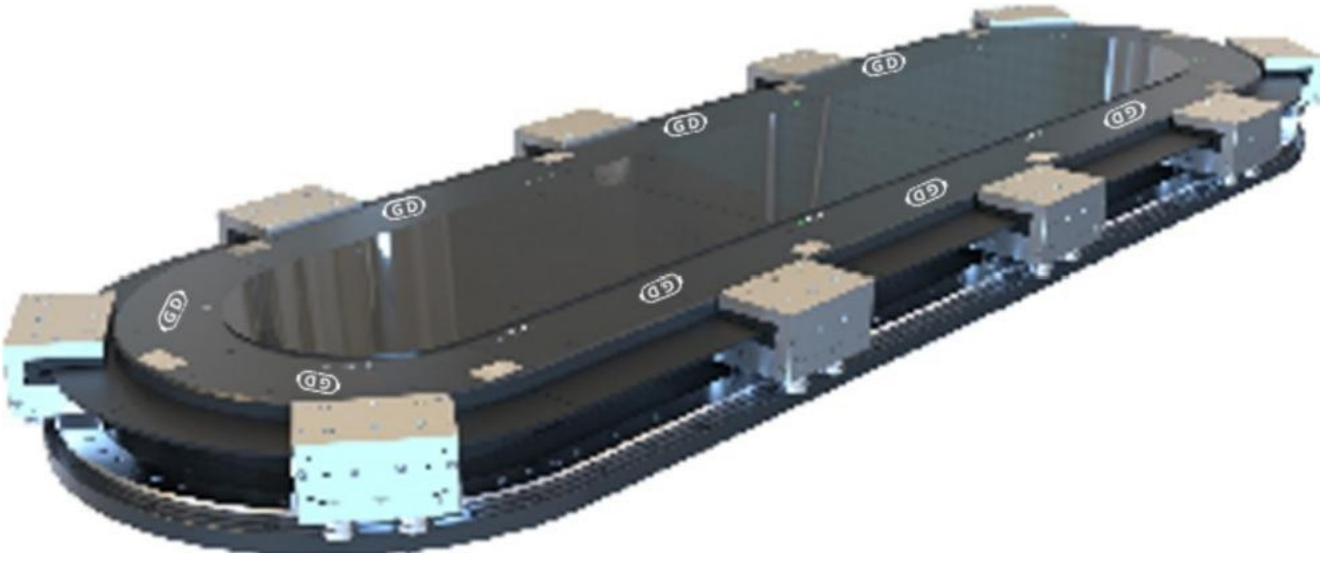
Medical devices

Lithium battery manufacturing

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

MAGNETIC DRIVE PIPELINE SYSTEM

☐ System advantages



01 Rotor independent movementNo need for synchronous waiting, flexible and intelligent.

02 High speed and high acceleration
Shorten the production cycle and improve production efficiency.

03 High-precision positioning
Smooth acceleration and deceleration, reducing many positioning mechanical structures.

04 Large-rigidity mover
Operations can be performed directly on the mover without the need to transfer products to a separate workbench.

05 Multi-axis linkage between the mover and external structures
Conveying and processing are integrated, enabling multi-variety production on the same line.

06 Magnetic drive, non-contact and wear-free.
Long service life, low maintenance cost, and suitable for harsh production conditions such as cleanliness, dust-free and vacuum environments.

07 Compact structure
A large number of auxiliary mechanical structures are eliminated, and the floor area is reduced by about 80%.

08 Absolute position without homing
Absolute position displacement sensor, no data loss when power is off.

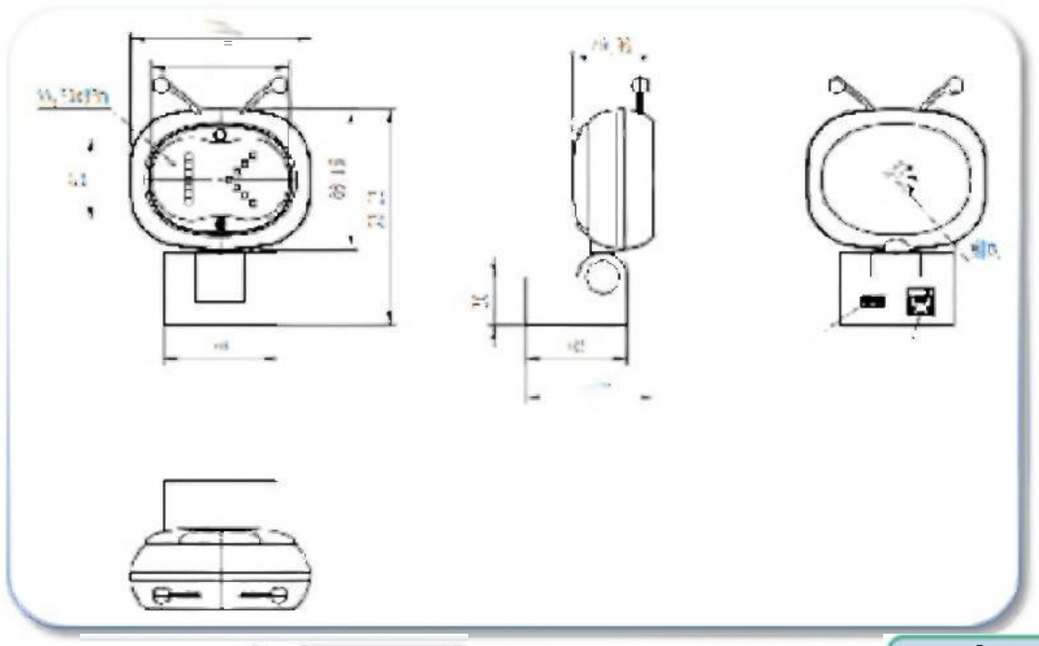
09 Motion mode simulation
Virtual debugging saves test and verification time.

10 Modular design
Building and adjusting the production line is as simple as building with building blocks.

INTELLIGENT VISION

☐ Product Introduction

IE

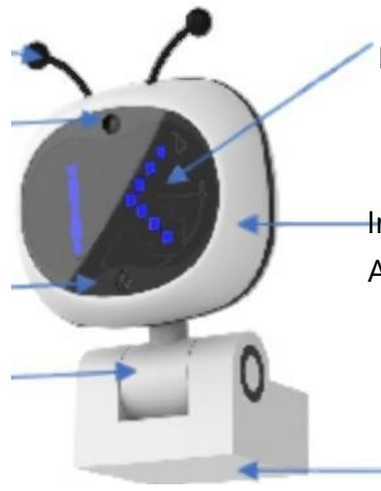


Status reminder, antenna

50-megapixel camera +
5-megapixel video camera

Voice interaction

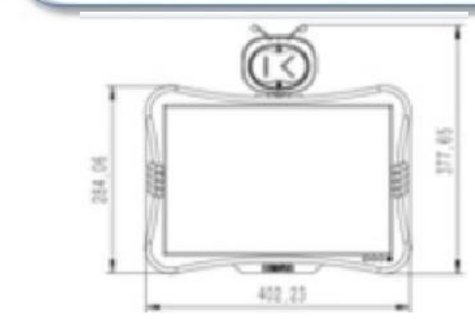
High-precision silent pan-tilt

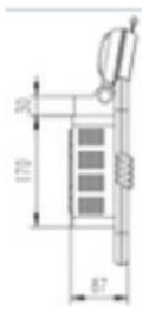


Rich interactive tags

Integrated self-developed AI system

Threaded or magnetic installation



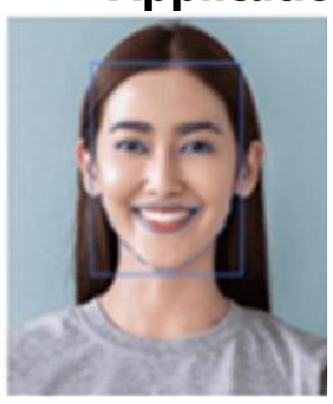


Intelligent Vision IE, Intelligent SOP

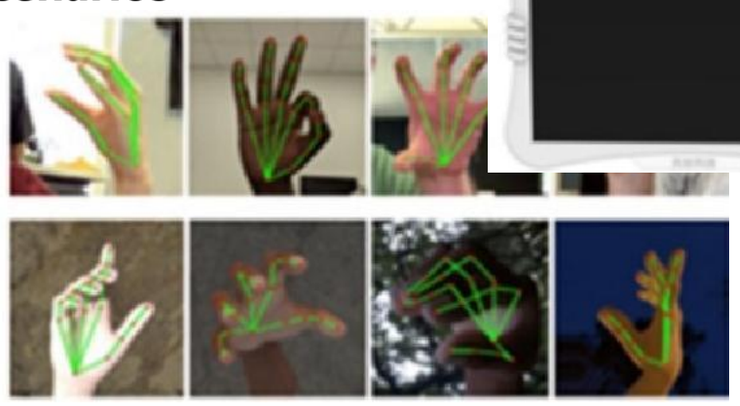
Function:

Vision monitors whether manual operation steps are correct, and supervises whether the input data or output data of each operation step is correct. It automatically captures redundant, inefficient, non-standard, and omitted action elements, helps employees improve their gestures in a targeted manner, effectively enhances employees' production efficiency, and ensures production quality.
An online platform that can monitor and trace quality inspection in real time. For the quality inspection of each product, key information such as specific quality inspection data, quality inspection actions, number of quality inspections, and quality inspection item numbers can be viewed. It can teach employees standard and efficient operating procedures according to the trained SOP, and teach robots coordinate points, torque parameters, etc.

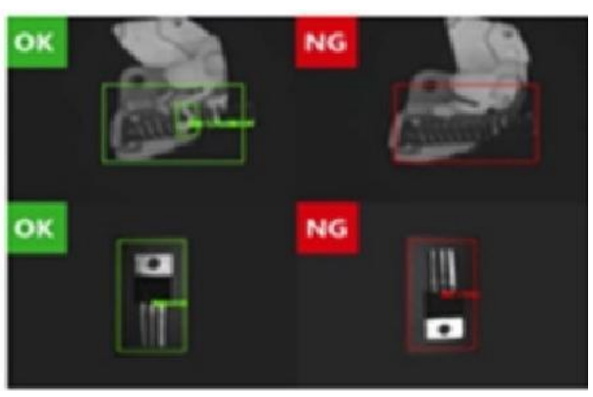
Application scenarios



Face recognition



Motion capture



Defect detection

Positioning-guided machine adjustment

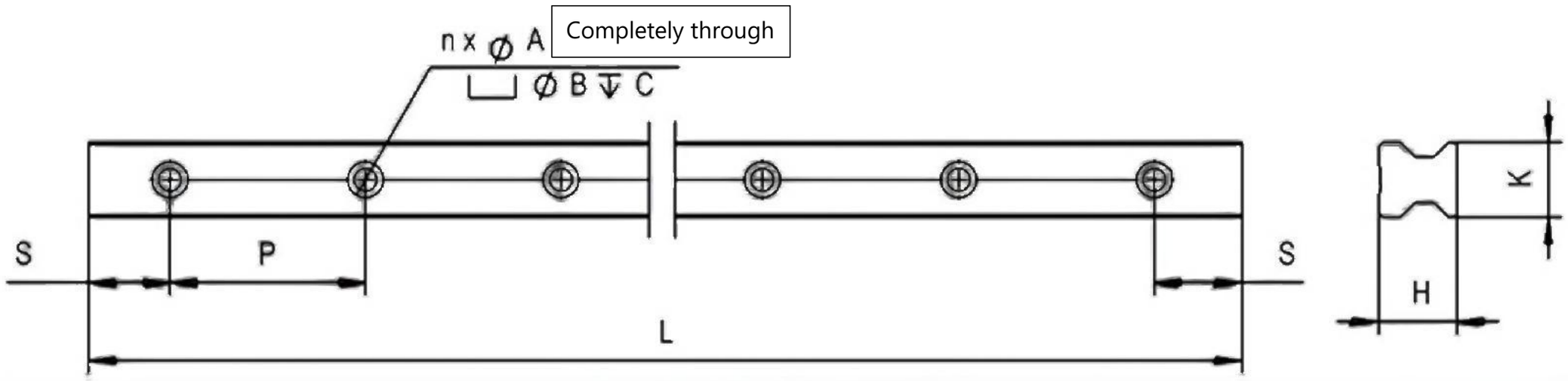
Dual-axis pan-tilt, tracking interaction

Speech recognition and alarm

STRAIGHT TRACK INTRODUCTION

Example of T-type guide rail model LGT - 23 - □

- Rail length:<4000mm
- Rail width:<23mm
- Linear guide rail model: T-type



Model	A	B	C	H	K	Lmax	P	S
LGT-23-4000	7	11	9	24	23	4000	30	15
LGT-28-2000	9	15	10	28	28	2000	40	20

Note ： L=(n-1)xP+2xS

L：Total length of the guide rail

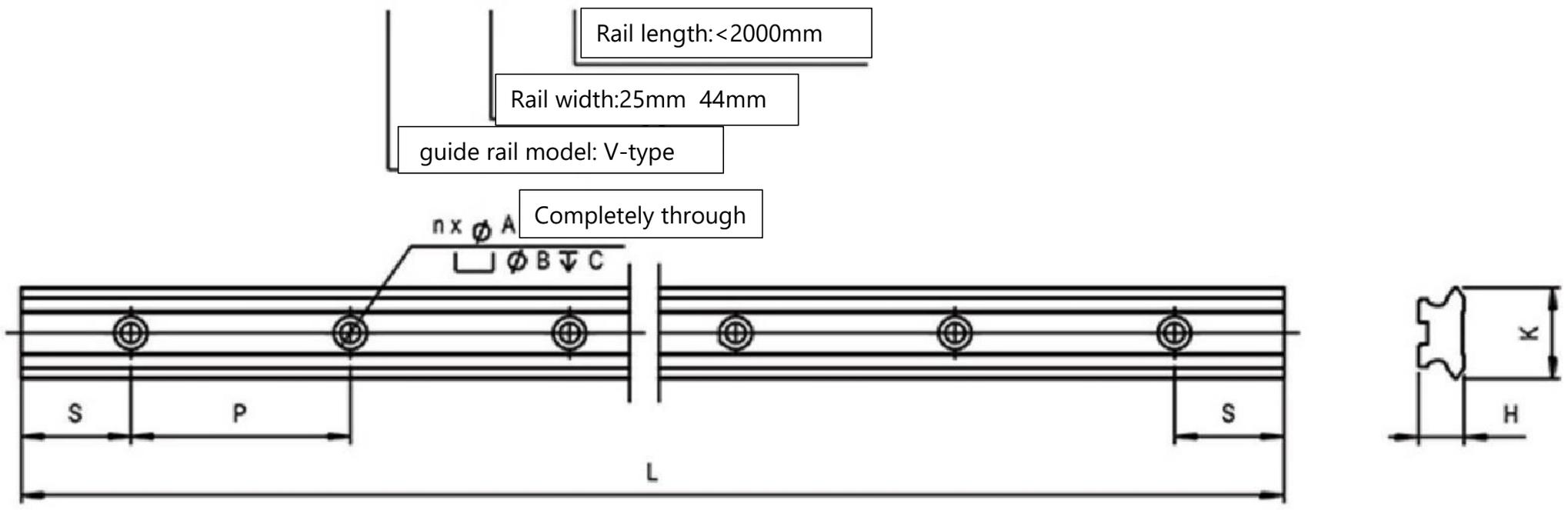
n: Number of bolt holes

P：Bolt hole spacing

S: Distance from the bolt hole to the end face (preferably not greater than 1/2P, to prevent instability of the end of the slide rail after assembly due to excessive size, which would reduce the guide rail accuracy)

Example of T-type Guide Rail Model LGV-□-□

- Rail length:<2000mm
- Rail width:25mm 44mm
- guide rail model: V-type



Model	A	B	C	H	K	Lmax	P	S
LGV-25-2000	5.5	10	5.7	12.5	25	2000	60	30
LGV-44-2000	6.8	11	6.8	15.5	44	2000	60	30

注 ： L=(n-1)xP+2xS

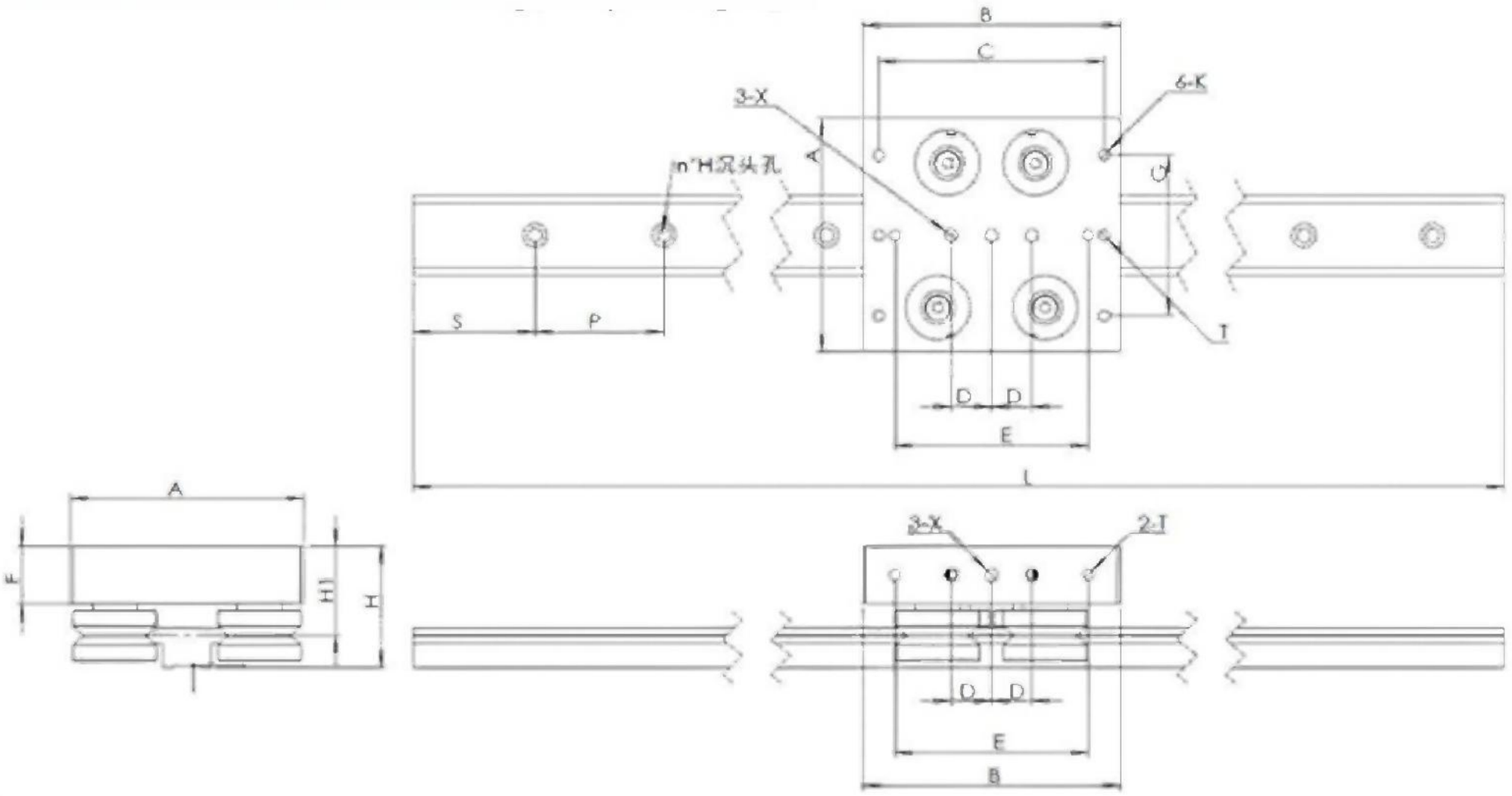
L：Total length of the guide rail

n: Number of bolt holes

P：Bolt hole spacing

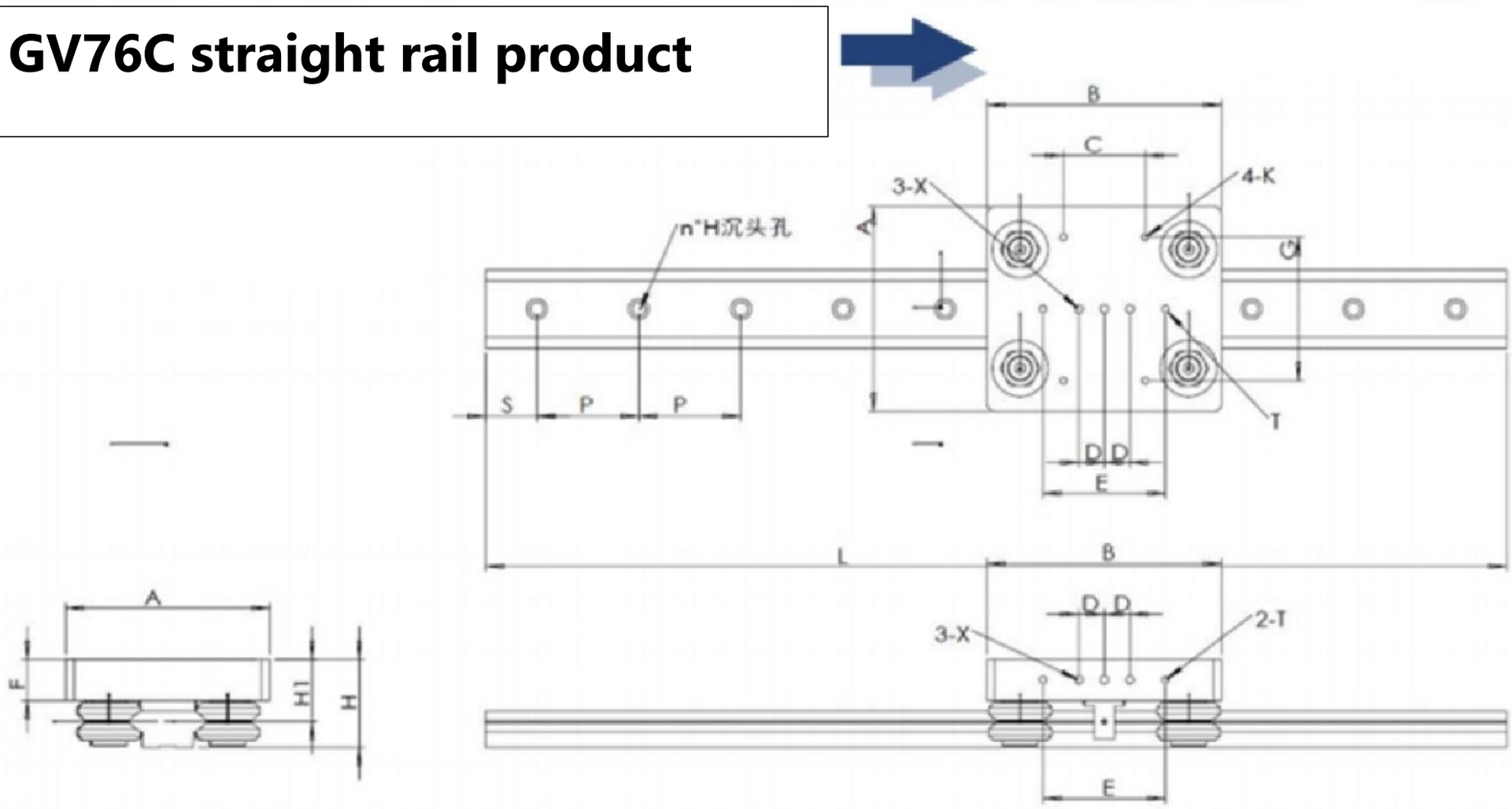
S: Distance from the bolt hole to the end face (preferably not greater than 1/2P, to prevent instability of the end of the slide rail after assembly due to excessive size, which would reduce the guide rail accuracy)

V-rail GV50C straight rail product



Component Specifications	Main dimensions															
GV50C – Straight rail	A	B	C	D	E	F	G	S	P	L	H	H1	6-K	3-X	2-T	n*H counters unk hole
GV50C – Straight rail	145	160	140	25	120	35	100	End distance	80	4 meters	74.8	54.8	M8	Ø8	M8	M8

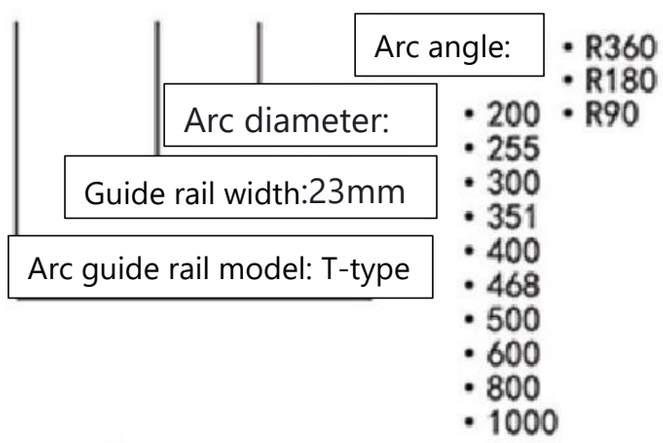
V-rail GV76C straight rail product

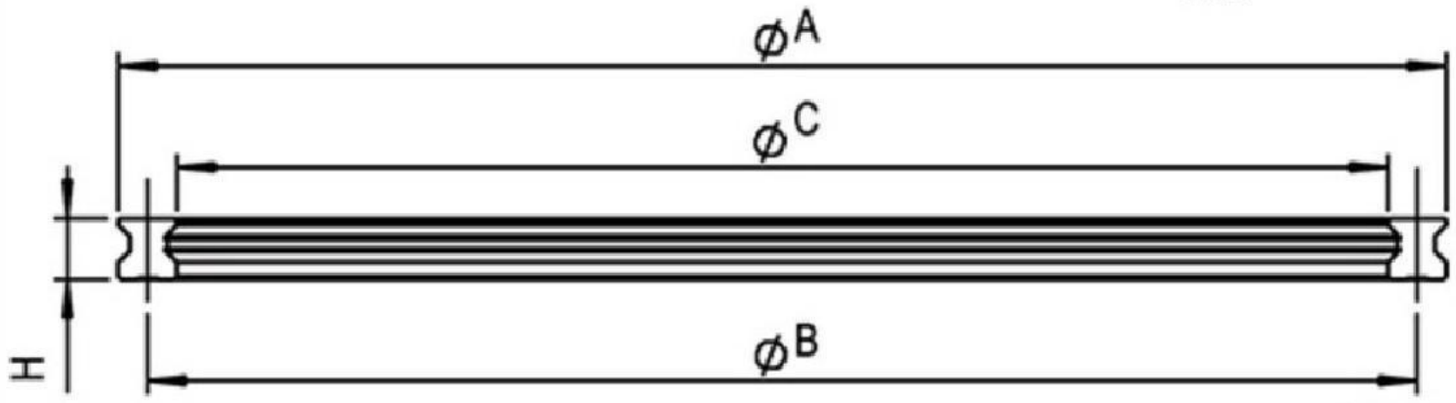


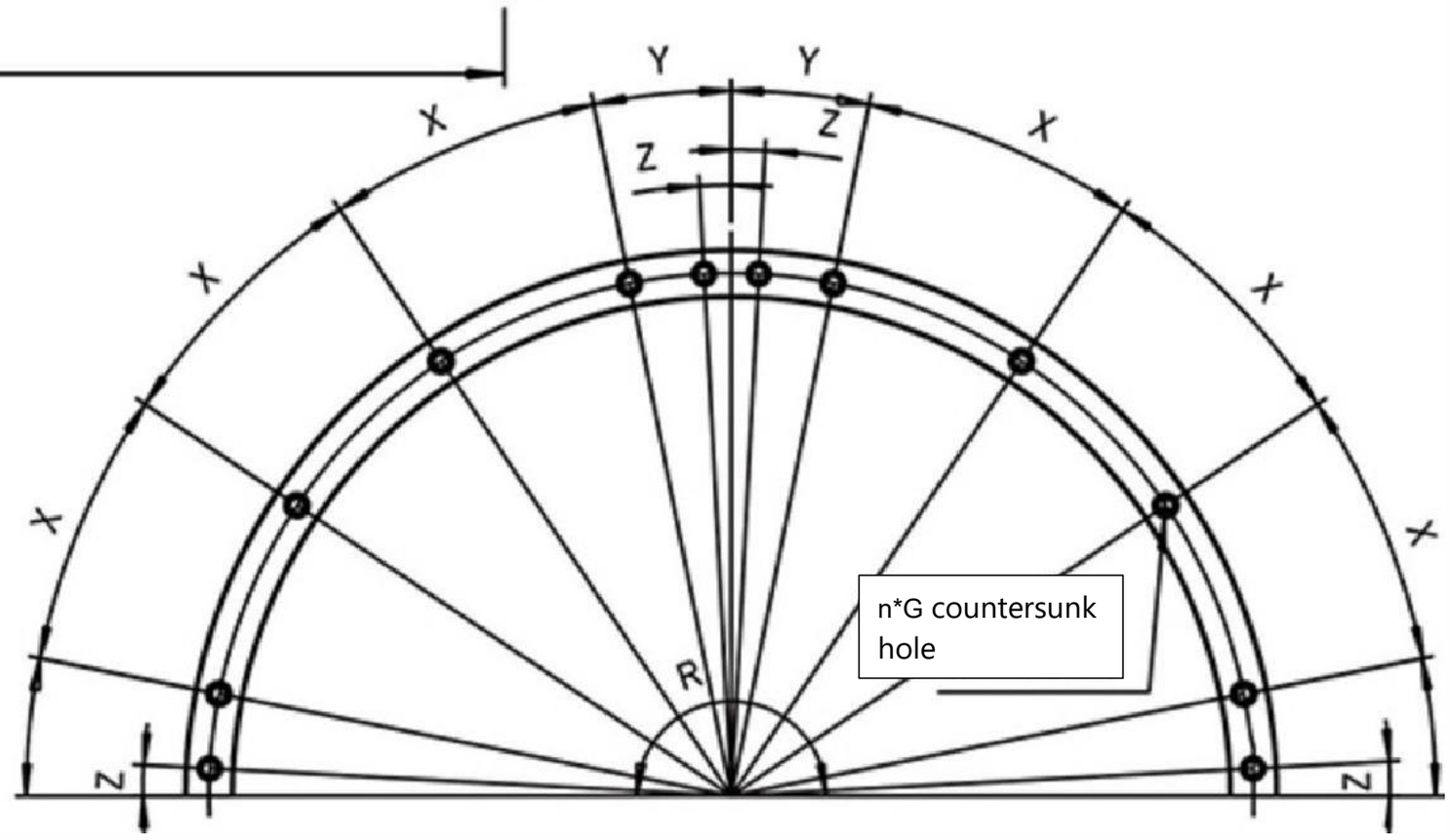
Component Specifications	Main dimensions															
GV76C – Straight rail	A	B	C	D	E	F	G	S	P	L	4-K	H	H1	3-X	2-T	n*H countersunk hole
GV76C – Straight rail	200	230	80	25	120	40	140	End distance	100	4米	M8	85.8	60.8	Ø8	M8	M12

RING RAIL INTRODUCTION

T-type arc guide rail model: HGT-23-300-180°





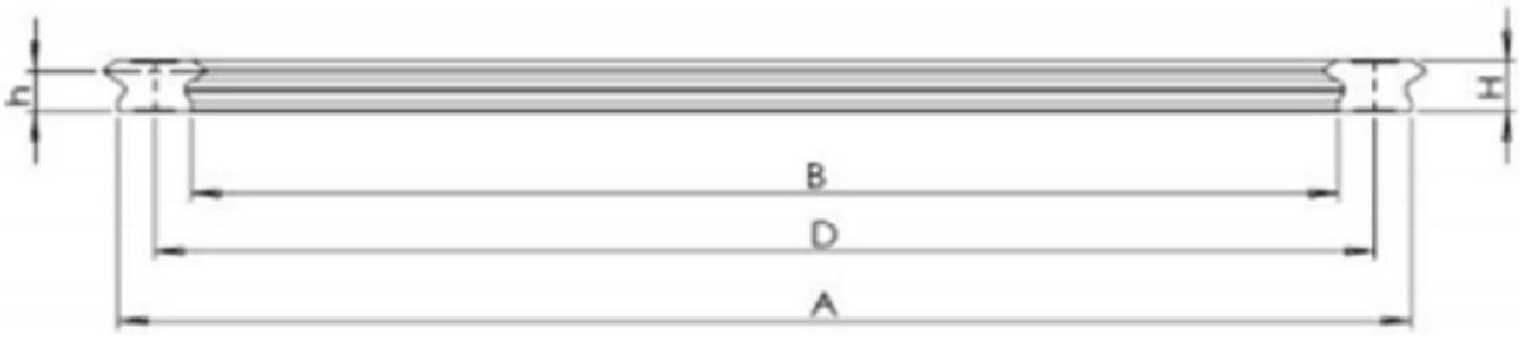


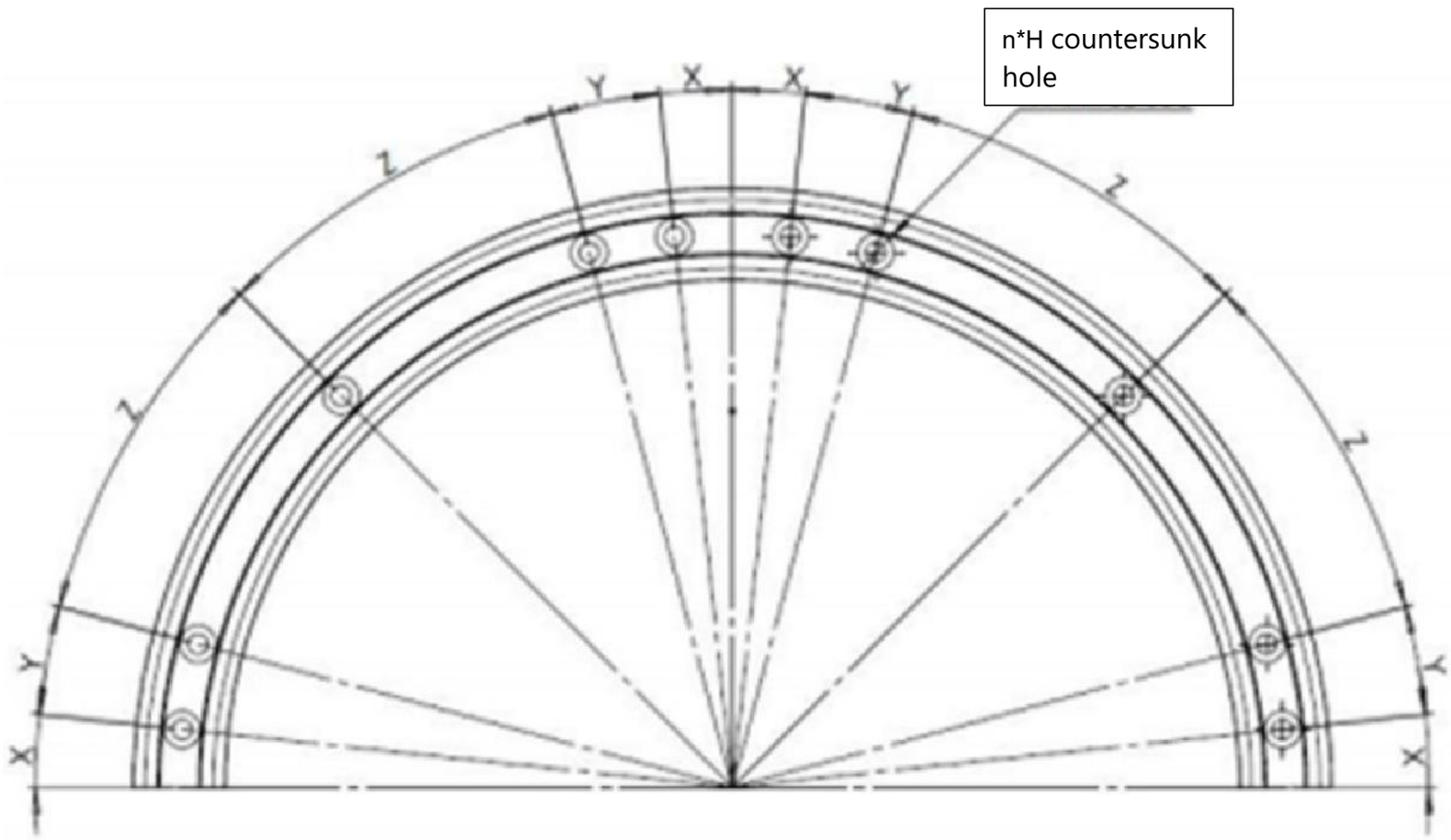
Model	R	A	B	C	H	X	Y	Z	n(90° /180° /360°)	G
HGT-23-200	90/180° /360°	223	200	177	24	22.5	11.25	*	4/8/16	M6
HGT-23-255		278	255	232				4		
HGT-23-300		323	300	277				4	6/10/16	
HGT-23-351		374	351	328				4		
HGT-23-400		423	400	377				4		
HGT-23-468		491	468	445				4		
HGT-23-500		523	500	477				3		
HGT-23-600		623	600	577				5		
HGT-23-800		823	800	777				5		
HGT-23-1000		1023	1000	977				5		

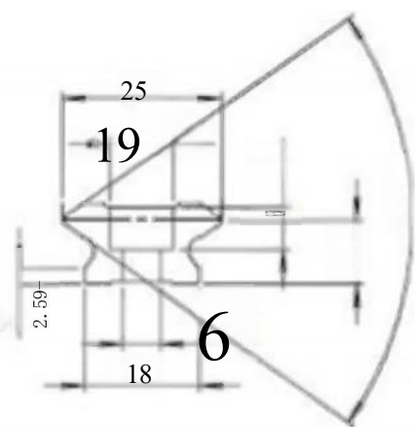
Note： 9 0 / 1 8 0 ° The guide rail is made by cutting a 360° guide rail, so there is a cutting tolerance, usually -0.2mm. According to different actual application situations, non-standard customization can be carried out according to the customer's specific application requirements.

Product drawing of V-shaped ring rail model GV25C

The V-shaped working surface has undergone hardening treatment, resulting in excellent wear resistance.
Precision grinding is performed on a CNC guideway grinder.
The guideway base has no hardness and can be machined.
There are three size specifications available for selection.
The guideways can be butted to extend to any length.



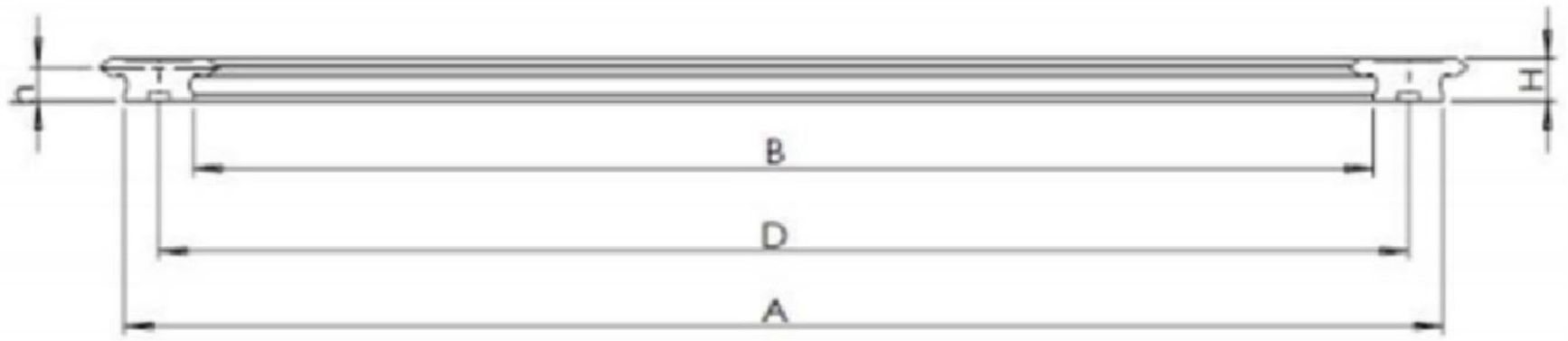


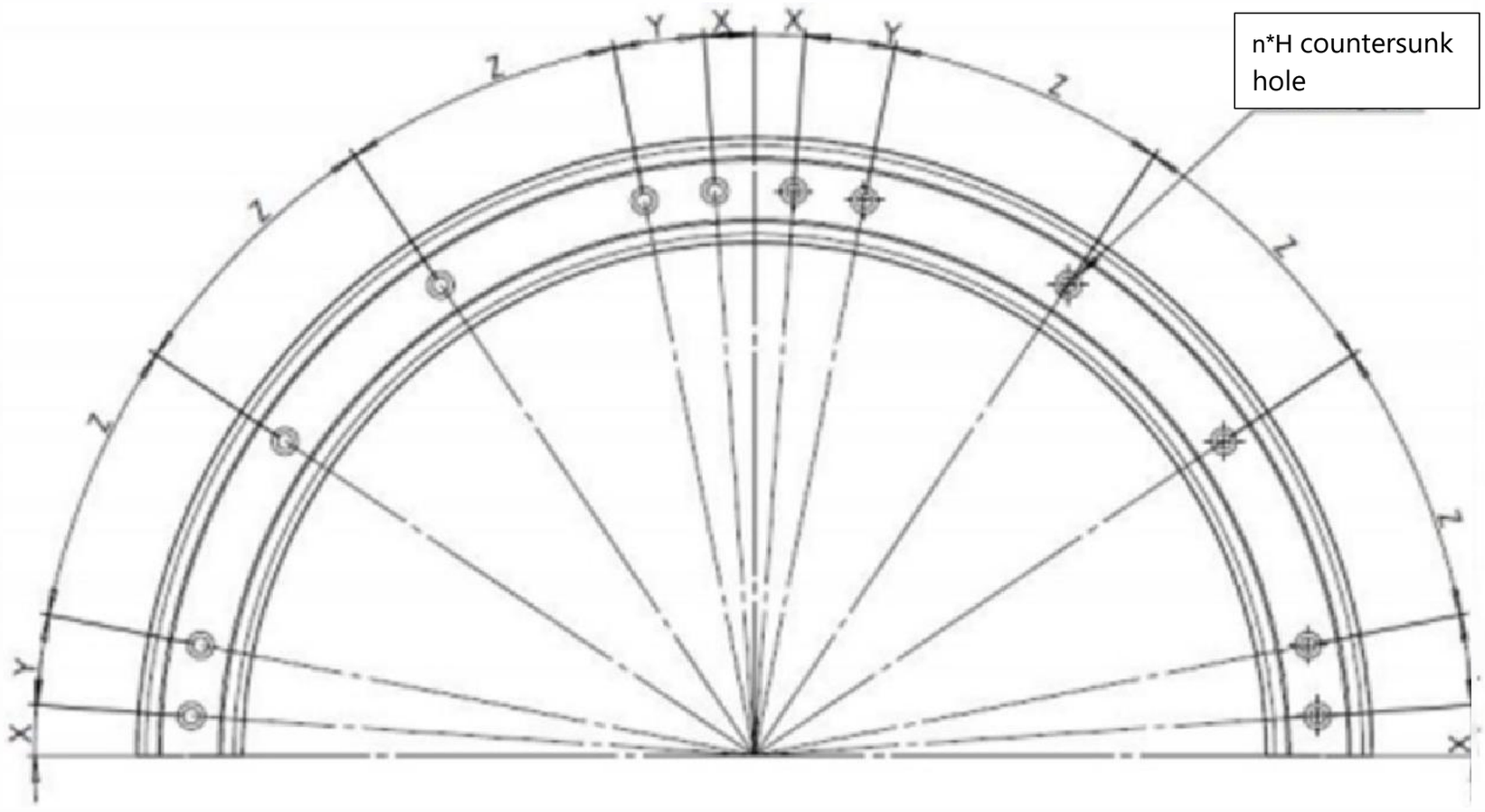


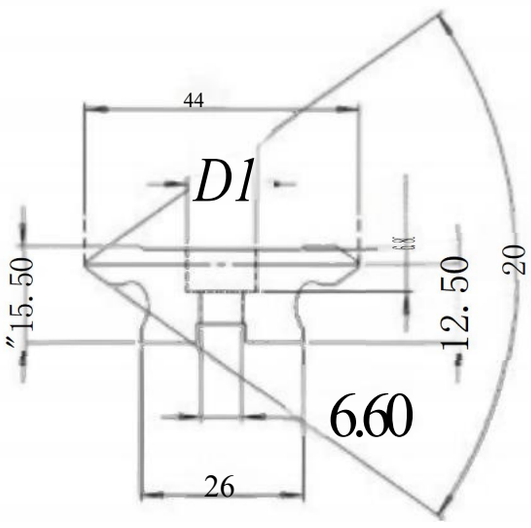
Component specifications GV25C	Main dimensions										
	B	D	A	h	H	R			X	Y	Z	n*H countersunk hole
GV25C-200	175	200	225	10	12.5	90°	180°	360°	6	9	30	10*M5
GV 25C-255	230	255	280									
GV 25C-300	275	300	325									
GV 25C-351	326	351	376									
GV 25C-400	375	400	425									

Product drawing of V-shaped ring rail model GV44C

The V-shaped working surface undergoes hardening treatment, featuring excellent wear resistance. It is precision ground using a CNC guideway grinder. The guideway base has no hardness and can be machined. There are three size specifications available for selection. The guideways can be butt-jointed to extend to any length.



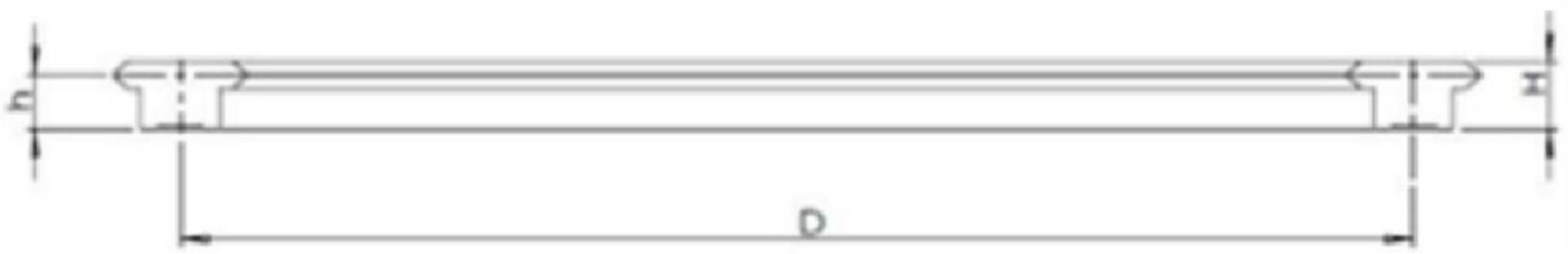


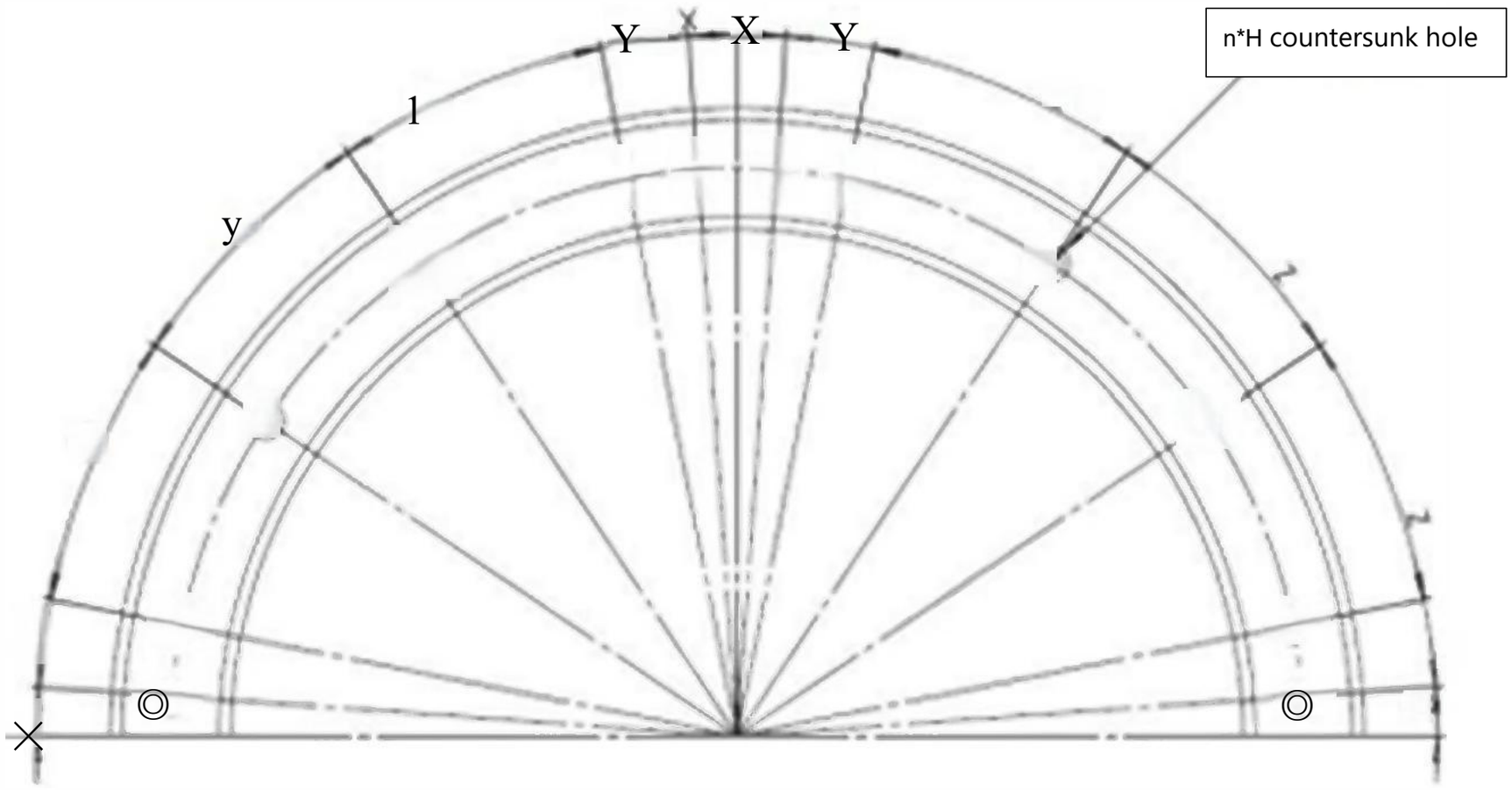


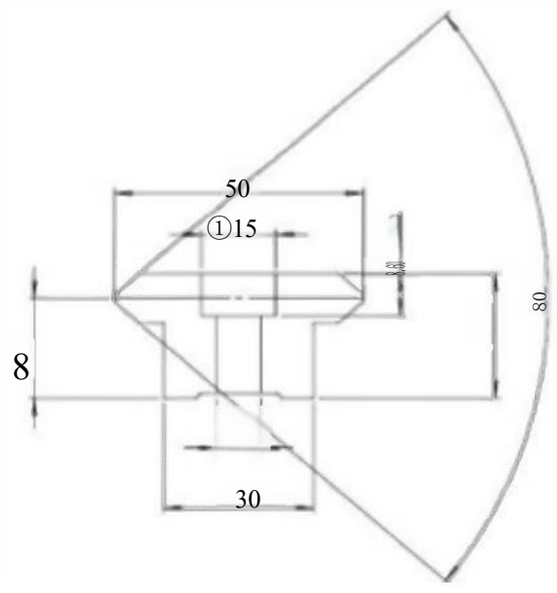
Component specifications GV44C	Main dimensions										
	B	D	A	h	H	R			X	Y	Z	n*H countersunk hole
GV44C-4688	442	468	494	12.5	15.5	90°	180°	360°	4	7.25	22.5	M6
GV 44C-612	586	612	638									

Product Drawing of V-shaped Ring Rail Model GV50C

The V-shaped working surface undergoes hardening treatment, thus having excellent wear resistance.
The guideway base, precisely ground by a CNC guideway grinder, has no hardness and can be machined.
There are three size specifications available for selection.
The guideways can be butted to extend to any length.



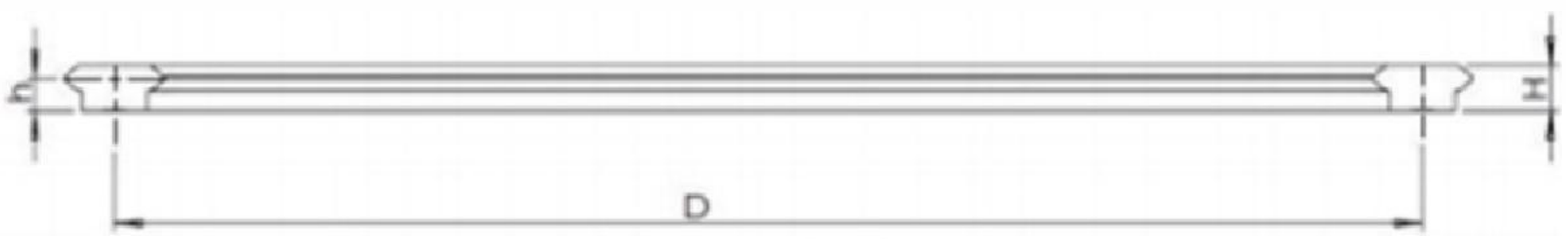


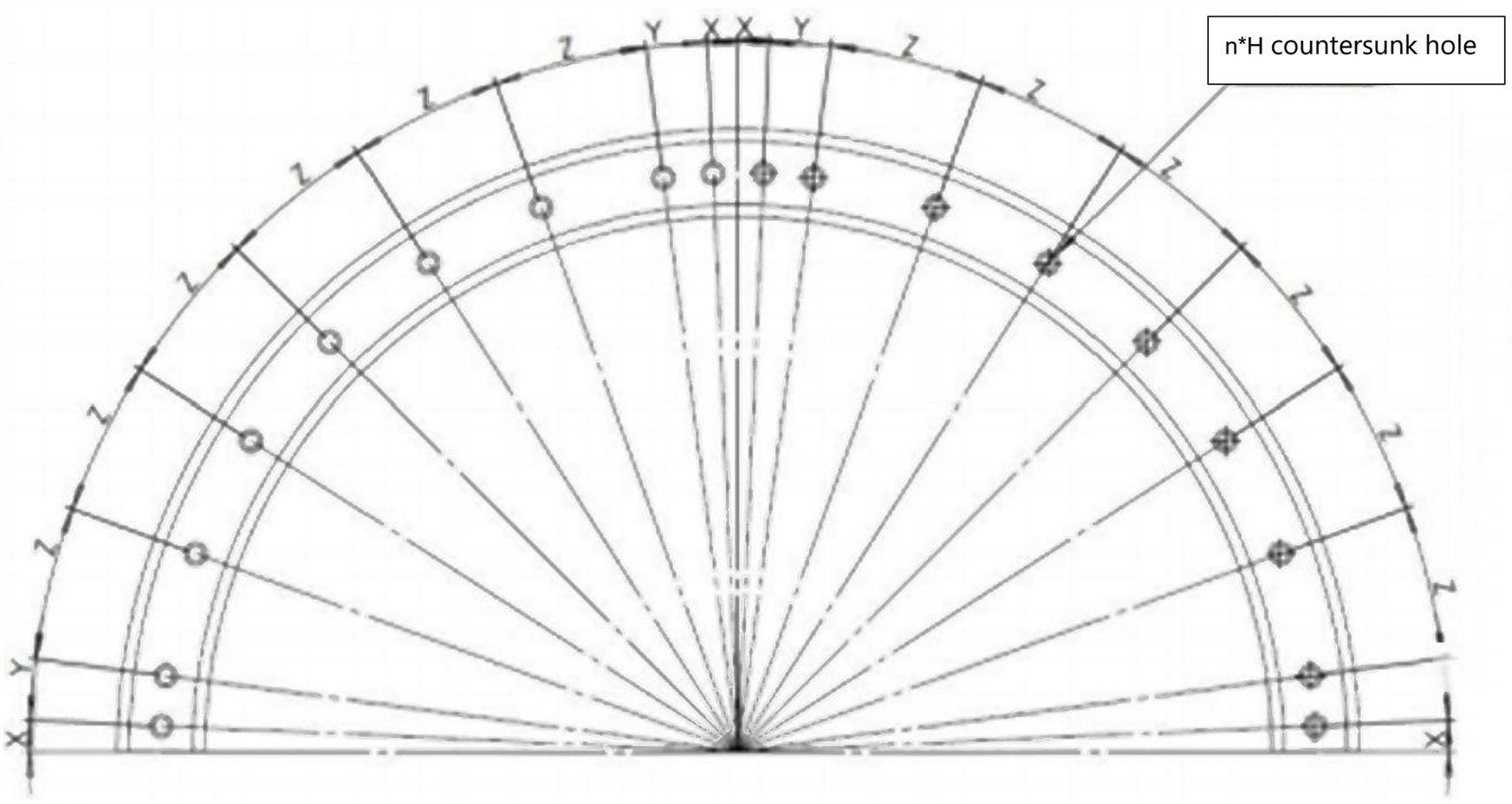


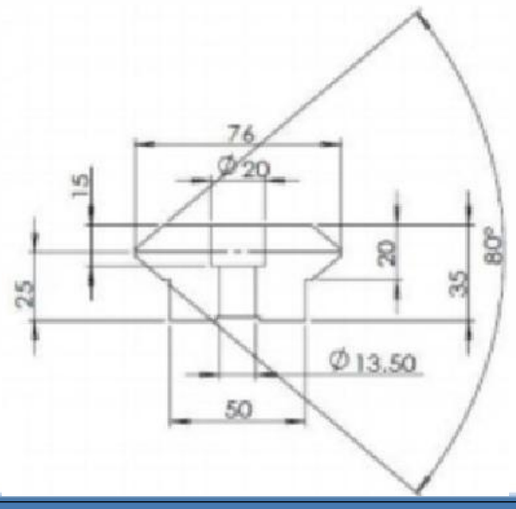
Component specifications GV50C	Main dimensions									
	D	h	H	R			X	Y	Z	n*H countersunk hole
GV50C-468	468	20	25	90°	180°	360°	4	7.25	22.5	M8
GV50C-600	600						3	8.25	22.5	
GV50C-800	800									

Product Drawing of V-shaped Ring Rail Model GV76C

The V-shaped working surface has undergone hardening treatment, thus featuring excellent wear resistance.
Precision-ground by a CNC guideway grinder, the guideway base has no hardness and can be machined.
There are three size specifications available for selection.
The guideways can be butted to extend to any length.





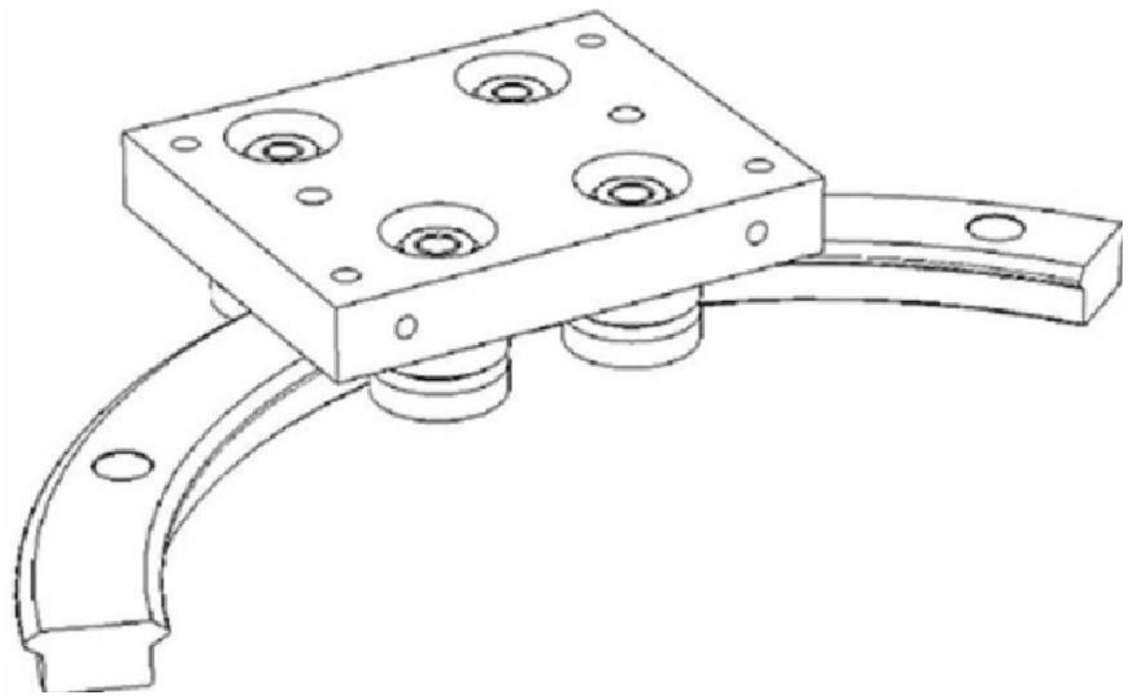


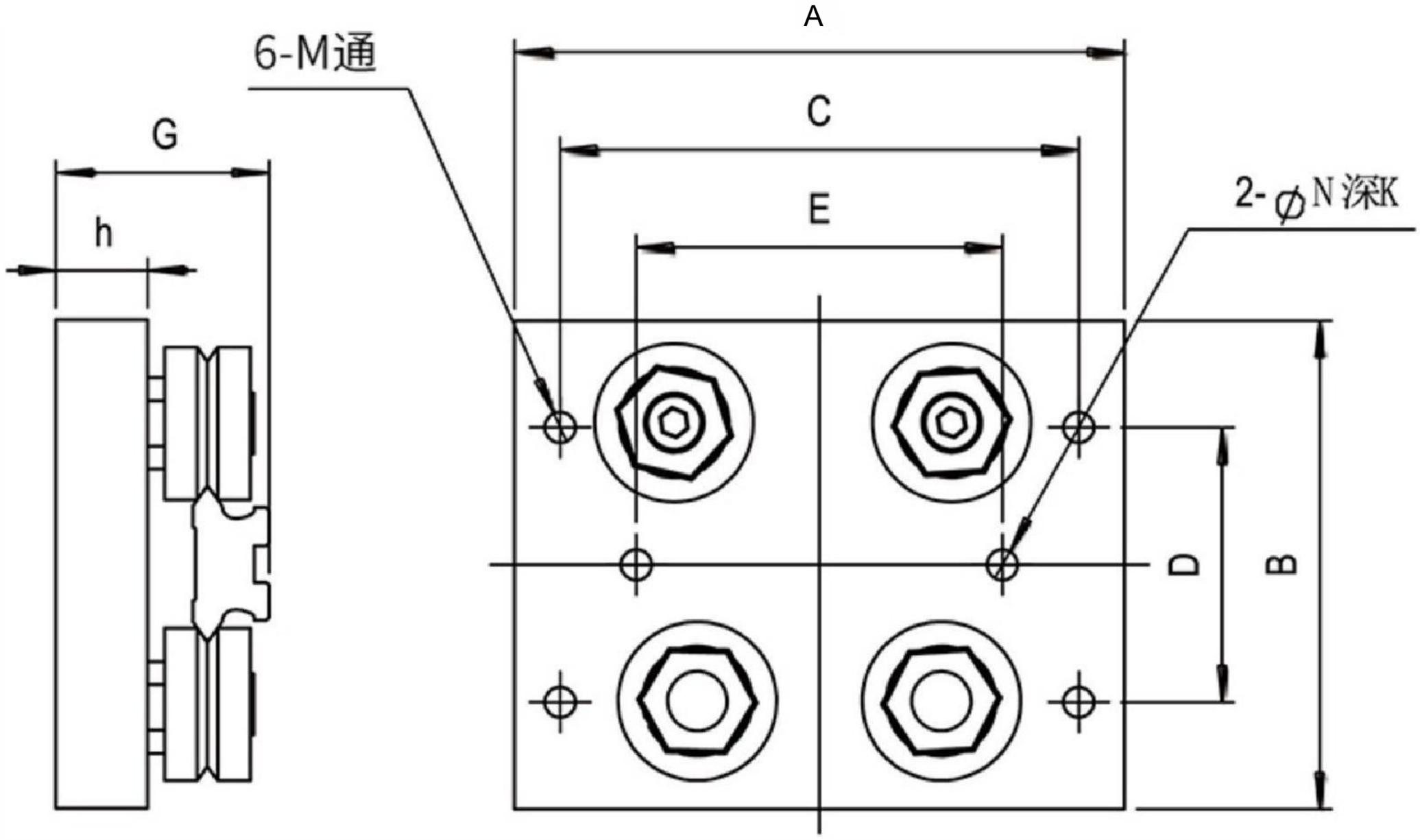
Component specifications	Main dimensions									
GV76C	D	h	H	R			X	Y	Z	n*H countersunk hole
GV76C-1000	1000	25	35	90°	180°	360°	12.5			M12
GV76C-1033	1033									
GV76C-1267	1267						2.5	5	12.5	
	1501									

Introduction to the Slide Carriage

Example of slide seat model HGT - 23 - □

- V-type guide rail slide carriage
- Guide width: 25mm / 44mm
- arc diameter: 200 / 255 / 300 / 351 / 400 / 468 / 500 / 600 / 800 / 1000





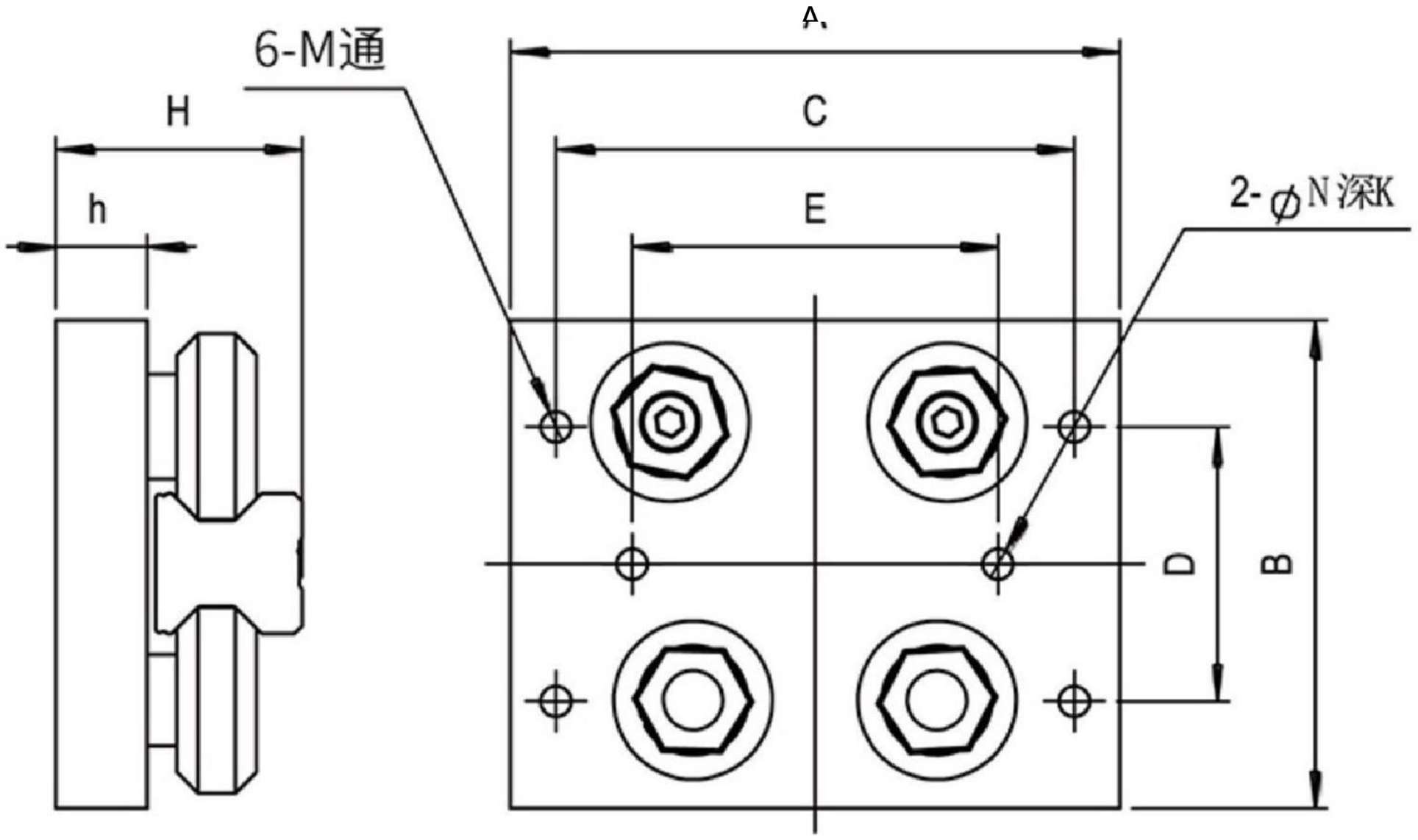
Model	Size									
	A	B	C	D	E	G	h	M	M	K
HGV-25-200	100	80	80	45	60±0.01	35	15	M6	58°.02	10
HGV-25-255	100		80							
HGV-25-300	100		80							
HGV-25-351	100		80							
HGV-25-400	120		100							
HGV-44-468	120	120	100	85		39				
HGV-44-500	140		120							
HGV-44-600	140		120							

Introduction to the slide carriage

Example of slide seat model HGT - 23 - □

arc diameter
Guide width
T-type guide rail

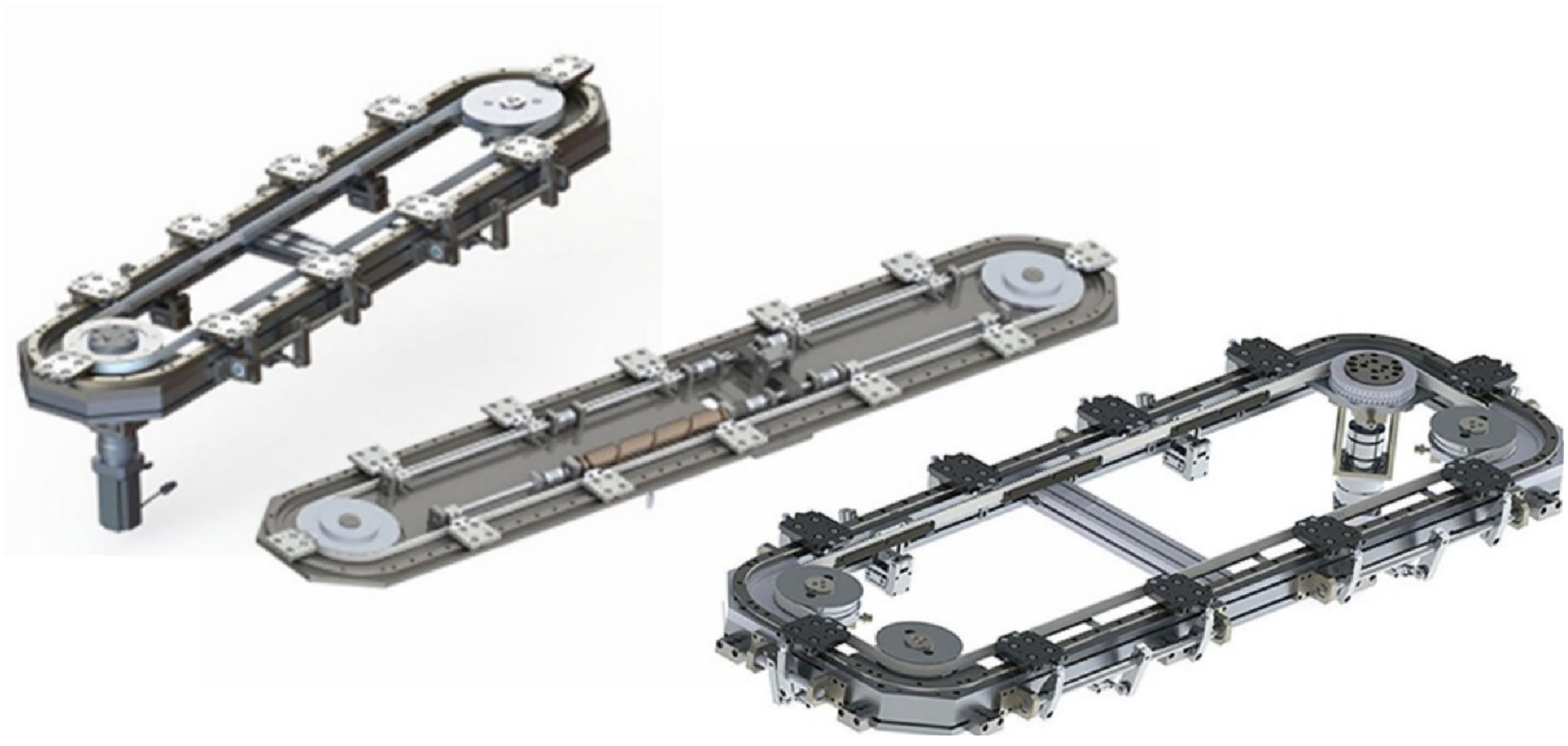
200
255
300
351
400
468
500
600
800
1000



Model	Size									
	A	B	C	D	E	H	h	M	M	E
HGT-23-200	100	80	80	45	60±0.01	40.4	15	M6	5.02	10
HGT-23-255	100		80							
HGT-23-300	100		80							
HGT-23-351	100		80							
HGT-23-400	120		100							
HGT-23-468	120		100							
HGT-23-500	140		120							
HGT-23-600	140		120							
HGT-23-800	140		120							
HGT-23-1000	140		120							

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

Example of the complete machine model



LGD-LGV-25-1655-GG-255-180-A-16-8-260-C2

- Q-ellipse
  W-rectangle
  C-circle
- T-T type straight rail
  V-V type straight rail
- 23 - Guide rail width 23mm
  25 - Guide rail width 25mm
  44 - Guide rail width 44mm
- Length of straight rail
- Length of straight rail on the short side in case of rectangle, Blank for ellipse and circle
- Circular rail
- Diameter of circular rail:
  200
  255
  300
  351
  400
  468
  500
  600
  800
  1000
- Circular rail angle:
  90
  80
- Positioning method
  A - Cylinder connecting rod positioning
  B - Cylinder direct push positioning
- Total number of slide carriages
- Number of precise positioning points
- Slide spacing
- Connection methods
  1: Synchronous belt
  2: Chain
  3: Connecting rod

Note: According to different actual application scenarios, configurations can be made based on the customer's specific application requirements. The parameter indicators given in the examples can facilitate engineers to quickly determine the input information.

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

LINE BODY NAME

LD24-GD300R180-LG1233

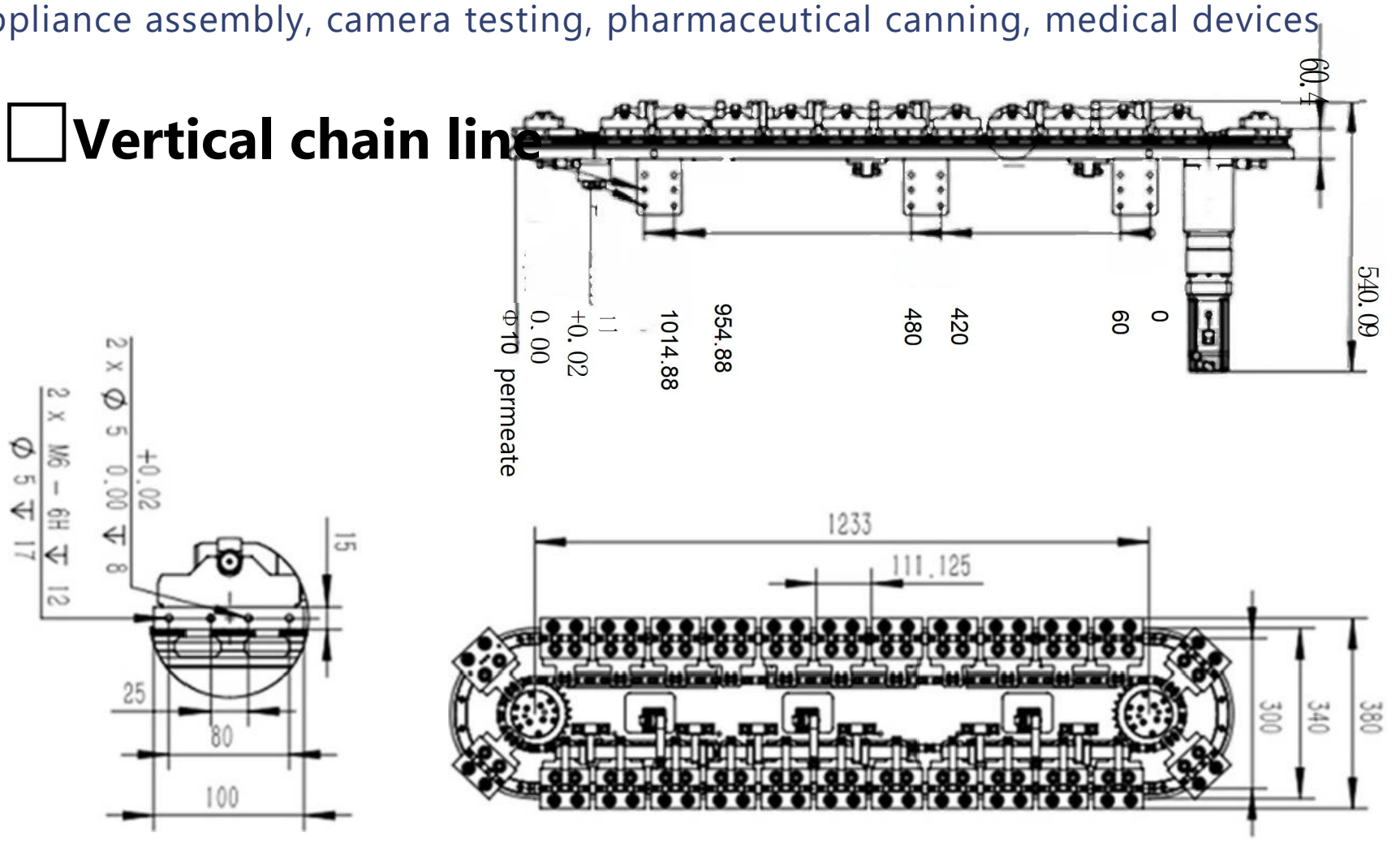
Project	Parameters	Project	Parameters
• Line shape	• Oval Vertical installation	• Overall dimensions (mm)	• 1573*380*540.09
• Installation method	• Oval Vertical installation	• Arc diameter (mm)	• 300
• Number of slide carriages	• 26	• Repeat positioning accuracy (mm)	• ±0.05
• Number of positioning points	• 11	• Slide center distance (mm)	• 111.125
• Cutting time (s)	• 1.5	• Load condition (kg)	• 2kg/slide, no impact pressure

Applicable to: Spaces with small desktops

Automotive industry: Wire harness terminal crimping, car key assembly, car anti-theft device testing

Precision assembly industry: Apple mobile phone screen film application, household appliance assembly, camera testing, pharmaceutical canning, medical devices

☐Vertical chain line



LINE BODY NAME

LD25-GD300R180-LG1178.5

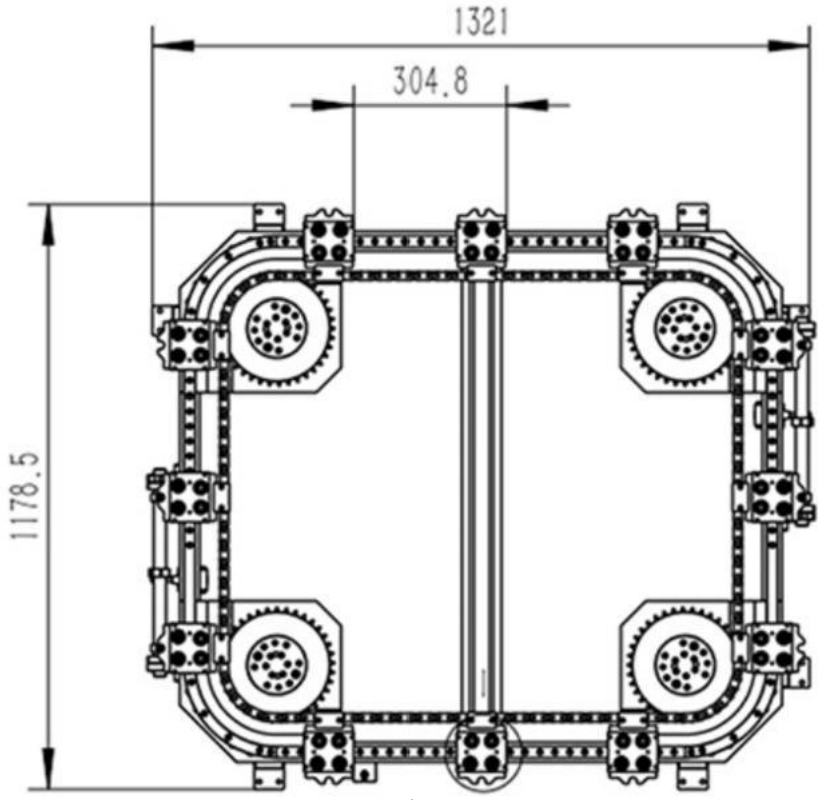
Project	Parameters	Project	Parameters
• Line shape	• Oval	• Overall dimensions (mm)	• 1178.5*1321*25
• Transmission mode	• Stainless steel chain	• Installation material	• Large base plate
• Installation method	• Horizontal installation	• Arc diameter (mm)	• 255
• Number of slide carriages	• 12	• Repeat positioning accuracy (mm)	• ±0.5MM
• Number of positioning points	• External positioning	• Slide center distance (mm)	• 304.8
• Cutting step time (s)	• 1.5	• Load condition (kg)	• 5kg/slide, no impact pressure

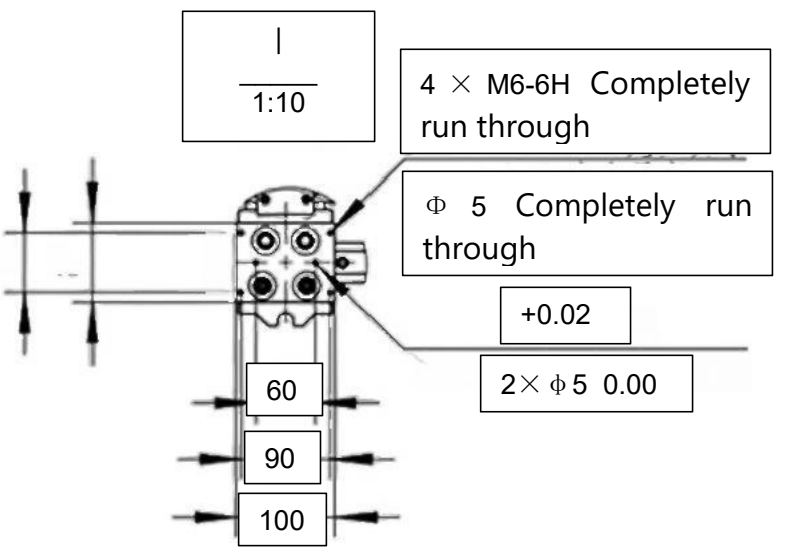
Applicable to: Products with food-grade requirements

Food industry: Food canning, Star Cup packaging, potato chip canning, milk powder box packing

Medical devices: Disposable scalpel assembly, mask packaging, operating room instruments, sterile gloves

☐Rectangular chain circulation line





GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

LINE BODY NAME

LD24-GD400R180-LG7000

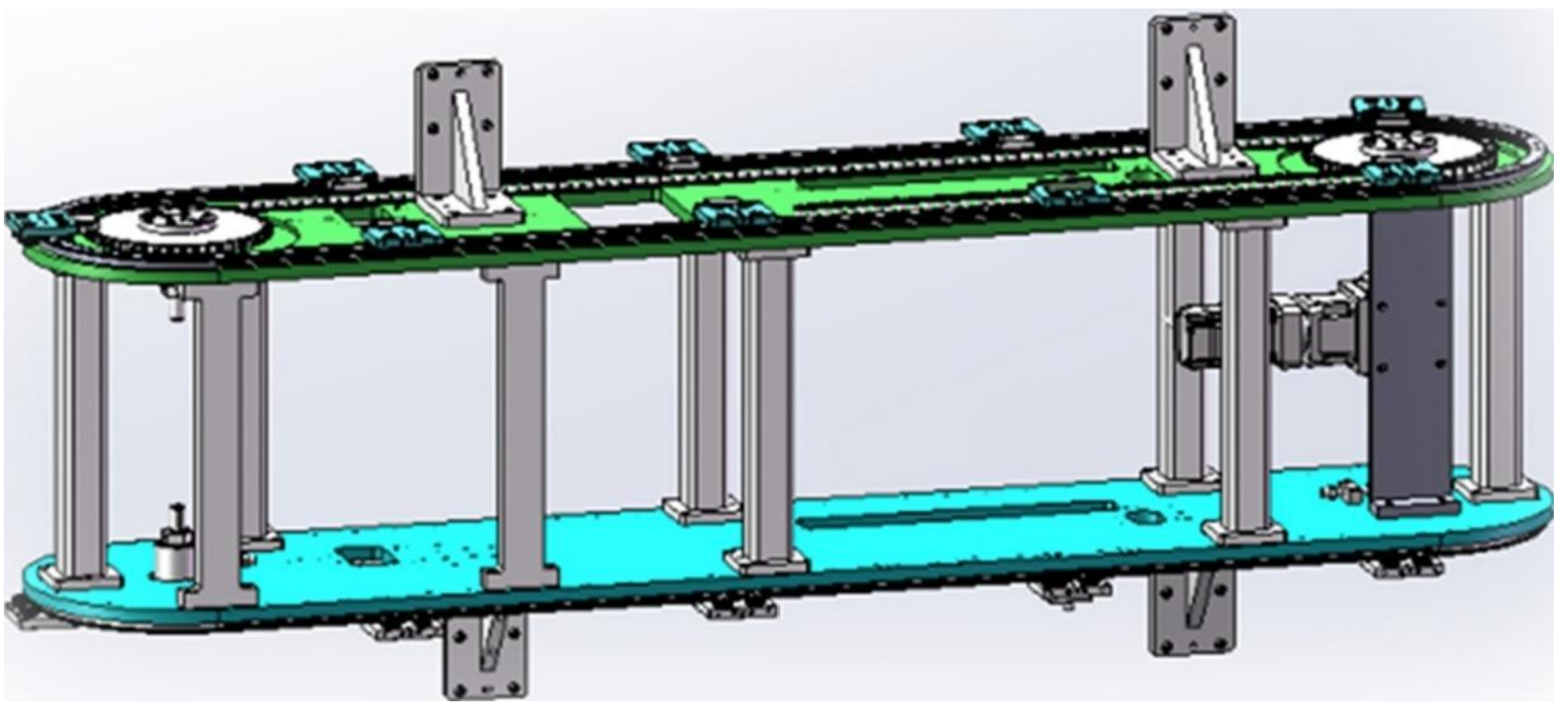
Project	Parameters	Project	Parameters
• Line shape	• Oval	• Overall dimensions (mm)	• 2261*845*20
• Transmission mode	• Chain	• Installation material	• Large base plate
• Installation method	• Vertical installation	• Arc diameter (mm)	• 400
• Number of slide carriages	• 18	• Repeat positioning accuracy (mm)	• +0.5MM
• Number of positioning points	• No positioning	• Slide center distance (mm)	• 476
• Cutting step time (s)	• 1.5	• Load condition (kg)	• 3kg/slide, no impact pressure

Applicable to: Products with large overall dimensions and heavy weight

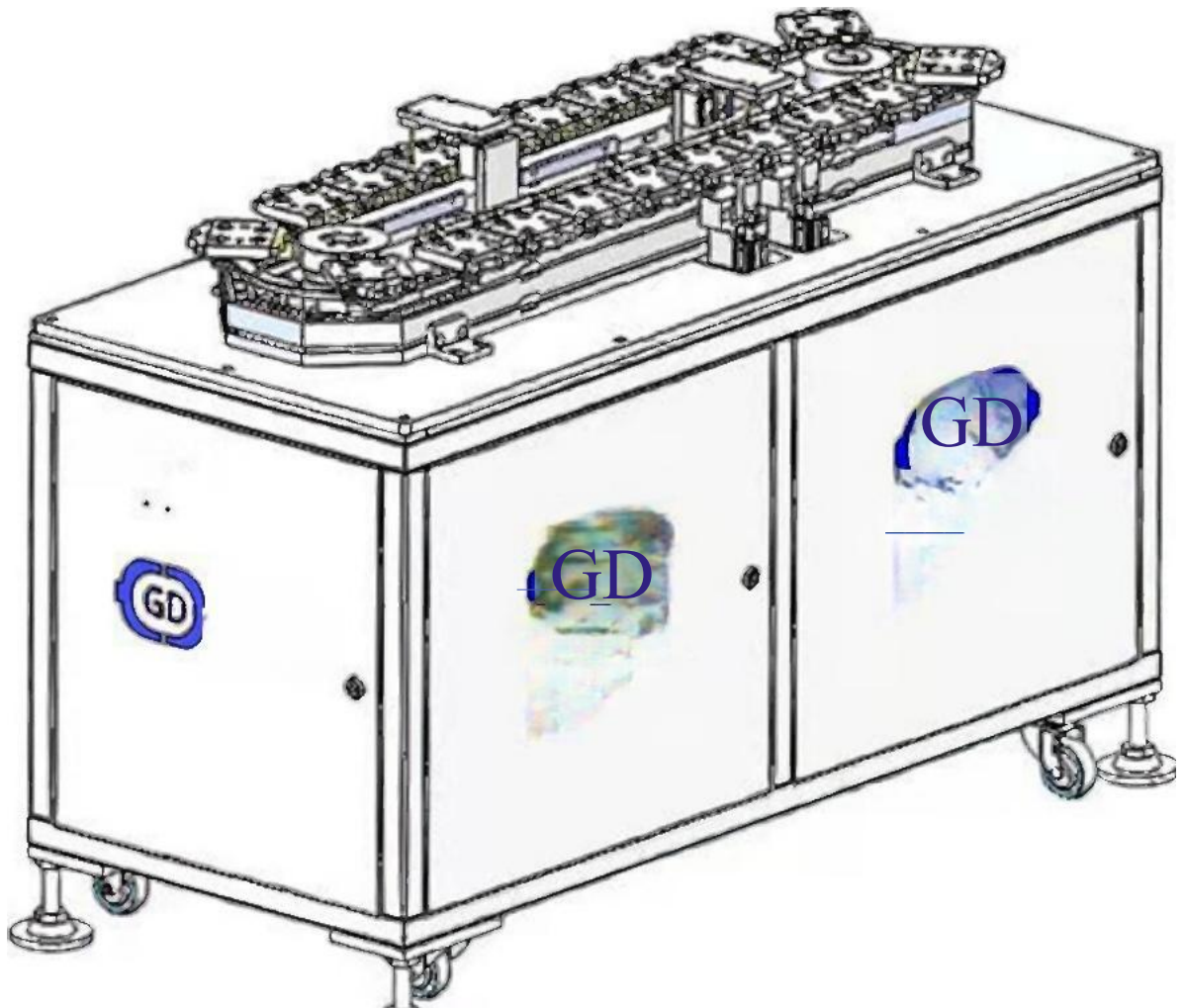
Automotive manufacturing industry: Automotive lamp testing, automotive parts assembly, automotive glass mirror assembly

Machine tool parts assembly: Manufacturing of special machine tool components, machine tool part mechanisms, transportation of machine tool processed parts, feeding

☐Vertical vertical double-track line body



RGD - Oval synchronous belt circulation system



Features：

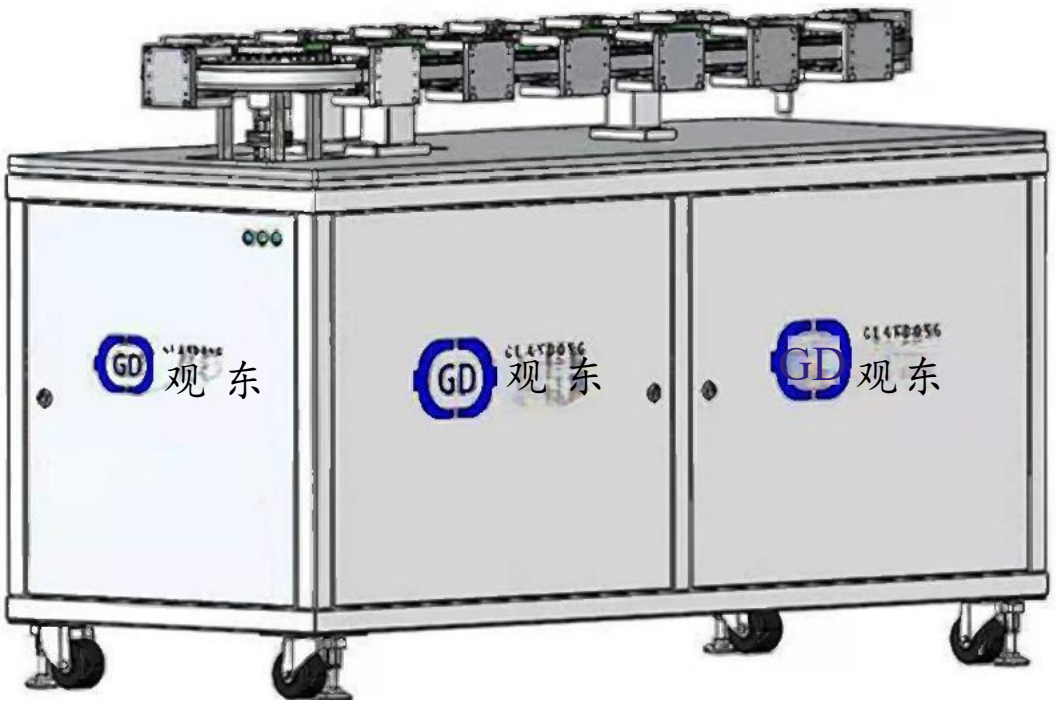
It is suitable for the production, processing and manufacturing in industries such as food, medical and pharmaceutical, cosmetics, electronic wires, new energy products, and digital electronic products, which require light load, high speed, high precision and high quietness.

High speed: The cutting step time is 0.8 seconds.

High precision: The secondary repeat positioning accuracy is ±0.05mm.

Synchronous belt: clean, low noise, lightweight, easy to replace and wear-resistant.

RGD - Oval chain circulation system



Features:
Suitable for heavy-load, high-speed, and high-precision scenarios such as the automobile manufacturing industry, injection molding industry, assembly, inspection, and transportation of machined parts, as well as long production and processing lines for products.

High speed: The cutting step time is 0.8 seconds.

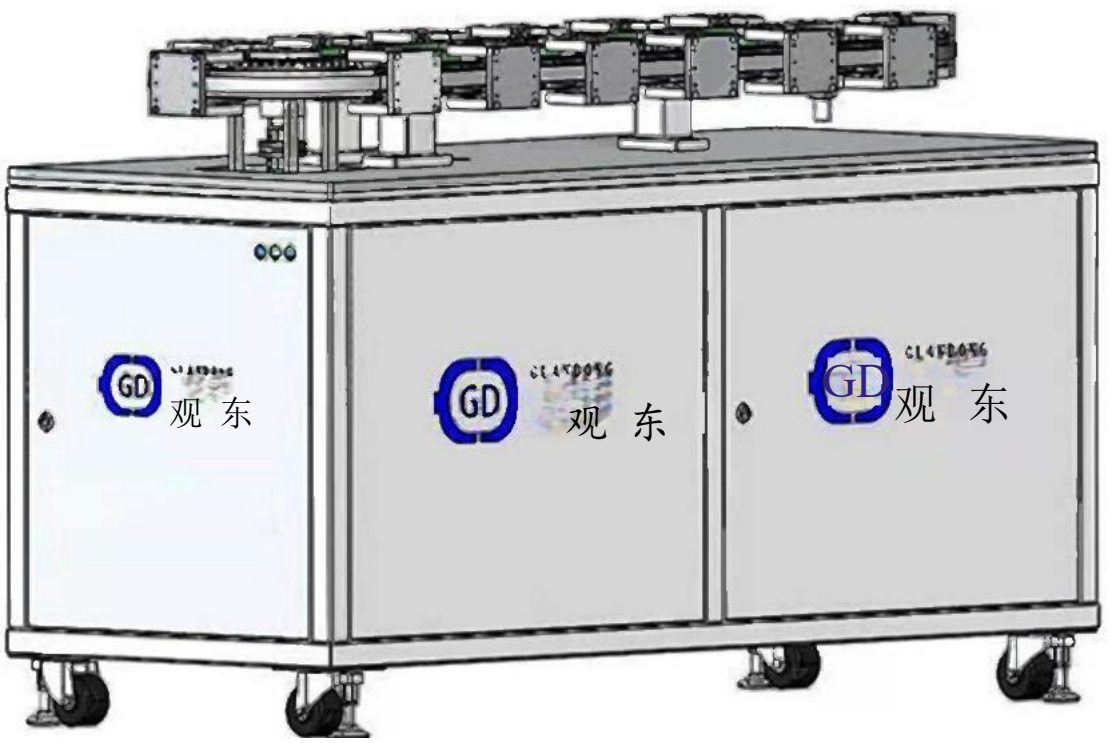
High load capacity: A single carrier can bear a weight of 50KG.

High precision: The secondary repeat positioning accuracy is ±0.05MM.

Precision chain: The long line body can reach 50 meters, suitable for processing with downward pressure loads and meeting high-speed requirements.

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

RGD - Vertical vertical chain circulation system



Features:
Suitable for products with large overall dimensions, heavy load, high speed and high precision.

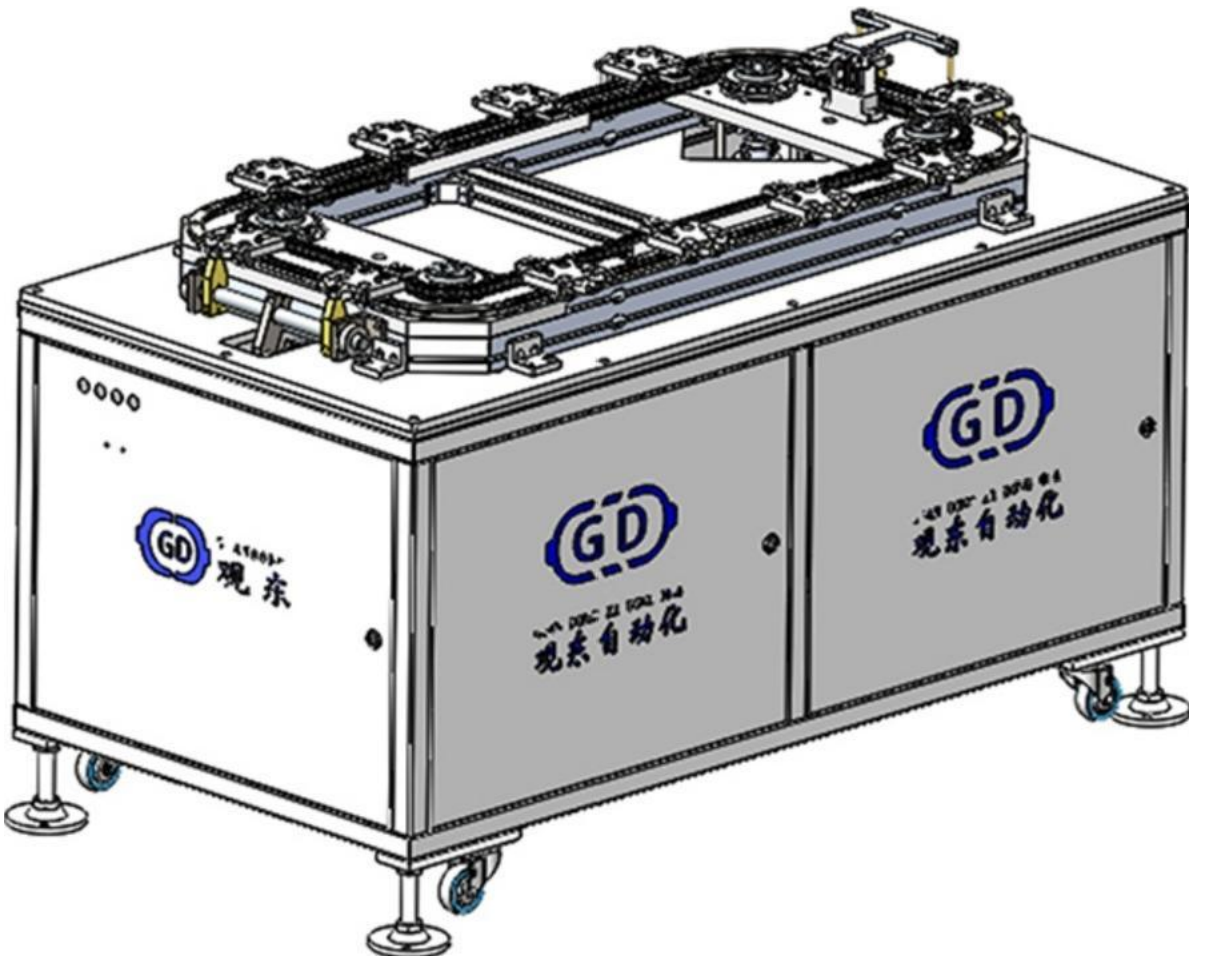
High speed: The cutting step time is 0.8 seconds.

High load capacity: A single carrier can bear a weight of 50KG.

High precision: The secondary repeat positioning accuracy is ±0.05mm.

Precision chain: The long line body can reach 50 meters, suitable for processing with downward pressure loads, meeting high-speed requirements, and featuring strong durability.

RGD - Rectangular chain circulation system



Features:
Suitable for long production and processing lines in the automotive manufacturing industry, injection molding industry, as well as for the assembly, inspection and transportation of machined parts, where there are space requirements along with the need for heavy load, high speed and high precision.

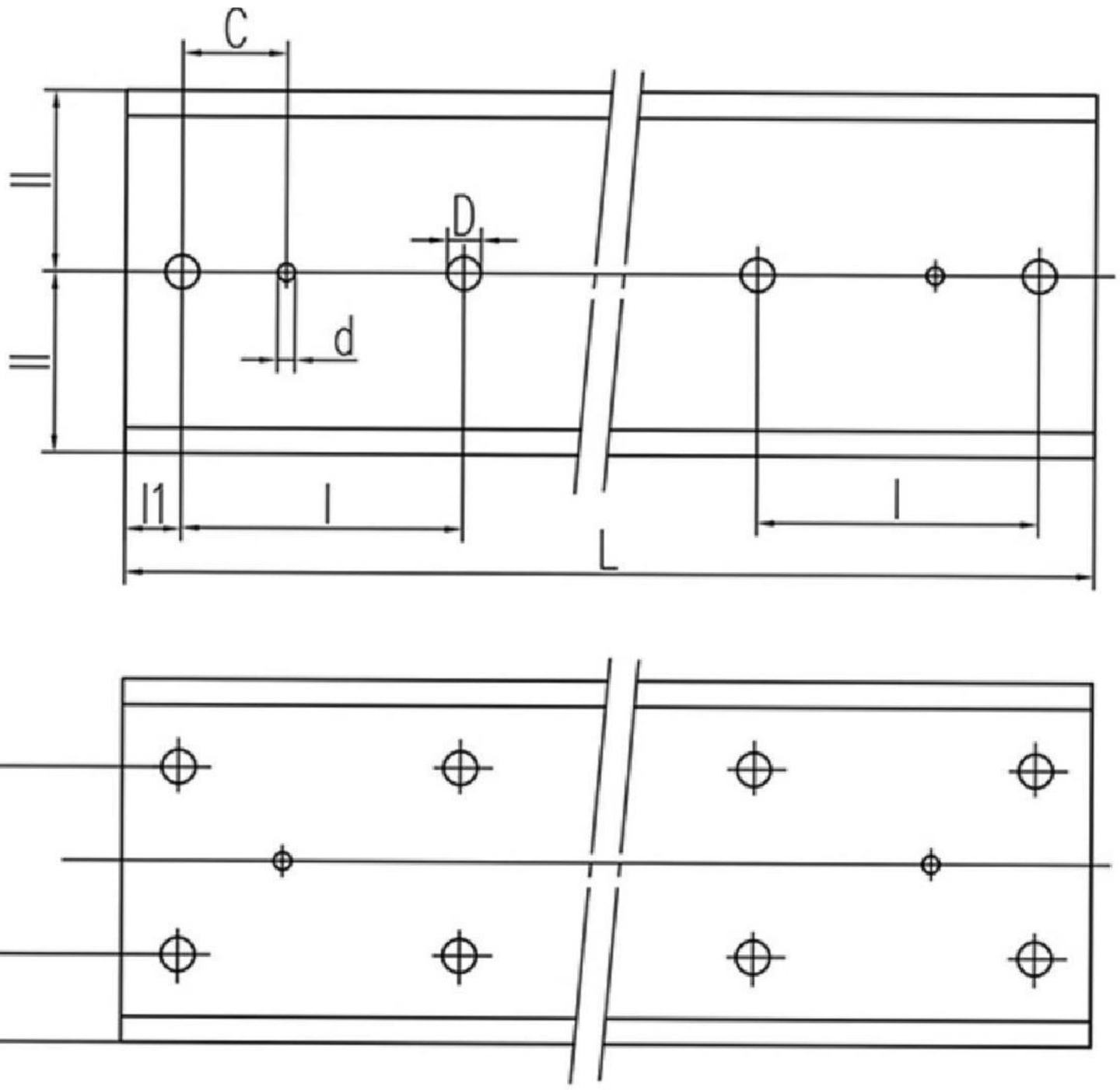
High speed: The indexing time is 0.8 seconds.

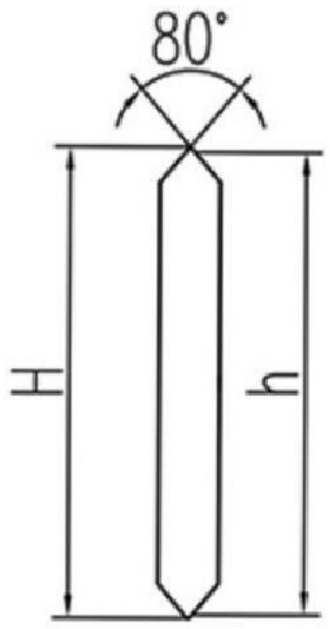
High load capacity: A single carrier can bear a weight of 50KG.

High precision: The secondary repeat positioning accuracy is ±0.05mm.

Precision chain: The long line body can reach 50 meters, suitable for processing with downward pressure loads and meeting high-speed requirements.

Double V-type roller guide rail

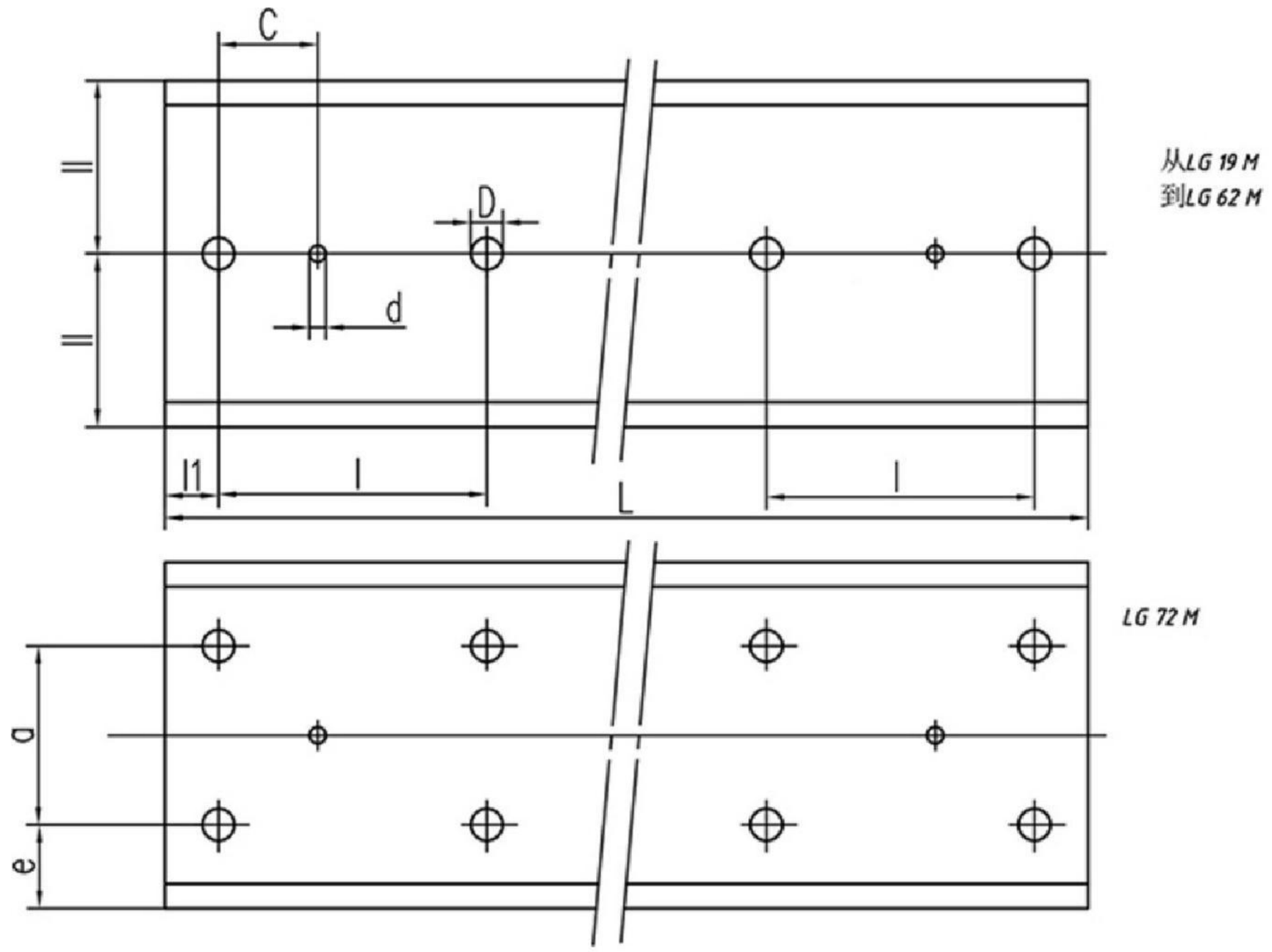


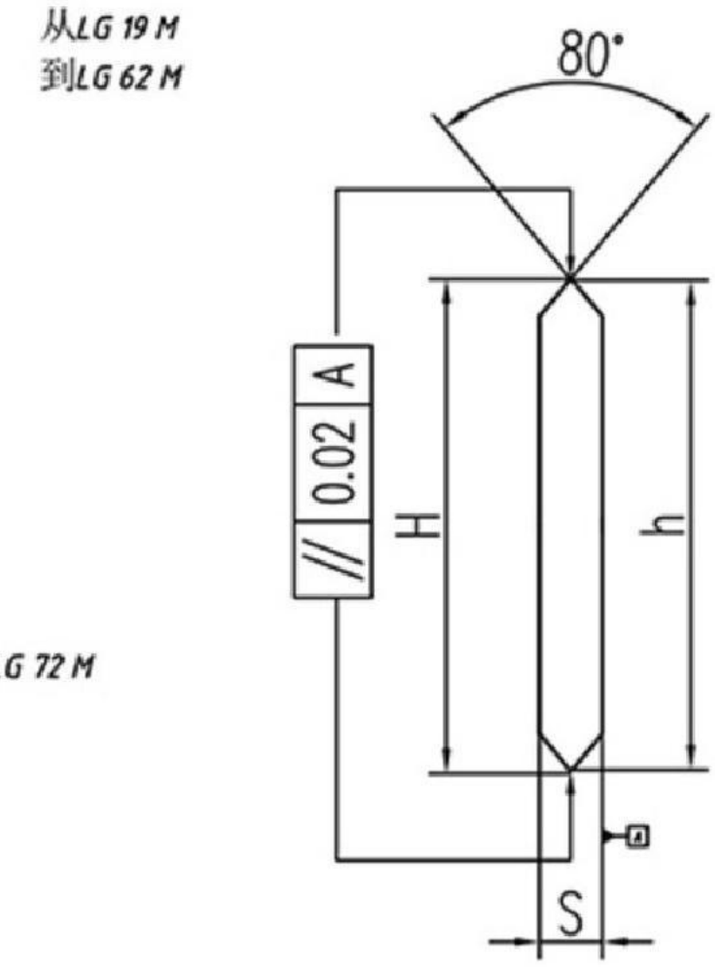


Model	Size(mm)										Weight[2] (kg/m)
	H ±0.1	H ±0.1	S ±0.1	d[1] +0.05	D	C[1]	e	a	l	l1	
LGHZ 19 MT	22.2	21	5.3	4	6.5	15	—	—	90	30	0.8
LGHZ 22 MT	28.8	27	5.8	5	6.5	15	—	—	90	30	1.1
LGHZ 32 MT	43.8	42	6.8	6	6.5	15	—	—	90	30	2.1
LGHZ 35 MT	48.8	47	8.8	6	9	20	—	—	90	30	3.0
LGHZ 40 MT	64.5	62	8.8	6	9	20	—	—	90	30	4.1
LGHZ 47 MT	80.15	77.2	11	6	11.5	20	—	—	90	30	6.3
LGHZ 52 MT	91.35	88.2	13	8	13.5	20	—	—	90	30	8.5
LGHZ 62 MT	106	103	15.7	8	13.5	20	—	—	90	30	11.7
LGHZ 72 MT	124.6	121	19	10	17.5	30	30.5	60	90	30	16.9

Note: The 90/180° guide rail is made by cutting the 360° guide rail, so there is a cutting tolerance, usually -0.2MM. According to different actual application situations, non-standard customization can be carried out according to the specific application requirements of customers.

Double V-type roller guide rail

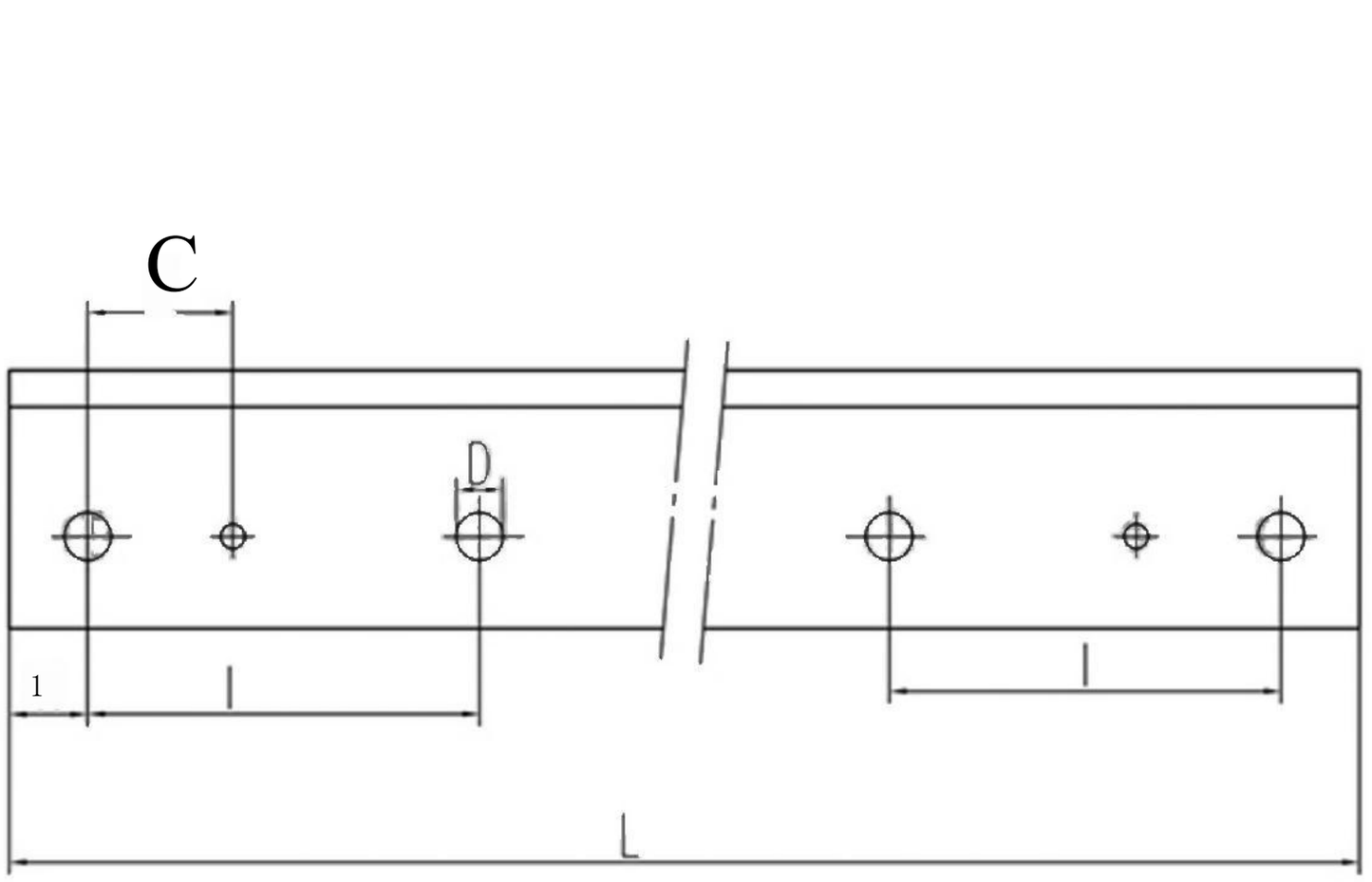


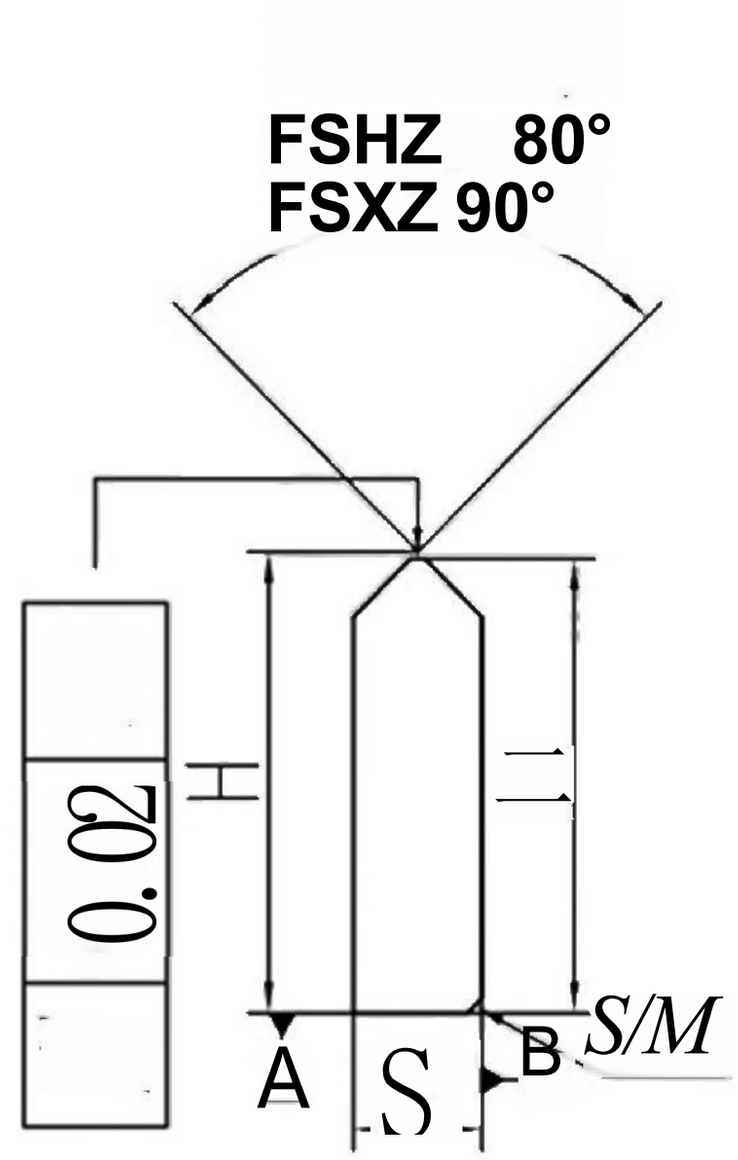


Model	Size(mm)										Weight[2] (kg/m)
	H ±0.05	H ±0.1	S ±0.05	d +0.05	D	C[2)]	e	a	l	l1	
LGHZ 19 M	20.95	20	4.5	4	6.5	15	—	—	90	30	0.6
LGHZ 22 M[1)]	27.86	26	5	5	6.5	15	—	—	90	30	0.9
LGHZ 32 M	42.86	41	6	6	6.5	15	—	—	90	30	1.8
LGHZ 35 M[1)]	47.86	46	8	6	9	20	—	—	90	30	2.6
LGHZ 40 M	63.58	61	8	6	9	20	—	—	90	30	3.7
LGHZ 47 M[1)]	78.58	76	10	6	11.5	20	—	—	90	30	5.6
LGHZ 52 M	89.78	87	12	8	13.5	20	—	—	90	30	7.7
LGHZ 62 M	104.76	102	15	8	13.5	20	—	—	90	30	11.2
LGHZ 72 M	122.98	120	18	10	17.5	30	30	60	90	30	15.8

Note: The 90°/180° guide rails are made by cutting 360° guide rails, so there is a cutting tolerance, usually -0.2mm. Depending on different actual application scenarios, non-standard customization can be carried out according to the specific application requirements of customers.

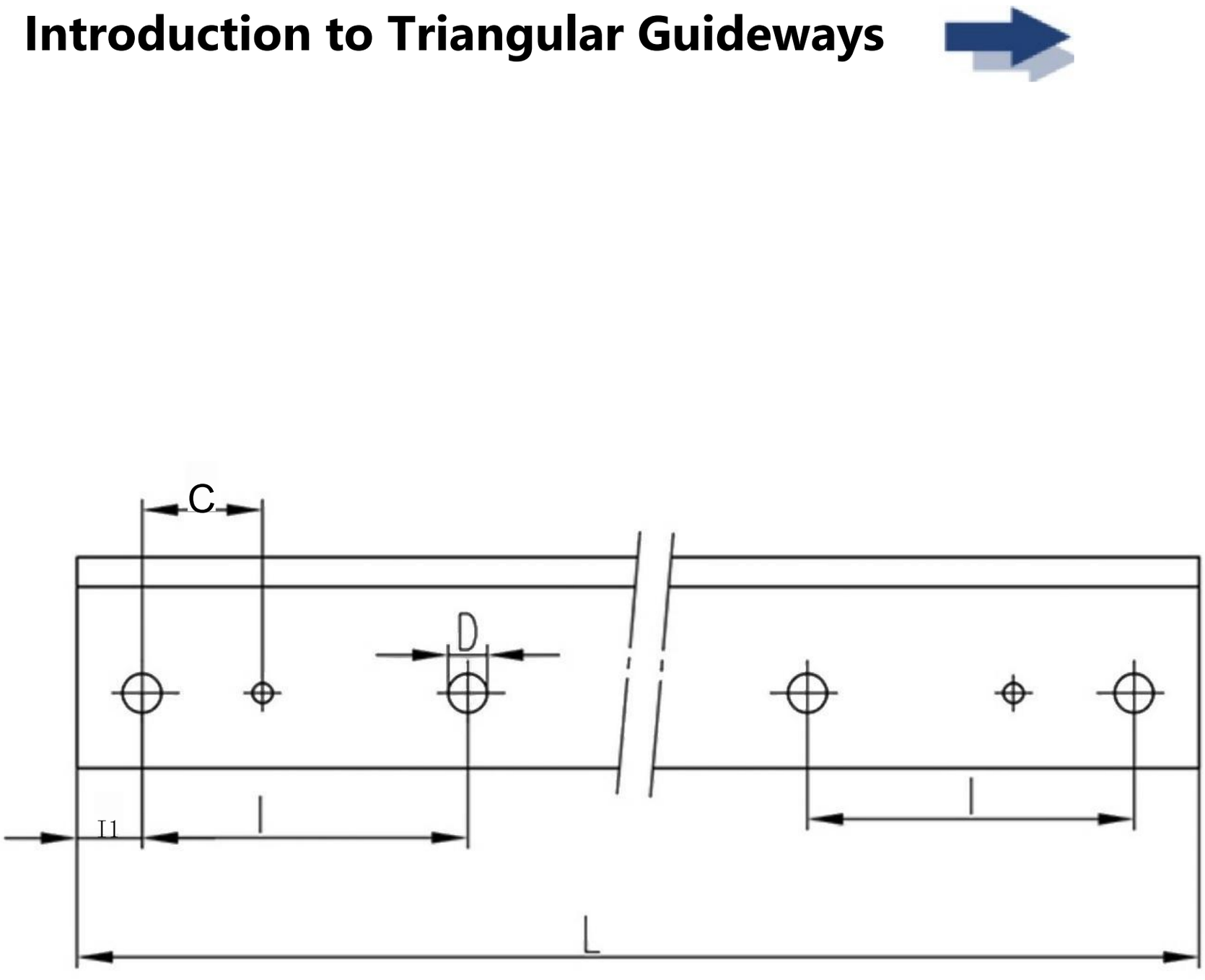
Introduction to Triangular Guideways

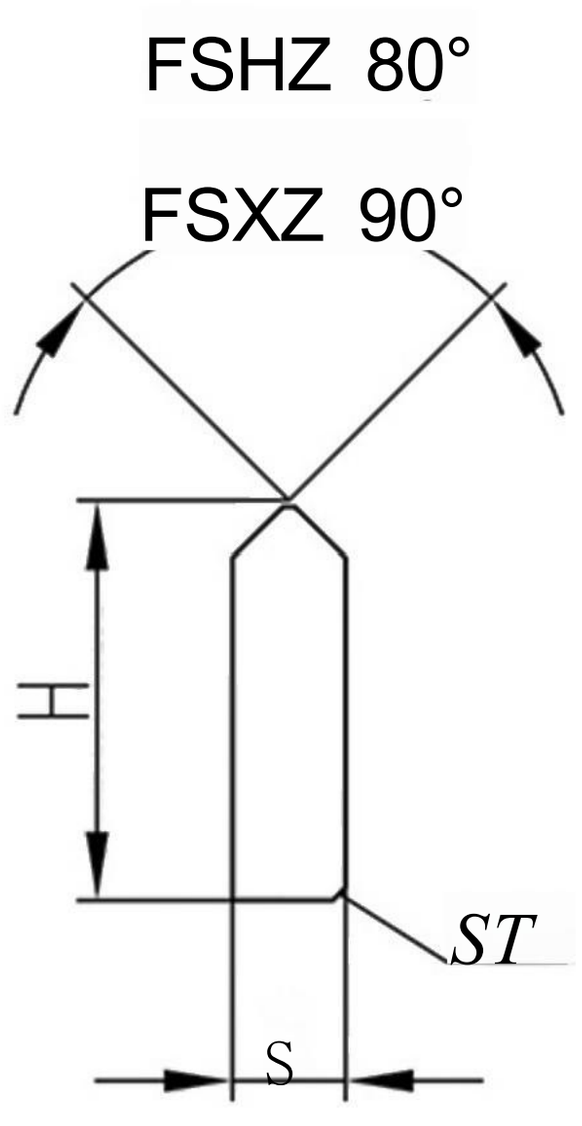




Model	Size(mm)										Weight[2] (kg/m)
	H ±0.1	h ±0.1	S ±0.1	Sm[1)]	d[2)] +0.05	D	C[2)]	e	I	I1	
LGHZ 19 MT	18.98	18.5	4.5	0.5*45°	4	6.5	15	8	90	30	0.6 [2]
LGHZ 22 MT	22.93	22	5	0.2*45°	5	6.5	15	9	90	30	0.8
LGHZ 32 MT	28.93	28	6	0.5*45°	6	6.5	15	11	90	30	1.2
LGHZ 40 MT	36.29	35	8	0.5*45°	6	9	20	16	90	30	2.1
LGHZ 52 MT	39.39	38	12	1*45°	8	13.5	20	17	90	30	3.4
LGHZ 62 MT	49.38	48	15	1*45°	8	13.5	20	17	90	30	5.2
LGHZ 72 MT	59.49	58	18	1*45°	10	17.5	30	20	90	30	7.6
LGHZ 90 MT	61.79	60	26	0.5*45°	10	13.5	30	22	90	30	11

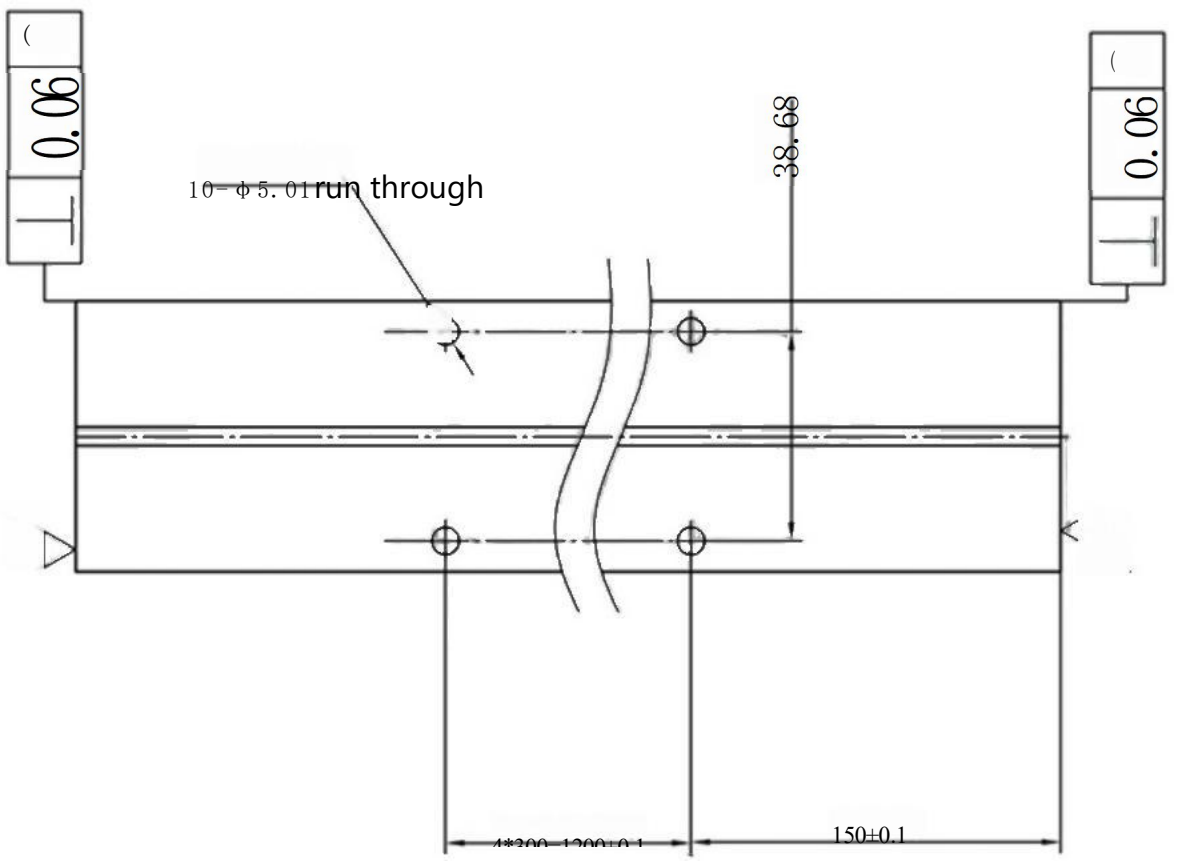
Introduction to Triangular Guideways

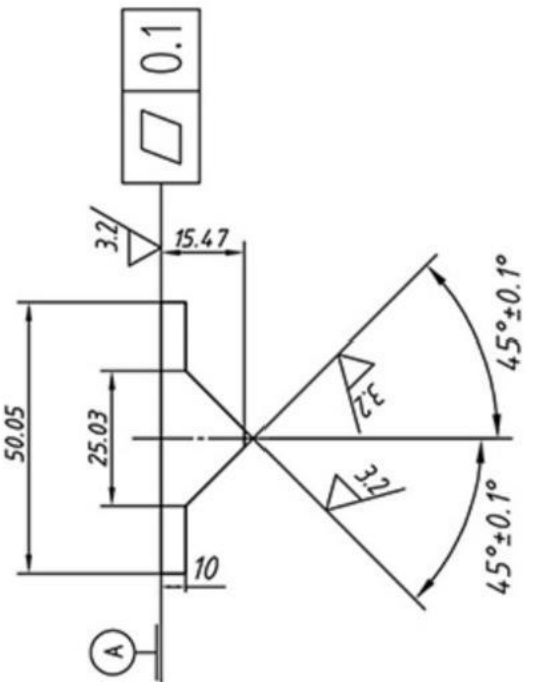




Model	Size(mm)										Weight[2] (kg/m)
	H ±0.1	h ±0.1	S ±0.1	Sm[1)]	d[2)] +0.05	D	C[2]	e	I	I1	
LGHZ 22 MT	23.9	23	5.8	0.9*45°	5	6.5	15	9	90	30	1.0
LGHZ 32 MT	29.9	29	6.8	1.4*45°	6	6.5	15	11	90	30	1.5
LGHZ 40 MT	37.2	36	8.8	1.4*45°	6	9	20	16	90	30	2.4
LGHZ 52 MT	40.75	39.2	13	2*45°	8	13.5	20	17	90	30	3.7
LGHZ 62 MT	50.75	49.2	16	2*45°	8	13.5	20	17	90	30	5.7
LGHZ 72 MT	60.85	59.2	19	2*45°	10	17.5	30	20	90	30	8.2
LGHZ 90 MT	62.85	61	26.5	1.5*45°	10	13.5	30	22	90	30	11.6

Introduction to V-shaped Guideways





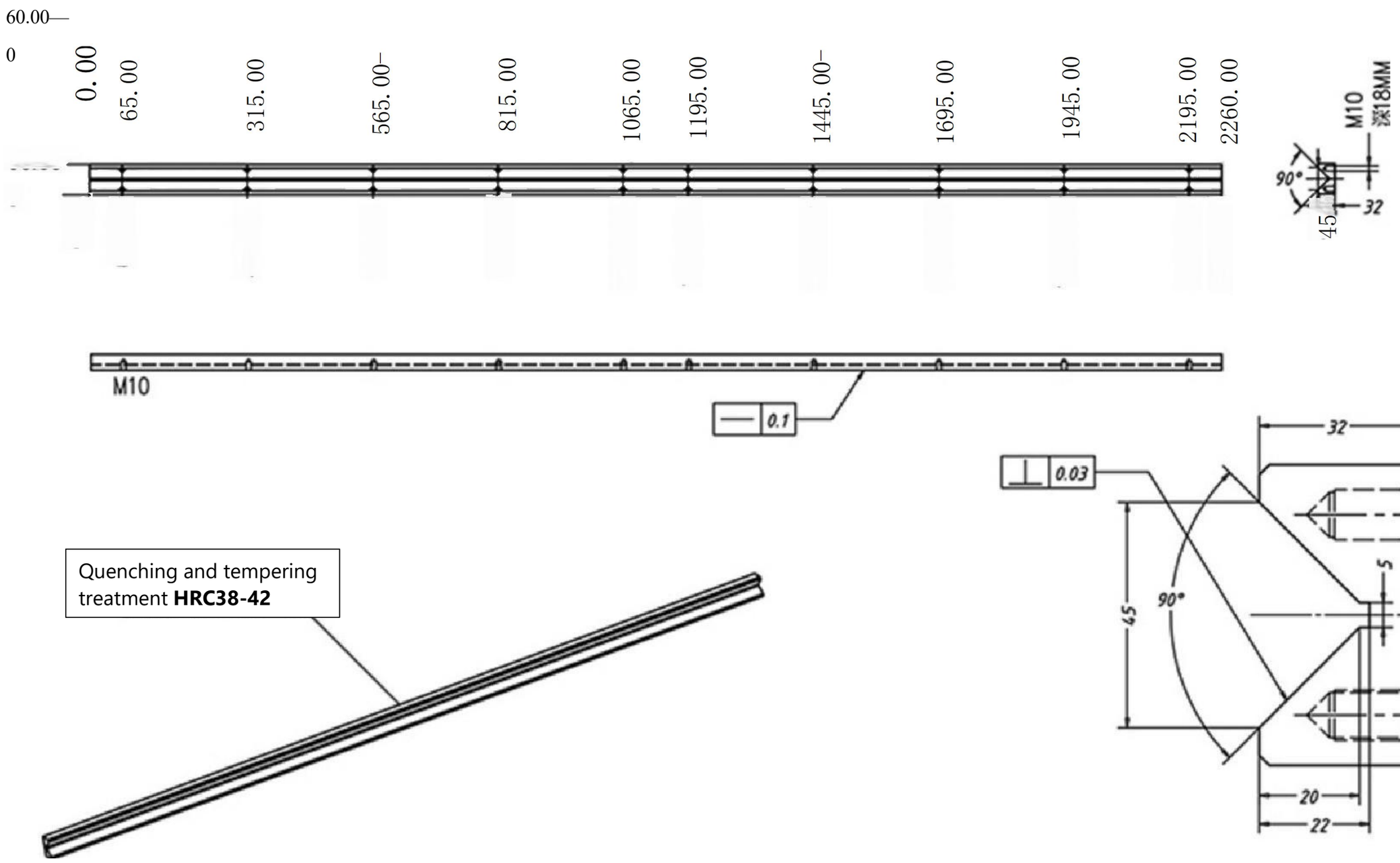
Marking	Quantity	Zone	Revision Document Number	Signature	Year, Month, Day					
Design			Standardization			Phase Mark		Quantity	Weight	Proportion
Review										
Technology			Approval			Total ____ sheets, Sheet ____				

Technical Requirements

1. Unspecified linear dimension tolerances shall be implemented in accordance with GB/T1804-2000.
2. The blank shall be subjected to quenching and tempering treatment, with a hardness of HB255-268.
3. Remove burrs from sharp corners.
4. Surface chrome plating with a thickness of 2μm

Introduction to V-groove Guide Rails

Panel cylinder positioning

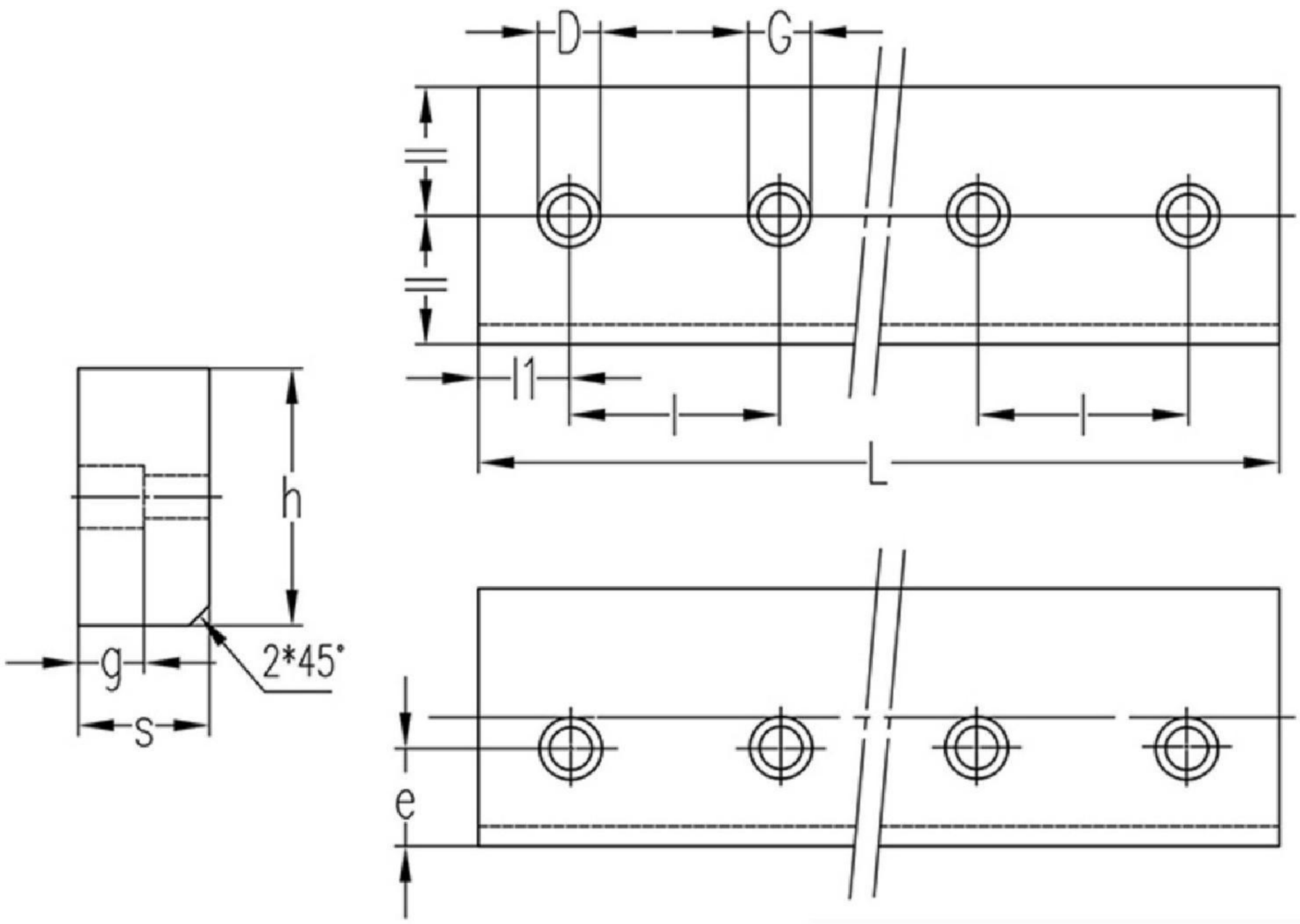


Marking	Quantity	Zone	Revision Document Number	Signature	Year, Month, Day				
Design			Standardization			Phase Mark	Quantity	Weight	Proportion
Review									
Technology			Approval			Total ____ sheets, Sheet ____			

Technical Requirements

1. No burrs allowed, and all sharp edges shall be chamfered to C1 -C2.
2. The effective depth of the screw must reach 18mm.
3. Quenching and tempering treatment shall be carried out after processing.
4. The surface finish of the V-groove moving surface shall be Ra0.08.
5. Inspection shall be conducted according to the drawing before delivery, and attention shall be paid to ensuring no defects.

Introduction to Non-standard Straight Rails

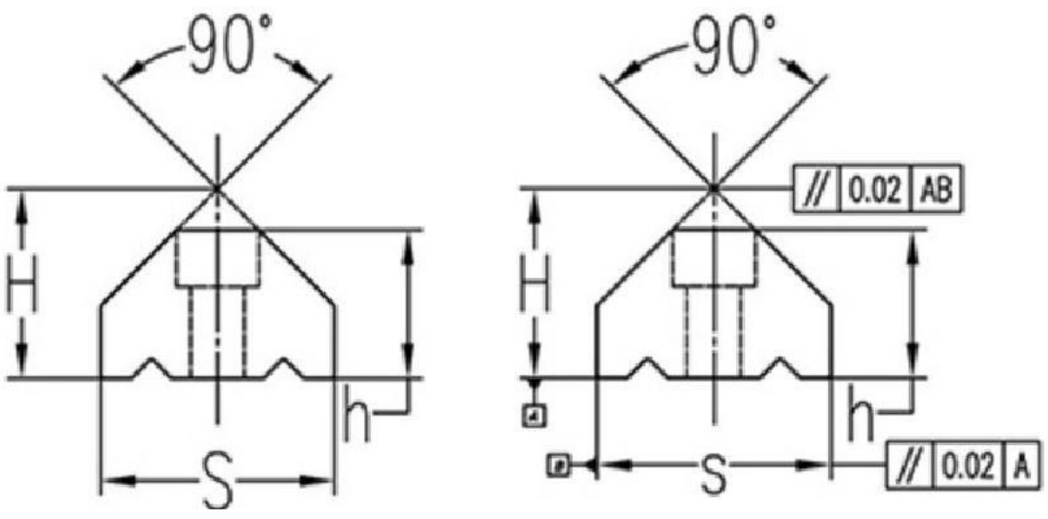


Mounting form hole **A**

Mounting form hole **B**

Model	Size(mm)								Weight[3] (kg/m)
	h ±0.05	S ±0.1	D	G	g	e	I	I1	
LG 2626 MC	26	26	9	15	9	[2]	120	50	5.3
LG 3232 MC	32	32	9	15	9	[2]	150	60	8.1
LG 3617 MC	36	17	6.5	11	6.8	12.5	120	50	4.8
LG 4321 MC	43	21	9	15	9	11.5	150	60	7
LG 5050 MC	50	50	18	26	17	[2]	180	60	19.6
LG 6222 MC	62	22	6	15	9	21	150	60	10.7
LG 7232 MC	72	32	13.5	20	13	24	180	70	18.1
LG 8222 MC	82	22	13.5	20	13	20	180	70	14.2
LG 12050 MC	120	50	18	26	17	30	180	70	47

Introduction to Non-standard Straight Rails



The maximum length of a single piece is L=6000mm; longer guide rails need to be spliced.

Model	Size(mm)									Weight (kg/m)
	H ±0.05	h ±0.05	S ±0.06	D +0.1	G	g	sm	I	I1	
LGHZ 62 MT	43.5	32.5	63.5	11	18	11	2*45°	120	30	**11.80**
LGHZ 80 MT	56.7	41.5	81.5	13.5	20	13	2*45°	120	30	**20.30**

The maximum length of a single piece is L=6000mm; longer guide rails need to be spliced.

Model	Size(mm)								Weight (kg/m)
	H ±0.05	h ±0.05	S ±0.05	D +0.1	G	g	I	I1	
LGHZ 62 MT	42	31	62	11	18	11	120	30	10.9
LGHZ 80 MT	52	40	80	13.5	20	13	120	30	20

GD Focus on magnetic levitation conveyor lines, circular guide rail circulation lines, and arc-shaped guide rails.

■ Cooperation Cases

亞 德 客 AirTAC

GREE 格力

INFINITL 英菲尼迪

xiaomi.com

中 国 铁 建

NAN 南洋电缆

3M

Baxter 百特医疗

SIEMENS Healthineers

HUAWEI

BYD

□ Processing workshop

CNC Processing

Workshop warehouse

Workshop machining

Workshop grinder

Workshop assembly

CNC lathe

Technical Parameter Table

Suzhou Guandong Precision Automation Co., Ltd

Technical Parameter Table of Circular Guide Rail Line

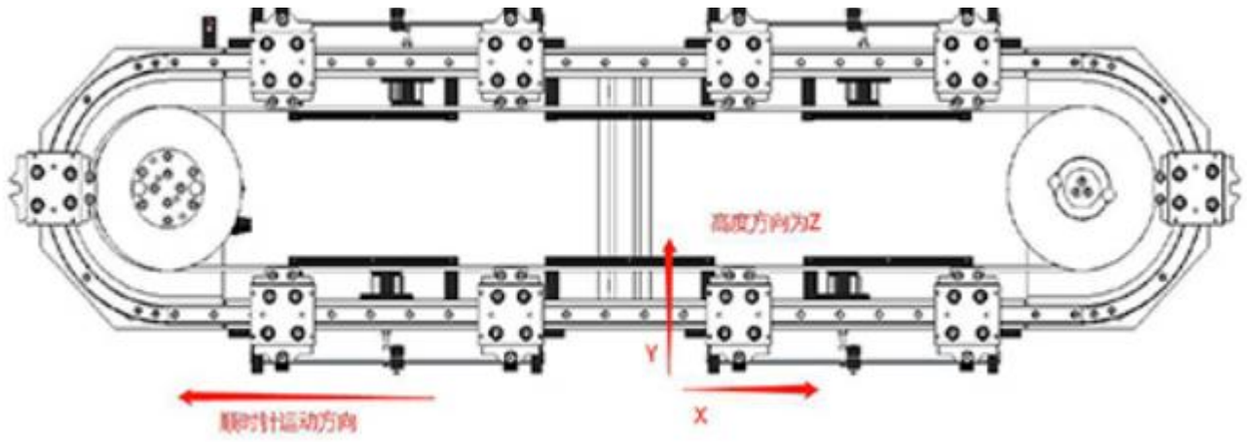
Address: No. 717, Dongding Road, Bacheng Town, Kunshan City, Jiangsu Province

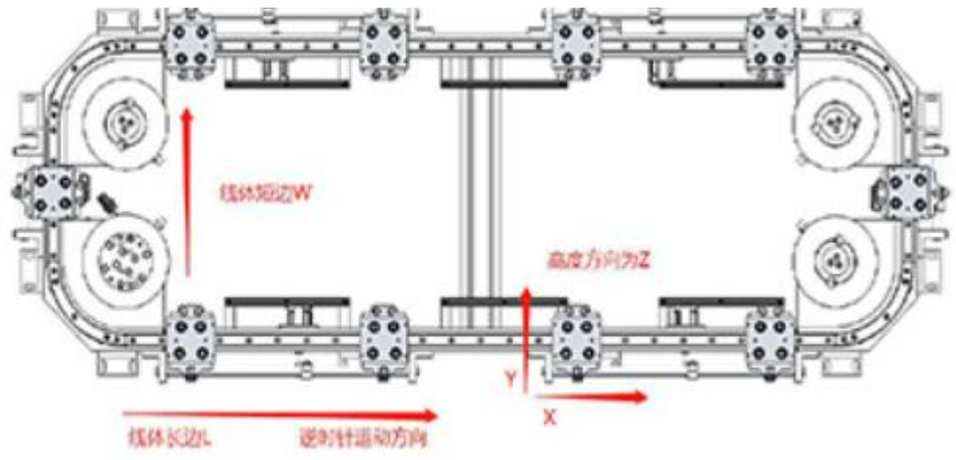
Company name		**Contact person/Phone number**	

Please fill in the form below as detailed as possible. If specific values cannot be provided, please give a general description so that we can better understand your needs.

Technical Parameters	Example	Customer Filling Area
Number of required stations (sliders) and number of stations that need positioning	20/5T、10/8T、10/0	
Center distance between adjacent stations	Such as 300mm, minimum non-interference, approximately 500mm	
Time required to move from one station to the next (PS: This includes the cylinder positioning time; please fill in as per requirements), i.e., indexing time	1.2s, no more than 2s, approximately 10	
Size of the carrier plate: length (along the direction of the straight rail) / width / height (accurate or approximate)	200/100/10T	
Load capacity of a single station (slider). If there is stamping force or other external pressure, please specify it in detail or attach a drawing in addition to the load capacity of a single slider.	5KG,External pressure10KG	
Required positioning accuracy (leave blank if there is no accuracy requirement)	±0.05、±0.5	
Diameter of the circular arc of the circular guide rail (refer to the overall machine size and carrier plate size)	255、300、351、400、468 、500、600	
Connection method between sliders	Belt, connecting rod, chain	
Size requirements for the overall machine	Space to be reserved: try to make it as small as possible, with a width within 600mm and a length within 2 meters	
Shape of the overall machine	Circular, elliptical, rectangular (for rectangular shapes, the dimensions of the long and short sides need to be specified)	
Installation method of the circular guide rail line	Horizontal, vertical	
Rotation direction of the line	Clockwise or counterclockwise	
Description of the working environment of the circular guide rail line	High temperature, oil pollution, clean room, normal environment	

Supplementary explanation: (Attached drawings will facilitate communication)	


高度方向为Z
Y
X
顺时针运动方向


线体宽边W
高度方向为Z
Y
X
线体长边L
逆时针运动方向

Guandong
Automation

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