



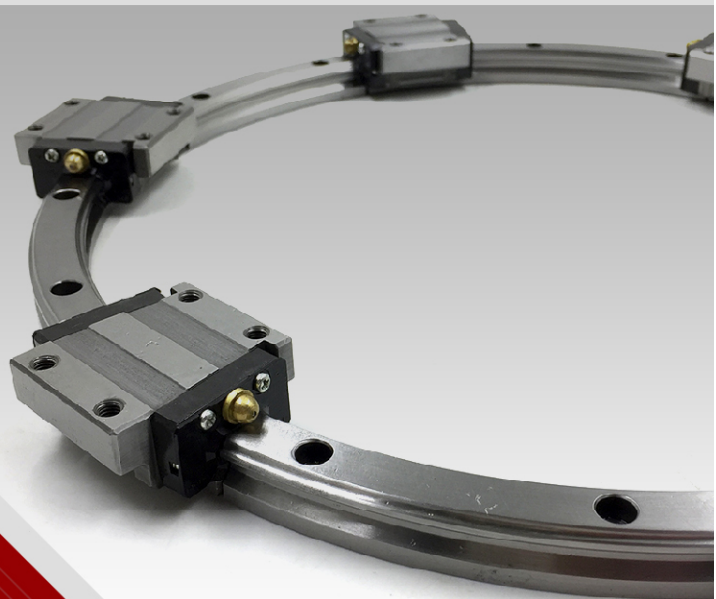
京澎机械

Jingpeng Machinery & Equipment (Shanghai) Co.,Ltd.

ARC

LINEAR

GUIDE



About Us

Jingpeng Machinery Equipment (Shanghai) Co., Ltd. was established in 2015. Our main products are ball screws, linear guides, cross guides, precision ball screws/splines, single shaft actuators, medium and large bearings, rack, couplings, support units, servo motors and drives, etc. We cooperate with the German YOSO company. With independent import and export management rights, Jingpeng has completed trademark registration and continues to promote and use it. Today, YOSO is one of the world's well-known brands. The company's products sell well all over the world, and are exported to the United States, Spain, Turkey, Italy, Austria, Brazil and other countries. Jingpeng Machinery has learned German production technology, combined with European and Japanese design concepts, specially established an independent research and development center, and introduced advanced manufacturing equipment and high-precision testing equipment at home and abroad to complete an annual output value of 1.5 million sets of screw guides. The application areas of the products are as follows: - Automation industry - Robot industry - Semiconductor industry - Industrial machinery - Medical equipment - Green energy industry - Machine tools - Automatic storage and retrieval system products, excellent in all industrial fields. Jingpeng Machinery integrates global resources, continues to innovate, and makes unremitting efforts for better human well-being and a better working environment. In the field of transmission components, Jingpeng Machinery has become the best partner with high-quality professional manufacturing and solutions. We also provide technical support and industry analysis to meet customer needs. At the same time, we have a solid business team to ensure the stability of the foreign trade sales system and strong market development capabilities, so that our products can be exported to all parts of the world at the fastest speed. Jingpeng Machinery is a professional manufacturer of transmission control products and system technology products all over the world.

YOSO Circular Guide Rail Series

Arc linear guide have roller type linear guide rails and ball type linear guide rails, Can form precision ring guide rail; Coupled with the driving system, it can form a precision ring assembly line, ring production line or ring assembly line and other cycle lines. This kind of guideway circulation line, more compact structure, higher positioning accuracy, more configuration options; In many ways, it outperforms traditional delivery lines.

Modern production factories, always constantly looking for ways to reduce production costs, an automation direction is: put each station as close as possible together, reduce the workpiece in the distance between the station, and minimize the footprint of space; To achieve this, you need the workpiece to do ring motion, you need to use ring line. There are two types of ring wires, traditional non-guide and precision guide, which are described as follows:

■ Traditional belt type

Belt conveyor line, is a relatively simple structure, wide conveyor belt around the two rollers separated by a certain distance, the roller rotation, conveyor belt movement, drive the workpiece on the belt move. Roller conveyor line and belt conveyor line, the principle is similar, except that the belt is replaced by a number of densely arranged drums.

Non-guideway ring line, the workpiece is fixed on the belt or roller, is not rigid, is generated by the friction force of gravity, and can not well limit the workpiece left and right, front and back and up movement. In order to prevent the workpiece from falling out, it is necessary to add a baffle on both sides of the belt or drum. Because the workpiece is not fixed to the belt or roller, the workpiece often vibrates; If the shape of the workpiece is more complex, it will often be stuck together with the parts of the conveyor line. By the

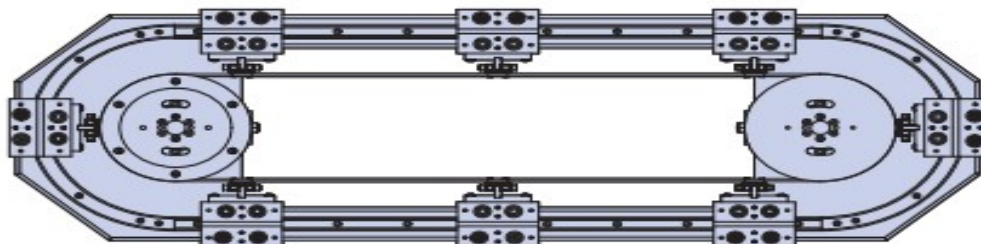
friction generated by gravity to fix the workpiece on the conveyor line, it can not ensure good positioning accuracy, more can not put the conveyor line up vertical. The fixed workpiece is not rigid, which limits the moving speed of the conveyor line.

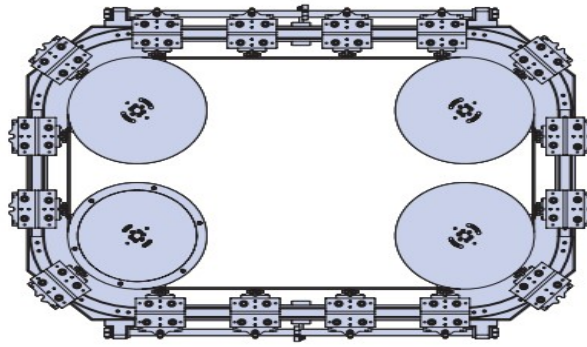
■ Precision linear rail type

The workpiece is fixed on the slide seat, the slide seat rolls on the guide rail through the roller, the guide rail very well limits the freedom of the slide seat, only one direction of freedom of movement. Therefore, guideway type ring pipeline, with higher speed, higher positioning accuracy; These two characteristics meet the requirement of precision automation.

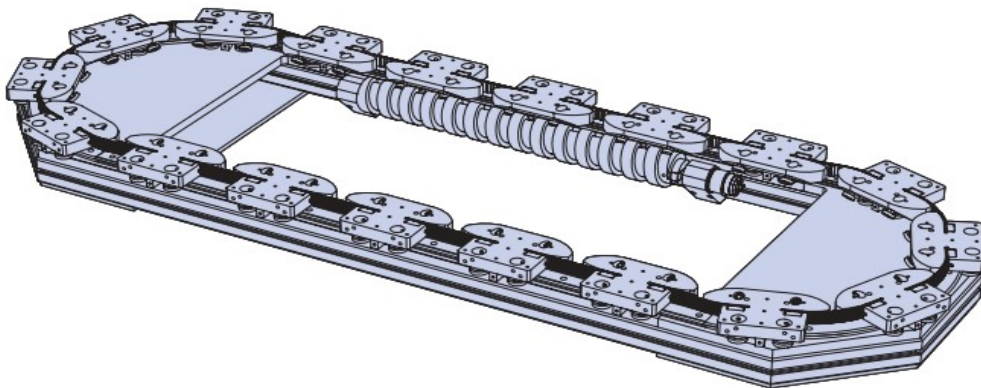
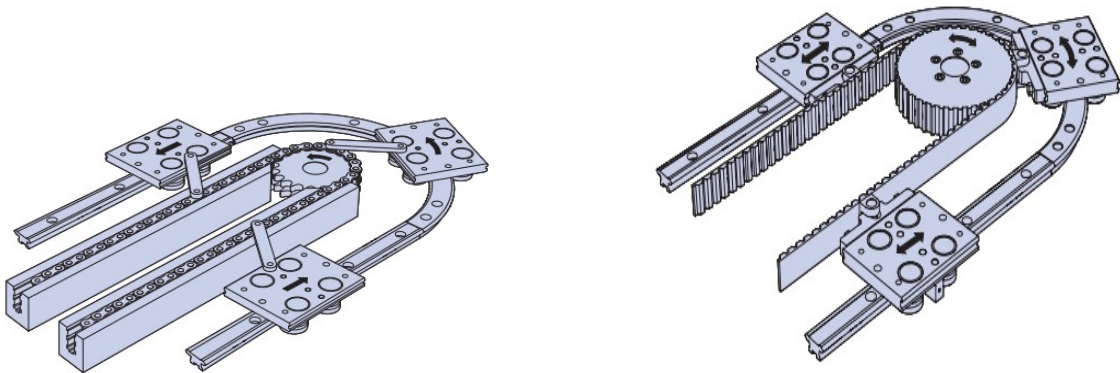
To sum up, when you need to be in a small space, to achieve precision automation: workpiece quickly move between stations; After the motion stops, the workpiece has a good position accuracy; After the motion stops, additional force can be applied to the workpiece for processing or assembly; Then you can choose a precise ring guide as the basis for the design of your ring pipeline.

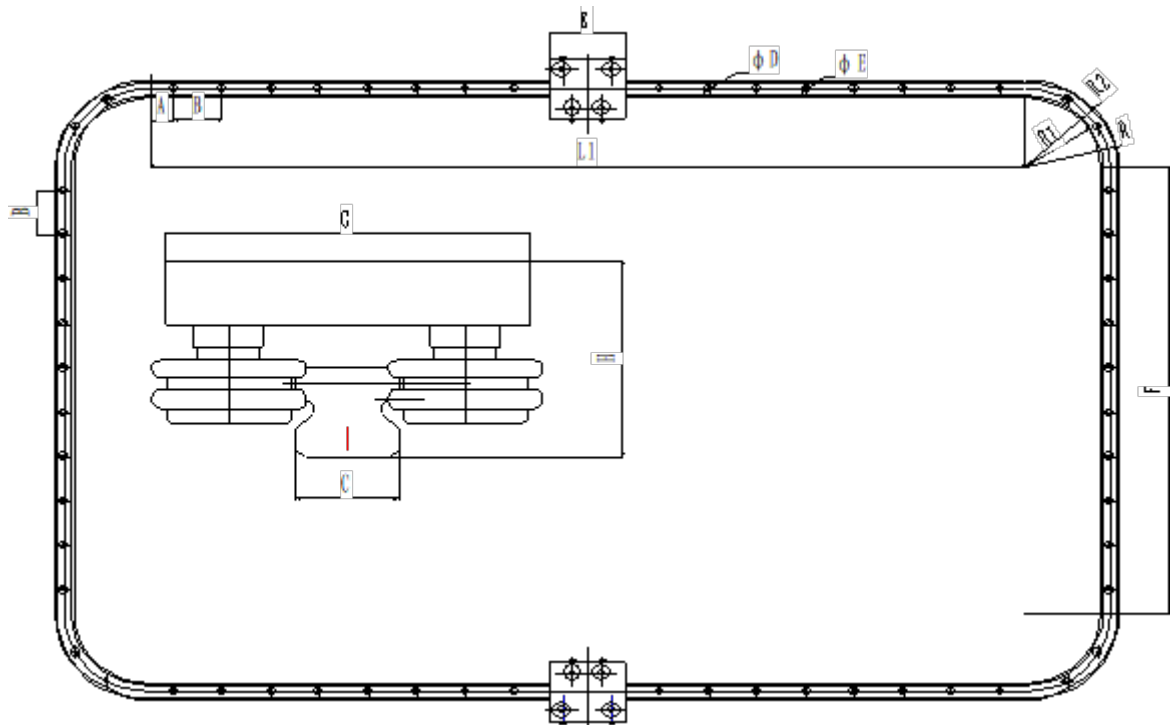
There are two main ways to use annular guide rail for annular line: runway shape and square:





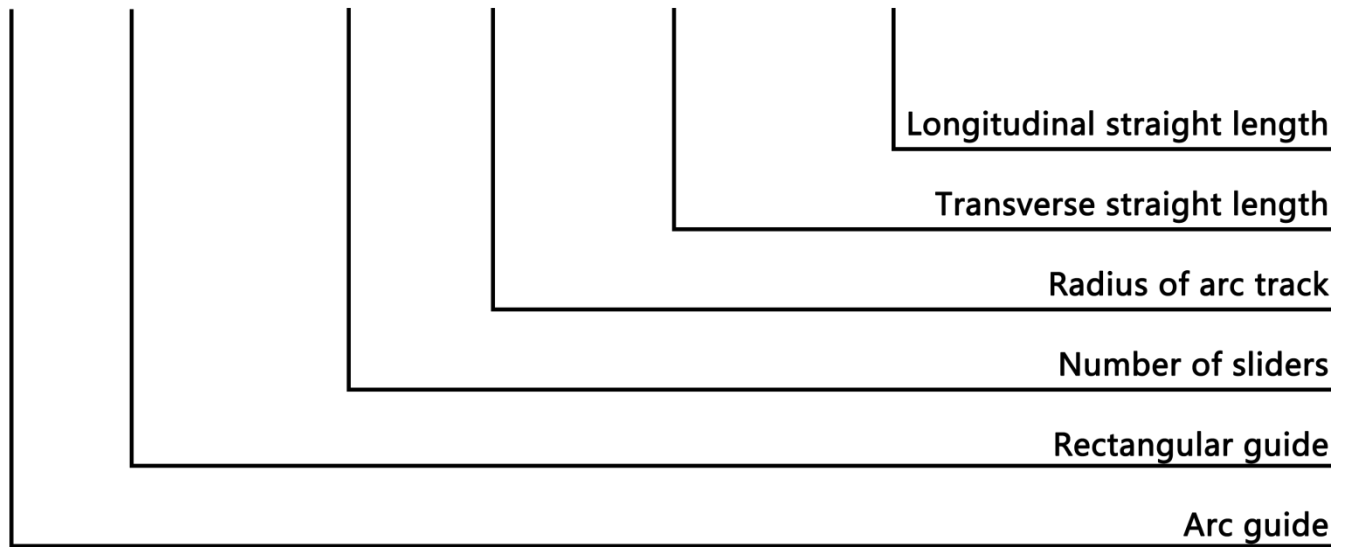
Arc linear guide, coupled with the drive system, becomes an annular assembly line;
At present, there are three main driving modes: chain type, synchronous belt type and screw type:



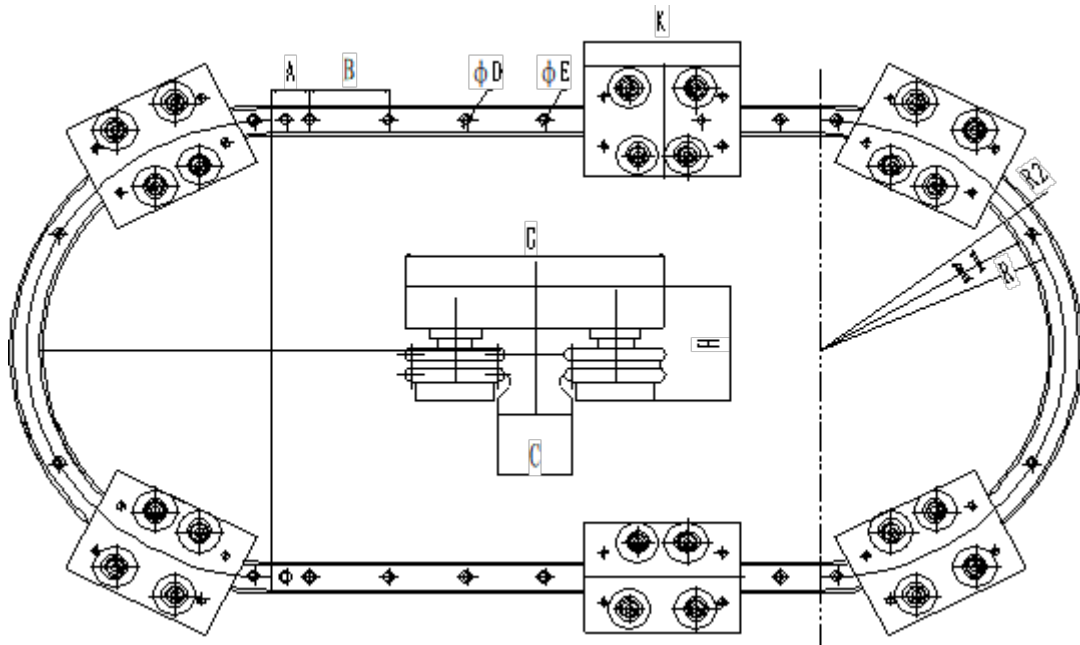
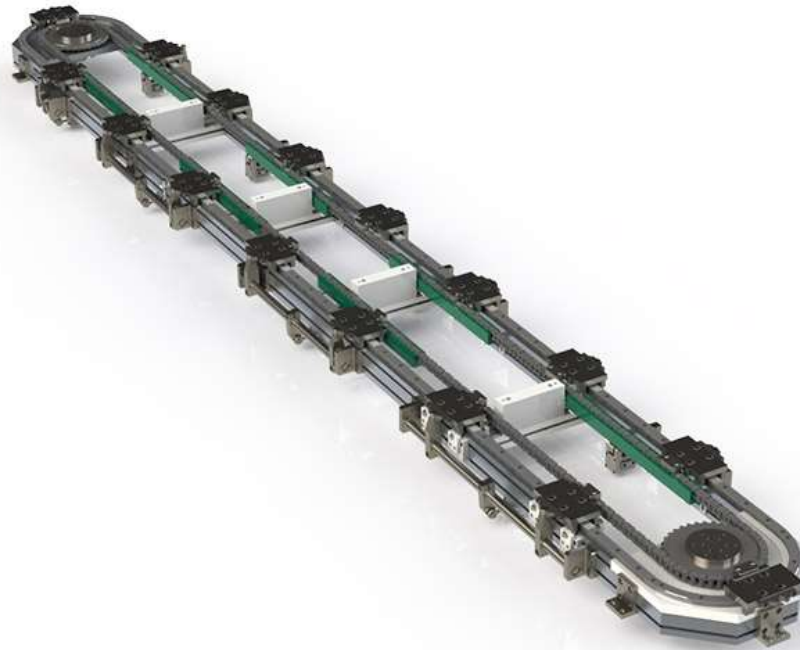
❖ HCP-RS dimension series table (rectangular)


Specifications	A	B	C	D	E	G	H	K	R	R1	R2	L1	Static load (Single block)
HCP-RS-25	30	60	23	7	12	96	52	100	300	277	323	Any size	Maximum 15KG
HCP-RS-35	30	80	35	9	14	110	62	120	280	263	297	Any size	Maximum 50KG

HCP - RS - 25 - A15 - R25I + 2300XL + 1600YL

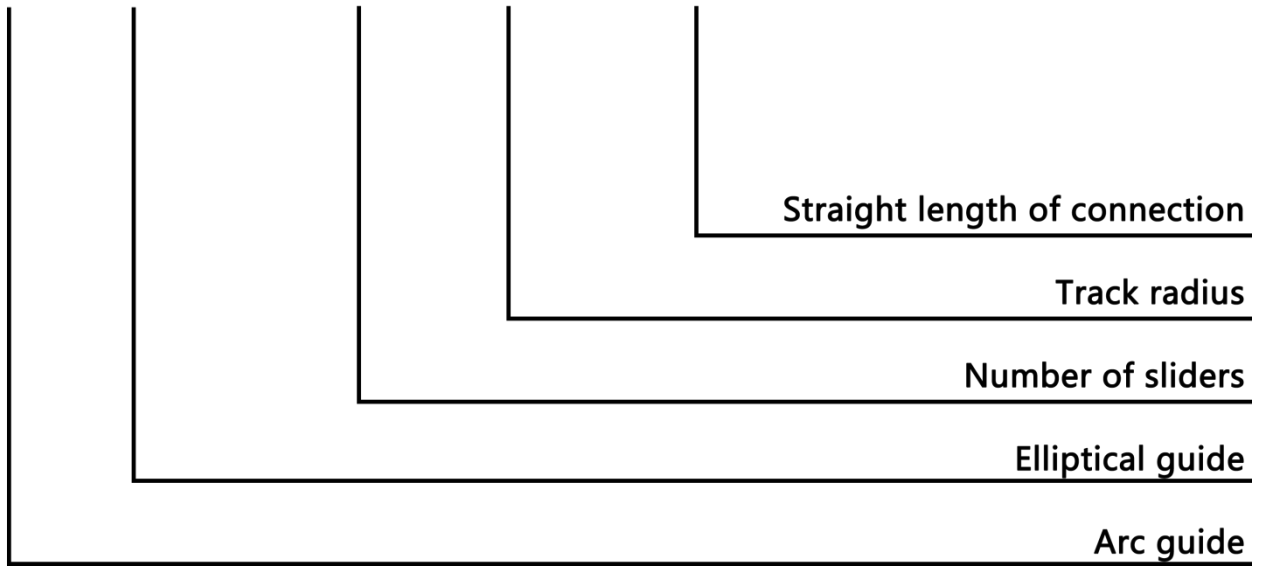


The commonly used radius of arc is 100R/150R/200R/251R/300R. Other radii can be customized according to actual requirements. The minimum radius is 100R and the maximum radius is 300R

❖ HCP-ES dimension series table (ellipse)


Specifications	A	B	C	D	E	G	H	K	R	R1	R2	L1	Static load (Single block)
HCP-ES-25	30	60	23	7	12	96	52	100	300	277	323	Any size	Maximum 15KG
HCP-ES-35	30	80	35	9	14	110	62	120	280	263	297	Any size	Maximum 50KG

HCP - ES - 25 - A10 - R251 + 1500L



The commonly used radius of arc is 100R/150R/200R/251R/300R. Other radii can be customized according to actual requirements. The minimum radius is 100R and the maximum radius is 300R

❖ Parameter table of annular guide rail operating platform

Project	Content
1	Single slide load () KG
2	Center distance of sliding seat () mm and number of sliding seats ()
3	Total length of track installation workbench X wide range ()
4	Maximum speed of track operation () m/s
5	Sliding seat positioning accuracy+- () mm
6	How many tooling needs to be accurately positioned ()
7	Running time beat from tooling A to tooling B () S
8	Installation mode horizontal/vertical ()
9	Length () * width () * height () dimension of tooling object on sliding base
10	Whether the tooling objects bear eccentric load and the size of eccentric load ()
11	Whether the sliding seat bears the press mounting force/impact pressure ()
12	Operating environment and special instructions ()
13	Radius () Line length () or perimeter ()
Notes	Note: YOSO products with a radius of less than 300 can be customized with a radius of more than 300. It is recommended to use rectangular structure with four-corner arc

❖ YCR rolling arc guide

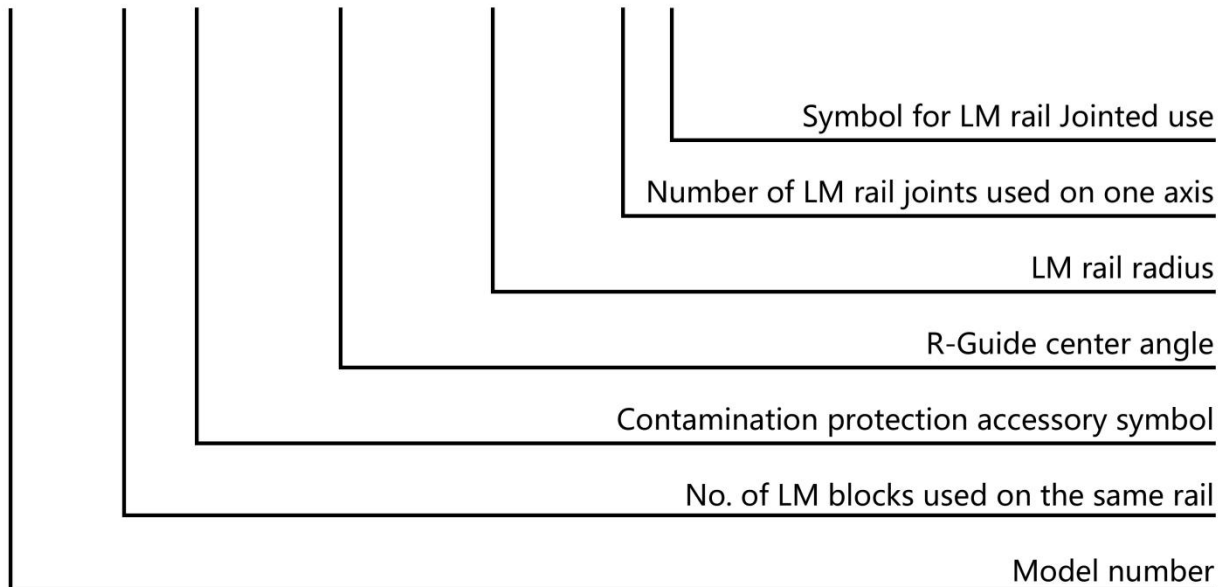
The rolling arc guide rail is derived from the YGH precision ball linear guide rail. On the premise of inheriting many advantages of YGH, it can realize circular movement of circular arc goods of any diameter, and overcome the size limit caused by processing with bearings or rolling bearings and other equipment. Theoretically, it can be said that the larger the diameter of YCR arc guide rail, the more convenient the design, manufacture, installation, maintenance, etc. And because of the unique mechanism design of YCR, it is possible to have no clearance and heavy load.

➤ Application

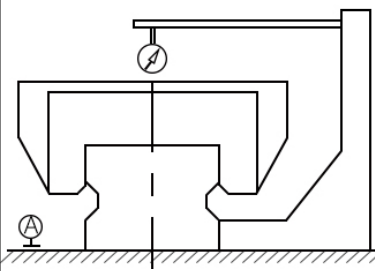
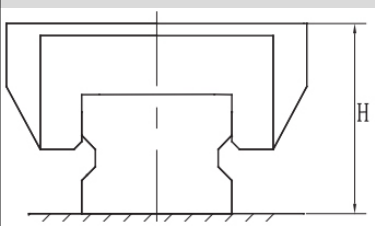
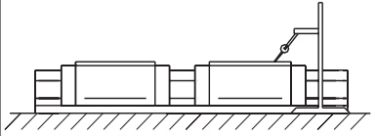
Large turntable, control device, medical device, stage device, vertical lathe

➤ Naming rules and meaning

YCR15A 1 UU + 60 / 168R - 6 T



➤ Accuracy class

No.	diagram	Inspection items	Tolerance		
1		Parallelism between the center of the top surface of the slider and the reference ground of the guide rail	Arc length of guide rail	Accuracy class	
				4	5
			≤250	0.015	0.035
			> 250~500	0.025	0.055
			> 500~1000	0.035	0.070
			> 1000~1500	0.040	0.080
> 1500~2000	0.045	0.090			
2		Limit deviation of height H between the top surface of the slider and the reference ground of the guide rail	Accuracy class		
			4	5	
			±0.06	±0.10	
3		Variation of height H of top surface of multiple sliders on the same plane	Accuracy class		
			4	5	
			0.02	0.03	

➤ Type of preload

Unit:μm

Product specification	Clearance	Ordinary	General preload
	P ₃	P	P ₁
YCR16	+3~+10	-3~+3	-9~-3
YCR20	+5~+15	-5~+5	-15~-5
YCR25	+5~+15	-5~+5	-15~-5
YCR30	15	-6~+6	-18~-6
YCR35	+8~+20	-8~+8	-24~-8

➤ Size series
Note:

1) In the table, $M_A.M_B.M_C$ refers to the rated static moment value of a slider.

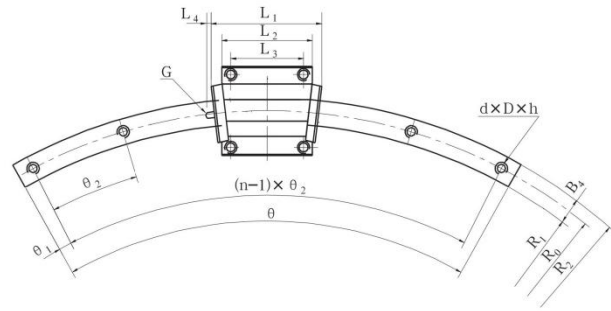
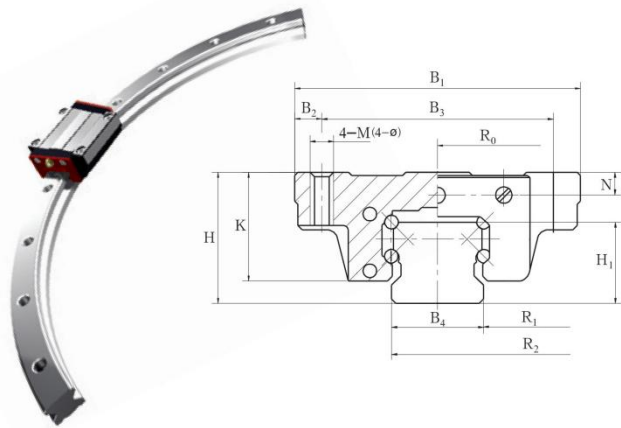
2) The arc radius size R_0 of the rolling arc guide rail can be determined according to the user's requirements. The specifications listed in the following table are the products developed by our factory.



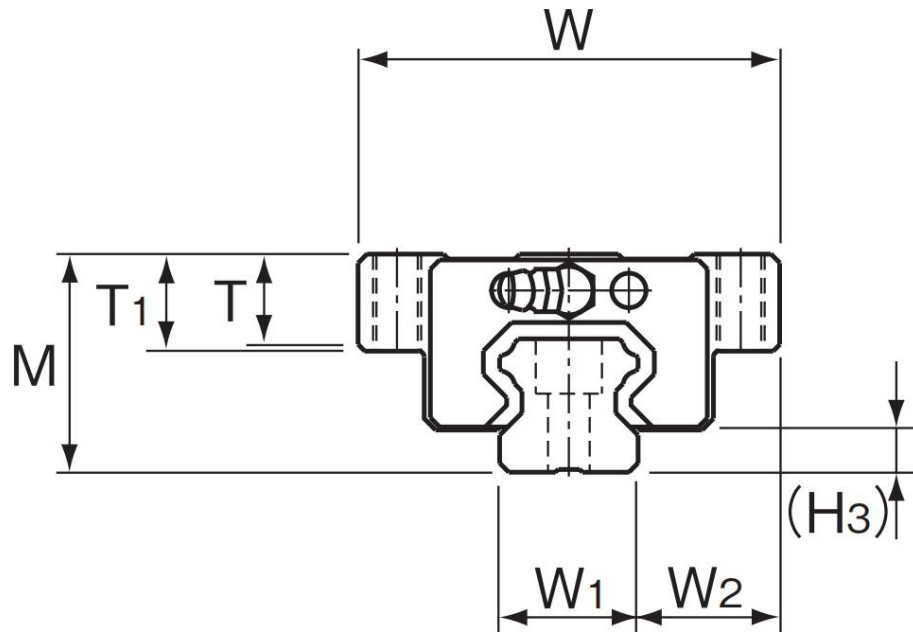
3) Multi-segment arc guides can be used to form a full circle guide.

Unit:mm

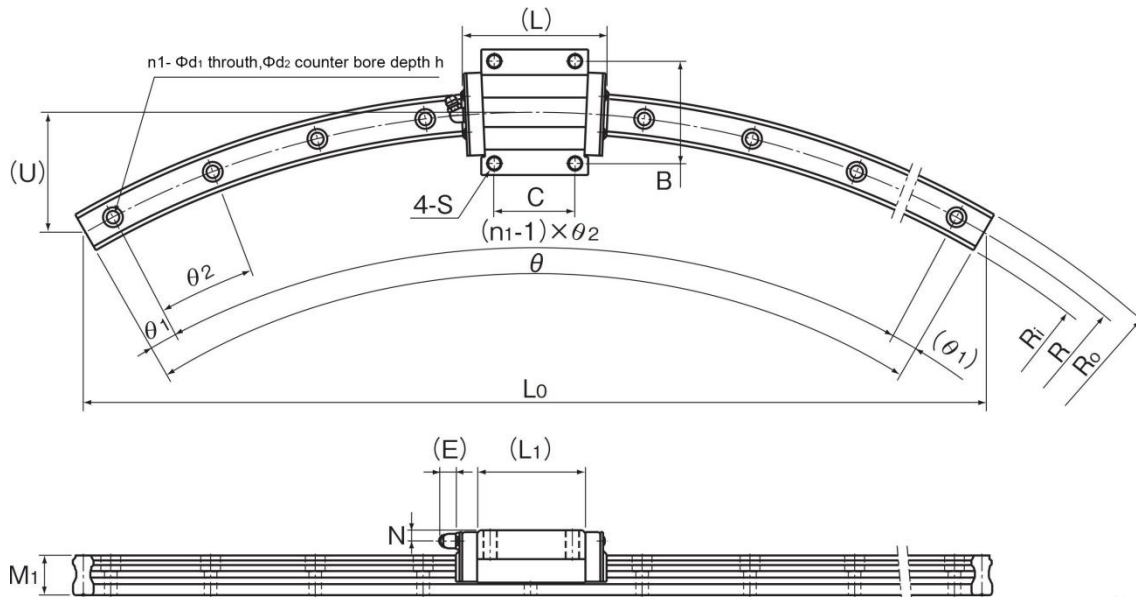
Model	Guide rail size		Slider size									Oil cup size	
	H	B ₁	B ₂	B ₃	K	L ₁	L ₂	L ₃	M	∅	L ₄	G	N
YCR16/168AA(AB)	24	47	4.5	38	19.4	58	40.5	30	M5	4.5	7	M4	4
YCR16/228AA(AB)	24	47	4.5	38	19.4	58	40.5	30	M5	4.5	7	M4	4
YCR16/300AA(AB)	24	47	4.5	38	19.4	58	40.5	30	M5	4.5	7	M4	4
YCR16/390AA(AB)	24	47	4.5	38	19.4	58	40.5	30	M5	4.5	7	M4	4
YCR25/230AA(AB)	36	70	6.5	57	28.8	79.5	59	45	M8	7	11	M6	6
YCR25/400AA(AB)	36	70	6.5	57	28.8	79.5	59	45	M8	7	11	M6	6
YCR25/500AA(AB)	36	70	6.5	57	28.8	79.5	59	45	M8	7	11	M6	6
YCR25/750AA(AB)	36	70	6.5	57	28.8	79.5	59	45	M8	7	11	M6	6
YCR25/1000AA(AB)	36	70	6.5	57	28.8	79.5	59	45	M8	7	11	M6	6
YCR35/600AA(AB)	48	100	9	82	38	111	81	58	M10	11	11	M6	8
YCR35/800AA(AB)	48	100	9	82	38	111	81	58	M10	11	11	M6	8
YCR35/1000AA(AB)	48	100	9	82	38	111	81	58	M10	11	11	M6	8
YCR35/1300AA(AB)	48	100	9	82	38	111	81	58	M10	11	11	M6	8






Guide rail size								Minimum end angle	Rated dynamic load	Rated static load	Rated static moment			Slide weight	Rail weight	Model
B4	H1	dxDxh	θ2	R0	R1	R2	θmax				C (kN)	Co (kN)	MA (N·m)			
16	15	4.5x7.5x5.3	15°	168	160	176	160°	3°	5.67	6.35	51.8	51.8	82.9	0.2	1.5	YCR16/168AA(AB)
16	15	4.5x7.5x5.3	15°	228	220	236	160°	3°	5.67	6.35	51.8	51.8	82.9	0.2	1.5	YCR16/228AA(AB)
16	15	4.5x7.5x5.3	15°	300	292	308	75°	2°	5.67	6.35	51.8	51.8	82.9	0.2	1.5	YCR16/300AA(AB)
16	15	4.5x7.5x5.3	15°	390	382	398	65°	2°	5.67	6.35	51.8	51.8	82.9	0.2	1.5	YCR16/390AA(AB)
23	22	7x11x9	15°	230	218.5	241.5	160°	3°	16.8	21.5	142.2	142.2	233.5	0.99	3.3	YCR25/230AA(AB)
23	22	7x11x9	10°	400	388.5	411.5	60°	2°	16.8	21.5	142.2	142.2	233.5	0.99	3.3	YCR25/400AA(AB)
23	22	7x11x9	7°	500	488.5	511.5	60°	2°	16.8	21.5	142.2	142.2	233.5	0.99	3.3	YCR25/500AA(AB)
23	22	7x11x9	5°	750	738.5	751.5	35°	2°	16.8	21.5	142.2	142.2	233.5	0.99	3.3	YCR25/750AA(AB)
23	22	7x11x9	4°	1000	988.5	1011.5	28°	2°	16.8	21.5	142.2	142.2	233.5	0.99	3.3	YCR25/1000AA(AB)
34	29	9x14x12	9°	600	583	617	60°	3°	34.97	58.53	610	610	1030	1.4	6.5	YCR35/600AA(AB)
34	29	9x14x12	5.5°	800	783	817	35°	2°	34.97	58.53	610	610	1030	1.4	6.5	YCR35/800AA(AB)
34	29	9x14x12	5°	1000	983	1017	28°	2°	34.97	58.53	610	610	1030	1.4	6.5	YCR35/1000AA(AB)
34	29	9x14x12	3.5°	1300	1283	1317	22°	2°	34.97	58.53	610	610	1030	1.4	6.5	YCR35/1300AA(AB)

➤ R Guide Model HCR


Model No.	Outer dimensions			LM block dimensions									H ₃	
	Height M	Width W	Length L	B	C	S	L ₁	T	T ₁	N	E	Grease Nipple		
YCR15A+60/150R	24	47	54.5	38	24	M5	38.8	10.3	11	4.5	5.5	PB1021B	4.8	
YCR15A+60/300R			55.5											28
YCR15A+60/400R			55.8											28
YCR25A+60/500R	36	70	81.6	57	45	M8	59.5	14.9	16	6	12	B-M6F	7	
YCR25A+60/750R			82.3											
YCR25A+60/1000R			82.5											
YCR35A+60/600R	48	100	107.2	82	58	M10	80.4	19.9	21	8	12	B-M6F	8.5	
YCR35A+60/800R			107.5											
YCR35A+60/1000R			108.2											
YCR35A+60/1300R			108.5											
YCR45A+60/800R	60	120	136.7	100	70	M12	98	23.9	25	10	16	B-PT1/8	11.5	
YCR45A+60/1000R			137.3											
YCR45A+60/1200R			137.3											
YCR45A+60/1600R			138											



Unit : mm

LM rail dimensions										Basic load rating		Static permissible moment kN · m					Mass				
R	R0	Ri	L0	U	Width W1	W2	Height M1	d1xd2xh	n1	θ°	θ_1°	θ_2°	C kN	C0 kN	MA 		MB 		MC 	LM Block kg	LM Rail kg/m
															1 Block	Double Blocks	1 Block	Double Blocks	1 Block		
150	157.5	142.5	150	20.1	15	16	15	4.5x7.5x5.3	3	60	7	23	6.66	10.8	0.0805	0.457	0.080 5	0.457	0.084 4	0.2	1.5
300	307.5	292.5	300	40					5		6	12	8.33	13.5							
400	407.5	392.5	400	54					7		3	9	8.33	13.5							
500	511.5	488.5	500	67	23	23.5	22	7x11x9	9	60	2	7	19.9	34.4	0.307	1.71	0.307	1.71	0.344	0.59	3.3
750	761.5	738.5	750	100					12		2.5	5									
1000	1011.5	988.5	1000	134					15		2	4									
600	617	583	600	80	34	33	29	9x14x12	7	60	3	9	37.3	61.1	0.782	3.93	0.782	3.93	0.905	1.6	6.6
800	817	793	800	107					11		2.5	5.5									
1000	1017	983	1000	134					12		2.5	5									
1300	1317	1283	1300	174					17		2	3.5									
800	822.5	777.5	800	107	45	37.5	38	14x20x17	8	60	2	8	60	95.6	1.42	7.92	1.42	7.92	1.83	2.8	11.0
1000	1022.5	977.5	1000	134					10		3	6									
1200	1222.5	1177.5	1200	161					12		2.5	5									
1600	1622.5	1577.5	1600	214					15		2	4									



京澎机械设备(上海)有限公司
Jingpeng Machinery & Equipment (Shanghai) Co.,Ltd