



LYBYCBEARINGS.COM

博物君子 持盈保泰

洛阳博盈轴承有限公司
LUOYANG BOYING BEARING CO., LTD

Tel: 0379-8088896

P.c: 471600

Add: 洛阳市宜阳县先锋路航空航天智创产业园3号

E-mail: lyboying@163.com

www.lybybearings.com



English



中文站



微信公众号



交叉滚子轴承
Cross Roller Bearings

YRT转台轴承
Rotary Table Bearing

工业机器人轴承
Industrial Robotic Bearings

谐波减速机轴承
Bearings For Harmonic Drive

洛阳博盈轴承有限公司
LUOYANG BOYING BEARING CO., LTD



洛阳博盈轴承有限公司 (BYC) 坐落于洛阳市宜阳县先锋路航空航天智创产业园。我公司是一家专业从事精密轴承的设计、开发、制造、销售于一体的“国家高新技术企业”。多年来，不断在技术与加工工艺上改进突破，进一步的提高轴承的性能，打破国际上此类产品被垄断的局面，目前产品在国内外都受到客户的一致好评。

公司核心产品为高精度的交叉圆柱滚子轴承、YRT转台轴承、工业机器人

轴承、交叉圆锥滚子轴承等高精度轴承，产品精度等级为：P5/P4/P2级。尺寸范围从Φ20mm-Φ1500mm，主导产品为转台轴承YRT、YRTS、YRTM、ZKLDf系列及交叉圆柱滚子轴承RB、RE、RU、RA、CRB、CRBC、CRBH、XSU、SX系列，交叉圆锥滚子轴承XR/JXR系列，谐波减速机配套十字交叉滚子轴承BCSF、BCSG、BSHF、BSHG系列等高精度轴承，也可根据用户需求，设计/选型/制造各种非标精密

轴承。产品主要适用于精密旋转工作台、机械加工中心转台、工业机器人的关节部和旋转部、测量检测仪器、医疗器械、计算器/IC制造装置等设备。

“天行健，君子自强不息”，近两年来，公司投入大量资金购置新型设备、建造新型工业厂房，聘请专业的管理、生产、技术人才，引进先进的管理理念，组建新型的现代化工业生产班底，建立轴承实验研究中心，实现从内而外的升华。同时，也通过了

ISO9001质量体系认证，具备完备的质量控制体系。通过多种质量控制手段，保证出厂每一套产品的合格率为100%。

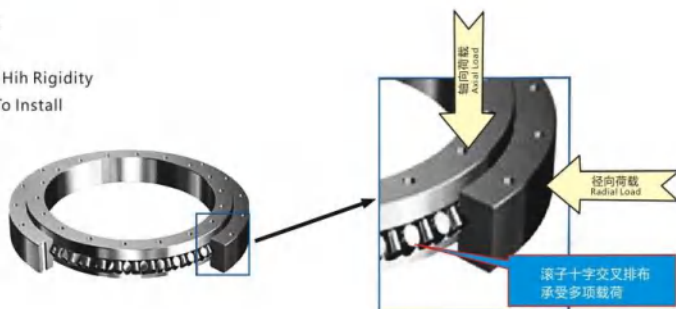
“博物君子，持盈保泰”，我们洛阳博盈轴承有限公司多年来一直秉承“专注细节、提升自我”的经营理念，竭诚为用户提供高品质的产品和全方位的服务，衷心希望您精诚合作，携手共创辉煌。

BYC博盈轴承的主要产品 MAIN PRODUCT OF BYC

一、交叉滚子轴承

Crossed Roller Bearings (RB/RE/RU/SX/RA/XSU)

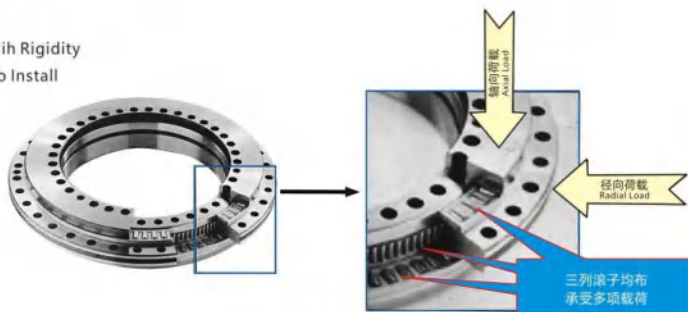
- 1、多项承载高刚性
- 2、高旋转精度 / 操作安装简化
- 3、机器人 / 精密仪器用
- 1、 Muleidirectional Load / Hih Rigidity
- 2、 High Precision / Easily To Install
- 3、 Robotic Use



二、转台轴承

Rotary Table Bearing (YRT/YRTS/YRTM/ZKLDF)

- 1、多项承载高刚性，轴向承载能力更强
- 2、高旋转精度/操作安装简化
- 3、数控转台/分度台用
- 1、 Muleidirectional Load Hih Rigidity
- 2、 High Preeision/easily To Install
- 3、 CNC Turntable Use



BYC博盈轴承的主要产品 交叉圆柱滚子轴承系列图集展示 Crossed Roller Bearings



交叉滚子轴承特点

Features Of Crossed Roller Bearings

结构特点:

交叉滚子轴承, 是圆柱滚子在呈90°的V形沟槽滚动面上通过隔离块被相互垂直地排列, 所以交叉滚子轴承可承受径向负荷、轴向负荷及力矩负荷等多方向的负荷。内外圈的尺寸被小型化, 极薄形式更是接近于极限的小型尺寸, 并且具有高刚性, 且精度可达到P5、P4、P2级。因此适合于工业机器人的关节部和旋转部、机械加工中心的旋转台, 精密旋转工作台、医疗机器、计算机、军工、IC制造装置等设备。

旋转精度:

轴承中垂直排列的滚子间装有隔离块, 防止了滚子的倾斜和滚子之间的相互摩擦, 减小了旋转力矩。另外, 与以前使用钢板保持器相比, 不会发生滚子在一方接触现象或锁死现象。同时, 因内圈(或外圈)是两分割的构造, 轴承间隙可调整, 即使被施加预载, 也能获得高精度地旋转运动。

使用特点:

被分割的内环(或外环), 在装入滚柱和间隔保持器后, 与交叉滚柱轴环固定在一起, 以防止互相分离, 故安装交叉滚柱轴环时操作简单。通过间隔保持器使滚柱间的相互摩擦消失, 防止滚柱侧倒, 从而能获得稳定的旋转扭矩。由于滚柱为交叉排列, 因此只用一套交叉滚柱轴承就可承受各个方向的负荷, 与传统型号相比, 刚性提高3~4倍。

Features of crossed roller bearings

STRUCTURE FEATURES

With the Cross Roller bearing, cylindrical rollers are arranged crosswise, with each roller perpendicular to the adjacent roller, in a 90°V groove, separated from each other by a spacer retainer. This design allows just one bearing to receive loads in all directions including, radial, axial and moment loads. Since the Cross-Roller Ring achieves high rigidity and the precision can reach up to P5,P4,P2, despite the minimum possible dimensions of the inner and outer rings, it is optimal for applications such as joints and swiveling units of industrial robots, swiveling tables of machining centers, precision rotary tables, medical equipment, measuring instruments and IC manufacturing machines.

Rotation accuracy

The spacer retainer fitting among cross-arrayed rollers prevents rollers from skewing and the rotation torque from increasing due to friction between rollers. Unlike conventional types using steel sheet retainers, the Cross-Roller Ring does not cause displacement or locking of rollers and provides a stable rotation torque. Since the inner and outer rings are designed to be separable, the bearing clearance can be adjusted. In addition, highly accurate rotary motion is ensured through adjusting the bearing clearance to provide a preload.

Usage characteristics

The inner and outer rings, which are separable, are secured to the Cross-Roller Ring body after the rollers and spacer retainers are installed. This procedure prevents the rings from separating from each other. Thus, it is easy to handle the rings when installing the Cross-Roller Ring. The spacer retainer keeps rollers in their proper position, thereby preventing them from skewing. This eliminates friction between rollers, and therefore secures a stable rotation torque. The cross array of rollers allows a single Cross-Roller Ring unit to receive loads in all directions, increasing the rigidity to three to four times greater than the conventional type.

交叉圆柱滚子轴承类型

Classification Of Crossed Roller Bearings

RB型(外环分割型、内环旋转用)

Model RB (Separable Outer Ring, Type for Inner Ring Rotation)

此系列型号为交叉圆柱滚子轴承的基本型, 内、外环尺寸被最小限度地小型化, 其构造是外环是分割型, 内环是一体设计, 适合于要求内环旋转精度高的部位。

Being the basic model of the Cross-Roller Ring, despite the minimum possible dimensions of the inner and outer rings, it's outer ring is separable while the inner ring is integrated with the main body. This model is used in locations where the rotation accuracy of the inner ring is required.



RE型(内环分割型、外环旋转用)

Model RE (Separable Inner Ring, Type for Outer Ring Rotation)

此系列型号是由RB型的设计理念产生的新形式, 主要尺寸与RB型相同。其构造是内环是分割型, 外环是一体设计, 适合于要求外环旋转精度高的部位。

This new model is based on the design of principal of the RB, Having the same major dimensions as model RB, it's inner ring is separable while the outer ring is integrated with the main body, this model is used in locations where the rotation accuracy of the outer ring is required.



RU型、XSU型、XU型(内、外环一体型)

Model RU, XSU, XU (Integrated Inner/Outer Ring Type)

此系列型号由于已进行了安装孔的加工, 就不需要固定法兰和支撑座。另外, 由于采用带座的一体化内外环结构, 安装对性能几乎没有影响, 因此能够获得稳定的旋转精度和扭矩。能用于外环和内环旋转。

Since the mounting holes are provided, this model does not require a presser flange or housing. In addition, because it has an integrated inner/outer ring structure and it's equipped with washers, it's performance is minimally affected by the mounting procedure, ensuring stable rotation accuracy and torque. This model can be used for both inner-ring rotation and outer-ring rotation.



SX型(外环分割型, 内环旋转用)

Model SX (Separable Outer Ring, Type for Inner Ring Rotation)

其结构与RB系列类似, 外环是两分割的结构, 通过三个固定环连接, 内环一体设计, 适合于要求内环旋转精度高的部位。

Its structure is similar to RB series, the outer ring is separable and connected with three staving rings. While the inner ring is integrated with the main body. This model is used in locations where the rotation accuracy of the outer ring is required.





CRB型 (外环分割型, 内环旋转用)

Model CRB (Separable Outer Ring, Type for Inner Ring Rotation)

其构造是外环是分割型, 内环是一体设计, 不带保持架满装滚子轴承。适合于要求内环旋转精度高的部位。

Its structure is that the outer ring is separable while the inner ring is integrated with the main body, without cage, but full complement, this model is used in locations where the rotation accuracy of the outer ring is required.



CRBC型 (外环分割型, 内环旋转用)

Model CRBC (Separable Outer Ring, Type for Inner Ring Rotation)

其构造是外环是分割型, 内环是一体设计, 带保持架满装滚子轴承。适合于要求内环旋转精度高的部位。

Its structure is that the outer ring is separable while the inner ring is integrated with the main body, with cage and full complement, this model is used in locations where the rotation accuracy of the outer ring is required.



CRBH型 (内、外环一体型)

Model CRBH (Integrated Inner/Outer Ring Type)

该系列型号内、外环都是一体结构, 用于外环和内环旋转。

This model is with an integrated Inner/Outer Ring structure, can be used for both inner-ring rotation and outer-ring rotation.



RA型 (外环分割型, 内环旋转用)

Model RA (Separable Outer Ring Type for Inner Ring Rotation)

此系列型号是将RB型内、外环厚度减小到极限的紧凑型。适合于需要重量轻、紧凑设计的部位, 例如机器人和机械手旋转部位。

Based on model RB, this model is a light and compact type with the thinnest possible inner and outer rings. It is optimal for location where weight reduction and downsizing are required, such as the hand swiveling unit of robots and manipulators.

交叉滚子轴承旋转精度标准-RB、CRB、CRBC、RE型

RB型内环旋转精度

Rotation Accuracy of the Inner Ring of Model RB, CRB, CRBC

单位:微米
Unit: μm

轴承内径尺寸 Inner diameter (d) (mm)		内环公差 Tolerance of the inner ring					
以上 Above	以下 Or less	径向跳动 Radial runout			轴向跳动 Axial runout		
		P5 级	P4 级	P2 级	P5 级	P4 级	P2 级
18	30	4	3	2.5	4	3	2.5
30	50	5	4	2.5	5	4	2.5
50	80	5	4	2.5	5	4	2.5
80	120	6	5	2.5	6	5	2.5
120	150	8	6	2.5	8	6	2.5
150	180	8	6	5	8	6	5
180	250	10	8	5	10	8	5
250	315	13	10	6	13	10	6
315	400	15	12	8	15	12	8
400	500	18	14	10	18	14	10
500	630	20	16	12	20	16	12
630	800	25	20	15	25	20	15
800	1000	30	25	20	30	25	20
1000	1250	35	30	25	35	30	25

RE型外环旋转精度

Rotation Accuracy of the Outer Ring of Model RE

单位:微米
Unit: μm

轴承外径尺寸 Outer diameter (D) (mm)		外环公差 Tolerance of the Outer ring					
以上 Above	以下 Or less	径向跳动 Radial runout			轴向跳动 Axial runout		
		P5 级	P4 级	P2 级	P5 级	P4 级	P2 级
18	30	7	5	2.5	7	5	2.5
30	50	8	5	4	8	5	4
50	80	10	6	5	10	6	5
80	120	11	7	5	11	7	5
120	150	13	8	5	13	8	5
150	180	15	10	7	15	10	7
180	250	18	11	7	18	11	7
250	315	20	13	8	20	13	8
315	400	23	15	10	23	15	10
400	500	25	16	12	25	16	12
500	630	30	20	15	30	20	15
630	800	35	25	20	35	25	20
800	1000	40	30	25	40	30	25
1000	1250	45	35	30	45	35	30

交叉滚子轴承旋转精度标准-RU型

RU型旋转精度

Rotation Accuracy of Model RU

单位:微米

Unit: μm

型号 Model Number	内环公差 Tolerance of the inner ring						外环公差 Tolerance of the outer ring					
	径向跳动 Radial runout			轴向跳动 Axial runout			径向跳动 Radial runout			轴向跳动 Axial runout		
	P5 级	P4 级	P2 级	P5 级	P4 级	P2 级	P5 级	P4 级	P2 级	P5 级	P4 级	P2 级
RU42	4	3	2.5	4	3	2.5	8	5	4	8	5	4
RU66	5	4	2.5	5	4	2.5	10	6	5	10	6	5
RU85	5	4	2.5	5	4	2.5	10	6	5	10	6	5
RU124	5	4	2.5	5	4	2.5	13	8	5	13	8	5
RU148	6	5	2.5	6	5	2.5	15	10	7	15	10	7
RU178	6	5	2.5	6	5	2.5	15	10	7	15	10	7
RU228	8	6	5	8	6	5	18	11	7	18	11	7
RU297	10	8	5	10	8	5	20	13	8	20	13	8
RU445	15	12	7	15	12	7	25	16	10	25	16	10

注)对于RU型,P5级为标准旋转精度。

Note: The standard rotation accuracy of model RU is grade P5



交叉滚子轴承尺寸公差标准

轴承内径的容许尺寸公差

Dimensional Tolerance of the Bearing Inner Diameter

单位:微米

Unit: μm

轴承内径尺寸 Inner diameter (d) (mm)		轴承内径的容许尺寸公差 Dimensional Tolerance of the Bearing Inner Diameter							
以上 Above	以下 less	P0 级		P6 级		P5 级		P4/P2 级	
		高 Upper	低 Lower	高 Upper	低 Lower	高 Upper	低 Lower	高 Upper	低 Lower
18	30	0	-10	0	-8	0	-6	0	-5
30	50	0	-12	0	-10	0	-8	0	-6
50	80	0	-15	0	-12	0	-9	0	-7
80	120	0	-20	0	-15	0	-10	0	-8
120	150	0	-25	0	-18	0	-13	0	-10
150	180	0	-25	0	-18	0	-13	0	-10
180	250	0	-30	0	-22	0	-15	0	-12
250	315	0	-35	0	-25	0	-18	0	-15
315	400	0	-40	0	-30	0	-23	0	-18
400	500	0	-45	0	-35	0	-25	0	-20
500	630	0	-50	0	-40	0	-30	0	-25
630	800	0	-75	0	-45	0	-35	0	-30
800	1000	0	-100	0	-50	0	-40	0	-35
1000	1250	0	-125	0	-60	0	-50	0	-45

轴承外径尺寸 Inner diameter (D) (mm)		轴承外径的容许尺寸公差 Dimensional Tolerance of the Bearing Outer Diameter							
以上 Above	以下 less	P0 级		P6 级		P5 级		P4/P2 级	
		高 Upper	低 Lower	高 Upper	低 Lower	高 Upper	低 Lower	高 Upper	低 Lower
18	30	0	-11	0	-9	0	-7	0	-6
30	50	0	-13	0	-11	0	-9	0	-7
50	80	0	-15	0	-13	0	-10	0	-8
80	120	0	-18	0	-15	0	-11	0	-9
120	150	0	-25	0	-18	0	-13	0	-10
150	180	0	-30	0	-20	0	-15	0	-11
180	250	0	-35	0	-25	0	-18	0	-13
250	315	0	-40	0	-28	0	-20	0	-15
315	400	0	-45	0	-33	0	-23	0	-18
400	500	0	-50	0	-38	0	-28	0	-20
500	630	0	-75	0	-45	0	-35	0	-25
630	800	0	-100	0	-50	0	-40	0	-30
800	1000	0	-125	0	-60	0	-50	0	-35
1000	1250	0	-125	0	-70	0	-60	0	-45

注1) RA、RB、RE和RU型的标准内外径尺寸精度为0级,若需要比0级更高的精度,请向BYC博盈轴承咨询。

注2) dm表示轴承内径2点测量得到的最大直径和最小直径的算术平均值。Dm表示轴承外径2点测量得到的最大直径和最小直径的算术平均值。

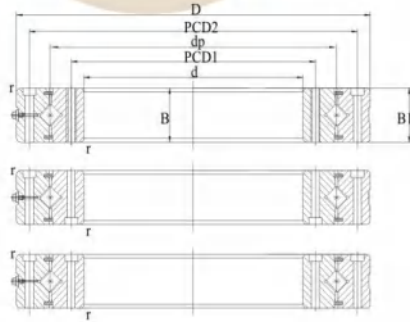
注3) 表中轴承内径或外径的精度等级无数值表示的型号,低精度级也适用最高数值。

Note 1: The standard diameter accuracy of models RA, RB, RE and RU is grade 0. For higher accuracy than grade 0, contact BYC.

Note 2: "dm" represents the arithmetic average of the maximum and minimum diameters obtained in measuring the bearing inner diameter at two points; "Dm" represents the arithmetic average of the maximum and minimum diameters obtained in measuring the bearing Outer diameter at two points.

Note 3: For accuracy grades of the bearing diameter with no values indicated in the table, the highest value among the low accuracy grades applies.

RU(CRBF)系列 RU(CRBF) Series



轴径 Shaft Diameter (mm)	型号 Model Number		主要尺寸 Main Dimensions (mm)					靠肩尺寸 Shoulder Height		基本额定负荷 (径向) Basic Load Rating (radial)		重量 Weight Kg
	THK	IKO	内径 Innerring (mm) d	外径 Outerring (mm) D	滚子节圆直径 dp	宽度 width B B1	倒角 r(min)	ds (mm)	Dh (mm)	C kN	Co kN	
20	RU42	CRBF2012AT	20	70	41.5	12	0.6	37	47	7.35	8.35	0.29
35	RU66	CRBF3515AT	35	95	66	15	0.6	59	74	17.5	22.3	0.62
55	RU85	CRBF5515AT	55	120	85	15	0.6	79	93	20.3	29.5	1
80	RU124(G)	CRBF8022AD/CRBF8022A	80	165	124	22	1	114	134	33.1	50.9	2.6
	RU124X	CRBF8022AT										
90	RU148(G)	/	90	210	147.5	25	1.5	133	162	49.1	76.8	4.9
	RU148X	/										
115	RU178(G)	/	115	240	178	28	1.5	161	195	80.3	135	6.8
	RU178X	/										
160	RU228(G)	/	160	295	227.5	35	2	208	246	104	172	11.4
	RU228X	/										
210	RU297(G)	/	210	380	297.3	40	2.5	272	320	156	281	21.3
	RU297X	/										
350	RU445(G)	/	350	540	445.4	45	2.5	417	473	222	473	35.4
	RU445X	/										

轴径 shaft diameter (mm)	型号 Model number	安装孔尺寸 Relation between the mounting holes (mm)			
		内圈 inner ring		外圈 outer ring	
		PCD1	安装孔 mounting holes	PCD2	安装孔 mounting holes
20	RU42	28	6-M3 贯通 6-M3 贯通	57	6-φ3.4 贯通, φ6.5 衬孔深度 3.3 6-φ3.4 贯通, φ6.5 counterbore depth 3.3
35	RU66	45	8-M4 贯通 8-M4 贯通	83	8-φ4.5 贯通, φ8 衬孔深度 4.4 8-φ4.5 贯通, φ8 counterbore depth 4.4
55	RU85	65	8-M5 贯通 8-M5 贯通	105	8-φ5.5 贯通, φ9.5 衬孔深度 5.4 8-φ5.5 贯通, φ9.5 counterbore depth 5.4
80	RU124(G)	97	10-φ5.5 贯通, φ9.5 衬孔深度 5.4 10-φ5.5 贯通, φ9.5 counterbore depth 5.4	148	10-φ5.5 贯通, φ9.5 衬孔深度 5.4 10-φ5.5 贯通, φ9.5 counterbore depth 5.4
	RU124X		10-M5 贯通 10-M5 贯通		
90	RU148(G)	112	12-φ9 贯通, φ14 衬孔深度 8.6 12-φ9 贯通, φ14 counterbore depth 8.6	187	12-φ9 贯通, φ14 衬孔深度 8.6 12-φ9 贯通, φ14 counterbore depth 8.6
	RU148X		12-M8 贯通 12-M8 贯通		
115	RU178(G)	139	12-φ9 贯通, φ14 衬孔深度 8.6 12-φ9 贯通, φ14 counterbore depth 8.6	217	12-φ9 贯通, φ14 衬孔深度 8.6 12-φ9 贯通, φ14 counterbore depth 8.6
	RU178X		12-M8 贯通 12-M8 贯通		
160	RU228(G)	184	12-φ11 贯通, φ17.5 衬孔深度 10.8 12-φ11 贯通, φ17.5 counterbore depth 10.8	270	12-φ11 贯通, φ17.5 衬孔深度 10.8 12-φ11 贯通, φ17.5 counterbore depth 10.8
	RU228X		12-M10 贯通 12-M10 贯通		
210	RU297(G)	240	16-φ14 贯通, φ20 衬孔深度 13 16-φ14 贯通, φ20 衬孔深度 13	350	16-φ14 贯通, φ20 衬孔深度 13 16-φ14 贯通, φ20 counterbore depth 13
	RU297X		16-M12 贯通 16-M12 贯通		
350	RU445(G)	385	24-φ14 贯通, φ20 衬孔深度 13 24-φ14 贯通, φ20 衬孔深度 13	505	24-φ14 贯通, φ20 衬孔深度 13 24-φ14 贯通, φ20 counterbore depth 13
	RU445X		24-M12 贯通 24-M12 贯通		