## Sheng Yao Wang (Dalian) International Trade Co., LTD.







International site

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### **About sunbearing**





Sheng Yao Wang (Dalian) International Trade Co., LTD. was founded in 1999 ,has been focusing business of bearing production and trade for 18 years, has rich experiences in bearing processing and trade and become the major bearing manufacturer. We can provide clients with professional bearing application solutions. In china, we have many famous clients, such as the one of Chinese largest manufacturer of steel- CIMC, Japanese TV manufacturer-TOSHIBA and electrical machinery manufacturer- FUJI ELECTRIC and so on. We not only won widespread praise in the domestic market, also gain the recognition of foreign market, such as Britain, Africa and southeast Asia market

Our goal is to cooperate with leading domestic and international enterprises to develop in win-win model and create a mutually beneficial future.

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#### Sales of different goods



deep groove ball bearings pillow block bearings aligning ball bearing aligning roller bearing thrust roller bearings thrust ball bearings angular contact bearing cylidrical roller bearings taper roller bearings linear bearings









### Deep groove ball bearing

Deep groove ball bearings belongs non-separable bearings. They mainly bear radial load and also bear certain axial load. Such kind of bearings have features of small friction coefficient, high speed limit and diversified dimensional range and type.

SUNBEARING deep groove ball bearing are used as locating bearings in equipments of iron-rolling mill and are often used at drive end of roller.

Series	Bore Diameter : mm	Variant Structure
61800	110~1280	Z、2Z、RZ、2RZ
61900	100~1280	Z、2Z、RZ、2RZ、 N、NR、ZN、RZN
16000	100~1000	
6000	100~1180	Z、2Z、RZ、2RZ RS、2RS、N、NR、ZN、RZN
6200	100~400	Z、2Z、RZ、2RZ RS、2RS、N、NR、ZN、RZN
6300	100~400	Z、2Z、RZ、2RZ RS、2RS、N、NR、ZN、RZN
6400	100~400	N, NR

### Aligning roller bearings

Aligning roller bearings have two rows of roller, so generally they can bear bigger radial load. Outer and inner rings matched the aligning roller which have property of automatic aligning. SUNBEARING has many series of aligning roller bearings. They can be used in a variety of load and speed applications. In this series of product include two main designs: CJ series and YM/ YMB series. About the inner of CJ series, it has a windowed, sheet metal pressed and steel making cage. They have long life and load capacity. About the inner of YM series, it has the cage supported by the roller and with the precision production for the harsh application.

Series	Bore Diamete	Variant Structure
22200	100~400	K、/W33、K/W33
22300	100~400	K、/W33、K/W33
23000	100~1180	K、/W33、K/W33
23100	100~1180	K、/W33、K/W33
23200	100~800	K、/W33、K/W33
24000	100~1180	K、/W33、K/W33
24100	100~1180	K、/W33、K/W33
23900	180~1180	K、/W33、K/W33
23800	180~1180	K、/W33、K/W33
21300	120~800	K、/W33、K/W33
	Seal Struct	ure
All Series	100~1180	K、/W33、K/W33
	Split type	e
SSRB	120~1120	



### Cylindrical roller bearings

Cylindrical roller bearings belong to separable bearings. They are mainly used for medium and large sized power generator, internal combustion engine, combustion turbine, machine tool spindle, reduction gear, loading and transporting machine and each kind of industrial machinery. Split cylindrical roller bearings are mainly used for crank and the position where bearings are difficult to be installed and are mainly used for fields such ad cold rolling mill crank of pigg steel tube, spine shaft, excavator, transmission mast of rolling mill and large sixed ventilation equipment. SUNBEARING also can provide special single row cylindrical roller bearing for vibrating screen or

other oscillating machinery, adopting turned solid brass cage. Radial clearance often adopts C4 group.

Full complement cylindrical roller bearings are designed to bear heavy load. Under same width , such bearings have extremely high bearing capacity, small radial cross section and saving space but relatively low rotation speed compared with traditional bearings with cage





Series	Bore Diameter	Variant Structure	Series	Bore Diamete	Variant Structure				
	Sing	gle row	NNU4100	100~1180	Kv/W33vK/W33				
200E	80~1120	N、NF、NJ、NU、NUP	NNU4800	100~1180	K\/W33\K/W33				
300E	80~1120	N、NF、NJ、NU、NUP	NNU4900	100~1180	K\/W33\K/W33				
400E	100~1120	N、NF、NJ、NU、NUP		Sir	ngle row				
1000E	100~1120	N、NF、NJ、NU、NUP	1800V	150~1000	NC、NCF、NJ				
1900E	150~1120	N、NF、NJ、NU、NUP	2300V	80~1000	NC、NCF、NJ				
2900E	150~1120	N、NF、NJ、NU、NUP	2800V	80~1000	NC、NCF、NJ				
3800E	300~1120	00~1120 N\NF\NJ\NU\NUP		80~1000	NC、NCF、NJ				
2200E	100~1120	N、NF、NJ、NU、NUP	3000V	80~1000	NC、NCF、NJ				
2300E	100~1120	N、NF、NJ、NU、NUP		uble row					
	Single ro	w, Split type	4800V	00V 150~530 NNC,NNCF,NN					
SCRB	220~1120		4900V	80~530	NNC、NNCF、NNCL、NNF				
	Dou	ble row	5000V	80~530	NNC、NNCF、NNCL、NNF				
NN3000	100~1180	K\/W33\K/W33							



### **Double row angular contact ball bearings**

Double row angular contact ball bearings can bear bigger radial and axial joint load and moment load with radial load as main subject. They are mainly used in parts limiting bi-directional axial displacement of shaft or housing.

Series Contact Angle	Mm Bore Diameter
ß=30°	
3200A	100~400
3300A	100~400
ß=40°	
4000/DC	120~600
4900/DC	160~600
ß=50°	
4000D	120~600
4900D	160~600

## Spherical roller thrust bearings

Spherical roller thrust bearings are separable bearings. Roller is spherical ; housing washer raceway is spherical. They have performance of aligning, very big ability of bearing axial load, and can also bear some radial loads at the same time. Oil lubrication is often adopted. They are mainly used for hydro power generator, vertical motor, screw shaft used for ship, tower crane and extruder etc.

Series	mm Bore Diameter
29200E	100~1180
29300E	100~950
29400E	100~950





## Tapered roller bearing

Taper roller bearings are mainly used for radial and axial joint load with radial load as main subject. Axial load capacity relies on raceway angle of outer ring: the bigger the angle is, the bigger the bearing capacity is. Outer ring can be separated and can be easily assembled. During installing and using process, axial clearance and radial clearance can be adjusted and pre-interference installation can be allowed.

When double row taper roller bearings bear radial load, they also can bear bi-directional axial load and can limit bi-directional axial displacement of shaft or housing within axial clearance of bearings. They are generally applicable to the site of medium and low speed.

SUNBEARING taper roller bearings play an essential role in reducing the time downtime, extending the life and ensuring effective operation of equipment.







Series	Bore Diameter mm)	Series	Bore Dismeter (mm)						
Single row.	Metric series	Single row , Metric series							
		350600	100~1250						
32900	120~1270	351000	300~1250						
32000	100~1270	351100	300~1250						
30200	100~1270	351900	300~1250						
30300	100~1270	352000	120~1250						
31300	120~1270	352100	110~1250 100~1250						
		352200							
32000	100~1270	352900	130~1250						
32200	100~1270	Single row,	Inch series						
32300	100~1270	IDTB	152.4~939.8						
33000	100~1270	Double row, S	Seal structure						
33100	100~1270	Whole dimensional range	100~1250						
	100~1270	Double row with s	teep contact angle						
33200	100~1270	DTSA	200~900						
Single row,	Inch series	Double row, Inch series with tapered bore							
Whole dimensional range	101.6~1016	IDTT	152.4~571.5						



## Four row taper roller bearings

Four row taper roller bearings are one of three leading products of SUNBEARING rolling mill bearings and are widely applied to intermediate roll, work roll and backup roll in production lines such as hot rolling, cold rolling , section steel and rod wire steel. This type of bearing can be used for both fixed and floating ends. SUNBEARING newly development with out spacer ring and sealed four row taper roller bearings have already successfully substituted world famous brand of bearings in large scale steel and iron enterprises at home and abroad, making customers more perfectly experience professionalism of SUNBERING rolling mill bearings and the most rational cost performance.



Series	Bore Diameter(mm
Metric	cseries
380600	200~1060
381000	200~1060
381100	200~1060
381900	200~1060
382000	140~1060
382900	150~1060
Inch	series
IFTB	120.065~1250
Seal str	ructure
SFTB	152.4~863.6
Without space	r ring structure
FTWS	260.35~762

### Pillow block bearings

Pillow block bearings constitute by insert bearing and bearing block. The working principle of pillow block bearings is basically same as deep groove ball bearings. Pillow block bearings have performance of automatic aligning. The frame of many main engines can be processed by profiled bar or welded, which not only change the performance of machinery but also reduce the cost. SUNBEARING is good at the production of pillow block bearings. SUNBEARING pillow block bearings have a wide application in the agriculture and the light industry machinery.





### 带座外球面轴承配套图表

	轴承座 名 称▶	铸 造 立式座	铸造高中心 立式座	铸 造 窄立式座	铸 造 方形座	铸造可调 菱形座	铸造可调 菱形座	铸造凸台 圆形座	铸 造 滑块座	铸 造 环形座	铸 造 悬挂式座	铸 造 悬吊式座	铸造凸台 方形座	铸 造 窄菱形座	铸 造 三角形座	冲 压 立式座	冲 压 圆形座	冲 压 三角形座	冲 压 菱形座
轴承 名称 ▼	简 图 ► 代 号 ►	A				0	0	0	D	0	Ø	$\mathbf{Q}$		Ø	0	A	0	۵	0
	•	P(Z)	PH (ZH)	PA (ZA)	FU F	FLU (L) FL	FA ( LA )	FC (TY)	К Т (К)	С(Ү)	FB (LB)	HA	FS ( TF )	LF (LC)	FT(S)	FP (CZ)	PF (CY)	PFT (CS)	PFL(CL)
	UC200 ( 90500 )	UCP200 (Z90500)	UCPH200 (ZH90500)	UCPA200 ( ZA90500 )	UCFU200 UCF200 ( F90500 )	UCFLU200 UCFL200 ( L90500 )	UCFA200 ( LA90500 )	UCFC200 UCT300 ( TY90500 )	UCK200 UCT200 ( K90500 )	UCC200 (Y90500)	UCFB200 (FB90500)	UCFA200 ( HA90500 )		UCLF200 (LC90500)	UCFT200 ( S90500 )	UCPP200 (CZ90500)	UCPF200 (CY90500)	UCPFT200 (CS90500)	UCPFL200 ( CL90500 )
带顶 丝 球 球 球 承	UC300 ( 90600 )	UCP300 ( Z90600 )			UCFU300 UCF300 ( F90600 )	UCFLU300 UCFL300 ( L90600 )			UCK300 UCT300 ( K90600 )	UCC300 ( Y90600 )			UCFS300 (TF90600)						
	UB200 ( 90200 )	UBP200 ( Z90200 )	UBPH200 (ZH90200)	UBPA200 ( ZA90200 )	UBFU200 UBF200 ( Z90200 )	UBFLU200 UBFL200 ( Z90200 )	UBFA200 (LA90200)	UBFC200 ( TY90200 )	UBK200 UBT200 ( K90200 )	UBC200 ( Y90200 )	UBFB200 (FB90200)	UBHA200 ( HA90200 )		UBFL200 (LC90200)	UBFT200 ( \$90200 )	UBPP200 (CZ90200)	UBPF200 (CY90200)	UBPFT200 (CS90200)	UBPFT200 (CL90200)
	UEL200 ( 390500 )	UELP200 (Z390500)	UELPH200 (ZH390500)	UELPA200 ( ZA390500 )	UELFU200 UELF200 (F90500)	UELFLU200 UELFL200 ( L390500 )	UELFA200 ( A390500 )	UELFC200 ( TY390500 )	UELK200 UELT200 ( K390500 )	UELC200 (Y390500)	UELFB200 (FB390500)	UELHA200 (HA390500)		UELLF200 (LC390500)	UELFT200 (S390500)	UELPP200 (CZ390500)	UELPF200 (CY390500)	UELPFT200 (CS390500)	UELPFL200 (CL390500)
带偏 套球 球承	UEL300 ( 390600 )	UELP300 (Z390600)			UELFU300 UELF300 (F390600)	UELFLU300 UELFL300 ( L390600 )			UELK300 UELT300 ( K390600 )	UELC300 (Y390600)			UELFS300 (TF390600)						
	UE200 ( 390200 )	UEP200 (Z390200)	UEPH200 (ZH390200)	UEPA200 (ZA390200)	UEPU200 UEF200 (F390200)	UEFLU200 UEFL200 ( L390200 )	UEFA200 ( LA390200 )	UEFC200 ( TY390200 )	UEK200 UET200 ( K390200 )	UEC200 (Y390200)	UEFB200 (FB390200)	UEHA200 ( HA390200 )		UELF200 (LC390200)	UEFT200 (S390200)	UFPP200 (CZ390200)	UEPF200 (CY390200)	UEPFT200 (CS390200)	UEPFL200 (CL390200)
带紧定套	UK200+H ( 290500 )	UKP200+H (Z290500)	UKPH200+H (ZH290500)	UKPA200+H (ZA290500)	UKPU200+H UEF200+H (F290500)	UKFLU200+H UKFL300+H ( L290500 )	UKFA200+H (LA290500)	UKFC200+H ( TY290500 )	UKK200+H UKT200+H ( K290500 )	UKC200+H (Y290500)	UKFB200+H (FB290500)	UKHA200+H (HA290500)		UKLF200+H (LC290500)	UKFT200+H (S290500)	UKPP200+H (CZ290500)	UKPF200+H (CY290500)	UKPFT200+H (CS290500)	UKPFL200+H (CL290500)
定套球球和	UK300+H ( 290600 )	UKP300+H (Z290600)			UKFU300+H UKF300+H (F290600)	UKFLU200+H UKFL300+H ( L290600 )			UKK300+H UKT300+H ( K290600 )				UKTF300+H (TF290600)						

注:H为紧定套代号,配用时加在后面,括号中为旧代号。



### **Automatic** Equipment

#### Since 1999,

we have been committed to the production and processing of bearings, because of focus, so more professional. Used automated equipment to manufacture and make the professional production personnel, so that our enterprises is growing so fast. SUNBEARING Group produces over 30,000 kinds of bearings. Customized non-standard bearings ranging from an inner diameter of 100mm to an outer diameter of 2,000mm. We provide a complete product range covering large, medium and miniature.



### Manufacturer

### Workshop

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### **Outer RingProcessing** About our service

1. Since they are both rings of steel, the process starts with steel tubing of an appropriate size. Automatic machines similar to lathes use cutting tools to cut the basic shape of the race, leaving all of the dimensions slightly too large. They can be machined back to their finished size after heat treating.

2. The rough cut races are put into a heat treating furnace at about 1,550 degrees Fahrenheit (843 degrees Celsius) for up to several hours (depending on the size of the parts), then dipped into an oil bath to cool them and make them very hard. This hardening also makes them brittle, so the next step is to temper them. This is done by heating them in a second oven to about 300 degrees Fahrenheit (148.8 degrees Celsius), and then letting them cool in air. This whole heat treatment process makes parts which are both hard and tough.3. After the heat treatment process, the races are ready for finishing. However, the races are now too hard to cut with cutting tools, so the rest of the work must be done with grinding wheels. At this point, the races are finished, and ready to be put together with the balls.

### **Roller & ball**





#### cold heading or hot heading

The balls are a little more difficult to make, even though their shape is very simple. Surprisingly, the balls start out as thick wire. This wire is fed from a roll into a machine that cuts off a short piece, and then smashes both ends in toward the middle. This process is called cold heading. Heat upsetting, is the use of medium-frequency heating furnace, anti-raw material heating to about 700 ~ 800 degrees, in the punch forming.

#### BEARING ROLLER PROCESSING

The heat treatment process for the balls is similar to that used for the races, since the kind of steel is the same, and it is best to have all the parts wear at about the same rate. Like the races, the balls become hard and tough after heat treating and tempering.

After heat treatment, the balls are put back into a machine that works the same way as the flash remover, except that the wheels are grinding wheels instead of cutting wheels. These wheels grind the balls down so that they are round and within a few ten thousandths of an inch of their finished size. After this, the balls are moved to a lapping machine, which has cast iron wheels and uses the same abrasive lapping compound as is used on the races. Here, they will be lapped for 8-10 hours, depending on how precise a bearing they are being made for. Since again, the result is steel that is extremely smooth.



### **BEARING ROLLER PROCESSING** About the project

# → Our Cage



### CAGE

Cage making and product line

### Stamped cage

Steel cages are stamped out of fairly thin sheet metal, much like a cookie cutter, and then bent to their final shape in a die. A die is made up of two pieces of steel that fit together, with a hole the shape of the finished part carved inside. When the cage is put in between and the die is closed, the cage is bent to the shape of the hole inside. The die is then opened, and the finished part is taken out, ready to be assembled.

### Solid Brass Cage

This type of cage has the ability to absorb shocks. Since brass is soft, it has got a self lubricating property. Secondly brass has a unique property of self adjusting.











# Bearings Packing

Now that all of the parts are made, the bearing needs to be put together. First, the inner race is put inside the outer race, only off to one side as far as possible. This makes a space between them on the opposite side large enough to insert balls between them. The required number of balls is put in, then the races are moved so that they are both centered, and the balls distributed evenly around the bearing.

At this point, the cage is installed to hold the balls apart from each other. Plastic cages are usually just snapped in, while steel cages usually have to be put in and riveted together. Now that the bearing is assembled, it is coated with a rust preventative and packaged for shipping.





#### SERVICE 01

Commercial packaging: 1pc/plastic bag + color box + carton + pallet

SERVICE 02 Industrial packaging: a). plastic tube + carton + pallet; b). plastic bag + kraft paper + carton + pallet

SERVICE 03 Customized packaging solutions according to customers' requirements

SERVICE 04 High quality rubber cover: waterproof, wear-resisting, high temperature resistant, corrosion resistance

# Mining industry Application

SUNBEARING through in-depth understanding of the mining industry, targeted integration of mining system and equipment accessories, mainly including bearings, seals, etc., can meet the different needs of mining industry equipment. High-quality and reliable transmission products, timely professional technical services, convenient and efficient one-stop business platform. SUNBEARING is the mining company's preferred choice for driving product solutions.

#### **Roller Press**



Squeeze roller support: cylindrical roller bearing



Rig Main bear rolle Walk

Main Transmission Mechanism : Cylindrical roller bearing, ball bearing, pillow block bearing, aligning roller bearing

Walking mechanism: tapered roller bearing





Roller support :ball bearing

Rolling support: Pillow block bearing



SUNBEARING high-end power product integration solution provides metallurgical manufacturing enterprises with high-quality spare parts required for equipment maintenance, helps enterprises save the cost of procurement and supply management of spare parts, and ensures the stable operation of production. Bearing legacy brands, premium products, and timely and professional technical services, SUNBEARING is the metallurgical enterprise's best choice to seek solutions for transmission products.

Squeeze roller support: cylindrical roller bearing



Support roller bearing: Four row cylindrical roller bearing, four row tapered roller bearing, double row tapered roller bearing Work roll bearing: four row tapered roll bearing, double row taper bearing, Thrust spherical roller bearing



Roller support: aligning roller bearing or pillow

block bearing



# Mining industry Application

**Blast furnace blower** 



**Cold rolling mill** 



**Roller bed** 



## Why choose us?

We know the situation of bearing industry very well. In China, we used to match bearing for many mechanical equipment. With rich experience in bearing supporting, such as engine bearing, engine accessory bearing, transmission bearing, dental bearing, YO-YO bearing, mining machinery bearing agriculture machinery bearing food machinery bearing and etc. We can match high-quality bearing products for customers and save costs, which is our biggest advantage.

### Professional cage production enables us to reduce costs and improve quality of important factors

#### They all choose us



In March, 2001, successfully cooperated with Konica (Dalian) co., LTD.

### TOSHIBA

In 2001, Cooperation with Toshiba TV (Dalian) co. LTD



In March ,2001, Cooperation with Fuji electric (Dalian) co. LTD.



In April,2003,Cooperation with TDC cutting tools (Dalian) co. LTD



In April 2005, cooperation with Dongbei Special Steel Group Co., Ltd. (DSSC)(Dalian) co. LTD.



On July 8,2006, cooperation with Tianyu company in Ningbo



#### They all choose us

On January 1,2011, signed agent of TIMKEN bearings in southern Liaoning with

In March.2013.establish cooperation with CIMC (Dalian) container co. LTD.

In July,2013, establish cooperation with Dalian Hongyuan aluminium company

On February 2 ,2014, sign contract with Dongguan KIRIN machinery company

In May ,2014,cooperation with Giantech (Dalian) automobile parts company

In July ,2014,cooperation with Liwa (Dalian) pump company limited.

In March,2017,sign to be agent of the chain with Hangzhou Unibear company

In March,2017,cooperate with ETDZ Senggang machinery company.



## My Clients

Every year there are different customers to visit factory, customers from different countries, different color, different languages are bearing quality pursuit, in order to obtain high quality bearing products, we adhere to the "first-class brand, quality service", and cooperate with the world well-known brand, TIMKEN (USA), SKF (Sweden), FAG (Germany), etc.

Through continuous market research and product upgrading, SUNBEARING can better serve you!

## **Exhibition**

SUNBEARING has taken part in many exhibitions and enjoys a high reputation in China. It also takes part in large exhibitions in Shanghai, Guangzhou, Shenzhen and other cities. SUNBEATING is located in Dalian. Because of its geographical location, in the exhibition of Dalian, we are more famous. Many foreign customers come to know us through exhibitions and form longterm cooperative relations.

SUNBEARING has adhered to do everything for the customers, to satisfy the customers and to serve the customers. We will spare no efforts to provide high quality products, advanced technology and perfect service.











## My Clients

Our team is not only at the forefront of the industry in terms of technology, we pay more attention to the communication with customers, the accuracy and timeliness of product expression. Professional technicians and professional communicators make up an excellent team. We sincerely serve you!







