国家高新技术企业
National High-Tech Enterprise

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Since
1992

Company 公司简介 Introduction

企业使命 / Corporate mission

让客户的运转更精准。

Make the operation of customer’ s equipment more accurate.

企业愿景 / Corporate vision

以工匠精神做中国具有技术含量的特大型轴承。

Carry forward craftsman spirit, Manufacture the high technical super-large bearings.

企业目标 / Corporate objective

一流的产品，一流的服务，

一流的管理，一流的企业。

First-class products, first-class service,

First-class management, first-class enterprise.

企业内涵 / Corporate connotation

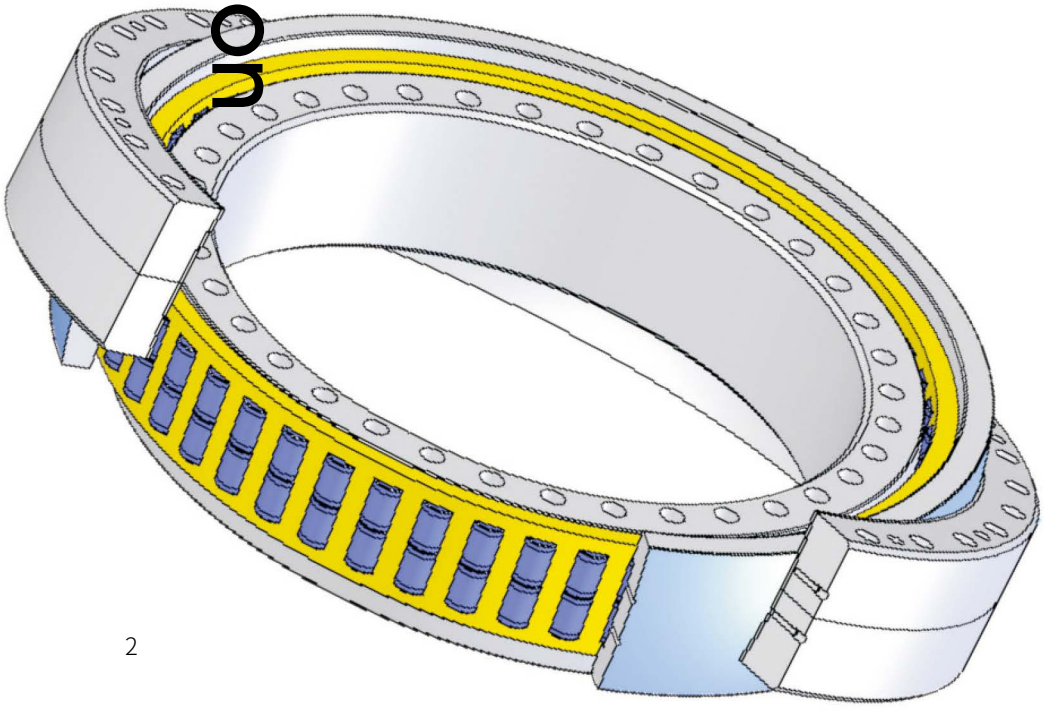
特别品质，重在技术。

Special quality, Focus on technology.

企业精神 / Corporate spirit

攻坚克难，创新高效，责任担当。

Overcome difficulties, innovation and efficiency, Take responsibility.



公司概况 /Overview

洛阳特重轴承有限公司始建于 1992 年，是一家专业研发、生产、销售特大型轴承、薄壁精密轴承、非标精密轴承等相关产品的专业企业。公司坚持“让客户的运转更精准”这一使命，不断创新发展，先后被评为国家高新技术企业、国家科技型中小企业、河南省科技型中小企业、河南省专精特新中小企业、河南省首批创新型中小企业。成立了河南省高承载轴承工程技术研究中心、河南省企业技术中心、洛阳市企业技术中心、洛阳市高承载轴承工程技术研究中心，同时还是上海起重机械工程协会会员单位、北京盾构机工程协会理事单位。

Luoyang Heavy-duty Bearing Co.,Ltd(LTZC) was founded in 1992, is a professional enterprise with R & D, production and sales for large bearings,thin section bearings,non-standard precision bearings,and related products. The company insists on the mission of "making the operation of customer’ s equipment more accuracy", constantly innovates and develops, and has been rated as national high-tech enterprises, national science and technology enterprise, science and technology enterprise in Henan Province, specialized and special new enterprise in Henan Province, and the first batch of innovative enterprise in Henan Province. Henan Province High load bearing Engineering Technology Research Center, Henan Province Enterprise Technology Center, Luoyang City Enterprise Technology Center, Luoyang City high load bearing Engineering Technology Research Center, is also a member of Shanghai lifting machinery Engineering Association, Beijing shield machinery Engineering Association governing unit.

主导产品/ Main Products

转盘轴承 / 回转支承、非标精密轴承、薄壁精密轴承、轧机轴承，与轴承相关的单元总成，特大型精密轨道，机床转台轴承等。产品加工范围为外径 :30mm-10000mm。

Slewing bearings, non-standard precision bearings, thin section bearings,rolling mill bearings, bearing related unit assembly, extra large precision track, machine tool turntable bearings,etc. The product processing range is outer diameter :30mm-10000mm.

产品精度 /Product Accuracy

产品精度涵盖了 P0、P6、P5、P4 四个等级。执行标准 : 通用轴承 GB/T307; 回转支承 JB/2300; 船行业 CB/T3669; 机械行业 JB/T10471; 风电轴承 JB/T10705

Product accuracy covers P0, P6, P5, P4 four levels. Implementation standard: universal bearing GB/T307; Slewing bearing JB/2300; Shipping industry CB/T3669; Machinery industry JB/T10471; Wind turbine bearing JB/T10705

加工能力 /Processing Equipment

1. 车工 :拥有 13 米、10 米、6 米、5 米、4 米、3.5 米、3.15 米、2.8 米、2.5 米、1.6 米高精度数控立车及专业立车磨头和卧式数控车床；
2. 磨工 :拥有 1.8 米、1.6 米数控立磨加工中心、2.5 米落地磨床、M74100/M74125 平面磨床、MSK7363/73125 数控卧轴圆台平面磨床、M280 内圆磨床、3MK240 数控精密内圆磨床、3MK2150 数控精密外圆磨床等；
3. 热处理：拥有 1.6 米 /2 米 /7 米数控淬火机、6 米稳定回火炉；
4. 齿轮：拥有 10 米、8 米、5 米、4 米、3 米滚齿机，10 米高速铣齿机，3.5 米、1.6 米、900 毫米、500 毫米数控插齿机及滚刀磨等设备。
5. 钻孔：拥有 5 米数控钻铣床、4 米、1.6 米数控钻床及 Z3050 钻床、Z3080 钻床；
6. 检验：拥有轮廓仪、硬化层深度检测仪、磁粉探伤机检测仪器等完备的检测设备。

1. Turning: with 13 meters, 10 meters, 6 meters, 5 meters, 4 meters, 3.5 meters, 3.15 meters, 2.8 meters, 2.5 meters, 1.6 meters of high-precision CNC vertical turning and professional vertical turning grinding head and horizontal CNC lathes;
2. Grinding: 1.8m, 1.6m CNC vertical grinding machining center, 2.5m floor grinding machine, M74100/M74125 surface grinding machine,MSK7363/73125 CNC surface grinding machines with horizontal wheel spindle and rotary table,M280 internal grinding machine, 3MK240 CNC precision internal grinding machine,3MK2150 CNC precision cylindrical grinding machine ,etc.
3. Heat treatment: 1.6 m /2 m /7 m CNC quenching machine, 6 m stable tempering furnace;
4. Gear: with 10 meters, 8 meters, 5 meters, 4 meters, 3 meters hobbing machine, 10 meters high-speed gear milling machine, 3.5 meters, 1.6 meters, 900 mm, 500 mm CNC gear shaper and hob grinding .
5. Drilling: with 5 meters CNC drilling and milling machine, 4 meters, 1.6 meters CNC drilling machine and Z3050 drilling machine, Z3080 drilling machine;
6. Inspection: It has complete testing equipment such as profile meter, hardening layer depth detector, magnetic particle flaw detection machine and so on.

应用领域 /Applications

港口机械、工程机械、船舶、国家重点项目、风力发电、水泥机械、石化、冶金、电力、矿山、航空航天、医疗器械、光栅编码器、雷达卫星通讯设备、惯导平台、飞机吊舱、机器人等。

Port machinery, engineering machinery, ships, national key projects, wind turbine, cement machinery, petrochemicals, metallurgy, electric power, mining, aerospace, medical equipment, grating encoder, radar satellite communication equipment, inertial navigation platform, aircraft pods, robots, etc.

产品出口 /Export

美国、意大利、印度、澳大利亚、韩国等十余个国家。

The United States, Italy, India, Australia, South Korea etc.

QUALITY Control 质量控制

质量标准 /Quality Standard

我公司于 2003 年通过了 ISO9001 质量体系认证。执行标准：通用轴承 GB/T307；回转支承 JB/2300；船舶行业 CB/T3669; 机械行业 JB/T10471；风电轴承 JB/T10705。

Our company passed the ISO9001 Quality System Certification in 2003. Operative standard:universal bearing GB/T307; slewing bearing JB/2300; vessel industry CB/T3669; machinery industry JB/T10471; wind turbine bearing JB/T10705.

质量方针 / Quality Policy

质量第一　用户至上
持续发展　不断创新

Quality First, User First

Continuous Development, Continuous Innovation

质量目标 /Quality Objective

关键工序、特殊工序受控率 100%;
一次性产品交验合格率 98%;
产品出厂合格率 100%;
顾客满意度 98%。

100% control rate of key processes and special processes;

98% of inspection pass rate of disposable product;

100% product ex-factory pass rate;

98% of customer satisfaction rate.

Production
Equipment 生产设备

MX-1800 立式数控磨床加工中心
MX-1800 Vertical CNC grinding machine processing center

1.6m 数控立磨加工中心
1.6m CNC vertical grinding processing center

1.6m 精密数控钻床
1.6m precision CNC drilling machine

数控精密卧式车床
1.6m CNC precision horizontal lathe

3MK240 数控精密内圆磨床
3MK240 CNC precision internal grinding machine

MSK7363 数控卧轴圆台平面磨床
MSK7363 CNC surface grinding machines with horizontal wheel spindle and rotary table

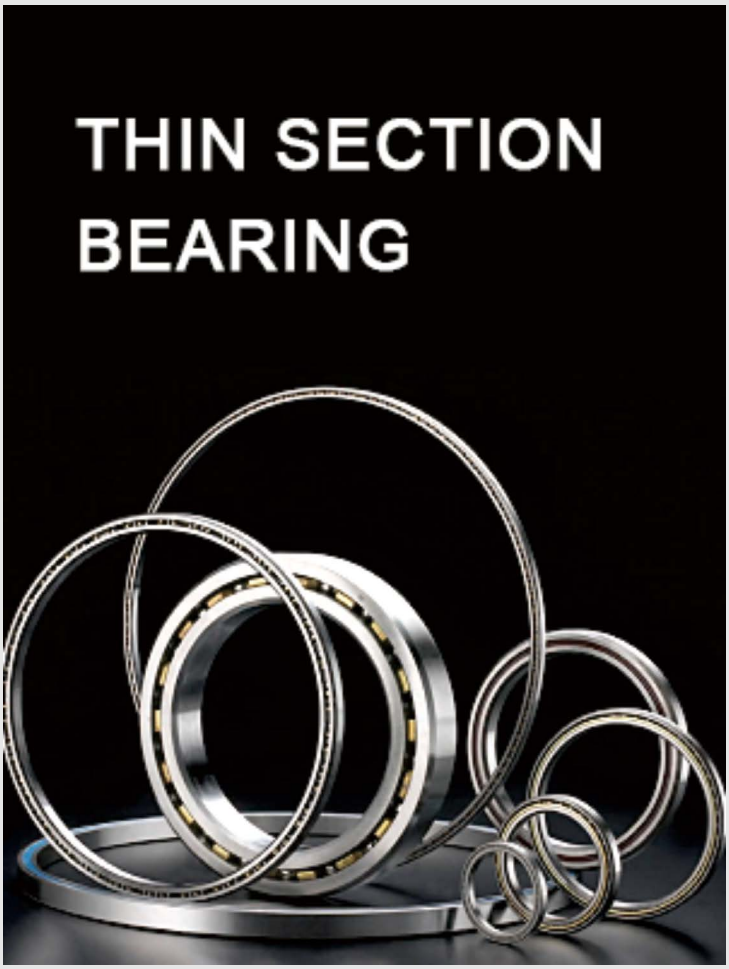
500mm 数控插齿机
500 mm CNC gear shaper

800mm 数控插齿机
800 mm CNC gear shaper

超薄壁精密轴承
Thin section bearings

近年来为满足客户日益轻量化的需求，公司开始开发精密薄壁轴承的研发与制造，主要替代国外进口品牌 KAYDON 和 ADR, 已经应用于中国航空工业、中国电子科技集团、中国船舶重工集团旗下各所的航空航天光电导航领域。产品精度、预载荷，摩擦力矩等指标均达到与国外同等水平，成功实现了国产化替代。

In recent years, in order to meet customers' increasingly lightweight needs, the company has begun to develop and manufacture precision thin section bearings, mainly replacing foreign bearings.Imported brands KAYDON and ADR have been used in aviation industry of China, China Electronics Technology Group and China Shipbuilding Industry Corporation.The fields of aerospace optoelectronic navigation of various institutes. Product accuracy, preload, friction torque and other indicators have reached the same level as foreign countries. Successfully achieved localized substitution.



超薄壁精密轴承主要分为三种结构：

Thin section bearings are mainly divided into three structures:

●深沟球轴承：主要承受径向载荷，同时可以承受不大的轴向载荷。

Deep groove ball bearings:mainly bear radial load, and can bear small axial load at the same time.

●角接触球轴承：相较于深沟球轴承，装入了更多的滚动体，所以可以承受更大的径向载荷和一个方向的轴向载荷，一般配对使用，面对面配对或背对背配对使用时可以承受两个方向的轴向载荷，单个使用时必须消除轴向游隙。

Angular contact ball bearings: Compared with deep groove ball bearings, more rolling elements are installed,so they can withstand greater radial loads and axial loads in one direction; they are enerally used in pairs, face-to-face or back-to-back. It can withstand axial loads in both directions; when used alone, axial clearance must be eliminated.

●四点接触球轴承：滚道形状为桃形沟结构，每个滚道与钢球有两个接触点，此结构可同时承受径向、轴向、力矩载荷，尤其是添加预载荷以后，该结构刚性非常好。但季擦力矩较大。并且此类轴承不能配对使用。

Four-point contact ball bearings: The raceway shape is a peach-shaped groove structure. Each raceway has two contact points with the steel ball. This structure can withstand radial, axial and moment loads at the same time; especially after adding preload, The structure is very rigid. But the friction torque is larger. And such bearings cannot be used in pairs.

机载、车载、舰载光电转塔设备

Airborne, vehicle-mounted and ship-borne photoelectric turret equipment

2022 年后，我公司逐步参与到光电导航超薄壁的国产化替代项目，主要替代美国 kaydon 和法国 ADR 的轴承型号。

After 2022, our company will gradually participate in the localization replacement project of ultra-thin wall photoelectric navigation, mainly replacing the bearing models of American Kaydon and French ADR.

轴承主要应用于方位和俯仰两个位置。

Bearings are mainly used in two positions: azimuth and pitch.

经过测试，轴承精度达到 P4 和 P2 级别，并通过了载荷、高低温等多项测试，目前已经开始正式投产使用。

After testing, the bearing accuracy reached P4 and P2 levels, and passed multiple tests such as load and high and low temperature. It has now been officially put into production.

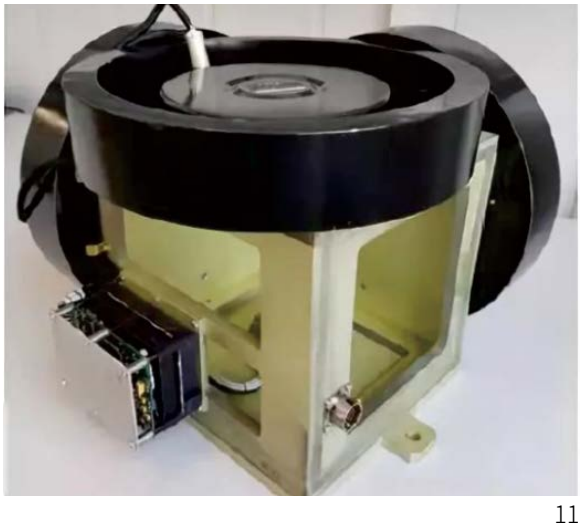
惯性导航陀螺仪
Inertial navigation gyroscope

陀螺仪是惯性导航中的核心部件之一，陀螺仪基本上就是运用物体在高速旋转时，角动 量会很大，旋转轴会一直稳定指向一个方向的性质为依据，用它来保持一定的方向，制造出 来的定向仪器。不过它必需转得够快，或者惯量够大（也可以说是角动量要够大）。不然，只 要一个很小的力矩，就会严重影响到它的稳定性，所以设置在飞机、飞弹中的陀螺仪是靠内 部所提供的动力，使其保持高速转动的。

The gyroscope is one of the core components in inertial navigation. The gyroscope basically uses the property that when an object rotates at high speed, the angular momentum will be very large, and the rotation axis will always point stably in one direction, and it is used to maintain a certain direction. , the directional instrument manufactured. But it must rotate fast enough, or the inertia must be large enough (it can also be said that the angular momentum must be large enough). Otherwise, only a small torque will seriously affect its stability. Therefore, the gyroscopes installed in aircraft and missiles rely on the power provided internally to keep them rotating at high speed.

所以既要保证轴承可以高速运转，又要保证角度摆动和力矩波动，为了满足客户精度和空间的双重要求，我们可以定制轴承或者轴系集成来满足客户要求。

Therefore, it is necessary to ensure that the bearing can operate at high speed, but also to ensure angular swing and torque fluctuation. In order to meet the dual requirements of customer accuracy and space, we can customize bearings or shaft system integration to meet customer requirements.



卫星激光通信部位
Satellite laser communication part

激光通信技术的主要应用场景有星间、星空、星地、空空、空地与地地这六大激光通信，并逐渐向深空探测、水下通信扩展，用途越来越广。由于激光通信链路具有通信速率高、方向性强、保密性好、组网灵活以及终端体积小、重量轻、功耗低等特点，而且在大气中尚未突破技术瓶颈，所以目前在星间大量使用。

The main application sce-narios of laser communication technology include six major laser communications: in-ter-star, starry sky, star- to- ground, air-to- air, air-to- ground and ground- to-ground laser communica-tions. It has gradually expanded to deep space exploration and underwater communications, and its uses are becoming more and more widespread.Since laser communication links have the characteristics of high communi-cation rate, strong directionlity, good confidentiality, flexible net-working, small terminal size, light weight, and low power consump-tion,and have not yet broken through the technical bottleneck in the atmosphere, they are currently used in large numbers among satellites. use.

卫星等真空环境应用轴承和超低温应用轴承一般采用 MoS2 固体润滑，在滚道和钢球表面溅射 MoS2 达到润滑的目的，可以只对钢球或滚道镀膜，也可以钢球滚道都镀膜。

Bearings used in vacuum environments such as satellites and bearings used in ultra-low temperature applications generally use MoS2 solid lubrication. MoS2 is sputtered on the surfaces of the raceways and steel balls to achieve lubrication. Only the steel balls or raceways can be coated, or both steel ball and raceways can be coated.

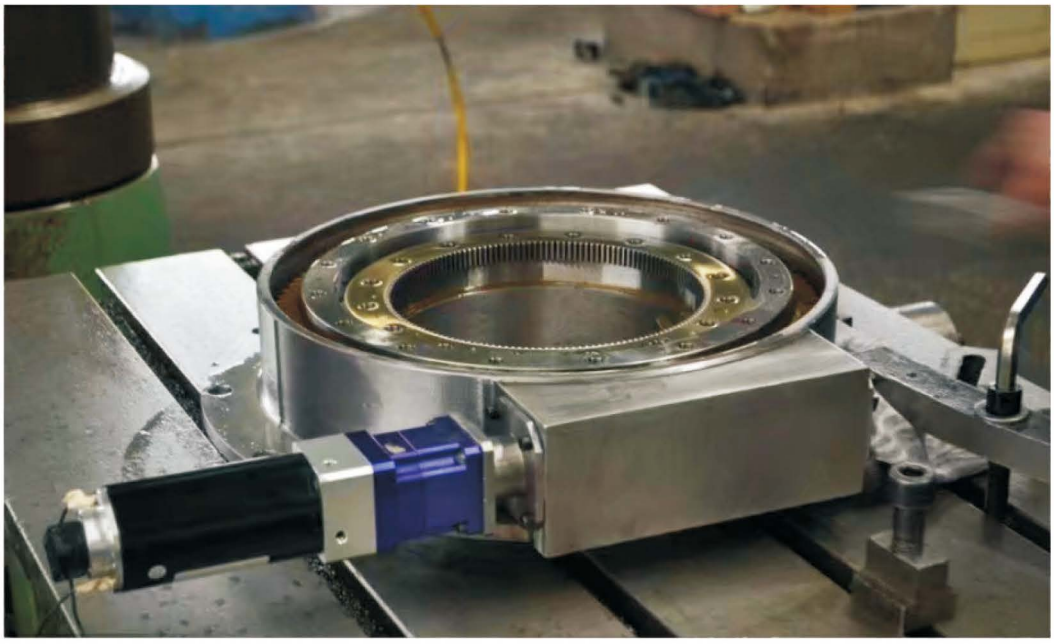
ASKAP 射电望远镜基座转盘轴承
Base Slewing Bearing for ASKAP Radio Telescope

2010 年 7 月开始，此轴承批量生产，应用于澳大利亚广场干米探路者 (ASKAP) 射电望远镜项目。

型号为 : 013.35.1400.03K
结构为 : 内齿四点接触球轴承
外径为 : Φ1540mm

We provided this kind of bearings with the outer diameter 1540 mm for ASKAP Radio Telescope in Australia in July, 2010.The model was 013.35.1400.03K, and the structure was Four-point contact ball bearing with inner teeth.

雷达精密转盘轴承及单元总成
Radar precision slewing bearing and unit assembly

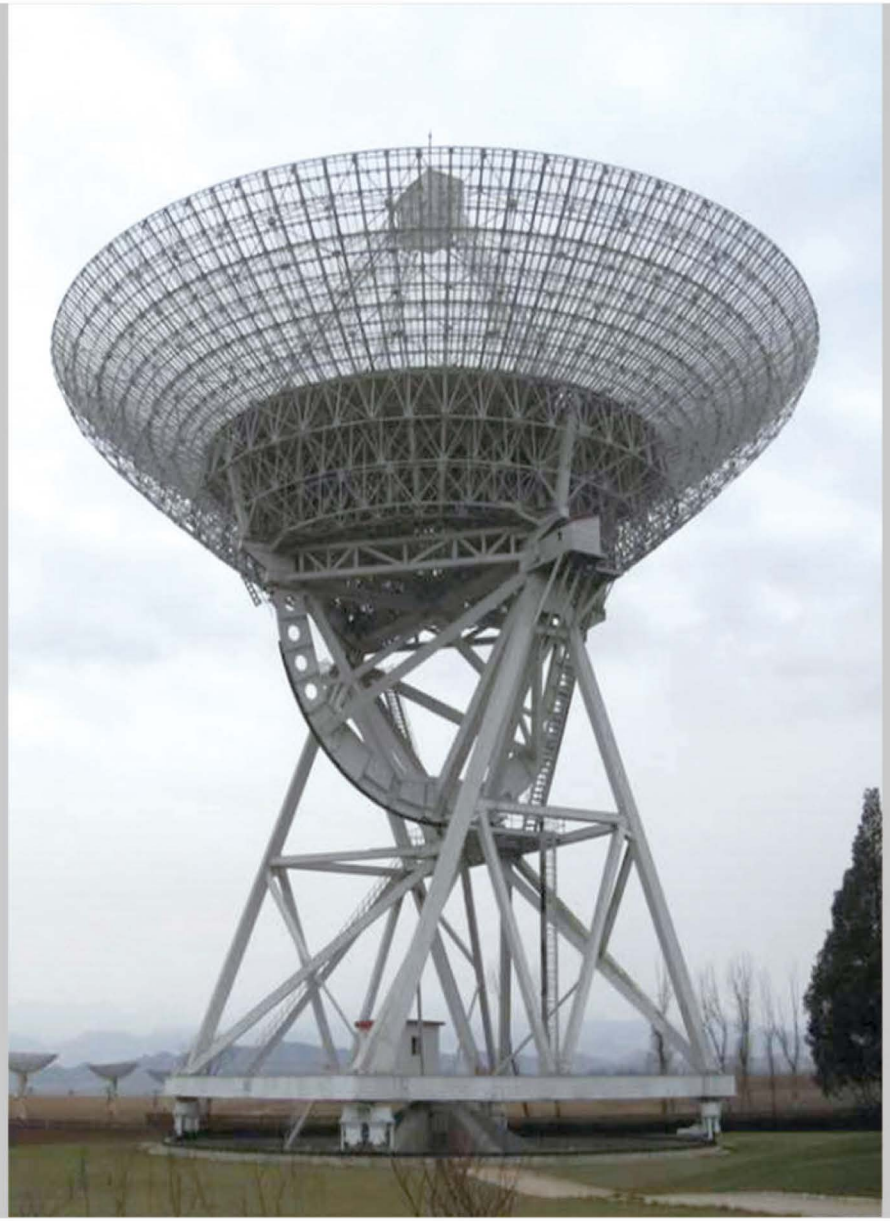


2009 年 10 月 1 日，在天安门广场的阅兵典礼上，我公司生产的精密小转盘轴承安装在 16 辆“通信兵方队”车载雷达上，接受了胡锦涛总书记等国家领导人的检阅。

Our precision small slewing bearings which were installed on vehicle radar of the 16 vehicles,were reviewed by the national leaders at the military parade at Tiananmen Square On October 1st , 2009.

“嫦娥奔月”地面卫星 50 米天线基座及轴承

50 meters antenna base and bearing of the ground satellite "Chang 'e Flying to the moon"



2005 年，我公司生产的“嫦娥奔月”地面卫星 50 米天线中心定位基座及其精密轴承 (外径为 1950mm)，安装在北京密云水库，是当年亚洲最大直径的天线项目。

In 2005, our company produced the "Chang E Ben Yue" ground sat-ellite 50-meters antenna center alignment base and its precision bearing, OD 1950mm , installed at Miyun Reservoir in Beling, was the largest antenna project in Asia in that year.

65 米天线基座、轴承及特大型精密轨道

65m Antenna Base, Bearing and Super Precision Track

2010 年至 2011 年，我公司又承接了 65 米射电望远镜天线基座及轴承、枢轴轨道等的设计生产任务，它是当年亚洲最大直径的天线项目。

In 2010-2011, our company undertook the design and production tasks of the 65-meterradio telescope antenna base, It is the largest diameter antenna project in Asia at that time.

上海 65 米射电望远镜天线主反射面的直径为 65 米，直径为 42 米的轨道实现整体焊接，整个天线重约 2640 吨，距地面高度约 70 米。

The diameter of the main reflector of the 65-meter radio telescope was 65 meters. The entire antenna weight was about 2,640 tons and the height above the ground was70 meters. The 42m-diameter track achieves overall welding which was a big challenge.

上海 65 米射电望远镜属于亚太第一。它承担我国的探月工程任务及后来的各项深空探测任务，同时将在天文学研究人才培养中发挥重要作用，进一步提升我国射电天文研究的国际地位。

Shanghai 65 meters radio telescope belongs to the Asia-Pacific First. it takes on thetasks of the lunar exploration project and various deep space exploration tasks. At thesame time, it will play an important role in the cultivation of astronomy research talentsand further enhance the international status of radio astronomy research in China.

轨道制造中 ▼
Orbital manufacturing

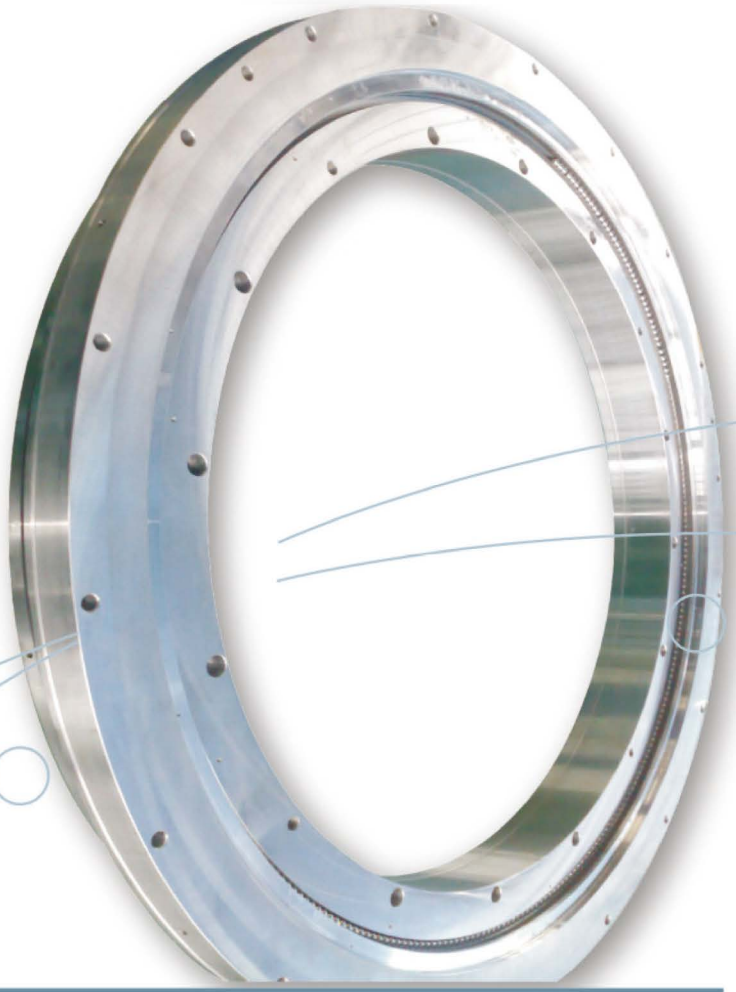
Φ2500mm 精密轴承 ▲
Bearing Φ2500/P5

天线基座安装现场 ▲
Installation site of antenna base

▲ 直径为 42 米的轨道实现整体焊接
The 42m-diameter track achieves overall welding

65 米天线落成 ▲
65m Antenna completed

观文台、天文射电望远镜基座轴承
Base Bearing for Observatory & Astronomical Radio Telescope



2009 年下半年为中科院某光机所生产的观文台、天文射电望远镜基座轴承型号为 020.36.1500.13，结构为双排异径角接触球转盘轴承，外径为 1700mm，端面跳动和径向跳动都达到 0.015mm，得到了用户的高度评价。

We provided base bearings for observatory & astronomical radio telescope for an institute of optical precision machinery of Chinese Academy of Sciences. The structure is a double-row different. angle angular contact ball slewing bearing with OD 1700mm, and 0.015mm of face run-out and radial run-out. This bearings were highly appraised by the customer.

远望号”监测船用轴承

Marine Bearings for "Yuan Wang" Monitoring Ship

2002 年生产的“神五”“神六”号飞船的海上“远望号”监测船主控雷达 3-818 外径为 2154.6mm，双列推力向心球轴承。

2011 年开始，为中国电子科技集团公司成功研制了远望号监测船雷达轴承型号 :AJ6.332.2019.

主要特点 : 精度 P5 级，齿轮精度 7 级，负游隙、防腐处理。

We provided bearings with the outer diameter of 2154.60mm for the main control radar on "Yuan Wang" monitoring ship which served for Shenzhou V Spacecraft and Shenzhou VI Spacecraft in 2002.

We developed radar bearing model AJ6.332.2019 on Yuan Wang monitoring ship for China Electronics Technology Group Corporation from 2011.

Its main features were bearing accuracy P5, gear accuracy 7, negative clearance and anti-corrosion treatment.

陆基相控阵雷达轴承
Ground-based Phased Array Radar Bearing

2012 年，我公司承制相控阵雷达项目轴承，包括一种特大型方位轴承，两种大型俯仰轴承。目前处于世界先进、国内领先。我公司于 2013 年获得洛阳市科技创新基金奖励。

In 2012, our company undertook phase array radar project bearings,including a super large azimuth bearing, two large pitch bearings. At present, it is advanced in the world and in the leading position at home Our company was awarded by Luoyang Technology Innovation Fund Award in 2013.

陆基相控阵雷达
Ground-based Phased Array Radar

检测世界先进飞行器用轨道
Testing of World Advanced Vehicle Orbits

该精密轨道，Φ19.5 米，用于世界先进飞行器隐身效果的检测设备系统，属国内首例。

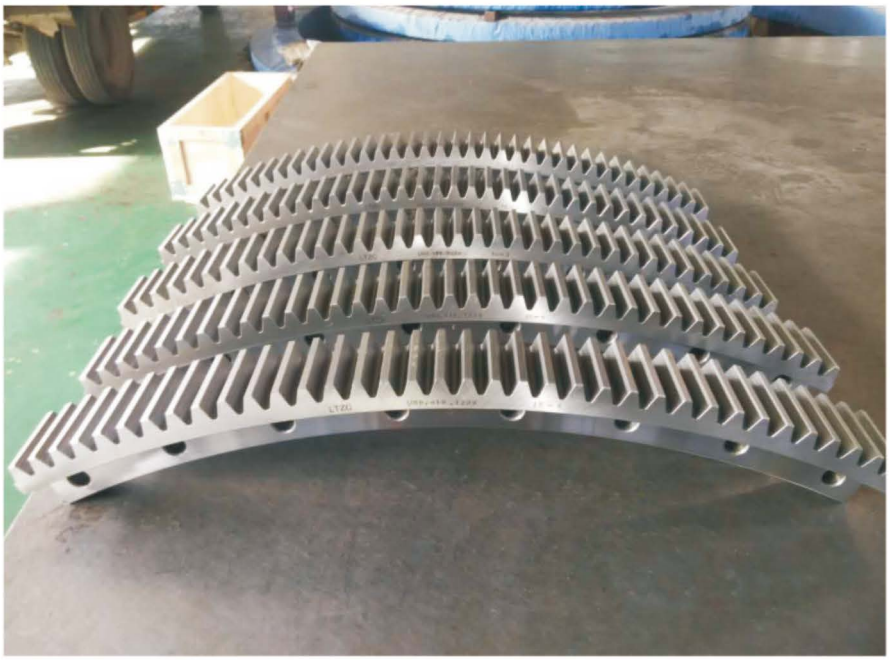
The precision orbit, Φ19.5 meters, is the first in China to be used for detecting the stealthy effect of the advanced aircraft in the world.

FAST “天眼”射电望远镜馈源舱平台用精密分段齿圈

Precision Seament Gear Ring for Feeder Cabin Platfomm of FAST "SkyEye" Radio Telescope

馈源舱研制项目是 FAST 工程的核心部件。我们为该项目提供高精密分段齿圈，克服了截面复杂，精度高，易翘曲变形等难题。分段齿圈用于馈源舱 AB 轴机构的精密姿态调整，实现馈源接收机 ±20°的空中转体，保证馈源相心始终位于 FAST 的焦点位置。从而实现 FAST 对于来自宇宙微弱信息的高效率接收。

The develop-ment project o f feeder cabin is the key com-ponent of FAST project. We provide high precision seg-ment gear ring for the project,which overcomes the problems such as complex cross section,high precisi-on,warpage and deformation easily.The segmented gear ring is used to adjust the precise atti-tude of the AB axis mecha-nism of the feeder cabin, to realize the rotation of the feed receiver ±20 ° in the air and to ensure that the feed phase center is always in the focus position of FAST. Thus,FAST can receive the weak information from the universe efficiently.



港口门座起重机转盘轴承
Port Gantry Crane Slewing Bearing

2014 年 10 月，132.70.6600.03 外齿、三排圆柱滚子轴承，用于大连某舰艇维修基地 4810 厂，340 吨固定式起重机上，直径达到 7200mm，重达 22.4 吨，刷新当年国内整圈轴承的最大记录。

In October 2014,132.70.6600.03 Three rows of cylindrical roller bearings with external teeth and three rows for useina vessel maintenance base in Dallan , The 340-ton fixed crane,with a diameter of 7200mm and weight of 22.4T, refreshes the record of the country's entire ring bearing in that year.

为振华重工、南京港机等国内知名港机企业配套生产门座式起重机用转盘轴承。

Provide port gantry crane slewing bearings for national famous port machinery companies,such as Zhenhua Port Machinery Co., Ltd. and Nanjing Port- Machinery &. Heavy Industry Manufacture Co., Ltd.

型号 (Model) :

132.70.6600.03
132.60.6300.03
132.40.5600.03
132.50.5000.03
132.50.4500.03
132.50.4000.03
132.50.3550.03
131.50.3150.03

物料输送设备配套转盘轴承
Slewing Bearing for Material Conveying Equipment

为中联重科配套转盘轴承
For Zoomlion Heavy industry Science & Technology Co.,Ltd

011.40.1064.03 37m 泵车用
37m pump vehicle

011.50.1251.03 44m 泵车用
44m pump vehicle

071.35.1464.03 47m 泵车用
47m pump vehicle

011.40.1124.03 40m 泵车用
40m pump vehicle

131.45.2000.03K 用于 180T 汽车吊
For 180 ton truck crane

131.36.2000.03/G1 用于 130T 汽车吊
For 130 ton truck crane

131.25.2000.03/G1 用于 100T 汽车吊
For 100 fon truck crane

031.50.1800.03K 用于 110-120T 汽车吊
For 110-120 ton truck crane

131.45.2196.03 用于 260T 汽车吊
For 260 ton truck crane

011.50.1815.03 用于 95T 汽车吊
For 95 ton truck crane

131.30.2250.03 用于 200T 汽车吊
For200 ton truck crane

131.32.2250.03 用于 300T 汽车吊
For 300 ton truck crane

131.32.2260.03 用于 400T 汽车吊
For 400 ton truck crane

为中电建集团 (东北、上海) 配套转盘轴承
Turntable bearing for China Light and Power Construction Group (Northeast and Shanghai)

1797/3230G2K
112.40.2800.12K
1797/2600G2K
1797/2100G2K

为辽宁某重工配套转盘轴承
For a heavy industry manufacture in Liaoning

132.40.4000.03
111.50.3150.03
010.60.2500.03

为北京某重工配套转盘轴承
For a heavy industry manufacture in Beijing

1797/3230G2K
132.50.3511.12K
010.75.3150.03K

为湖南长重配套转盘轴承
For Hunan Changzhong Machinery Co.,ltd

1797/3230GK
51797/2635G
1797/2460G2K1

混凝土泵车
Concrete pump truck

汽车起重机
Truck crane

斗轮机
Bucket wheel machine

装船机
Ship loader

圆形堆取料机
Round stacker reclaimer

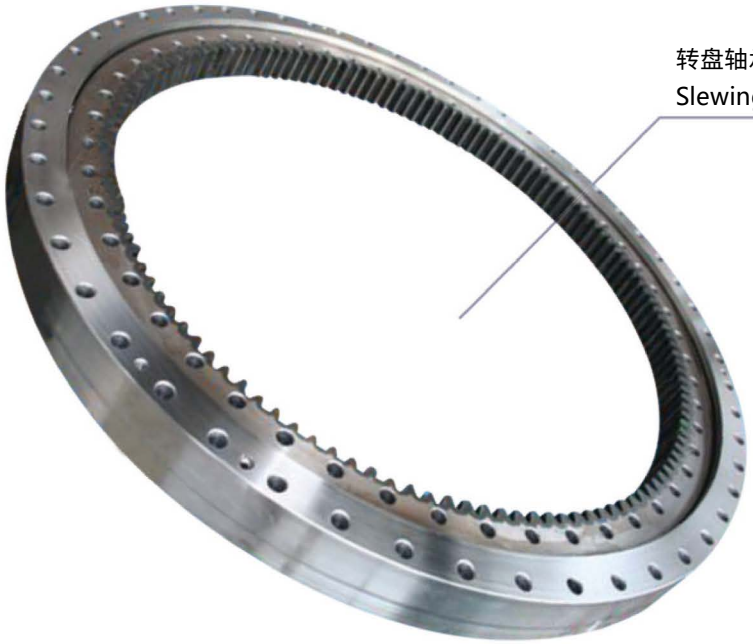
海工装备配套转盘轴承
Slewing Bearing for Marine Equipment

为天津渤海石油长期配套生产海洋钻井平台及海洋移动起吊用转盘轴承。

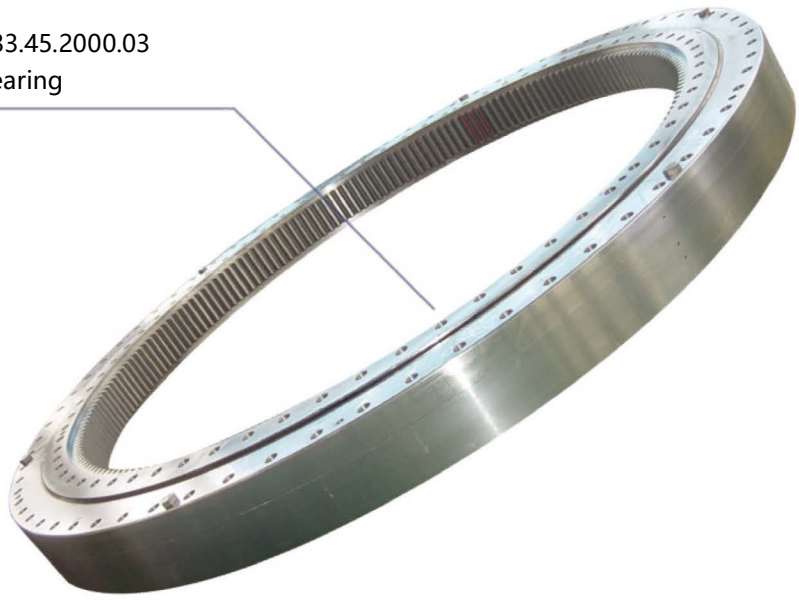
We are a long-term supplier of CNOOC Tianjin Branch, and provide slewing bearings for its marine drilling platforms and marine mobile lifting.

型号 (Model):

024.40.1800.03	023.50.2000.03
133.45.2000.03	114.32.1800.03



转盘轴承 024.40.1800.03
Slewing bearing



转盘轴承 133.45.2000.03
Slewing bearing

船用克令吊转盘轴承
Slewing Bearing for Marine Crane

为武汉船用机械总厂批量供应型号为 :024.50.3250.03，结构为内齿双排异径球轴承，外径为Φ3455mm，是克令吊用轴承，得到用户的好评。

We are a long-term supplier of Wuhan Marine Machinery Plant Co., Ltd. The model is 024.50.3250.03that structure is a double-row ball with internal diameter of 3455mm. lt has been well received by users.

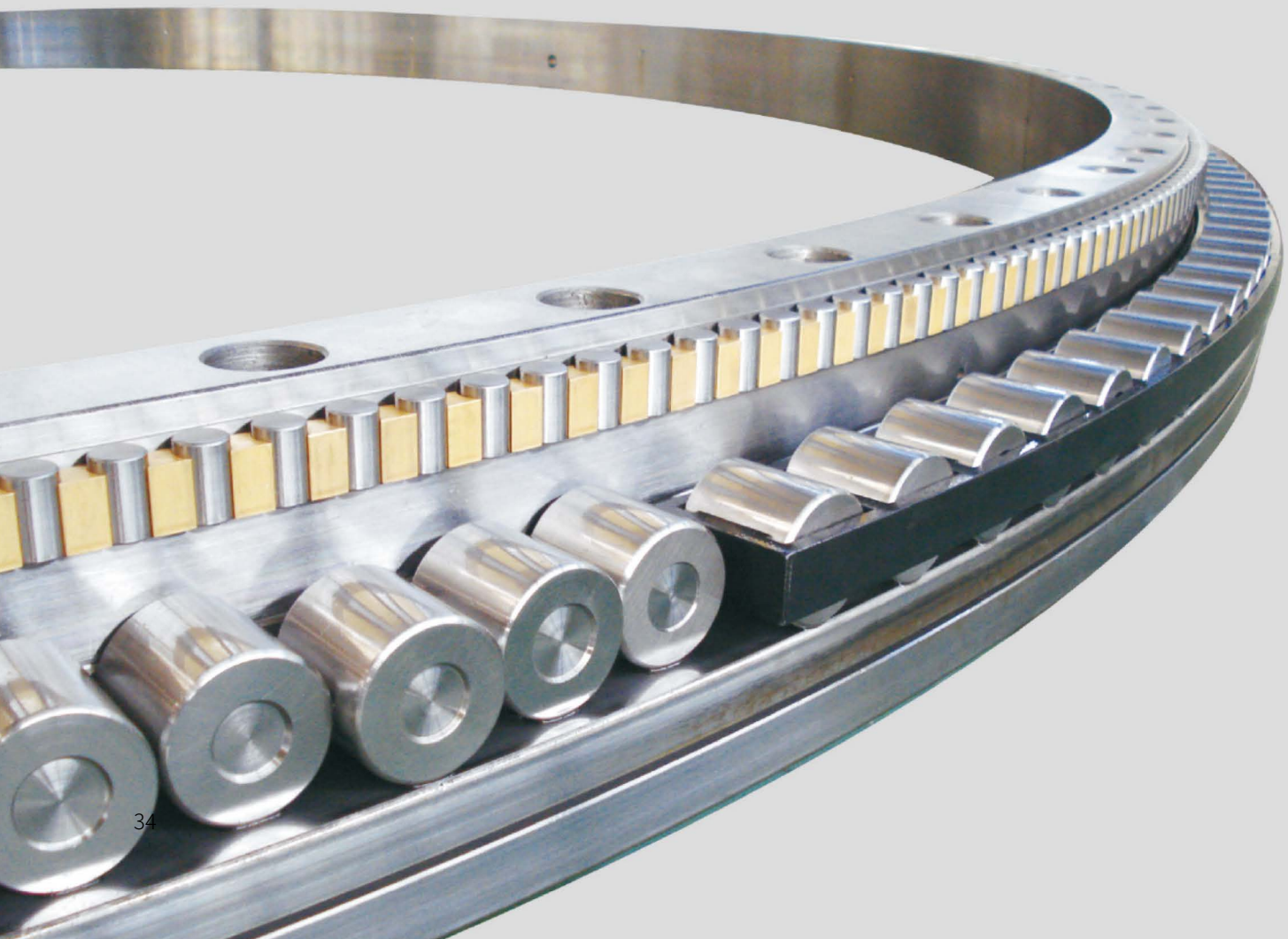
转盘轴承 024.50.3250.03
Slewing bearing

2009 年生产 3R13-109NXX5 内齿三排圆柱滚子组合轴承，外径为 φ3120mm，出口美国用于船用克令吊，该轴承通过了极其严格的美国船级社 ABS 公司的认证检验。

In 2009,we produced the model is R1 3-109NXX5 ,the structure is internal tooth three-row cylindrical roller combined, with the outer diameter is 31 20mm, It's exported to the United States for marine crane and passed the certification of American ABS company which is extremely strict.

转盘轴承 3R13-109NXX5
Slewing bearing

钢包回转台转盘轴承
Slewing Bearing for LadleTurret



132.50.3940.03K 替代 SKF78526-0307

132.50.3940.03K replaced SKF78526-0307

2006 年，为上海宝钢生产的大钢包回转台转盘轴承：

132.50.3940.03K，成功替代了 SKF 进口轴承 :78526-0307。我公司进行了优化设计，外径为 4320mm，各项关键性技术参数均达到了高水平指标。同进口产品相比，为用户节约了成本，缩短了 2/3 生产工期，在线使用 10 年，其寿命已超过了同类进口轴承的使用寿命，被上海宝钢集团公司列为科技开发项目。

In 2006, we produced slewing bearings for ladle turret as follows for Shanghai Baosteel:

132.50.3940.03K, successfully replacing the SKF imported bearings: 78526-0307. Our company has carried on the optimized design, the outside diameter is 4320mm, each key technical parameter has reached the high level target. Compared with the imported products, the cost is saved for the user, 2/3 production period is shortened, 10years is used online, its service life has exceeded the original bearing at that time, is listed as scientific and technological development project by Shanghai Baosteel Group Co.

320 吨钢包回转台转盘轴承

320-Ton Slewing Bearing for Ladle Turret

2008 年 3 月为天铁生产的钢包回转台轴承，型号为 :88762.0101(131.50.4160.03), 结构为三排圆柱滚子组合轴承，外径为 4527.6mm，是由重庆钢铁设计院设计、我公司优化设计并制造的，替代了 SKF 进口轴承，用于 320 吨大钢包，是当时国内最大的钢包回转台用轴承。

We provided slewing bearings with outer diameter 4527.60mm for fianjin fiantie Metallurgical Group Co., td onMarch of 2008. The model was 88762.0101（131.50.4160.03）, and the structure was a three-row cylindrical rollercombined. It was desianed by Chongaing Iron and Steel Desian institute, and we produced it for replacina SKfimported bearings after optimized design, It was was the largest in China and was used for 320 tons ladle turet.

350 吨钢包回转台转盘轴承

350-Ton Slewing Bearing for Ladle Turret

2008 年 10 月为重钢生产了 350 吨钢包回转台轴承，型号为 :0823101.2，结构为 : 外齿三排圆柱滚子组合轴承，外径达 4723.2mm，是截至 2009 年为止国内最大的钢包回转台轴承。

We provided 350-Ton slewing bearings with the outer diameter 4723.20mm for Chongaing Iron and steellGroupCo. ltd on October of 2008, The model was 0823101,2, and the structure was Three-row cvlindrical roller combinedbearing with outer teeth. It was the largest one up to the vear 2009.

360 吨钢包回转台转盘轴承
360-Ton Slewing Bearing for Ladle Turret

2010 年 7 月份，为新余钢厂生产了 360 吨钢包回转台轴承，结构为三排圆柱滚子组合转盘轴承，型号为 106.135B1302-132, 外径达到 φ5070mm, 是当年国内已投入使用的最大钢包回转台用轴承。

We provided 360-ton slewing bearings with the outer diameter 5070mm for Xinyu iron and Steel Co., Ltd on July of 2010.The model was 106.13581302-132, and the structure was Three-row cylindrical roller combined. it was the largest one in this year.

450 吨钢包回转台转盘轴承
450-Ton Slewing Bearing for Ladle Turret

由我公司主创设计应用于上海宝钢 450 吨钢包回转台，结构为三排圆柱滚子组合无齿式转盘轴承，外径达 φ5333mm，再创中国钢包回转台转盘轴承最大记录。

We provided 450-ton slewing bearings with the outer diameter 5333mm for Baoshan iron & Steel Co., Ltd again, and the structure was Three-row cylindrical roller combined, it was the largest one in China then.

2012 年 4 月，450 吨钢包点火现场
On the ignition site of 450-ton ladle turntable, April of 2012

钢包轴承立项证书
Certificate of Project Certificate for Ladle Bearing

1.85 万吨油压机回转支撑轴承

Slewing Bearing for 18500 Tons of Hydraulic Press Machine

2009 年上半年，中信重工研制了全球唯一、世界最大、最先进的 1.85 万吨油压机，我们为其研制了油压机回转工作台转盘轴承 E8331-7P，外径达到 3400mm，其结构是国内罕见的单排双列圆柱滚子、单排球组合轴承。

The largest and most advanced hydraulic press of 1 8,500 tons, which was the only one in the world, was developed by ClTIC Heavy industry Co., ltd. in the first half of 2009. its slewing bearing model E8331-7p was developed by us with the outer diameter 3400mm, ts structure was single row double column cylindrical roller and single row ball combined bearing which was rare in China.

2010 年 7 月 10 日胡锦涛总书记到洛阳中信重工重装厂参观时，说道：“谢谢你们，制造出了 18500 吨油压机为中国人争了光，争了气！”

General Secretary Hu Jintao said: “Thank you for winning the glory for our nation by developing a 18,500-ton hydraulic press", when he visited CiTiC on July 10th, 2010.

1.85 万吨油压机
18,500-Ton Hydraulic Press

E8331-7P 轴承装配中
The Assembly of slewing bearing E8331-7P

风洞转盘轴承
Slewing Bearing for Wind Tunnel

中国空气动力研究发展中心
精密特大型转盘轴承及安装平台
China Aerodynamics R & D Center's Precision Extra Large Slewing Bearing and Installation Platform

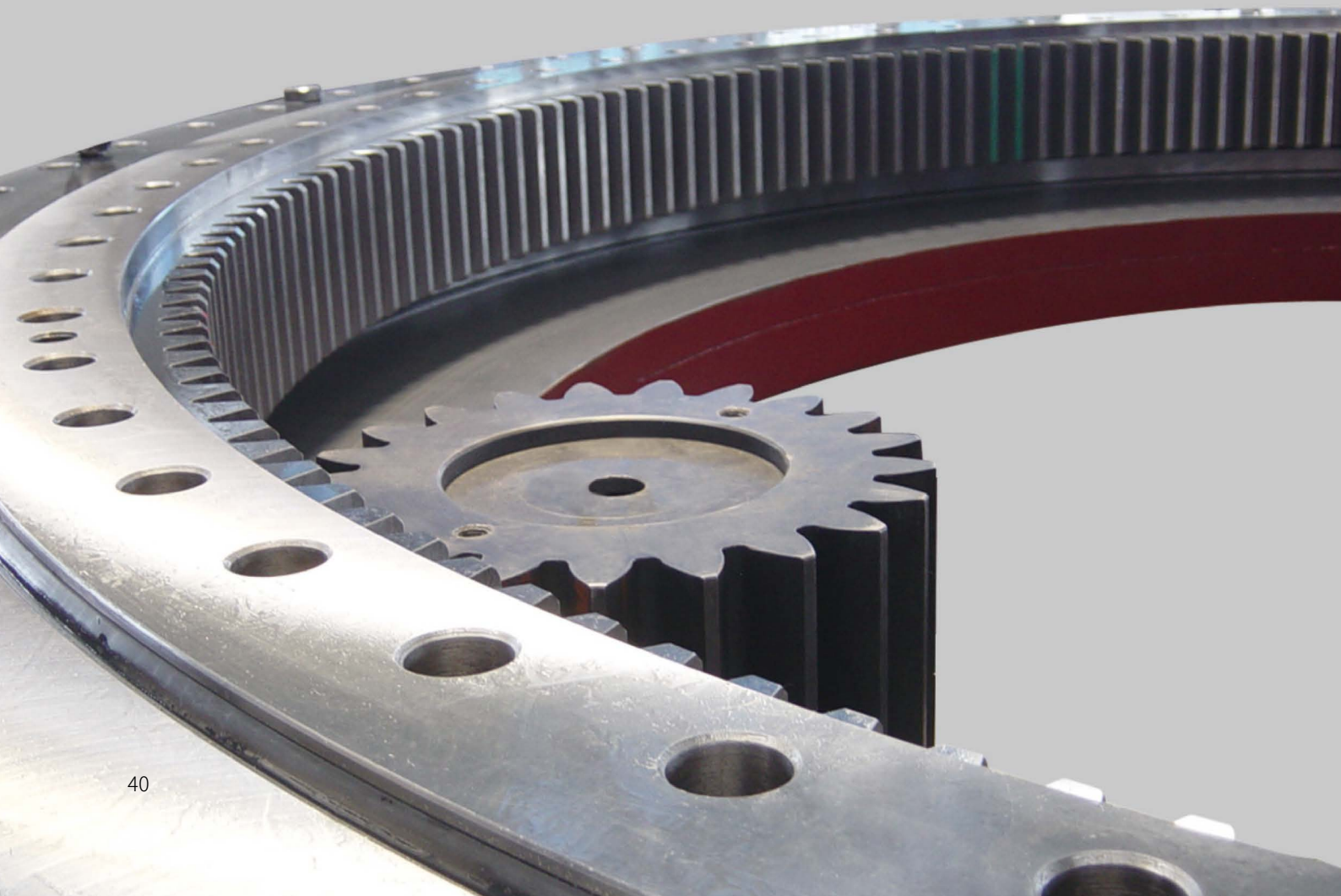
从 2010 年起研制的风洞轴承，型号为 :133.50.3150.03K3/P5 结构为 : 三排圆柱滚子内齿转盘轴承，外径达到 Φ3432mm，对各项技术参数都有严格的控制，得到了军方的高度评价。此类轴承应用于风洞试验台架。

From 2010,we developed slewing bearing model 133.50.3150.03K3/P5 with the outer diameter of 3432mm, and the structure was three-row cylindrical roller with inner teeth. The technical parameters were strictly controlled and highly evaluated by the customers. This kind of bearing were used in wind tunnel test benches.

2012 年至今，批量交付风洞轴承，型号：

Slewing bearings were delivered on July, from 2012 to now. The models were:

1788/1410K/P5	013.25.1000.03K/P5	013.45.2240.03K/P5
013.50.3550.03K/P5	013.50.3550.03K1/P5	131.50.4000.03K/P5



轧机轴承
Rolling Mill Bearing

冷轧薄板轧机轴承 /Rolling mill bearings for cold rolled sheet mill

从 2007 年至今，我公司为上海宝钢下属某钢铁公司冷轧厂生产了冷轧薄板轧机轴承，替代日本 NSK 进口轴承。

From 2007 to now, $hanghai Baosteel Cold Rolling Mill Co., Ltd. produced the cold-rolled sheet mill bearing for the Shanghai Baosteel iron and Steel Co., Ltd., replacing the Japanese NSK imported bearing.

390KDH540(止推力轴承)
(Thrust Bearing)

STF220KV315IFE1GCS3P5AU1(工作轴承)
(Work Roller Bearing)

STF600RV8711JGAS8CR370P5AUA#OB(支承辊轴承)
(Supporting Roller Bearing)

四列圆锥滚子轴承
Four-Row Tapered Roller Bearing

为山东钢铁集团生产的宽厚板轧机轴承 3811/780 四列圆锥滚子轴承，获得了洛阳市 2007 年科技创新能力资金支持。

For shandong iron and steel group production of thick plate straightening ma-chine bearing 3811 /780 four-row tapered roller bear-ings,access to the luoyang cit y in 2007 scientific and technological inno-vation capacity of financial support.

四列圆柱滚子轴承
Four-Row Cylindrical Roller Bearing

我公司为攀刚集团生产的厚板校直机用四列圆柱滚子轴承 FCD4466230，替代了进口轴承 FAG541452，得到了用户的好评，获得了我市 2005 年科技发展计划 (奖励性) 资金支持。

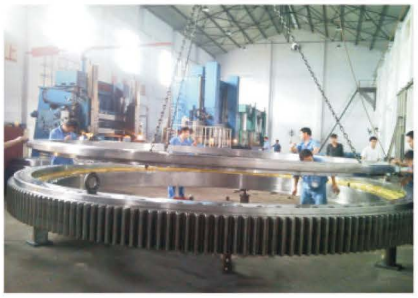
The four-row cy-lindrical roller bearing model FCD4466230, which we provided for Panzhihua iron &. Steel (Group) Co., Ltd, replaced import-ed bearing model FAG541452 and was highly evalu-ated by the customer. It also received the financial support of the city's science and technology devel-opment plan (reward) in 2005.

盾构机轴承及主驱动环件
Bearing and main driving ring for shield machine

从 2009 年起，为中铁隧道、中铁装备、中铁一局到十五局 , 为盾构机制造、施工及维修单位提供主轴承的研制、检测、再制造，以及拼装机轴承和主驱动环件的配套，还自主研发了顶管机系统。从直径 ϕ800mm 到 1595mm、3300mm、5500mm 直到 6700mm 等。

From 2009 to now, we provided for China Railway Tunnel, China Railway Equipment, china Railway Bureau i to 15,also provides the manufacturing, testing and remanufacture of the main bearing for the manufacture, construction and maintenance unit of the shield machine, as well as the matching of the assembly bearing and the main driving ring, and develops the pipe jacking machine system independently, The diameter from ϕ 800mm to 1595mm, 3300mm, 5500mmto 6700mm, etc.

盾构机主驱动环件
Main driving ring of shield machine



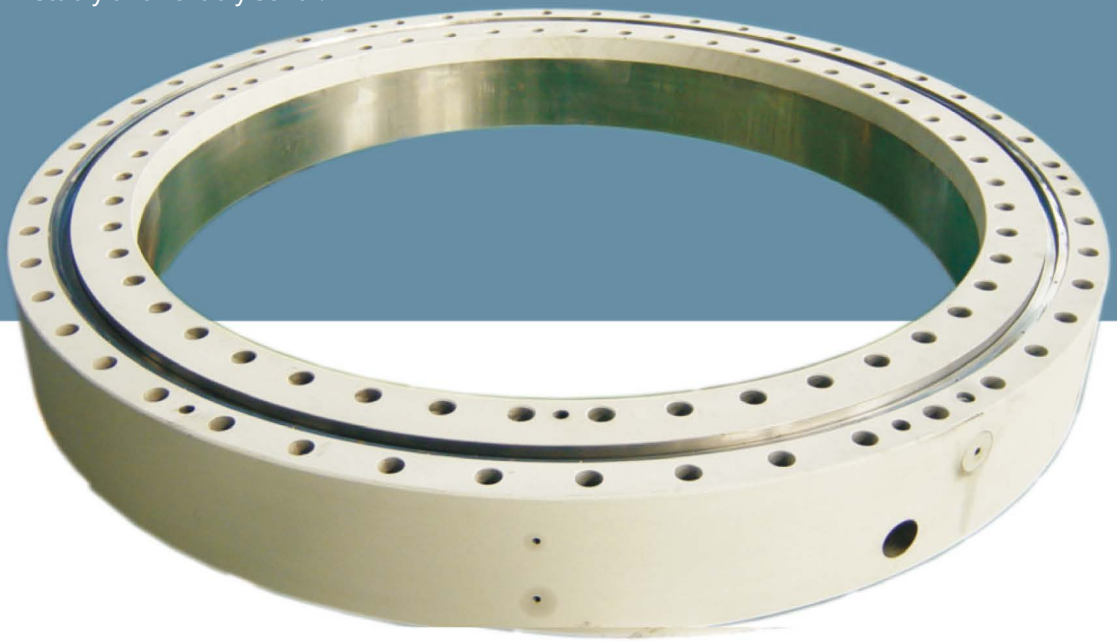
5500mm 轴承
5500mm bearing

130.90.2760.03

风电轴承
Wind Turbine Bearing

2008-2010 年，我公司成功研制并批量生产了风电变浆轴承、偏航轴承和主轴轴承。风场使用至今，运转平稳、安全可靠。

We developed and mass-produced wind turbine slurry bearings, yaw bearings and main shaft bearing between 2008 and 2010, which have been used stably and reliably so far.



风电机组
Wind Turbine Generator

风电场
Wind Turbine Station