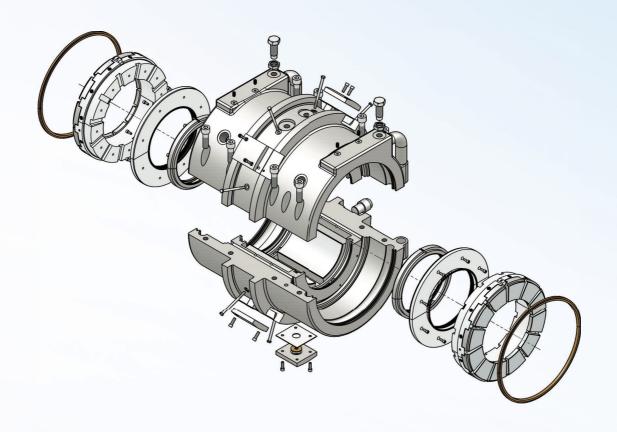


浙江彰贵轴承科技有限公司 ZHEJIANG BHS JOURNAL BEARING CO.,LTD



滑动轴承和轴瓦设计、制造商

Manufacturer and designer of tilting pad bearings

公司简介 Company Profile



公司简介

浙江彰贵轴承科技有限公司是一家专业设计、研发、制造、销售于一体的流体动静压滑动轴承企业。多年来专注于滑动轴承设计、制造、实验和故障诊断,成为国内优秀的动静压轴承系统解决方案供应商。

公司拥有各类精密数控加工中心、巴氏合金浇注、机器人巴氏合金喷涂、热处理等设备 55余台。具备年生产25000套滑动轴承能力,通过不断的工艺攻关,公司主要产品为圆瓦、椭 圆瓦、多油叶瓦、推力瓦及可倾瓦等各种瓦型的滑动轴承。

公司在滑动轴承研发设计方面引进国外先进设计软件,针对轴承性能、轴承润滑油膜、温度、压力分布和功耗等基本性能指标给予计算和分析,从而对滑动轴承静态、动态性能进行准确的判断。

公司生产配套各类滑动轴承,广泛应用于电机、汽轮机、风机、压缩机、齿轮箱、膨胀机和高速泵。"彰贵轴承科技"的产品已广泛应用于国内能源、石化、工业传动和高精端等领域,另外出口印度、俄罗斯、土耳其、巴基斯坦、马来西亚、印尼及欧洲等国外20多个国家和地区。

Company brief

ZheJiang BHS Journal Bearing Co., Ltd. is an enterprise of professional design, research, development, manufacturing and sales of hydrodynamic slide bearings. The company has been focusing on slide bearing's design, manufacture, experiment and failure diagnosis for many years, BHS has became an excellent supplier of solutions for hydrodynamic bearing systems in China.

The company has more than 55sets of precision CNC machining center, Babbitt alloy casting euquipments, Babbitt alloy sprayer, heat treatment and other equipments. Annual production capacity of 25,000 sets of slide bearings. Through continuous technological researching, the company has ability to manufacture various types of slide bearings.

In order to research and design of slide bearings, our company introduces advanced design software from abroad. We can provide calculation and analysis ,such as bearing performance, lubrication film, temperature, pressure distribution and power consumption, as well as accurately calculates and analysis static and dynamic performance of slide bearings. There is a unique research on slide bearing seals, which can provide appropriate solutions to problem of oil leakage.

The company produces various kinds of slide bearings, which are widely used in motors, turbomachinery, fans, compressors, gearboxes, and high-speed pumps, expenders. "BHS Bearing" products have been widely using in domestic energy, petrochemical, industrial transmission and high precision fields. In addition, Our products have been exported to more than 30 countries.



技术中心

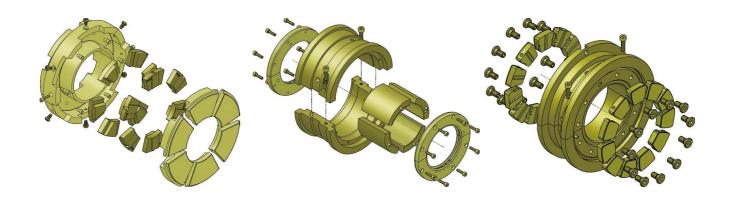
彰贵轴承科技技术研发中心是集产品技术引进、基础理论研究、专业资源开发及新产品试验的研发创新平台。在滑动轴承研发设计方面引进国外先进设计软件,针对轴承性能、轴承润滑油膜、温度、压力分布分布和功耗等基本性能指标给予方案分析,对于滑动轴承静态、动态性能进行准确的计算分析。

公司常年以来注重吸引高精尖人才和内部培养来提高研发团队的专业文化层次、职称结构,形成一支以中青年技术骨干为主的具有较强敬业精神和技术底蕴的研发团队,有专业研发人员10人,保证了当前生产技术工艺的需要和未来研发的持续性。

Technology Center

BHS R&D center is a platform of technology introducing, basic theory research, exploitation of professional resources. Company has introduced advance design software for bearings performance.lubrication oil film, temperature, pressure distribution and power consumption as well as gives calculation and analysis. BHS also can give accurate calculation analysis to journal bearing static and dynamic performance.

Since the company has been paying attention to attract high-tech talent and home-internal training to improve cultural level, technical ability of R&D team BHS has formed a young technology team as back bone which have strong professional and technical back ground BHS has five senior engineers to ensure current research and development needs as well as sustainable development.



公司研发中心 R&D center

www.bhsbearing.com 02

产品中心 products center

一. 高速旋转设备用滑动轴承 High speed rotary machinery tilting pad bearings

随着机械行业的飞速发展,透平机、压缩机、制氧机、离心泵及齿轮箱等高速旋转机械的极限转速得到进一步提高,对于此类高速旋转机械配套的滑动轴承的要求也越来越高。而高速滑动轴承因转速高、工况复杂等原因,一直以来依靠进口。现我公司依靠先进的设计软件和精密的加工中心设备,开发和生产出的高速滑动轴承能够很好的提供理想的性能,例如刚度、阻尼等,以保证旋转机械转子系统的稳定性,因此它广泛应用于轻、中型载荷的高速旋转机械,如汽轮机、透平压缩机、泵及高速齿轮箱等。在国内逐步的替代了国外产品,很好的替客户节省了成本,提高了性能。

1.汽轮机、压缩机、高速齿轮箱、膨胀机、高速电机、发电机等高速旋转机械用滑动轴承。 Journal bearings application: Turbines, compressor, gearbox, expander, high speed motor, generator, etc. turbomachinery.





2.泵用滑动轴承 pump bearings



应用:锅炉给水泵、离心泵、高速泵、多极泵、化工泵、潜油泵等
Application:Boiler water feed pump,high speed pump,centrifugal pump,multi-stage pump, chemical industrial pump.etc

3.水润滑高分子复合材料滑动轴承 Water lubricated polymer material bearings



高分子聚合物 (PTFE/PEEK)轴承 PTFE/PEEK bearings

应用:潜水泵、潜油泵、舰船、航天等特殊场合

Application: High speed pumps, Ships, Aerospace, water/oil immersible pump

www.bhsbearing.com

二. 卧式、立式中低速旋转设备用滑动轴承 Horizontal, vertical bearings for middle and low speed equipments

1.卧式端盖滑动轴承 Flange mounted(end cover) plain bearings



DQ(A)型端盖滑动轴承、DQ(B)型端盖滑动轴承 DQ(A),DQ(B) type end cover plain bearing,

应用: 卧式同步、异步电机,交直流电机、发电机等。

Applicable:horizontal motors,AC,DC motors,generators,etc.

2. 座式滑动轴承 Foot mounted plain bearings





Z 型座式滑动轴承 Z pedestal mounted plain bearings

应用:座式同步、异步电机,交直流电机、风机、发电机,船用卧式滑动轴承、双油环座式滑动轴承 Applicable:horizontal motors,AC,DC motors,Blowers,generators,etc



3. 立式推力轴承 Vertical thrust bearings





应用:各种水轮机、水轮发电机,立式电机,立式水泵用轴承及部套件,包括推力瓦、导瓦、径向轴承等。

Application:all kinds of water turbines, water turbine generator bearing and its fits, including thrust pads, guide pads, radial bearings .etc.

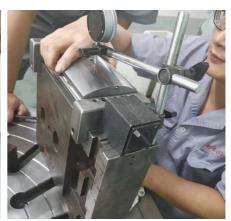
三. 精密检测和试验设备 Inspection and Test Equipments



三坐标检测 3D measurement



芯轴检测 Mandrel inspection



瓦面瓦背检测 Pad profile inspection

四.精密生产设备 High precision production equipments



卧式加工中心 Horizontal CNC center



立式加工中心Vertical CNC center



立式加工中心 Vertical CNC center



加工中心 CNC center



立式加工中心 Vertical CNC center



立式加工中心 Vertical CNC center





巴氏合金喷涂 Babbitt alloy sprayer



热处理 Heat treatment

五.证书 Certificates





ISO14001-2015 ISO9001-2015

08



ISO45001-2018



Provincial High-Tech Enterprise certificate



Standardization Safty production Certificate



National High-Tech Enterprise certificate



五. 彰贵轴承科技拥有领先的轴承研究技术和采用先进的设计软件 采用全球著名的轴承转子动力学设计软件

BHS adopts advanced bearing software for bearing design and rotor dynamical analysis.

L/D= 1, Cb= 0.13, 2Cb/D=0.00217, m= 0.6, Offset= 0.5, Arc= 60, PivAng = 18 Speed = 18000 rpm Load = 29183.5 N W/LD = 2026.64 kPa Vis. = 9.22529 cPoise Sb = 0.2909F/Cb = 0.6197Att. = 0.00 deg hmin = 0.05258 mm Pmax = 6469.58 kPa kW = 44.4495 kW Qside = 34.880 lpm Qsup = 40 lpm T = 40.0, 71.2, 88.2 degC Stiffness (N/mm) 4.340E+05 0.000E+00 0.000E+00 7.281E+05 Damping (N-s/mm) 1.534E+02 0.000E+00 0.000E+00 2.306E+02 Critical Journal Mass (kg) Stable

Pressure Dam Bearing with center relief track L= 6 in, D= 6 in, Cb= 0.005 in, 2Cb/D=0.00167, m= 0, tilt= 0 Speed = 7000 rpmLoad = 3000 Lbf W/LD = 83.3333 psi Vis. = 2E-06 Reyns Sb = 1.008 E/Cb = 0.6049Att. = $56.64 \deg$ hmin = 1.975 mils Pmax = 605.61 psi Hp = 38.8325 hp Qside = 12.277 gpm Stiffness (Lbf/in) 3.359E+06 -1.753E+05 -5.938E+06 4.685E+06 Damping (Lbf-s/in) 4.733E+03 4.435E+03 4.433E+03 1.139E+04 Critical Journal Mass (Lb)

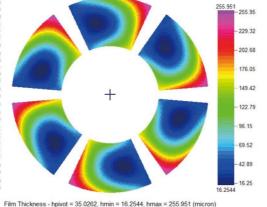
油叶瓦计算

可倾瓦轴承计算 Tilting pad bearinig

Fixed profile bearing RY-250DCS5T Tilting Pad Thrust Bearing Tilting Pad Thrust Bearing
9 pads
1.D. = 12 in
0.D. = 20 in
Pad Arc = 30.00 deg
Spherical Point Pivot
Circumferential Offset = 0.6
Radial Offset = 0.6 255.951 - 255.95 Radial Width = 4.0000 in Pad Length = 4.1888 in

ng Pad Thrust Bearing 6 pads I.D. = 114.3 mm O.D. = 228.6 mm Pad Arc = 50.00 deg Spherical Point Pivot mferential Offset = 0.5 Radial Offset = 0.5 Pad Crown = 0.100 mm adial Width = 57.150 mm Pad Length = 74.809 mm Speed = 5730 rpm Load = 50505 N Load = 50505 N
Aug. Pressure = 1 9.588 MPa
Max. Pressure = 3.2173 MPa
Min. Film = 16.254 micron
Proot Film = 35.026 micron
Power Loss = 20.506 kW
Supply T = 40.00 deg C
Groove T = 42.03 deg C
Outlet T = 55.22 deg C
Max. T = 93.37 deg C
@ 75/75 T = 64.40 deg C Pumping Flow = 64.3080 lpn Leakage Flow = 51.9050 lpn Stiffness = 2.413E+09 N/m amping = 1.661E+06 N-s/m

Tilting Pad Thrust Bearin



推力可倾瓦计算 Thrust pad bearing

计算轴承:

承载力、油膜刚度&阻尼、比压、功耗、油膜温度、油量、油膜厚度、轴瓦间隙、预负荷、偏心率 公司轴承80%以上为自主开发设计。

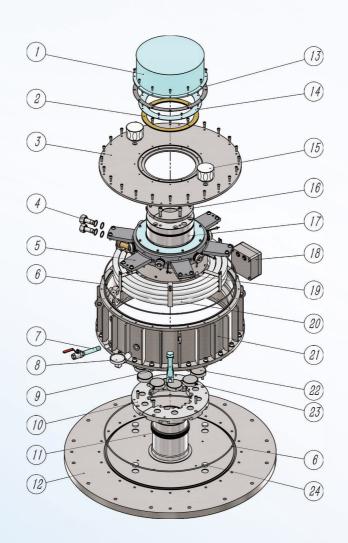
Bearing Calculation:

Load, stiffness & damping, pressure, power losse, oil film temperature, oil flow rate, oil film thickness, gap, pre-load.etc.

More than 80% of produced bearings were self-designed.

彰显品质 贵在久远

Integrated solution manufacturer of Babbitt Alloy, PTFE, PEEK, material bearings.





彰贵轴承科技

浙江彰贵轴承科技有限公司

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