

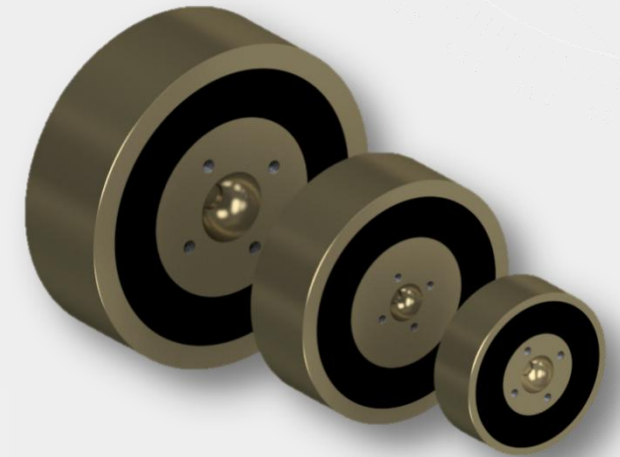
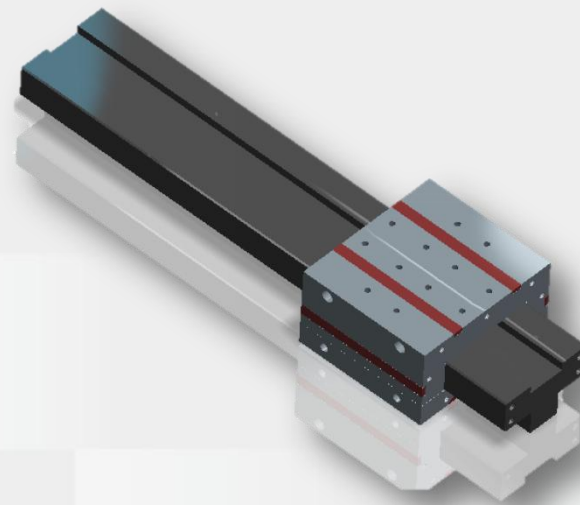
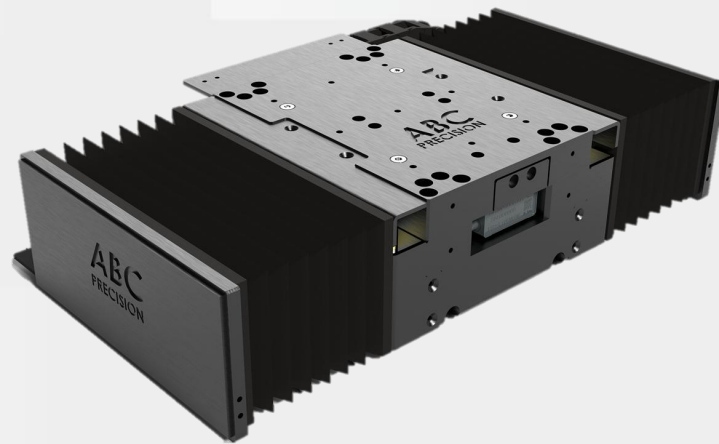
BOZHIDA PRECISION MOTION CONTROL SOLUTIONS



Shenzhen Bozhida Precision Machinery Co.,Ltd
2/F, Building 17,Wunipeng Road, No.16 Wunipeng Road Xingiao StreetBaoan District, Shenzhen City,Guangdong Province,China



Precision Motion Control System



---Independent Research, Development, and Production.

---High Precision, High Acceleration, High Velocity

1、Shenzhen Bozhida Precision Machinery Co.,Ltd



COMPANY OVERVIEW:

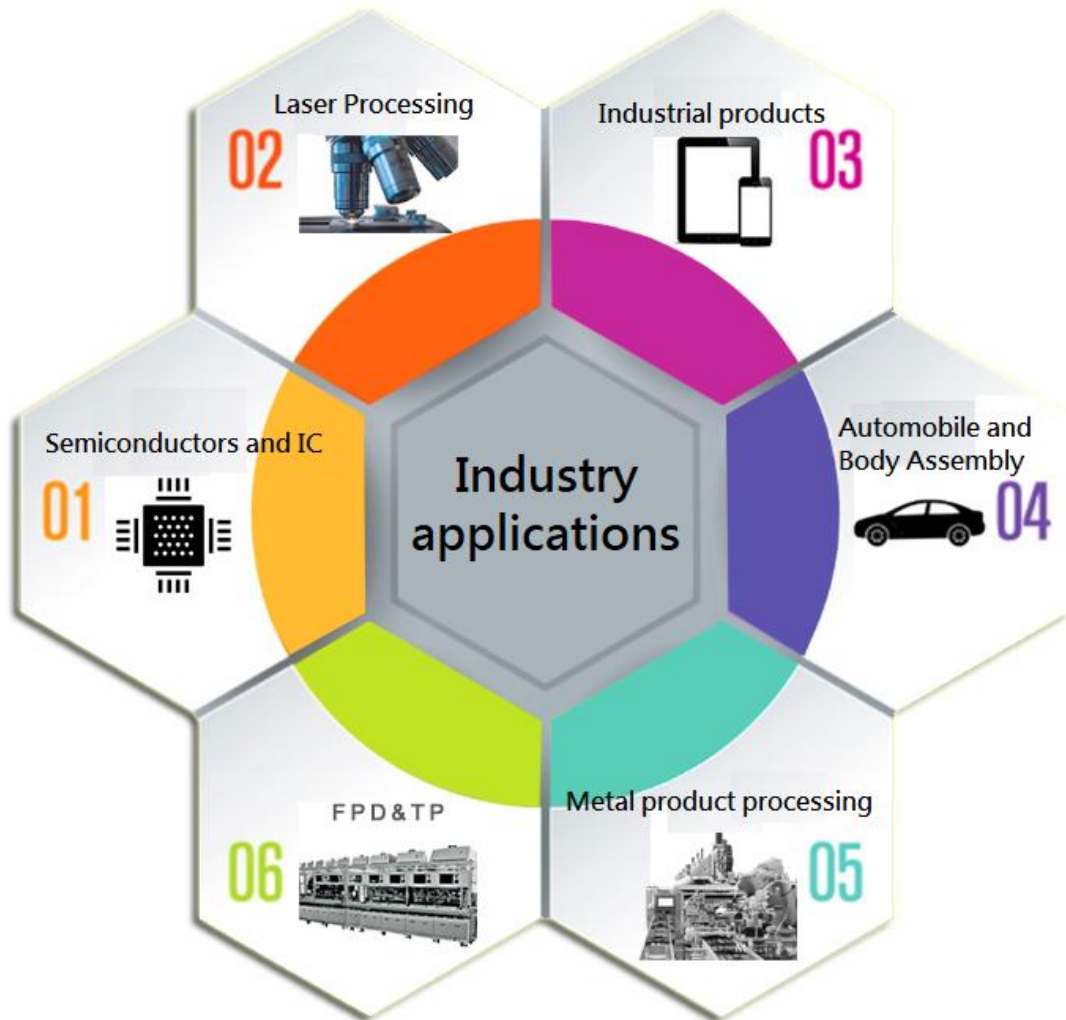


Shenzhen Bozhida Robotics Co., Ltd. (BZD) is a high-level provider of direct drive motion system solutions, as well as a manufacturer of linear motor enlarged marble platforms in the South China region, and a supplier of linear precision platforms. Bozhida (BZD) is a strong company with independent research and development of linear motors and linear platform solutions. The research and development team is composed of core personnel from Kollmorgen.

The company introduces manufacturing processes from the United States, using high-tech equipment and materials. It bases its production on marble platforms and specializes in the manufacturing of high-end linear motors, linear modules, DD motors, linear platform solutions. Its subsidiary, Shenzhen Furuilianhua Technology Co., Ltd., specializes in the production of granite platforms, marble slabs, linear platform bases, granite measuring tools, etc. In 2021, it established assembly bases in South China and East China respectively, capable of customizing drive platforms according to customer needs, providing complete sets of linear platform solutions, one-stop drive services, and worry-free after-sales service.

The linear platform solutions provided by the company have been widely used and recognized in various industries, including electronics and semiconductor equipment, UV printing industry, UV dyeing industry, UV printing industry, UV glass industry, precision CNC machine tools, high-end medical equipment, mobile phone testing industry, glass testing industry, and more. Currently, the company is a second-tier supplier for Apple phones and has deep cooperation with CRRC (Zhuzhou) and Harbin Institute of Technology (Shenzhen), as well as the Chinese Academy of Sciences.

INDUSTRY APPLICATIONS



BZD specializes in the field of linear motors, providing customers with comprehensive solutions for automation motion systems. By integrating years of technical expertise and knowledge accumulation, we can swiftly deliver high-quality one-stop solutions tailored to the needs of high-end manufacturing industries.

BZD's business covers various industries including the lithium battery industry, semiconductor & IC, automotive, laser, FPD & TP, industrial products, metal & processing, and more.

As an innovative emerging enterprise, BZD continuously introduces advanced foreign technologies and integrates excellent domestic resources, contributing to the enhancement of societal productivity.

PROFESSIONAL SERVICES



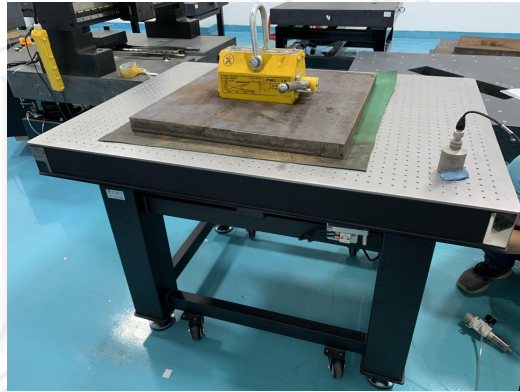
- BZD's sales have shown steady growth, and it has established long-term cooperative relationships with customers and partners, committed to building a win-win industrial chain.
- At the same time, we have further strengthened customer-centric organizational process development, continuously improving organizational efficiency to ensure the company's rapid growth.
- Our nationwide operational system has matured, enabling us to be closer to our customers and provide them with fast and professional services.



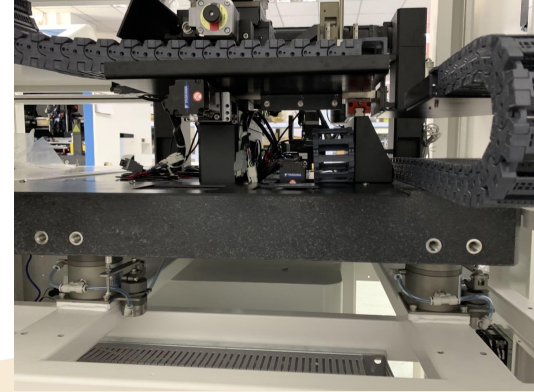
Application Projects



Application Project



Outbound Testing



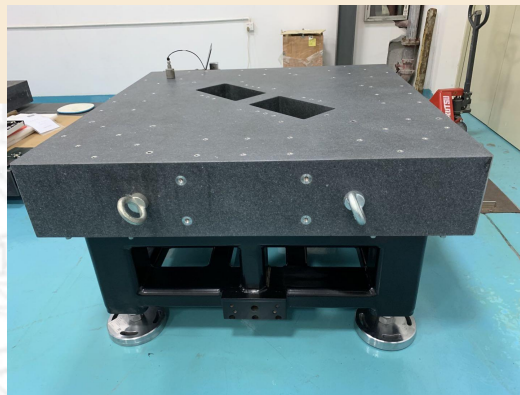
Application Project



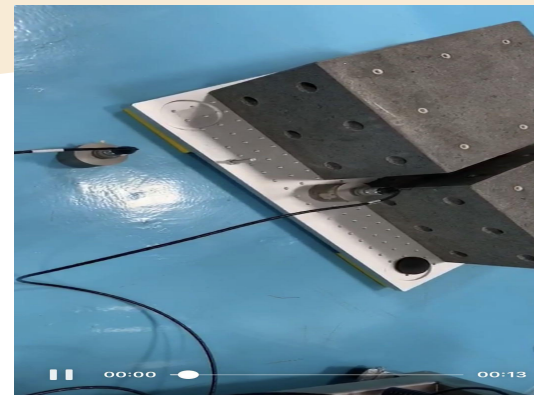
Customer Site Inspection



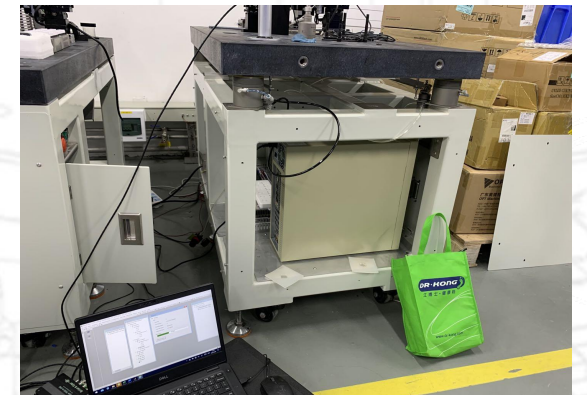
Application Project



Vibration Isolation Platform



Vibration Damping Pad Testing



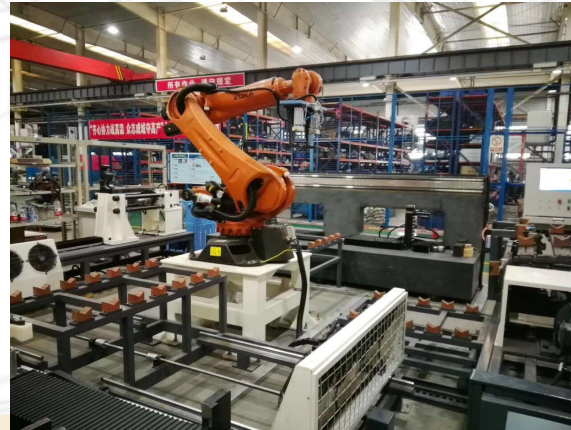
Customer Site Inspection

Application Projects

National-level Collaborative Partner:



China Railway High-speed (CRH) Torque Rod Testing Equipment
4000*2000*450



Institute of Nuclear Physics, Chinese Academy
of Sciences, Beijing Huairou Project Matrix
Measuring Instrument 8000*2500*2500

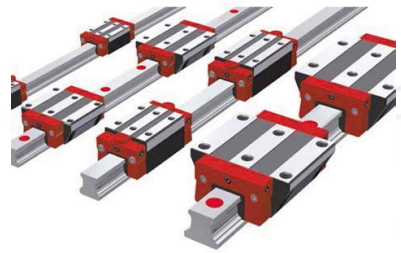


Installation of Cell Test Equipment at BOE
(Hefei) 2750*3140*670



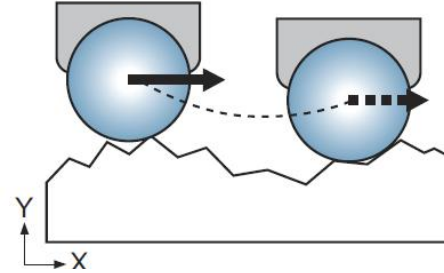
Chang'e-4 Lunar Rover Simulation Vehicle at Nanjing University
of Aeronautics and Astronautics 10000*5000*450 (Splicing)

THE ADVANTAGES OF AIR FLOATATION PLATFORMS

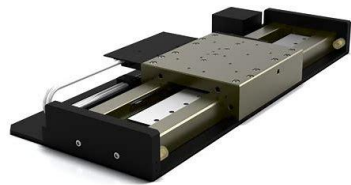


Traditional Bearings

Contact Motion

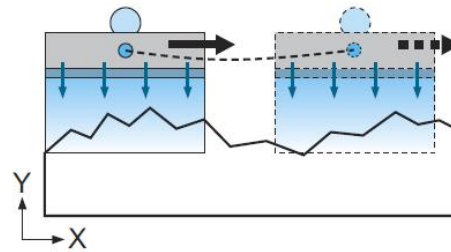


Difficulty Achieving High Precision

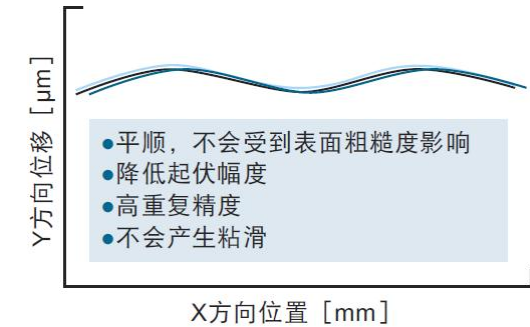


Air Bearings

Non-contact Motion



High Precision Achieved Easily



Compared to traditional mechanical bearings, hydrostatic bearings can achieve an order of magnitude improvement in precision. They are the core technology of high-end equipment abroad.

The Main Advantages

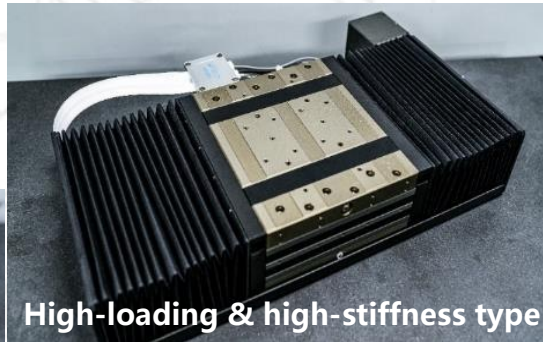
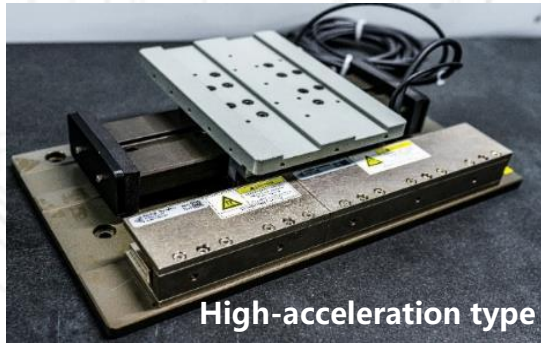
- 1、 Smooth Motion Trajectory, High Acceleration, and High-Speed Movement
- 2、 Frictionless
- 3、 No Thermal Deformation
- 4、 High Positioning Accuracy

Applicable Scenarios

- 1、 In the semiconductor field, high-speed, high-precision, and high-cleanliness pick-up, conveying, and placement, as well as high-precision wafer processing and inspection.
- 2、 High Precision Requirements, Precision Measurement Equipment
- 3、 High Cleanliness Requirements, such as IC Transport
- 4、 高Speed Requirements, such as PCB Processing

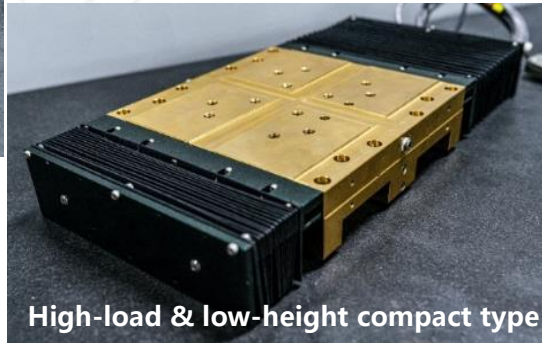
MAIN PRODUCTS

Core Functional Component Product - Linear Air Guideway

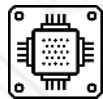
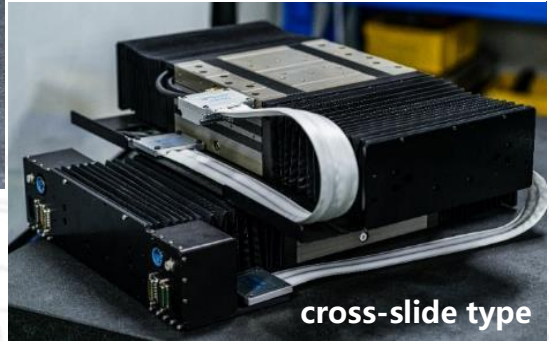


- ✓ Full type: High-acceleration type. High-loading & high-stiffness type. High-load & low-height compact type. Cross-slide type.

- ✓ Multiple standard strokes
- ✓ Multiple drive control plans available



- ✓ Innovative Air Bearing Throttle Technology
- ✓ High stiffness, low air consumption
- ✓ Air pressure protection device (optional)
- ✓ Repeatability accuracy $< 0.2\mu\text{m}$
- ✓ High-precision calibration



Semiconductor



Laser Processing



3D Print



Measurement and Inspection



Optics



Scientific Research

GAS STATIC PRESSURE GUIDEWAY DETECTION INDICATORS

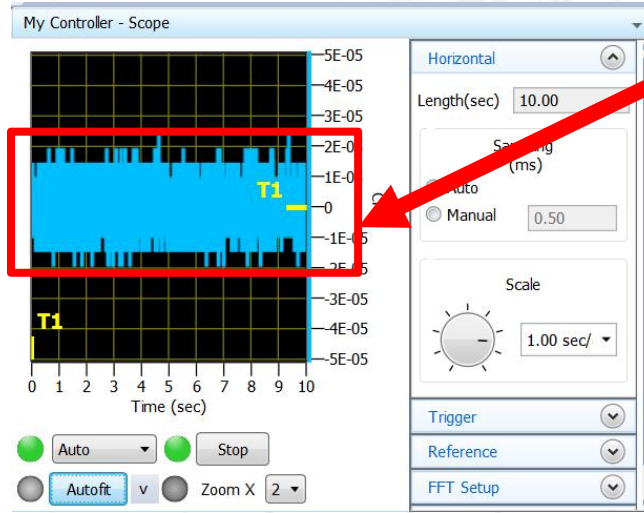
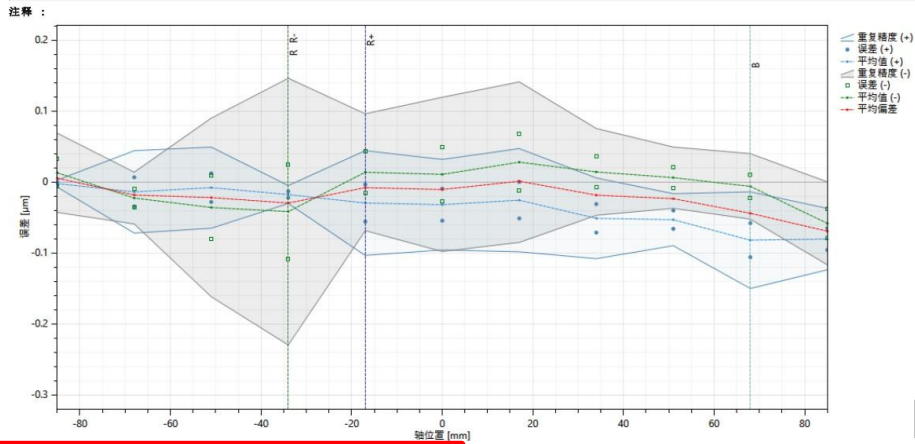


Accuracy testing report

GB/T 17421.2 Analysis 2000:XTX
 XY匠心170
 操作员: renis

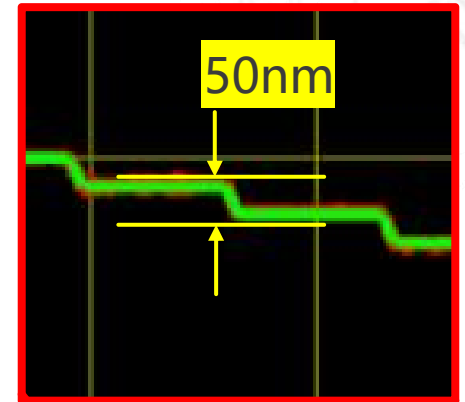


机器名称: 被测轴 X
 序列号: 运行次数: 2 Accuracy bidir
 目标: 11 Linear
 测试日期: 星期四 2021/06/24 13:44



Static jitter: 20nm

minimum step size: 50nm



positioning accuracy: ± 0.376
 Repeatability accuracy: ± 0.289

XTX - 分析功能			
名称	(+) μm	(-) μm	(Bidir) μm
精度 (A)	0.199	0.376	0.376
重复精度 (R)	0.148	0.376	0.376
系统偏差 (E)	0.080	0.086	0.110

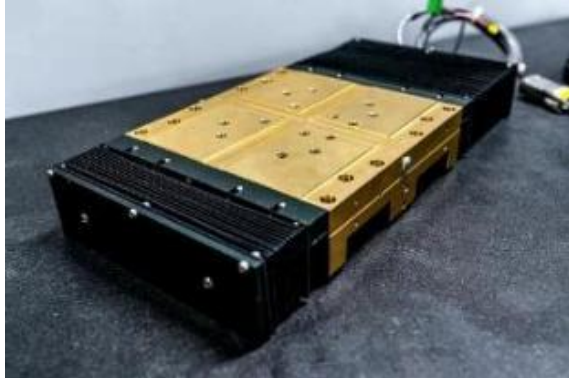
XTX - 分析功能	
名称	值 (μm)
反向 (B)	0.076
平均反向误差	-0.029
平均偏差 (M)	0.075

XTX - 分析功能

名称	(+) μm	(-) μm	(Bidir) μm
精度 (A)	0.199	0.376	0.376
重复精度 (R)	0.148	0.376	0.289
系统偏差 (E)	0.080	0.086	0.110



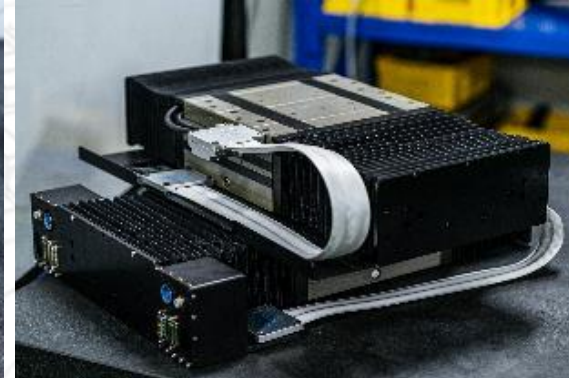
FLUID STATIC PRESSURE BEARINGS - APPLICATIONS PROJECTS



High-load & low-height compact type



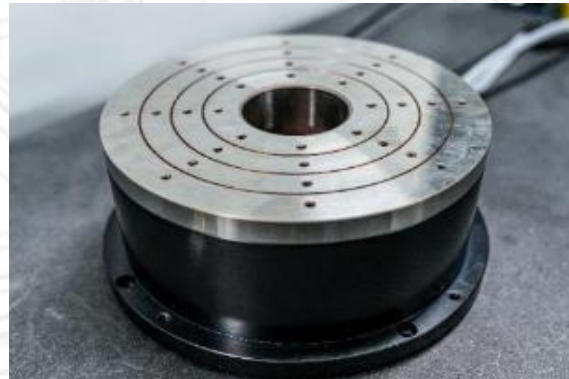
High-acceleration type



High-stiffness & cross-slide type



Granite air floatation platform



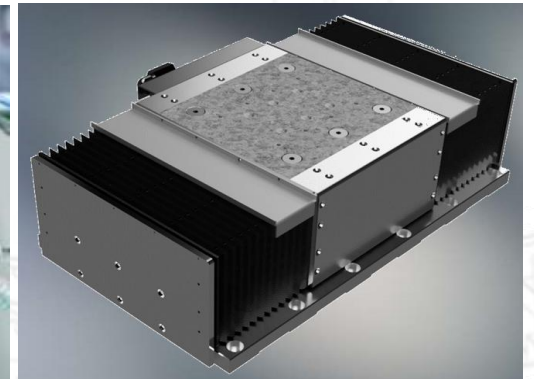
Gas static pressure rotary table



Gas static pressure spindle



Liquid static pressure spindle



Liquid static pressure guideay

Fundamental theory



Engineering practice



Technological bottleneck

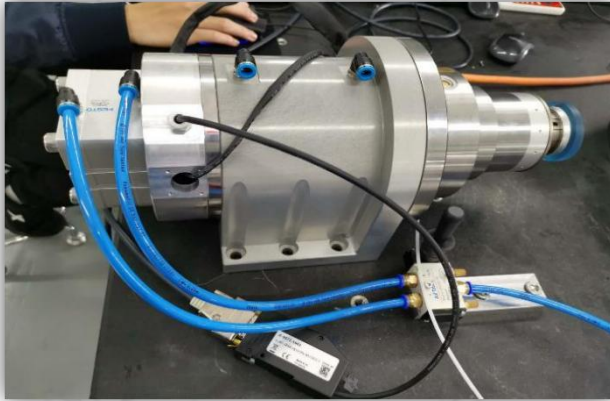


Solution



Further innovation

SPINDLE/TURNTABLE ACCURACY SPECIFICATIONS



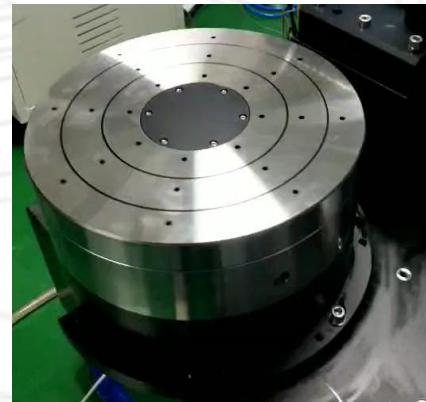
Primary performance indicators		Ultra-precision gas static pressure spindle	competitive products: Loadpoint D7260
Loading capacity	Radial	60 Kg	55 kg
	Axial	80 Kg	55 kg
Spindle stiffness	Radial	80 N/μm	62 N/μm
	Axial	230 N/μm	88 N/μm
Motion accuracy	Radial	60 nm	50 nm
	Axial	50 nm	50 nm
Maximum rotational speed		6000 rpm	5000 rpm
Maximum air consumption		40 l/min	57 l/min

Spindle and turntable products are under development....



ultra-precision hydrostatic spindle

- Rotational accuracy < 100nm
- Stiffness > 2000 N/um
- Rotational speed > 3000 rpm
- Suitable for heavy-duty ultra-precision turning/grinding

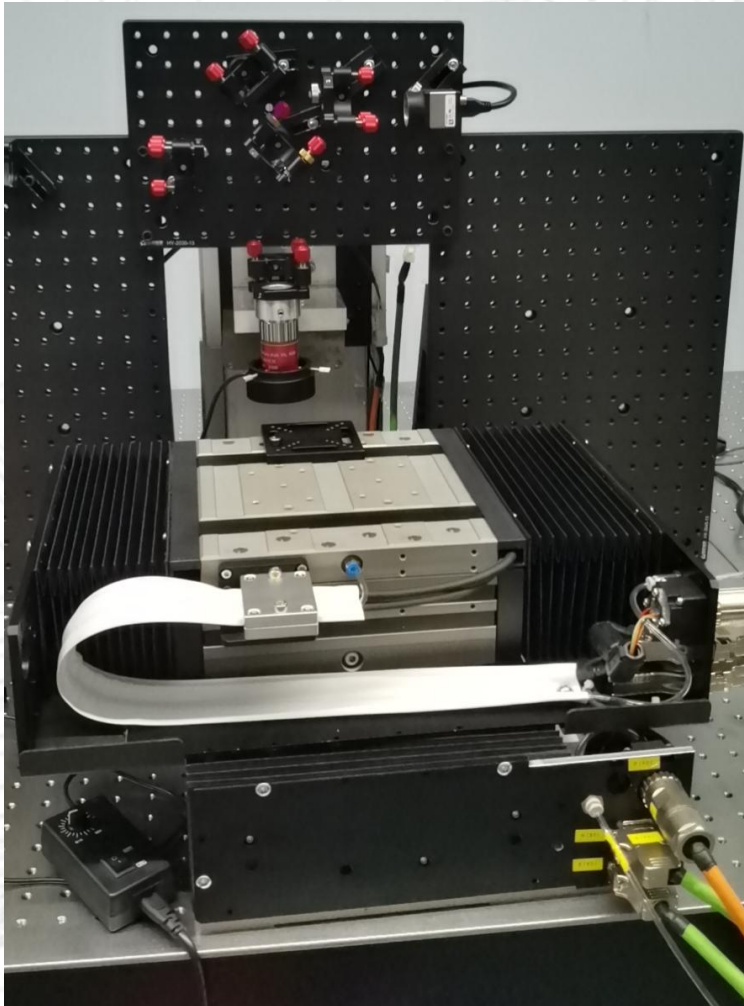


Ultra-precision air-bearing rotary table

- Rotational accuracy < 100nm
- Stiffness > 100 N/um
- Rotational speed > 3000 rpm
- Suitable for ultra-precision inspection and positioning applications

TWO-AXIS MOTION WORKBENCH

Laser processing equipment



Using a 20 μ m grating pitch grating, 1vpp analog signal output, 200mm stroke, positioning accuracy 0.35 μ m, repeatability accuracy 0.3 μ m, loading capacity >200kg.



Measurement and
Inspection



Scientific
Research

PARTNER CLIENTS



CRRCC CORPORATION LIMITED



SHENZHEN AEROSPACE INNOVATION RESEARCH INSTITUTE



PROJECTS: COMPANY UTILIZING THE PRODUCT

01

C.C., Project Manager, Shanghai Microelectronics Lithography Machine Project, platform accuracy $\pm 0.2\mu\text{m}$, repeatability accuracy $\pm 0.18\mu\text{m}$.

02

X.C., Deputy Director of Electrical Engineering, Suzhou Maiwei Technology Co., Ltd., high-precision cutting platform, positioning accuracy ± 0.4 , repeatability accuracy ± 0.35 .

03

T.X.Y., Product Manager, Jiangsu Jicui Jingkai High-end Equipment Technology Co., Ltd., Cell Testing platform, positioning accuracy $\pm 0.3\mu\text{m}$, repeatability accuracy $\pm 0.25\mu\text{m}$.

CONTACT



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- Website: www.bzddrive.com / www.bozhidatech.com

Thanks