



我们的愿景是成为行业领先者，用户首选的完美解决方案服务商。



HonSin
New Material

弘信新材

半导体行业石墨制造专家



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COMPANY PROFILE 公司介绍

宁波弘信新材料科技有限公司，作为中国领先的石墨碳素材料制造商，我们为太阳能光伏、电子半导体等企业提供有竞争力的石墨碳素产品和服务。我们坚持聚焦战略，十余年专注于太阳能光伏及电子半导体等工业领域的石墨及碳素应用。我们积极致力于全球工业可持续发展，结合石墨及碳素材料的性能为更多的用户提供更广阔的解决方案。

我们提供的石墨产品及其碳纤维材料的解决方案被广泛应用与汽车行业、模具行业、机械行业、电子半导体及太阳能光伏产业等，我们全力保障石墨产品的稳定运作，助力客户每一个行业效率提升，降低能耗推动低碳经济的增长。

我们的愿景是成为新能源行业整体方案解决者。

Ningbo Hongxin New Material Technology Co., LTD., as a leading graphite carbon material manufacturer in China, we provide competitive graphite carbon products and services for solar photovoltaic, electronic semiconductor and other enterprises. Adhering to the focus strategy, we have been focusing on graphite and carbon applications in solar photovoltaic and electronic semiconductor industries for more than ten years. We are actively committed to the sustainable development of global industry, combining the properties of graphite and carbon materials to provide more users with a wider range of solutions.

The graphite products and carbon fiber material solutions we provide are widely used in the automotive industry, mold industry, machinery industry, electronic semiconductor and solar photovoltaic industry, etc. We fully guarantee the stable operation of graphite products, help customers improve the efficiency of each industry, reduce energy consumption and promote the growth of low-carbon economy.

Our vision is to become an overall solution provider in the new energy industry.



COMPANY QUALIFICATION 公司资质

公司自成立以来，始终重视在石墨应用领域的技术研发和创新，公司鼓励员工发明、创造、不断提升技能，累计完成多项实用新型专利技术的研发并获得专利证书，公司已通过ISO9001质量管理体系认证，为客户产品加工提供强有力的技术保障，其他资质正在陆续认证中.....

Since its establishment, the company has always attached importance to technology research and development and innovation in the field of graphite application. The company encourages employees to invent, create and constantly improve their skills. The company has completed a number of utility model patent technology research and development and obtained patent certificates. Other qualifications are being certified.....



Production & Inspection Capability

生产及检验能力

我们拥有国产顶级/进口5轴全自动CNC/高精度雕刻机、数字精密平面磨床、外圆磨床、数字龙门立铣、清洗机、纯化炉、包装机等生产设备,可满足各种复杂产品生产加工要求,加工精度达微米级,且批量加工尺寸一致性高,产品均匀性好。

在质量控制方面我们拥有高精度三坐标测量仪、高灵敏度电阻测量仪、影像测量仪、粗糙度测量仪、硬度测量仪等质量检测设备,具备微米级尺寸检测能力。同时我们严格要求检验人员每日进行检测设备校准,定期设备外校,保证检测设备的精准度;我们在质量管控过程中严格执行在线尺寸测量、首件尺寸检测、在线尺寸巡检,保证恒温恒湿灰分检测环境。

We have domestic top/imported 5 axis automatic CNC/high-precision engraving machine, digital precision plane grinding, cylindrical grinding machine, gantry milling, cleaning machines, packaging machines and other production equipment, production furnace, can satisfy all kinds of complex products production and processing requirements, achieve up to micron-level, accuracy machining capability, high consistency of volume production and good.

Product uniformity. In terms of quality control, we have high precision coordinate measuring instrument, high sensitivity resistance measuring instrument, image measuring instrument, roughness measuring instrument, hardness measuring instrument and other quality testing equipment, with micron-level size detection ability. At the same time, we strictly require the inspection personnel to calibrate the testing equipment every day, and execute external calibration regularly to ensure the accuracy of the testing equipment. In the process of quality control, we strictly implement online size measurement, first article size inspection, online size inspection, and ensure constant temperature and humidity for ash testing.

设备名称	规格型号	加工精度
雕刻机	SMD	±0.005
锯床	GD5630	±1
数控车床	CK0630	±0.01
数字精密平面磨床	KENT	±0.005



R&D CAPABILITY

研发能力

我们的技术团队拥有多年的行业技术研发及产品加工技术开发经验,能配合客户需求进行产品现场测绘、图纸设计、技术开发等,可根据客户要求对产品定制化开发及加工,加工精度可达5u m。根据客户不同的应用领域,我们的技术团队可以从原材料密度、电阻、热膨胀系数等,提供定制化原材料供应。

Our technical team has many years of industry technology research and development and product processing technology development experience, can cooperate with customer needs for on site mapping, drawing design, technology development, etc., according to customer requirements for product customization development and processing, processing accuracy up to 5u m.

According to the different application areas of customers, our technical team can provide customized raw material supply from raw material density, resistance, thermal expansion coefficient, etc.



石墨性能测试装备



热膨胀仪

PRODUCTION QUALITY

生产质量控制

01
SAW
锯料



03
LATHE
车床



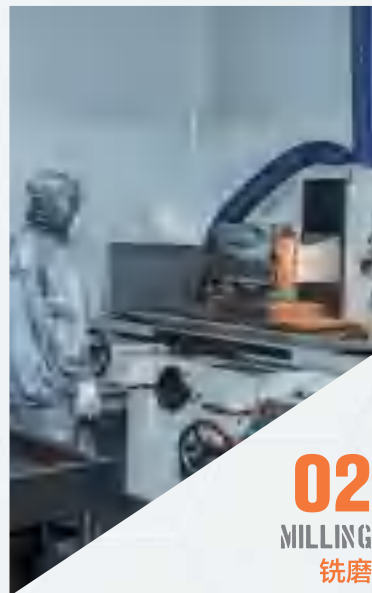
05
CLEAN
清洗



07
PURIFICATION
纯化



02
MILLING
铣磨



04
CNC ENGRAVING
精雕

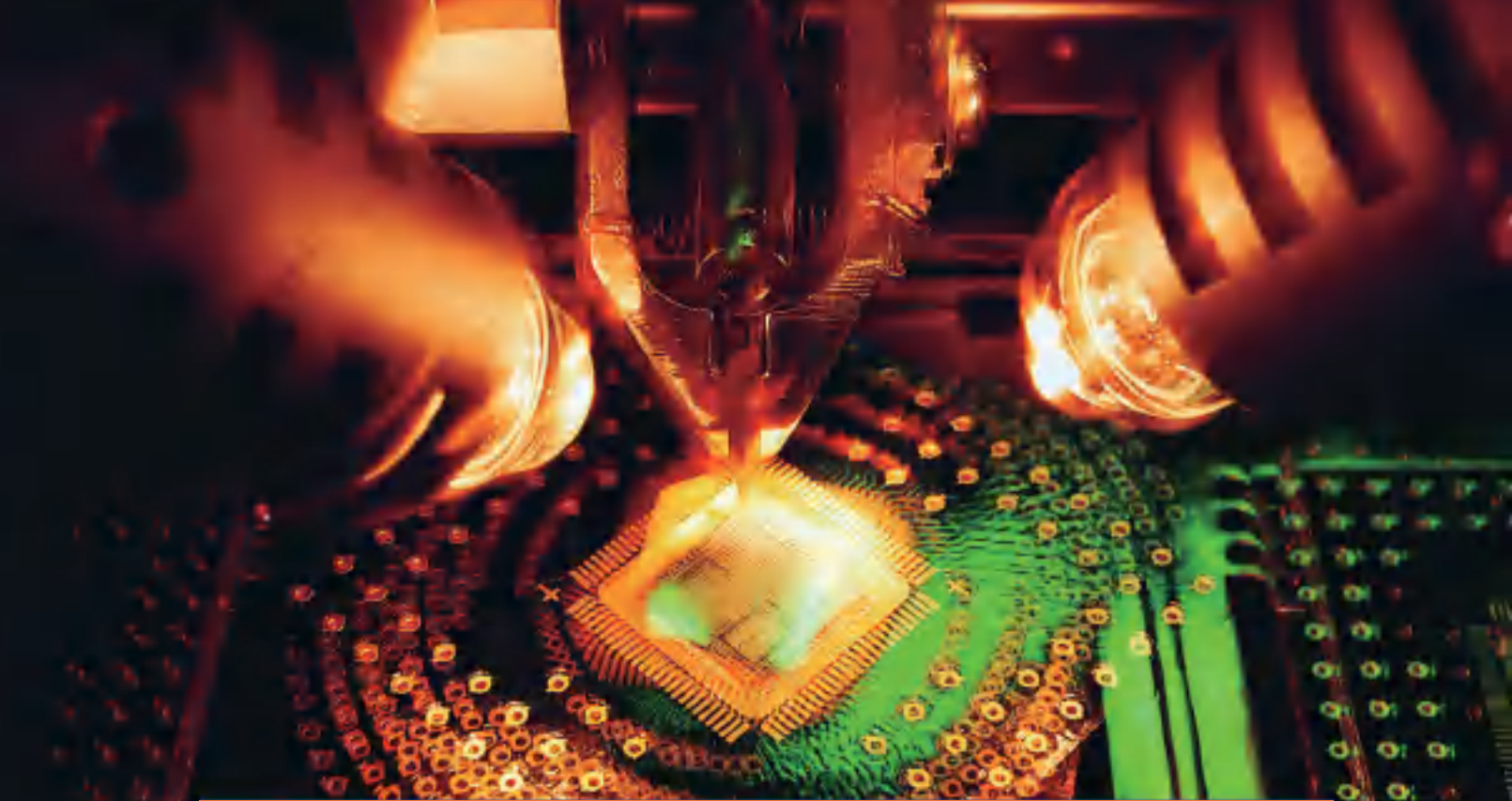


06
TEST
检验



08
PACKING
包装





01

Graphite Parts For Semiconductor Crystal Growth

半导体晶体生长用石墨配件

用于生长半导体晶体的所有工艺都在高温、侵蚀性环境下运行，晶体生长炉的热区通常会配备耐热和耐腐蚀的高纯度石墨部件，如加热器、坩埚、石墨保温筒、导流筒、石墨电极、坩托、电极螺母等。

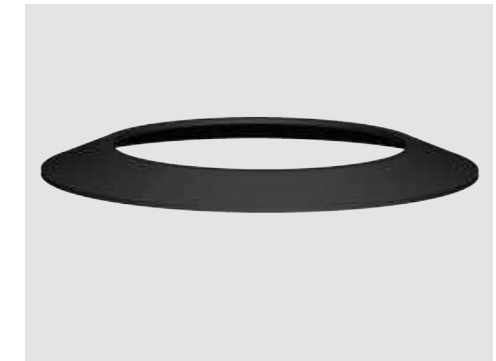
我司可生产晶体生产装置的所有石墨部件，可单个或成套提供，也可根据客户需求定制各种尺寸的石墨件，接受现场测量产品尺寸，成品灰分值可达到5PPM以内。

All processes used to grow semiconductor crystals operate under high temperature and corrosive environment. the hot zone of the crystal growth furnaces is usually equipped with high-purity graphite parts that are heat resistant and corrosion resistant,such as heaters,crucibles, graphite insulation canisters, guide cylinders, graphite electrodes, crucible support , electrode nuts, etc.

Our company can produce all graphite parts of crystal production furnaces, which can be provided individually or in a complete set. We can also customize graphite parts of various sizes according to customer needs and accept on-site measurement of product sizes, ash value of finished products can reach less than 5PPM.



Part Name	Rigid felt insulation cylinder
名称:	硬毡保温筒



Part Name	Deflector
名称:	导流罩



Part Name	Graphite ring
名称:	石墨环



Part Name	Graphite heater
名称:	石墨加热器



Part Name	Graphite tube
名称:	石墨筒



Part Name	Graphite chuck
名称:	石墨卡瓣



02

Graphite Parts For Semiconductor Epitaxial Growth

半导体外延用石墨配件

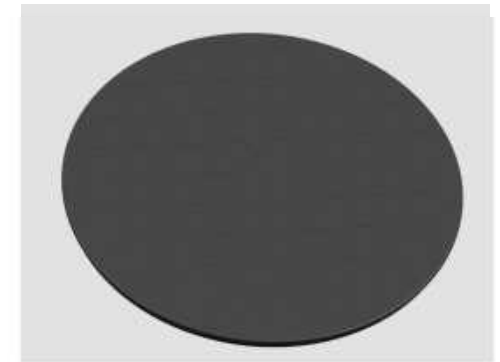
外延工艺是指在单晶衬底上生长一层跟衬底具有相同晶格排列的单晶材料, 在外延工艺中, 晶片承载在石墨盘上, 石墨盘的性能和质量对晶片的外延层质量起着至关重要的作用。外延生产领域需要很多超高纯石墨和SIC涂层的高纯石墨基座。我司的半导体外延用石墨件基座使用范围广, 能匹配行业内大部分常用设备, 同时拥有极高的纯度、均匀的涂层、卓越的使用寿命和极高的耐化学性和热稳定性。

Epitaxial process refers to the growth of a single crystal material with the same lattice arrangement of the substrate on the single crystal substrate. In the epitaxial process, the wafer is loaded on the graphite plate, and the performance and quality of the graphite plate play a crucial role in the quality of the epitaxial layer of the wafer. Epitaxial production field needs a lot of ultra-high purity graphite and SIC coated high purity graphite susceptors.

Our graphite susceptor for semiconductor epitaxy has a wide range of applications, which can match most of the common used equipment in the industry, and has extremely high purity, uniform coating, excellent service life and extremely high chemical resistance and thermal stability.



Part Name	4 inch Epi graphite plate
名称:	四寸外延石墨盘



Part Name	Large graphite plate
名称:	外延石墨大盘



Part Name	Graphite electrode rod
名称:	石墨电极棒



Part Name	MOCVD Ceiling
名称:	顶盖收集器 (大锅盖)



Part Name	Heating rod
名称:	加热棒



Part Name	Graphite fixture
名称:	石墨治具



03

Ion Implantation

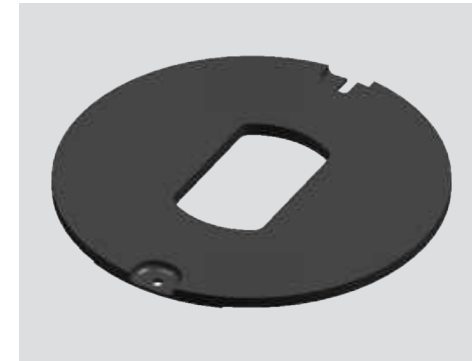
离子注入用石墨配件

离子注入是指将硼、磷、砷等离子束加速到一定能量,然后注入晶圆材料的表层内,以改变材料表层物质特性的工艺。组成离子注入装置部件的材料要求具有优异的耐热性、导热性、由离子束引起的腐蚀较少且杂质含量低的高纯材料。高纯石墨满足应用要求,可用于离子注入设备的飞行管、各种狭缝、电极、电极罩、导管、束终止器等。

我们不仅能提供各种离子注入机提供石墨屏蔽罩,且提供各种规格具有高耐腐蚀性的高纯度石墨电极及离子源。适用机型: Eaton, Azcelis, Quatum, Varian, Nissin, AMAT, LAM等设备。除此之外还可提供相配套的各种陶瓷、金属钨、钼、铝制品及涂层零件等。

Ion implantation refers to the process of accelerating the plasma beam of boron, phosphorus and arsenic to a certain energy, and then injected it into the surface layer of the wafer material to change the material characteristics of the surface layer. The components of the ion implantation device shall be made of high-purity materials with excellent heat resistance, thermal conductivity, less corrosion caused by ion beam and low impurity content. The high-purity graphite meets the application requirements and can be used for the flight tubes, various slits, electrodes, electrode covers, conduits, beam terminators, etc. Of ion implantation equipment.

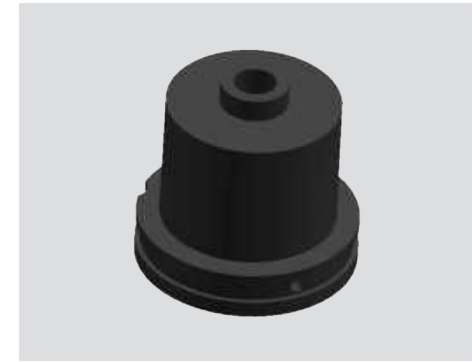
We can not only provide graphite shielding covers for various ion implant, but also provide high-purity graphite electrodes and ion sources with high corrosion resistance of various specifications. Applicable models: Eaton, Azcelis, Quatum, Varian, Nissin, AMAT, LAM etc. In addition, we can also provide Various matching ceramic, metal tungsten, molybdenum, aluminum products and coating parts.



Part Name	Ion implantation graphite parts
名称:	离子注入石墨件



Part Name	Ion implantation graphite parts
名称:	离子注入石墨件



Part Name	Ion implantation graphite parts
名称:	离子注入石墨件



Part Name	Ion implantation graphite parts
名称:	离子注入石墨件



Part Name	Ion implantation graphite parts
名称:	离子注入石墨件



Part Name	Ion implantation graphite parts
名称:	离子注入石墨件



04

Graphite Insulation Materials And Other

石墨保温材料及其他

用于半导体生产设备中的保温材料有石墨硬毡、软毡、石墨箔、石墨纸、石墨绳，我司原材料有进口和国产石墨材料，可根据客户具体尺寸规格要求切割，也可以整件出售。碳碳托盘用于太阳能单晶硅、多晶硅电池片的制作过程镀膜用载体，工作原理：将硅片插入碳碳托盘内，送入炉管中加工镀膜。

Thermal insulation materials used in semiconductor production equipment include graphite hard felt, soft felt, graphite foil, graphite cord, graphite rope, our raw materials are imported graphite materials, can be cut according to customers specific size specifications requirements, can also be sold as a whole.

C/C carrier is used as a coating carrier in the production process of solar monocrystal silicon and polysilicon cells. Working principle: insert the silicon wafer into the C/C carrier and put is into the furnace tube for processing and coating.



Part Name	Carbon carbon material rack
名称:	碳碳料架



Part Name	Graphite foil
名称:	石墨纸



Part Name	Graphite soft felt
名称:	石墨软毡



Part Name	Graphite rigid felt
名称:	石墨硬毡



Part Name	Graphite cord
名称:	石墨绳



Part Name	Graphite powder
名称:	石墨粉