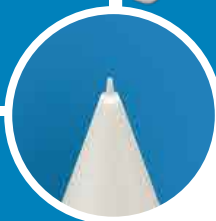
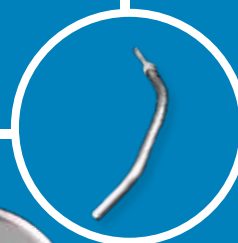


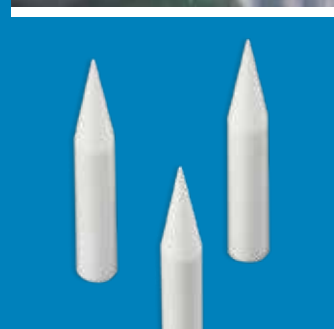


深圳市商德先进陶瓷股份有限公司



Turning the Axis of the World!

The Supplier Specialized in precision
Structural Ceramics





公司简介 COMPANY PROFILE

深圳市商德先进陶瓷股份有限公司是一家在先进陶瓷领域集研发、制造与销售为一体的现代化企业。工厂设立在中国广东省深圳市。

公司主要为包括来自美国、德国、以色列、新加坡、日本等世界各地的客户提供精密陶瓷零部件。产品满足不同行业客户的设备需求，在SMT、半导体设备、医疗器械、流体控制、打印设备等领域都得到了广泛应用。

公司拥有一批高端机械设备，实现了从陶瓷粉料调配、生坯成型、毛坯烧结到陶瓷材料二次机械精加工整个陶瓷零件生产流程的自主完成。

公司现有一批技术经验丰富的陶瓷制造和研发团队，不断地进行新技术、新工艺开发和改进，为公司的快速和可持续发展提供了保障。

公司在2008年5月首次通过ISO9001质量管理体系认证，在2013年9月再次通过了ISO9001质量管理和ISO14001环境管理双体系认证。我司在先进陶瓷领域已经拥有40项国家专利和20项科研成果，并成功的实现了科研到生产的转换。我司秉承商者无域、德行天下的经营理念致力于做全球先进陶瓷材料的领跑者。

公司在2017年3月完成股份制改造，更名为：深圳市商德先进陶瓷股份有限公司。在2017年8月正式挂牌新三板，股票代码：872052。

我们提供的服务如下：

- ◆部分稳定（钇、铈和镁）氧化锆陶瓷和高纯度氧化铝（99.8%）的生坯成型
- ◆部分稳定（钇、铈和镁）氧化锆陶瓷和高纯度氧化铝（99.8%）的毛坯烧结
- ◆各种先进陶瓷材料的精密机械加工
- ◆各种特殊先进陶瓷材料的开发定制（导电陶瓷、防静电陶瓷、自润滑陶瓷）
- ◆先进陶瓷机械或电子零部件的设计、开发和生产

Suntech Advanced (Shenzhen) Co., Ltd is a supplier of advanced ceramic parts. Our manufacturing facility is in Shenzhen of China. Suntech have established our own capability in research, development and various manufacturing processes and techniques in the field of advanced ceramics.

Suntech supply high-precision ceramic parts for customers of America, Germany, Israel, Singapore, Japan and the rest of the world. products can meet both application and quality requirements of industries such as Surface-Mount-Technology (SMT), semiconductors equipments, medical equipments, flow-control equipments and printing machines.

Through the years of use of highly specialized ceramics fabrication equipment coupled with a team of well experienced engineers, Suntech has mastered the entire manufacturing process of advanced ceramics from powder preparing, green body forming, sintering to 2nd time precision machining.

As a technology company, we recognize the importance of engineering innovation. Therefore, we have put in high priority in areas of new manufacturing technique and process. This philosophy has been the driving force to safeguard continuous product improvement of our company.

Suntech have acquired ISO9001 for the first time in May 2008, and we once again acquired ISO9001 as well as ISO14001 in September 2013. We have owned 40 national patents and 20 achievements in scientific research and have successfully transformed these scientific researches into actual manufacturable products. Our company has always been committing to supplying the highest quality of advanced ceramic products to our customers. Suntech's management philosophy is as follows, Business expands boundlessly when integrity is pronounced.

Suntech officially lists NEEQ in August 2017, Stock Code: 872052

Area of Service:

- ◆ Molding of Partially Stabilized (Y,Ce,Mg) Zirconia and high purity Alumina(99.8%)
- ◆ Sintering of Partially Stabilized (Y,Ce,Mg) Zirconia and high purity Alumina(99.8%)
- ◆ Precision Machining of Various Advanced Ceramic Material
- ◆ Development and Composition of Various Advanced Ceramic material, (Conductive Ceramic, ESD Ceramic, Self-lubricated Ceramic)
- ◆ Design, Development, Manufacturing of Mechanical or electronic components of Advanced Ceramic

- **经营理念：**
商者无域，德行天下
- **核心价值观：**
为客户提高产品竞争力，创造最大效益；为员工创建实现个人价值的平台；感恩并回报社会。
- **企业愿景：**
致力于全球先进陶瓷材料研发和制造的领跑者。
- **品质政策：**
提升技术品质，领先行业标准，完善服务体系，实现客户满意
- **环境政策：**
遵守法规，预防污染，节能降耗，持续改善
- **Management Philosophy:**
Business expands boundlessly when integrity is pronounced.
- **Core Values:**
Upgrade Customer Products Competitive Strength, Create utmost benefits, Provide employees with self-realized value platform, be grateful for we have and return to community.
- **Company Vision:**
Committed in pioneering Global Advanced Ceramic material design and manufacturing.
- **Quality Policy:**
Improve Technique and Quality, Pioneer Advance Ceramic Industry Standard, Perfect Service System, Realize Customer Satisfaction.
- **Environmental Policy:**
Abide by Rules and Regulations, Prevent Pollution, Save Energy and Lower Consumption, Improve Continuously.



公司历程 COMPANY MILESTONE

2006.04	深圳市商德电子有限公司成立	2006.04	Shenzhen Suntech Electronics Co.,Ltd founded
2006.12	成立陶瓷事业部	2006.12	Started Ceramics Business Division
2007.08	建立自己的生产基地	2007.08	Established own Ceramics Manufacturing Base
2008.03	成为环球仪器的合格供应商	2008.03	Qualified as supplier of Universal Instruments
2008.04	成为AVC的合格供应商	2008.04	Qualified as supplier of AVC
2008.05	成为Kulicke&Soffa的合格供应商	2008.05	Qualified as supplier of Kulicke&Soffa
2008.05	通过ISO9001质量管理体系认证	2008.05	Started work to Qualified ISO9001
2009.04	成为ASM的合格供应商	2009.04	Qualified as supplier of ASM
2010.08	成为大族激光的合格供应商	2010.08	Qualified as supplier of Hans Laser
2011.07	成为南京富士通的合格供应商	2011.07	Qualified as supplier of Nanjing Fujitsu
2011.09	工厂搬到宝安沙井，厂房面积由900平方米增加到5400平方米	2011.09	Factory moved to Shajing Baoan, plant factory grew from 900 sqm to 5400 sqm.
2012.03	成为FBD和Microlys的合格供应商	2012.03	Qualified as supplier of FBD& Microlys
2012.05	“自带石墨润滑粉氧化锆陶瓷及滑动轴承”获得国家发明专利	2012.05	Zirconia Ceramics Self-lubricated Bearing has got the national patent.
2012.06	深圳市商德电子有限公司更名为深圳市商德先进陶瓷有限公司	2012.06	Suntech Electronics (Shenzhen)Co.,Ltd changed the name to Suntech Advanced (Shenzhen)Co.,Ltd
2012.09	成为HCT的合格供应商	2012.09	Qualified as supplier of HCT
2013.04	成为Nordson和Heraeus的合格供应商	2013.04	Qualified as supplier of Nordson & Heraeus
2013.06	成为Makino的合格供应商	2013.06	Qualified as supplier of Makino
2013.09	通过ISO9001质量管理和ISO14001环境管理双体系认证	2013.09	Acquired ISO9001 and ISO14001
2014.03	成为艾斯特科的合格供应商	2014.03	Qualified as supplier of Astek
2014.09	荣获国家级高新技术企业认定	2014.09	Crowned National High-tech Enterprises
2014.09	成为帝迈生物的合格供应商	2014.09	Qualified as supplier of Dymind Biotech
2014.11	成为恒永达的合格供应商	2014.11	Qualified as supplier of Foreach
2015.05	成为誉辰自动化的合格供应商	2015.05	Qualified as supplier of UTIMES
2015.07	成为Doceram的合格供应商	2015.07	Qualified as supplier of Doceram
2016.01	成为垦拓流体的合格供应商	2016.01	Qualified as supplier of Keyto
2016.06	成为Cohu的合格供应商	2016.06	Qualified as supplier of Cohu
2017.02	成为开立生物的合格供应商	2017.02	Qualified as supplier of SonoScape
2017.05	通过NSF认证	2017.05	Qualified by NSF
2017.06	成为KLA的合格供应商	2017.06	Qualified as supplier of KLA
2017.08	正式挂牌新三板，股票代码：872052	2017.08	Officially list NEEQ, Stock Code: 872052
2018.08	正式成为上海微电子合格供应商	2018.08	Qualified as supplier of SMEE
2020.12	深圳商德全资子公司合肥商德材料正式成立	2020.12	Shenzhen SUNTECH wholly-owned subsidiary Hefei SUNTECH Materials was formally established



荣誉证书

Certificate of honor

企业荣誉证书

Enterprise honorary certificate



专利证书

Patent certificate



工厂和产品认证

Factory and product certification



劈刀介绍



材料认证

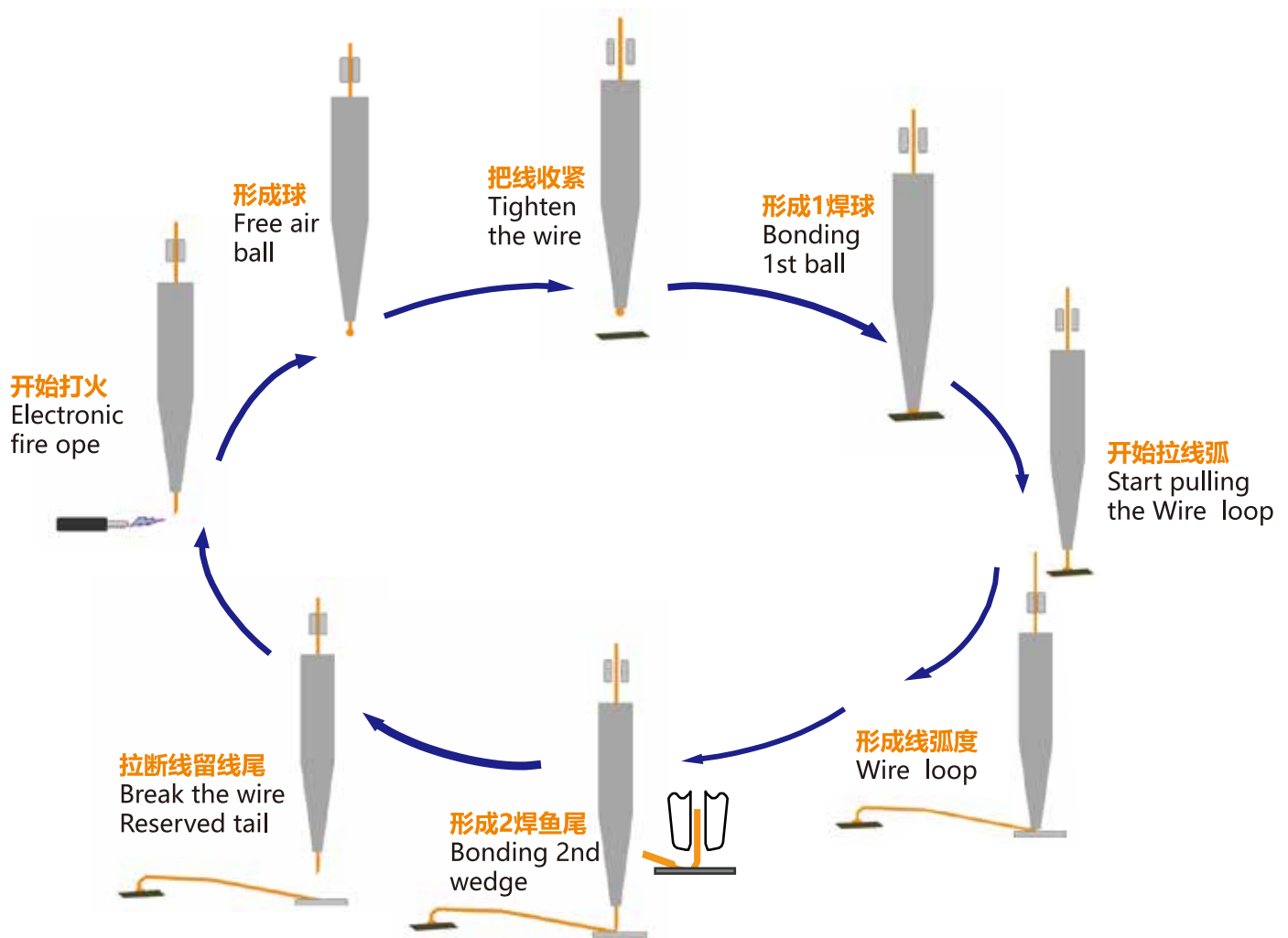
根据欧盟第1907/2006号REACH法规

PASS the ROHS, REACH of ECHA per NO.1907/12006 REACH regulation of EU



焊线过程

Wire Bonding Process



材料制备

Preparation Of Materials

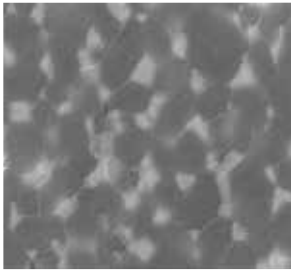
利用改性的纳米氧化铝粉料，选用先进的成型工艺，并通过特殊的烧结处理，获得高致密、高硬度、高耐磨、优异的化学稳定性、结构均一的陶瓷劈刀。

Take modified nano-alumina powder, advanced forming technology and special sintering process, The ceramic capillary with high density, high hardness, high wear resistance, excellent chemical stability and uniform structure was obtained.

净尺寸、高自动化的成型方法，最大限度地减少后续加工时间，高效的实现大批量生产。

Net size, high automatical molding method, to minimize the follow-up processing time, efficiently meet the mass production requirement.

材料的性能 Material Properties



组分/Composition



硬度测试/Hardness testing

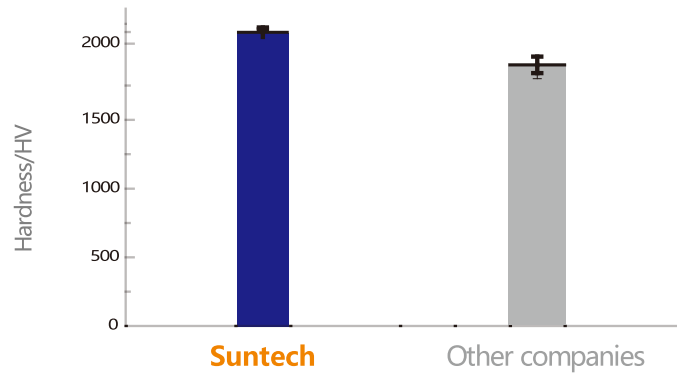


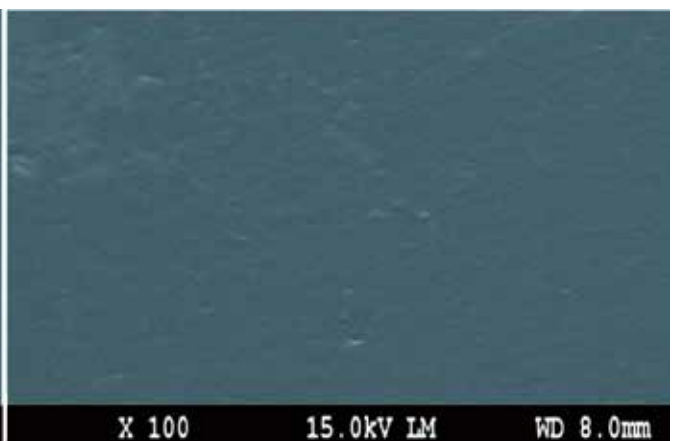
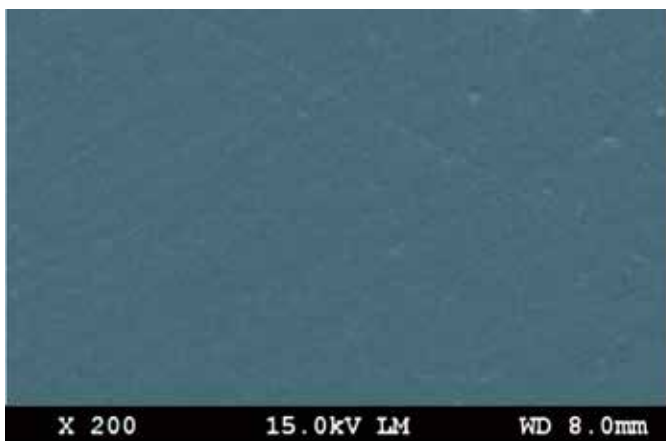
表 1 性能对比

Table 1 Camparison Of Performance

厂家/Manufacturer	颜色/Color	平均晶粒尺寸/Average grain size (μm)	密度/Density (g/cm³)	硬度/Hardness (HV)
Suntech	白色	< 0.6	4.33	
A	白色	< 1.2	4.3	
	红色	< 0.5	4.3	
S	白色	< 0.9	4.25	
	粉色			
C	白色	> 1.0	4.15	
D	白色	1.0	4.1	

高品质的材料

High Quality Materials



产品处理后的端面形貌

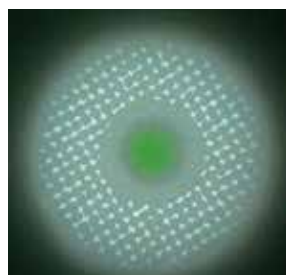
Surface Finishing Of The Product



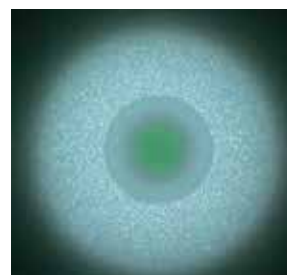
Surface-A抛光面适用于金线
Polished surface Suitable
for gold wire



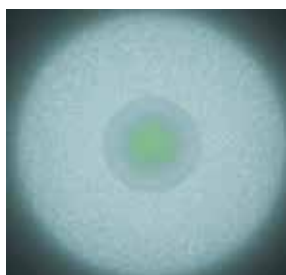
Surface-B微粗化面适用于金线、合金线
Micro-roughened surface Suitable
for gold wire and alloy wire



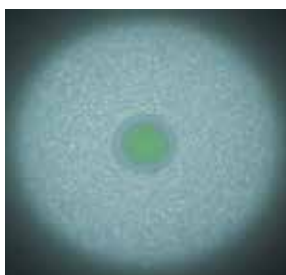
Surface-C网格面适用于合金线、铜线
Mesh face Suitable for
alloy wire and copper wire



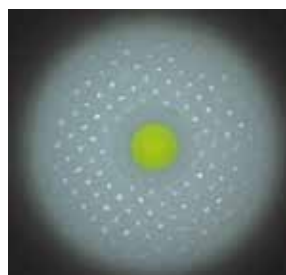
Surface-D细粗化面适用于金线、合金线、IC铜线
Fine roughening surface Suitable for
gold wire, alloy wire, IC copper wire



Surface-E粗化面适用于金线、合金线、IC铜线
Rough surface Suitable for gold
wire, alloy wire, IC copper wire



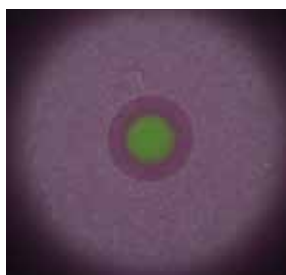
Surface-G粗化面适用于金线、合金线、IC铜线
Rough surface Suitable for
gold wire, alloy wire, IC copper wire



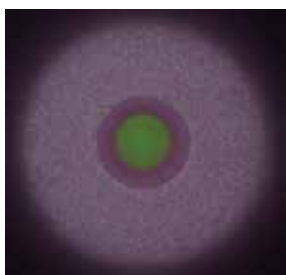
Surface-H网格面适用于铜线
Mesh face
Suitable for copper wire



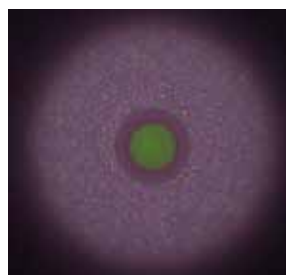
Surface-F细网格面适用于LED合金线、铜线
Fine mesh surface Suitable
for LED alloy wire, copper wire



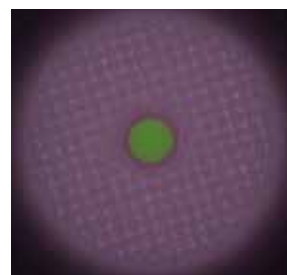
Surface-Red D Fine roughening surface
Suitable for gold wire and alloy wire



Surface-Red E Rough surface Suitable
for gold wire, alloy wire, IC copper wire



Surface-Red G Rough surface Suitable
for gold wire, alloy wire, IC copper wire



Surface-Red H Mesh face
Suitable for copper wire

高精密制造过程

High Precision Manufacturing Process

粉料 Powder



喂料 Feedstock



成型 Injection Molding



烧结 Sintering



毛坯 Blank



- 采用进口的全套生产设备，对所有特征尺寸进行加工。

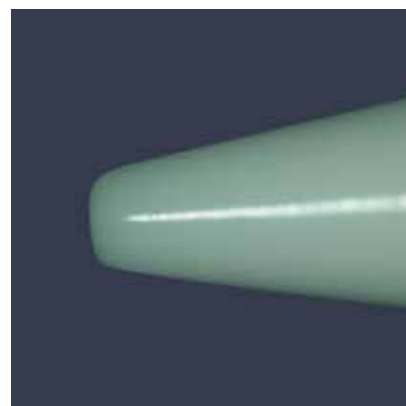
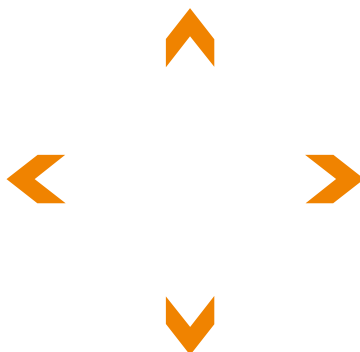
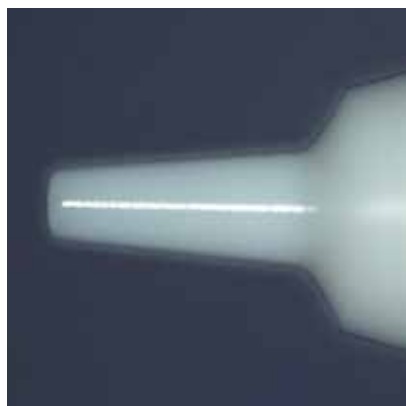
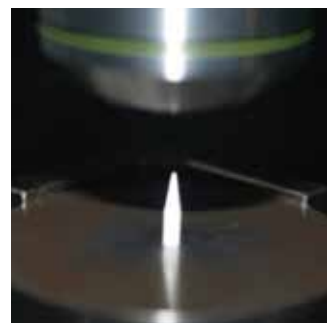
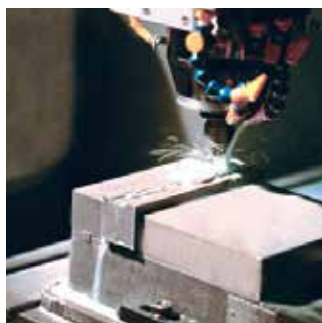
All processing equipments are imported which fully ensure all the required dimensions.

- 高精密的加工设备及丰富的加工经验，为客户提供严格的尺寸产品。

High precision processing equipment and rich processing experience, providing the precise products to clients.

精密加工过程

Precision Machining Process

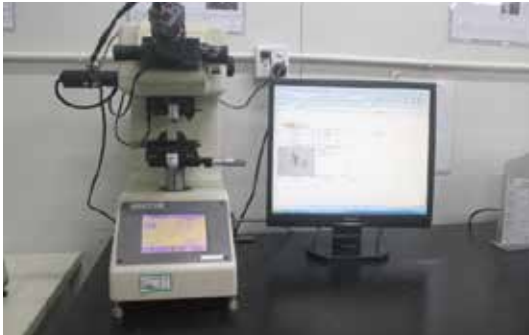


无尘室精洗和包装

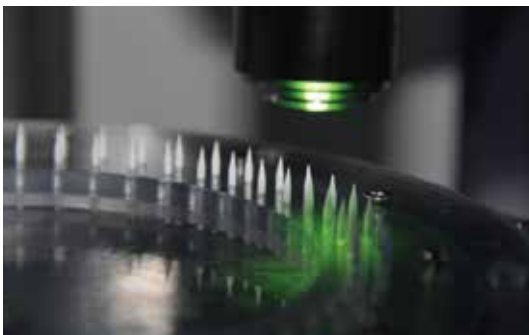
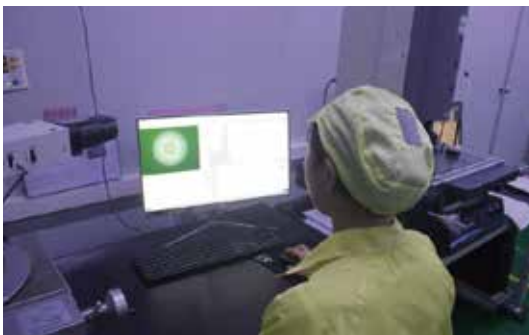
Packing And Cleaning In The Cleanroom



高品质保证 High Quality Assurance

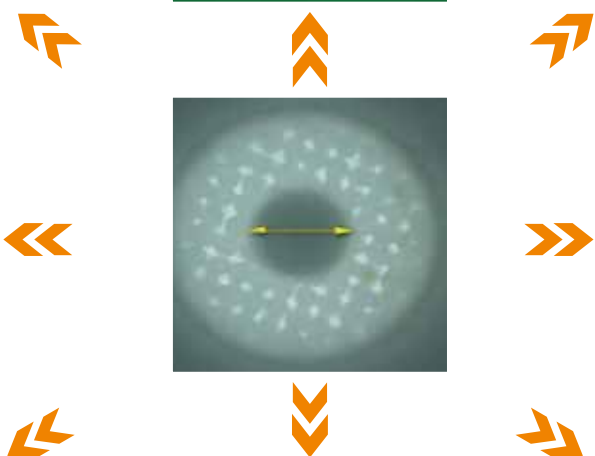
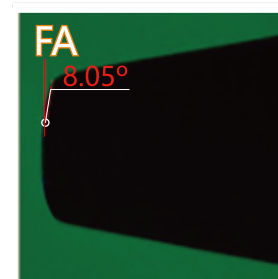
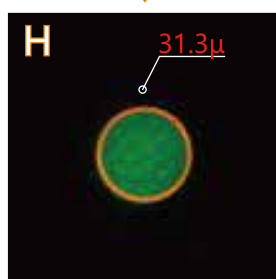
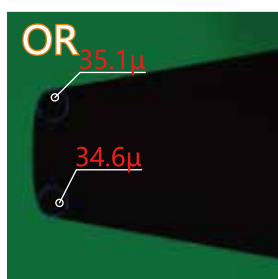
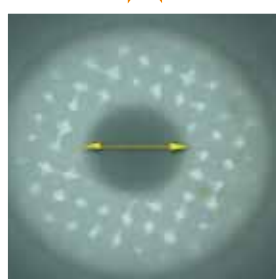
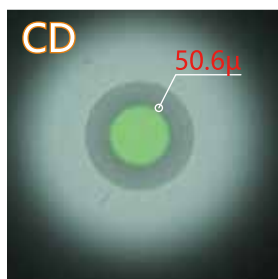
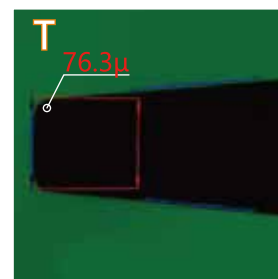
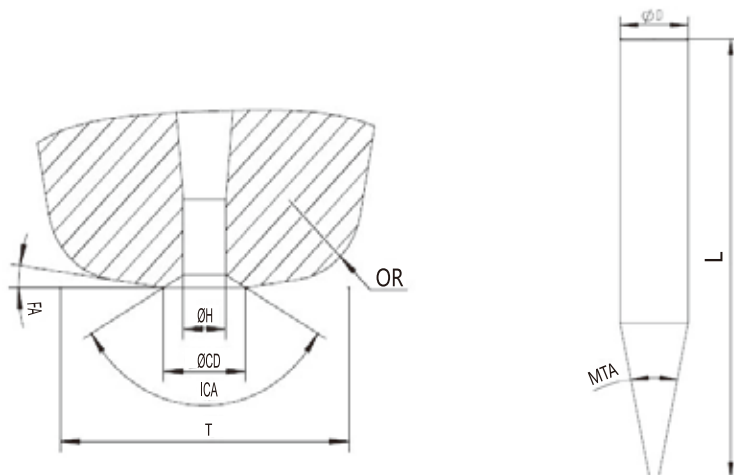


产品检测设备
Product Measure Equipment



产品自动检测设备
Automatic Visual Inspection Measure Equipment

成品检测 Inspection Of Finished Products

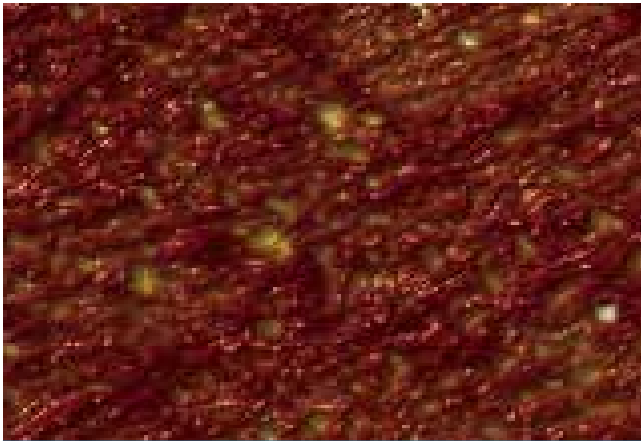


产品微观品质和**实际使用性能验证**

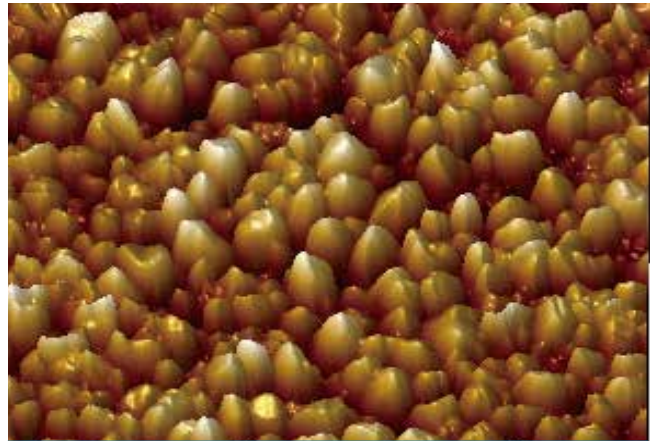
Verify The Micro-quality And Performance Of Product

最先进的表征设备来精确控制产品的均一性

The most advanced characterization equipment to accurately control product uniformity



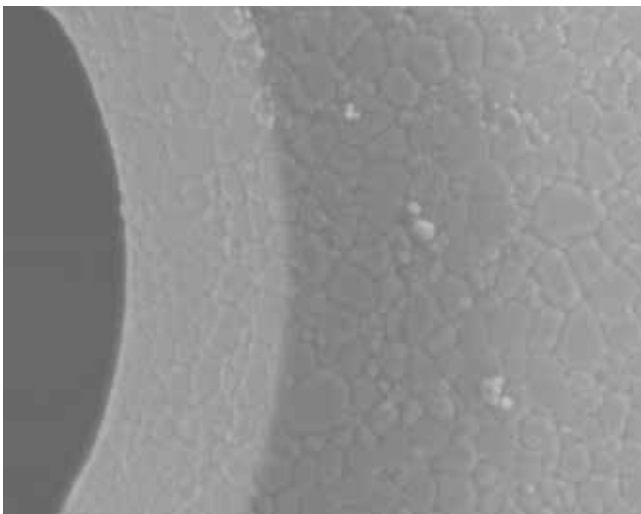
光面产品粗糙度测试
Roughness test of smooth products



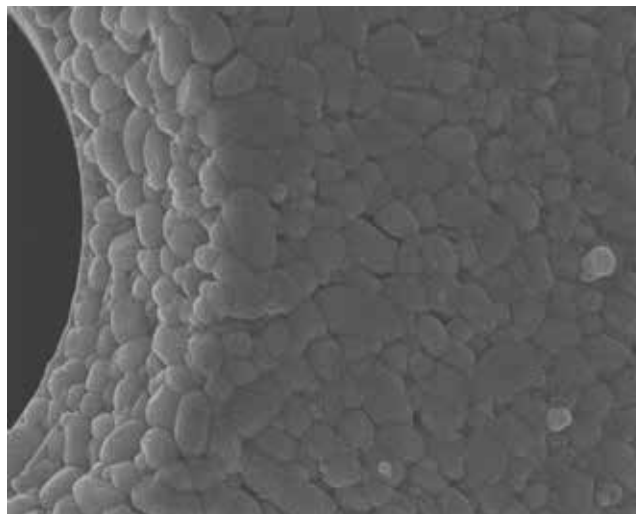
粗面产品粗糙度测试
Roughness test of matt products

哑光产品与同行对比

Products With Matt Finish Are Compared With Peers



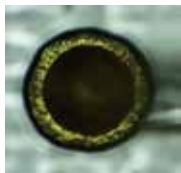
商德哑光后CD区域形貌
The matt topography of CD area in Suntech



其它公司哑光后CD区域形貌
The matt topography of CD area in other Companies

外观形貌

Wire bonding appearance



金线300K时的第一焊点

The first bonding point of 300K gold wire



金线300K时的第二焊点

The second bonding point of 300K gold wire



合金线300K时的第一焊点

The first bonding point of 300K alloy wire



合金线300K时的第二焊点

The second bonding point of 300K alloy wire



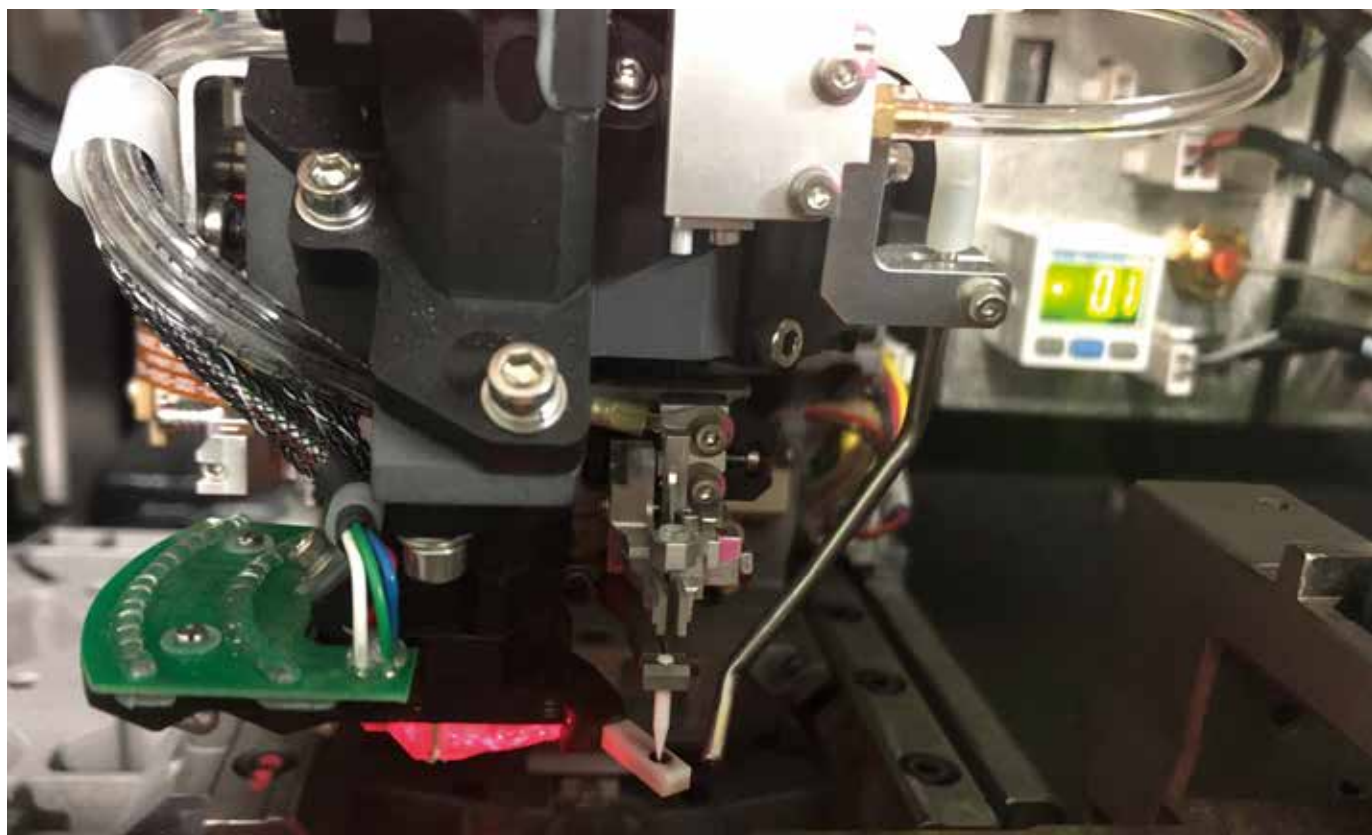
铜线300K时第一焊点

The first bonding point of 300K copper wire



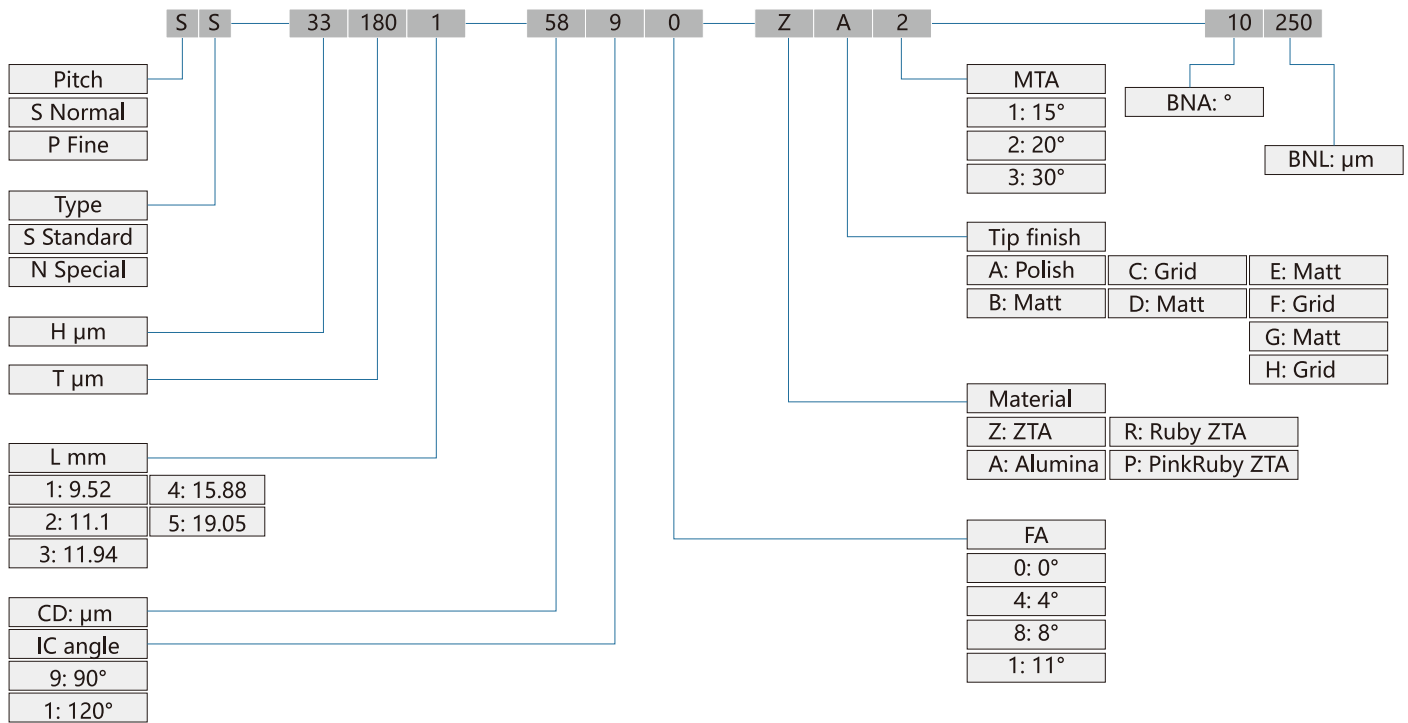
铜线300K时第二焊点

The second bonding point of 300K copper wire



产品参数对照表

Product Parameter Checking Table



加长特制劈刀 Special Capillary



常规劈刀大料号

SUNTECH Normal Capillary Ordinary Part Number

型号Mode	料号PN	L(um)	D(um)	H(um)	T(um)	OR(um)	CD(um)	ICA°	FA°	MTA°	BNA°	BNL(um)	MAT'L	端面 Surface	种类 Pitch	类型 Type
锥管1	SS-301802-5098-ZB2	11100	1583	30	180	30	50	90	8	20			Z	B	S	S
锥管3	SS-251402-3891-ZF2	11100	1583	25	140	25	38	90	11	20			Z	F	S	S
锥管6	SS-301802-5098-ZC2	11100	1583	30	180	30	50	90	8	20			Z	C	S	S
锥管15	SS-331652-6398-ZD2	11100	1583	33	165	30	63	90	8	20			Z	D	S	S
锥管20	PS-301002-4591-ZB2-10260	11100	1583	30	100	10	45	90	11	20	10	260	Z	B	P	S
锥管21	PS-250802-3178-ZC3-10230	11100	1583	25	80	14.5	31	70	8	30	10	230	Z	C	P	S
锥管26	SS-281802-4618-ZD2	11100	1583	28	180	30	46	120	8	20			Z	D	S	S
锥管31	PS-301202-4698-ZB2-10254	11100	1583	30	120	20	46	90	8	20	10	254	Z	B	P	S
锥管32	PS-250602-2861-ZB3-10254	11100	1583	25	60	8	28	60	11	30	10	254	Z	B	P	S
锥管35	SS-281652-4698-ZC2	11100	1583	28	165	25	46	90	8	20			Z	C(C0)	S	S
锥管40	PS-251142-3898-ZB3-10200	11100	1583	25	114	25	38	90	8	30	10	200	Z	B	P	S
锥管56	SS-231182-3591-ZC2	11100	1583	23	118	15	35	90	11	20			Z	C(C3)	S	S
锥管58	SS-231652-4198-ZC2	11100	1583	23	165	25	41	90	8	20			Z	C	S	S
锥管64	SS-281652-4598-ZC2	11100	1583	28	165	25	45	90	8	20			Z	C	S	S
锥管71	SS-251402-3898-ZC2	11100	1583	25	140	20	38	90	8	20			Z	C	S	S
锥管72	SS-331502-6098-ZD1	11100	1583	33	150	20	60	90	8	15			Z	D	S	S
锥管86	SS-301202-4398-ZB2	11100	1583	30	120	20	43	90	8	20			Z	B	S	S
锥管87	SS-231102-3298-ZC2 (C3)	11100	1583	23	110	18	32	90	8	20			Z	C(C3)	S	S
锥管89	SS-382002-7498-ZD2	11100	1583	38	200	38	74	90	8	20			Z	D	S	S
锥管101	PS-250902-3891-ZD3-10254	11100	1583	25	90	13	38	90	11	30	10	254	Z	D	P	S
锥管102	PS-230712-2778-ZD2-10254	11100	1583	23	71	12.7	27	70	8	20	10	254	Z	D	P	S
锥管105	SS-231122-3591-ZC2	11100	1583	23	112	15	35	90	11	20			Z	C(C3)	S	S
锥管110	SS-231202-3291-ZC2	11100	1583	23	120	25	32	90	11	20			Z	C	S	S
锥管111	SS-231202-2791-ZC2	11100	1583	23	120	18	27	90	11	20			Z	C	S	S
锥管163	PS-250902-3991-ZB2-10205	11100	1583	25	90	15	39	90	11	20	10	205	Z	B	P	S
锥管185	SS-281802-4698-ZC2	11100	1583	28	180	30	46	90	8	20			Z	C(C2)	S	S
锥管187	SN-231102-3298-ZC2(C4)	11100	1583	23	110	18	32	90	8	20			Z	C(C4)	S	N
锥管208	SS-231102-3298-RC2(C4)	11100	1583	23	110	18	32	90	8	20			R	C(C4)	S	S
锥管215	PS-250802-3071-RD3-10205	11100	1583	25	80	13	30	70	11	30	10	205	R	D	P	S
锥管216	PS-250702-2871-RD3-10205	11100	1583	25	70	12	28	70	11	30	10	205	R	D	P	S
锥管217	PS-250802-3378-RD2-10275	11100	1583	25	80	13	33	70	8	20	10	275	R	D	P	S
锥管218	PS-250802-3378-RD2-10300	11100	1583	25	80	13	33	70	8	20	10	300	R	D	P	S
锥管219	PS-210662-2891-RB2-10225	11100	1583	21	66	13	28	90	11	20	10	225	R	B	P	S
锥管220	PS-250802-3391-RD2-10200	11100	1583	25	80	13	33	90	11	20	10	200	R	D	P	S
锥管221	SS-332002-5818-ZE2	11100	1583	33	200	38	58	120	8	20			Z	E	S	S
锥管222	SS-331902-6798-ZE2	11100	1583	33	190	30	67	90	8	20			Z	E	S	S
锥管223	SS-251402-4798-RE2	11100	1583	25	140	20	47	90	8	20			R	E	S	S
锥管224	SS-331652-6498-RE2	11100	1583	33	165	30	64	90	8	20			R	E	S	S
锥管225	SS-281652-4598-RE2	11100	1583	28	165	25	45	90	8	20			R	E	S	S
锥管226	SS-281652-5898-RE2	11100	1583	28	165	30	58	90	8	20			R	E	S	S
锥管258	SS-382802-5898-ZA2	11100	1583	38	280	20	58	90	8	20			Z	A	S	S
锥管259	SS-281652-5891-RE2	11100	1583	28	165	25	58	90	11	20			R	E	S	S
锥管260	SS-251602-5091-RE2	11100	1583	25	160	25	50	90	11	20			R	E	S	S
锥管261	SS-281322-5198-RE2	11100	1583	28	132	25	51	90	8	20			R	E	S	S
锥管262	SS-301902-5198-RE2	11100	1583	30	190	30	51	90	8	20			R	E	S	S
锥管263	SS-301902-4698-RE2	11100	1583	30	190	30	46	90	8	20			R	E	S	S
锥管264	SS-281402-4598-RE2	11100	1583	28	140	25	45	90	8	20			R	E	S	S
锥管265	PS-250712-3391-ZE2-10245	11100	1583	25	71	20	33	90	11	20	10	245	Z	E	P	S
锥管266	PS-381322-5691-ZB2-10254	11100	1583	38	132	30	56	90	11	20	10	254	Z	B	P	S
锥管267	SS-251402-3898-RE2	11100	1583	25	140	20	38	90	8	20			R	E	S	S
锥管268	SS-301902-6498-ZE2	11100	1583	30	190	30	64	90	8	20			Z	E	S	S
锥管269	SS-301782-5598-RE2	11100	1583	30	178	30	55	90	8	20			Z	E	S	S
锥管270	SS-331502-6498-RB2	11100	1583	33	150	30	64	90	8	20			R	B	S	S
锥管271	SS-381702-7498-RB2	11100	1583	38	170	25	74	90	8	20			R	B	S	S
锥管272	SS-331802-6498-RB2	11100	1583	33	180	25	64	90	8	20			R	B	S	S
锥管273	SS-251702-6118-RB2	11100	1583	25	170	25	83	120	8	20			R	B	S	S
锥管274	SS-331702-8318-RB2	11100	1583	33	170	25	83	120	8	20			R	B	S	S

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锥管293	SN-231202-3298-RB2	11100	1583	23	120	20	32	90	8	20			R	B	S	S
锥管294	SN-231272-3398-ZB2	11100	1583	23	127	20	33	90	8	20			Z	B	S	S
锥管295	SN-231272-3398-ZD2	11100	1583	23	127	20	33	90	8	20			Z	D	S	S
锥管296	SS-251272-3398-RE2	11100	1583	25	127	15	33	90	8	20			R	B	S	S
锥管297	PS-301022-5398-RB2-10260	11100	1583	30	102	20	53	90	8	20	10	260	R	B	P	S
锥管299	SS-251402-3898-ZF2	11100	1583	25	140	25	38	90	8	20			Z	F	S	S
锥管306	SN-301902-5898-ZH2	11100	1583	30	190	30	58	90	8	20			Z	H	S	S
锥管316	SS-251652-5818-ZD2	11100	1583	25	165	25	58	120	8	20			Z	D	S	S
锥管324	SS-231102-3298-ZH2	11100	1583	23	110	15	32	90	8	20			Z	H	S	S
锥管347红	SS-281652-4598-RF2	11100	1583	28	165	25	45	90	8	20			R	F	S	S
锥管349	SS-231202-3598-ZH2	11100	1583	23	120	20	35	90	8	20			Z	H	S	S
锥管350红	SS-382002-6498-RG2	11100	1583	38	200	30	64	90	8	20			R	G	S	S
锥管351红	SS-331902-5898-RH2	11100	1583	33	190	25	58	90	8	20			R	H	S	S
锥管352红	SS-331522-5378-RB2	11100	1583	33	152	25	53	70	8	20			R	B	S	S
锥管358红	SS-301652-5598-RG2	11100	1583	30	165	30	55	90	8	20			R	G	S	S
锥管360红	SS-281652-5198-RG2	11100	1583	28	165	30	51	90	8	20			R	G	S	S
锥管370红	SS-281322-5198-RG2	11100	1583	28	132	20	51	90	8	20			R	G	S	S
锥管371红	SS-331652-6098-RE2	11100	1583	33	165	25	60	90	8	20			R	E	S	S
锥管373	SS-331652-5898-ZG2	11100	1583	33	165	25	58	90	8	20			Z	G	S	S
锥管386红	SS-301802-5198-RF2	11100	1583	30	180	30	51	90	8	20			R	F	S	S
锥管387红	SS-301902-5898-RF2	11100	1583	30	190	30	58	90	8	20			R	F	S	S
锥管388红	SS-301652-5898-RF2	11100	1583	30	165	25	58	90	8	20			R	F	S	S
锥管390红	SS-281402-4598-RG2	11100	1583	28	140	20	45	90	8	20			R	G	S	S
锥管396红	SS-301502-6098-RE2	11100	1583	30	150	25	58	90	8	20			R	E	S	S
锥管407	PS-281002-4198-ZB2-10500	11100	1583	28	100	13	41	90	8	20	10	500	Z	B	P	S
锥管409	SS-331022-5198-ZB2	11100	1583	33	102	20	51	90	8	20			Z	B	S	S
锥管411红	PS-250802-4198-RB2-10200	11100	1583	25	80	13	41	90	8	20	10	200	R	B	P	S
锥管413	SS-301902-5898-ZG2	11100	1583	30	190	30	58	90	8	20			Z	G	S	S
锥管434	PS-251002-4198-ZB2-10500	11100	1583	25	100	13	41	90	8	20	10	500	Z	B	P	S
锥管444	PS-331202-4998-ZB2-10500	11100	1583	33	120	20	49	90	8	20	10	500	Z	B	P	S
锥管447	PS-250892-3318-ZD2-10220	11100	1583	25	89	15	33	120	8	20	10	220	Z	D	P	S
锥管448红	PS-331202-4891-RD2-10230	11100	1583	33	120	20	48	90	11	20	10	230	R	D	P	S
锥管469	SS-251152-3898-ZC2	11100	1583	25	115	20	38	90	8	20			Z	C	S	S
锥管470	SS-432332-7318-ZD1	11100	1583	43	233	25	73	120	8	15			Z	D	S	S
锥管472	SS-512252-7818-ZD2	11100	1583	51	225	38	78	120	8	20			Z	D	S	S
锥管473	SS-431802-6898-ZD2	11100	1583	43	180	30	68	90	8	20			Z	D	S	S
锥管481	SS-301652-5398-ZB2	11100	1583	30	165	28	53	90	8	20			Z	B	S	S
锥管485	SS-251252-3598-ZC2	11100	1583	25	125	13	35	90	8	20			Z	C(C3)	S	S
锥管496	SN-251402-3898-ZF2	11100	1583	25	140	25	38	90	8	20			Z	F	S	N
锥管498	SS-301802-5298-ZC2	11100	1583	30	180	30	52	90	8	20			Z	C(C0)	S	S
锥管503	SS-251002-3991-ZB1	11100	1583	25	100	13	39	90	11	15			Z	B	S	S
锥管504	SS-301002-5091-ZB1	11100	1583	30	100	13	50	90	11	15			Z	B	S	S
锥管506	PN-210662-2698-ZD2-10200	11100	1583	21	66	13	26	90	8	20	10	200	Z	D	P	N
锥管507	PN-250802-3398-ZD2-10200	11100	1583	25	80	13	33	90	8	20	10	200	Z	D	P	N
锥管512粉	SS-432332-7318-PB2	11100	1583	43	233	25	73	120	8	20			P	B	S	S
锥管513红	SS-281652-5898-RE1	11100	1583	28	165	30	58	90	8	15			R	E	S	S
锥管514	SS-231252-3498-ZG2	11100	1583	23	125	20	34	90	8	20			Z	G	S	S
锥管515红	PS-250902-3898-RD2-10203	11100	1583	25	90	13	38	90	8	20	10	203	R	D	P	S
锥管518红	SS-301902-5198-RF2	11100	1583	30	190	30	51	90	8	20			R	F	S	S
锥管524红	SS-251002-3991-RB1	11100	1583	25	100	13	39	90	11	15			R	B	S	S
锥管525红	SS-301002-5091-RB1	11100	1583	30	100	13	50	90	11	15			R	B	S	S
锥管530	SS-281652-3598-ZC2(C0)	11100	1583	28	165	25	35	90	8	20			Z	C(C0)	S	S
锥管544	PS-210662-2698-ZD2-10200	11100	1583	21	66	13	26	90	8	20	10	200	Z	D	P	S
锥管545	PS-250802-3391-ZD2-10200	11100	1583	25	80	13	33	90	11	20	10	200	Z	D	P	S
锥管546红	PJ-210662-2698-RD2-10200	11100	1583	21	66	13	26	90	8	20	10	200	R	D	P	J
锥管547红	PJ-250802-3398-RD2-10200	11100	1583	25	80	13	33	90	8	20	10	200	R	D	P	J
锥管562	PS-211002-4198-ZB2-10500	11100	1583	21	100	13	41	90	8	20	10	500	Z	B	P	S

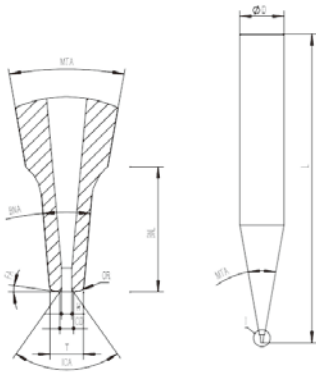
特殊劈刀料号

SUNTECH Special Capillary Part Number

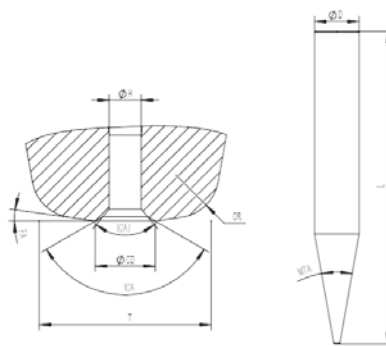
型号Mode	料号PN	L(um)	D(um)	H(um)	T(um)	OR(um)	CD(um)	ICA°	FA°	MTA°	BNA°	BNL(um)	MAT°L	端面 Surface	种类 Pitch	类型 Type
锥管119	SS-381704-7418-ZB2	15880	1583	38	170	25	74	120	8	20			Z	B	S	S
锥管120	SS-301424-6118-ZB2	15880	1583	30	142	20	61	120	8	20			Z	B	S	S
锥管121	SS-381705-7418-ZB2	19050	1583	38	170	25	74	120	8	20			Z	B	S	S
锥管122	SS-643005-13018-ZD2	19050	1583	64	300	51	130	120	8	20			Z	D	S	S
锥管158	SN-462364-8918-ZD2	15880	1583	46	236	38	89	120	8	20			Z	D	S	N
锥管167	SS-331404-5698-ZB2	15880	1583	33	140	30	56	90	8	20			Z	B	S	S
锥管170	SS-381804-6898-ZB2	15880	1583	38	180	38	68	90	8	20			Z	B	S	S
锥管193	SS-432344-7818-ZB2	15880	1583	43	234	30	78	120	8	20			Z	B	S	S
锥管194	SS-331424-6418-ZB2	15880	1583	33	142	20	64	120	8	20			Z	B	S	S
锥管401	SS-642504-10298-ZB2	15880	1583	64	250	38	102	90	8	20			Z	B	S	S
锥管423	SS-381654-6898-ZB3	15880	1583	38	165	30	68	90	8	30			Z	B	S	S
锥管424	SS-331504-5898-ZB2	15880	1583	33	150	25	58	90	8	20			Z	B	S	S
锥管425	SS-251404-4698-ZB3	15880	1583	25	140	25	46	90	8	30			Z	B	S	S
锥管443	SS-331405-5818-ZB2	19050	1583	33	140	25	58	120	8	20			Z	B	S	S
锥管445红	TS-280762-3898-RS2-10250 (SR0.13mmx4.0mm)	11100	1583	28	75	15	38	90	8	20			R	D	T	S
锥管446红	TS-381322-5198-RD2 (SR0.13mmx3.81mm)	11100	1583	38	132	25	51	90	8	20			R	D	T	S
锥管450	SS-361405-5818-ZB2	19050	1583	36	140	25	58	120	8	20			Z	B	S	S
锥管462	SS-512365-10218-ZB2	19050	1583	51	236	20	102	120	8	20			Z	B	S	S
锥管475	SS-512504-11418-ZB2	15880	1583	51	258	38	114	90	8	20			Z	B	S	S
锥管484	SS-381654-6898-ZB1	15880 (+130/-0)	1583	38	165	30	68	90	8	15			Z	B	S	S
锥管488	SS-331535-7418-ZB2	19050	1583	33	153	25	74	120	8	20			Z	B	S	S
锥管489	TS-462294-8918-ZD3(SR0.457*6.09mm)	15880	1583	46	229	38	89	120	8	30			Z	B	T	S
锥管490	SS-281004-4598-ZB2	15880 (+130/-0)	1583	28	100	20	45	90	8	20			Z	B	S	S
锥管492	TS-330962-4691-ZB2 (MD 550,MD1 750,BNL 4900,BNL1 1750)	11100	1583	33	96	13	46	90	11	20			Z	B	T	S
锥管495	PS-330855-4391-ZB2-10200	19050	1583	33	85	13	43	90	11	20	10	200	Z	B	P	S
锥管499	SS-381404-6498-ZB3	15880 (+130/-0)	1583	38	140	30	64	90	8	30			Z	B	S	S
锥管500	SS-331004-4691-ZB3	15880 (+130/-0)	1583	33	100	12	46	90	11	30			Z	B	S	S
锥管505	TS-381322-5198-ZD2 (SR0.13mmx4.57mm)	11100	1583	38	132	25	51	90	8	20			Z	D	T	S
锥管519	PS-381804-6898-ZB2-10400	15880	1583	38	180	38	68	90	8	20	10	400	Z	B	P	S
锥管535	SS-281304-4598-ZB2	15880 (+130/-0)	1583	28	130	25	45	90	8	20			Z	B	S	S
锥管536	SS-331204-6094-ZB2	15880 (+130/-0)	1583	33	120	20	60	90	4	20			Z	B	S	S
锥管537	PS-251404-4698-ZB2-10400	15880 (+130/-0)	1583	25	140	25	46	90	8	20	10	400	Z	B	P	S
锥管540	SS-251404-4698-ZD2	15880 (+130/-0)	1583	25	140	20	46	90	8	20			Z	D	S	S
锥管542	TS-301054-4398-ZB2-10254((SR0.13mmx4.2mm)	15880 (+130/-0)	1583	30	150	20	43	90	8	20	10	254	Z	B	T	S
锥管543	SS-381405-5898-ZB2	19050	1583	38	140	30	58	90	8	20			Z	B	S	S
锥管548	TS-331004-4798-ZB2-101270(MD 750,BNL 1270,BNL1 3500)	15880 (+130/-0)	1583	33	100	13	47	90	8	20	10	0 (+127/	Z	B	T	S
锥管549红	TS-250802-3398-RD2-10200 (SR0.13mmx3.81mm)	11100	1583	25	80	13	33	90	8	20			R	D	T	S
锥管551红	TS-301202-5398-RD1 (SR0.13mmx3.81mm)	11100	1583	30	120	15	53	90	8	20			R	D	T	S
锥管552红	TS-300762-4198-RD2-10250 (SR0.13mmx3.81mm)	11100	1583	30	76	15	41	90	8	15	10	250	R	D	T	S
锥管553	PS-381404-6498-ZB2-10250	15880 (+130/-0)	1583	38	140	30	64	90	8	20	10	250	Z	B	P	S
锥管554	SS-642504-9298-ZB2	15880 (+130/-0)	1583	64	250	50	92	90	8	20			Z	B	S	S
锥管555	SS-331205-6094-ZB2	19050	1583	33	120	20	60	90	4	20			Z	B	S	S
锥管556	SS-431655-5898-ZB2	19050	1583	43	165	38	58	90	8	20			Z	B	S	S
锥管558	SS-642254-8698-ZB2	15880 (+130/-0)	1583	64	225	51	86	90	8	20			Z	B	S	S
锥管559	-300702-3568-ZD2 (DR150um0/-13um,VR3500um +130um/	11100	1583	30	76	13	35	60	8	20			Z	D	T	S
锥管604	PS-331104-5191-ZD2-10275	15880 (+130/-0)	1583	33	110	13	51	90	11	20	10	275	Z	D	P	S
锥管605	SS-331804-6898-ZD2	15880 (+130/-0)	1583	33	180	38	68	90	8	20			Z	D	S	S
锥管606	SS-432004-7898-ZB2	15880 (+130/-0)	1583	43	200	50	78	90	8	20			Z	B	S	S
锥管564	PS-331004-4691-ZB2-10250	15880 (+130/-0)	1583	33	100	13	46	90	11	20	10	250	Z	B	P	S

客户定制劈刀 For the special capillary

细间距 Fine pitch



双CD Double CD



ITEM	UNIT	DATA
D	um	
L	um	
MTA	°	
T	um	
BNL	um	
BAN	°	
FA	°	
OR	um	
H	um	
ICA	°	
ICA1	°	
CD	um	
Finish	Polish/Matt	

劈刀的设计服务 Design service for capillary

SUNCAP Check list

项目 / Item		单位 / Unit	值 / Data	备注 / Remark
线材 / Wire	材料 / Materials	金/铜/合金 / Gold/Copper/Alloy		
	线直径 / Diameter	μm		
焊盘 / Bond Pad	大小 / BPO	μm		
	间距 / BPP	μm		
	布局 / Layout	直线/错列/多层 Linear/Staggered/Multilayer		
技术要求 / Bond Spec.	焊球直径 / Mashed ball diameter	μm		
	线弧高度 / LOOP height	μm		
	额外加球 / Ball on the stitch bond	μm		
当前劈刀型号 / Present capillary part number				
焊机型号 / Bonder Model				
其他要求 / Other Requirment				

产品服务 Product Services



定

Customization

个性化定制产品
Customized products



统

Combine

帮客户将多种产品进行统型，
以达到节约成本的目的
Unify all types of products



现

Rapid

现场技术支持：省内24小时提供现场技术服务
国内48小时提供现场技术服务
Provide after sales service on site

商德做为剪刀 制造商的优势

As a manufacture of capillary,
Here are the advantages of
Suntech

精通 Proficient in

Bonder机器制造商K&S和ASM
的陶瓷主要供应商。
The main ceramic part's
supplier of Bonder Bonder
machine manufacturer
(KnS and ASM)

本地 Local

在深圳自己研发的陶瓷材料，
进口及本地自主研发的精密微
细加工设备。
Independent R&D for
ceramic materials in
Shenzhen; Imported and
locally developed precision
machining equipment

稳定 Stable

国外半导体设备零件的长期供应
商，稳定和一致的品质控制。
With our strict and stable
quality control, we've been
a long-term oversea
supplier of semiconductor
equipment parts.

一站

"One-stop" work style

深圳制造
全球服务

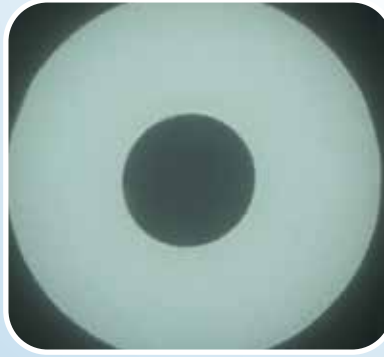
Made in Shenzhen,
serving the world

专注 Focus

专注于陶瓷材料的研发，成型，
烧结及精密制造机械加工。
Focus on ceramic material
research and development,
molding, sintering and
precision machining

陶瓷弹簧吸嘴

CERAMIC SPRING NOZZLE



端面镜面抛光

End Mirror Polishing

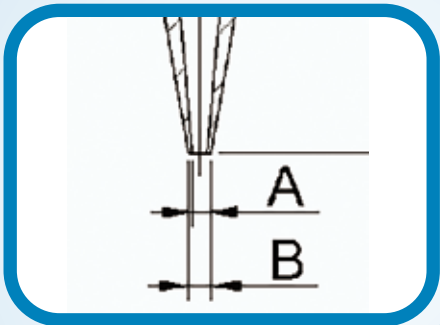
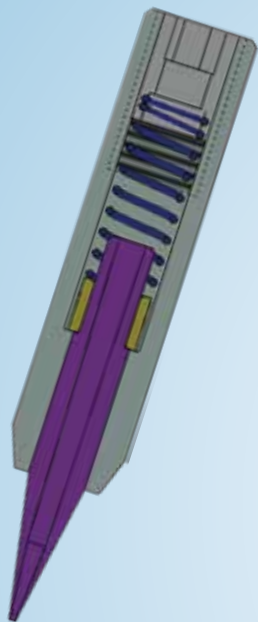
产品主要特点

Main features

- 01** 高质量，高寿命，高品质满足半导体传统封装行业；
High life and high quality meet the traditional semiconductor packaging industry.
- 02** 弹簧力度（可调节），避免对LED芯片，IC裸片吸晶片时带来的损伤，压痕；
Spring strength (adjustable) to avoid damage and indentation to LED chip and IC chip
- 03** 可以提升半导体封装产品的良率，提高UPH，降低更换频率；
Improve the yield of semiconductor packaging products, improve UPH, reduce the frequency replacement.
- 04** 弹簧吸嘴具有耐高温，耐磨，耐腐蚀，绝缘性等特性；
Spring nozzle has high temperature resistance, wear resistance, corrosion resistance, insulation .
- 05** 我司弹簧吸嘴使用寿命可达500万以上寿命；
Our spring nozzle has a service life of more than 5 million.
- 06** 具有耐热性可到达200°度以上；
With heat resistance can reach more than 200 ° degrees.
- 07** 具有不回吸的，长久耐磨性；
It has no back sucking, long-term wear resistance.
- 08** 弹簧陶瓷吸嘴预紧力小于60gf；
Spring ceramic nozzle pre-tightening force is less than 60gf.
- 09** 使用寿命长、材料为氧化锆、其硬度仅次于金刚石、耐磨、耐用；
Long service life, the material is ZTA its hardness is less than diamond only, wear-resistant and durable.
- 10** 表面镜面抛光处理，不划伤，损伤晶片。
Surface mirror polishing, no scratches, damage to the wafer.

陶瓷弹簧吸嘴

CERAMIC SPRING NOZZLE



名称/Name	L1总长/ L1 total length (mm)	L (mm)	A (mm)	B (mm)	A(mil)	组件名称/ Component name	
弹簧吸嘴/ Spring nozzle	17	10.8	0.076	0.167	3.0	弹簧吸嘴4/ Spring nozzle 4	弹力有60gf (可选) /Elastic force has 60gf (Optional)
		10.8	0.069	0.161	2.7	弹簧吸嘴5/ Spring nozzle 5	
		10.8	0.088	0.23	3.5	弹簧吸嘴6/ Spring nozzle 6	
		10.8	0.065	0.19	2.56	弹簧吸嘴12/ Spring nozzle 12	
		10.8	0.075	0.21	2.95	弹簧吸嘴13/ Spring nozzle 13	
		10.8	0.095	0.23	3.74	弹簧吸嘴14/ Spring nozzle 14	
		10.8	0.069	0.2	2.72	弹簧吸嘴15/ Spring nozzle 15	

主要参数说明

Explanation of main parameters

L1: 总长度 / Total length (17mm)

A: 吸嘴头孔径大小 / Nozzle head hole size

L: 陶瓷的头长度 / Ceramic head length

B: T值的大小 (外径) / T value (outer diameter)

芯片方形邦定吸嘴 DIE RECTANGULAR BONDING COLLET



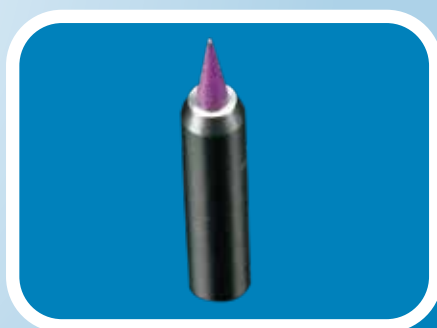
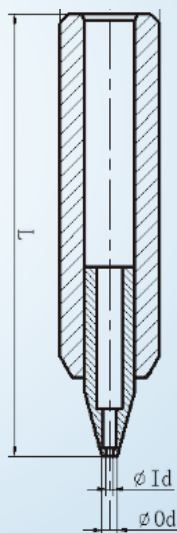
产品主要特点

Principle of porous ceramic chuck table

01	26年精耕 26 years process experience
02	经典之作 Classic collet
03	为您定制 Customized collet

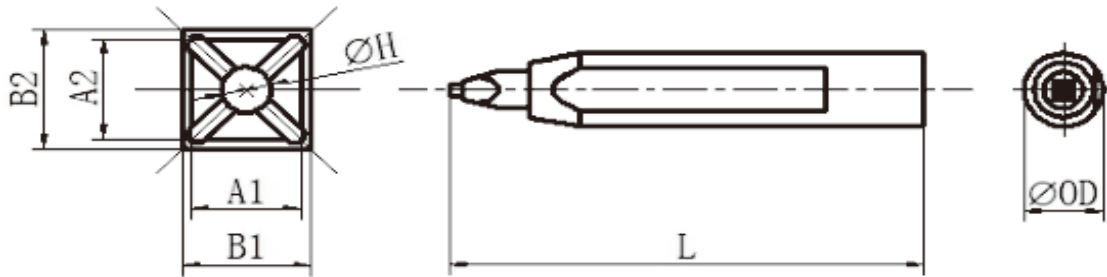
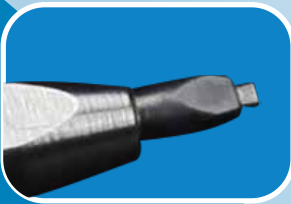
平面吸嘴

FLAT COLLET



Type/类型	OD(mm)	L(mm)	Od(mm)	Id (mm)
FC-3.175-14-0.2-0.5	3.175	14	0.5	0.2
FC-3.175-17-0.1016-0.2023	3.175	17	0.2032	0.1016
FC-3.175-17-0.1143-0.2159	3.175	17	0.2159	0.1143
FC-3.175-17-0.127-0.2286	3.175	17	0.2286	0.127
FC-3.175-17-0.1397-0.2413	3.175	17	0.2413	0.1397
FC-3.175-17-0.1524-0.254	3.175	17	0.254	0.1524
FC-3.175-17-0.1651-0.2667	3.175	17	0.2667	0.1651
FC-3.175-17-0.1778-0.2794	3.175	17	0.2794	0.1778
FC-3.175-17-0.1905-0.2921	3.175	17	0.2921	0.1905
FC-3.175-17-0.2032-0.3048	3.175	17	0.3048	0.2032
FC-3.175-17-0.2159-0.3175	3.175	17	0.3175	0.2159
FC-3.175-17-0.2286-0.3302	3.175	17	0.3302	0.2286
FC-3.175-17-0.2413-0.3429	3.175	17	0.3429	0.2413
FC-3.175-17-0.254-0.3556	3.175	17	0.3556	0.254
FC-3.175-17-0.2667-0.3683	3.175	17	0.3683	0.2667
FC-3.175-17-0.2794-0.381	3.175	17	0.381	0.2794
FC-3.175-17-0.2921-0.3937	3.175	17	0.3937	0.2921
FC-3.175-17-0.3048-0.4064	3.175	17	0.4064	0.3048
FC-3.175-18.5-0.25-0.5	3.175	18.5	0.5	0.25
FC-3.175-18.5-0.15-0.35	3.175	18.5	0.35	0.15

方形吸嘴 4-SIDE COLLET

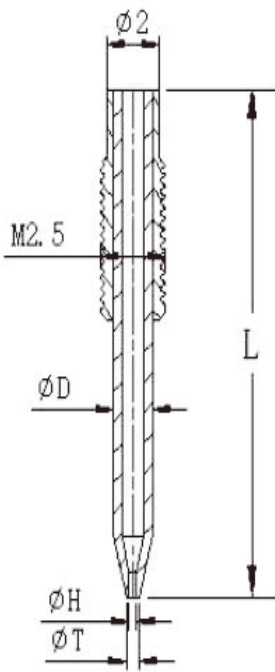


Type/类型	A1*A2(mm)	B1*B2(mm)	OD(mm)	H (mm)
FS-3.175-19.05-0.18-0.31x0.31	0.31x0.31	0.346x0.346	3.175	0.18
FS-3.175-19.05-0.18-0.36x0.36	0.36x0.36	0.396x0.396	3.175	0.18
FS-3.175-19.05-0.18-0.38x0.38	0.38x0.38	0.416x0.416	3.175	0.18
FS-3.175-19.05-0.18-0.45x0.45	0.45x0.45	0.486x0.486	3.175	0.18
FS-3.175-19.05-0.18-0.50x0.50	0.50x0.50	0.536x0.536	3.175	0.18
FS-3.175-19.05-0.18-0.52x0.52	0.52x0.52	0.556x0.556	3.175	0.18
FS-3.175-19.05-0.18-0.55x0.55	0.55x0.55	0.586x0.586	3.175	0.18
FS-3.175-19.05-0.18-0.60x0.60	0.60x0.60	0.636x0.636	3.175	0.18
FS-3.175-19.05-0.18-0.52x0.52	0.52x0.52	0.545x0.545	3.175	0.18
FS-3.175-19.05-0.38-0.74x0.74	0.74x0.74	0.776x0.776	3.175	0.38
FS-3.175-19.05-0.46-0.94x0.94	0.94x0.94	0.976x0.976	3.175	0.46
FS-3.175-19.05-0.51-1.30x1.09	1.3x1.09	1.336x1.126	3.175	0.51

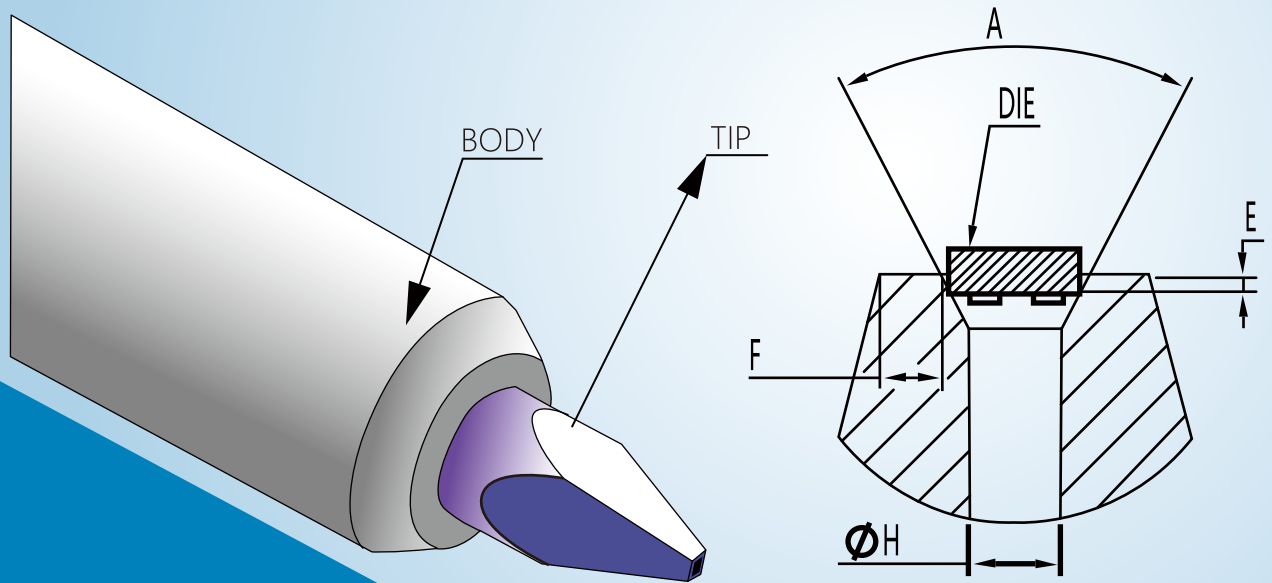
PD点胶嘴
PD NOZZLE



ØD(mm)	L(mm)	ØH(mm)	ØT(mm)
1.5	19	0.15	0.30
1.5	19	0.20	0.35
1.5	19	0.25	0.40
1.5	19	0.30	0.45
1.5	19	0.40	0.55
1.5	19	0.50	0.65
1.5	19	0.70	0.85
1.5	19	0.90	1.05

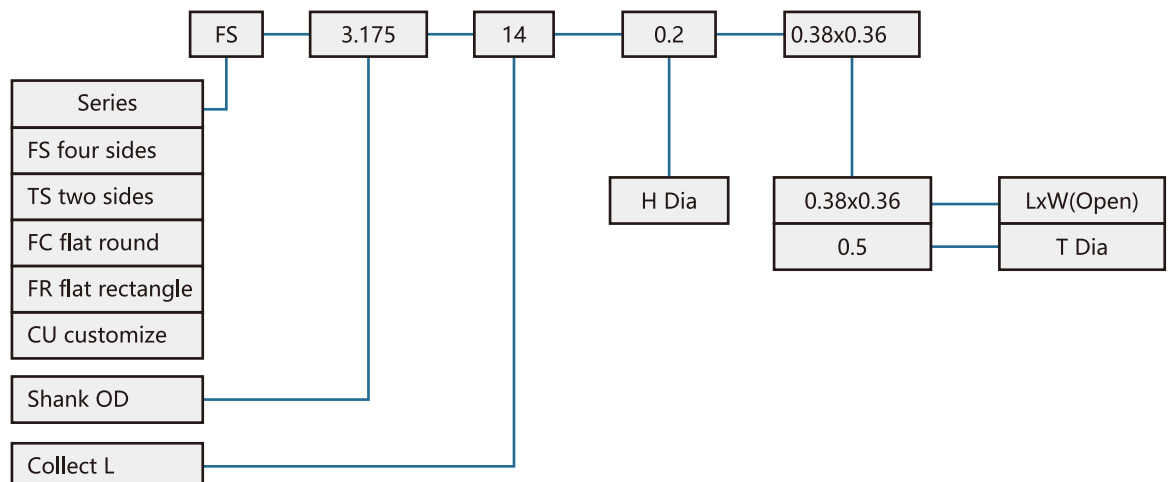


设计输入 Design Input



订货方法 How To Order

第一步 1st	确认芯片尺寸：长x宽x高，敏感区域和尺寸 Die: Length x Width x Thickness, sensitive area and its dimensions
第二步 2nd	选择的材料：陶瓷（氧化铝，氧化锆，碳化硅）、钨钢和不锈钢 Material Selection: Ceramics – Alumina, Zirconia, SiC, Tungsten carbide and SUS
第三步 3rd	设计输出给客户确认 Design output confirmed by client



打火杆 EFO Wand

优质的电极材料 / Superior Electrode Material

Properties 特性			Iridium 铱	Platinum alloys 铂合金
Melting point	熔点	°C	2446	1769
Boiling Point	沸点	°C	4428	3827
Electrical resistivity at RT	室温电阻率	$\mu\Omega\cdot\text{cm}$	5.4	10.8
Thermal conductivity at RT	室温导热率	W/m.k	59	72

优质的电极材料可确保打火杆的使用寿命以及具有一致形状和尺寸的FAB。
Superior electrode material assures the lifespan of EFO wand and consistent shape and size of free air ball.

打火杆的尖端由铱，铂和铱合金或铂制成，在1063°C火焰过程中可保持一致的形状和尺寸。
The tip of EFO wands are made of by Iridium, platinum & Iridium alloy or platinum, it can keep the consistent shape and size during the 1063°C flame process.

特有的抛光工艺 / EFO Wand



尖端目前有两种形状，分别是锥形和球形。
Currently the tip has 2 type of shapes, they are cone and sphere.

打火杆的尖端依据十多年的特殊经验进行打磨，因此它使火花始终一致并且从同一点开始。
The tip of EFO wands are polished base on over decade years special experience. So it make the spark consistent and the direction from the same point always.

质量管控 / Quality Control

老化处理 / Ageing process



大多数新的EFO最初不会产生一致的火焰，因此需要老化过程。

Most new EFOs does not make consistent flame initially so an ageing process is required.

可定制化生产 / Allowed Customized

样品 / Samples



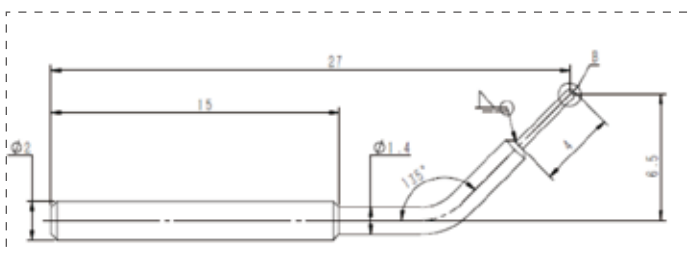
电阻检查 / Electrical resistance checking



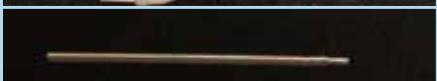
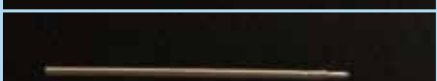
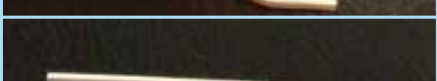
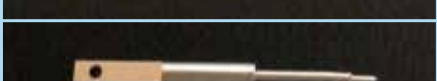
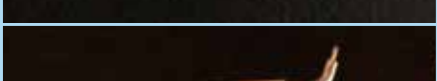
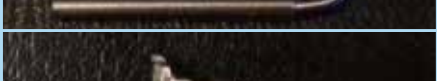
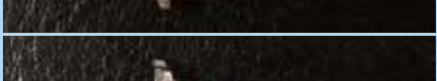
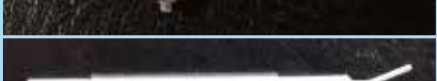
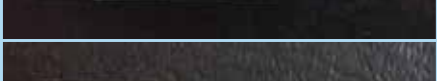
除了EFO棒的尖端，由于成本考虑，其余部分由不锈钢制成。电阻检查确保了尖端和主体之间的良好导电性。

Besides the tip of EFO wand the rest part is made of stainless steel given the cost consideration, This checking ensure the good conductivity between the tip and body.

可定制化生产 / Allowed Customized

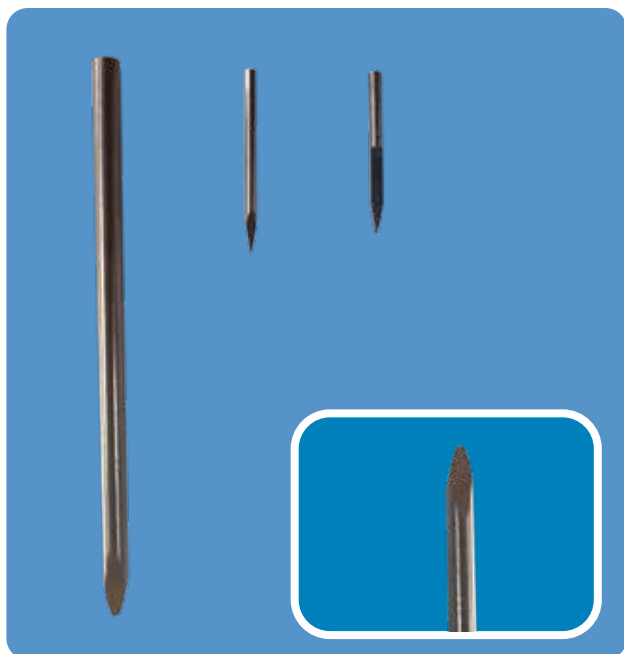


商德常用在制打火杆介绍 / EFO Wand

名称/Name	P/N	适用机器/Machine	规格参数/Specifications	外观形貌/Surface
打火杆1 EFO Wand1	D19-18C60-900	国外客户定制		
打火杆2 EFO Wand2	D19-18C61-900	国外客户定制		
打火杆3 EFO Wand3	D19-19C62-900	KnS: 8028 8020		
打火杆4 EFO Wand4	D19-19C63-900	ASM : Eagle60 Ihawk Xtreme AB350&380		
打火杆5 EFO Wand5	D19-18C64-900	Kaijo		
打火杆7 EFO Wand7	D19-21602-900	KnS: 依金头 Iconn Connx		
打火杆7-02 EFO Wand7-02	D19-21601-900	KnS: 铂金头 Iconn Connx		
打火杆9 EFO Wand9	444-18B08-900	Kaijo : FB900 FB910 E18		
打火杆10 EFO Wand10	D19-19C68-900	ASM : Eagle60 改装打铜线(LED)		
打火杆11 EFO Wand11	D19-19701-900	ASM: AB383 阿达焊线机		
打火杆12 EFO Wand12	D19-19801-900	ASM: Eagle Xtreme		
打火杆13 EFO Wand13	D19-19C01-900	ASM: Eagle Xtreme (钛金头)		
打火杆14 EFO Wand14	D19-20401-900	ASM: Eagle Xtreme GOCU(钛金头)0.5		
打火杆15 EFO Wand15	D19-20402-900	ASM: Eagle Xtreme GOCU(铂金头)0.5		
打火杆17 EFO Wand17	D19-21101-900	KS:铂金头ICONN CONNEX金线机		
打火杆18 EFO Wand18	D19-21406-900	焊线机设备厂商定制1.0mm 铂金头, 可用于ASM 383, 阿达焊线机		

楔形劈刀

Wedge Bonding Tool

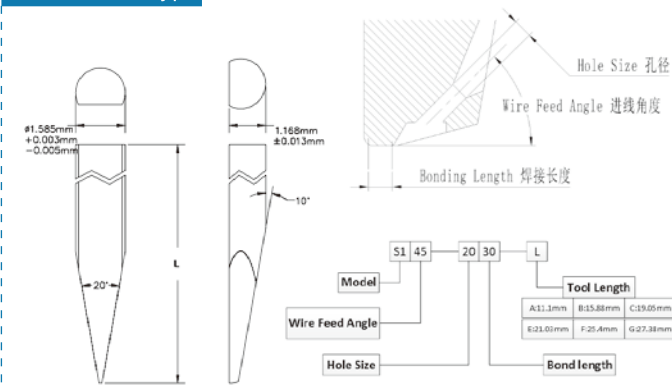


产品应用

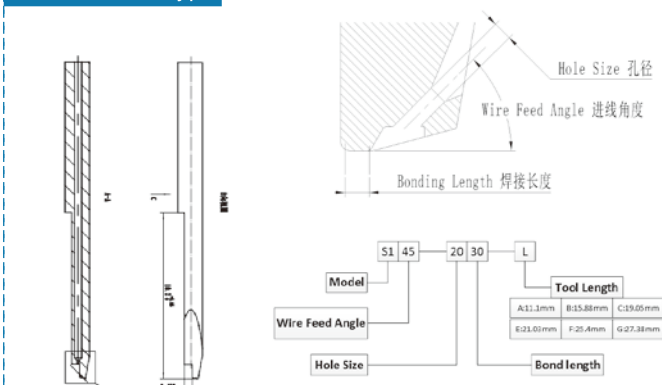
主要用于粗铝线、铜线、金带的混合电路的键合。

It is mainly used for the bonding of the mixed circuit of coarse aluminum wire, copper wire and gold belt.

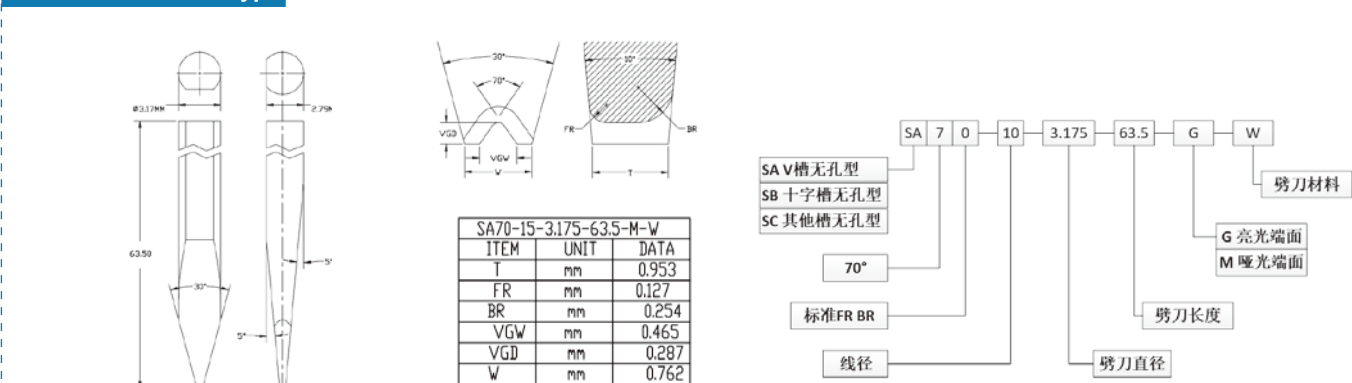
口袋型 Pocket type



立针型 V-notch type



无孔型 No inner hole type



多孔陶瓷真空吸盘应用方案设计

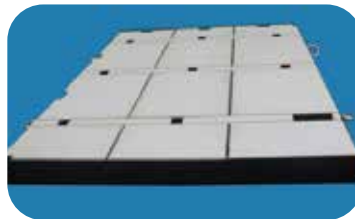
Application scheme design of porous ceramic vacuum chuck



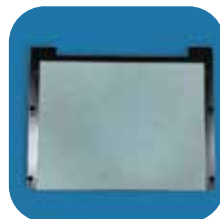
外观设计
Appearance
design



结构设计
Structure
design



功能设计
Function
design

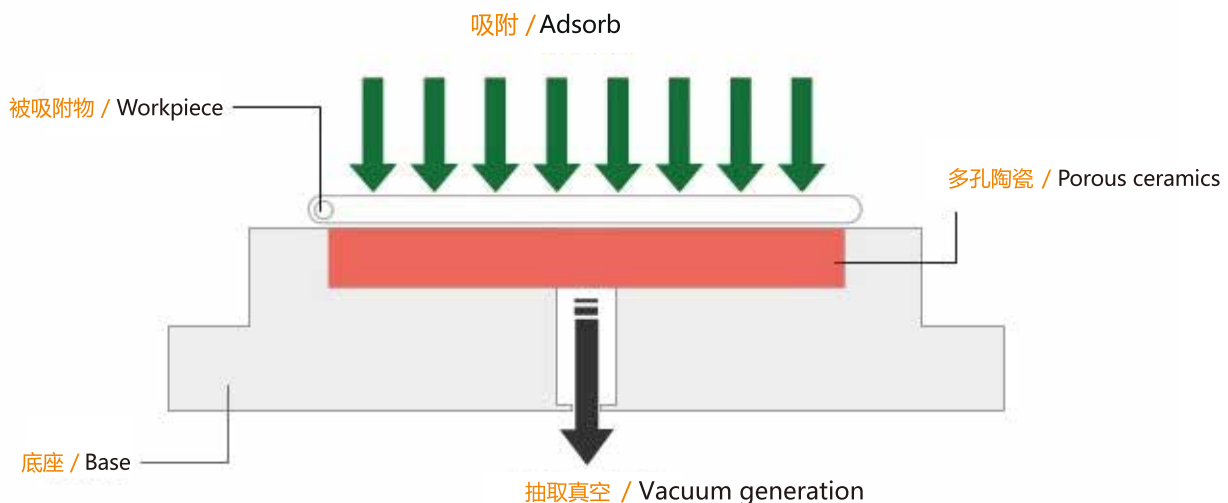


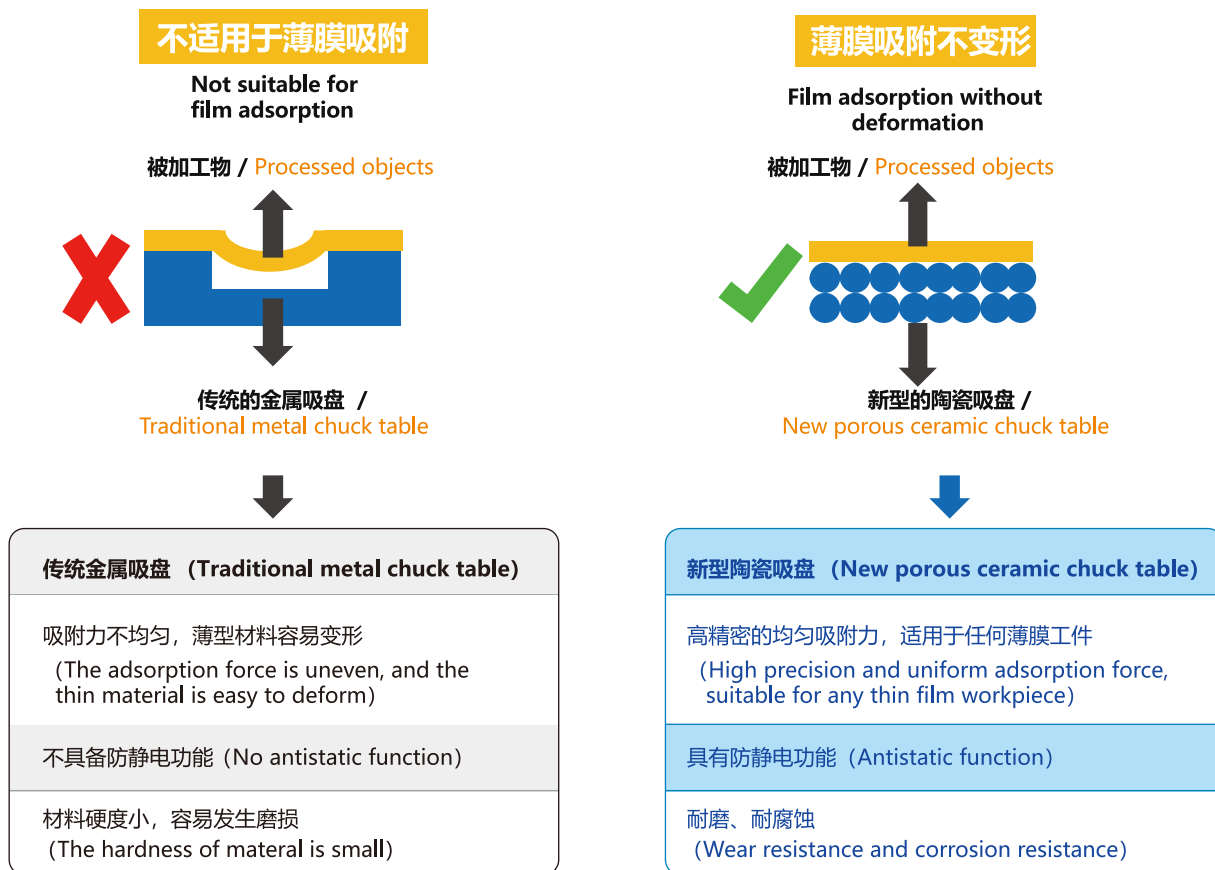
材料设计
Material
design



多孔陶瓷吸盘原理

Principle of porous ceramic chuck table





多孔陶瓷真空吸盘三大特点

Three characteristics of porous ceramic chuck table

产品在制造过程中带有静电
The product has static electricity in the manufacturing process



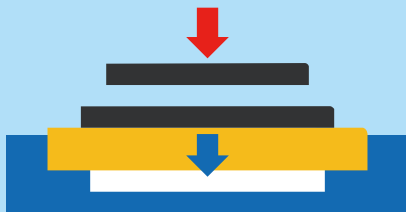
吸附时把产品带的静电扩散除去
Removal of static electricity from the product

具备部分吸附功能，能同时吸附
不同尺寸产品

It has partial adsorption function and
can absorb different sizes of products
at the same time.



可以吸附各种尺寸被加工物
It can absorb different size of
processed products.



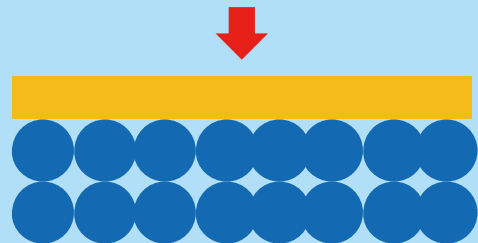
抽真空/Vacuuming

吸附性能好，吸附力分布均匀

Good adsorption performance and
uniform distribution of adsorption force.



吸附力均匀，被吸附物不变形，不翘曲
The adsorption force is uniform, and the
products is not deformed and warped.



均匀吸附 /Uniform of adsorption force

多孔陶瓷真空吸盘质量保证

Quality assurance of porous ceramic vacuum chuck



仪器名称: TESA TT60比较仪 / TESA TT60 Comparator
Instrument

品 牌: TESA / TESA
Brand

产 地: 瑞典 / Sweden
Place of Origin



仪器名称: 三坐标测量机 / Three coordinate measuring machine
Instrument

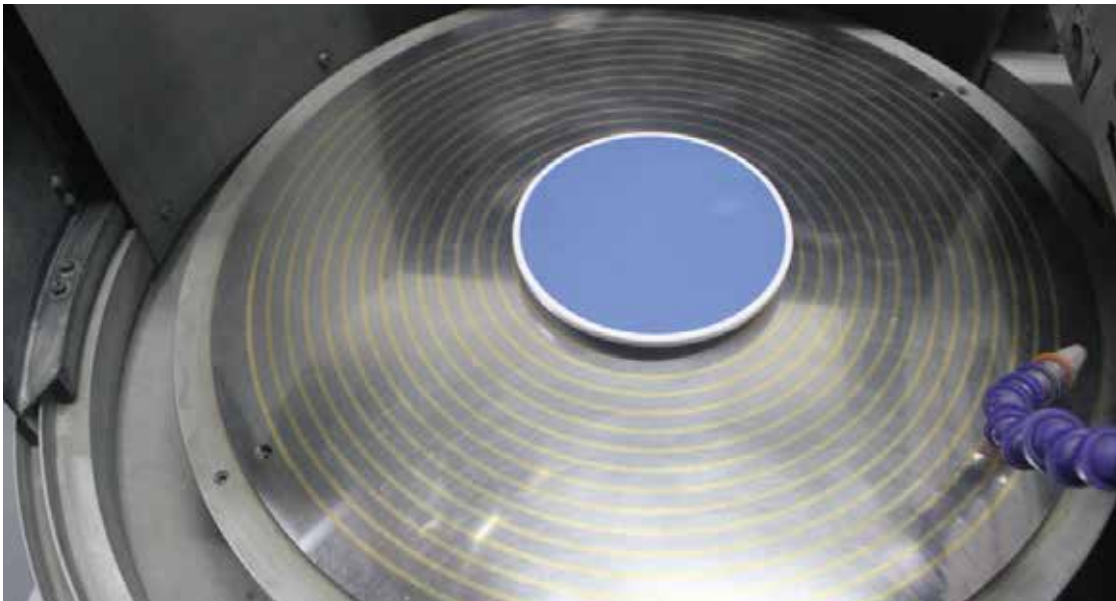
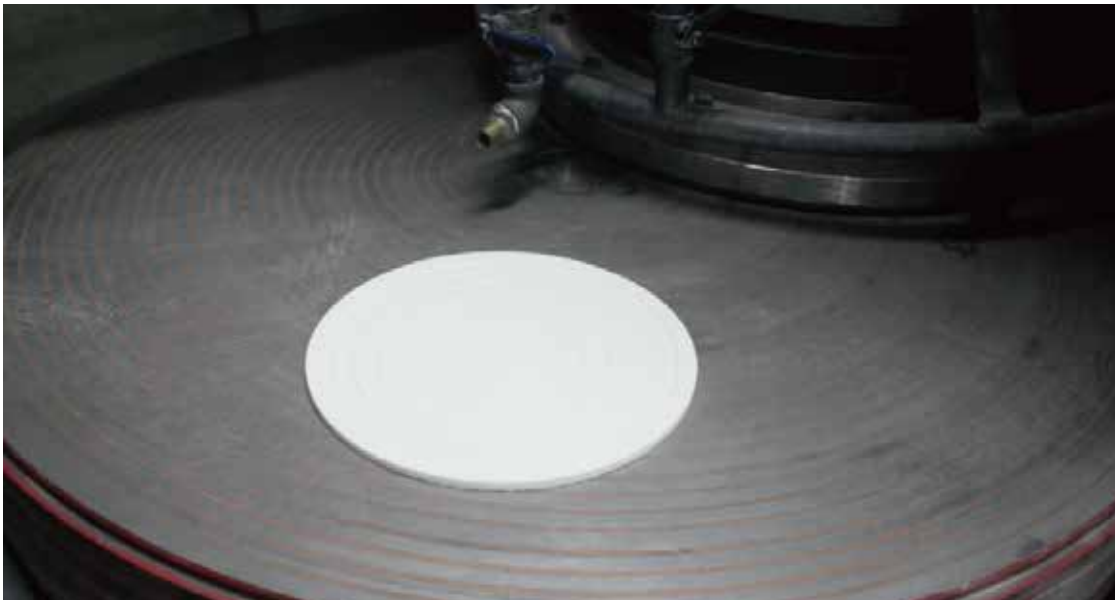
品 牌: HEXAGON / HEXAGON
Brand

产 地: 瑞典 / Sweden
Place of Origin

多孔陶瓷真空吸盘

先进制造设备

Advanced manufacturing equipment for porous ceramic vacuum chuck



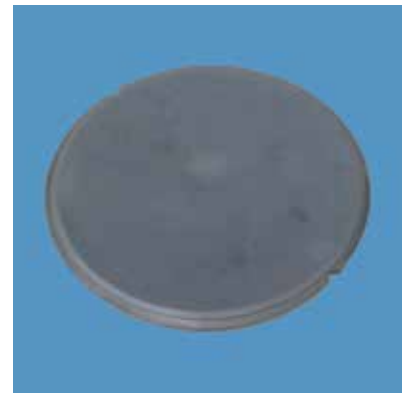
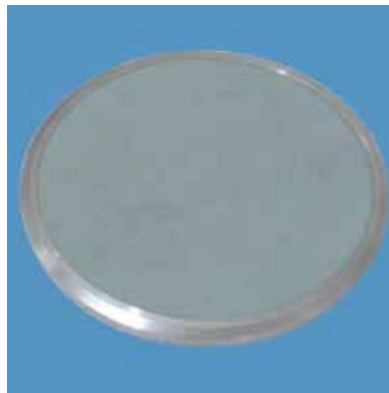
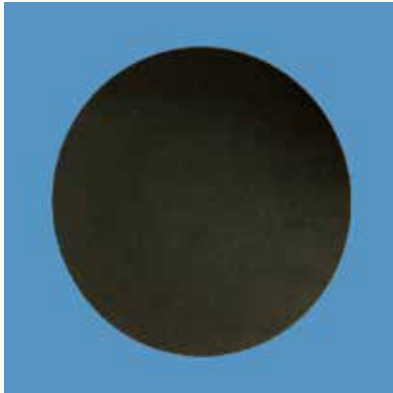
高精度的平面度依靠先进的制造设备和工艺

High precision flatness depends on advanced manufacturing equipment and process

尺寸 (Size)	4 inch	6 inch	8 inch	12 inch
平面度 (Flatness)	3μm	3μm	5μm	5μm or 10μm

高精度多孔陶瓷真空吸盘

High precision porous ceramic vacuum chuck



性能参数量身定做

Parameter and performance base on requirement

产品规格 Specification	尺寸 (Size)	4 inch	6 inch	8 inch	12 inch
	平面度 (Flatness)	3μm	3μm	5μm	5μm or 10μm
	多孔陶瓷颜色 (Porous ceramic color)	白、绿、黄、黑、蓝、棕 (White、green、yellow、black、blue、brown)			
	多孔陶瓷材质 (Porous ceramic material)	氧化铝、碳化硅 (Aluminium oxide, silicon carbide)			
	多孔陶瓷孔径大小 (Porous ceramic pore size)	20----100μm			
	多孔陶瓷孔隙率 (Porous ceramic porosity)	30%----45%			
	防静电功能 (Antistatic function)	可选 (Optional)			
	底座材质 (Base material)	不锈钢、铝合金、陶瓷、碳化硅 (Stainless steel, aluminum alloy and ceramics, silicon carbide)			

应用领域 Application	领域 (Field)	用途 (Application)
	印刷 (Printing)	屏幕印刷 (Screen printing)、造纸行业 (Paper industry)、涂漆检查 (Paint inspection)、像素检测 (Pixel detection)
	半导体 (Semiconductor)	Bonding (键合机) ; Dicing (划片机) ; Tape mounter, (贴片机) ; Polishing(抛光机)
	加工 (Processing)	金属加工 (Metal processing) ; 机械加工 (Machining) ; 激光加工 (Laser processing.)
	LED/LCD	成型 (Molding) ; 磨削 (Grinding) ; 切割 (Cutting) ; 树脂密封 (Resin seal)

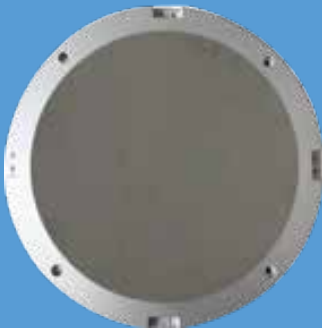
标准吸盘生产和翻新

Offer standard vacuum chuck and refurbishment service

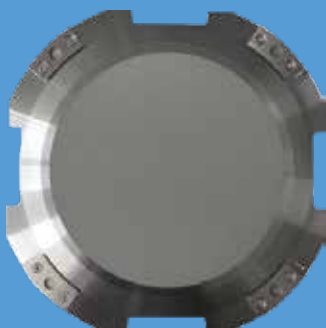
切割盘
8/12 inch Dicing chuck



清洗盘
6/8/12 inch Cleaning chuck



切割盘
6 inch Dicing chuck

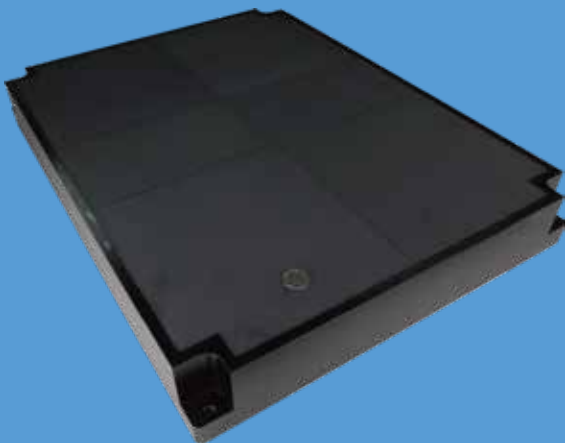


定制吸盘

Customized vacuum chuck

- 已发货的最大吸盘的尺寸
- The maximum vacuum chuck once delivered
- 1900 x 1200 (mm)

950mm*500mm



材质 Material		尺寸 Size	平面度 Flatness
底 座 Base	陶瓷面 Porous ceramics	4inch	3um
SUS,Ceramics Aluminum	Alumina, SiC ESD Alumina	6inch	3um
		8inch	5um
		12inch	6um
多孔陶瓷颜色 Cover color		土黄色、棕色、蓝色、黑色、绿色 Yellow, Brown, Blue, Black, Green	

多孔陶瓷真空吸盘定制化设计服务

Customized design service for porous ceramic vacuum chuck

项目 (Project)	参数 (Parameter)
多孔陶瓷材料 (Porous ceramic material)	
多孔陶瓷孔径 (Porous ceramic pore size)	
多孔陶瓷孔隙率 (Porous ceramic porosity)	
多孔陶瓷颜色 (Porous ceramic color)	
是否防静电 (Antistatic function)	
平面度/ μm (Flatness)	
底座材料 (Base material)	
吸盘尺寸 (Chuck size)	

多孔陶瓷吸盘五大优势

Five advantages of porous ceramic chuck table





Turning the Axis of the World!

The Supplier Specialized in precision
Structural Ceramics

深圳市商德先进陶瓷股份有限公司

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版本号A120210917