

SUZHOU SAIL TECHNOLOGY

Suzhou Sail Science & Technology

Company Profile



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SAIL TECHNOLOGY

Company Profile

Located in Suzhou industrial park, Suzhou Sail Science & Technology Co., Ltd. is a high-tech corporation specialized in research, development, production and sales of ultra precision diamond and CBN tools used in the industry of semiconductor.

Ultra-thin metal-bond, resin bond dicing blades, nickel diamond hub and hubless blades, ultra-precision grinding wheels series, together with electroplated diamond grinding wheels and sintered grinding wheels produced by the company have been widely used in semiconductor industry such as cutting, slotting, dicing, wafering, back-thinning, and other precision processing. These products are also used in optical glass industry, automotive industry, medical industry and aerospace industry.

Company History



2010.1.20

Sail was established with capital 17.11 million yuan. It's a limited liability joint-stock company

Sail was appraised as high-tech enterprise in SIP, and General Manager Mr. Ran was appraised as Suzhou leading talent

2010.10

2011

Sail has passed ISO9001.2015 quality system certification.
Sail opened its market in Taiwan

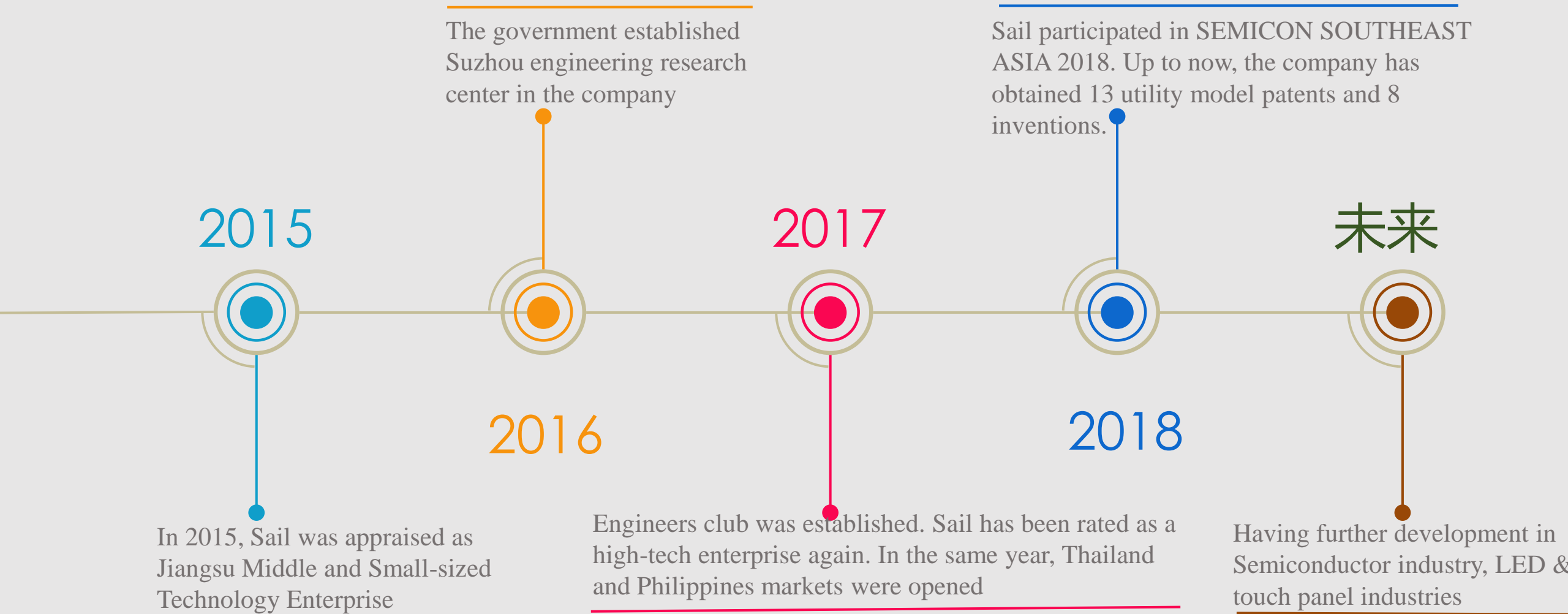
Sail began its business in Touch Panel industry

2012.11

2014

The company was appraised as New High-tech Enterprise

Company History



Excerpts from Company Patents & Awards

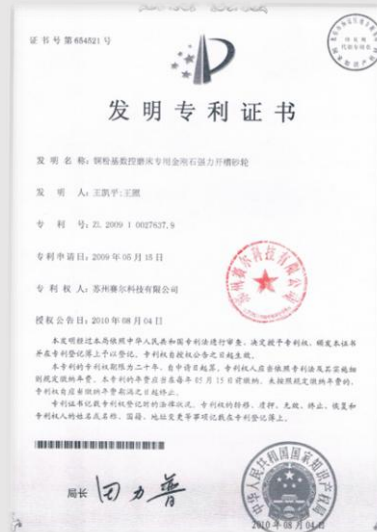


High-tech Enterprise



Jiangsu Middle and Small-sized
Technology Enterprise

Excerpts from Company Patents & Awards



Product Introduction

**Metal Bond
Dicing Blade**

**Resin Bond
Dicing Blade**

**Nickel Diamond
Dicing Blade**

**Hub Blade
Hubless Blade**

**Grinding
Wheels& Drills**

Suzhou Sail Science & Technology



Metal Bond Dicing Blade



Metal Bond Dicing Blade

Product Characteristics:

- With excellent wear-resisting performance , the blades are most applicable to precision machining of difficult-to-process materials.
- With high rigidity, the blades can effectively restrain inclined cutting, S-shaped cutting and other bad processing phenomenon.
- With a wide variety of bonds, the blades can be used for cutting of glass, ceramic, BGA, CSP and other different materials.



Metal Bond Dicing Blade

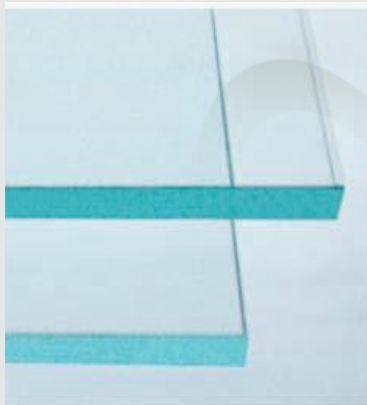


Metal Bond Dicing Blade

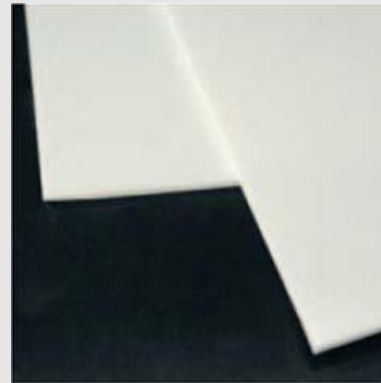
Applications:

● Electronic components, optical components, ceramic, sapphire, optical glass, quartz, BGA, WLSCP, etc.

Market share of ultra-thin metal dicing blades (under 50 μ m) achieves more than 90%.



Craft Glass

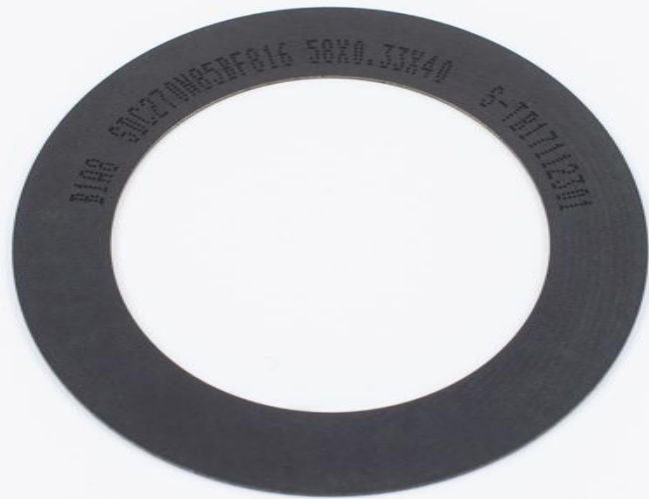


Ceramic



WLSCP

Resin Bond Dicing Blade



Resin Bond Dicing Blade

Product Characteristics:

- The integration of production and R&D ensures product quality and reliability;
- A wide variety of binders was widely used in dicing field of QFN, ceramic and glass cutting materials.
- The combination of different abrasive concentration and particle size of blades fully meets the life and quality requirements.

Resin Bond Dicing Blade

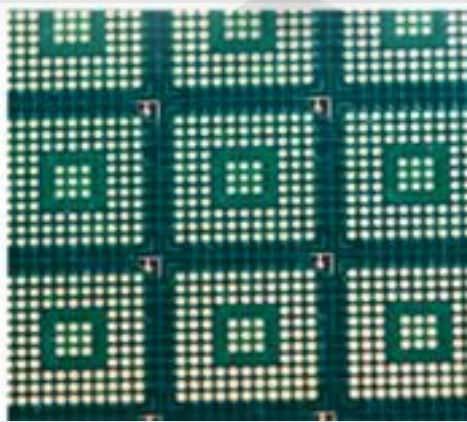


Metal Bond Dicing Blade

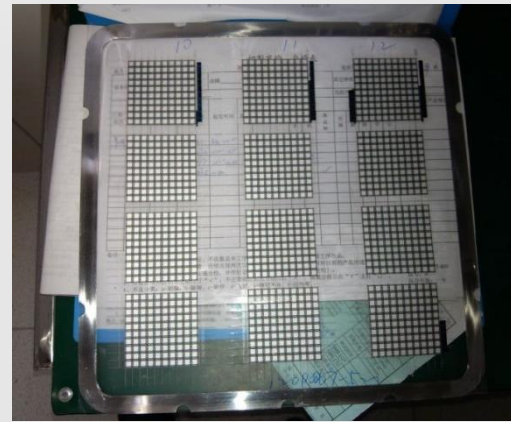
Resin bond blade is widely used in the high quality dicing of ductility and stickiness materials, and can effectively solve the problems of smear, burr and back side chipping.

Applications:

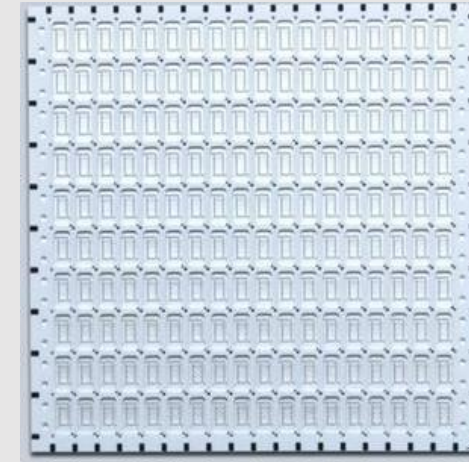
QFN, DFN, optical glass, ceramic, BGA, GaAs



BGA



QFN



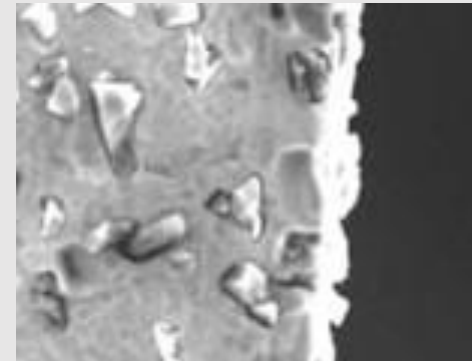
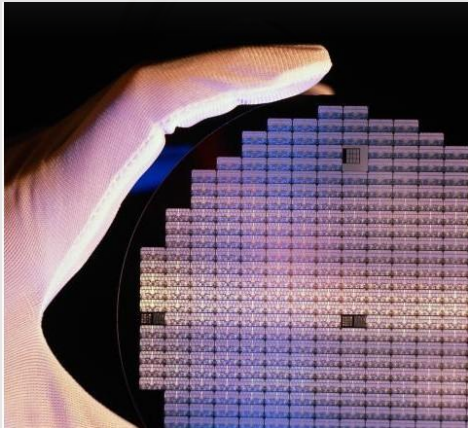
Ceramic

Nickel Diamond Hub Blade



Nickel Diamond Dicing Blade

- Strong dicing performance , and can be applied on high quality processing on silicon wafer.
- Strong dicing holding capacity and self-sharpening.



Nickel Diamond Hub Blade



Product Superiority

The integrated structure of imported diamond powder and aluminum alloy wheel hub makes the blade achieve higher processing efficiency and more stable processing quality.

SAIL Hub Blade

Nickel Diamond Hub Blade



SAIL Hub Blade (Slotting)

Product Superiority

With advanced matrix processing technology, progressive electroforming method, and unique diamond dispersion technology, Suzhou Sail Science & Technology Co., Ltd. can make hub blades with different specifications, hardness and concentration.

S20 Series Hub Blade

S20 SERIES HUB BLADE



Specification

S20 Type	4000# Grit Size	BH4- Bond	C- Concentration	21 kerf	52 Exp
	4000#	BH3	A	15-20	380-510
	3500#	BH4	B	21-25	511-640
	3000#	BH5	C	26-30	641-760
	2000#	BH6	D	31-35	761-890
			E	36-40	891-1020
			F		

Kerf/ μm	380-510	511-640	Exp/ μm 891-1020	1021-1140	1141-1270
15-20	1639				
21-25	2139	2152			
26-30	2639	2652			
31-35	3139	3152			
36-40		3652	3690		
41-50		4152	4190	41102	
51-60			5190	51102	51114

Applications:

PCB, BGA, ceramic
substrate materials, silicon
wafer, etc.

S200 Series Hub Blade



S200 SERIES HUB BLADE



Specification

S200 Type	4000# Grit Size	C-Concentration	BH4-Bond	21 kerf	52 Exp
	5000#	A	BH3	15-20	380-510
	4800#	B	BH4	21-25	511-640
	4500#	C	BH5	26-30	641-760
	4000#	D	BH6	31-35	761-890
	3500#	E		36-40	891-1020
	3000#	F			
	2000#				

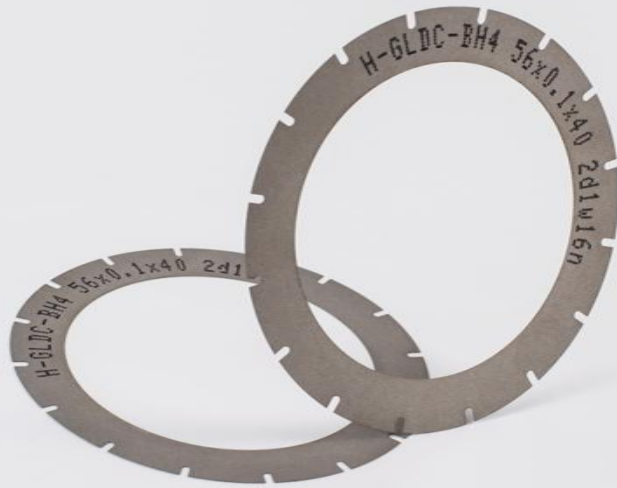
Note: The blades can be customized according to customer requirements.

Kerf/ μm	380-510	511-640	Exp/ μm 891-1020	1021-1140	1141-1270
15-20	1639				
21-25	2139	2152			
26-30	2639	2652			
31-35	3139	3152			
36-40		3652	3690		
41-50		4152	4190	41102	
51-60			5190	51102	51114

Applications:

GaAs, oxide wafers (LiTaO₃, LiNbO₃), silicon wafer, etc.

Nickel Diamond Hubless Blade



SAIL Hubless Blade

Applications:
PCB, LED, Ceramic

Superiority:

**Excellent cutting quality
and long life**

Metal-bond Grinding Wheels



Metal-bond wheels are mainly used for back thinning of sapphire epitaxial wafer, silicon wafer, gallium arsenide and GaN wafer.

Metal-bond Grinding Wheels



Applications:

sapphire epitaxial wafer, silicon wafer,
gallium arsenide and GaN wafer

Electroplating Grinding Wheels



Valve Wheel



Glass Grinding wheel



Groove Grinding Wheel



Piston Ring Wheel



Carbon Brush Wheel



Reamer Wheel

The wheels are widely used for precision machining of optical glass, touch screen glass, sapphire glass, precision ceramics, auto parts, semiconductors, stone, etc.

Sintered Grinding Wheel



Sintered Grinding Wheel

By adopting advanced formula and unique technology, using high quality abrasive, our company developed a series of sintered grinding wheel and drills.

By using imported sintering equipments with strict production process control, we developed this series of products with excellent grinding performance and long life.

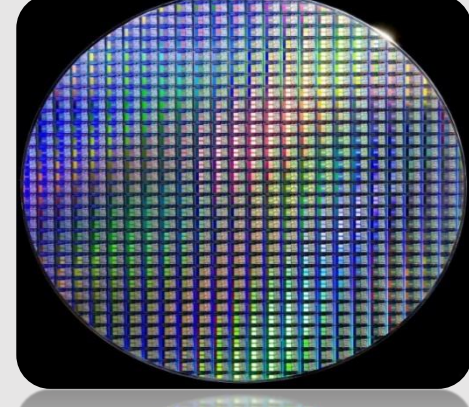
Product Characteristics :

- Customizable groove profile
- Uniform chamfering shape
- Strong shape retention
- Integration of rough and fine grinding

Applications of Sintered Grinding Wheel



ITO glass, appliance glass, auto glass, building glass, solar photovoltaic glass and other crisp and hard materials.
silicon & sapphire wafer grinding



Sintered Drills



Sintered Drills

With the characteristics of high strength and long life, the series of products are sintered with metal or alloy powder and super-hard abrasive.

Products characteristics:

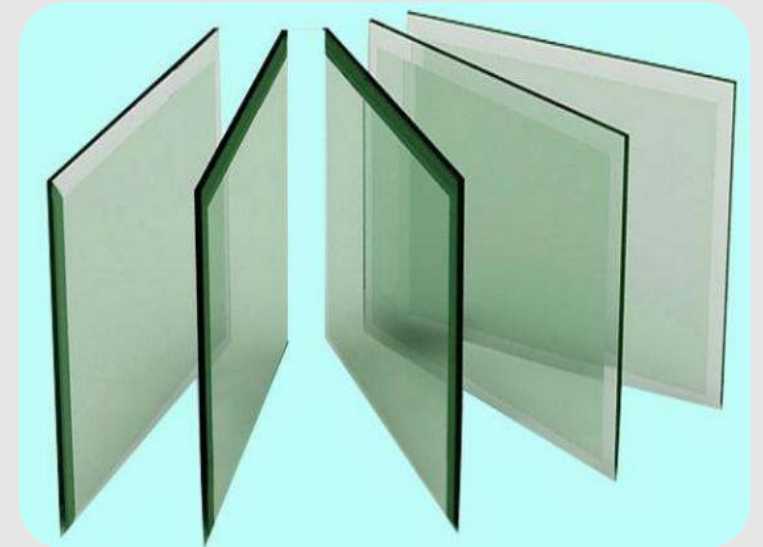
- Customizable shapes
- Uniform chamfering shape
- Strong shape retention
- Integration of rough and fine grinding

Applications of Sintered Drills



LCD&OLED panel edge grinding

Glass edge grinding



Electroplating Drills



By adopting high quality super-hard abrasive powder and using Dicing Saw electroforming technology and fully automatic production line and precision machining equipments, our CNC drills have obtained the trust of many customers at home and abroad with high precision, good processing performance and long life.

Products characteristics:

- Higher machining precision
- Better processing quality
- Longer life

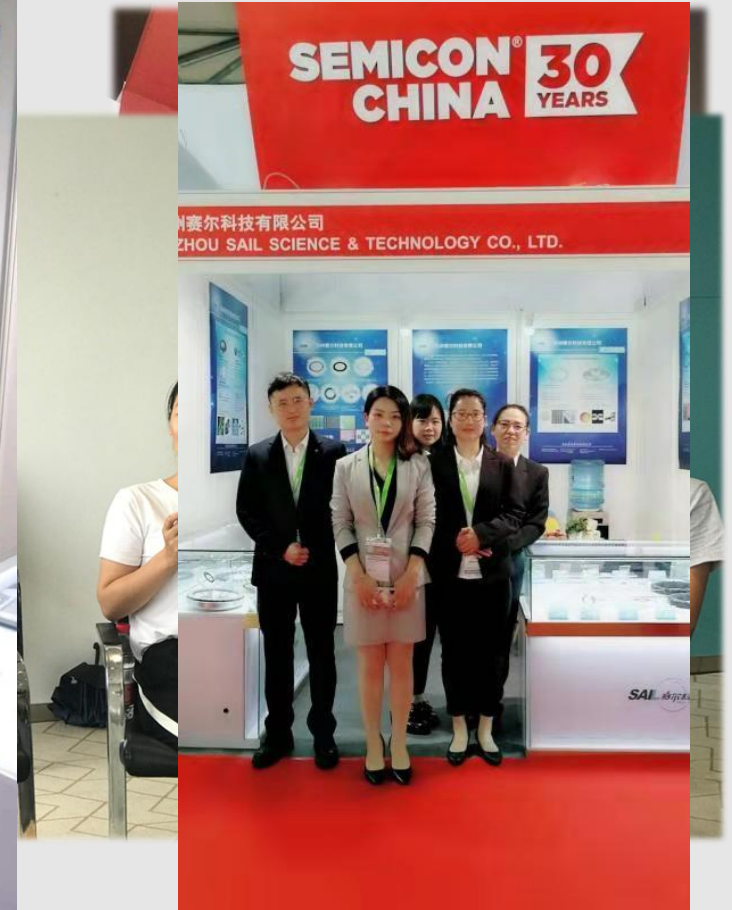
Applications of Electroplating Drills



The drills are widely used in mobile phone lenses, sapphire, windows glass lenses, digital products, jade, hard alloy and other intensive processing industries, etc.



Domestic and Foreign Exhibitions & Activities



Technology and R&D



Since its establishment, the company has attached great importance to investment in research and development, including the establishment of Engineering Technology R&D Center and New Product R&D Center. Now Sail has 18 research personnel, including 10 technicians with master's degree or above. It has its own laboratory, and has established R&D cooperation relations with School of Materials of Yanshan university , which has national key materials laboratory.

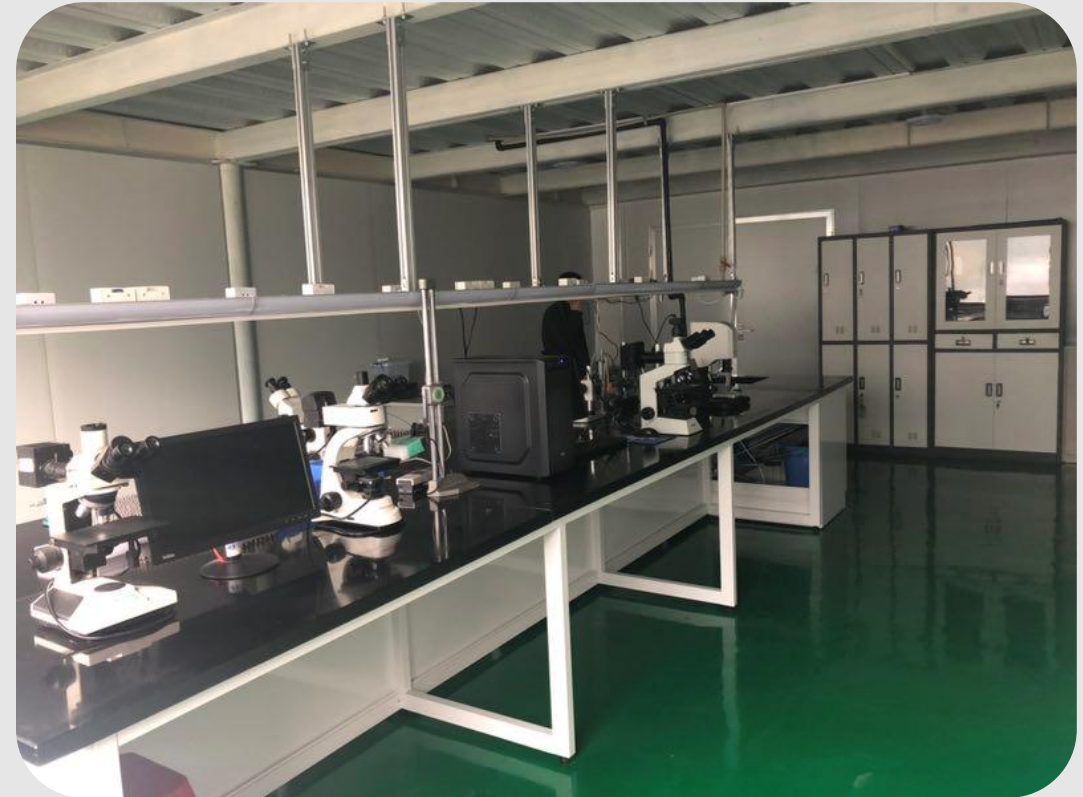


In 2010, the company was awarded High-tech Enterprise in Jiangsu province. It has obtained 13 utility models, 8 invention patents, and 3 high-tech products certification. It has great advantages in the chip packaging field such as Wlcsp, BGA, QFN, CSPD, optical glass industry and intelligent application field such as touch panel industry and optical glass industry .

Equipment Capacity & Quality System



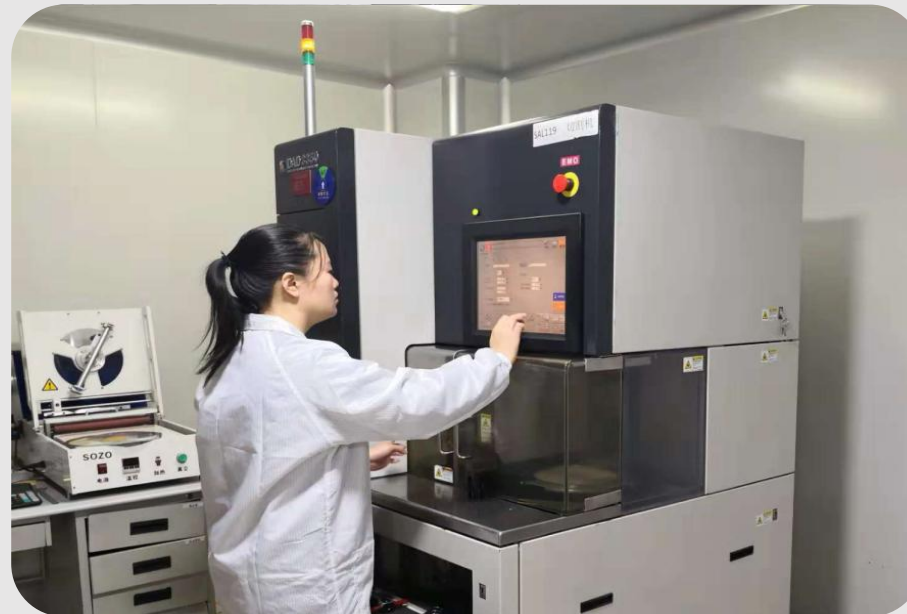
- Advanced German production line
- Precision control processing
- High efficiency and stable processing



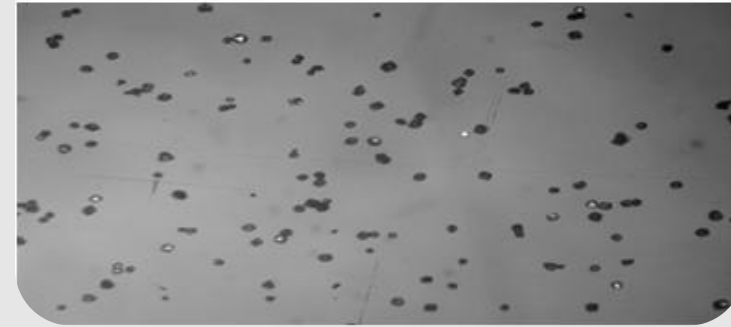
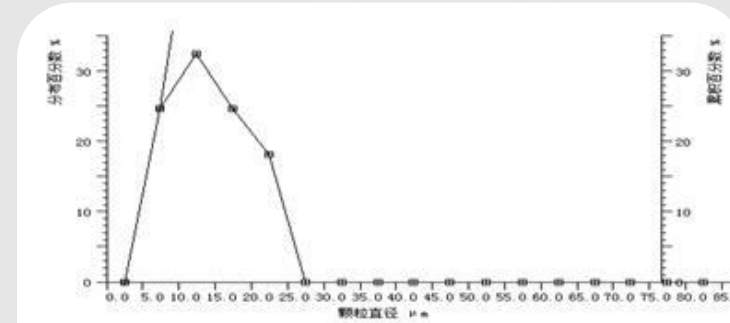
Equipment Capacity & Quality System



- Dedicated test and evaluation equipments
- Professional highly educated teams
- Customized test platform
- Professional product improvement plans according to evaluation reports



Quality Inspection & Control



➤ Strict quality control standards

➤ ISO9001:2015 Certification

Main Customers



Scope of Business

Semiconductor Industry	50%
Auto Industry	25 %
LED& Touch Panel	25 %



Thank You

Suzhou Sail Science& Technology Co., Ltd.