

专业品质 全球信赖
Quality • Reliability • Global Recognition

公司简介

苏州赛力精密工具有限公司是一家集研究、开发和生产精密超硬工具的高技术公司，也是目前国内精密金刚石和CBN砂轮、超薄超精金刚石和CBN砂轮生产规模最大、出口和替代进口数量最多的生产厂家。目前的产品种类有：树脂结合剂、陶瓷结合剂、电镀结合剂高精度金刚石和CBN砂轮以及树脂结合剂、金属结合剂超薄超精金刚石和CBN切割砂轮。



公司拥有ISO9001质量管理体系，先进的生产设备和良好的售后服务，并先后引进了美国、德国、英国、日本、韩国及台湾等国家和地区的先进技术和设备。以此使得上述产品在工具、模具、轴承、汽车、压缩机、航空航天、陶瓷、磁性材料以及半导体行业得到了广泛的应用并取得了良好的声誉。公司在国内设有办事处10多家，特许经销商已超过50多家。产品也批量出口到世界几十个国家和地区。

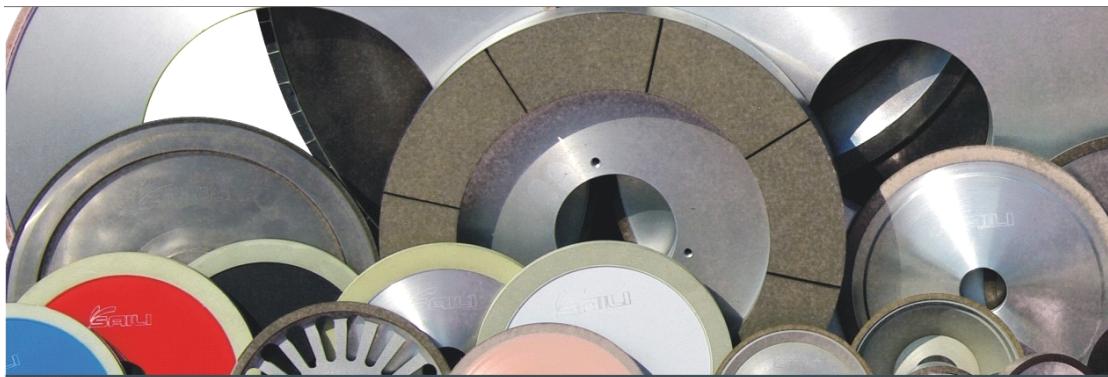
BRIEF INTRODUCTION

SUZHOU SAILI PRECISION TOOLS CO., LTD. is a high-tech corporation that is specialized in the research, development and production of resinoid, vitrified and electroplated diamond & CBN wheels, resinoid and metal bonded ultra thin and precision diamond/CBN blades , also it is the company which is largest in productive scale, most in export and replacing import in Chinese market. These products have been widely used in the fields of tools, Molds, Bearing, Compressor, Ceramics and Magnetic materials and IT.

For these products, Saili imported, early or late, technology and equipment from America, Germany, Britain, Japan, Korea and Taiwan. These technology and equipment are helping Saili to make their products to the top quality.

With its scientific quality-control system ISO 9001:2000, advanced equipment and excellent service, Saili's selling has been great increased and there are more than 10 liaisons and over 50 agents in home market also the products have been sold to many countries in the world.





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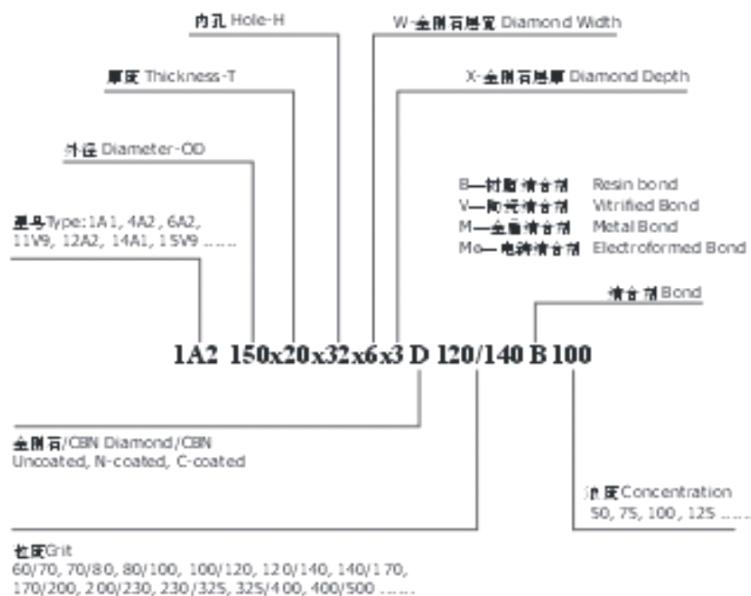
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金刚石和CBN砂轮型号
THE TYPES OF DIAMOND & CBN WHEELS



金刚石和CBN砂轮标注方法 MARKING OF DIAMOND & CBN WHEELS



如何订购

订购砂轮时, 请尽量将以下信息告诉我们:
砂轮的型号、尺寸 (外径、厚度、孔径、磨料层宽度及深度)、磨料种类、粒度、结合剂类型、浓度、
磨削方式 (干磨或湿磨) 以及被加工材料等。指清楚者能更快得到最适合的砂轮。

HOW TO MAKE A ORDER

More detailed for your description, more proper wheels you could get, please let us know:
Type: such as 1A1, 1A1R, 6A2, 11V9
Size: Diameter, Thickness, Hole, Width and depth of abrasive layer, angle
Specification: Abrasive(D or CBN), Grit, Bond, Concentration
Workpiece Material, Grinding process (wet or dry)



树脂结合剂金刚石和CBN砂轮

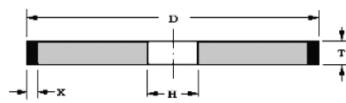
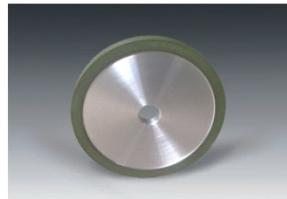
RESIN BONDED DIAMOND & CBN WHEELS

树脂结合剂金刚石和CBN砂轮是使用最多、用途最广泛的超硬工具之一。适用于硬质合金、石英、玻璃、光学材料、硅石、复合材料、PCD、PCBN、陶瓷材料等非金属硬脆材料以及高速钢、工具钢、模具钢、合金钢、轴承钢等金属材料的磨削、切割或开槽加工。其特点是锋利，切削力小，易修整，生产效率高。

Resin bonded diamond & CBN wheels are widely used for the grinding, cutting, slotting of ferous materials such as Tungsten carbide, Quartz, Glass, Optics material, Silican, Composites, Ceramics and the nonferrous materials such as high speed steel, Bearing steel, Hardened steel, Heat treated alloys, etc. with the features of sharp, low infeed force, easy to be truing and dressing as well as high efficiency.

1A1 适用于各种类型的外圆、平面及部分端面磨削

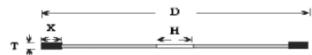
Suitable for all kinds of cylindrical grinding.



D	T	H	X
25	4,6,8,10,12,16,20	3	
30	10,12,16,20	3	
40	4,6,8,10,12,20	3	
50	4,6,8,10,12,16,20	3	
60	6,8,10,16,20	3,4,5	
75	3,4,6,8,10	3,4,5	
80	5,6,8,10,12,16,20	3,4,5	
100	3,4,5,6,8,10,12,16,20	3,4,5,6	
125	3,4,5,6,8,10,12,15,16,20	3,4,5,6	
150	3,4,5,6,8,10,12,15,16,20	3,4,5,6,8,10	
175	5,8,10,12,16,20	3,4,5,6,8,10	
200	5,6,8,10,12,15,16,20	3,4,5,6,8,10	
250	5,8,10,12,15,16,20,25,40,50,60	3,4,5,6,8,10,15	
300	8,10,12,16,20,25,32,40,50,60	3,4,5,6,8,10,15	
350	12,15,16,20,25,32,40,50,60	3,4,5,6,8,10,15	
400	10,12,15,16,20,25,32,40,50,60	3,4,5,6,8,10,15	
450	12,15,20,40,50,60	3,4,5,6,8,10,15	
500	12,15,20,40,50,60	3,4,5,6,8,10,15	

其它规格按客户要求提供
Any other size available upon request

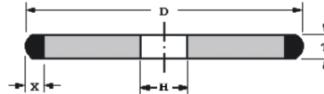
1A1R 适用于硬质合金、石英、玻璃、LED等的切割。
Suitable for the cutting of materials, such as tungsten carbide, Quartz, Glass, LED,etc.



D	T / E				X
	0.8/0.6	1.0/0.6	1.2/0.8	1.4/1.0	
60	✓				5
80	✓				5
100	✓	✓	✓	✓	5
150	✓	✓	✓	✓	6
200		✓	✓	✓	6, 8

其它规格按客户要求提供。
Any other size available upon request.

1F1 适用于精密弧面磨削。曲率精度可达0.01mm.
Suitable for the grinding of arc with the curvature 0.01mm.

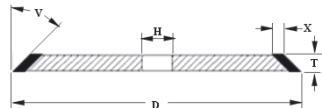


D	T/R	H	X
60	4/2		4
75	4.2/2.1		5
80	6/3		6
100	3/1.5, 6/3, 8/4, 10/5		3, 5, 6, 7
125	3/1.5, 6/3		3, 6

其它规格按客户要求提供。
Any other size available upon request.



1V1 适用于精密切槽及强力开槽。 Suitable for the precision and deep grooving.

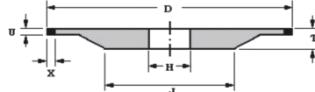


D	T	H	X	V
150	1.6			15°
150	3			20°
150	6			10°

其它规格按客户要求提供
Any other size available upon request

3A1 适用于高精度切入磨削，如光学曲线磨、微钻加工等。该砂轮最薄可达0.4mm，跳动可有效控制在0.003范围内。

For high precision cut-in grinding, such as GP grinding, JG gridgnign, micro drill grinding, etc. the thinnest thinckness can reach to 0.4mm within the run-out 0.003mm.

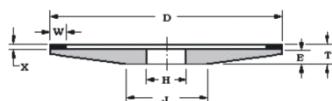
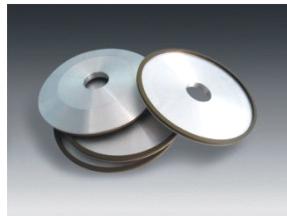


D	T	J	U	X
75	6	50	1.0	3
75	6	50	1.6	3
75	6	50	3	3
100	6	75	1.6	3
100	6	75	3	3
125	6	100	1.6	3
125	6	100	3	3
150	6	125	1.6	3
150	6	125	3	3
180	6	150	1.6	3
180	6	150	3	3
200	6	180	1.6	3
200	6	180	3	3

其它规格按客户要求提供
Any other size available upon request

4A2 该砂轮被广泛应用于工具行业。可提供混合磨料、混合粒度、单磨削层、双磨削层及三磨削层砂轮，使粗磨和精磨甚至抛光一次完成。

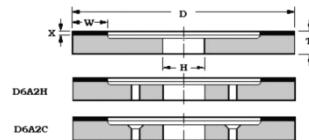
Widely used for the grinding of carbide tools. Different wheels, single abrasive, mixed abrasives, mixed grits, single grinding layer, double grinding layers and three grinding layers can be supplied.



D	T	H	J	W	X
150	10		57	3	1.5
150	10		57	5	1.5
150	10		57	6	1.5
150	10		57	6	3
150	10		57	10	3
200	10		100	6	3
250	13		125	6	3

其它规格按客户要求提供
Any other size available upon request

6A2 适用于各种类型平面、端面及刀具的精密磨削。 Suitable for the high-precision end/surface and cutter's grinding.



D	T	H	E	W	X
50	13		6	3, 5, 6	1.5
75	20		10	3, 5, 6, 10	3
100	20		10	6, 10, 12	3
125	20		10	6, 10, 12, 15, 20, 25	3
150	20		12	5, 6, 10, 12, 15, 20, 25, 30	3
175	20		12	5, 6, 10, 15, 20, 25	3
200	20		12	10, 15, 20, 25	3

其它规格按客户要求提供
Any other size available upon request

6A2T 金刚石和CBN双端面磨砂轮。高精度，高效率，耐磨性好。应用于压缩机、轴承、磁性材料以及陶瓷加工行业。

Diamond & CBN double grinding disc with the features of high accuracy, high efficiency and excellent durability. Used in the fields of compressor, bearing, magnetic materials and various ceramics.

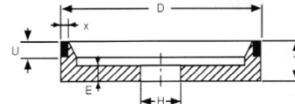
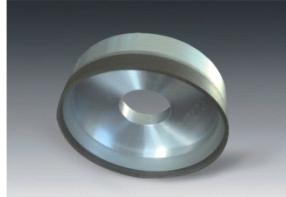


D	T	H	E	K	W	X
305	50	80		50	3.5	
305	50	80		10	3.5	
305	50	80		100	3.0	
305	50	80		75	3.0	
450	63	160		100	3.0	

其它规格按客户要求提供
Any other size available upon request

6A9 适用于端面刃磨铣刀、铰刀、扩孔钻、拉刀等的精密磨削，可提供粉末基体。

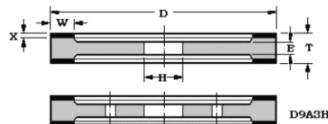
Suitable for the high precision grinding of all kinds of carbide tools and cutters,wheels with aluminum-powder body can be supplied.



D	T	H	E	K	U	X
75	25		10		6, 10	3
100	30		10		6, 10	3
125	35		10		6, 10	3
150	35		13		6, 10	3
200	35		13		6, 10	3
250	50		13		6, 10	3

其它规格按客户要求提供
Any other size available upon request

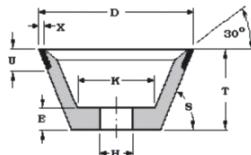
9A3 用于外圆磨削和刃磨刀具精磨以及无心磨的磨轮或导轮
 Used for the cylindrical grinding, tool and cutters grinding, centerless grinding



D	T	H	E	W	X
125	12		8	5	2
150	16		12	5	2
175	16		10	6	3
175	16		12	5	2
175	16		12	8	2
175	16		10	8, 10	3
230	12		8	10	2

其它规格按客户要求提供
 Any other size available upon request

11V9 用于铣刀、铰刀、拉刀等的精密磨削以及端面、平面、电解磨削,可提供粉末基体。
 Suitable for the carbide tools, cutters grinding and the end/surface grinding as well as the electrochemical grinding,wheels with aluminum-powder body can be supplied.



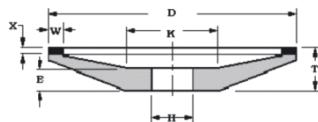
D	T	H	E	K	S	U	X
50	25		6	12		5	1.5, 2, 3
75	32		1/4	12		5, 7	2, 3
90	35		10	56	60,	7, 10	2, 3
100	40		10	56	70	7, 10	2, 3
125	40, 45		13	80		7, 10	2, 3
150	40, 45		13	80		7, 10	2, 3

其它规格按客户要求提供
 Any other size available upon request



12A2

用于铣刀、铰刀、拉刀等的精密磨削以及端面、平面、电解磨削。
Suitable for the carbide tools, cutters grinding and the end/surface grinding as well as the electrochemical grinding.

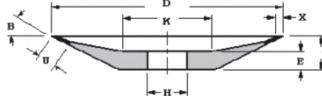


D	T	H	E	K	W	X
75	12	5	35	3, 5, 6, 10	3, 4, 6	
100	14	6	56	3, 5, 6, 10	3, 4, 6	
125	18	8	75	3, 5, 6, 10	3, 4, 6	
150	20	9	80	5, 6, 10, 13, 15	3, 4, 6	
175	22	10	100	5, 6,	3, 4, 6	
200	24	11	135	13, 15	3, 4, 6	

其它规格按客户要求提供
Any other size available upon request

12V9

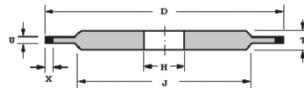
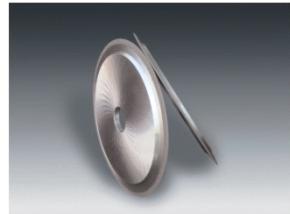
用于铣刀、铰刀、拉刀等的精密磨削以及端面、平面、电解磨削，可提供粉末基体。
Suitable for the carbide tools, cutters grinding and the end/surface grinding as well as the electrochemical grinding, wheels with aluminum-powder body can be supplied.



D	T	H	E	K	U	X
75	20	10	38	6	1.5, 3	
100	20	10	56	6, 10	1.5, 3	
125	25	10	75	6, 10	1.5, 3	
150	25	10	80	6, 10	1.5, 3	

其它规格按客户要求提供
Any other size available upon request

14A1 适用于外圆磨、平面磨、端面磨及切入磨。
Suitable for the cylindrical grinding, end/surface grinding and cut-in grinding.



D	T	H	J	X	U
75	6		50	3	1, 2
100	6, 8		70	3	3
125	6, 8, 10, 12		100	3	3
150	10, 12		120	3	3
175	12, 15,		140	3	1, 3, 6
200	12, 15, 20		160	3	3, 5, 6
250	12, 15, 20		200	6	6, 10
300	15, 20		250	6	6, 10, 16
350	15, 20		300	6	6, 10, 16
400	20		350	6	6, 10, 16
500	20		400	6	10, 16
600	20		500	6	10, 16

其它规格按客户要求提供。
Any other size available upon request.



陶瓷结合剂金刚石和CBN砂轮

VITRIFIED DIAMOND & CBN WHEELS

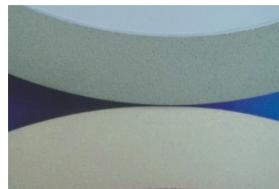


陶瓷结合剂金刚石和CBN砂轮与金属结合剂金刚石和CBN砂轮相比，具有更好的弹性、锋利性和可修整性，与树脂结合剂金刚石和CBN砂轮相比，又具有更好的形面保持性、热稳定性和更长的磨削寿命。陶瓷结合剂金刚石砂轮适用于硬质合金、陶瓷制品、玻璃制品、PCD、PCBN、CVD、天然金刚石、宝石材料等的精密加工。陶瓷结合剂CBN砂轮适用于铸铁材料、轴承钢、高速钢、工具模具钢、耐热合金钢等金属材料的精密加工。

Vitrified diamond and CBN wheel has the better elastic deformation, higher sharpness and easier truing and dressing features compares to the metal bonded ones; Also has the excellent shape maintainability, thermal stability and longer durability compares to the resin bonded wheels. Vitrified diamond wheels are suitable for the high-precision processing of non-ferrous materials, such as tungsten carbide, ceramics, glasses, PCD, PCBN, CVD, natural diamond, stones, etc; Vitrified CBN wheels are suitable for the high-precision processing of ferrous materials such as Cast Iron, Bearing Steels, High Speed Steels, Heat Resistant Alloys, etc. Saili's products have been used for various applications in different fields, such as, bearing, compressor, automobile, aerospace and general industries, etc.

陶瓷结合剂金刚石砂轮

VITRIFIED DIAMOND WHEELS



致密和气孔结构 Compact & porous structure

赛力独立研发的陶瓷结合剂金刚石砂轮已被广泛应用于硬质合金、陶瓷制品、玻璃制品、PCD、PCBN、CVD、天然金刚石、宝石材料等的精密加工。产品具有强度高、寿命长、形面保持性好、磨削锋利等特点。可根据客户需要提供不同浓度和硬度的致密型和气孔型砂轮用于外圆、平面、内孔、开槽等的磨削加工。其中磨PCD专用砂轮和磨宝石钻石专用砂轮已批量出口国际市场。

Saili's vitrified diamond wheels have been widely used in the fields of tungsten carbide, ceramics, glasses, PCD, PCBN, CVD, natural diamond, stones, etc. These products are with the characteristic of high speed, high strength, long durability, good shape maintainability, excellent sharpness, etc. Also different wheels - Compact or porous - with different concentration, different hardness can be supplied for customer's various applications. Special Wheels for PCD and Natural diamond and gemstones have been exported to some countries in Quantity.

磨PCD专用陶瓷结合剂金刚石砂轮

Vitrified Diamond Wheels Specially for PCD



该砂轮由低温陶瓷结合剂与优质选型的高强度CBN烧结而成。磨削锋利，耐用度高，磨削质量好，易修整。可提供致密型和气孔型各种规格，常用粒度为500# - 4000#，满足粗、精、超精刃磨加工。

The vitrified diamond wheels are made by low temperature vitrified bond and high quality CBN with the features of excellent sharpness, long durability, good grinding quality and easy to be trued and dressed. Grits are from 500# - 4000# for coarse, fine grinding and polishing.

磨钻石、宝石专用陶瓷结合剂金刚石砂轮

Vitrified Diamond Wheels Specially for Diamond and Gemstones



该砂轮用于天然钻石及宝石的粗磨、精磨和研磨加工。形状保持性好，磨削锋利持久。可根据需要提供致密到气孔不同结构的各类砂轮。

The wheels are used for the grinding of natural diamond and gemstones with the features of good shape maintainability, sharpness and durability. Different structures from compact to porous can be supplied.

磨钻石、宝石砂轮规格表 Specification

型 号 type	外 径 D (mm)	厚 度 T (mm)	孔 径 H (mm)	组织结构 Structure
1A1	50-500mm	5-50	On request	致密型、气孔型 Compact to Porous



陶瓷结合剂CBN砂轮

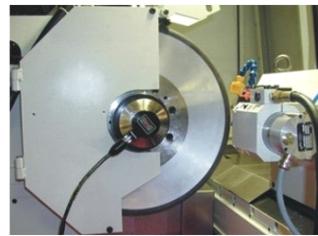
VITRIFIED CBN WHEELS

外圆及平面磨砂轮

Surface & Cylindrical Grinding Wheel

陶瓷结合剂CBN外圆和平面磨砂轮被广泛应用于汽车、压缩机轴承等行业的凸轮轴，曲轴，传动轴，转向器轴承环等的精密加工以及强力磨削，磨槽等。

Vitrified CBN surface & cylindrical grinding wheels are widely used in the fields of compressor, automobile, bearing, etc to grind Camshaft, Crankshaft, shafts, Spindles, Bearings as well as Creep feed grinding, Slot grinding, etc.



使用中的砂轮
Wheel in Running



外圆、平面磨砂轮
Surface & Cylindrical



磨压缩机零件砂轮
Wheels for the parts of compressor



磨曲轴和凸轮轴砂轮
wheels for Crankshaft & Camshaft

内圆磨砂轮

Internal Grinding Wheel

赛力的陶瓷结合剂CBN内圆磨砂轮已被用于压缩机、轴承等行业如联轴节，轴承，油泵油嘴，变速器等的精密加工。

Saili's internal grinding wheels have been widely used in the fields such as compressor, automobile and bearing for the high precision grinding of joints, Bearings, Injector nozzles and Gearbox, etc.



磨压缩机活塞砂轮
Wheels for Compressor Piston



磨压缩机机架、轴承内孔砂轮
Wheels for Compressor Housing and Bearing



磨压缩机汽缸砂轮
Wheels for Cylinder of Compressor

端面磨砂轮

Cup & Ring Type Grinding Wheel

端面磨砂轮用于精磨铁系材料如高速钢、工具钢、模具钢及合金钢工件的端面，如变速器、汽车、压缩机及轴承零部件等。

The cup & ring wheels are widely used for the high precision end or surface grinding of ferrous materials such as transmission, automobile, compressor parts and bearings.





电镀结合剂金刚石和CBN砂轮

ELECTROPLATED DIAMOND & CBN WHEELS



磨坐标砂轮
Wheels for Jig Grinding



精密成型磨砂轮
Wheels for Precision Profile Grinding



精密槽研砂轮
Wheels for Precision Groove Polishing



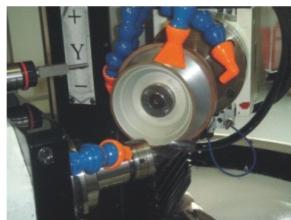
钻石抛光砂轮
Wheels for Diamond Polishing

电镀金刚石和CBN砂轮使用锋利、免修整、磨削效率高，发热量小，可被做成任何形状。赛力以整套德国进口设备和电镀技术用于象座标磨、槽研、钻石抛光以及各类型高精度电镀电铸工具的生产。可根据客户需要，将磨粒镀成单层、双层或三层，在保证加工精度的基础上，极大地提高产品使用寿命。

Electroplated and electrodeposit diamond and CBN wheels have the features of free-faster cutting, non-truing and dressing, less heating, and they can be made simply into any shapes. Saili imported the complete set of machine and technology for the high-precision tool's production such as the wheels for jig grinding, groove Polishing, diamond finishing and other special applications.

CNC磨床专用砂轮

DIAMOND & CBN WHEEL FOR CNC GRINDERS

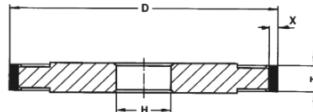
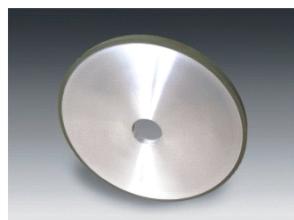


高精度CNC磨床专用砂轮，应用于单轴或多轴联动的数控磨床，具有速度高、精度高、磨削效率高和保持性好等特点。赛力的此类产品已经在多种数控磨床如Walter, Anca, Ewag上得到良好应用。重要客户包括肯纳金属、钴领刀具、名古屋等。以下是常用型号和规格的数控磨床专用砂轮。

The wheels for CNC grinders are the professional ones with the performance of high speed, high accuracy, high efficiency and excellent shape-standing. Saili is the one of the manufacturers of the wheels which are few in China. Saili's products have been successful used in the grinders, such as Walter, Anca, Ewag...etc. and the customers include Kennemetal, Guhring, SNSTC...

平形高效开槽砂轮

TYPE 1A1 or 14A1



D - T - H - X	粒度 Grit	结合剂 Bond	浓度 Concentration
75 - 10 -20 - 5			
100 - 10 -20 -5			
100 - 10 -20 -5			
100 - 12 -20 -5			
100 - 15 -20 -5			
100 - 15 -20 -5	D107-D46	B	C100-C230
125 -5 -20 -10			
125 -10 -20 -10			
125 -12 -20 -10			
125 -16 -20 -10			
150 -12 -20 -10			

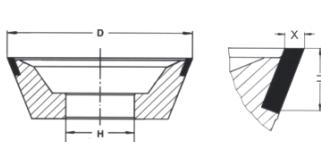


精磨碗形砂轮

TYPE 11V9

铝粉基体，磨削锋利高效，完全杜绝烧伤或划伤。

Aluminum powder body, good sharpening, excellent efficiency, no burn and scratch



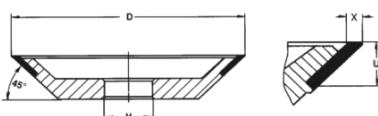
D - T - H - X	粒度 Grit	结合剂 Bond	浓度 Concentration
75 -20 -2 -10			
75 -20 -3 -10			
100 -20 -2 -10			
100 -20 -3 -10	D107-D46	B	C100-C230
100 -20 -3 -10			
125 -20 -3 -10			

精磨碟形砂轮

TYPE 12V9

铝粉基体，磨削锋利高效，完全杜绝烧伤或划伤。

Aluminum powder body, good sharpening, excellent efficiency, no burn and scratch



D - H - X - U	粒度 Grit	结合剂 Bond	浓度 Concentration
75 -20 -2 -10			
75 -20 -3 -10			
100 -20 -2 -10			
100 -20 -3 -10	D151-D46	B	C100-C230
125 -20 -2 -10			
125 -20 -3 -10			
150 -20 -3 -10			

单斜边高效强力开槽砂轮

TYPE 1V1 or 14V1



新型铜基金刚石高效开槽砂轮，耐热性好，适用于高效率精密磨削和开槽。

Copper body, high-precision, high-efficiency, excellent heat-resistance

D - T - H - X - V	粒度 Grit	结合剂 Bond	浓度 Concentration
75 - 10 - 20 - 5 - 10			
100 - 10 - 20 - 5 - 10			
100 - 15 - 20 - 5 - 10			
100 - 15 - 20 - 5 - 20			
100 - 15 - 20 - 5 - 30			
100 - 15 - 20 - 5 - 45			
125 - 4 - 20 - 6 - 45			
125 - 6 - 20 - 5 - 20			
125 - 10 - 20 - 5 - 10	D107-D46	B	C100-C230
125 - 10 - 20 - 5 - 20			
125 - 10 - 20 - 5 - 30			
125 - 10 - 20 - 5 - 45			
125 - 15 - 20 - 5 - 10			
125 - 15 - 20 - 5 - 20			
125 - 15 - 20 - 5 - 30			
125 - 15 - 20 - 5 - 45			
150 - 4 - 20 - 5 - 45			
150 - 12 - 20 - 5 - 15			



1A1 平形高效强力精磨和开槽砂轮

该砂轮是专用于数控磨床的高效强力开槽砂轮，可以按客户的要求做成微气孔或大气孔。

This wheel is specially used for enhanced-feed grooving by CNC grinder. Compact and porous structure can be choosed.



D - T - H - X	粒度 Grit	结合剂 Bond	浓度 Concentration
75 - 10 - 20 - 5			
100 - 10 - 20 - 5			
100 - 10 - 20 - 5			
100 - 12 - 20 - 5			
100 - 15 - 20 - 5			
100 - 15 - 20 - 5	D107-D46	B	C100-C230
125 - 5 - 20 - 10			
125 - 10 - 20 - 10			
125 - 12 - 20 - 10			
125 - 16 - 20 - 10			
150 - 12 - 20 - 10			

超薄超精金刚石和CBN切割砂轮

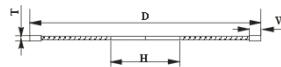
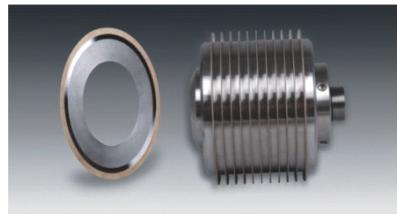
ULTRA THIN & PRECISION DIAMOND & CBN BLADES

超薄超精金刚石切割砂轮主要用于非金属材料如半导体材料、PCB、硬质合金、玻璃、陶瓷、石英、水晶、磁性材料等的精密划片、切割、开槽等。超薄超精CBN砂轮则用于金属材料如高速钢、工具钢、模具钢及各种合金钢的开槽、切断加工。

The Ultra thin and Precision diamond wheels are widely used for the cutting, dicing, slicing of nonmetal materials, such as semeiconductor materials, PCB, Tungsten carbide, Glass, Ceramics, Quartz, Crystal, Magnetic materials, etc. The ultra thin & precision CBN wheels are used for the cutting and sloting of metal materials, such as High speed steels, Tool steels, Mold steels, alloy steels, etc.

金属结合剂超薄超精金刚石切割砂轮

METAL BONDED ULTRA THIN & PRECISION DIAMONDBLADES



采用金属结合剂和优质超硬材料烧结而成的一种切割砂轮。该砂轮磨粒把持力性强、耐磨损高，最适用于电子元件及光学元件材料的精密切割与开槽。其良好的刚性能够避免斜面切割等不良切割现象。该产品也适用于切割加工类似陶瓷及CSP等各种半导体封装元件。

The metal sintered ultra thin and precision diamond blade is with the speciality of strong-hold grains, good rigidity and excellent wearability. It fits to be used for the cutting and grooving of electronic and optical materials, also could be used for the cutting and grooving of ceramic and semiconductor materials etc.

砂轮规格及精度 Specification & Tolerance

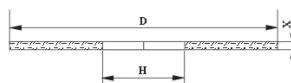
形状 Types	外径 D (mm)	厚度 T (mm)	磨料 Abrasive	浓度 Concentration	结合剂 Bond	厚度精度 Tolerance of Thickness
1A8	≤ 150	≥ 0.15	D, CBN		M	± 0.01
1A1R	≤ 150	≥ 0.30	D, CBN	50, 75, 100	M	± 0.01
1A1RS	≤ 150	≥ 0.30	D, CBN		M	± 0.01



树脂结合剂超薄超精金刚石切割砂轮 RESIN BONDED ULTRA THIN & PRECISION DIAMOND BLADES

与金属结合剂切割砂轮相比，树脂结合剂超薄超精切割砂轮具有更锋利，更富有弹性和自锐性，切割效率高等特点。因此，树脂结合剂超薄超精金刚石砂轮更容易实现对硬脆材料如玻璃、石英等材料的高速高效加工。

Compared with the metal bonded wheels, Ultra thin and precision resin bonded diamond blade is more aggressive, more elastic and have the strong self-sharpening, it is better for the wheels to be used for the high efficient cutting and processing of harder and脆 materials, such as glass, quartz, ceramics, etc.



规格及精度范围 Specification and Tolerance:

T	D 30~60	60~80	80~110	110~120	120~150	厚度公差 T-Tolerance
0.1						
0.2						± 0.005
0.3						± 0.005
0.4						± 0.010
0.5						± 0.010
0.8						± 0.010
1.0						± 0.010
1.5						± 0.010
2.0						± 0.010

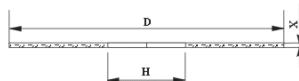
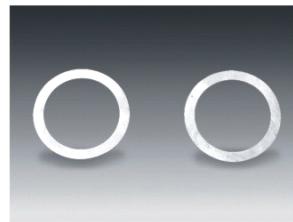
可根据客户要求做成整体型(1A8)、带基体型(1A1或1A1R)或带槽型(1A1RS)
Types 1A8, 1A1, 1A1R and 1A1RS are on available

镍基超薄超精金刚石切割砂轮 (软刀)

ELECTROFORMED ULTRA THIN & PRECISION DIAMOND BLADES

镍基切割砂轮是一种具有优越的切割能力和高强度的电铸超薄型切割砂轮，最适用于窄狭缝切割及开槽加工，广泛应用于切割加工半导体晶片，陶瓷及CPS等半导体封装材料。

This product is electroformed with excellent cutting ability and high efficiency. It fits to be used for dicing and slitting of many materials, such as semiconductors, electronic components, ceramics, CPS, etc.



外径 D (mm)	厚度 Thickness (mm)	磨料 Materials	颗粒尺寸 Grits	结合硬度 Hardness	浓度 Con	厚度精度 T Tolerance
0.015~0.020	CBN	SD	4500#	S	50	
0.020~0.030			4000#		70	
0.030~0.040			3500#		90	±0.002
0.040~0.050			3000#		110	~
0.050~0.060			2000#		130	±0.005
0.060~0.065			1500#			
0.065~0.075			1200#			
0.075~0.080			1000#			
0.080~0.090			800#			
0.090~0.100			700#			
0.100~0.120			600#			
0.120~0.150			500#			
0.150~0.160			400#			
0.160~0.180			320#			
0.180~0.200			280#			
0.200~0.300			240#			

异型切缝砂轮

SPECIAL SHAPE WHEELS:

55.6 x 0.1 x 19.05 x 45° D800N50M - X3 - T1						
外径 D	厚度 Thickness	内径 H	刀角度 Angle	狭缝 Slot Size	刃形状 Shape of edge	
		θ	X1_4 深度 Depth: 1mm	T1		
			X2_8 深度 Depth: 1mm	T2		
			X3_16 深度 Depth: 1mm	T3		
				T4		



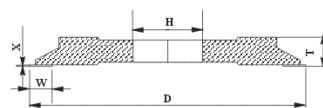
轮盘型电铸切割砂轮（硬刀）

ELECTRODEPOSIT DIAMOND BLADES WITH HUB

轮盘型电铸切割砂轮属于镍刀（软刀）的升级产品。与镍刀相对应，该产品俗称“硬刀”。为半导体晶圆的专用划片工具。由于硬刀的轮盘部分对切割砂轮的刀刃提供了支撑，因此，极大地提高了砂轮刃口的强度，从而降低了产品的崩口和蛇形切割以及刀片破损等现象的发生，极大地提高了切割效率。

The diamond blade with hub is with a stronger edge, which make the blade more rigid and keep the edge not to be broken, so the cutting with the blade is in high efficiency specially for the dicing of Si-wafer.

- 厚度 Thickness: 0.015~0.140mm
- 采用电铸型结合剂 Electroformed Bond
- 可以提供不同的结合剂，以及不同的浓度和硬度 Different concentration and hardness could be chosen.
- 粒度 Grit: 600#~4800#



砂轮标注 Marking of The Wheel

D	T	H	D	2000	N	50	Me	B	25
外径 OD	厚度 T	孔径 Hole	磨料 Materials	粒度 GRIT	硬度 Hardness	浓度 Con	结合剂 Bond	切槽宽度 Slot Width	出刃高度 Exposure

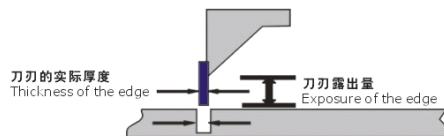
规格和技术参数 Specification and Technical Parameter

内外径尺寸 D & H (mm)		磨料 Material	粒度 Grits	切割槽宽 X Cutting Width (m)		露出量 Edge Exposure (mm)								结合度 H	钻石浓度 C						
外径 D	内径 H			0.380	0.510	0.640	0.760	0.890	1.020	1.150	1.300	1.400	-0.510	-0.640	-0.760	-0.890	-1.020	-1.150	-1.300	-1.400	-1.650
外径 D 55.56	内径 H 19.05	SD	4800#	15-20	A	A10	A15													50	
			4500#	20-25	B	B10	B15	B20											S	70	
			4000#	25-30	C	C10	C15	C20	C25	C30											
			3500#	30-35	D	D10	D15	D20	D25	D30	D35										
			3000#	35-40	E	E10	E15	E20	E25	E30	E35	E40									
			2000#	40-50	F	F10	F15	F20	F25	F30	F35	F40	F45								
外径 D 76.20	内径 H 31.75	CBN	1800#	50-60	G	G10	G15	G20	G25	G30	G35	G40	G45						N	110	
			1500#	60-80	H	H10	H15	H20	H25	H30	H35	H40	H45								
			1000#	80-90	I		I15	I20	I25	I30	I35	I40	I45	I50						H	130
			800#	90-100	J			J20	J25	J30	J35	J40	J45	J50							150
			700#	100-115	K				K25	K30	K35	K40	K45	K50							
			600#	115-130	L					L30	L35	L40	L45	L50							180
			500#	130-140	M					M30	M35	M40	M45	M50							

异型切缝砂轮

Special Shape Wheels:

55.6 x 0.1 x 19.05 x 45°		D2000N50Me -	X3 - T1		
外径 D	厚度 Thickness	内径 H	刀角度 Angle	狭缝 Slot Size	刃形状 Shape of edge
			θ	X1_4	T1
				X2_8	T2
				X3_16	T3
					T4



刀片厚度与槽宽示意图
Illustration of the thickness and slot

硅片减薄砂轮

WAFER BACK & FRONT WHEEL



硅片减薄砂轮主要用于半导体晶圆(硅片或其他半导体材料)的背面减薄或正面精密加工。赛力生产的此类砂轮分为树脂结合剂和陶瓷结合剂两大类。其特点为磨削锋利、保持性好、磨削效率高、使用寿命长。

Wafer back & front diamond wheel is mainly used for the thinning and finishing of the silicon wafer and other Compound semiconductor wafers. SAILI produce the wheels by resin and vitrified bonds with the features of free cutting, wear resistance, good shape maintainability and long durability.

产品规格 Specification

型号 Type	外径 D (mm)	厚度T (mm)	孔径 H (mm)	磨料 D	粒度 Grit	结合剂 Bond	浓度 Con.
6A2T	175-335	20-45	76-235	D	D54-D4.6	B, V	100

适用机床 The machine suited
DISCO, OKAMOTO, TSK, STRASBAUGH etc.