



Hunan Yujing Machinery Co., Ltd.

Specializing in advanced equipment and solutions for processing hard and brittle materials, including multi-wire cutting, polishing systems, diamond wire, and photovoltaic products.



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Company Introduction

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Company Profile



YUJING is engaged in the manufacturing of high-precision machining equipment designed for hard and brittle materials. The company's core competencies encompass research and development, production, and sales of specialized equipment, including multi-wire saws, lapping and polishing machines, diamond wires, thermal field systems, and photovoltaic silicon wafers. These solutions serve a broad range of industries, notably solar photovoltaics, consumer electronics, semiconductors, magnetic materials and stone cutting.

In 2022, YUJING broadened its business portfolio by investing in, constructing and operating new energy power station projects, with a primary focus on solar photovoltaic and wind power generation. The company further provides comprehensive energy solutions to power users, including services in energy storage, power distribution, charging infrastructure, and energy efficiency management.



235,620m²

Office Building & Processing and Manufacturing



2,000m²

R&D office building

1.1 Yujing Headquarters Park



1998
Established

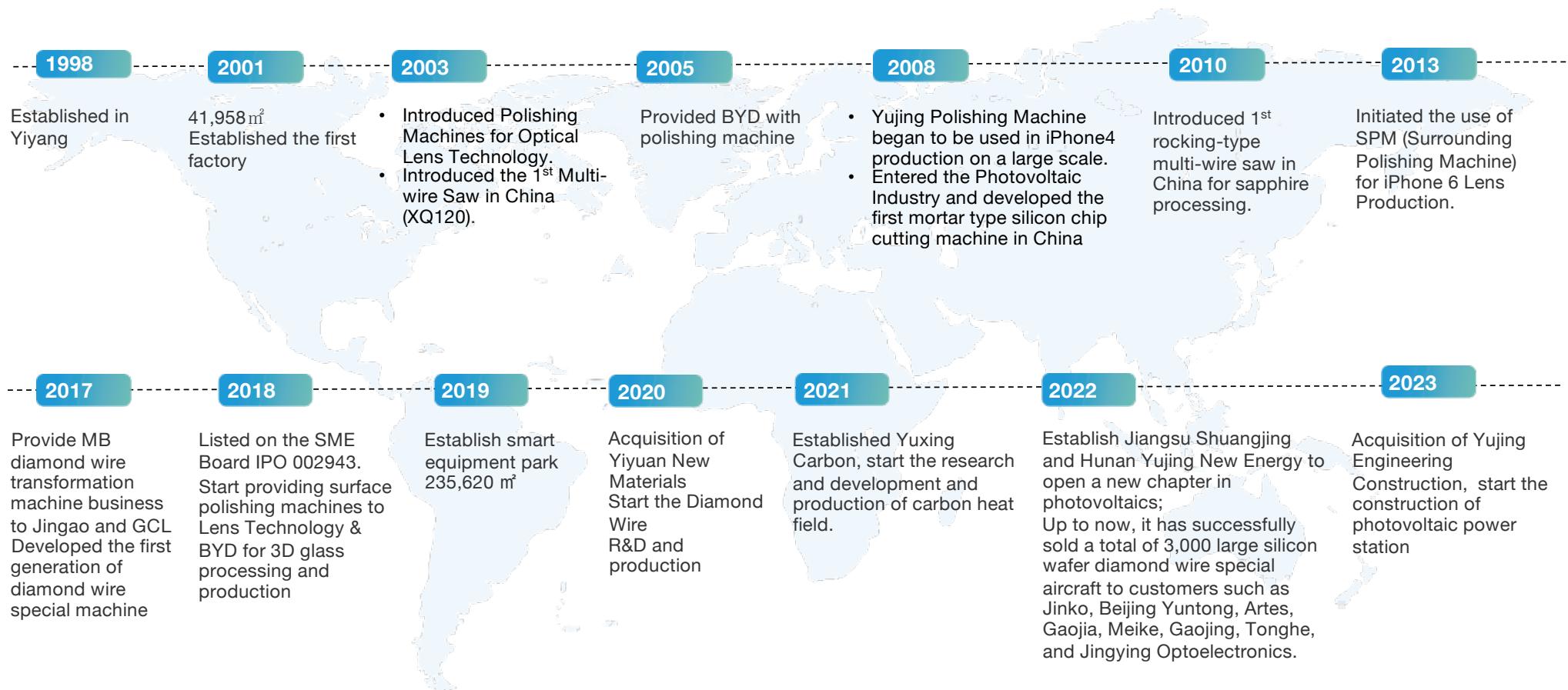
2018
Listed on the Main
Board of the Shenzhen
Stock Exchange

3.5 billion
Total assets of 3.5 billion

500 +
Customers



1.2 Development history



1.3 Group Structure



Hunan Yujing Machinery Co., Ltd. (Parent Company)

Main business: Multi-wire Cutting Machine, Lapping and Polishing Machine, Special-shaped Surface Polishing Machine



**Yujing Machinery
(Changsha)**
Wholly-owned Subsidiary

R&D Center

**Yiyuan New
Materials**
Wholly-owned Subsidiary

**Diamond Wire
Manufacturing**

Shuangjing
Holding Subsidiary

**Silicon Wafers
Processing**

Yujing New Energy
Whole-owned Subsidiary

**Investment &
Construction of New
Energy Power
Stations**

Yuxing
Holding Subsidiary

**Carbon Thermal
Field**

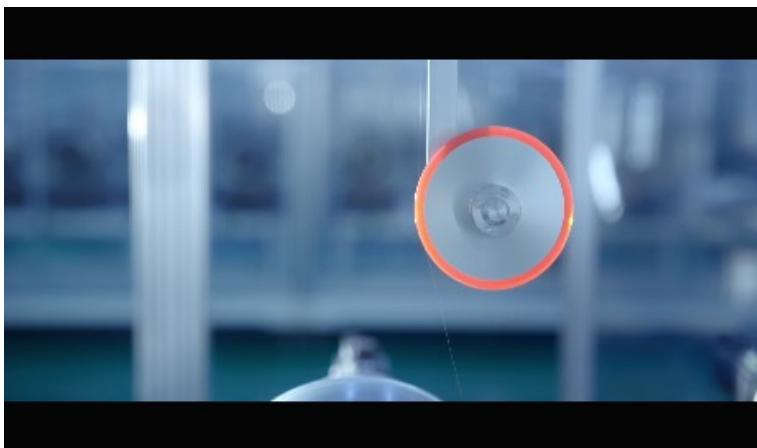
1.3 Group Structure



Top Left: Yujing Machinery



Top Right: Shuangjing

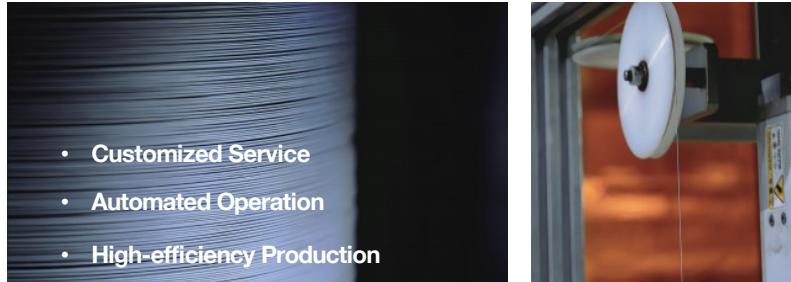


Bottom Left: Yiyuan New Materials



Bottom Right: Yujing New Energy

2.6 Diamond Wire Introduction



Our high-efficiency diamond wire is engineered for cutting a wide range of stones and can be customized to specific requirements. With superior wear resistance and precise cutting performance, it significantly improves both the efficiency and accuracy of stone processing.



Product features

The diamond wire production machine features a high level of automation, incorporating an automated plating solution management system and automated visual inspection devices, ensuring consistent product performance and stability.

Utilizing proprietary electroplating technology, the product delivers stable quality and high consistency. Customized diamond particles provide strong cutting performance while reducing overall wire consumption. The uniform distribution of particles minimizes localized wear, effectively preventing breakage and chipping.

It offers broad applicability, being compatible with a wide range of stone types and hardness levels, thereby meeting the requirements of diverse processing techniques.



Stone-specific diamond wire: Pairing advanced equipment with premium consumables to deliver a new standard in cutting efficiency.

2.6 Product Introduction/Stone Cutting Diamond Wire



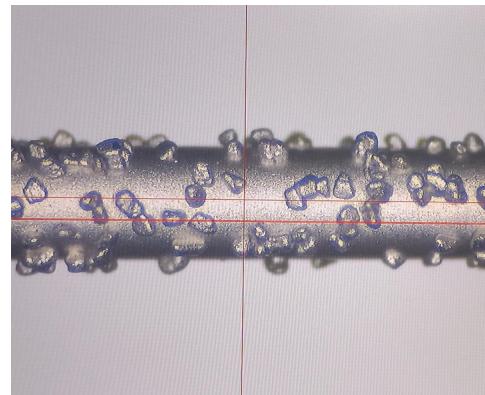
NO.	Size (mm)	Core Wire (mm)	Emery Granularity (μm)	Diameter Range (mm)	Tensile Strength (N)
1	0.600	0.47	50-70	0.640-0.660	≥450
2	0.550	0.42	50-70	0.580-0.600	≥390
3	0.450	0.35	45-65	0.470-0.490	≥280



YJ-XQL3420A Cutting Equipment



BS-200 Wheel



Stone Cutting Wire



Marble Products

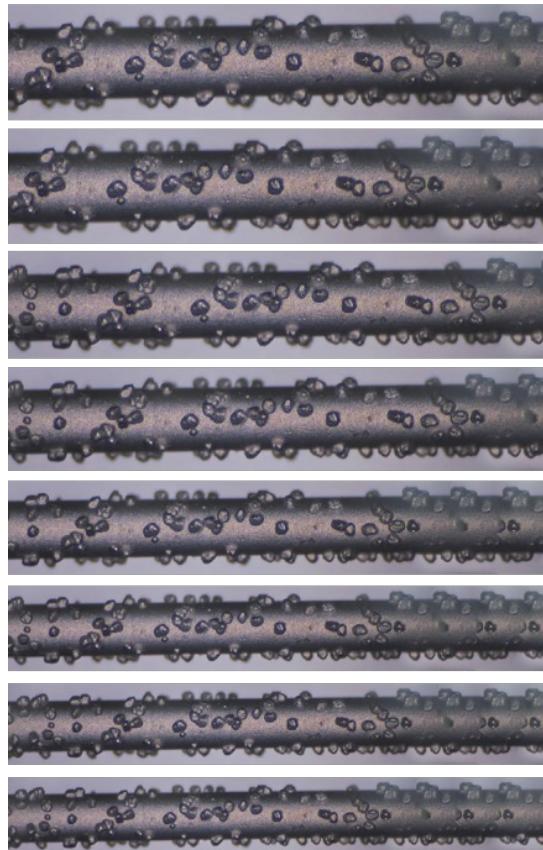
2.6 Diamond Wire Introduction



Technical Specifications

Application Field	Specs	Wire Diameter Range(mm)	Breaking force(N)
Stone Cutting Wire	0.600	0.640-0.660	≥450
	0.550	0.580-0.600	≥390
	0.450	0.470-0.490	≥280
Silicon Squaring Cutting Wire	0.450	0.450-0.470	≥280
	0.420	0.430-0.440	≥220
	0.380	0.390-0.400	≥200
	0.350	0.360-0.370	≥165
Sapphire Cutting Wire	0.250	0.240-0.260	≥90
	0.245	0.235-0.255	≥85
	0.240	0.230-0.250	≥80
	0.230	0.220-0.240	≥75
	0.220	0.210-0.230	≥70
	0.210	0.200-0.220	≥65
	0.200	0.190-0.210	≥60
Magnetic Material Cutting Wire	0.230	0.225-0.240	≥75
	0.210	0.205-0.220	≥60
	0.200	0.195-0.210	≥60
	0.190	0.185-0.200	≥50
	0.180	0.175-0.190	≥45
	0.170	0.165-0.180	≥45
	0.150	0.145-0.160	≥35
	0.140	0.135-0.150	≥30
	0.130	0.125-0.140	≥30
	0.120	0.110-0.130	≥30
	0.100	0.110-0.120	≥30
	0.080	0.090-0.100	≥12
Carbon Steel Cutting Wire	0.035	0.050-0.052	≥7.2
	0.032	0.048-0.050	≥6.8
	0.030	0.046-0.048	≥6.2
	0.028	0.044-0.046	≥5.6
	0.026	0.042-0.045	≥5.1
Tungsten Cutting Wire	0.028	0.044-0.045	≥6.2
	0.026	0.042-0.044	≥5.8
	0.024	0.040-0.042	≥5.3
	0.022	0.038-0.040	≥4.7
	0.020	0.036-0.038	≥4.3

★SEM



600

550

450

420

380

350

250

245

The diamond wire parameters are general reference data, and we can meet the precise customization needs based on different customers' cutting conditions.

2.6 Quality Assurance/Micro Powder Incoming Inspection



Raman Spectrometer

Used for micro powder inspection, enabling rapid, non-destructive, and precise detection of diamond micro powder, strictly controlling incoming material quality risks, and ensuring the authenticity and consistency of micro powder composition.



Omech Particle Size Analyzer

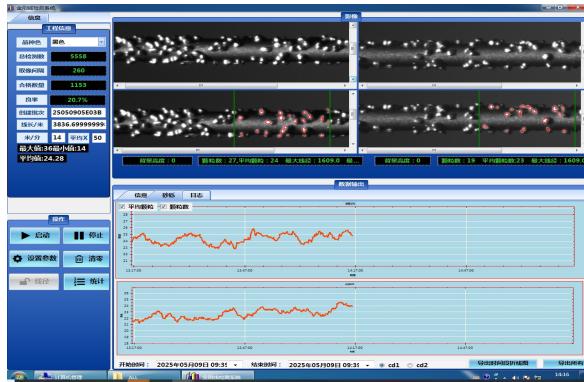
Used for micro powder inspection, covering particle size detection needs from nanometer to millimeter level, ensuring micro powder distribution and particle size meet process requirements.



Omech Image Processor

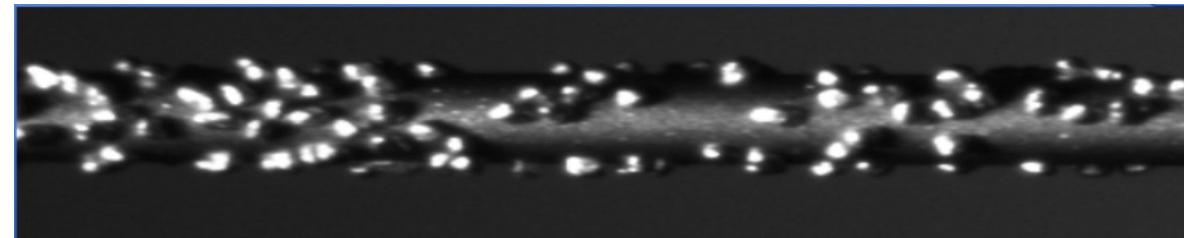
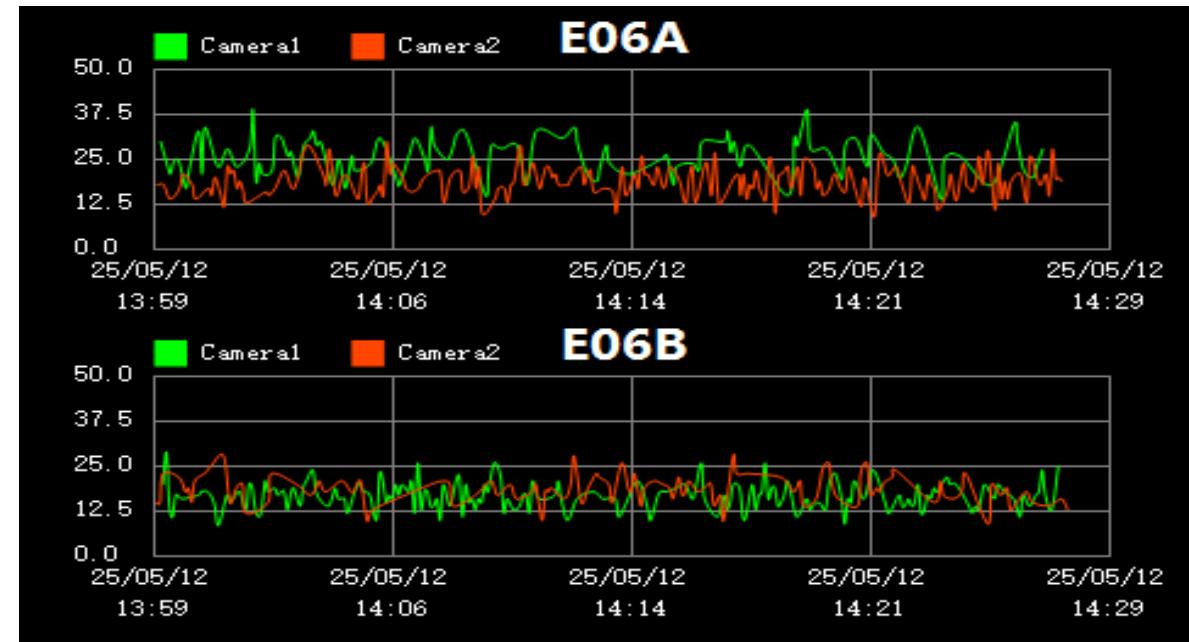
Used for micro powder inspection, enabling high-precision, high-efficiency microscopic detection of diamond micro powder, ensuring the compliance of micro powder morphology and surface characteristics.

2.6 Process Inspection



Video System

Utilizes an automatic production detection system for online inspection and data analysis, enabling full control of the production process.



2.6 Busbar Incoming Inspection & Finished Product Inspection



Tensile Strength Tester

Used for busbar and finished wire inspection, with a test range of 0.01N-20KN and an accuracy of $\pm 0.3\%$, meeting the strength testing needs of different specifications, ensuring the mechanical properties of the busbar and finished products meet quality requirements.



Torsion Loop Tester

Used for busbar and finished wire inspection, testing the number of torsion loops of the steel wire, quantifying its torsional strength and torsional fatigue limit, which is significant for quality control, process optimization, and steel wire life assessment.

2.6 Finished Product Inspection



S Inspection Measuring Instrument

Used for finished wire inspection, using an MHAG0 microscope to perform surface inspection of the diamond wire, monitoring diamond particle distribution, surface scratches, or defects.



Diamond Wire Saw Analyzer

Kepol Wire Saw Analyzer, used for finished wire inspection, automatically identifies diamond wire particle density, height, spacing, and uniformity; through its analysis, optimizes particle and diameter consistency.

04

Application cases

- 4.1 Cutting, Lapping, and Polishing Equipment Application Cases
- 4.2 Stone Multi-Wire Cutting Equipment Applications and Cutting Processes
- 4.3 Photovoltaic Power Plant Construction
- 4.4 Customer Partners

4.1 Cutting, Lapping, and Polishing Equipment Application Cases



Until now, Yujing has supplied over 10,000 machines to Lens Technology and over 2,000 machines to BYD.

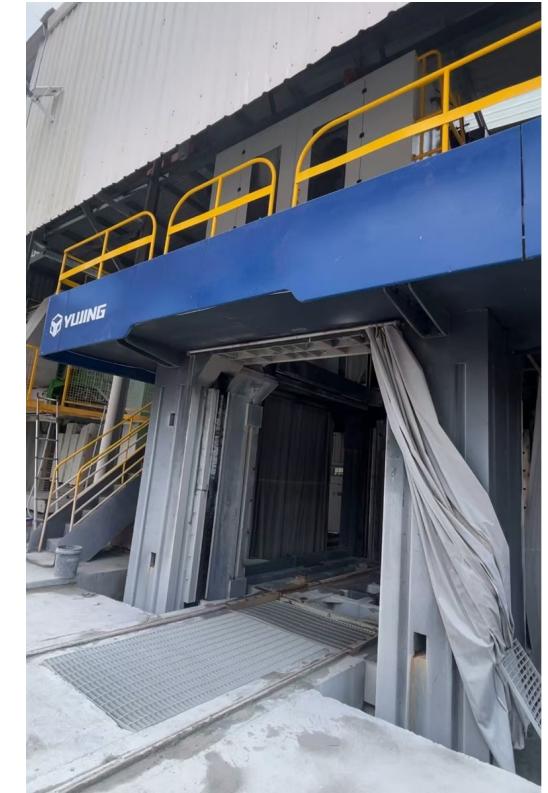


4.1 Cutting, Lapping, and Polishing Equipment Application Cases



Yujing machines at the customer site

4.2 Stone Multi-Wire Cutting Equipment Applications and Cutting Processes



Yujing Machine at the customer site

4.2 Stone Multi-Wire Cutting Equipment Applications and Cutting Processes



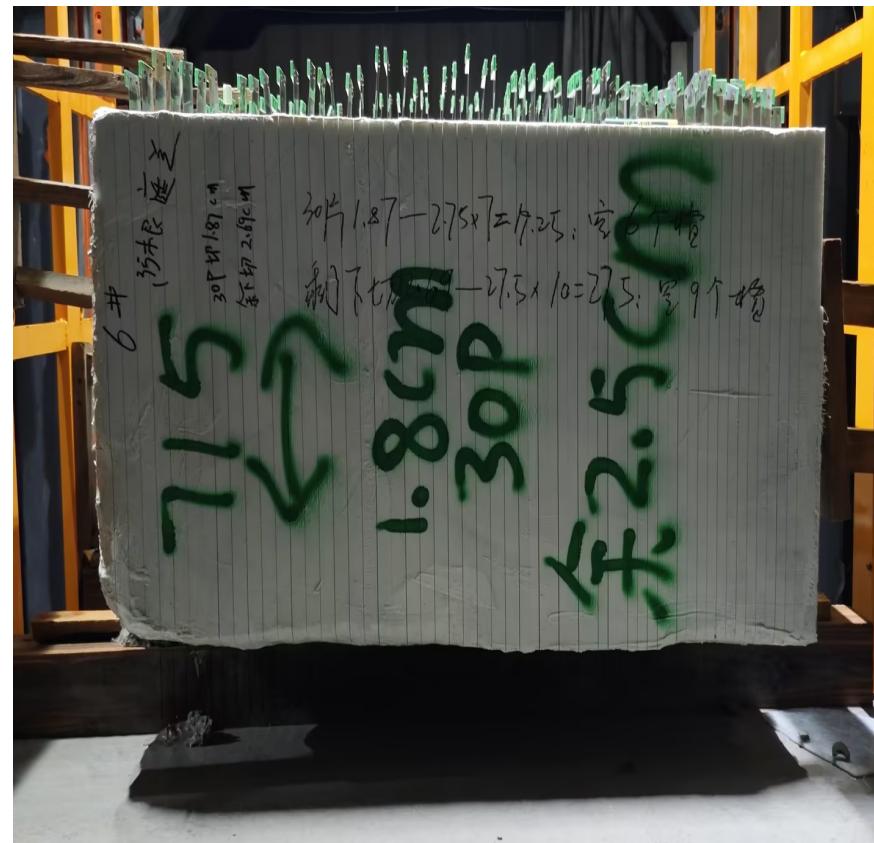
Stone Name	Hardness	Stone Size (mm)	Slab Thickness
Argentine Orchid	3-4 Mohs	2380 x 1300 x 900	18.7mm/26.9mm

Wire Diameter: 0.55 mm

Cutting speed: 23 m/s

Feed Speed: 1.5 mm/min

Tension: 190 N



4.2 Stone Multi-Wire Cutting Equipment Applications and Cutting Processes



Stone Name	Hardness	Stone Size (mm)	Slab Thickness
Old Beige Marble	4 mohs	2603 x 1075 x 470	10.5mm

Wire Diameter: 0.55 mm
Cutting speed: 21 m/s
Feed Speed: 4.0mm/min
Tension: 190N



4.2 Stone Multi-Wire Cutting Equipment Applications and Cutting Processes



Stone Name	Hardness	Stone Size (mm)	Slab Thickness
Carrara	3	2430 x 665 x 1615 2055 x 1155 x 1148	10.5mm

Wire Diameter: 0.55 mm
Cutting speed: 23 m/s
Feed Speed: 3.3 mm/min
Tension: 190 N



4.2 Stone Multi-Wire Cutting Equipment Applications and Cutting Processes



Stone Name	Hardness	Stone Size	Slab Thickness
Obama Wood Grain	4-5 mohs	1700*1650*800mm	18.7mm

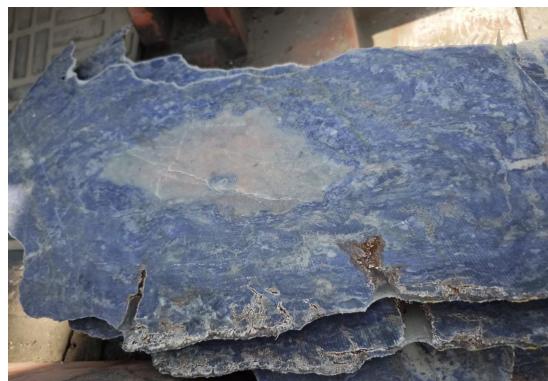
Wire Diameter: 0.55 mm
Cutting speed: 20 m/s
Feed Speed: 3.0 mm/min
Tension: 190 N



4.2 Stone Multi-Wire Cutting Equipment Applications and Cutting Processes



Stone Name	Hardness	Stone Size	Slab Thickness
Cloisonne	6.5 mohs	950 x 850 x 700	18.7mm



Wire Diameter: 0.55mm
Cutting speed: 26 m/s
Feed Speed: 1.5 mm/min
Tension: 195 N

4.3 Photovoltaic Power Plant Construction



New Energy Power Station Investment, Construction, and Operation



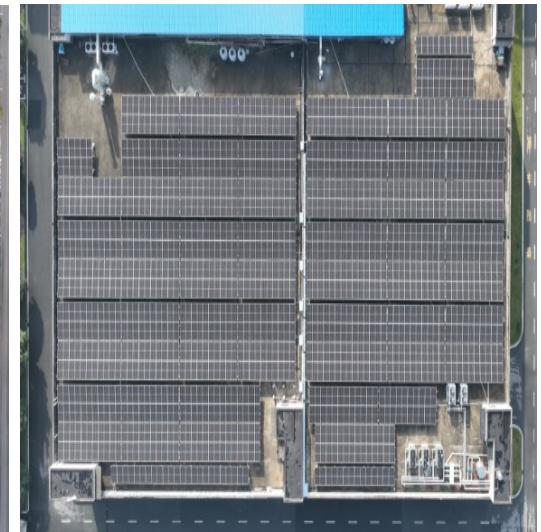
Yujing Project



Yuxing Project



Shuiyang Shares Project



Huaguang Project

4.4 Customer Partners



After a year of market competition, the Yujing Photovoltaic multi-wire saw has gradually been recognized by the market as the best 210-size silicon wafer saw.



4.4 Customer Partners



蓝思科技



比亚迪



富士康



京运通



阿特斯



晶科



晶樱



立讯精密



潮州三环



烟台首钢



江苏协鑫



环太集团



晶澳科技



烟台正海



东莞信柏



三安光电



奥瑞德



横店东磁



广东富源



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THANK YOU

Hunan Yujing Machinery Co., Ltd.