



**Winner Particle
Instrument Stock Co., Ltd**



WINNER

Winner Particle Size Analyzer Since 1985

THE LEADER OF PARTICLE TESTING TECHNOLOGY IN CHINA

Jinan Winner Particle Instrument Stock Co., Ltd. is a national high-tech enterprise integrating R&D, production and sales of particle testing related instruments and equipment (Securities Name: "Winner Particles", stock code 430410). Leading by technology research and development, Winner has won the National Key New Product Award, the Gold Award of the First China Science and Technology Expo, the Third Prize of Shandong Science and Technology Progress Award, the National High-tech Enterprise and other honorary titles, and has passed CE, SGS, CNAS, ISO9001 international quality system, National Science and Technology SME Innovation Fund Project and other certification acceptance.

The founder of the company, Professor Zhongjing Ren, is a national expert. Since the beginning of the National Seventh Five-Year Science and Technology Project in 1982, Winner invented the 1st particle size analyzer in China, which made up for the lack of domestic particle size analyzers, and developed and produced various particle size analyzers. It has a history of more than 30 years. By now, There are more than 30 national patents, including laser optical path research and development, particle size distribution testing and dispersion invention technology patents, utility model patent technology and self-owned software calculation patent technology, software copyright, etc.

There are more than 10 kinds of products, laser particle size analyzer, nanometer particle size analyzer, spray particle size analyzer, microscopic image particle size analyzer and online particle size analyzer can test the particle size distribution and image morphology of emulsion, suspension, powder, spray of nanometer and micrometer, and are widely used in a variety of product quality control, product research and development of manufacturers in the industry, as well as material research and development applications of the China National Medical Device Inspection Institute and domestic and foreign universities, Its high quality, strong technical support and services to get good feedback from the users, the China Industry's most innovative strength of the enterprise, The honor of China particle testing technology leader, and the top 50 enterprises in Asia etc.

Survive by quality, develop by innovation, adhere to the product concept of excellence and technology-led, Winner strives to provide customers with more accurate, more stable and durable instruments!



TEL:+86-0531-88876213

Website: <https://www.winner-psa.com/>



Wechat

Winner2018

Automatic Laser Particle Size Analyzer

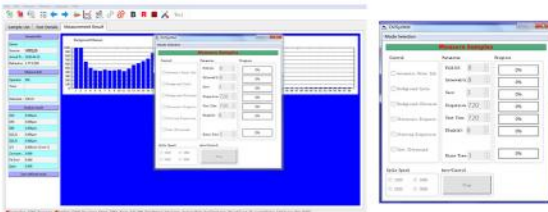


Winner2018 Automatic laser particle size analyzer, perform auto test, auto alignment, auto water supply, auto drainage, auto bubble removing, auto ultrasonic dispersion, auto cleaning etc., really realize one-key operation. It adopt full built-in sampling system, effectively prevents large particles sedimentation problems in the circulation pipeline, ensure good accuracy. It uses comprehensive Laser diffraction particle size measurement principle with highly sensitive ring-shaped photoelectric detector improving the test accuracy greatly, Original designed unconstrained free fitting software technology, a true reflection of the particle size distribution, to ensure truth and accuracy of the test results, its measuring range is 0.1 micron to 450 micron, more suitable for Testing of materials with narrow particle size distribution.

Advantages:

- **Smart operation mode:**

Smart operation mode supports one-button operation, click "Automatic Test" and follow the prompts to add samples, all other operations will be completed automatically. It not only reduces the workload of testers, but also eliminates the interference errors caused by human factors.

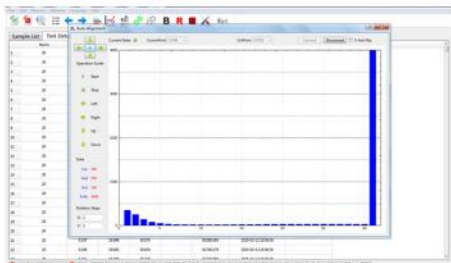


- **Automatic sample cuvette cleaning function:**

The ultrasonic cleaning function is added to the bottom of the sample window, which reduces the frequency of manual replacement and cleaning of the sample window, saves maintenance time, and improves the cleanliness and service life of the sample window.

- **Automatic Optical Alignment:**

The precision four-phase hybrid stepping motor is used to form the optical path automatic centering system, and the micro-motion accuracy reaches 0.1 micron, which keeps the instrument's optical path in the best state all the time, while eliminating the troubles and difficulties caused by manual alignment of the optical path accuracy and stability of test results



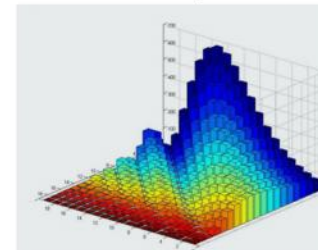
- **Fully built-in dispersion system:**

It adopts a fully built-in dispersion system, which integrates mechanical stirring, ultrasonic dispersion, and pipeline circulation. The overall control coordination is good, and the pipeline is shortened to prevent secondary precipitation of large particles.



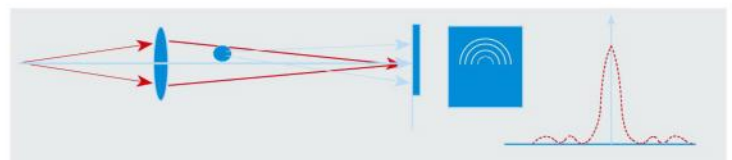
- **Unconstrained free fitting technique:**

Using the original unconstrained free fitting technology of winner, the particle size analysis is not limited by any function, and can truly reflect the distribution state of particles.

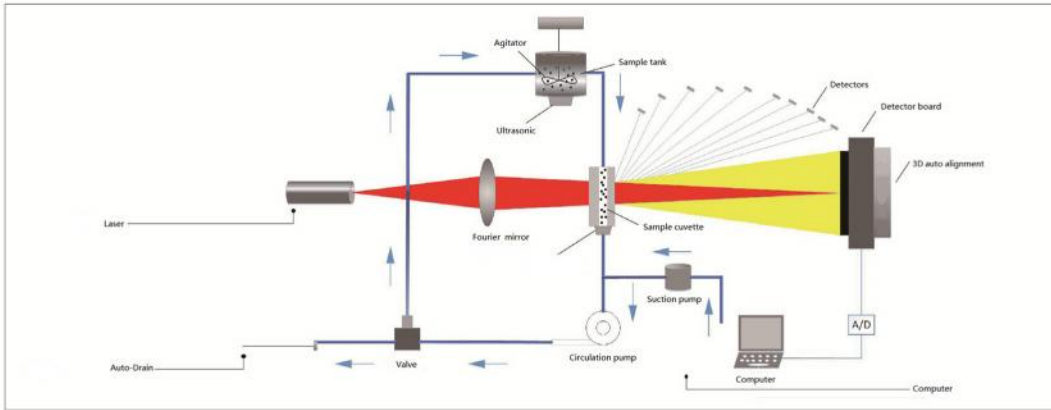


- **Advanced optical path design:**

The converging light Fourier transform optical path of Winner patent is used to effectively improve the ability to distinguish submicron particles.



Test principle



Application

Winner2018 is widely used in metallurgy (metal oxides: alumina, aluminum hydroxide, zinc oxide, iron oxide, manganese oxide, lead oxide, etc.), non-minerals (calcium carbonate, talc, kaolin, diatomite, graphite powder, mica powder, nepheline powder, pyrophyllite, etc.), chemical industry (pigment: aluminum silver paste, filler, dye, paint, resin, plastic powder, synthetic rubber, photosensitive material, toner, carbon, ink, explosive, molecular sieve, ink, electronic material, flame retardants, fluorescent powders, foaming agents, silica, microsilica, papermaking: calcium carbonate, kaolin, etc.), pesticides (seed coating agents, powders, suspending agents, pesticides, herbicides, etc.), abrasives (Testing and inspection of powdered materials in industries such as silicon carbide, silicon nitride, emery, white corundum, brown corundum, micropowder, etc.), energy (coal water slurry, power plant desulfurization), environment (water quality, dust) and other industries.

Technical parameter:

Model Name	Winner2018	
Analysis	Laser Diffraction MIE Scattering Theory	
Size range	0.1-450 μm	
Channels	40 PCS	
Accuracy error	≤0.5% (Deviation of D50 on national standard sample)	
Repeatability error	≤0.5% (Deviation of D50 on national standard sample)	
Laser	High performance Semiconductor Laser (λ= 639nm, P>2MW) Lifetime>25000hour	
Wet dispersion	Ultrasonic	Frequency:40KHz Power:60W, Time: ≥1S
	Agitator	Revolutions Speed: 0-3000RPM (Adjustable)
	Circulation	Rated Flow:8L/min Rated Power:10W
	Sample pool	Volume: 350ml
	Microscale sample cell	Capacity:10ml(optional)
Operation mode	Full automatic and manual control, freely choose	
Report parameter	Particle size distribution table & graph, Average diameter, Median diameter, specific surface area etc.	
Optical alignment system	Full automatic	
Test Speed	<2mins for each time, classical test speed <15S/time	
Environmental Requirement	Temperature: 5-35°C Humidity: <85%	
GMP	GMP(Optional)	
Volume	L822mm×W365mm×H495mm	
Net Weight	40Kg	

Report interpretation

Header section:
Instrument parameters , sample information

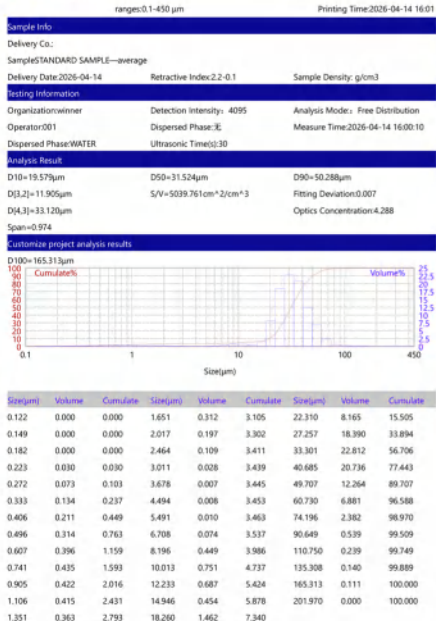
Characteristics of particle size:
The value of particle size characteristics

Particle size chart:
Cumulative distribution and frequency distribution of particle size. It's corresponding to data of particle size distribution table

Particle size table;
Cumulative distribution and frequency distribution of particle size

Laser Particle Sizer Testing Report
Device No.: Winner2018

Particle Size Analyzer Test Report



Our some customers

1) Institutions of higher learning and research institutes

Peking University, Tsinghua University, Renmin University of China, Zhejiang University, Shandong University, Jiangsu University,
Tianjin University, Australian University, Indian Institute of Technology, Mongolia University, Beihang University, Southeast University,
China Agricultural University, Shanghai Jiaotong University, Xi'an Jiaotong University, Nanjing University,
The University of Hong Kong, University Of Wollongong, Dalian University of Technology, Ocean University of China,
PSG College of Technology, Institute of Engineering Physics, Beijing Institute of Technology,
Shanghai Medical Device Testing Institute, Guangdong Provincial Medical Device Testing Institute, Beijing Medical Device Testing Institute,
Huazhong University of Science and Technology, University of Science and Technology Beijing,
Chinese Academy of Sciences, Institute of Metal Research, etc. Nanjing University of Aeronautics and Astronautics,

2) Industrial enterprises

Shougang Group Co., Ltd., Jiangsu Shagang Group Co., Ltd., Pangang Group Co., Ltd., Shanghai Huayi Polymer Co., Ltd.,
Jiaozuo Qianye Cement Co., Ltd., Shanshui Cement Group Co., Ltd., China National Petroleum Corporation, Shengli Oilfield,
China Ping An Coal Group, BYD Co., Ltd., Tianneng Battery Group Co., Ltd., Chaowei Power Supply Co., Ltd.,
Guangzhou Libai Enterprise Group Co., Ltd., Nippon Paint Co., Ltd., Zhenjiang Titanium Dioxide Co., Ltd.,
Moze biological Co. Ltd., Korea Conformity Laboratories, PPG Powder Coating Co., Ltd.,
Otsuka Pharmaceutical, SIM (USA) INTERNATIONAL INC, Mundipharma. India,
TAIYO INK. Japan, Heraeus. Germany, Osram lighting. Germany,



Winner Particle Instrument Quality Assurance

Provide customers with the most professional particle testing solutions

■ Long service time

Laser particle size analyzer, as an analysis instrument, it doesn't have consumable parts except for the stirring parts, it has no transmission parts and no wearing parts; high performance laser, with a long service time of more than 25000 hours, high sensitive photodetectors is a core part, it will not be easy damaged if operate normally; the photodetector array is a key part, as long as it is used properly, it will not be automatically damaged. Therefore, users do not have to worry about the service time of winner instruments at all. According to the customer feedback from Jinan winner return visit, the instrument with the longest service life of the product is more than 15 years.



■ Low failure rate

The after-sales department Jinan Winner has made statistics on the maintenance failures of the sold instruments, and the failure rate of the instruments is within 3%.



■ High industry recognition

After 30 years of technical precipitation, Jinan winner has continuously improved its technology in the R&D and production process of instruments according to the characteristics of different industries. With its excellent product quality and high-quality service, it has been highly recognized by practitioners in the powder industry.

