

# 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!

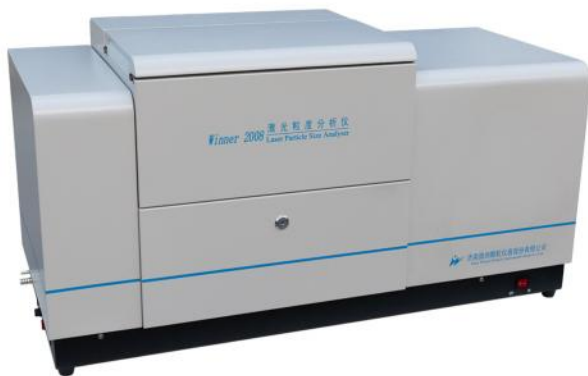


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Wechat



## Winner2008B

### Laser Particle Size Analyzer

Winner2008B full automatic wet laser particle size analyzer measure size is from 0.01 to 1200 micron, Which offer reliable and repeatable particle size analysis for a diverse range of applications. It use dual-beam& multi-spectral detection systems and side light scatter test technology to significantly improve precision and performance of test, on behalf of the domestic advanced level in the field.

### 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.



#### ● 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.

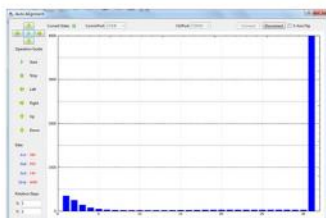


#### ● Dual Optical Path:

Double spectrum design and Dual-laser orthogonal light increase the measurement range, and its precision achieves from 0.01μm to 2000μm. High-sensitivity, high-resolution photoelectric probe system ensures the collection of scattered light signals of all particles to ensure the accuracy of test data.

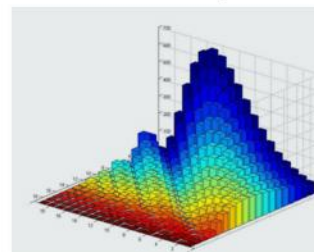
#### ● Automatic Optical Alignment:

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



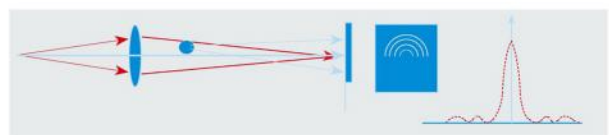
#### ● Unconstrained free fitting technique:

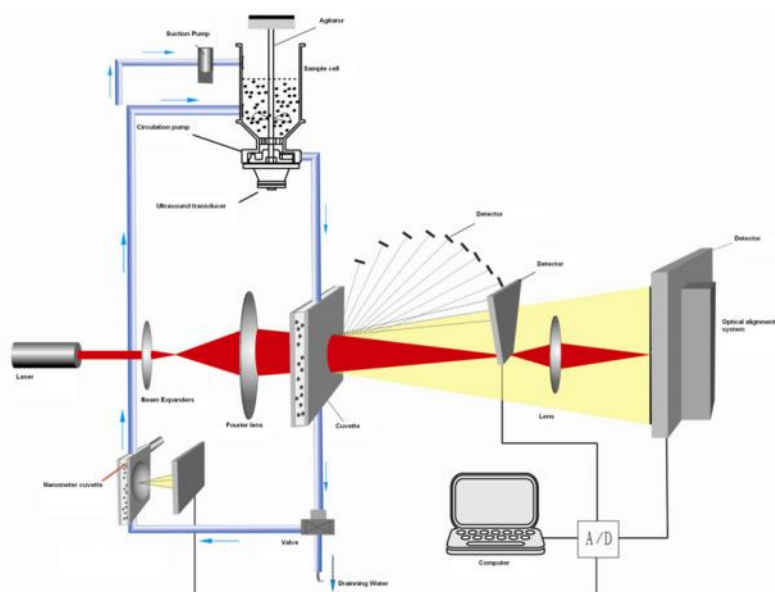
Using the original unconstrained free fitting technology of winner, the particle size analysis is not limited by any function, and can truly reflect the distribution state of particles.



#### ● 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**

Cement, ceramic, medicine, emulsion, dope, dye, padding, chemical products, catalyst, drilling fluid, abrasive, lubricant, braze, cell, germ, food, additive, pesticide, explosive, graphite, photosensitive material, fuel, ink, metal and nonmetal powder, calcium carbonate, kaolin, water-coal-slurry and other powder materials.

**Technical parameter:**

| Model Name                 | Winner2008B                                                                            |
|----------------------------|----------------------------------------------------------------------------------------|
| Size range                 | 0.01 $\mu$ m-1200 $\mu$ m                                                              |
| Channels                   | 84 PCS                                                                                 |
| Accuracy error             | $\leq 0.5\%$ (Deviation of D50 on national standard sample)                            |
| Repeatability error        | $\leq 0.5\%$ (Deviation of D50 on national standard sample)                            |
| Light source               | High performance semiconductor laser ( $\lambda = 639\text{nm}$ , $P > 4.0\text{MW}$ ) |
| Sample Pool                | Auxiliary: Semiconductor laser: $\lambda = 405\text{nm}$ , $P > 10\text{MW}$           |
| Ultrasonic                 | Volume: 1L                                                                             |
| Stir                       | Frequency: 40KHz Power: 50W                                                            |
| Circulate                  | Revolutions Speed: 0-3000RPM (Adjustable)                                              |
| Operation Mode             | Rated Flow: 30L/min Rated Power: 70W                                                   |
| Optical Calibration System | Full automatic software control                                                        |
| Test Speed                 | Full automatic                                                                         |
| GMP                        | $< 2\text{mins}$ for each time                                                         |
| Volume                     | Optional                                                                               |
| Net Weight                 | L106cm $\times$ W46cm $\times$ H54cm                                                   |
|                            | 58Kg                                                                                   |

## Report interpretation

Header section:

Instrument parameters , sample information

Characteristics of particle size:

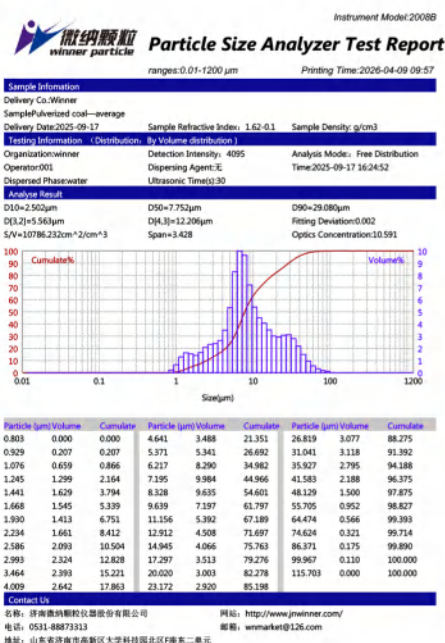
The value of particle size characteristics

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



## 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,

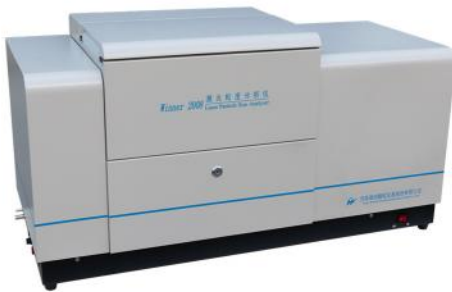


## Winner Particle Instrument Quality Assurance

*Provide customers with the most professional particle testing solutions*

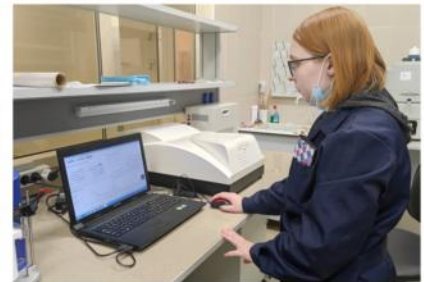
### ■ Long service time

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 easily damaged if operated 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.

