

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!



Winner3006

Intelligent Dry Laser Particle Size Analyzer



Winner3006 is a universal dry dispersion laser particle size analyzer, using the scientific structure design and a new generation of dispersion device, the dispersion effect is better than similar instruments. Using MIE scattering theory as the theoretical basis, converging Fourier transform optical path, and with high stability and He-Ne laser high-sensitivity photodetectors ring ensures repeatability and accuracy of test results.

This product use air as the dispersing medium, the use of turbulent dispersion principle, with high-precision feeding apparatus and Patent powder injection pumps, No-Oil silent air source, ensure that the sample is thoroughly dispersed. It is applied to any powder material, particularly good for materials occurs chemical reaction in water, or shape change in the liquid. It have same accuracy and repeatability compared with the wet method.

Advantages:

● Intelligent Operation System realize one key test:

Just need put in sample, Dust collection, air supply, feeding and others are all automatic. It only only reduces workload, but eliminate errors caused by human factors, further improve testing accuracy and authenticity of the testing results.



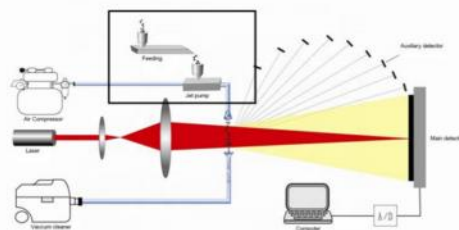
● Advanced optical path design:

Converging Fourier transform optical path patent technology overcome lens aperture restriction on the scattering angle, expand testing range in limited space, and add more secondary integrated photodetectors, which can effectively collect scattered light from all angles in the the corresponding test range, make sure the testing accuracy and reliability within the full range.



● Scientific and automatic dry dispersing system

Turbulence dispersion patented technology and Normal shock shearing effect make particles sufficient dispersion, dispersion core part using wearable ceramics not only improve dispersion system's working life but ensure more accurate and stable testing result.

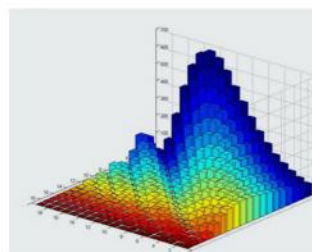


● Data Analysis:

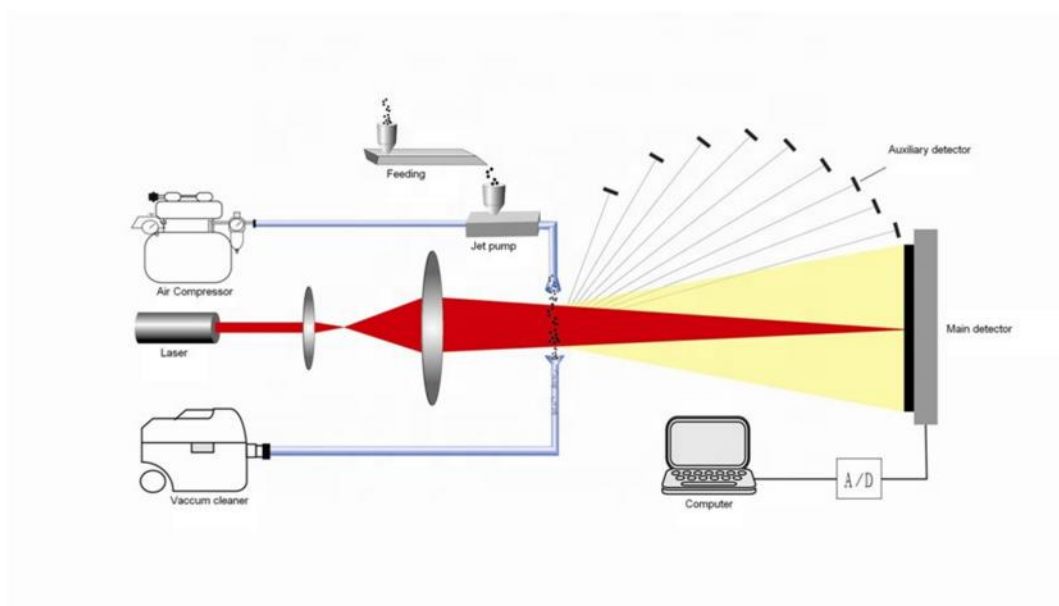
- ① Meet the average, statistics, and comparison of sample test data in different time periods, and obtain the basic parameters of the sample particle size distribution, such as D1-D100, surface area average particle size, volume average particle size, etc.
- ② Create groups for sample testing to facilitate storage and comparison of sample test data.

● Unconstrained free fitting technique:

Unique unconstrained free fitting technology make particle analysis not be restricted by any functions, truly reflect particles distribution, ensure accuracy of testing result.



Test principle



Application

Winner3006 Dry laser particle size analyzer used in cement, ceramics, pharmaceuticals, dyes, pigments, fillers, chemical products, catalysts, coal dust, additives, pesticides, explosives, graphite, photographic materials, fuel, metal and non-metal powder, carbonated calcium, kaolin and other powder industry, particularly for materials which occurs chemical reaction, the shape change and the loss in the liquid, such as herbs, magnetic materials and relatively wide distribution and larger particles powders, have more unique applicability and practicality.



Technical parameter:

Model Name	Winner3006
Size Range	0.1-600 μ m
Channels Number	49
Accuracy error	$\leq 1\%$ (Deviation of D50 on national standard sample)
Repeatability error	$\leq 1\%$ (Deviation of D50 on national standard sample)
Light Source	High performance laser $\lambda=639\text{nm}$ power $p>2\text{mW}$
Dispersion Method	Dry-turbulence dispersion mode
Operating mode	SOP can be set, one-click automatic test, automatic storage, automatic alignment and other functions
Test Speed	$< 1\text{min}$ /for each time
GMP	GMP(Optional)
Volume	Host: 1030*450*325mm Dispersed modules: 260*285*135mm
N.W	33Kg +7Kg

Patents Technology

- Optical bench design is protected by patent No.- ZL 2014 2 0378380.8,
- Three dimensional-optical bench alignment system is protected by patent No.- ZL 2013 2 0835882.4.
- MIE scattering principle application patent No.- ZL 2013 2 0812021.4.
- Dry particle size analyzer full sealed sample cuvette application is protected by patent No.- ZL.2011 2 0267646.8.
- Powder dispersion pump design application is protected by patent No.-ZL 2007 2 0018648.7

Report interpretation

Header section:

Instrument parameters , sample information

Characteristics of particle size:

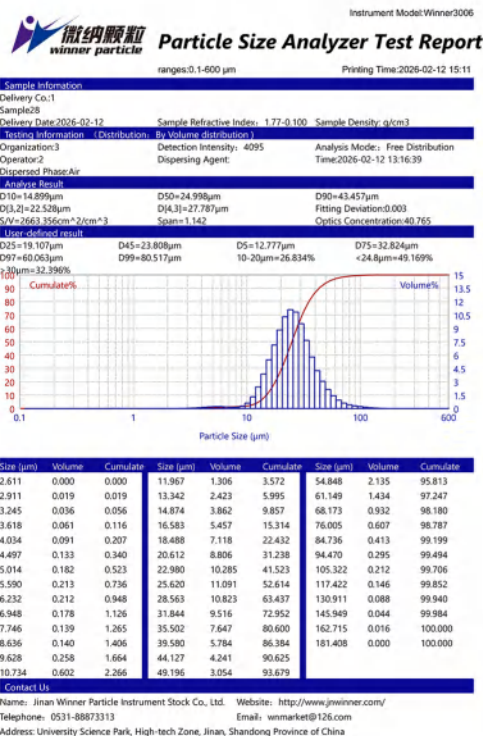
The value of particle size characteristics

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.

