

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



Winner Industrial Online Particle Size Monitoring System Series

Jinan Winner provides online analysis solutions covering the entire particle size range (0.1μm to 300 mm) to meet the needs of different industries: applicable to diverse scenarios such as sand and gravel aggregates, slurry, cement, manufactured sand, and fertilizer.

Product Series Overview

Name	Range	Application	Product Introduction
W1702	0.1-500μm	Cement, slag powder, coal powder, battery materials	Online laser particle size analyzer specifically designed for dry particle testing of fine powders
W2602	30-3000μm	Mineral slurry, metal slurry, mud	Wet image online particle size analyzer
W2701	10-300mm	Sand and gravel aggregates, mining crushing	Image-based online particle size analyzer specifically designed for large, blocky particles
W2702	50-10000μm	Manufactured sand, fertilizer granules, grain	Dry image online particle size analyzer for large particles

Main Features:

- Strong representation of sample, consistent with the actual product
- Measure particle size distribution data in real time
- Long-distance transmission of test data
- Safe, continuous and automatic running

Technical principles and advantages

(W1702) Laser diffraction	Based on Fraunhofer and MIE theories, particle size distribution is retrieved through spectral inversion of scattered light. The resolution reaches internationally leading levels. The patented converging Fourier optical path design reduces energy consumption by 30% and supports cloud data sharing.
(W2602/W2701/W2702) Image analysis	Direct testing method: No mathematical model required. Captures the true morphology of particles using a high-frame-rate industrial camera. Multidimensional data: In addition to particle size distribution, morphological parameters such as sphericity and aspect ratio can be obtained. Self-cleaning design: Patented sample window technology extends maintenance intervals.
Advantages of image analysis	Direct measurement, reliable and authentic: Directly capture particle images without relying on mathematical model derivation. The results are based on the actual particle morphology, ensuring high data reliability. Obtain comprehensive morphological parameters: Analyze parameters such as sphericity, aspect ratio, and roundness of particles. Significantly valuable for industries requiring shape control (such as building aggregates and fertilizer granules).
Advantages of laser diffraction	Fast, efficient, and real-time: Each test takes only a few seconds, supports continuous online monitoring, and is suitable for high-frequency data acquisition scenarios (such as cement raw material and pulverized coal production lines). High precision and repeatability: Based on MIE/Fraunhofer theory, the physical model is mature, data comparability is strong, and the D50 repeatability error is <3%.

Our Advantage :

1. With Rich experience in particle size measurement, Design the most appropriate test method according to the customer samples.
2. Long-term experience with the online test, according to the customer's production line condition, choose the most appropriate sampling methods and design the most reliable sampling equipment to ensure sample representativeness, real-time and continuity.
3. With Remote-monitor and full automatic operation technology.
4. Online particle size measurement system we developed has anti-jamming capability to electromagnetic noise, dust, vibration and others, ensure stable operation in harsh conditions.

Installation Site Examples



Service and Support

■ Cloud platform service:

Device status is monitored in real time via Winner Cloud, and data reports are remotely retrieved.

■ Customized solutions:

Sampling, dispersion, and material return modules are optimized according to production line needs.

Software, which is designed for in-line particle monitoring system, Simple operation interface, stable and safe running. It has the following features

- High-speed data acquisition
- Scattering data inversion calculation
- Data statistics, processing, display and record
- Automatic control and self-test system
- Remote and two-way transmission of data
- Standard control signals
- Convenient and customized data-output