



**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!



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Wechat

Winner300D

Dynamic Particle Image Analyzer

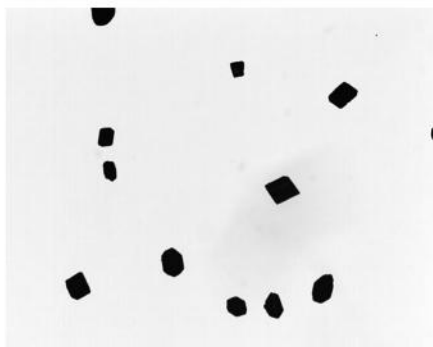
Jinan Winner Particle Instrument Stock Co., Ltd. launched an exclusive dynamic particle image analyzer --Winner300D , which test particle size distribution and Morphology in 30um--10000um.(Implement International standard:ISO/DIS-13322-2), The image of sample particles can be captured in real time, stored and processed. The amount of sample is larger than statistic mode, the analysis result is more representative and reproducible.



Advantages:

● **Particle morphology analysis:**

Offer Sphericity, circularity, roundness, aspect ratio, sphericity and other particle morphology prepositional parameters,and also add self-developed software for for particle circularity (roundness) computation module. the analysis of the particle circularity in line with US oil and gas standards: API_RP58. And geological plates suitable for this abrasive, oil and gas and other industry standards.



● **Compared with the static sample preparation method of the static imager**

Winner300D can measure the massive particle data, which is of great significance for the representativeness of the particle data.

● **Higher clarity:**

The combination of wide field, far-reaching central light path and constrained plane sampling window can effectively improve the clarity of particle sample photos

● **Off-line testing (test data can be obtained in 2 minutes by adding offline samples to the tank)**

On-line testing is available (by installing on-line sampling device, on-line testing can be realized, and the state changes of samples in different sampling periods can be obtained)

Application

All dry and flowing powdery materials can be rapidly analyzed, such as salt/sugar, plastics, catalysts, abrasives, carbon products, sand, coal, coffee, refractories, food, polystyrene, glass, ceramics, fertilizers, medicines, metal powder, standard products, cement, ore, etc.



Technical parameter:

Module Range	Winner 300D
Measurement Range	30-10000um(The lower limit can be extended to 10um.)
Lens Group	High-definition telecentric lens (specifications optional)
Optical Lighting	High light parallel light source
Accuracy Error	≤1% (CRM D50)
Repeatability Error	≤1% (CRM D50)
Number of Particles Analyzed	>100000 pieces/minute
High Speed Imaging Module	Maximum frame rate 120 frames/S
Blanking Method	Using electromagnetic pulse vibration 150 levels of speed adjustment and conversion
Decentralized Approach	Electromagnetic vibration and ultrasonic dispersion
Dimension	L68.4*W36*H50cm
N.W.	24KG
Analysis Project	Particle size: including particle size distribution, D10, D50, D90 and other typical particle size values (can be customized), maximum particle size, customizable: interval content, content greater than or less than a certain particle size, particle gradation.
	Particle shape: aspect ratio and distribution, circularity and distribution, particle image photos, particle counting
Other Functions of Software	Customized header to display logo, tester and other report information, task management mechanism, etc. Customizable display range.

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

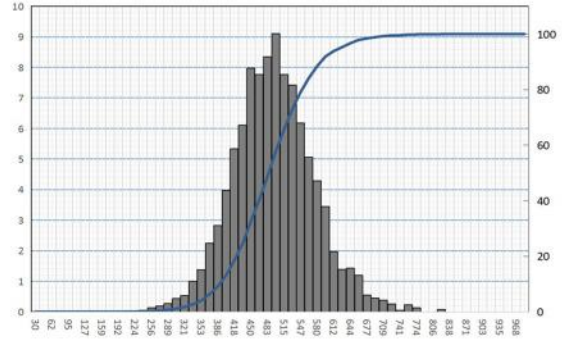


WINNER-300D Particle size analysis report

Sample:	46-30-10000-0	Company:	I
User:	TESTOR	Particle No.:	7710
Delivery date:	2025/1/1	Measured by:	I
Distribution:	Vol	Test Date:	2025/5/28 13:36

1. Custom Range Proportion & Distribution Curve of Typical Particle Size (µm)

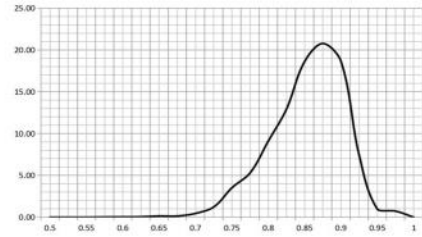
D10	D25	D32	D50	D75	D90	Dmax
390.97	437.18	451.18	486.27	537.66	588.11	817.25
200-500µm			<300µm		>400µm	
57.22			0.96		88.19	



WINNER-300D Roundness Analysis Report

Sample:	46-30-10000-0	Company:	I
User:	TESTOR	Particle No.:	7710
Delivery date:	2025/1/1	Measured by:	I
Distribution:	Vol	Test Date:	2025/5/28 13:36

1. Roundness Statistics & Standard Deviation
Roundness (Statistical Value) 0.841
standard deviation (SD) 0.0507



2. Roundness Distribution Table

Roundness	Number	Frequency	Roundness	Number	Frequency	Roundness	Number	Frequency
0.5	0	0.00	0.675	11	0.14	0.85	1435	18.61
0.505	0	0.00	0.7	35	0.45	0.875	1601	20.77
0.55	0	0.00	0.725	94	1.22	0.9	1436	18.63
0.575	2	0.03	0.75	271	3.51	0.925	371	4.71
0.6	3	0.04	0.775	408	5.29	0.95	75	0.97
0.625	4	0.05	0.8	701	9.09	0.975	56	0.73
0.65	11	0.14	0.825	595	7.69	1	0	0.00

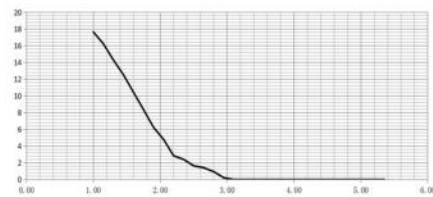
JINAN WINNER PARTICLE INSTRUMENT STOCK CO., LTD
Sales Tel: 0531-88872313
WEB: www.jnwinner.com
Adoption Standard: ISO 13322-2:2021 Particle



WINNER-300D Aspect Ratio Analysis Report

Sample:	46-30-10000-0	Company:	I
User:	TESTOR	Particle No.:	7710
Delivery date:	2025/1/1	Measured by:	I
Distribution:	Vol	Test Date:	2025/5/28 13:36

1. Aspect Ratio Parameters
Aspect Ratio 1.563
standard deviation 0.189



2. Aspect Ratio Distribution Table

Aspect Ratio	Frequency	Accumulation	Aspect Ratio	Frequency	Accumulation	Aspect Ratio	Frequency	Accumulation
1.00	17.05	17.05	2.50	1.61	97.14	4.00	0.00	100.00
1.15	16.34	33.39	2.65	1.41	98.55	4.15	0.00	100.00
1.30	14.31	47.70	2.80	0.93	99.79	4.30	0.00	100.00
1.45	12.52	60.22	2.95	0.71	100.00	4.45	0.00	100.00
1.60	10.14	70.36	3.10	0.00	100.00	4.60	0.00	100.00
1.75	8.37	78.73	3.25	0.00	100.00	4.75	0.00	100.00
1.90	6.34	85.07	3.40	0.00	100.00	4.90	0.00	100.00
2.05	4.80	89.87	3.55	0.00	100.00	5.05	0.00	100.00
2.20	2.94	92.81	3.70	0.00	100.00	5.20	0.00	100.00
2.35	2.40	95.21	3.85	0.00	100.00	5.35	0.00	100.00

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2. Custom Typical Particle Size Values (µm)

D11	D19	D33	D55	D77	D89	D96
395.89	420.59	453.15	495.00	543.12	584.40	636.29

3. Particle Size Distribution Data

Diam(µm)	Vol.P (%)	Cumu.P (%)	Diam(µm)	Vol.P (%)	Cumu.P (%)	Diam(µm)	Vol.P (%)	Cumu.P (%)
30.0	0.00	0.00	353.3	1.38	4.06	676.7	0.55	98.43
46.2	0.00	0.00	369.5	2.24	6.30	692.8	0.45	98.87
62.3	0.00	0.00	385.7	2.82	9.12	709.0	0.38	99.26
78.5	0.00	0.01	401.8	3.97	13.08	725.2	0.26	99.51
94.7	0.00	0.01	418.0	5.34	18.42	741.3	0.05	99.57
110.8	0.00	0.01	434.2	6.11	24.54	757.5	0.23	99.80
127.0	0.00	0.02	450.3	7.97	32.50	773.7	0.13	99.92
143.2	0.00	0.02	466.5	7.77	40.28	789.8	0.00	99.92
159.3	0.00	0.02	482.7	8.35	48.62	806.0	0.00	99.92
175.5	0.00	0.02	498.8	9.10	57.73	822.2	0.08	100.00
191.7	0.01	0.03	515.0	7.77	65.50	838.3	0.00	100.00
207.8	0.01	0.04	531.2	7.43	72.92	854.5	0.00	100.00
224.0	0.03	0.08	547.3	6.18	79.11	870.7	0.00	100.00
240.2	0.05	0.13	563.5	5.07	84.17	886.8	0.00	100.00
256.3	0.13	0.26	579.7	4.28	88.46	903.0	0.00	100.00
272.5	0.19	0.45	595.8	3.45	91.90	919.2	0.00	100.00
288.7	0.27	0.72	612.0	1.96	93.87	935.3	0.00	100.00
304.8	0.43	1.15	628.2	1.39	95.26	951.5	0.00	100.00
321.0	0.53	1.68	644.3	1.43	96.69	967.7	0.00	100.00
337.2	1.00	2.68	660.5	1.19	97.88	983.8	0.00	100.00

4. Custom Gradation & Range Content

Sieve Size (mm)	Range Proportion	Cumulative Proportion
4.00	2.1	2.1
3.35	7.3	9.3
2.80	32.1	41.4
2.36	33.7	75.1
2.00	15.2	90.3
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Adoption Standard: ISO 13322-2:2021 Particle size analysis

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.

