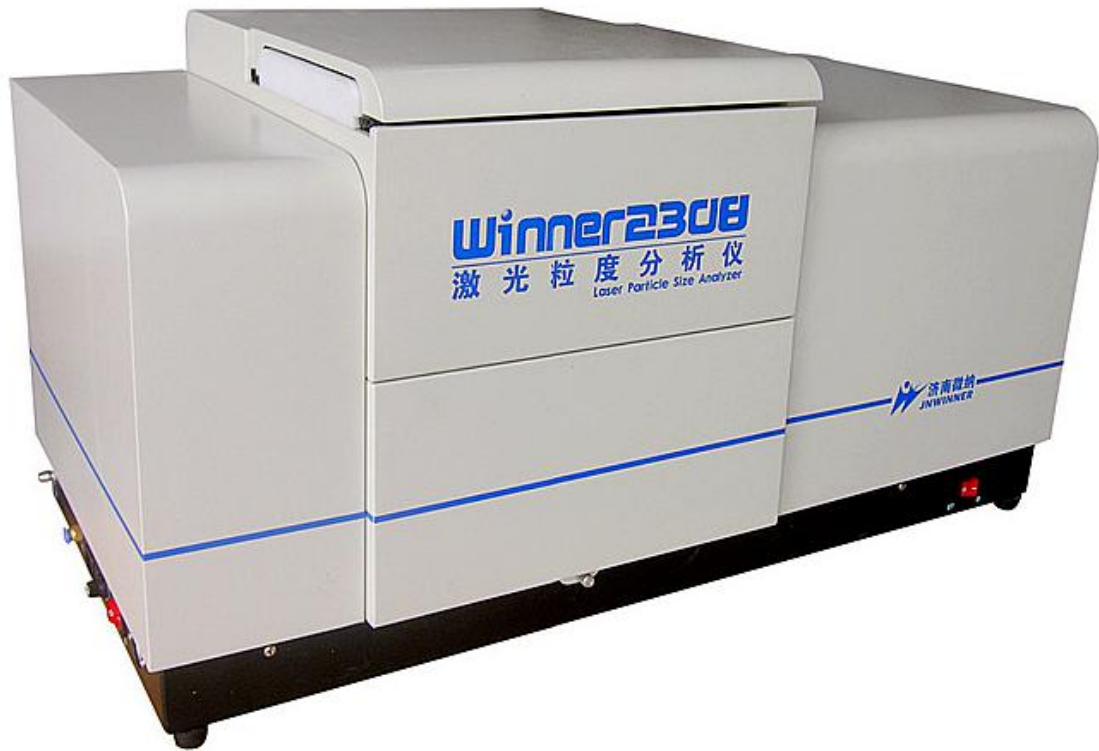


Winner-2308A Intelligent Wet and Dry Laser Particle Size Analyzer



1. Brief introduction:

Winner2308A intelligent full automatic wet&dry laser particle size analyzer adopt laser diffraction theory(Mie and Fraunhofer diffraction), measure size is from $0.01\mu\text{m}$ to $2000\mu\text{m}$ (dry $0.1\mu\text{m}$ - $2000\mu\text{m}$), Which offer reliable and repeatable particle size analysis for a diverse range of applications.It use dual-beam& multiple spectral detection systems and side light scatter test technology to significantly improve precision and performance of test, It's the prior choice for industrial production quality control departments and research institutions.

2. Main Specifications:

Model Name	Winner2308A	
Standard	ISO13320-1:2009,GB/T19007-2016,Q/0100JWN001-2013 Compliance with 21 CFR Part 11	
Principle	Laser diffraction principle	
Analysis	Mie and Fraunhofer scattering	
Detector Arrangement	Log-spaced array, test angle from 0.015 degree to 145 degree	
Measuring Range	Wet:0.01 μ m-2000 μ m Dry: 0.1 μ m-2000 μ m	
Silicon Photodetectors	Wet:127 pcs Dry:100 pcs	
Accuracy error	Wet<1% Dry<1% (CRM D50)	
Repeatability error	Wet<1% Dry<1% (CRM D50)	
Light source	Dual lens, He-Ne laser P>3.0 MW (λ = 632.8nm) Auxiliary green solid semiconductor laser (λ = 405 nm) P>2.0MW ,	
Optical path	Converging light Fourier transform optical path	
Effective focal length	500mm	
Laser Safety	Class 1	
Wet dispersion	Ultrasonic	Frequency:40KHz Power:60W, Time: \geq 1S
	Stir	Revolutions Speed: 0-3000RPM (Adjustable)
	Circulate	Rated Flow:30L/min Rated Power:70W
	Anti-overflow sensor	Made in SST , UK
	Sample tank	Volume:1000mL
	Micro-Sample cuvette	Volume: 10mL (Available)
Dry dispersion	Dry-turbulence dispersion patent technology, normal shock wave shear technique	
Feeding Speed	Adjustable (Variable speed knob)	
Operation Mode	Full automatic / manual control, freely choose	
Dispersion medium	Compressed Air, pressure: 0 to 6 bar	
Optical bench alignment system	Full automatic, precision is up to 0.2 μ m	
Test Speed per time	Wet: <2 Min Dry : <1min Typical measuring time<10S	
Outer dimension	L104cm×W44cm×H54cm	
Net Weight	70Kg	

3. Main Features:

1)Wet and dry sample dispersion system Integrated Design

Winner2308 intelligent laser particle size analyzer which is 1st set laser particle size analyzer integrated wet and dry dispersion test in one in China, it successfully resolved the problem of dry and wet technology integration, realize one key to switch, apply to test all the particle size distribution from 0.01 μ m-2000 μ m particles.

2) Intelligent full automatic operation system and manual operation mode, freely choose.

With intelligent automatic mode of operation, to achieve a key test, as long as according to the prompt addition of sample, click the "test", all process will be complete automatically, not only reduce the testing workload, but also eliminate the interference of human factors, to further improve the accuracy and authenticity of testing results.

Wet method: A key to complete water-supply, ultrasonic dispersion, circulation, testing, cleaning, data record, data analysis, save and print are automatically completed, only take 2 mins.

Dry method: A key to complete the dust collecting, compressed air supply, feeding, testing, data processing and other operation, take 1 min.

3) Stable and unique optical path system patented technology

Converging light Fourier transform path patent technology, enables scattering light be not restricted to the lens aperture limit, using Double Spectral plane optical path design, the Photodetector channels are 127 pcs, the maximum detection angle is 145 degrees and the minimum detection angle is 0.0155 degrees, Using dual-laser orthogonal light patent technology, The measurement range is effectively extended to 2000 microns. Canon Fourier lens imported from Japan is used to ensure the stability and accuracy of particle measurement.

4) Automatic Optical path alignment System,

The precision of four hybrid stepping motor in the automatic system of optical components, micro precision of 0.1 μ m, the instrument of light path is always at its best to eliminate manually on the light path and the troubles and difficulties but also enhance the accuracy and stability of test results.

5) Full built-in Sample dispersion system.

Auto wet dispersion system,SOP realize one key operation.

set mechanical stirring, ultrasonic dispersion, and circulation path in one, It ensures particles uniform dispersion and distribution,avoids many bad phenomenon, such as uneven distribution of particles, large particles deposit because of the long outer dispersing system tube, And it guarantees the representativeness of test result.

For dry dispersion system, Turbulence dispersion patented technology and Normal shock shearing effect, make particles sufficient dispersion,ensure good test.

6)Instrument Software

Original Unconstrained free fitting patent technology collect scattering data during the measurement process, make particle analysis not be restricted by any functions, truly reflect particles size distribution, The instrument provide high precision data with 10Khz data acquisition time.

4. Software Function:

1, Analysis Mode

Free Distribution, R-R Distribution, Logarithm Normal Distribution, Mesh number classification etc. meet different demands of particle size statistic in different industries.

2,Statistic Method

Volume Distribution, Quantity Distribution

3,Statistic Comparison

Statistic Several Testing Results to compare and analyze

Get difference by compare test result of different batches of samples, samples before and after processing, and different time.

Have great practical significance to industrial raw materials quality control

4,User-defined Analysis

Figure out percentage according to the particle size

Figure out particle size according to the percentage

Figure out percentage according to the particle size range

Meet demands of representation of particle test in different industries.

5,Test Report

Word, Excel,Photo(Bmp), Text etc.

6,Multiple language Support

Chinese&English (Others are available)

7,Intelligent Operation Mode

Automatically control water inflow, dispersion,test and analysis.

Better Repeatability after remove human-factor

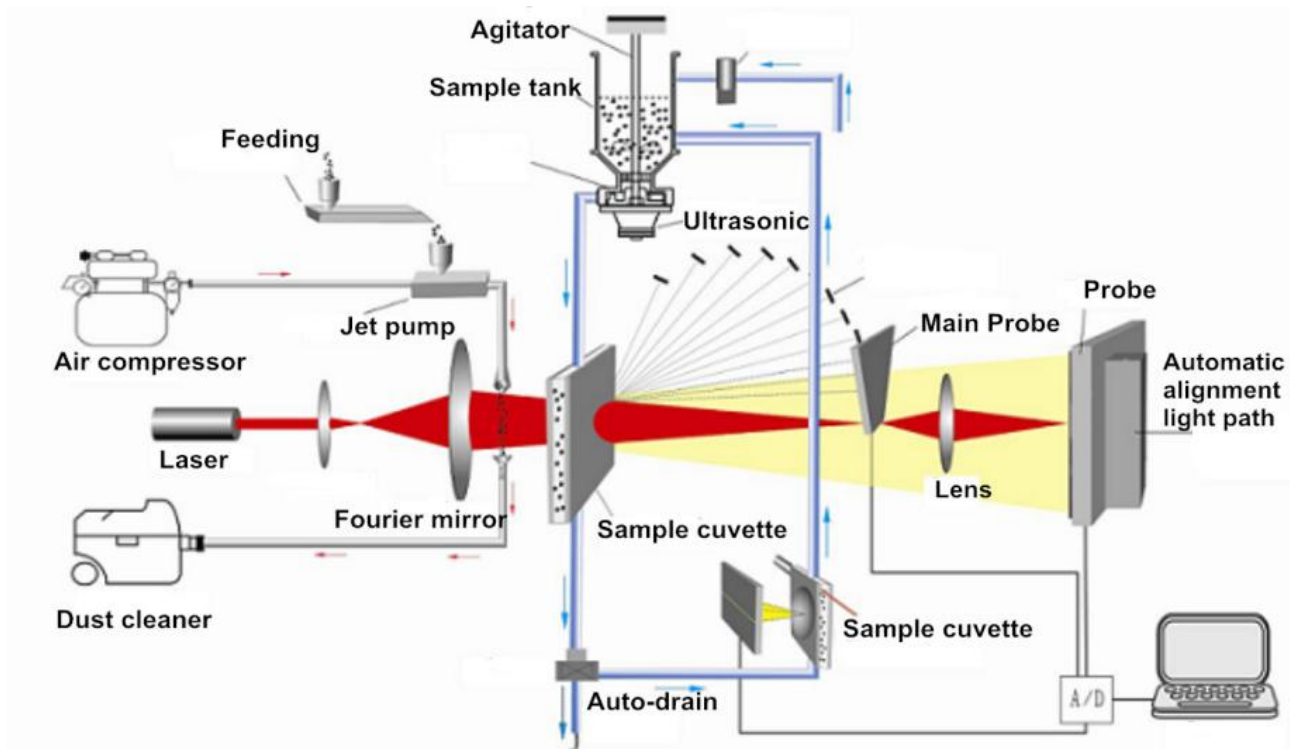


Figure-Winner2308 scheme

4. Application:

Winner2308 widely used in cement, ceramics, medicines, lotions, paints, dyes, pigments, fillers, chemicals, catalysts, drilling mud, abrasives, lubricants, coal, sediment, dust, cells, bacteria, food additives, pesticides, explosives, graphite, photographic materials, fuel, ink, metal and non-metal powder, calcium carbonate, kaolin, coal slurry and other powdered materials.

6. Adopt 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.
- Dual laser beam orthogonal application is protected by patent No.-ZL 2007 2 0025702.0
- Powder dispersion pump design application is protected by patent No.-ZL 2007 2 0018648.7
- Wet circulation installation is protected by patent No.-ZL2010 2 0593526.2

7. Packing List

Items	Unit	Quantity	Items	Unit	Quantity
Power cable	pcs	2	Quality card	pcs	1
COM cable	pcs	2	medical silica tube	meter	1.5
Oil-free air compressor	set	1	2A fuse	pcs	5
vaccum cleaner connector	pcs	1	15A fuse	pcs	5
vaccum cleaner	set	1	PTFE tape	box	1
PU tube	meter	5	USB transform cable	pcs	2
filter	pcs	1	Silica tube	meter	1.5
wrench 8/10	pcs	1	Brush for sample tank	pcs	2
wrench 17/19	pcs	1	Quartz sample cuvette	pcs	1
sampling spoon	pcs	2	Sample cuvette brush	pcs	2
Balloon for clean dry sample tank	pcs	1	Tool box	pcs	1
Cleaning paper	pcs	3	standard sample D50= 2.1 μ m	bottle	1
inner hexagon screwdriver	pcs	1	standard sample D50=110 μ m	bottle	1
small flathead screwdriver 3*75	pcs	1	Manual	pcs	1
Small flathead screwdriver 6*38	pcs	1	Warranty card	pcs	1
flathead screwdriver5*75	pcs	1	Wrench 5.5/7	pcs	1
Software CD	pcs	1	Winner2308A PSA	pcs	1