

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



1. Brief introduction:

Winner2308B intelligent full automatic wet&dry laser particle size analyzer adopt full MIE scattering principle, measure size is from 0.01um to 1200um(dry 0.1um-1200um), 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		Winner2308B
Standard		ISO13320:2009,GB/T19077-2016,Q/0100JWN001-2013 21CFR part 11
Principle		Laser diffraction principle
Measuring Range		Dry:0.1-1200 micron Wet:0.01-1200 micron
Channels Number		Dry:80 pcs Wet:97 pcs
Accuracy error		<1% (Deviation of D50 on national standard sample)
Repeatability error		<1% (Deviation of D50 on national standard sample)
Reproducibility error		<1% (Deviation of D50 on national standard sample)
Light source		He-Ne laser P>3.0 MW ($\lambda=632.8\text{nm}$) lifetime>25000hours Auxiliary semiconductor laser ($\lambda=532\text{nm}$) P>2.0MW
Wet Dispersion	Ultrasonic	Frequency:40KHz Power:35W, Time: $\geq 1\text{S}$
	Agitator	Revolutions Speed: 0-3000RPM (Adjustable)
	Circulation	Rated Flow:8L/min Rated Power:10W
	Sample tank	Volume: 350mL
Operation Mode		Full automatic
Optical alignment		Automatic
Test Speed		Wet: <2 Min per time, Dry : <1min per time Fastest measuring speed:10S
Operation environment		Temperature: 5-40℃, humidity: 0-90%
Computer required		Operation system: Windows XP,Win10, Win7 (32 bits/ 64bits), Core i3, 2G, hard disk 160G, USB port 3 pcs, RS232 serial port 1 pcs, D disk
Outer dimension		L104cm×W44cm×H54cm
Net Weight		70Kg

3. Main Features:

1)Automatic Wet and dry sample dispersion system Integrated Design

This instrument integrated wet and dry dispersion test in one, successfully resolved the problem of dry and wet technology integration, realize one key to switch.

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, 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, air supply, feeding, testing, data processing and other operation, take 1 min.

3) Stable and unique light path system patented technology

Converging light Fourier transform path system, enables scattering light be not restricted to the lens aperture limit, and Dual-laser orthogonal light technology make use of the semiconductor auxiliary laser extend the test angle from 45 degree to 135 degree, ensure receive all the angles of signals.

4) Automatic light path alignment System,

The precision of four hybrid stepping motor in the automatic system of optical components, micro precision of 0.1um, 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

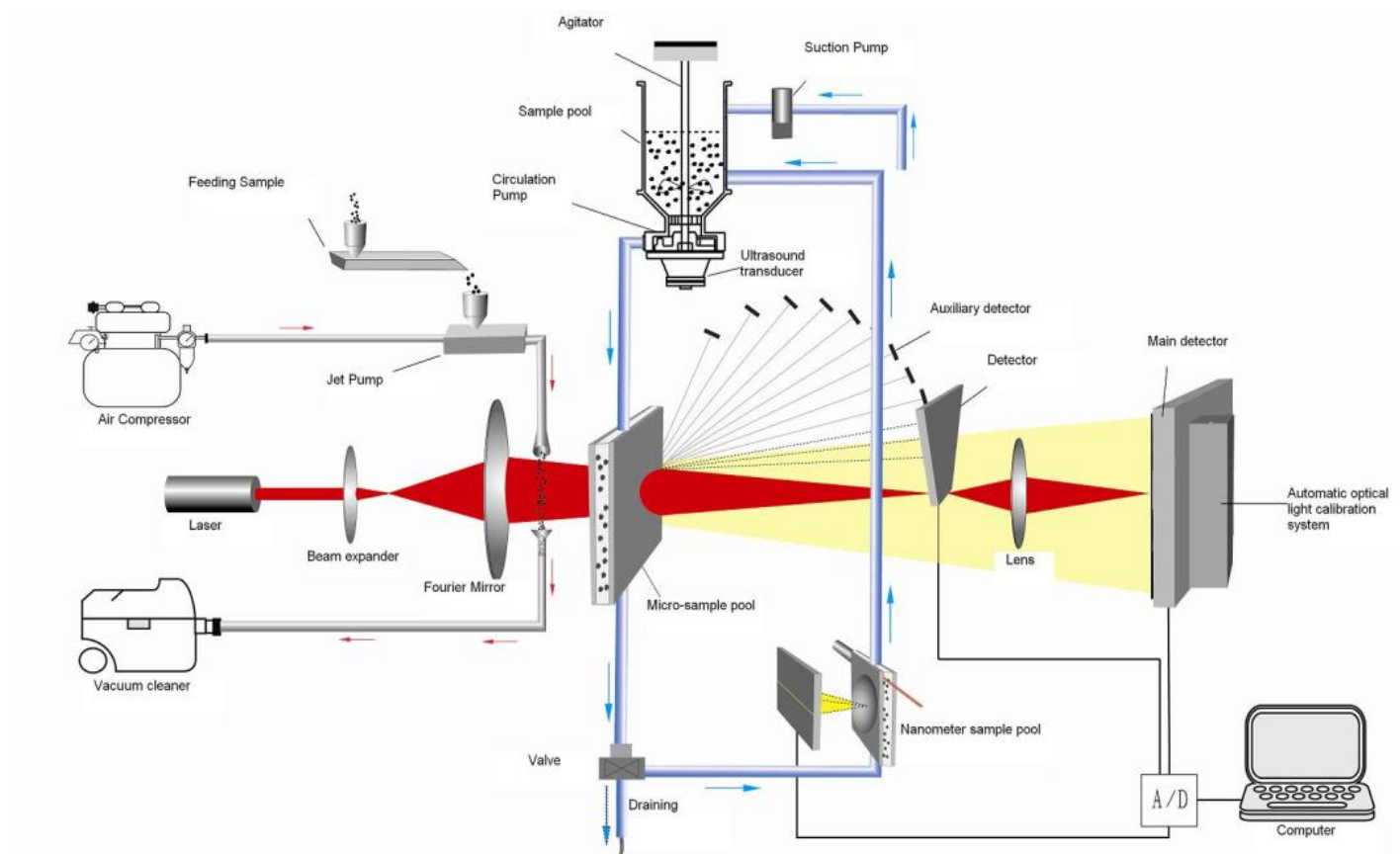


Figure-Winner2308 scheme

5. 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. Standard Accessories list

NO.	Items	Quantity	Unit	Remark
1	Winner2308 laser particle size analyzer	1	Set	
2	Analysis software	1	Set	
3	Software USB key	1	PCS	
4	Standard sample	1	Bottle	
5	Power cable	1	PCS	
6	Communication cable	1	PCS	
7	Sample cuvette	1	PCS	
8	Screwdriver	2	PCS	
9	Wrench	3	PCS	
10	Draining water pipeline	1	PCS	
11	Standard sample pipeline	1	Set	
12	Clean mirror paper	3	PCS	
13	Clean mirror card	1	PCS	
14	Sample cuvette brush	2	PCS	
15	Spoon	2	PCS	
16	2A fuse	5	PCS	
17	Quality certificate	1	PCS	
18	Warranty Card	1	PCS	
19	Manual	1	PCS	

7. 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