

YK-2308A

Intelligent Wet and Dry Laser Particle Size Analyzer

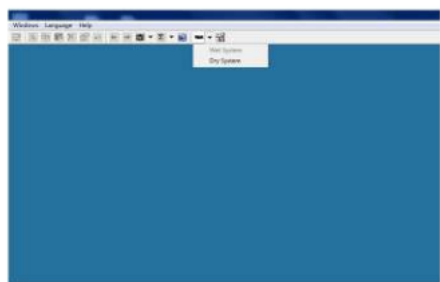


Yuke 2308 intelligent full automatic wet&dry laser particle size analyzer adopt laser diffraction theory(Mie and Fraunhofer diffraction), measure size is from 0.01 μ m to 2000 μ m(dry 0.1 μ m-2000 μ m), Which offer reliable and repeatable particle size analysis for a diverse range of applications.It 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.

Advantages:

● One-click switching mode between dry and wet:

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.



● Smart operation mode:

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,

● Dual optical path design

The dual-spectrum design and dual-laser orthogonal light increase the measurement range, and the accuracy reaches 0.01 μ m~2000 μ m (wet method) and 0.1~2000 μ m (dry method). The high-sensitivity, high-resolution photoelectric probe system ensures the collection of all particle scattered light signals and ensures the accuracy of test data.



● Full built-in Sample Wet and dry dispersion system

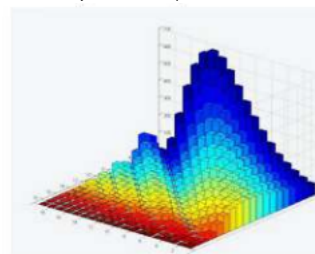
Auto wet dispersion system, set mechanical stirring, ultrasonic dispersion, and circulation path in one, SOP realize one key operation.

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



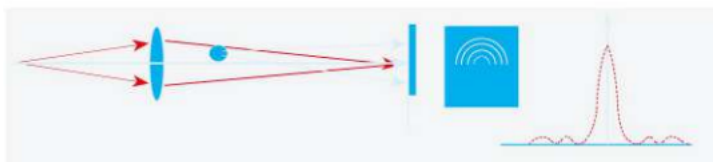
● Advanced optical path design:

Using micro-nano patented concentrated light Fourier transform technology and dual-spectrum optical path design, scattered light is not constrained by the lens aperture.



● Unconstrained free fitting technique:

Using the original unconstrained free fitting technology of Micro-Nano, the particle size analysis is not limited by any function, and can truly reflect the distribution state of particles.



Test principle

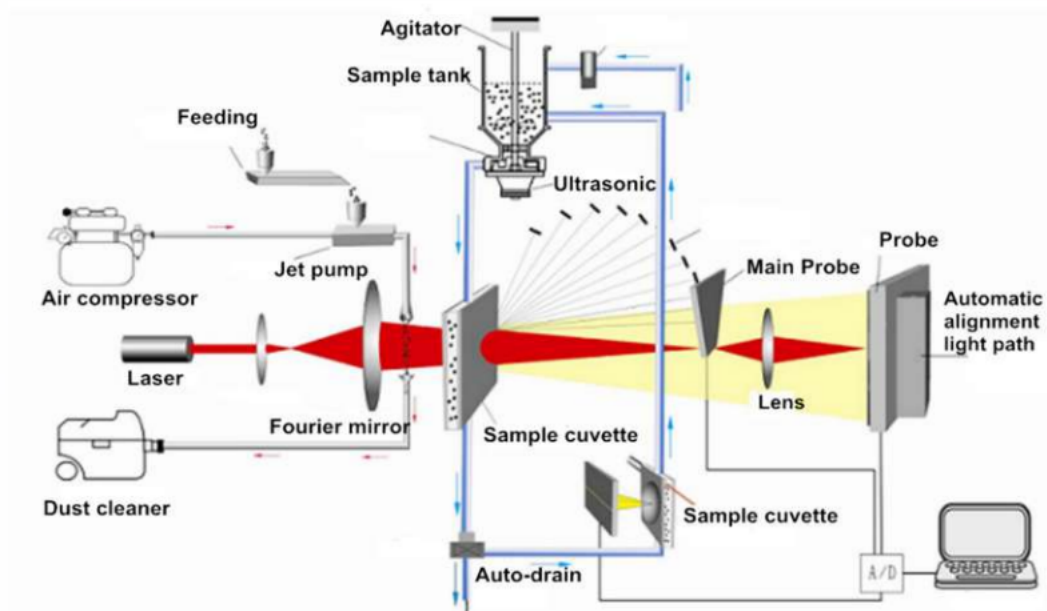


Figure-Winner2308 scheme

Application

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.



Technical parameter:

Model Name		YK- 2308A
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:0.01μm-2000 μm Dry: 0.1μm-2000μm
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		High performance semiconductor red laser (λ=639nm) P>3.0MW Auxiliary green solid semiconductor laser (λ= 405 nm) P>2.0MW (available)
Optical path		Converging light Fourier transform optical path
Effective focal length		500mm
Laser Safety		Class 1
Wet dispersion	Ultrasonic	Frequency:40KHz Power:60W, Time: ≥1S
	Stir	Revolutions Speed: 0-3000RPM (Adjustable)
	Circulate	Rated Flow:30L/min Rated Power:70W
	Water level sensor	Prevent water overflow and
	(UK)	effectively protect the instrument.
	Sample tank	Volume:1000mL
		Micro-Sample cuvette
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 0.2um
Full Test Speed per time		Wet: <2 Min Dry: <1min Interval time per test result :500ms
Outer dimension		L104cm×W44cm×H54cm
Net Weight		70Kg

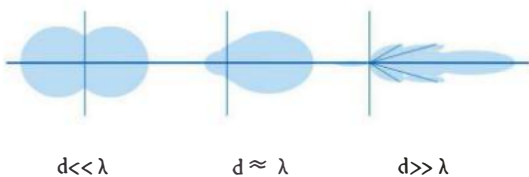
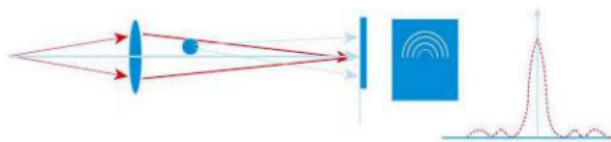
Yuke Particle Hardware features

the most professional laser particle size analyzer production base in China

1. Dual laser orthogonal beam patented technology

3. Omnidirectional Scattered Light Detection Technology

Adding multiple auxiliary integrated photodetectors can effectively collect scattered light at various angles corresponding to the test range, and achieve test accuracy and reliability in the full range.



2. All built-in dispersion systems

It avoids the problem of test data distortion caused by long optical path, uneven dispersion, and large particles settling in the pipeline caused by the external dispersion system.



4. Spectrum Amplification Technology

The sensitivity of the probe to the signal is enhanced, and the test range is greatly improved.



5. Converging light Fourier transform patented technology

The large-angle scattered light is not limited by the aperture of the Fourier lens. The optical path is shortened to the shortest, effectively improving the resolution of the instrument; The optical path design principle belongs to the international leading technology.



6. MIE scattering theory

The full range adopts the most advanced MIE scattering theory.



7. Fully automatic alignment system

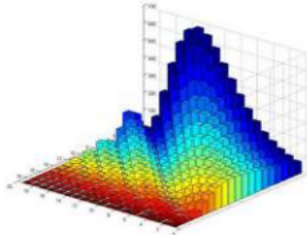
The precision four-phase hybrid stepping motor is used to automatically adjust the optical path and calibrate the optical path at any time, eliminating the deviation caused by manual alignment, and improving the accuracy and stability of the test results from an optical point of view.



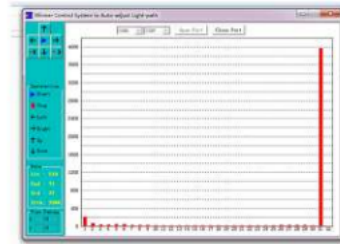
Yuke Particle Software Features

Provide customers with the most professional particle testing solutions

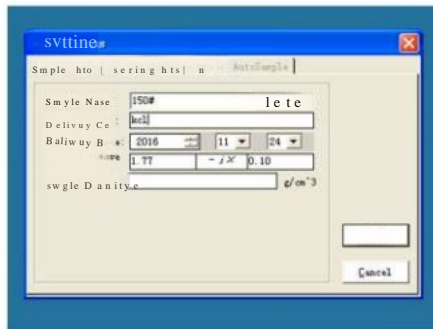
1. Unconstrained free fitting technology can truly reflect the particle distribution.



2. Accurate and convenient automatic alignment function.



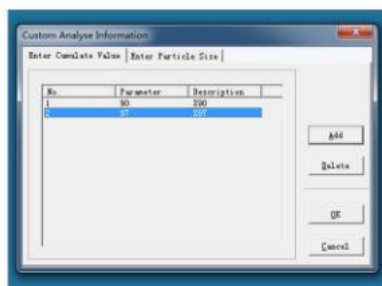
3. Different refractive index models can be established to make the measurement results more accurate and reliable.



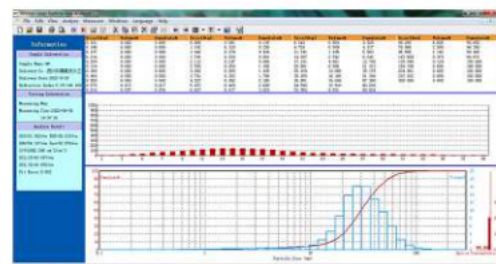
4. Automatically memorize the last sample test information and display the current test process in real time. Freely customize the display mode and switch between energy spectrum and data display.



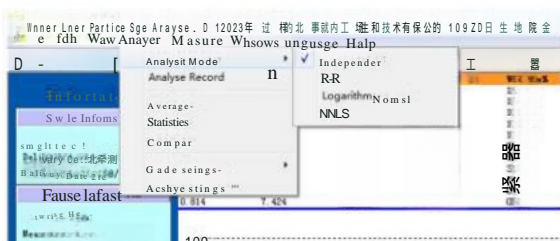
5. User-defined analysis parameters, calculating the percentage according to the particle size, calculating the particle size according to the percentage, or calculating the percentage according to the particle size range, so as to meet the characterization methods of particle size testing in different industries.



6. Statistical comparative analysis can be carried out for multiple test results, and the difference between different batches of samples, samples before and after processing, and test results at different times can be clearly compared, which has strong practical significance for the quality control of industrial raw materials.



7. Multiple distribution modes: free distribution (closer to the real data of the sample), Rosin-Ramler distribution, logarithmic normal distribution and original data conversion mode (according to the real and accurate measurement of abrasive and flake particles)



8. Chinese and English language interfaces are supported, and other language interfaces can also be embedded according to user requirements. Multiple formats can be set for file printing and exporting, and BMP image files, Txt documents, Word documents, and Excel documents are supported.

