

GaoHong-3008A/B Intelligent Dry Laser Particle Size Analyzer



1. Overview:

GaoHong3008 is intelligent dry laser particle size analyzer, manual and full automatic operation modes. MIE scattering principle as basic, Converging light Fourier transform light path, highly stable He-Ne laser and High sensitive ring photoelectric detector, guarantee good repeatability and accuracy.

It uses air as dispersion medium, and use turbulent dispersion principle with high precision feeding device, patent powder spray pump and oil-free silent gas source guaranteeing the samples to be fully dispersed. It's fit for any dry powder materials, especially the powder that takes chemical reaction with water or changes its shape in liquid. Compared to the wet laser particle size analyzer, it's with the same accuracy and repeatability.

1. Main Specifications:

Model		GaoHong3008A	GaoHong3008B
Standard		ISO 13320-1:1999; GB/T19077.1-2308; Q/0100JWN001-2013	
Principle		MIE Scattering Principle	
Measuring Range		0.1μm -2000μm	0.1μm -1200μm
Detector Channels Number		100 PCS	97 PCS
Accuracy error		<1% (Deviation of D50 on national standard sample)	
Repeatability error		<1% (Deviation of D50 on national standard sample)	
Light source		Semiconductor laser ($\lambda=632.8\text{nm}$, $P>2.0\text{mW}$ Service time>25000hour)	
Dispersion		Dry-turbulence dispersion mode, normal shock wave shear technique	
Operation Mode		Manual & Full automatic	
Feeding		Automatic vibration feeding	
Optical Calibration System		Automatic	
Software function	Analysis mode	Free Distribution, R-R Distribution, Logarithm Normal Distribution, Mesh number classification etc.	
	Statistic Method	Volume Distribution, Quantity Distribution	
	Statistic Comparison	Several Testing Results of samples Different batches of samples testing result, Samples before and after processing, Test result of samples in different time.	
	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	
	Test Report	Word, Excel, Photo(Bmp), Text etc	
	Multiple language Support	Multiple language Support	
	Intelligent operation	Better Repeatability after remove human-factor	
Test Speed		<1min per time	
Power supply		220V	
Volume		L40.94"×W17.32"×H21.25"	
Net Weight		58Kg/127.87pound	

2. Main Features:

1) Advanced testing optical path

Converging light Fourier transform light patented technology, make scattering light not be restricted to lens aperture. Use main detector and large angle auxiliary detector efficiently collect all angles of scattering light in the testing range, ensure good testing accuracy and reliability in the whole range.

2) Scientific dispersion system

Turbulence dispersion patented technology and Normal shock shearing effect, make particles sufficient dispersion, Adopt wearable ceramics improve dispersion system's working life.

3) Human-based operation mode

Manual and Full automatic, easy choose.

4) High precision-automatic optical path calibration system

It's composed of precise four phase hybrid stepper motor, Its inching precision is reach to micron level, so light path is always in a good state.

5) Intelligent data analysis-winner unique software support

Analysis software collect large quantity of particle information in high speed, and inverse particle distribution by unconstrained free fitting technology, then intelligent statistics and analysis of testing data, ensure accuracy and repeatability of the output.

6) The results not only show particle distribution, the cumulative value curve and typical particle sizes (D10, D50, D90.), but also support user-defined analyze result, such as any features particle diameter from D0 to D100, Cumulative percent (bigger than or less than a certain particle diameter).

7) Users can design the test report output and display forms according to industry requirements.

4. Application:

GaoHong3008 is widely used for cement, ceramic, medicine, dope, dye, padding, chemical products, catalyst, braze, dust, additive, pesticide, explosive, graphite, photosensitive material, fuel, metal and nonmetal powder, calcium carbonate, kaolin and other powder materials.

It has unique applicability and practicability, especially for those occurs chemical reactions, change shapes and loss in liquid, such as Chinese herbal medicine, magnetic materials and powder industry with wide distribution and large particle size.

5. Adopt patent technology:

- Optical bench design is protected by patent No.- ZL 2014 2 0378380.8.
- 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.

