

SIZER -3201

Laser Particle Size Analyzer



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

Sizer-3201 is a high-tech instrument incorporating technologies of optic, mechanic, electric and computer. Thanks to import semiconductor laser, it lasts longer time with excellent monochromaticity. It features advanced mechanical design and integrated microelectric circuit. The accuracy and test speed are improved thanks to highly sensitive photocells and full-course Mie theory executed by excellent and innovative algorithm. It is the most cost-effective micron laser particle size analyzer we supply.

►► Specifications

Size range:	0.1μm~500μm
Light source:	Semiconductor laser(635nm,3mw,25000hrs)
Test method:	Liquid
Obscuration:	0.05%~1%(subject to gravity,size and refractive index)
Test time:	less than 1 minute, sample preparation not counted
Scanning speed:	2000/sec
Repeatability:	<1%
Accuracy:	<1%
Power supply:	AC 220V±10%,50Hz or 60Hz,Power:80W
Computer interface:	standard RS-232 serial port
Operating system:	all Windows system
Dimension:	620(L)X333(W)X248(H)mm

►► Technologies of Hardware

- Sizer-3201 Dispersing Unit features internal ultrasonic, circulation, agitation and timed ultrasonic. The peristaltic pump prevents the suspension from being contaminated during circulation to secure the accuracy of the test results. Sizer-3201 can work with small volume cell or flowthrough sample cell. The former caters to organic medium and the latter to water whereas the transfer between both is user-friendly.
- The semiconductor laser waved 635nm and powered 3mw works for more than 25000 hours therefore extends the running life and stock life of the particle size analyzer.
- Optimized reverse Furier optical design and unique integration of light path and optical bench contribute to stable light path; moreover it reduces light path adjustment to zero. Thanks to advanced mechanical design and processing technique the unit becomes more compact; streamlined cover makes for easy operation and maintenance; effective shielding and disturbance resistance technology contributes to electric stability.



Method I: Dispersing Unit



Method II: Small Cell Assembly



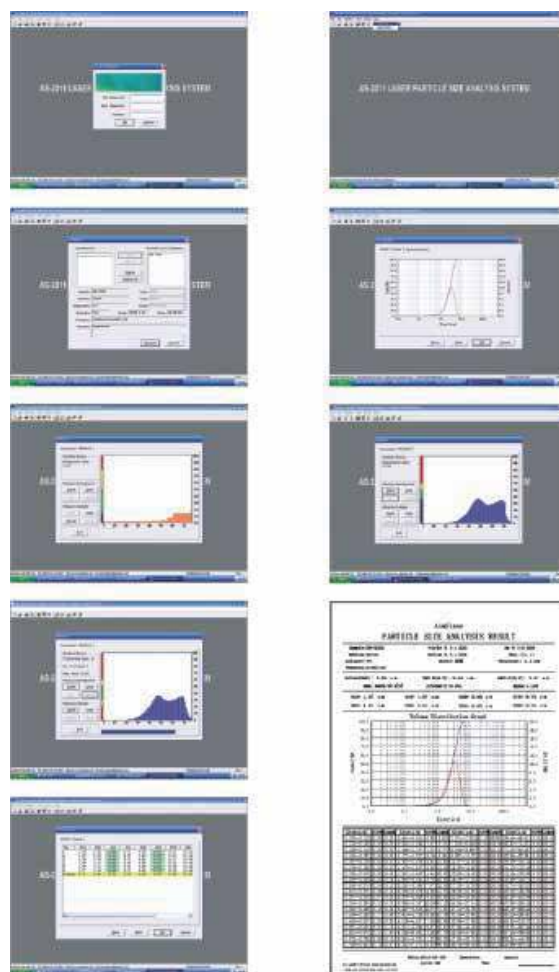
Laser & Optical Bench

- Innovative photocell array improves the resolution of the unit. The major detector array consists of 71 photocells with maximum detecting angle 21.5° . Crossly positioned irregular side array comprises 5 photocells with maximum angle 75° .



►► Technologies of Software

- Two login ports one for the administrator the other for the operator accessed by password considerably improve the security of the particle size analysis system.
- Sizer-3201 is a high-tech instrument incorporating technologies of optic, mechanic, electric and computer. The acquired data is processed by special analysis system and result printed out by printer.
- Sizer-3201 works with advanced Mie scattering theory and excellent H.Golub inversion algorithm. With the ideal combination of software and hardware, the test is always fast and accurate for whatever unimodal or multimodal distribution.
- Flexible output makes it editable for the data and curve of accumulative distribution, data and histogram of differential distribution and typical values according to specific requirement.
- Sizer-3201 completely meets the requirement of ISO13320-1, an international norm on laser particle size analyzer and each unit goes through strict quality control with national reference material.



►► Applications

Abrasives, Adhesives, Agrochemical, Barite, Batteries, Bentonite, Boron Carbide, Brucite, Bubble, Calcite, Calcium Carbonate, Carbon Black, Catalysts, Cement, Ceramics, Chemicals, Clay, Coal, Coatings, Corundum, Cosmetics, Diamond Powder, Diatomite, Emulsion, Environmental, Explosives, Ferrite, Fluorescent, Fluorite, Food & Beverage, Food Additive, Graphite, Grinding, Inks, Kaolin, Medicine, Metal Powder, Mica, Milling, Minerals, Oxides, Paints, Paper, Petrochemical, Pharmaceuticals, Pigments, Plaster, Plastics, Polymers, Quartz, Refractory, Resins, Silica, Slurries, Soil Sediments, Sulfur, Synthetics, Talc, Toners, Tourmaline, Wollastonite, Zeolite, Zirconium Silicate

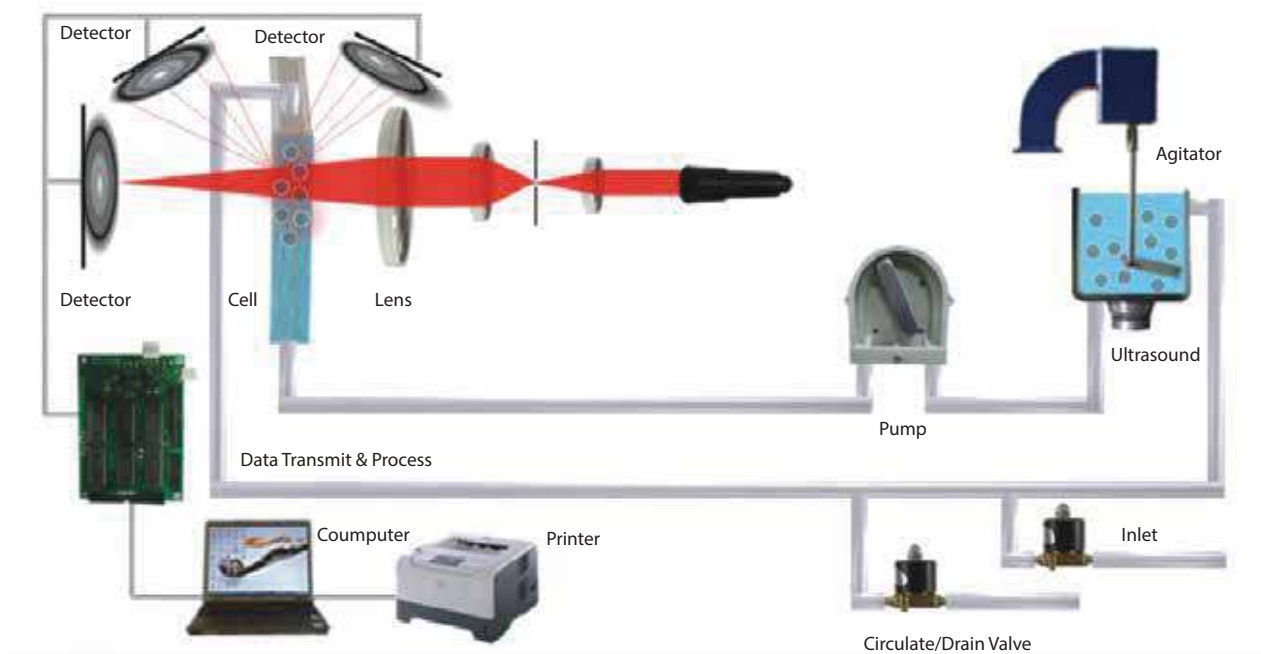
►► Validation Motto

D _x	D ₁₆	D ₅₀	D ₈₄
Average standard value (μm)	5.7	11.3	18.4
Error Range (μm)	±0.8	±0.8	±0.8

►► Motto

- Reliable Hardware
- Accurate Software
- Cost-Effective Unit

►► Schematics



►► Advantages

Size range	most popular micron size range from 0.1 to 500 micrometers
Accuracy & Repeatability	<1%, completely comply with ISO13320-1
Applications	1-stop sizer solution for nearly all the powders in micron range
Sample Driving	clean and effective peristaltic pump improves the Accuracy
Sample Adding	easy switch between 2: Flow Through & Small Cell Assemblies
Optical Bench	reduce light path adjustment to 0, free from adjustment forever
Laser Diode	good monochromaticity with as long as 25000 hours working life
Photocell	Highly-Sensitive photocells in effective position improves accuracy
Theory	most advanced Mie Scattering Theory using Laser Diffraction of particles
Algorism	fast and accurate H.Golub reverse algorism saves Waiting Time
Login	2 login ports Administrator and Operator make for effective administration
Measurement	user can Customize key parameters and test very fast in less than 1 minute
Software	comprehensive and User-Friendly software contribute to a nice sizing experience
Test Report	standard ISO-13320-1 integrating all concerned data for easy comparison

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

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Our Products & Technologies



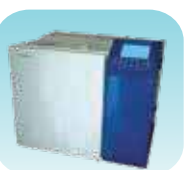
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3007



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Counter



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Ion Chromatograph



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system

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Analytical
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2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

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