

#### LASER DIFFRACTION PARTICLE SIZE ANALYZER

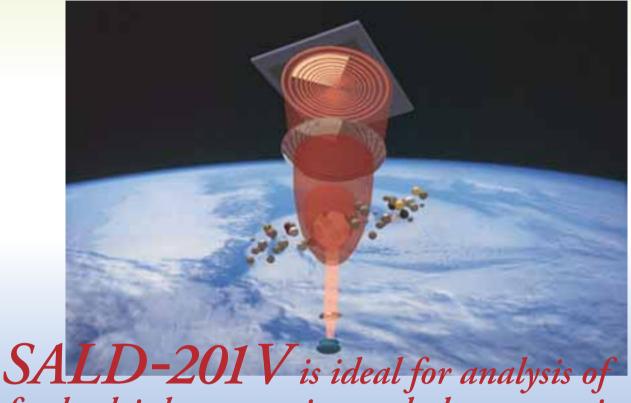






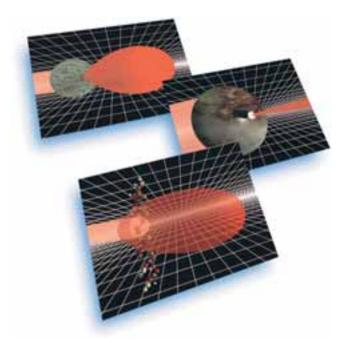


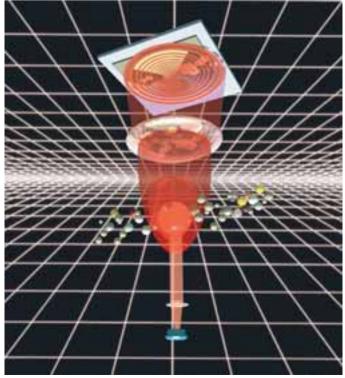
a compact instrument with all for particle size maesurement.



foods, drinks, cosmetics, and pharmaceuticals.

The laser beam is diffracted and scattered by the sample particles and forms light intensity distribution patterns, depending on the particle size.



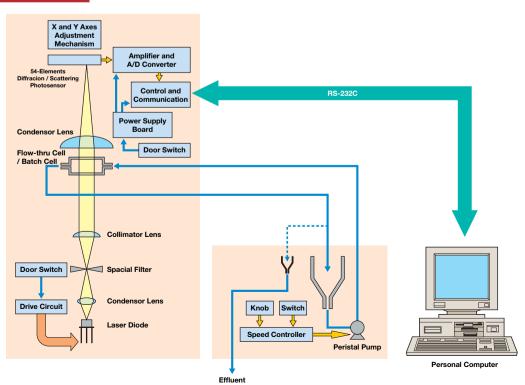


Vertical optical system

### the necessary functions



### **Block diagram**



## You can choice two models for your needs.



This simple model, consisting only of the analyzer unit and a batch cell, is recommended for analysis of light particles.

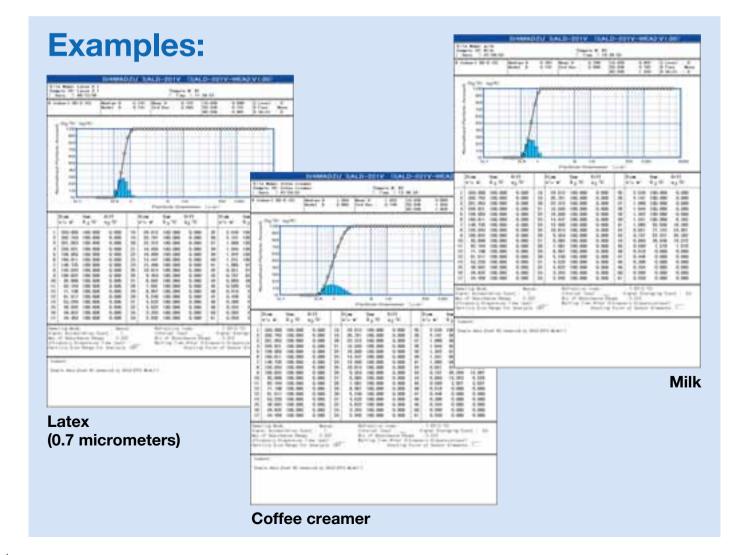
Measuring range:

0.25 - 50 micrometers

#### Feature:

Reliable analysis with small samples (The minimum volume of dispersant is about 2 cm<sup>3</sup>)





## They can cover 75% of all the needs for particle size analysis !!

# Model-2

### Batch cell and flow-thru cell model

Consisting of the analyzer unit, a batch cell, a sampler, and a flow-thru cell, this model provides a wider measuring range than Model-1.

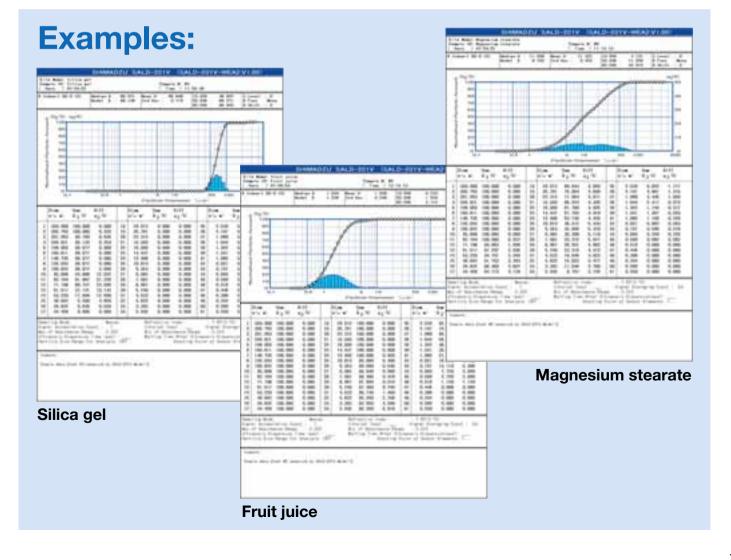
#### Measuring range:

0.25 - 350 micrometers

#### Feature:

Reliable analysis of various types of particles and emulsions







## **WingSALD** (Software for measurement and data processing)

## WingSALD software is a 32-bit program designed for Windows<sup>®</sup>95/98/NT4.0

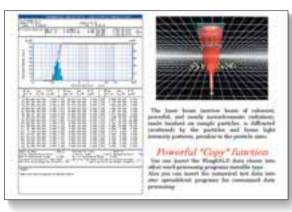
Strong points of WingSALD:

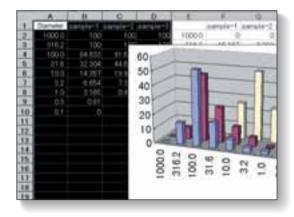
- Easy operation
- Various data processing
- Presentation of a large amount of particle size distribution data and light intensity distribution data by using *MDI*(multiple document interfase)
- Recalculation of maximum 12 data at one time changing refractive index
- WingSALD software consists of 3 Wing sub programs.



#### Powerful "Copy" function

You can insert the *WingSALD* data sheets into other wordprocessing programs in metafile type. Also you can insert the numerical text data into other spreadsheet programs for customised data processing.

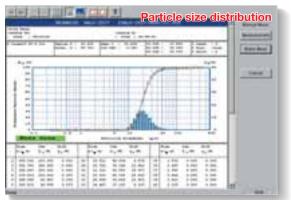


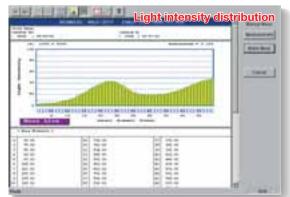


#### **Real-time monitoring of sample dispersion**

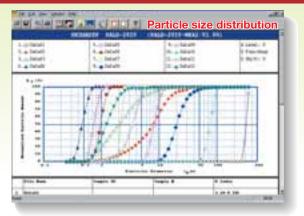


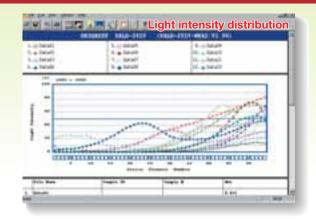
You can monitor sample dispersion by using real-time display of particle size distribution as well as light intensity distribution.





#### **Overlay graph of maximum 12 data**

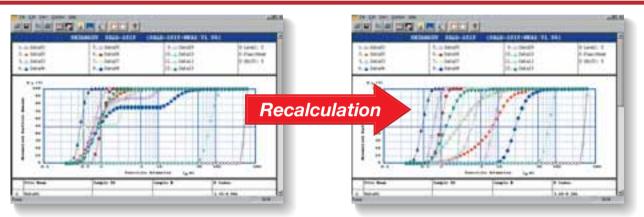




#### **Recalculation of maximum 12 data at one time changing refractive index**

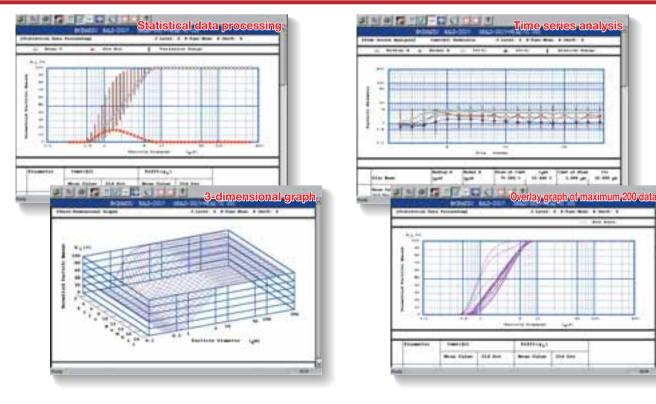
Wing 2

Wing 2



## Statistical data processing, time series analysis, 3-dimensional graph in simple operation

Wing 3



#### **Specifications**

		Model-1	Model-2	
Method of measurement		Laser diffraction method		
Measuring range		0.25–50μm*	0.25–350µm*	
Optical system	Light source	Semiconductor laser (670 nm in wavelength)		
Sample cell	Batch cell	Pyrex glass and tetrafluoroethylene		
	Flow-thru cell		Fused silica, SUS304, and tetrafluoroethylene	
Sampler	Sample bath		SUS304 and about 200cm <sup>3</sup> in capacity	
	Liquid pump		Peristaltic pump, about 1,000cm <sup>3</sup> /min. in the maximum delivery rate	
	Material of wetted parts		SUS304, silicone rubber, and polypropylene	
Power requirement	Analyzer main unit	100, 110, 120, 200, 220 or 240 VAC as ordered, 100VA		
	Analyzer main unit with CE mark	100, 115, 230VAC, 100VA		
	Sampler		100, 110, 120, 200, 220 or 240 VAC as ordered, 100VA	
	Sampler with CE mark	100, 115, 230VAC, 100VA		
Dimensions and Weight	Analyzer main unit	About 28cm wide, 34cm deep, 51cm high, and about 25kg in weight		
	Sampler		About 24cm wide, 33cm deep, 29cm high, and about 11kg in weight	
Environmental requirements	Temperature	10-30°C		
	Humidity	20-80%		
PC hardware requirements		IBM 100% compatible Windows®95/98/NT4.0 ; CD-ROM drive ; Pentium® ; 16MB RAM ; 20MB of free HD space ; 1 serial ports (when the sampler is to be controlled by PC)		

\*Depends on the characteristics of the sample particles.

- Windows is a registerated trade mark of Microsoft Co.
- Pentium is a registerated trade mark of Intel Co.
- SALD is a registerated trade mark of Shimadzu Co.

P/N			
Model-1 with CE mark	Model-2 with CE mark	Model-1	Model-2
346-62325-12	346-62325-52	346-62325-11	346-62325-51



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