

The inventor of  
Laser Particle Size  
Technology

## PARTICLE SIZE ANALYZER CILAS 1090



- Rugged, alignment-free design
- Software controlled switching between liquid and dry dispersion modes
- High performance dry dispersion system
- Patented multilaser technology
- Simultaneous size and shape measurements (with *SHAPE ANALYZER* option)

## MEASUREMENT RANGE



## TECHNICAL SPECIFICATIONS

Laser source	Longlife fiber and collimated laser
Wavelength	635 and 830 nm
Power (lasers)	2 and 5 mW
Peristaltic pump	variable 30 - 240 rpm
Mechanical Stirrer	adjustable from 180 rpm up to 500 rpm
Ultrasonic transducer	continuous or pulsed frequency 38 kHz adjustable power 20, 25, 50 W
Input	115 V/60 Hz - 230 V/50 Hz consumption < 230 VA
Laser Safety Classification	21 CFR-1040 / NF EN 60825-1/A2
Closed Cover	Class I of NF EN 60825-1/A2
Open Cover	Class III of NF EN 60825-1/A2
Compliance	ISO 13320, 21 CFR-Part 11, CE, USP 429
EMC	NF EN 61326-1 directive 2004-108 / CEE
Safety	NF EN 61010-1 directive 72.23 / CEE

**Measurement** Laser diffraction - based on Mie and Fraunhofer scattering theories

**Size range**  
liquid mode 0.04-500 µm  
dry mode 0.1-500 µm

**Dispersion type** venturi  
**Repeatability** < 1%  
**Accuracy** < 3%

**Acquisition time**  
liquid mode 60 seconds  
dry mode 30 seconds

**External dimensions**  
Length/width/height 890, 530, 430 mm  
35, 21, 17 in  
Weight L/D/LD 55-48-61 kg / 121-106-135 lbs

## SHAPE ANALYSIS

- The *SHAPE ANALYSIS* package includes a CCD camera to view particle shape. Particles are analyzed in a flow through cell connected to the laser particle size analyzer. The system is fully automated through software and allows to measure 60 size and shape parameters.
- The *SHAPE ANALYSIS* system includes an easy to use software package for shape characterization.
- Range: from 0.5 µm to 2500 µm.



## PRODUCTS AVAILABLE IN

- Liquid mode = 1090 L
- Dry mode = 1090 D
- Liquid and dry mode = 1090 LD

## ALCOHOL RECIRCULATOR

- The alcohol recirculator is used to regenerate alcohol when analyzing water soluble samples.
- The unit is fully automated using our *SIZE EXPERT* software.


