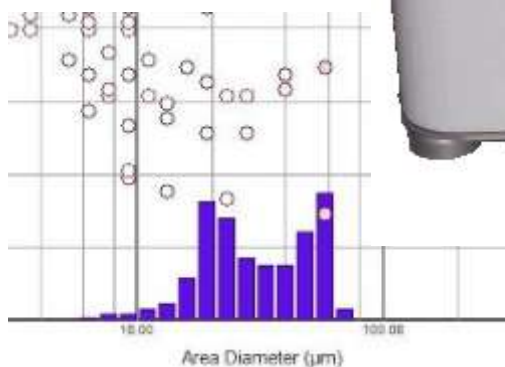
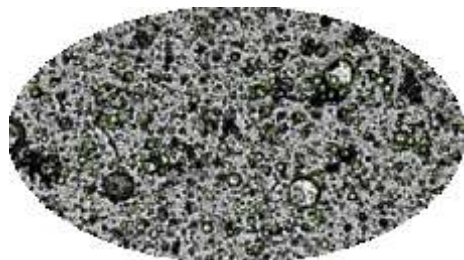


Particle analysis in suspensions and emulsions



FC200S+

Size, Shape and Counting

0.4µm – 1000 µm

FC200S+: Detection from 0.4 μm

Particle size analysis

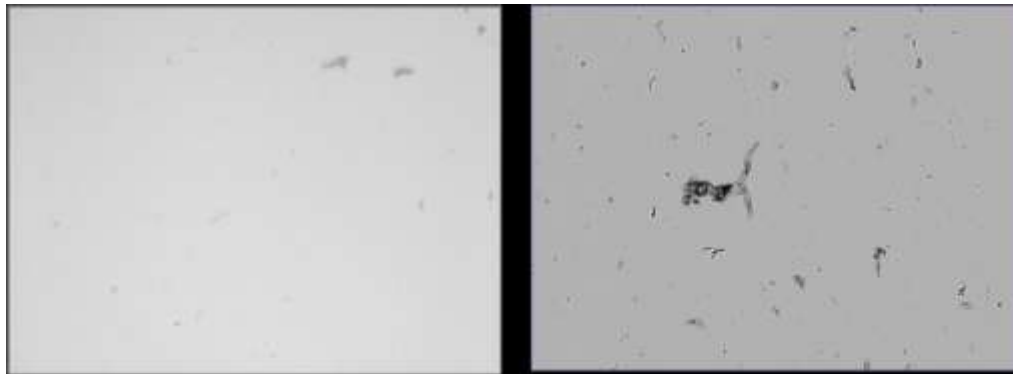
Particle counting (Number of particles/mL)

Possible to work with small volume (minimum volume 100 μL)

Emulsion stability analysis

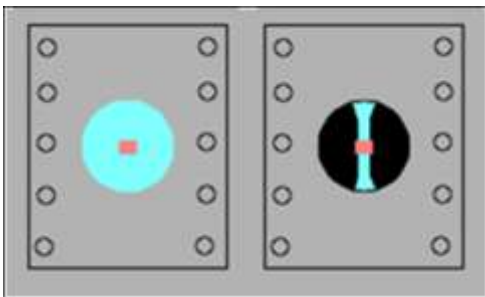
Other manufacturer

FC200S Technology

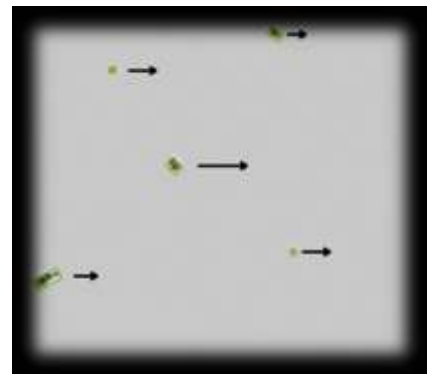


Special optical bench for highest resolution

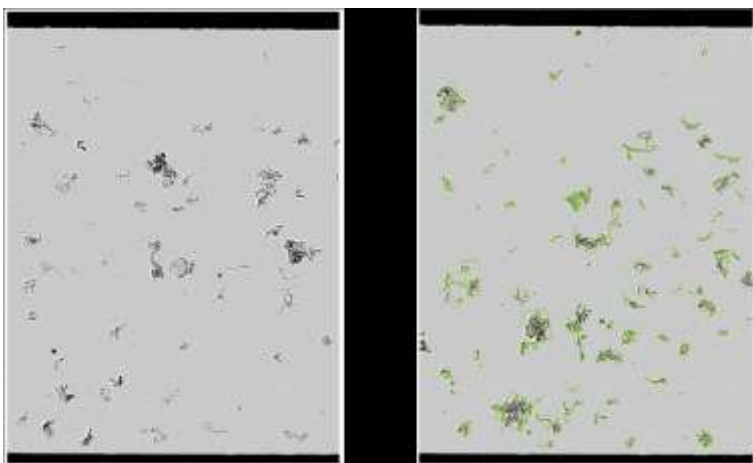
Special cell for absolute counting



Ghost algorithm for transparent particles



Several filters to identify each population



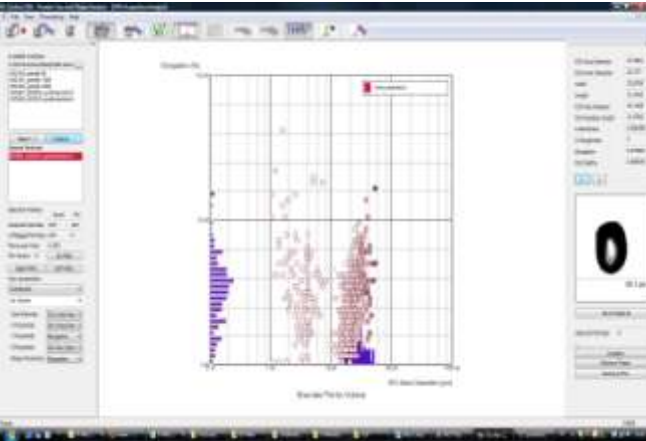
Counting: Number/mL





FC200S+: CALLISTO™

CALLISTO™ : Software for particle analysis



Since 2001, OCCHIO develops revolutionary systems by image analysis technique to study all particles types (powders, suspensions, emulsions and foams). These new systems, associated to the **powerful software CALLISTO™**, allow particle size measurements, shape analysis & particle counting. Now , more than 43 parameters are available ...

PARTICLE SIZE PARAMETERS

Area diameter

Inner diameter - Length

Width - Geodesic length - Mean diameter

PARTICLE SHAPE PARAMETERS

O. Aspect Ratio and Elongation: The Elongation is defined as $1-AspectRatio$ with $AspectRatio$ being the ratio between the width and the length of the particle

ISO Straightness: For very elongated particles, the straightness is ratio between the maximal distance and the Feret Length

ISO Compactness and ISO Roundness : Compactness and roundness are related to the degree to which the particle is similar to a disc. Roundness is less robust than compactness

ISO Circularity: Degree to which the particle (or its projection area) is similar to a circle

ISO Solidity: Solidity is the object area divided by the area enclosed by the convex hull (perfect to detect aggregates)

O. Bluntness : The Bluntness Index is the expression of a “maturity in the abrasion process”

O- Roughness: Amount of material to be removed from the shape before getting a smooth surface

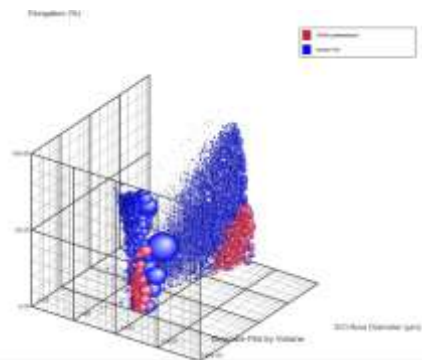
Luminance: The luminance is the mean greyscale level of the particle



SCATTERPLOT: Possibility of **having a representation of the particle size parameters** versus morphologic estimators. According to the particle size classes chosen by the operator, all plots are corresponding to particles. Operator can visualize each particle in clicking on each plot.

MICROSCOPE MODE: Display of each parameters and picture for selected particle on Scatterplot or live pictures. Operator can save picture for individual particle in Bitmap format.

(Particle size & shape distribution, trends, Excel export, sieves correlation...)



OPTIONS

Membrane pump This module allows to work with high flow rate (up to 600 mL/min)

Backlight set (green and red light)

Peristaltic pump module

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Data sheet

Model	FC200S+
Particle size range	WET 0.4 μm up to 1000 μm
Measurement time	2 up to 10 minutes (sample depending)
Parameters	<p>ISO 9276-6; 7; 8 norms + OCCHIO parameters</p> <p>SIZE: ISO Area diameter; ISO Inner diameter; Mean diameter; Perimeter diameter; Crofton diameter; Half Crofton diameter; Width; Length; Ellipse Width; Ellipse Length; ISO Max Distance; ISO Geodesic Length;</p> <p>SHAPE: Occhio Bluntness; Occhio Roughness; Elongation; ISO Aspect Ratio; Ellipsoid Elongation; Ellipsoid Roundness; Ellipse Ratio; ISO Eccentricity</p> <p>ISO Straightness; ISO Roundness; ISO Compactness; ISO Extent; ISO Solidity; Convexity; ISO Circularity, Luminance mean</p> <p>Luminance var.</p>
Dimensions and weight	630 x350x330 mm weight: 18.5 kg
Disperser	Ultrasonic bath or mechanical stirrer
Optics and imaging device	6.6Mpixels Camera , ; Blue light ; Adjustable magnification
Validation	IQ,OQ,PQ in option
Computer specifications	VISTA, 7, , Intel Core i5-650 @3.2GHz, 4MB cache ; 4 GB @ 1156MHz , HD 500GB
Power supply	110-240 V 50/60 Hz
Working conditions	Temperature 5 °C – 45 °C, HR 35-80 %
Images format	Bitmap
Data storage	' .oph' binary Occhio files format contains: Full size distribution values Shape and size percentiles Outline and greyscale levels of each particle
Statistics tools (distribution in number & volume)	Acquisition info (short overview of the used SOP) ; Size distribution; Size percentiles; Shape percentiles; Shape distribution; Mean shape by size; 2D scatter-plot (fully selectable particles map); 3D scatter-plot (animation included); Percentiles sample images; Sample images (BMP exportable format); Id card for each particle (BMP exportable format); Morphological and size filtering procedure ; Raw data export (text format); Table distribution export (text format); Table distribution and percentile export (Excel format); Automatic or custom reporting; Full image export (bmp format); Single particle image export (bmp format); Figure and graph export (bmp format)

Do not hesitate to contact us for more informations and to know about new developments

YOUR DISTRIBUTOR

Specifications can be modified following last developments

Pictures in this document are just for example

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