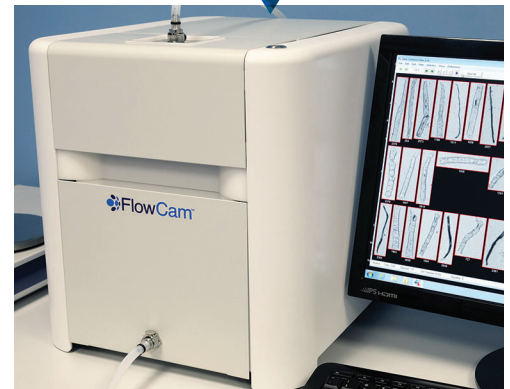


### Rapid and Reliable Analysis of Larger Particles

#### OVERVIEW

Based on proven FlowCam<sup>®</sup> technology, and optimized for larger particles (300  $\mu\text{m}$  to 5 mm), the FlowCam Macro provides rapid particle characterization that goes beyond just particle size. Direct, image-based measurements of particle size *and* shape enable differentiation of particle types in a heterogeneous mixture.

- Measure particle size and shape with over 40 morphological measurements on each particle imaged.
- Experience superior image quality and image-based measurements with fast and accurate results you can see, backed by the quantitative data to prove it.
- Receive statistically relevant results quickly to allow analysis of tens of thousands of particles per minute.
- Save time by isolating different types of particles into categories and sub-populations with automated, statistically-based pattern recognition software.



#### APPLICATIONS

Food & Beverage Characterization

+

Sphericity Measurement of Manufactured Beads

+

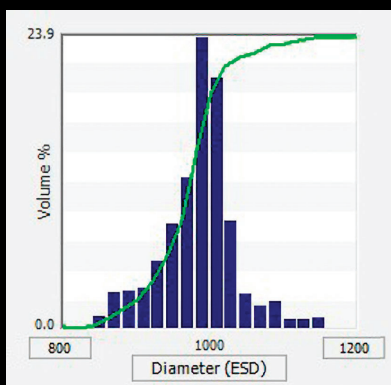
Fiber Characterization

+

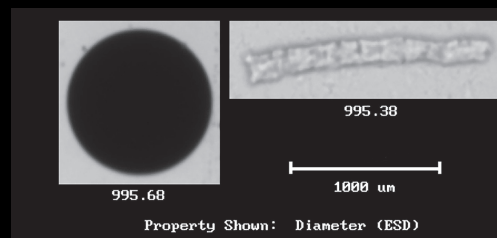
Characterization of Polymers, Crystals, Powders, and Other Chemicals

+

Frac Proppant Analysis



The two particles below have the same size (ESD) according to volumetric-based particle analysis techniques, like laser diffraction and light obscuration, but are clearly different. Dynamic imaging particle analysis allows you to see what's under the curve - both shape and size of your particles - providing you with microscopic particle measurements which enable you to separately count different particle types in the same sample.



# FLOWCAM® MACRO

## Rapid and Reliable Analysis of Larger Particles

FlowCam Macro	
Particle Count	Yes
Concentration	Yes
Particle Size (ABD/ESD)	Yes
Measured Parameters	Basic Shape Parameters: Area, Aspect Ratio (width/length), Area Based Diameter (ABD), Equivalent Spherical Diameter (ESD), Length, Biovolume calculations Advanced Morphology Parameters: Area (Filled), Circle Fit, Circularity, Circularity (Hu), Compactness, Convex Perimeter, Convexity, Elongation, Fiber Curl, Fiber Straightness, Geodesic Aspect Ratio, Geodesic Length, Geodesic Thickness, Perimeter, Roughness, Symmetry
Particle Size Range	300 µm to 5 mm
Image Type	8-bit Grayscale (Monochrome Camera) or 24-bit Color (Color Camera)
Image Format	8-bit Monochrome TIFF or 24-bit Color TIFF
Fluidics	High capacity industrial peristaltic pump, 2 mm (deep) or 5 mm (deep) flow cell
Flow Rate	Up to 750 mL/minute
VisualSpreadsheet®	Patented Interactive Scattergram® (allows particle selection directly from any graph or scattergram), automated value and statistical pattern recognition, interactive image-based filtering and sorting, up to 4 simultaneous histograms/scattergrams displayed (from 16 total available), direct export of all data and summary data to Excel (or any other spreadsheet), print to PDF, automatic classification, and filtering during acquisition. Software supports export of images to open-source image analysis programs.
Weight	28 kg with pump
Size	82 cm x 60 cm

### REQUEST A FREE SAMPLE ANALYSIS

Send us your sample and we will provide:

- A web-based, interactive presentation of results
- Histograms and scattergrams showing size and distribution of particles
- A Microsoft Excel spreadsheet with measurement data, including count, length, width, and ESD
- Digital images of the cells and particles

