FlowCam® Macro
Dynamic Imaging Particle Analysis (DIPA) Solution for Larger Particles

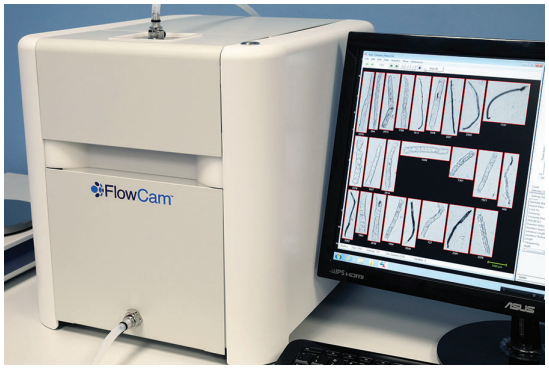
See What You've Been Missing

Based on proven FlowCam DIPA technology, and optimized for larger particles (50µm to 5mm), 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.

The FlowCam® Difference:

- Measures particle size and shape - over 30 morphological measurements on each particle imaged.
- Provides superior image quality and image-based measurements - fast and accurate results you can see, backed by the quantitative data to prove it.
- Gives statistically relevant results quickly - allows you to look at tens of thousands of particles per minute.
- Allows automated, trainable, statistically-based pattern recognition - saves time by isolating different types of particles into categories and sub-populations.

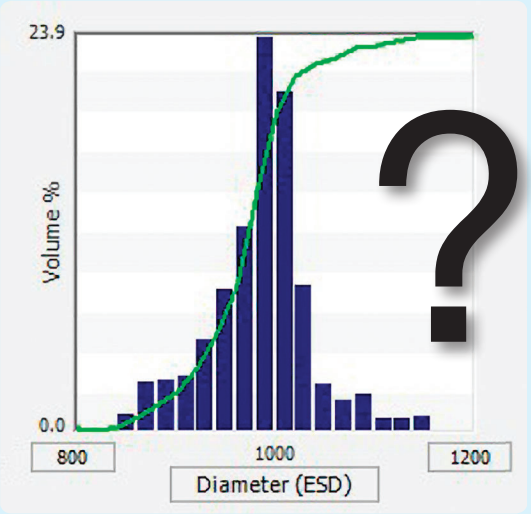
FlowCam Macro DIPA System

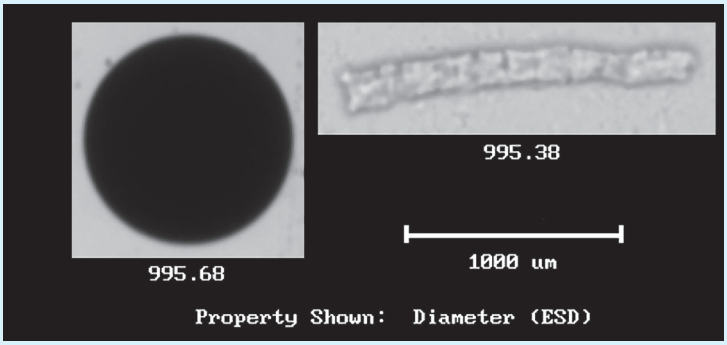


FlowCam® Macro Applications

- Food & Beverage Characterization
- Sphericity Measurement of Manufactured Beads
- Fiber Characterization
- Polymers, Crystals, Powders and Other Chemicals Particle Analysis

What's Under the Curve?





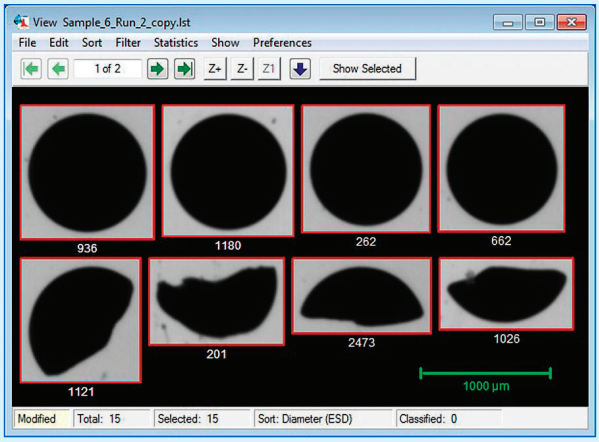
The two particles above have the same size (ESD) according to volumetric-based particle analysis techniques, like laser diffraction and light obscuration, but are clearly different. Dynamic imaging particle analysis allows you to see what's under the curve - both shape and size of your particles - providing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

FlowCam® Macro	
Particle Count	Yes
Concentration	Yes
Particle Size (ESD)	Yes
Measured Parameters	**Basic Shape Parameters:** Area, Aspect Ratio (width/length), Area Based Diameter (ABD), Equivalent Spherical Diameter (ESD), Length, Volume (ABD-based), Volume (ESD-based), Width **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 **Gray Scale and Color Measurements:** Average Blue, Average Green, Average Red, Edge Gradient, Intensity, Blue/Green Ratio, Red/Blue Ratio, Red/Green Ratio, Edge Gradient, Intensity, Sigma Intensity, Sum Intensity, Transparency
Particle Size Range	50µm to 5mm
Technology	Dynamic Imaging Particle Analysis
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, 2mm (deep) or 5mm (deep) flow cell
Flow Rate	Up to 1 liter/minute
Software	**VisualSpreadsheet® Software**: Patented Interactive Scattergram® (allows selecting of particles 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.

See What You've Been Missing... Request a FREE sample analysis.

Simply send us your fluid or dry sample, and we will provide:

- A Web-based interactive presentation of the results.
- Histograms and scattergrams showing the size and distribution of particles.
- An Excel spreadsheet with all the measurement data, including count, length, width, and ESD.
- Digital images of the cells and particles in your sample.



Manufactured spheres and defective particles imaged by the FlowCam Macro.

Call us at 207.289.3200 or submit your request on-line at www.fluidimaging.com.