



# FlowCam® Macro

#### FLOW IMAGING MICROSCOPY

Rapid analysis of large particles and zooplankton

#### Particle Analysis with Vision®

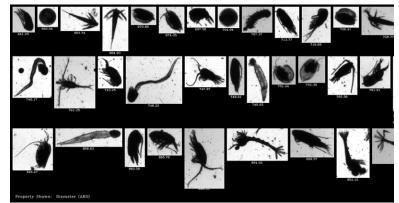
Extend your particle imaging capabilities from 300  $\mu$ m to 5 mm with FlowCam Macro for aquatic and environmental research and materials characterization.

Obtain detailed morphological data along with accurate counting and sizing measurements to enable differentiation of diverse zooplankton species and visible particle types.

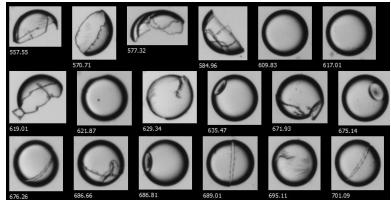
- Perform automated flow imaging microscopy for visible particle analysis
- Identify and enumerate zooplankton species in marine and freshwater environments
- Perform quality control of food and beverage ingredients
- Ensure product quality for advanced materials applications
- Measure a broad scope of morphological parameters for cross-validation of data

 $\checkmark$ 

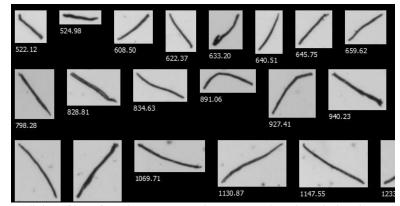
Recirculate sample volume to ensure that a representative population is measured



Zooplankton from a sample collected off the coast of Zanzibar



Polymer spheres showing various sphericities and malformations



Cellulose fibers from brown paper showing geodesic length distribution

### VisualSpreadsheet Software

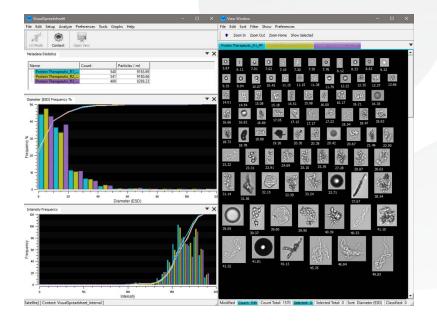


#### **Turning Data into Insight**

VisualSpreadsheet is a powerful, all-in-one software program capable of setting up methods, acquiring data, and processing images captured with FlowCam.

Analyze, sort, filter, group, and classify images based on 40+ morphology parameters and their combinations, or use the "Find Similar" function in the software to identify what is in your sample. Group data from multiple runs or samples for easy comparison.

VisualSpreadsheet offers an optional 21 CFR Part 11 compliance package.



#### World-Class Customer Service

Our customer service team is available to help with all things FlowCam, including:

- Technical Support
- Remote and On-Site Training
- Application Support



- IQ/OQ Services
- Preventative Maintenance
- Repairs and Upgrades

Maximize your FlowCam utilization with a full training package led by our experts – customized for your application. This hands-on, in-depth training provides a thorough understanding of flow imaging microscopy. Learn from our scientists how to run and analyze samples; and get a wealth of tips and tricks to get the most out of your instrument.

Every new instrument includes a one-year warranty, unlimited email and phone support, and one year of free access to FlowCam University training.

For continuous support we offer Gold or Silver service plans that include annual preventative maintenance services, software upgrades, access to virtual training, personalized remote support, and other benefits.

## Specifications

Specifications are subject to change without notice

PARTICLE SIZE RANGE	300 μm to 5 mm
MAGNIFICATION & FLOW CELLS	0.5X objective, 2 mm and 5 mm flow cells
SAMPLE PROCESSING CAPABILITY	Up to 750 mL/minute, flow through or recirculating
FLUIDICS	High-capacity industrial peristaltic pump
DATA ACQUISITION METHOD	Flow imaging microscopy, auto-imaging
CAMERA	High resolution (1920 x 1200 pixels), CMOS, monochrome
FRAME RATE	Shutter speed up to 100 frames per second
FOCUS METHOD	Manual
MEASURED PARAMETERS	<ul> <li>Basic Shape Parameters: Area, Aspect Ratio (width/length), Diameter (Spherical and Area-Based), Length, Volume (ABD-based), Volume (ESD-based), Width, 3 Biovolume Measurements</li> <li>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</li> <li>Gray Scale Measurements: Edge Gradient, Intensity, Sigma Intensity, Sum Intensity, Transparency</li> </ul>
DIMENSIONS & WEIGHT	36 cm wide x 43 cm deep x 38 cm tall, 27 kg (43 kg shipping weight)
POWER REQUIREMENTS	92 watt maximum