

YOKOGAWA 



## FlowCam<sup>®</sup> Macro

FLOW IMAGING MICROSCOPY

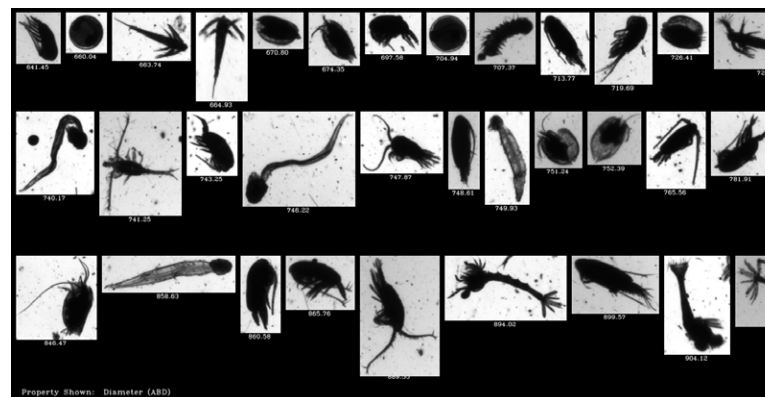
Rapid analysis of large particles and zooplankton

## Particle Analysis with Vision®

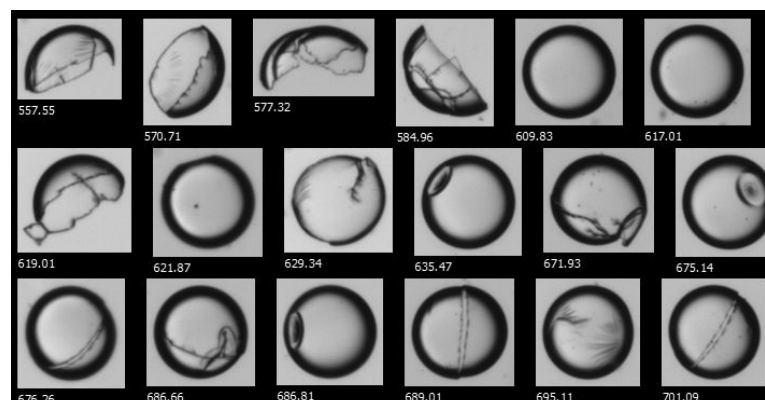
Extend your particle imaging capabilities from 300  $\mu\text{m}$  to 5 mm with FlowCam Macro for aquatic and environmental research and materials characterization.

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

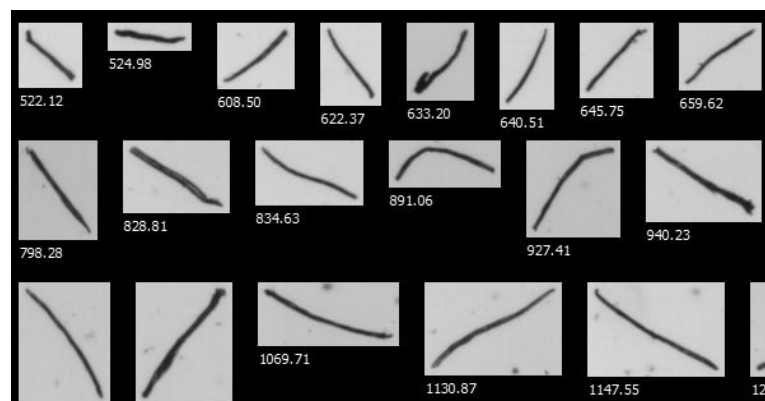
- ✓ Perform automated flow imaging microscopy for visible particle analysis
- ✓ Identify and enumerate zooplankton species in marine and freshwater environments
- ✓ Perform quality control of food and beverage ingredients
- ✓ Ensure product quality for advanced materials applications
- ✓ Measure a broad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

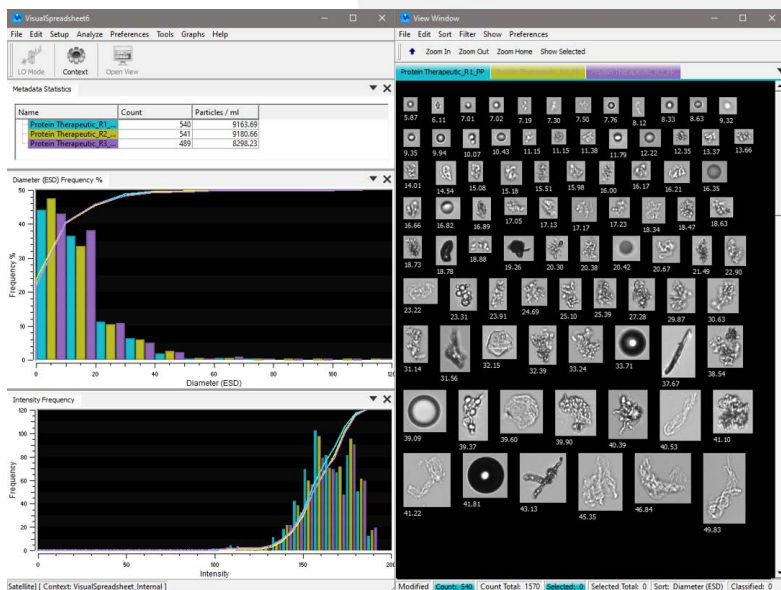


## Turning Data into Insight

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

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



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