FlowCam® 8000 IMAGING PARTICLE ANALYSIS SYSTEM

Flow Imaging Microscopy for Subvisible Particle Analysis

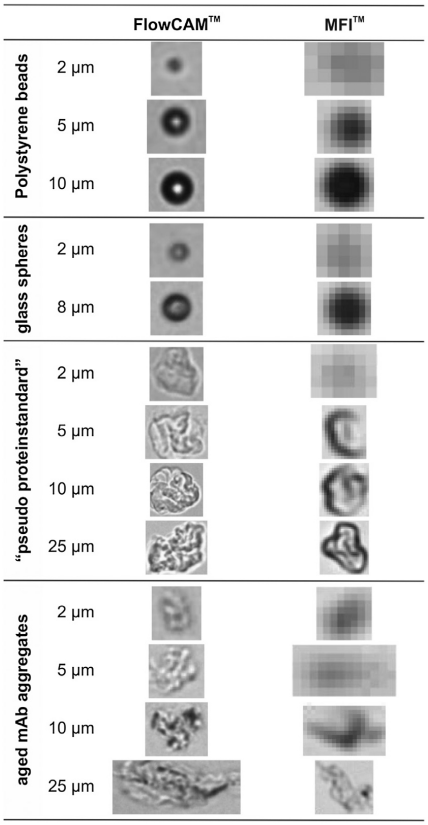
OVERVIEW

FlowCam® is an imaging particle analysis system that uses flow microscopy to image and analyze subvisible particles with diameters ranging from 1 µm to 600 µm. Simultaneously determine particle shape, type, and size distribution of all detectable particles in your solution.

- Minimum sample volume = 100 µl
- Advanced thresholding capabilities enable accurate analysis of translucent particles
- Auto-rinse and clean cycles prevent cross-contamination
- Typical analysis rate = 250 µl/min
- Compatible with FlowCam Automated Liquid Handling system

INDUSTRY-LEADING IMAGE QUALITY

Better image quality yields more accurate measurements



Reprinted from European Journal of Pharmaceutical Sciences 53 (2014) 95-108, Werk, Tobias, Volkin, David B., Mahler, Hanns-Christian, *Effect of solution properties on the counting and sizing of subvisible particle standards as measured by light obscuration and digital imaging methods*, with permission from Elsevier.

APPLICATIONS

Printer Toner
+
Abrasives
+
Cosmetics and Fragrances
+
Activated Sludge
+
Washwater
+
Column Packing Material

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FLOWCAM® 8000

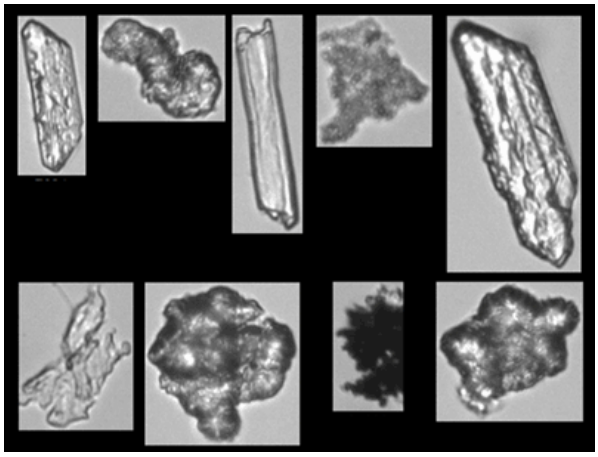
Flow Imaging Microscopy for Subvisible Particle Analysis

FlowCam 8000	
Particle Size Range	1 µm to 600 µm
Magnification & FlowCells	20X (~200X magnification), flow cell depth option: 50 µm Field-of-View (FOV) 10X (~100X magnification), flow cell depth option: 100 µm FOV 4X (~40X magnification), flow cell depth option: 300 µm and 600 µm FOV 2X (~20X magnification), flow cell depth: 1 mm FOV
Sample Processing Capability	0.05 mL/minute at 20X and up to 3mL/minute at 4X
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, 3 Biovolume Measurements 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 Fluorescence Detection & Measurements: Channel 1 Area, Channel 1 Peak, Channel 1 Width, Channel 2 Area, Channel 2 Peak, Channel 2 Width, Channel 2/Channel 1 Ratio 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
Camera	High resolution (1920x1200 pixels) CMOS. Monochrome and color available.
Frame Rate	Shutters up to 100 frames per second.
Fluidics	Micro-syringe pump with multiple sizes to optimize flow rates: 0.5 mL, 1 mL, 5 mL
Data Acquisition Method	FlowCam 8400 - fluorescence based laser triggering and auto imaging FlowCam 8100 - auto imaging
Fluorescence Emission & Detection	Excitation Options (488 nm, 532 nm, 633 nm) with 2-Channel Fluorescence Detection: - 488 nm laser - Ch 1: 650nm long pass / Ch 2: 525nm ± 15nm (FITC) - 532 nm laser - Ch 1: 650 long pass / Ch 2: 575nm ± 30nm (Phycoerythrine) - 633 nm laser- Ch 1: 700nm ± 10nm (Chlorophyll) / Ch 2: 650nm ± 10nm (Phycocyanin)
VisualSpreadsheet ®	Interactive, image-based analytical software that generates 40+ particle measurements per cell. Filter, sort, and classify data based on user-defined criteria. Create libraries to automate classification for future sample analyses.

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



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