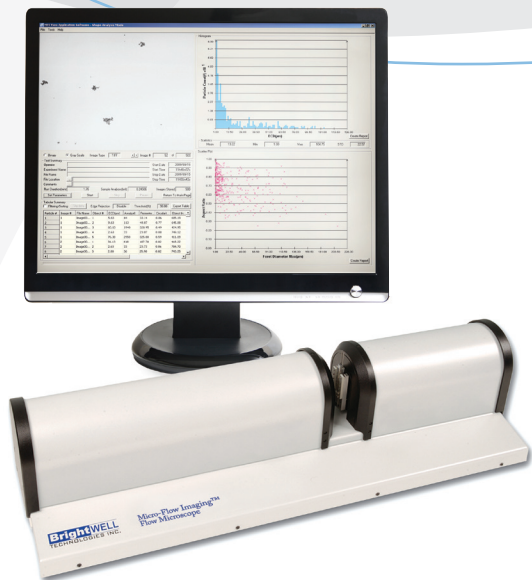




DPA 4200 Flow Microscope

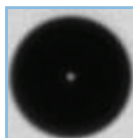
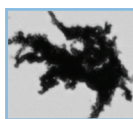
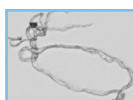
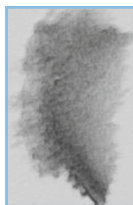
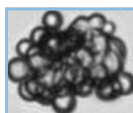


DPA 4200

The DPA 4200 is designed to deliver exceptional detection sensitivity and superior image quality in the sub-visible particle size range. Micro-Flow Imaging™ (MFI) technology is used to rapidly measure particle size, count/concentration, and morphology. Filters based on morphological parameters are easily generated for the purposes of particle classification/selective reporting, and images of each individual particle are stored for reference purposes.

Instrument Features

- Particle Count/Concentration, Size, and Morphology in a single instrument.
- 100µm depth of field/flow cell depth, optimized for analysis of sub-visible particles.
- Rapid analysis.
- Minimal sample volume; pipette or syringe introduction.
- Highly repeatable and reproducible results.
- Exceptional sensitivity to aggregate formation.
- Particle classification/selective reporting.
- MFI View Analysis Suite for advanced diagnostics and filter development.
- Validation-ready for QA/QC applications.



Applications Include:

Cell Culture/Purification

- Cell culture growth/characterization.
- Protein crystallization process monitoring.
- Purification/filtering particle loading.

Formulation Development/Scale Up

- Compliance to regulatory requirements for characterization of proteinaceous particles 1–10µm.
- Formulation stability studies and aggregation mechanism research.
- Silicone oil droplet isolation and enumeration.
- Carrier/API size distribution and outlier detection.

Fill & Finish, QA/QC

- Release and stability protocol for proteinaceous particles 1–10µm.
- Foreign contaminant detection and classification.
- Early detection of stability-related particle formation.

DPA4200 Specifications

Parameter	DPA4200
Size Range	1µm to 70µm
Depth of Field/Flow Cell Depth	100µm
Chart Formats	Histograms, Scatterplots, Trend Charts
Chart Parameters	Particle Count, Concentration, Mass, Volume
Maximum Concentration (@ 2.5µm)	900,000 particles/ml
Analysis Rate	150µl/min
Sample Analyzed/Vol Dispensed	85%
Minimum Sample Volume	<500µl
Sample Vessels Supported—Pipette Tip	1ml, 5ml
Sample Vessels Supported—Syringe Barrel	2ml, 10ml, 20ml
Precision Stirrer System	Variable RPM Control 200 to 2,000 (Optional)
BD Hypak™ Syringe Introduction Adaptor	1ml, 2ml (Optional)
Pixel Density	1280×1024
Pixel Bit Depth	10 bit
Image Format	Compressed JPG
Morphological Parameters	<ul style="list-style-type: none"> ▪ Size (Equivalent Circular Diameter or ECD) ▪ Maximum Feret Diameter (Max Chord Length) ▪ Aspect Ratio ▪ Circularity ▪ Area ▪ Perimeter ▪ Intensity (Mean, Mode, and Std. Dev.) ▪ Other parameters available upon request
MFI View Analysis Suite	Advanced diagnostics and morphological parameter filter development tool (Optional)
21 CFR Part 11 Compliance	Available
Software Features	<ul style="list-style-type: none"> ▪ Secure Login and Password access ▪ Define User Groups with custom permissions ▪ Pre-define Methods for Sample Analysis ▪ Software wizards for common functions ▪ Real-time display of particles ▪ Configurable reports including histograms and scatterplots ▪ View full Image Frames and individual Particle Images ▪ Morphological parameter filtering/sorting ▪ User friendly report formats (storage, exporting, printing)

Specifications are subject to change without notice. Values shown are typical.

Actual results will depend on sample type and operating conditions.

E.&O.E. Sep, 2009

On-site demonstrations and trials are available.
Please visit our website at www.brightwelltech.com.



Brightwell Technologies Inc.
 115 Terence Matthews Cr.
 Ottawa, ON, Canada K2M 2B2

Tel: +1.613.591.7715
 Fax: +1.613.591.7716
 Web Site: www.brightwelltech.com