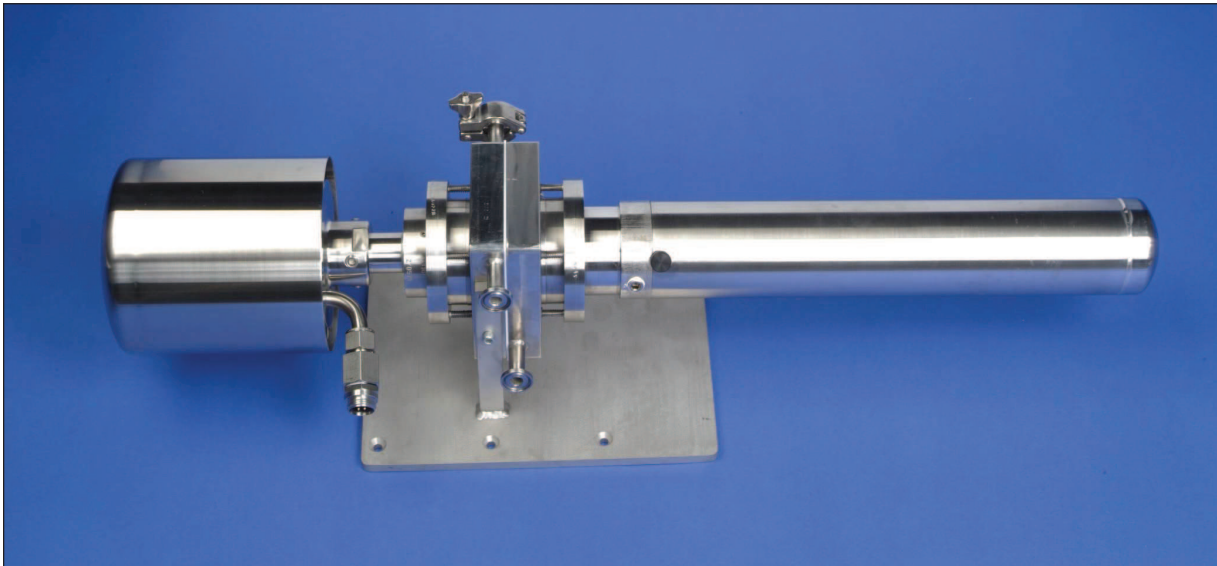


## PROCESS TECHNOLOGY

# MICROFLOW™ PARTICLE SIZING SYSTEM



## THE CANTY ADVANTAGE

The Canty MICROFLOW™ has been engineered to offer the user a means by which a liquid is analyzed while under varying pressures, temperatures and flow rates. The MICROFLOW™ offers sample or continuous, microscopic, non-destructive viewing and provides particle size analysis with two dimensional results when used in conjunction with the Canty Vector System and CANTYVISIONCLIENT™ software. The vision system, with integral lighting, features precision optics designed to enhance the image prior to display or analysis. The image sensor is a high resolution / high speed CCD camera coupled to a microscopic lens system. The system offers zoom and focus ability, variable lighting, and multiple objective lens packages to cover a range of sizes. Our MICROFLOW™ features the FUSEVIEW™ window as the product contact barrier. Unique fused glass windows far exceed all other glass windows in safety and performance. The fused glass provides a flush finish, without the pocketing found in other mechanical seals which disturb the flow pattern and particle distribution and can damage or deform particles.

## APPLICATIONS

- Bio-Tech Cell Growth, Count and Characterization
- Crystal Growth Analysis
- Polymer Bead Growth and Shape Analysis
- Mining and Aggregate Particle Size
- Centrifuge Effluent and Screen Break Detection
- In-Line Particle Size for Process Control
- Gel, Emulsion and Bubble Classifier
- Micro-Reactor Analysis- Dual Inputs and Flush Loop with Sanitary Connections
- Percent Solids / Turbidity
- End Product Quality Control and Lot Certification
- Replace Laser and Sieve with Two Dimensional Distribution by Shape

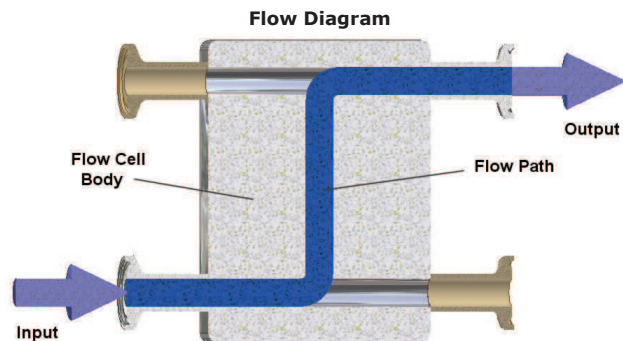
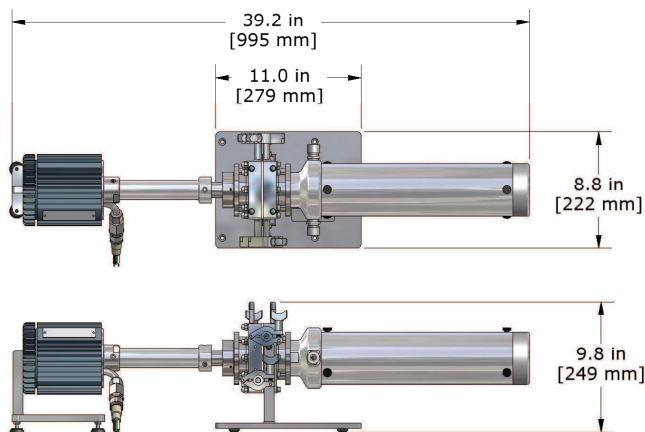
## FEATURES

- Particle Size, Shape and Distribution with Real Time Analysis
- Fused Glass Pressure Barrier Standard
- Rated 150 PSI @ 500 Deg. F., Options through 6,000 PSI.
- On-Line or Lab Plus (remote control)
- Adjustable Gap Option
- Seamless Design. Unit Can Be Orientated Horizontal or Vertical
- On-Line Dilution Port
- Instantaneous Mixing Port
- Regulated Temperature Option
- Bypass Loop Option Available for Flow Control
- ½ Inch Sanitary Connections Standard

## PARTICLE SIZE ANALYSIS

- Replaces and Correlates to Screen Analysis
- Distribution By Major, Minor Diameter
- Visually Verifiable Results Via Live Images
- Particle Area
- Histogram Distributions - Bin Size
- Percent Passing by Volume vs. Size
- Particle Perimeter
- Full EXCEL datalogging
- Many Library Functions

## DIMENSIONAL INFORMATION



## Ordering Information

HOW TO ORDER: Select the appropriate symbols and build a part number as shown:

### EXAMPLE:

**MIC-L A 1 K 5 A 1 3 1 A Z**

<b>CONNECTION TYPE</b>			<b>INTERNAL SEAL MATERIAL</b>		
L - Laminar Flow with 1/2" Sanitary Connections			A - VITON®      D - SILICONE		
T - Laminar Flow with 1/2" Tube Connections			B - BUNA        E - KALREZ®		
<b>VIDEO SYSTEM FORMAT</b>			<b>THERMAL REGULATION</b>		
A - EIA (U.S. B&W) 640 x 480			1 - NONE		
B - NTSC (U.S. Color) 640 x 480			2 - Internal Thermal Heat Exchange Flow Path 3/8" O.D. Tubing Connection		
C - CCIR (European B&W) 768 x 576			3 - Thermal Well for 3/16" Diameter Rod Heating Elements (Elements not Included)		
D - PAL (European Color) 768 x 576					
E - Ethernet (Color) 650 x 490					
F - Ethernet (B&W) 650 x 490					
G - Gigabit Ethernet (B&W) 1600 x 1200					
H - Gigabit Ethernet (Color) 1600 x 1200					
<b>ENVIRONMENTAL RATING</b>			<b>FLOW PATH SPACING CONTROL (GASKET TEFLON®)</b>		
1 - Lab Unit (General Purpose Enclosure)			1 - Variable Gap(5µm-3,175µm), Adjustable with Sample Present		
2 - NEMA 4 Weatherproof, IP 66			2 - Fixed Gap (3,175µm), 2" Wide Cell Width		
3 - Lab Plus (Ethernet Remote Control)			3 - Fixed Gap (3,175 µm), Venturi Shape Centering Cell Width		
4 - Explosion Proof (U.S. 120V) or Flame Proof (Europe 230V)			4 - Fixed Gap (3,175 µm), 1/2" Wide Cell Width		
<b>SYSTEM ILLUMINATION</b>			For options 2, 3 & 4 - 100µm, 200µm, 500µm, 1000µm & 1500µm thick gaskets are also available. Consult factory for part numbers.		
K - Backlight			<b>WETTED METAL MATERIAL</b>		
L - Darkfield			1 - 316L Stainless Steel		
M - Cross Polarized			2 - Hastelloy® C276 or equal		
N - Amplified / Focused			3 - Hastelloy® C-22® or equal		
P - Phase Contrast			<b>INPUT POWER</b>		
Q - Front & Backlight			A - 120 V AC / 60Hz / 250W		
When picking options K, L, or M, all three are included and the selected option will be factory installed.			B - 230 V AC / 50Hz / 250W		
<b>PARTICLE SIZE RANGE</b>					
	<b>P.S. View</b>	<b>P.S. Measure</b>	<b>Pixel Array</b>		
1 -	(.2µm* - 2400µm)	(.4µm*-480µm)	@ 1600x1200		
2 -	(.3µm* - 3400µm)	(.6µm*-680µm)	@ 1600x1200		
3 -	(.4µm*- 2,175µm)	(1µm - 435µm)	@ 650x490		
4 -	(.6µm*- 3,075µm)	(1.5µm - 615µm)	@ 650x490		
5 -	(.5µm*- 2,175µm)	(1.5µm - 435µm)	@ 640x480/768 x 576		
6 -	(.8µm - 3,075µm)	(2.0µm - 615µm)	@ 640x480/768 x 576		
When picking options [1 or 2], [3 or 4], [5 or 6], the system includes a second lens for the other range in the bracket as well. The selected option will be factory installed. For larger sizes, please refer to the MACROFLOW™ sheet, TA10491-100.					

## SPECIFICATIONS

- Shutter Speed: Variable Up To 1/100,000 sec
  - Weatherproof Seals on Camera and Light Source
  - \* Verify Required Wavelength of Light for Application.
- Visible Light Allows for Particles .7 Micron(µm) and Larger.

- 1/2 inch flow connections (two in and two out, with two plugs)
- Optional Laboratory Flow Loop Steel Sample Feed

**CANTY**

JM Canty Inc  
JM Canty Intl Ltd

Buffalo, NY USA  
Dublin, Ireland

Ph: (716) 625 4227  
Ph: +353 (01) 882 9621

Fax: (716) 625 4228  
Fax: +353 (01) 882 9622