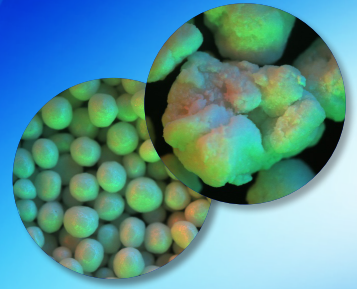




Eyecon²™

Direct Imaging Particle Analyzer



The Eyecon²™ is the leading choice for digital imaging particle analysis. Using a flash-imaging technique, the Eyecon² is able to emit extremely short light-pulses to illuminate moving particles for image capture. For the most accurate detection possible, Red, Green and Blue LEDs are used to illuminate the sample from multiple angles. The measurement process is simple. Each particle is initially identified, a best-fit ellipse is calculated, the major & minor diameters are computed, and the PSD/D-values are determined.

Measurements that require non-product contact can be determined thanks to a unique, hands-off approach. The Eyecon² only needs to see the particles without needing to physically handle them. This advantage allows for easy adaptation into any industry that requires particle measurements within the size range of 50 - 5500 μm. The Eyecon² is already a market-leader throughout the fields of Research & Development (QbD/DoE/CP/CQA), Scale up, Tech transfer, and Manufacturing in both Batch & Continuous.



Fluidized bed coating (e.g. Wurster) can be achieved through the use of the in-line, real-time particle size measurement and dissolution prediction. In addition, Twin-screw continuous wet granulation can be run for real-time measurement, capturing its importance, and characterizing dynamic periods. These and other methods have been tested across the globe with impressive results.

Reduced cycle time, increased yields

- Tried and tested through installations around the world on Fluidised Bed Coating (e.g Wurster), Fluidised bed Granulation/Drying, Twin Screw Granulation, Dry Granulation/Roller Compaction, Extrusion Spheronisation, Milling, Blending, and product transfer process equipment.
- Uses direct imaging processed in real-time, with ellipses fitted to each particle's boundary, shape and size reported back, highlighting variations.
- Continuous monitoring of processes critical quality attributes (CQAs) delivers sufficient understanding to devise a data-driven control strategy.
- Can be used both in-line and at-line/benchtop for at-line/benchtop measurement of manufacturing processes in real-time.
- Non-product contact to ensure proper measurements every time.

Specifications

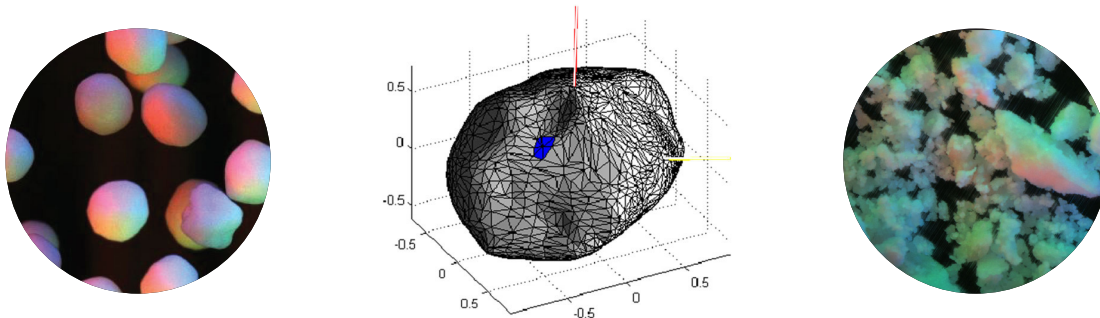
Measurement	
Size Range	50 - 5500 μm
Principle Measurement Method (non-product contact)	Direct Imaging
Size Measurement Data	D10, D25, D50, D75, D90 in numeric and volumetric with Mean and Median values all trended in real time with live histogram and S-curve results. Includes process deviation alarm.
Shape Measurement Data	Eccentricity Average, Eccentricity RSD, Range 0-1
Exportable Data	PDF report of recording session, CSV file with data on every image analysed with full PSD from D5-D95, captured images exportable as JPEG.
Data Processing	EyePASS™ real time particle analysis software installed on a dedicated IPC/PC/Laptop with Windows 10.
Measurement Time	~5 seconds per image
Material Speed (max.)	≈ 10 m/sec

Imaging	
Illumination source	12x3 High intensity, low energy RGB LEDs
Image Area	11.25 mm x 11.25 mm
Pixel Size	5.5 μm x 5.5 μm
Resolution	2046 px x 2046 px
Sensor	CMOS

Physical	
Dimensions & Weight	250 x 128 x 132 mm (4 kg)
Power	230VAC @ 50HZ / 110VAC @ 60HZ
Casing Materials	304 Stainless steel, Glass window, Silicon gaskets

Software	
GMP	EyePASS is both 21 CFR part 11 & GAMP5 Compliant
Communications	EyePASS is Open Platform Communications compatible with OPC UA & OPC DA 3

Conformance & Certifications	
CE Marking	EU declaration of conformity
ATEX Certified	The Eyecon ₂ is suitable for ATEX zones 2/22, IP65.
IECX Certs	International Electrotechnical Commission Explosive Standards certification available upon request.



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