



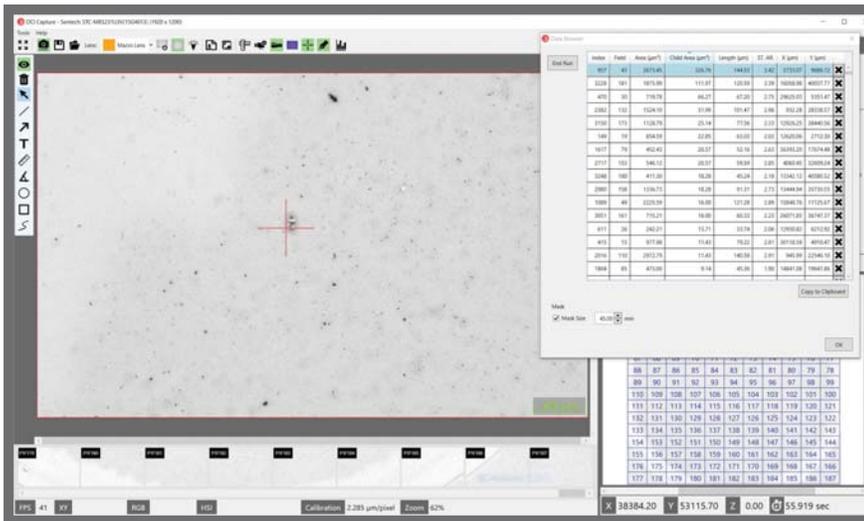
SOLUTIONS TO MICROSCOPY IMAGING

DCI PSA

DCI PSA system is a static Image Analysis Particle Size Analyzer capable of measuring in one pass a very wide size range of particles from 10.0 μm to 10 000 μm (10.0 mm). The instrument principle is to scan a full sample of up to 80 x 80 mm and create a single seamless image from the 500 independent images acquired. Measuring a single large mosaic made of several images eliminates edge errors and assures accurate measurement of large particles that could occupy several image Fields. Thus, particles or fibers of 10 000 microns or more may be quantified at the same time as tiny as 10 μm particles.

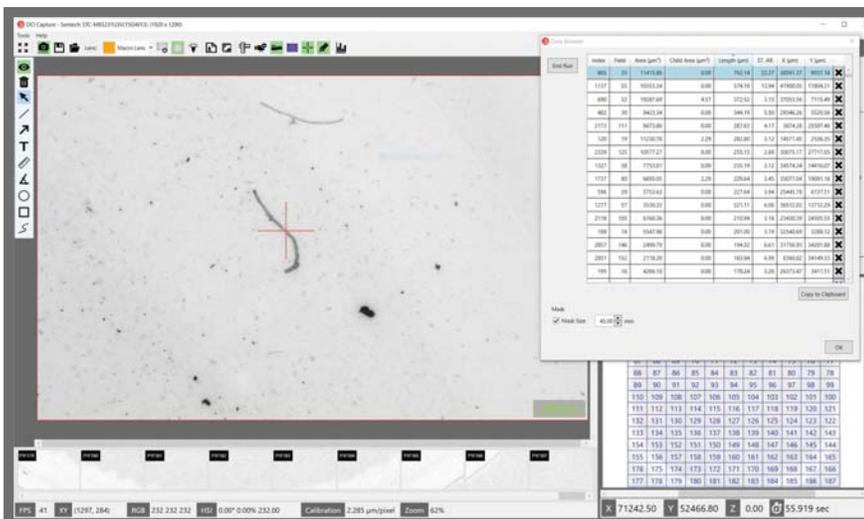
Description:

DCI PSA instrument is mainly aimed at the “Contaminants assessment” market of 47.0 mm membrane filter applications (Paper or Synthetic) as per International Standards (ISO 16232, ISO 4406, VDA19 and others). Typical analysis time for a 47 mm Filter is 80 seconds. However, the instrument can be used for any other reflected light Particle Sizing application of 10.0 µm and above.



Metallic particles detection:

DCI PSA is able to detect metallic particles from non-metallic ones through advanced image analysis functions.



Sort measured objects from morphological and size characteristics:

Easily review your data based on the characteristics you chose to measure, ensuring quick and easy data validation.



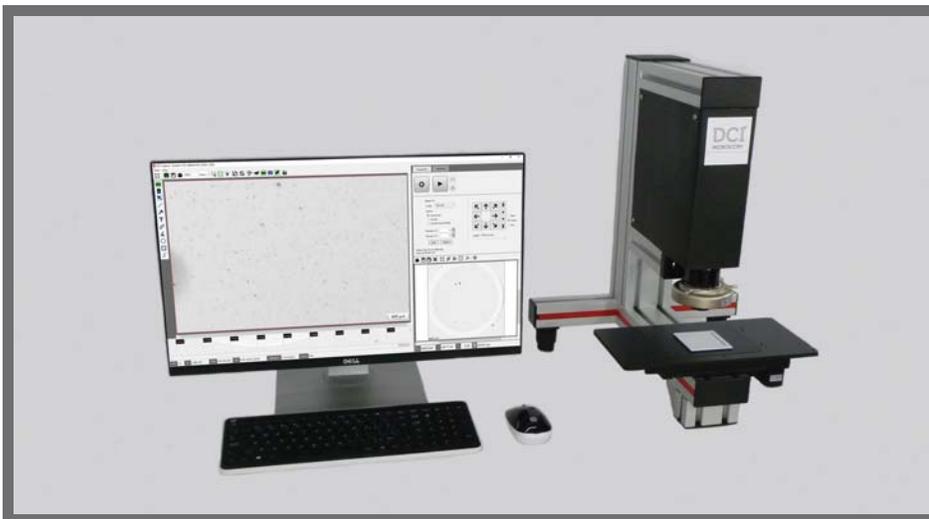
Mosaic analysis

The entirety of the filter is analyzed as a whole. No need to worry about measurement problems resulting from image frame edges.



Measure everything in a single analysis

Measuring the whole filter in a single analysis allows to characterize a very wide distribution of particles (14mm in the shown image, along with 15 µm particles)



Ease of use:

DCI PSA design was focused on the ease of use. Therefore, it is much simpler to operate than a traditional microscope or stereoscope based system.

Software Specifications:

Fast scanning of sample at 15 mm/second, continuous mode, non-stop.

Automatic construction of a seamless mosaic of up to 600 Mono images (200 Color images) of 1920x1200 pixels each

Shading corrector function eliminating any illumination unevenness on images.

Automatic seamless stitching of up to 20% overlap.

Auto-Expose mode assuring constant illumination for all samples.

Measurement of several parameters at once, Area, Length, String Ratio, XY coordinates.

Automatic Data Export and Report generation.

Hardware Specifications:

High precision optical Macroscope with magnification of 50X. (2.0 micron/pixel)

USB3 Fast Frame (45 FPS) Mono CCD camera of 1920 x 1200 pixels.

Fast and high precision motorized stage of 100x100 mm Travel range.

XY Stage controller with micro steps capabilities hidden in computer (PCIe)

75x50 mm Slide holder for Paper Filter or slides handling and fixation.

High Quality Intel i5 based computer with 16 GB RAM, USB3 Ports.

High Resolution Monitor of 1900 x 1024 pixels' resolution.

Simple Workflow:



1- Capture



2- Measure



3- Validate results



4- Share