Filtrex System Features & Specifications

Filtrex System & Software

Automatic large particle connectivity over multiple fields

Easy verification of particles with automatic highlighting of particles of interest with instant move to each one in turn

Assured accuracy with ability to interactively link 'broken' particles/fibers

Perfect reporting with definition of washing volume or surface area of parts

Thorough analysis with the inclusion of every particle, even on the circular edges of the filtered area

Results and reports made easy with automatic re-sorting of raw data into particle classification tables – no need to download and write Excel macros

Quick and totally accurate setup with automatic detection of calibration graticule lines.

Unique, simple and fast three point camera/stage alignment facility

Hugely increased particle size accuracy with the world's fastest autofocus at regular field intervals compensates for filter height variability

Full confidence in the system with moving overlay of detected particles with image

Save time on every filter with the unique and easy three point auto-centered filter scan setup

High precision adjacent field mapping and edge correction algorithm

Customizable counting table with particle counting according to their length

Statistical processing (Minimum, Maximum, Mean, Standard deviation)

Live update of scanning map and particle count table

Sample setup dialogs permitting entry of liquid volume/part surface area

Unique, powerful particle detection and clump separation algorithms

Simultaneous display of the real digital image, the measurements and the graphs

Correction of uneven lighting & contrast improvement (manual and/or automatic)

Automatic thresholding (fixed, relative, adaptative, and color - with dark shades, bright shades, dark and bright shades, and intermediate shades selections), filtering (standard and macro) and splitting of the particles with interactive editing

Images can be saved in TIFF, BMP or JPEG

Result file exportable to standard applications as .txt (for spreadsheets) or .pdf

Very easy to use context sensitive software interface

Full, tested compliance with ISO standard 16232

Filtrex System & Hardware

Camera - C-mount, color, 2/3” progressive scan CCD, 1392x1040 resolution, 15 frames per second

Optics - Motorized stepper motor zoom with feedback to software for selection and automatic calibration, motorized focus control with integration for software control, resolving power for particles greater than or equal to 5 microns

Motorized Stage - 100mm x 100mm motorized stepper motor stage with repeatability of less than one micron, manual movement knobs for X and Y, PCI stage controller card for software interface and control, three axis joystick (X,Y and Z) with adjustable speed via sensitivity button and LED feedback, custom sample holders available upon request for 4 & 6 bolt stainless steel high pressure filter units, Millipore petrislides, as well as 37mm & 47mm plastic filter holders

Lighting - Incident ringlight via eight fiber optic light guides with adjustable angle and DC regulated light source, 150W EKE bulb, built-in iris diaphragm

Stand - Completely integrated with mounting for all components (camera & optics, stage, light source, and ringlight) and allowing full position adjustment for all of those same components, four vibration damping feet. Or microscope.

PC - dedicated computer with 24 inch flat screen LCD monitor with 1920x1200 resolution, CD & DVD burner, 250GB hard disk, 2GB RAM, Windows XP Professional, 256 MB High performance graphics card, ROHS compliant