

Introduction

The system simply called „Filters“ is aimed at analysing the cleanliness of filters according to the international standard ISO 16232. The main advantages are reproducible measurement and accuracy, stability, and reliability of the system.

Filter Analysis

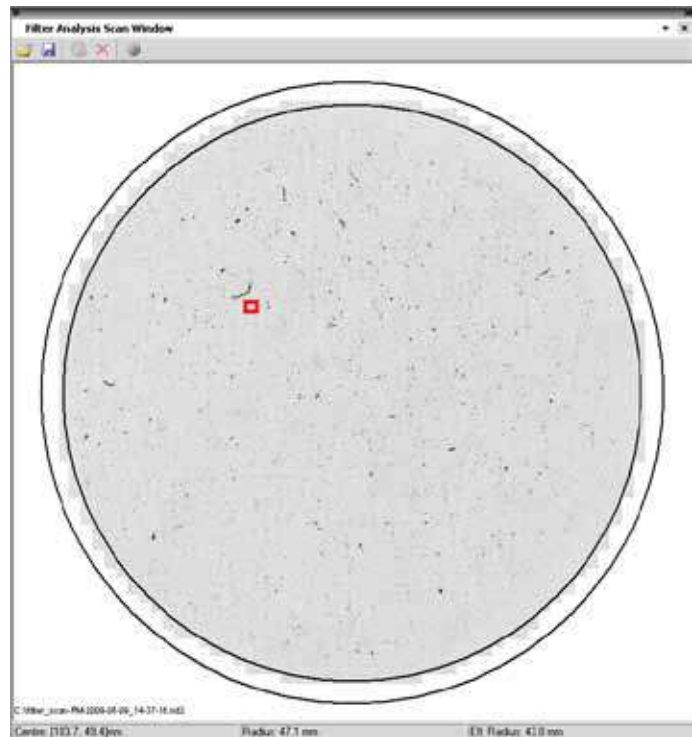
Measurement is performed in two phases. During the first phase - virtualization of the filter, the system scans automatically the whole filter and saves the image on the hard drive. In the second phase the virtual filter image is opened and measured. The phases are independent on each other and can be performed either on one, or two computers. Virtual images of the filters can be easily archived in electronic form, of course.

Feature Highlights

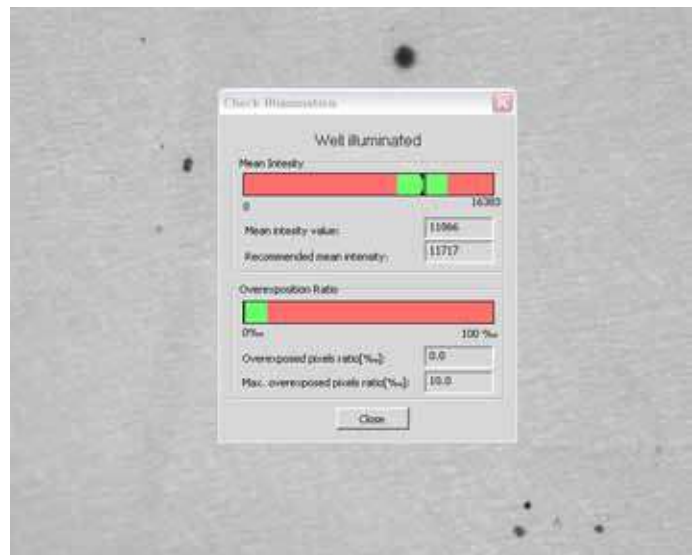
- Scanning and measuring of the filters is automatically controlled using a PC.
- The operator has at any time full control over the system - can pause the measurement, check the parameters and progress of the detection.
- Operating the system in the basic mode is easy and well-arranged.
- Use the tools provided in the advanced mode for extended image analysis which exceeds the methods given by the standard (e.g. moving the stage to the largest detected particles and their examination, extending the set of measured parameters and much more).
- Uneven surface of the filter is compensated using several methods of focusing.

Reliability

The system automatically checks the system setting. When the calibration or detection data differs from the values set by the administrator, the operator is automatically alerted. The filter is fully digitalized - saved to the disk along with information about calibration, size, and other features. So you have the option of backwards control - you can remeasure the filter anytime in the future.



Overview of the whole filter, currently grabbed image is highlighted



Automatic Illumination Control

Reports

The reports are designed to meet all requirements of ISO standard.

Due to large variability of the tools for creating reports, the output reports can be modified to suit different needs: for example to ensure compliance with customer's corporate standards.

Take advantage of these options when creating a report:

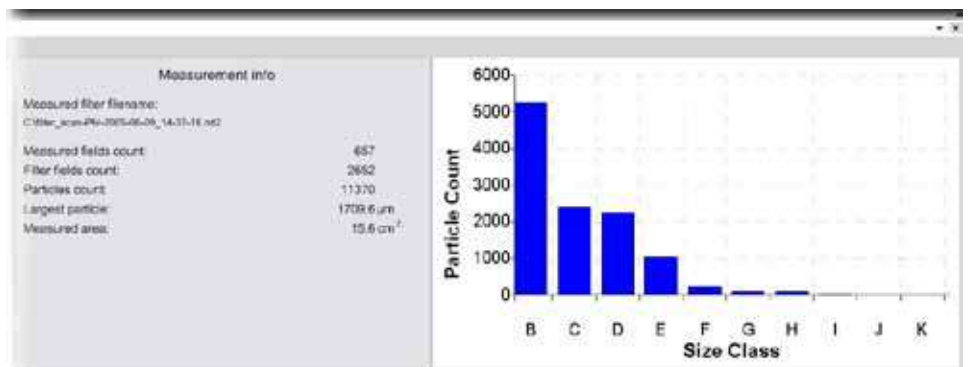
- Setting the range of measured classes
- Creating custom classes
- Cumulative statistics
- Automatic data insertion
- Direct data export to MS Excel
- Catalogue of all detected particles
- Ability to sort the particles according to their size
- You can inspect the selected particle directly under the microscope as the system remembers its position.
- You can manually delete inappropriately detected particles (artefacts). This operation is reversible.
- Insertion of an arbitrary image - corporate logo, image of the filter, etc.



An example of generated report

System Specifications

- Nikon microscope with incident illumination (matched to customer requirements)
- high resolution monochrome camera
- XY motorized stage
- motorized focusing control
- PC with software for filter analysis (Laboratory Imaging)



Final Measurement Statistics

