FILTERS

USAGE

The image analysis system simply called "Filters" is aimed at analysing the cleanliness of filters according to the ISO 16232 and ISO 4406 international standards.

FEATURE HIGHLIGHTS

- The main advantages are reproducible measurement and accuracy, stability, and reliability of the system.
- Scanning and measuring of the filters is automatically controlled through 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.

FILTER ANALYSIS

The system automatically scans and analyzes filters. The method follows the international standard ISO 16232/4406 and is usually performed in three steps:

- Virtualization -The system automatically scans the whole filter and saves its image on the hard drive.
- The virtualized (scanned) filter is opened int the software and measured.
- A report is made containing results of the measurement.

The virtualization and measurement phases are independent and can be - if needed - performed on two separate computers. Virtualized filters can be easily archived in electronic form. The user can inspect all detected particles lucidly listed in a catalogue.
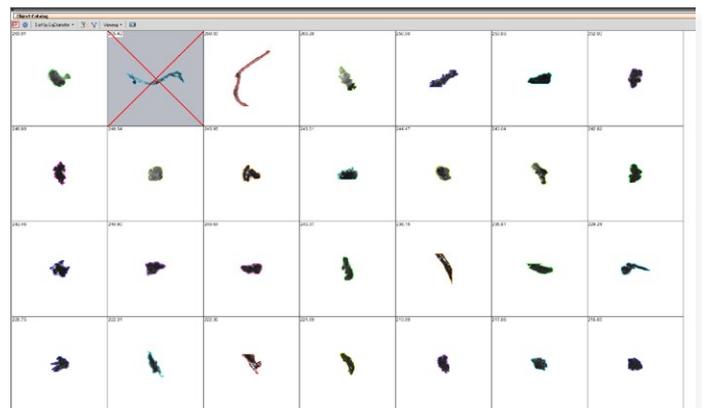
RELIABILITY

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.
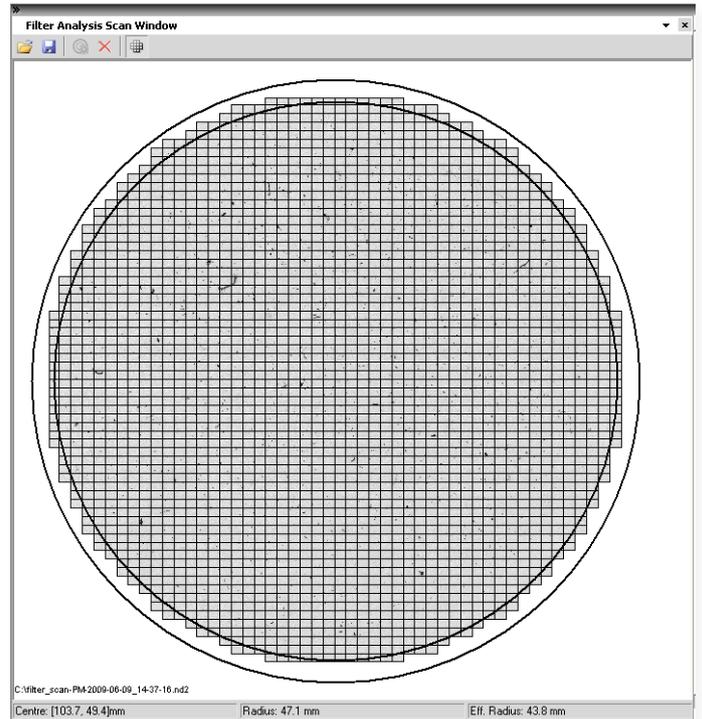
A preview of a filter with the grid of fields to be scanned

Catalogue of objects found on the filter

REPORTS

Thanks 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 your corporate standards. By default, the reports are designed to meet all requirements of ISO standard.

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.

Final report

SYSTEM SPECIFICATION

- 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)

Measurement Statistics