Technical Cleanliness Analysis System

dhs-Cleanalyzer® Scan

Industry increasingly requires proof of the degree of cleanliness of components.
High demands in terms of function, quality and service life of the products call for

- efficient, environmentally-friendly cleaning
- Reliable, reproducible cleanliness analysis
- Documentation of all analysis results

dhs Solution offers a complete analysis systems for this: the dhs-Cleanalyzer®

All systems consists of hardware components, for optical inspection of filters on which all of the particles are collected, and our software which

- analyse
- categorise
- typify
- detect and evaluate

all particles according to national and international standards, such as VDA Vol. 19.1/2, EN ISO 16232, EN ISO 4406, SAE AS 4059 etc.

dhs-Cleanalyzer® Scan
For evaluating **particles from 50 µm**.
Inexpensive entry-level system that can be easily upgraded later with other optical components .

High-quality flatbed scanner in combination with the cleanliness analysis software from dhs – including anodized aluminium plate with matching section to insert the slide frames or particle traps.

Use of the aluminium plate offers optimised distance between the slide frame and scanning unit of the scanner and hence improved image focus (visibility of the particle contours).
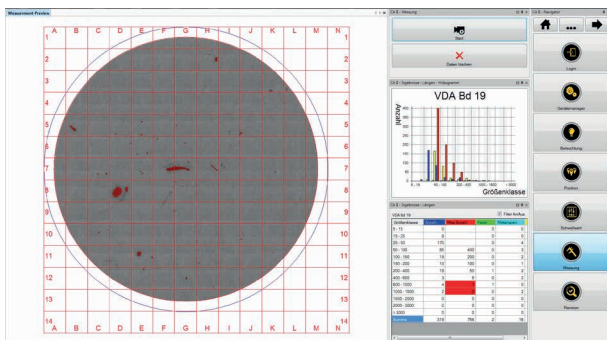
Information in the overview

- **Simple operation** with automatic sequences in managed routines, quick and flexible (= easy to learn)
- **Immediate control** of the results, you can go directly to particles that are detected
- **Determination of** geometric and reflection parameters to specify **particles**, such as **metallic /non-metallic, fibres, etc.**
- **Direct connection** to high-quality imaging package **dhs Image Data Base** (= structured long-term archiving and **generation of reports** at the press of a button)
- Project-relatet **trend analyses** with long-term evaluations possible
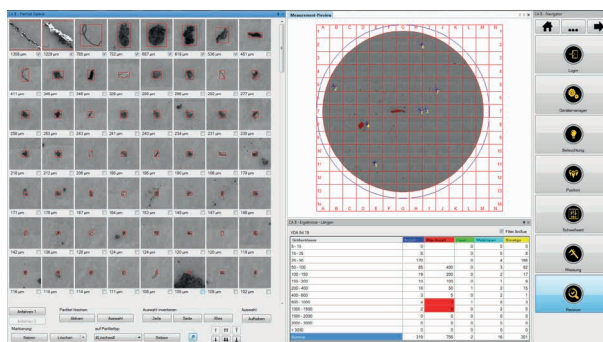- **Calculating the Illig value** for analysing particle traps

Cleanliness Analysis Software

Intuitively operated analysis software, standard for all dhs-Cleanalyzer variants **(English / German)**. **Easy to learn operating routines** arranged in logical sequences, detailed measured value presentation in tables and diagrams. Comprehensive **preclassifiers** can be **adjusted**

- Calculation of the standardised fibre criterion (devel oped length / maximum inscribed circle)
- Calculation of the coverage density as a percentage
- Option of combining incorrectly separated particles through erosion/dilation (useful for devices without polarisation)

- Determination of colour features for further characterisation of residual contaminants
- Clone assistant – tool for automated reproducible microscopy (option of recreating measuring conditions/ device settings)
- Support for multi-filter analysis (fully automated analysis of multiple filters within a measuring cycle)
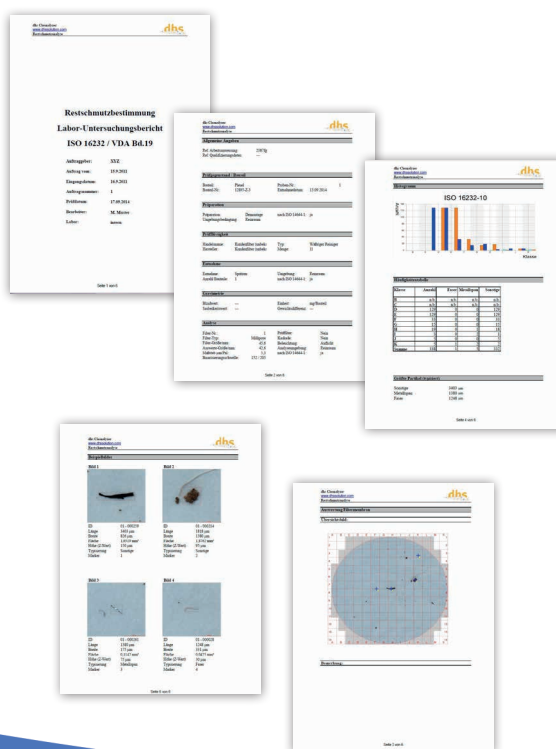- Supports different filter shapes (circular, rectangular)

- Visualisation of all particles by means of a gallery view

Adequate reports at the end of the workflow

All **data,** images, analysis values and statistics **can be exported** to the **dhs Image Data Base** with **a mouse click** for **long-term archiving** and for **reporting.**

Our dhs-Service contract includes annual equipment maintenance and calibration as well as software-updates! Base sets for cleaning and extraction are availabe on request.

dhs Dietermann & Heuser Solution GmbH

Herborner Str. 50

35753 Greifenstein-Beilstein

GERMANY

Phone: +49 (0)27 79 91 20-0

Fax: +49 (0)27 79 91 20-99

Email: vertrieb@dhssolution.com

Web: www.dhssolution.com

dhs
Image Data Base

dhs®
MicroCam

dhs
Cleanalyzer