

dhs-Cleanalyzer® Professional



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 system for this: the **dhs-Cleanalyzer® Professional 15µm**

The Fully automatic system for higher volume of samples consists of

- high quality **zoom optics**
- automatic **LED / POL lighting**
- **motorized table**
- **automatic focus, incl. levelling system**

for quick and precise scanning of the filters.

With the integrated software all particles can be

- analyse
- categorise
- typify
- detect and evaluate

optically.

All particles are evaluated according to national and international standards, such as

- VDA Vol. 19.1/2
- EN ISO 16232
- EN ISO 4406
- SAE AS 4059 etc.



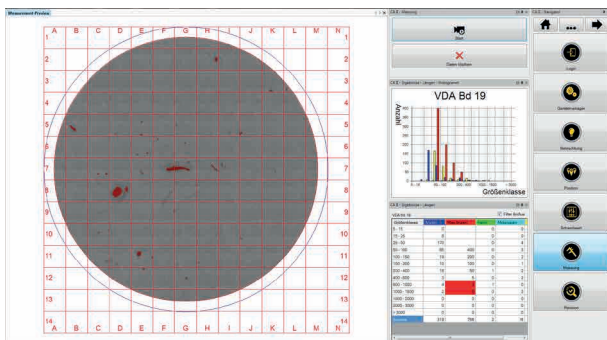
Information in the overview

- **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-related **trend analyses** with long-term evaluations possible
- **Calculating the Illig value** for analysing particle traps

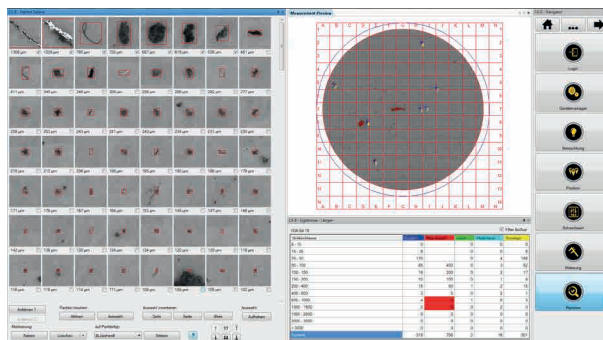
Cleanliness Analysis Software

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)

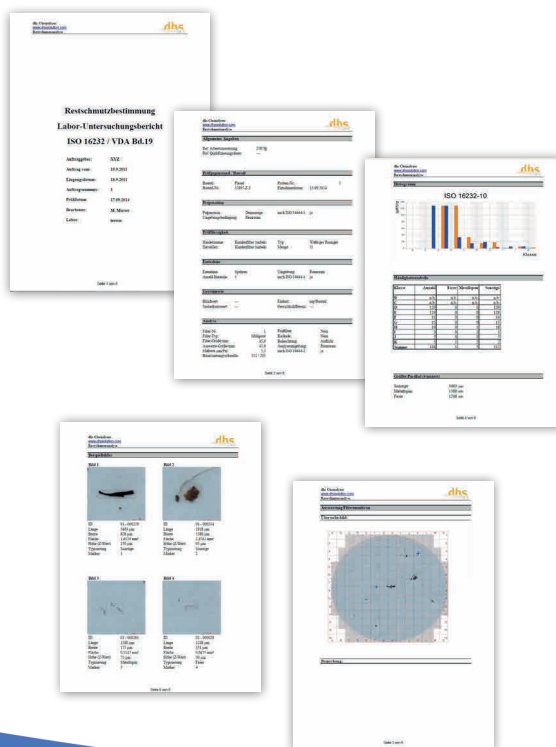


- Visualisation of all particles by means of a gallery view

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 available on request.



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dhs
Image Data Base

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Micro Cam

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Cleanalyzer

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