

CLEAPART-100

(Particle Deposition Rate Monitoring device)

*Representative
Contamination
Monitor*

- **Passive detection (fully representative)**
- **100 cm² collection surface**
- **Self-calibration**
- **In-situ measurement**
- **Particles size classification**
- **Obscuration factor**
- **Cleanroom suitability**

CLEAPART-100

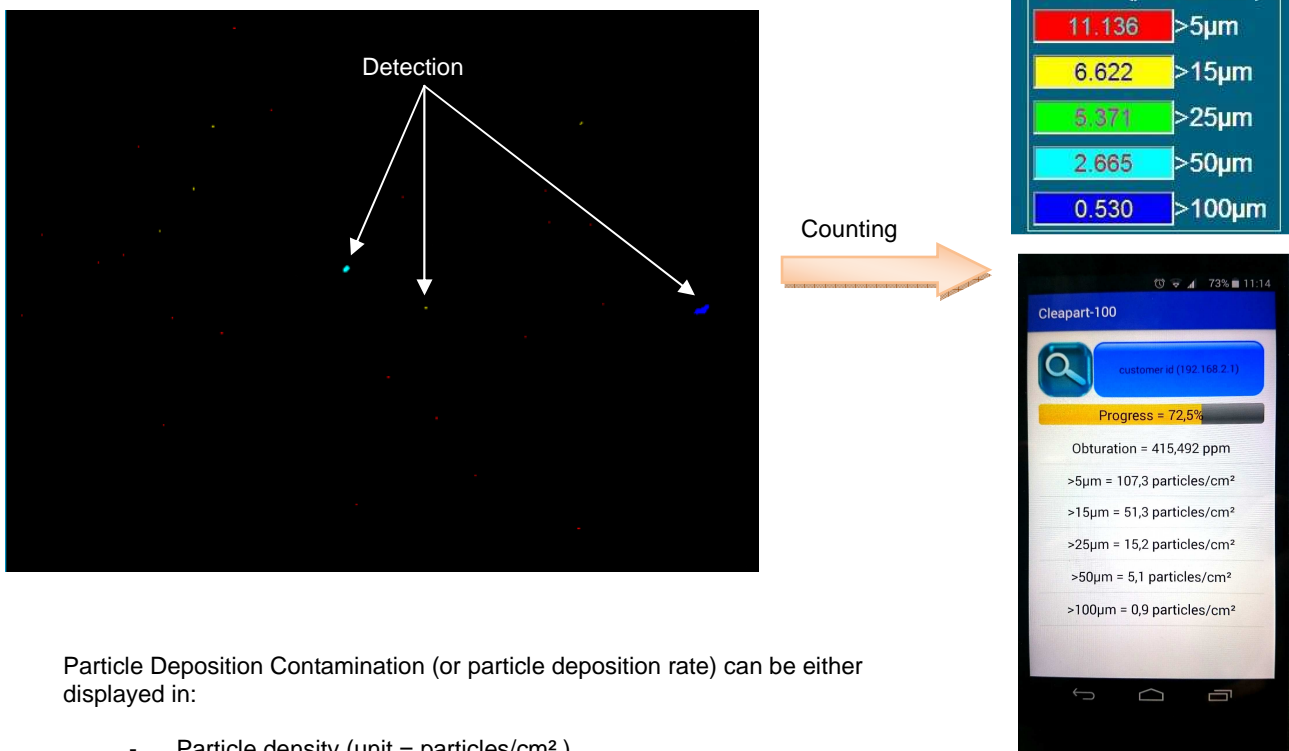
Particle Deposition Monitoring Device

Description

- The most critical particles are deposited particles on sensitive surfaces (optics, lasers, medical devices, pharmaceutical and cosmetics products...)
- CLEAPART-100 is an autonomous device with a large - 100 cm² - collecting surface for particles.
- CLEAPART-100 is a passive collecting monitor and doesn't disturb the airflow around the sensitive products or patients.
- CLEAPART-100 ensures high quality, efficient and safe production. It favours people awareness and optimizes the cleaning frequency.

Particle counting

A high resolution camera, coupled with a microscope objective, scans the large collection surface (100cm²). The particles are detected, counted and sorted depending on their size (> 5µm, > 15µm, > 25 µm, > 100 µm) by the embedded electronics.



Particle Deposition Contamination (or particle deposition rate) can be either displayed in:

- Particle density (unit = particles/cm²)
- Particle deposition rate (unit = particles/cm²/h)
- Obscuration factor (unit = ppm or ppm/h)

Data are displayed in real time on client monitoring station (standard PC or mobile devices)

Alarms can be configured to warn users of an event (either in particle deposition rate or particle density).

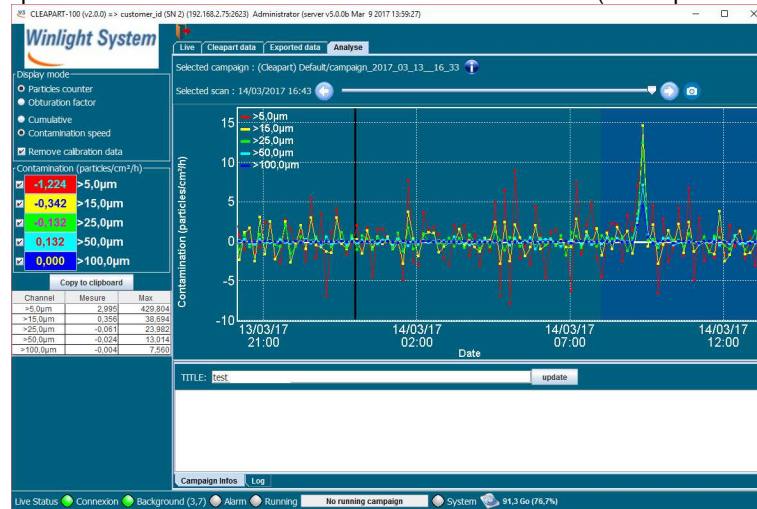
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Particle Deposition Monitoring Device

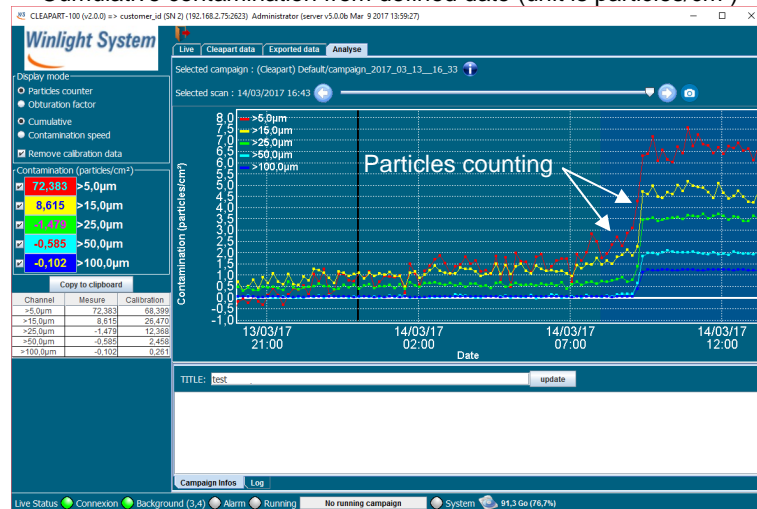
Control software

Several control screens are available for the user.

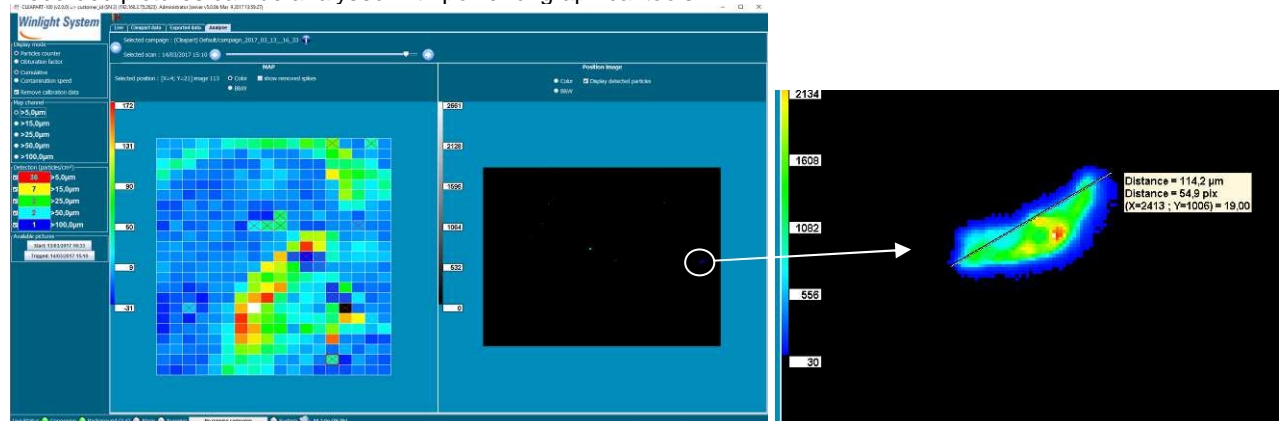
Particle deposition rate to detect contamination events over time (unit is particles/cm²/hour)



Cumulative contamination from defined date (unit is particles/cm²)

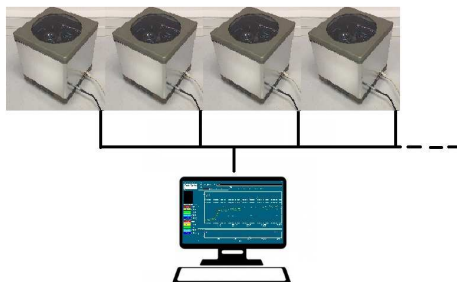


Recorded pictures can be analysed with powerful graphical tools.



CLEAPART-100

Particle Deposition Monitoring Device



Technical characteristics

Detection specification:

- Pixel size : 2µm
- Number of pixels / scan: ≈ 2Tpixels
- No periodic calibration needed (self-calibration)

Data output:

- Detected particles : ≥ 5µm
- Classification according to your predefined standard : [>5 ; >15 ; >25 ; > 50 ; >100µm] (IEST 1246D as an example or ISO14644-9)
- Measurement time: ≈ 7mn/scan (100cm²)
- Programmable scan frequency
- Particle deposition density (ISO 14644-3 and ISO14644-9)
- Particle deposition rate (future standard ISO 14644-17)
- Obscuration Factor (ECSS-Q-ST-70-50-C)
- Self-calibration
- Data sorted on table
- User programmable alarms
- First and last scan images available

Software Control:

- Controlled by front panel or remote device
- Remote workstation software (Windows):
 - System configuration
 - Data monitoring and analysis
 - Data management (storage, export...)
- Mobile Software (Android)
 - Data monitoring
 - Alarm notification

Collecting surface:

- 100 cm² - Horizontal or vertical positioning
- SiO₂ glass material (other transparent glass available upon request)
- Cleanable surface (cleaning procedure provided)

Physical:

- Dimensions: 210x210x230mm
- Weight: <7kg
- Closed enclosure

Electrical:

- Power Supply : 100-240 V
- Power < 30W

Network:

- Gigabit Ethernet
- WIFI 802.11 b/g/n (no WIFI version also available)

Environmental:

- Automatic test for camera dazzle
- Cleanroom suitability : ISO 4 (ISO14644-1, GMP)
- CE compliant
 - EN 301 893 v1.8.1 (radio)
 - EN 301 489-17 : 2012 v2.2.1 (EMC)
 - EN 61010-1:2010 (safety)
 - EN 50385 : 2010 (safety)

For any questions: contact@winlight-system.com

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