Surface Particle Counter

The state of cleanliness of substrates, environments and subcomponents is an essential prerequisite when manufacturing high-quality finished products. Easy and rapid detection of contamination is vital for efficient production.

PartSens is a portable particle counter that directly measures and counts particles and dust on surfaces while leaving the surface unchanged. The unique technology makes PMT inspection systems the perfect solution for companies requiring clean surfaces at product level and in the production environment.

- Detection of process-related contamination generated during manufacture
- Inspection of state of cleanliness of
  - Stamping Die & Die Blocks
  - Forming Molds
  - Components
  - Manufacturing environment
  - Systems and equipment
- Assessment of cleaning processes
- Replacement of complex test procedures, e.g. microscopic inspection
- Inspection of work pieces after cleaning
- Inspection of test coupons passed through a process
- Particle Range 5μm up to >1,000μm

Particle Analysis
Result View
Particle Classification
Measurement Duration
Interfaces
User Interface
Dimension W x L x H
Protection Class IP
Particle Analysis

Particle size and count
Particle distribution histogram, cumulative and distributive
Thermal Print, Images on USB flash memory
< 5s
USB, RS-232, External Video Out, Extension Port
Menu-driven touch screen, Live Image
15.4" x 11.8" x 4.7" (390mm x 300mm x 120mm)
IP 54
Particle size and count
PartSens
The PartSens measurement system is a completely equipped unit for the measurement of particles and dust on technical surfaces in the production area.

Particle and Dust Detection
Glancing light technology offers reliable, reproducible, and highly accurate results without extensive test procedures using microscopes or indirect sample taking methods such as filter analysis, vacuum or liquid transfer. Particle size and count is determined within seconds.

Viewing the surface in real-time, the image processing software automatically counts and sizes particles. This data, including the live-screen, can be immediately viewed on the integrated screen, printed or stored for future reference and comparison. The real image allows detection of size, location and shape of existing particles.

PartSens can be configured to detect particles on various material surfaces such as aluminum, steel, stainless steel, silicon, glass or plastic.

PartSens may be set up to a given measuring task by individually defining alarm thresholds and is immediately ready to use.

Features
- Measuring particle size distribution and count
- Portable and compact design
- Non-destructive inspection
- Single and series-based measurements
- Direct measurement on surfaces
- Repeatable measurement
- Saving data and live images on USB-flash memory
- Fast and reliable operation
- Maps particle size, particle location and particle shape on surface
- Easy touch screen user interface
- Integrated printer
- Stainless Steel enclosure

Measuring Head Specifications:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Detection Limit</td>
<td>2μm</td>
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<tr>
<td>Resolution</td>
<td>8.5μm</td>
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<tr>
<td>Measurement Area</td>
<td>7mm x 5mm</td>
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<tr>
<td>Footprint</td>
<td>31mm</td>
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<tr>
<td>Dimension Ø x H</td>
<td>60mm x 75mm</td>
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<td>Weight</td>
<td>350g</td>
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<tr>
<td>Illumination λ</td>
<td>617nm</td>
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<td>Optical System</td>
<td>Compact</td>
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<td>Protection Class</td>
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