PartSens Surface Particle Counter

- 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
- Evaluation of cleaning processes
- Inspection of work
- Pieces after cleaning
- Inspection of test samples passed through a process
- Particle Range 5µm up to >1,000µm

The state of cleanliness of substrates, environment 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.

<table>
<thead>
<tr>
<th>Particle Analysis</th>
<th>Particle size and count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result View</td>
<td>Particle distribution histogram, cumulative and distributive</td>
</tr>
<tr>
<td>Particle Classification</td>
<td>Thermal Print, Images on USB flash memory</td>
</tr>
<tr>
<td>Measurement Duration</td>
<td>&lt; 5s</td>
</tr>
<tr>
<td>Interfaces</td>
<td>USB, RS-232, External Video Out, Extension Port</td>
</tr>
<tr>
<td>User Interface</td>
<td>Menu-driven touch screen, Live Image</td>
</tr>
<tr>
<td>Dimension W x L x H</td>
<td>15.4&quot; x 11.8&quot; x 4.7&quot; (390mm x 300mm x 120mm)</td>
</tr>
<tr>
<td>Protection Class IP</td>
<td>IP 54</td>
</tr>
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<td>Particle Analysis</td>
<td>Particle size and count</td>
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PartSens Inspection Systems for Instant Detection of Particles

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 and reproducible 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.

Characteristics
- Measuring particle size distribution and count
- Portable and compact design
- Non-destructive inspection
- Single and series-based measurements
- Direct measurement on surfaces
- Repeatable measurement
- Battery operation optional
- 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

Measuring Head Options:

<table>
<thead>
<tr>
<th>Detection Limit</th>
<th>2µm</th>
<th>Detection Limit</th>
<th>25µm</th>
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</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>8.5µm</td>
<td>Resolution</td>
<td>25µm</td>
</tr>
<tr>
<td>Measurement Area</td>
<td>7mm x 5mm</td>
<td>Measurement Area</td>
<td>20mm x 15mm</td>
</tr>
<tr>
<td>Footprint</td>
<td>31mm</td>
<td>Footprint</td>
<td>120mm</td>
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<tr>
<td>Dimension Ø x H</td>
<td>60mm x 75mm</td>
<td>Dimension Ø x H</td>
<td>120mm x 310mm</td>
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<tr>
<td>Weight</td>
<td>350g</td>
<td>Weight</td>
<td>2000g</td>
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<tr>
<td>Illumination λ</td>
<td>617nm</td>
<td>Illumination λ</td>
<td>617nm</td>
</tr>
<tr>
<td>Optical System</td>
<td>Compact</td>
<td>Optical System</td>
<td>Telecentric</td>
</tr>
<tr>
<td>Protection Class</td>
<td>IP 54</td>
<td>Protection Class</td>
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