# PartSens

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           | Particle size and count                                      |
|-----------------------------|--|
| Result View                 | Particle distribution histogram, cumulative and distributive |
| Particle Classification     | Thermal Print, Images on USB flash memory                    |
| <b>Measurement Duration</b> | < 5s   |
| Interfaces                  | USB, RS-232, External Video Out, Extension Port              |
| User Interface              | Menu-driven touch screen, Live Image                         |
| Dimension W x L x H         | 15.4" x 11.8" x 4.7" (390mm x 300mm x 120mm)                 |
| Protection Class IP         | IP 54  |
| Particle Analysis           | Particle size and count                                      |

## Part Sens Inspection System 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.

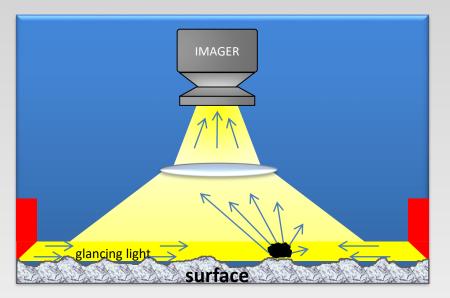
### **Particle and Dust Detection**

Glancing light technology offers reliable, 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 livescreen, 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.

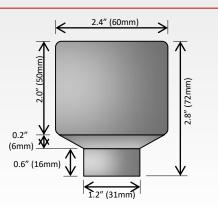
PartSens can be configured to detect particles on various material surfaces such as aluminum, steel, stainless steel, silicon, glass or plastic.

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



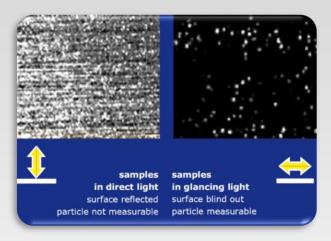
#### **Measuring Head Specifications:**

| <b>Detection Limit</b>  | 2μm         |
|-------------------------|-------------|
| Resolution              | 8.5µm       |
| <b>Measurement Area</b> | 7mm x 5mm   |
| Footprint               | 31mm        |
| Dimension Ø x H         | 60mm x 75mm |
| Weight                  | 350g        |
| Illumination $\lambda$  | 617nm       |
| Optical System          | Compact     |
| Protection Class        | IP 54       |



#### 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
- Save 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



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