

# APMON



Increasing product quality  
by use of Particle Deposition Data

# Measuring particle deposition rate

A cleanroom is used to prevent deposition of unwanted particulate contamination on a product or patient. However, in a cleanroom we do not know how high the likelihood is of particles or micro-organisms to deposit on critical surfaces is.

A cleanroom installation removes airborne particles by air flow. Not all particles  $> 5 \mu\text{m}$  are removed by air flow because of deposition on all surfaces. The number of particles that are not removed because of deposition increases with particle size (50 % for particles  $> 80 \mu\text{m}$  for particles  $> 25 \mu\text{m}$  and  $>90 \%$  for particles  $> 40 \mu\text{m}$ ).

Imagine having accurate real time data on particle deposition within your cleanroom. Then you know if your cleanroom is (still) good enough or if additional (operational) improvements are required for your process and product.

A contamination risk assessment determines the critical number and sizes particles that can cause product rejection and quality loss. Cleanrooms are used to establish control of the contamination risk. In a cleanroom clean products can be kept clean.

When a cleanroom is in operation, we need to be sure we are in control. This is proven by monitoring air cleanliness and particle deposition so that the chosen cleanroom concept continues to meet the requirements.

We need to demonstrate control. Therefore, the air cleanliness is monitored. However, particle counters are only reliable for particles up to  $5 \mu\text{m}$ . For particles larger than  $5 \mu\text{m}$  the contamination control solution should be monitored by measuring the particle deposition rate.



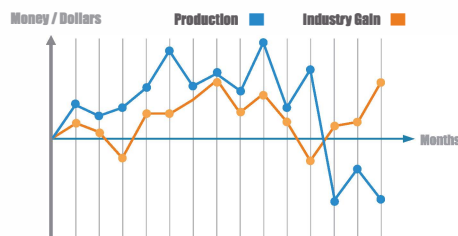
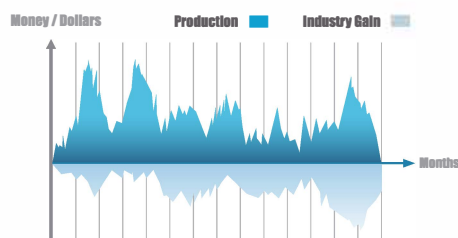


The Advanced Particle Deposition Monitor (Apmon) measures the particle deposition in a cleanroom or controlled environment. Using an optical system which counts the number and sizes of particles on the surface of the work area, the Apmon provides valuable data.

#### Real-time feedback on particle events at critical locations

The Apmon is used by leading companies and institutes in aerospace, electronics, semiconductors, medical devices, defense and automotive to find causes of particle deposition and to create personnel awareness.

- Particles  $\geq 15 \mu m$
- Real-time data
- User friendly software
- Selfrunning system
- Direct alarm





Auto  
report



Large  
surface  
area



Easy  
to set



Cartridge  
4-8 months



Real-time  
24/7



### APMON 100

### APMON 200

### APMON PRO

Specifications			
Maximum number of sensors	1	2	6
Sample time	5 min	5 min	5 min
Wireless	-	•	•
Ethernet	•	•	•
Bluetooth	-	•	•
Battery	-	•	•
Battery charging unit	-	•	•
Processor	Mini-PC i5	Mini-PC i5	Industrial PC i5
Remote access	•	•	•
Export to Microsoft Excel	•	•	•
Witness cartridge	Included	Included	Included
Sensor dimensions	390x80x150mm	390x80x150mm	390x80x150mm
Options			
Licensed software	Fixed/month	Included	Included
Travel case	Optional	Included	Included
LCD screen, mouse and keyboard	Optional	Optional	Optional
Licensed software	One off	Included	Included
Extra sensor	-	Optional	Optional
Extra witness cartridge	Optional	Optional	Optional
Witness cartridge exchange program refurbished (per 4 pieces)	•	•	•

 **cleanproject.pl**  
wyłączny dystrybutor

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