



Particle Deposition Monitor >5 μ m

Get a grip on surface cleanliness by measuring deposition simultaneously at dozens of spots around your process

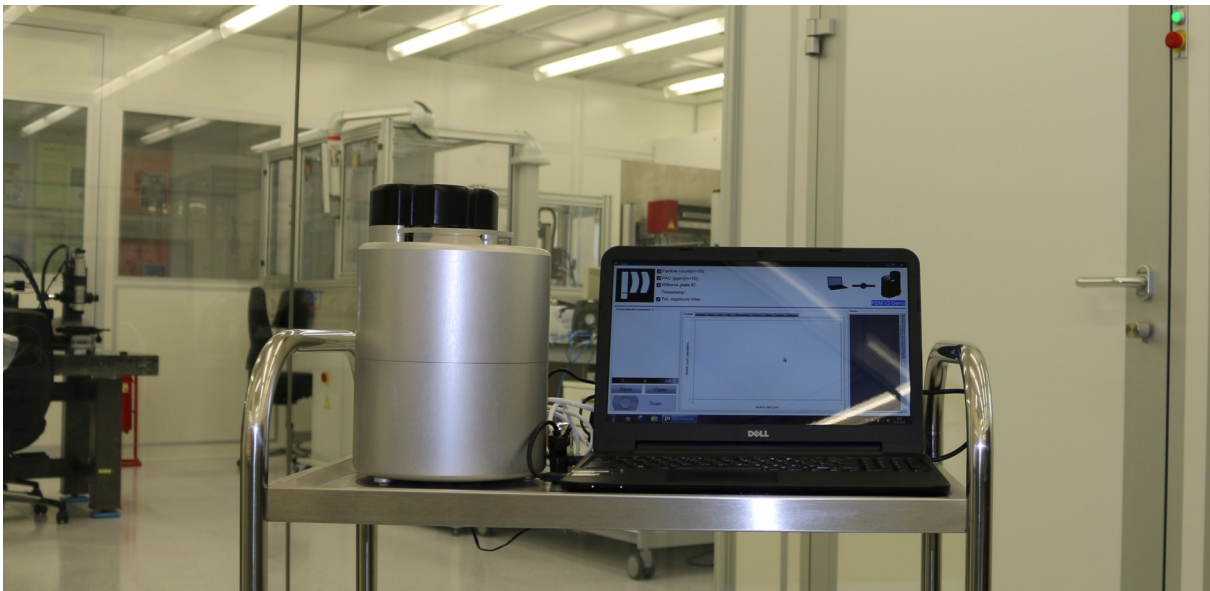
Real-time results, every 20 seconds, direct feedback is available for the user to control particle deposition.

The PDM is the first and only system that can measure the deposition reproducible, counting, sizing and positioning up to 64000 particles on the surface.

The PDM uses witness plates to proof particle deposition real-time or on sampling basis. Fibres are detected thus showing men induced particles. The 20 seconds instantaneous feedback is ideal for training of staff.

PDM: A PERFECT TOOL FOR SUPPLY CHAIN FEEDBACK AND PERFORMANCE DEMONSTRATION.

IT'S NOT A KPI BUT A REAL KEY PERFORMANCE METER.



The System

The PDM consist of a full featured line scanning microscope camera. The unit communicates over network to the Vision Analysis Software located on a laptop or server. Up to 3 units can be hooked up for real-time data generation. Off line measurements only take 15 seconds therefore measuring a set of 100 disks within an hour is a realistic job. Witness plates can be placed at start of production and collected at the end of production for measurement.

Development

The PDM is developed based on results of the VCCN workgroup set up in order to define a particle deposition meter.

PDM: PASSIVE DEPOSITION COLLECTION BY MEANS OF WITNESS PLATES.

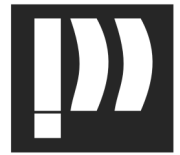
RE-MEASURABLE RESULTS ON STORABLE WITNESS PLATES.

SIMULTANEOUS COLLECTION AT VARIOUS SPOTS IN THE PROCESS.

Technical specification is subject to change without notice thus providing the latest improvements.

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Technical Specifications



Witness plate ;

collects particles at spot



Material	Glass borosilicate autoclave suited
Shape	feel and look like a CD disk.
Serial number	Unique serial number data matrix ECC200 range
Measurement surface	49 cm ² Donut shape for larger surface sampling
Size	diameter 12cm thickness 5mm
Disk weight	130 gram
Mounting stand	190 gram 8 cm diameter
Height	2.5 cm above surface.
Dissipation	No heat dissipation, passive device
Static charge	No static charges, conducting mounting stand

PDM measurement unit ;

counts, sizes and images particles



Size	260 x 200 x 450 mm	L x W x H
Weight	13.6 kg	
Coincidence loss	<<1%	
Power	230VAC adapter 36VA max	average 13Watt
Outputs	Ethernet UTP / RJ45	autosensing
Optional	Dust shield	
Measuring time	< 20 sec	average 12 sec
Particle detection	> 5µm	90% reliability
	> 10µm	98% reliability

User interface ;

numbers, graphs and images ready for reports

Channel	Count	Count cumulative
14 - 37	1174	2113
37 - 53	648	939
53 - 76	200	291
76 - 101	53	91
101 - 126	14	38
126 - 151	4	24
151 - 201	7	20
201 - 301	7	13
301 - 501	4	6
> 501	2	2

Area (µm²)	Length (µm)	Width (µm)
34425	1442	164
17669	196	128
15227	155	145
15191	429	94
12336	466	90
12029	393	82
9793	214	84
9271	161	85
8824	215	93
8326	121	100
7994	181	104
7889	192	72
7226	206	54
7153	112	101
7799	206	78
7514	282	57
7486	176	60
7261	103	88
6879	417	23

Process oriented user settings

Flexible channel settings even in post processing mode

Data export via TCP

Direct printable reports

Every particle visible for inspection.

Software dongle for flexible installation

Meeting ISO 14644 on particle deposition

User manual available via web pages

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