

# Fastmicro Sample Scanner

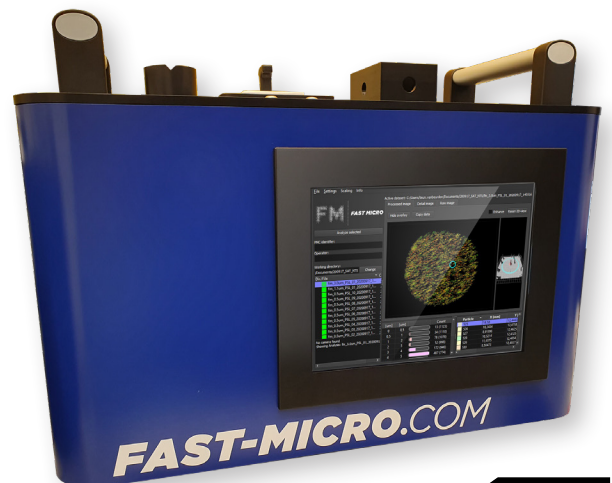
We help our customers to overcome today's cleanliness challenges in microtechnology. At Fastmicro, we believe you can accomplish breakthroughs in cleanliness control with fast, accurate and quantitative surface particle measurements.

Fastmicro enables process quality engineers to make reliable decisions on where and how to improve their cleanliness processes and deliver consistent quality products. And ultimately, achieve high equipment performance for their end users. To do this, we collaborate with the best to accomplish breakthroughs in cleanliness control.

## Fastmicro Sample Scanner

The Fastmicro Sample Scanner measures surface particle contamination levels indirectly using samplers. These samplers benefit the user by enabling them to take particle contamination samples at any time on various products

and assemblies. It even allows robust measurements in places that are difficult to reach, and on relatively rough surfaces. The sampler collects particles from the surface, without leaving measurable residue behind. The Sample Scanner measures the samples within seconds, showing a measurement area of 225 mm<sup>2</sup>. The samplers can be transported in a clean sampler holder, re-measured and further analyzed.



## CONSISTENT MEASUREMENTS IN PROCESS

1. **Fast:** imaging takes seconds
2. **Quantified:** traceable digital output
3. **Easy to operate:** operator independent.
  - a. Qualification in production by operators
  - b. Analysis, for advanced users in R&D
  - c. Monitoring, continuous and SPC
4. **Accurate:** high-resolution measurement (quantity, position, size)
5. **Consistent:** objective measurements, time after time
6. **High throughput**

# Specifications

## Fastmicro Sample Scanner

<b>Detection limit</b>	<ul style="list-style-type: none"> <li>From 0.5 µm PSL particles</li> </ul>
<b>Sizing accuracy</b>	<ul style="list-style-type: none"> <li>Within 20% with PSL particles</li> </ul>
<b>High production throughput</b>	<ul style="list-style-type: none"> <li>Imaging in seconds; processed in less than 30 seconds for 225 mm<sup>2</sup> sample area with 500 particles; operator workflow in a less than a minute</li> </ul>
<b>Data output</b>	<ul style="list-style-type: none"> <li>Quantity, position and size of particles</li> <li>Analysis, reporting and export functions, including standard bin sizes, KLARF and Excel files</li> <li>Annotated image with detection overlay particle and the '3D' signal representation of the by the operator selected particle</li> <li>Data exchange via USB, or via an ethernet option</li> <li>Optional qualification report in UI and pdf, according to ISO standard 14644-9</li> <li>Optional connection to database through XML</li> </ul>
<b>Reproducibility</b>	<ul style="list-style-type: none"> <li>90% when replacing a sampler, with PSL particles from 0.5 µm</li> <li>Also as repeated result between scanners</li> </ul>
<b>Size &amp; weight</b>	<ul style="list-style-type: none"> <li>Scanner size 615 x 300 x 460 mm, weight 16 kg</li> <li>Transport packaging: size 710 x 530 x 670 mm, weight 45 kg</li> </ul>
<b>Nondestructive – no cross contamination to samples</b>	<ul style="list-style-type: none"> <li>Nondestructive: measurements can be repeated and/or do SEM/EDX</li> <li>No contact with measurement area</li> <li>No cross-contamination due to sampler</li> <li>No particle generation by the scanner in the measurement area (no moving parts)</li> </ul>
<b>Requirements on sampler and sample handling</b>	<ul style="list-style-type: none"> <li>Above scanner requirements can only be achieved with the use of certified samplers</li> <li>Sampler contamination levels must at least be 10 times lower than the qualification level of the customer Combined use in clean environment, i.e. cleanroom ISO 7 or better Standard with card sampler holder for indirect measurement               <ul style="list-style-type: none"> <li>Fit for Particle Measurement Cards (PMC 2.0 in a box, as certified by partner)</li> </ul> </li> <li>Optional with 1" wafer holder, for particle fallout measurements</li> </ul>
<b>Model</b>	<ul style="list-style-type: none"> <li>FM-PS-SAS-V01</li> </ul>