

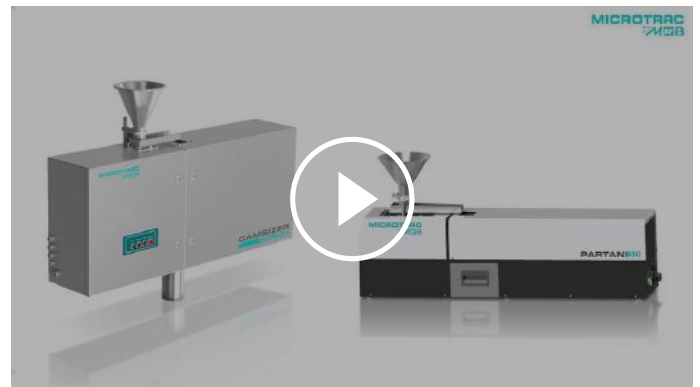
PARTICLE SIZE AND SHAPE ANALYZER

PARTAN 3D



Microtrac MRB's PARTAN 3D can measure 40 morphological parameters of your material including size, shape, surface roughness, density, transparency, and of course 3D in one fast analysis. The PARTAN 3D can measure particles ranging in size from 22 μm to 35 mm.

- | Characterizes 40 morphological parameters of your material including 3D
- | Measurement of dry, free flowing particles ranging in size from 22 μm to 35,000 μm
- | Analyses more than 100 frames per second with our high-speed, high-resolution camera
- | Rugged design with a compact footprint
- | Self-cleaning mechanism, which reduces user intervention and increases optimal measurement capability



[Click to view video](#)

Product Video

FEATURES

- | By having the ability to measure 40 parameters including 15 size, 13 shape / form, 3 surface roughness, density, transparency, and 3D in one analysis, the PARTAN 3D provides users with superior analysis capability that enables quick and confident decision-making regarding product quality
- | Industry leading size range provides the user with greater analysis flexibility to measure a variety of materials
- | The high-speed, high-resolution camera ensures multiple, vivid pictures of your material are collected which result in accurate analysis
- | Engineered to be able to handle the toughest environments, the PARTAN 3D is adaptable for any lab setting
- | The self-cleaning mechanism allows a user to spend less time cleaning the instrument, and more time being productive

EXCLUSIVE 3D TECHNOLOGY

- | The only particle size analyzer that tracks particles, using 3D particle measurement
- | The 3D imaging technology and software are the same for PARTAN 3D and PARTAN 3D MAXI
- | All three major particle axes length, width, and thickness are measured
- | PARTAN 3D is the only instrument that can provide shape ratios of thickness / width, width / thickness, length / thickness, thickness / length
- | All tracked particles are stored in a library and can be recalculated to obtain any size and shape distribution
- | The filter function in the SOP offers a customized result calculation and presentation
- | The 3D tracking technology enables identification of the minimum-, maximum-, and average- values of size and shape of a single particle automatically

3D MEASUREMENT SOFTWARE

- | Identify, isolate, and compare parameters of interest for further investigation and analysis
- | Permanent set-up of a Standard Operating Procedures is ideal for multiple users, across multiple shifts
- | All filters can be reported as individual distributions to provide a more detailed understanding of areas of interest during the analysis
- | Allows exclusion of filters from measurement – only report needed information
- | Easy to export to other software platforms
- | Understand the composition of your material with our classification function. One analysis in less than a minute can provide you with a detailed percentage breakdown of your material. Here is a sample breakdown of a glass bead sample: 45% "good beads" 35% "bad beads" 20% "sand"
- | Comprehensive reporting for R&D and methods development
- | Users can choose number of channels and channel widths
- | Choose from more than 30 morphological parameters in 1 to 6 tabular columns
- | Streamlined for at-a-glance QC "pass / fail"
- | Image library querying

TYPICAL APPLICATIONS

Used in various fields such as: abrasives, building materials, extrudates, fertilizers, food, geology / mining, glass beads, medicine / pharmaceuticals, ...



To find the best solution for your particle characterization needs, visit our application database

TECHNICAL DATA

Measuring principle

Dynamic Image Analysis (ISO 13322-2 & 9276-6)

Measuring range	22 µm - 35 mm
Measurement parameters	The patented 3D measurement follows the ISO 13322-2
Measurement rate	100 images/s
Scale factor (µm / pixel)	15 - 75 µm / pixels
Camera pixel layout	2560 x 2048 pixels, 62 fps at max resolution
Light source	LED flash
Electrical	110-230 V / 50-60 Hz
Power consumption	Approx. < 100 Watt
Sample amount	100 - 1000 g (depending on application)
Measuring time	~ 1 - 5 minutes (depending on application)
Physical specifications	Aluminum and stainless steel
Dimensions (W x H x D)	~ 210 x 260 x 930 mm
Weight	~ 25 kg

www.microtrac.com/partan3d