PROCON X-RAY

CT-ALPHA 160 & 190 kV

Sub-micron resolutions and high power in one system

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Key Facts

No compromises: Satisfies sub-micron resolutions (in 2D and 3D) and high-power demands in one system

Flexible: dual-detector and/or dual-X-ray source possible

Extendable: plenty of room for apertures and attachments (robot arms, heat- and tension stages, in situ)

Versatile: from lab-scale applications to industrial use

Future-proof: our Python API paves the way for your automation and AI applications

Application examples: electronics, printed circuit boards, battery cells, micro-structured foams, geological samples

The CT-ALPHA is our state-of-the-art CT system, designed to deliver no compromises in performance, from nano-focus precision to high-power imaging. This system is equipped with a highly versatile Micro-Focus X-ray source, and is a powerful upgrade to our biggest benchtop system.

With ample space for additional apertures and attachments such as robot arms, heat- and tension stages, and in-situ components, this system is fully extendable to meet evolving needs.

This is our smallest system with an open X-ray source, and thus offers the benefit of achieving higher resolutions compared to a closed X-ray source.

From lab-scale experiments to industrial-scale operations, it excels in both environments. Future-proof your investment with our Python API, enabling seamless automation and AI integration for the next generation of advanced imaging. Image reconstruction can also be adjusted with optional aperture build-ups.

Ideal for scanning complex objects composed of various materials, this system provides the power and precision required for today's demanding applications in a large variety of industrial settings and research situations.

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Specifications

X-ray source	20 - 160 kV up to 50 W
Detector	6.7 Megapixel 50 µm pixel size 2800 x 2300 pixel
Highest spatial resolution	< 0.9 µm
Smallest voxel size	< 0.1 µm
Max. object size	Ø 300 x H 400 mm
Max. object weight	15 kg
Max. scan size	Ø 232 x H 290 mm
FDD	up to 700 mm
FOD	0.3 - 600 mm
Number of axes	> 7
System dimensions (L x W x H)	2000 x 900 x 2000 mm
System weight	< 3500 kg
Power supply	100 - 240 V AC, 50/60 Hz

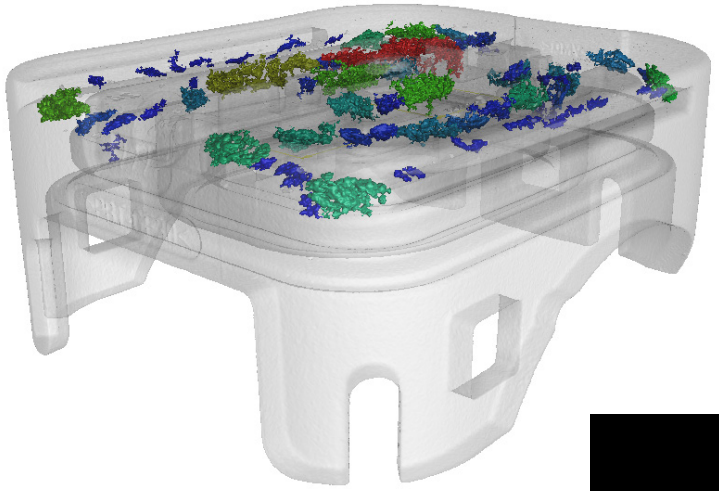
To read more about this system, scan the code to visit our website.

Features

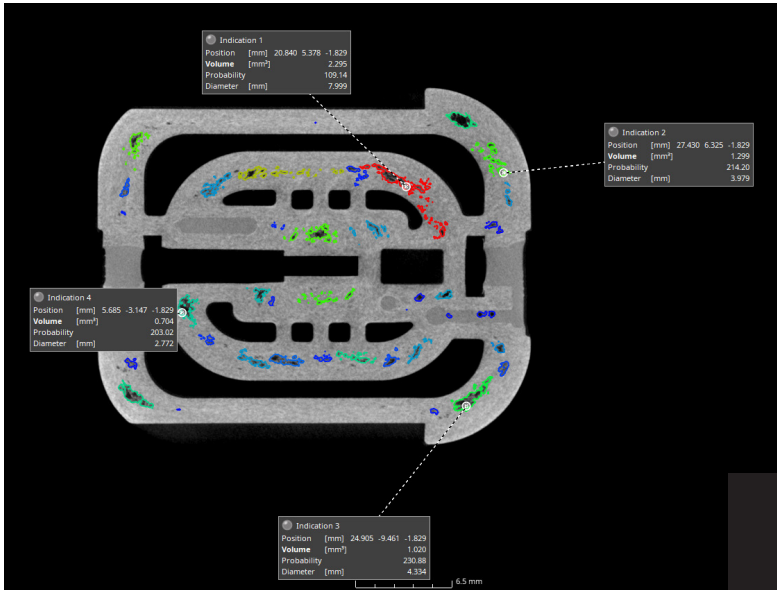
- Quality control independent of material
- Defect recognition (voids, cracks, etc.)
- Easy operation & low maintenance needs
- Radiation safety better than 1 µSv/h

Application Case

Below & Left: Porosity/inclusion analysis of a plastic part (from the automotive field) with colour map for the volume of the pores.

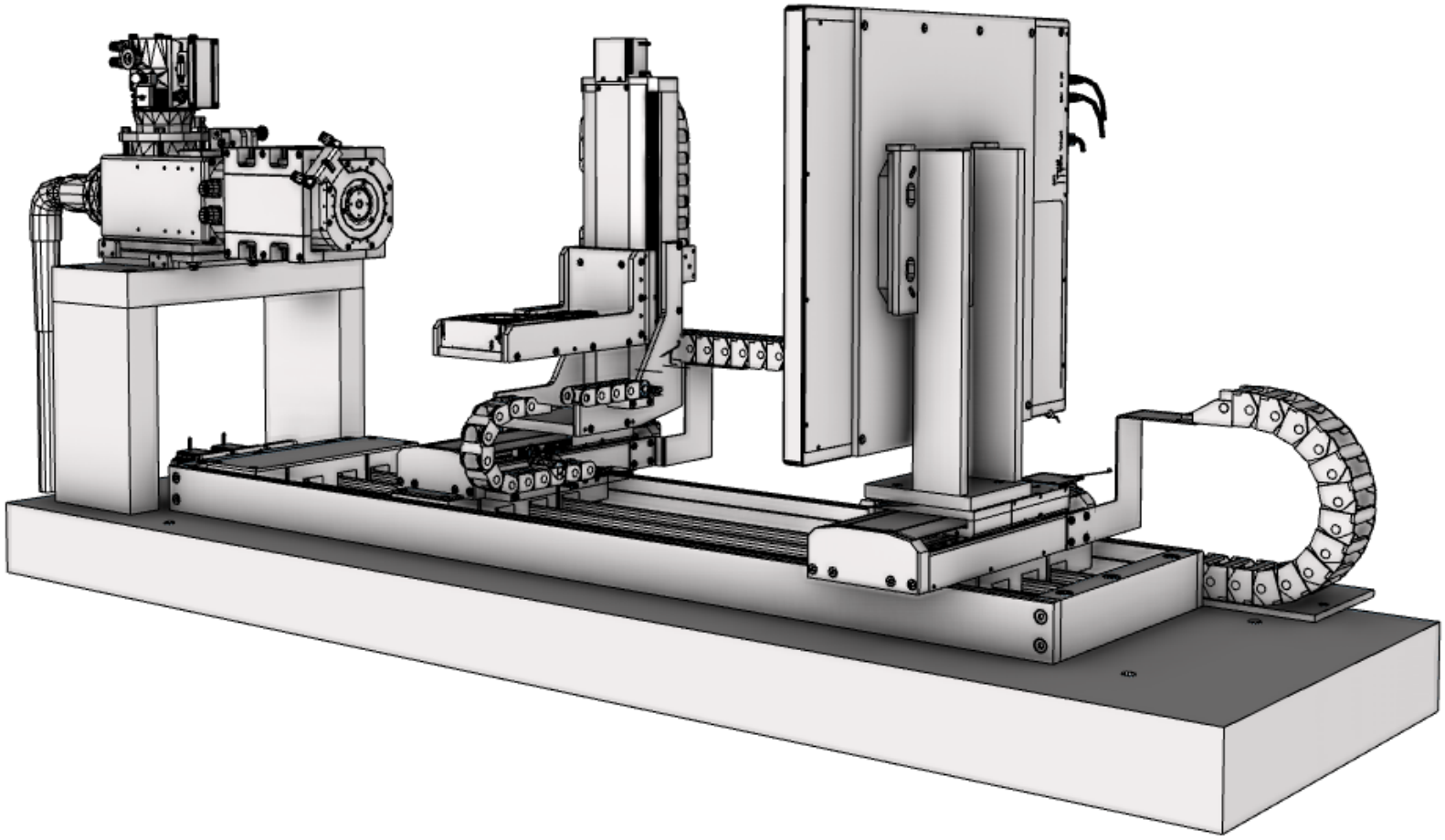


3D view



Section view

Drawing of CT-ALPHA



Concept drawing of a standard CT-ALPHA model. Many customisations to this system are possible.