PROCON X-RAY

CT-ALPHA 450 kV

The most flexible CT system in our range

CT-ALPHA 450 kV

Key Facts

Flexible: dual source/detector setup for maximal versatility, from high power to nano focus.

Extendable: plenty of room for apertures and attachments.

Thinking ahead: optimise and predict the behaviour of your parts with simulations based on its digital twin.

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

Application examples: 2D inspection; analysis of cracks, pores and material composition in drill cores and geological samples; quality assurance (actual-nominal comparison, porosity analysis, digital twin).

The CT-ALPHA 450 meets the most stringent demands in CT X-ray. With this system, ProCon X-ray offers the the most flexibility. This system can be customised according to individual use cases, and is extendable to meet evolving requirements.

This is our state-of-the-art CT system, designed to deliver no compromises in performance. Its unmatched flexibility offers dual-detector and dual-X-ray source configurations, allowing for versatile scanning capabilities across a wide range of applications.

With ample space for additional apertures and attachments such as robot arms, heat- and tension stages, and in-situ components. This provides the ability to recreate real conditions in controlled environments.

From research settings 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.

Ideal for scanning complex samples 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.

ProCon X-Ray GmbH
Ludwig-Erhard-Ring 6A
31157 Sarstedt
Germany

Phone +49 (0) 5066 – 98414-0
Fax +49 (0) 5066 – 98414-99
www.procon-x-ray.com
sales@procon-x-ray.de

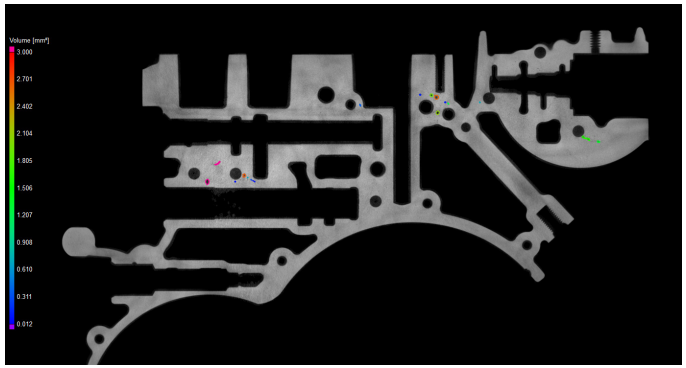
Specifications

	Meso-Focus Source	Reflection Source
X-ray source	100 - 450 kV up to 1500 W 63 µm focal spot	20 - 300 kV up to 300 W 5 µm min. focal spot
Detector	8.3 Megapixel 150 µm pixel size 2880 x 2880 pixel	
Highest spatial resolution	< 30 µm	3 µm
Smallest voxel size	10 µm	< 1 µm
Max. object size	Ø 1200 x H 1500 mm	
Max. object weight	300 kg	
Max. scan size	Ø 1000 x H 1000 mm	
FDD	up to 1500 mm	
FOD	100 - 1200 mm	4 - 1200 mm
Number of axes	> 7	
System dimensions (L x W x H)	2600 x 4000 x 2500 mm	
System weight	~ 35 000 kg	
Power supply	100 - 240 V AC, 50/60 Hz	

This is an example configuration with corresponding values.

*FDD - Focus Detector Distance
**FOD - Focus Object Distance

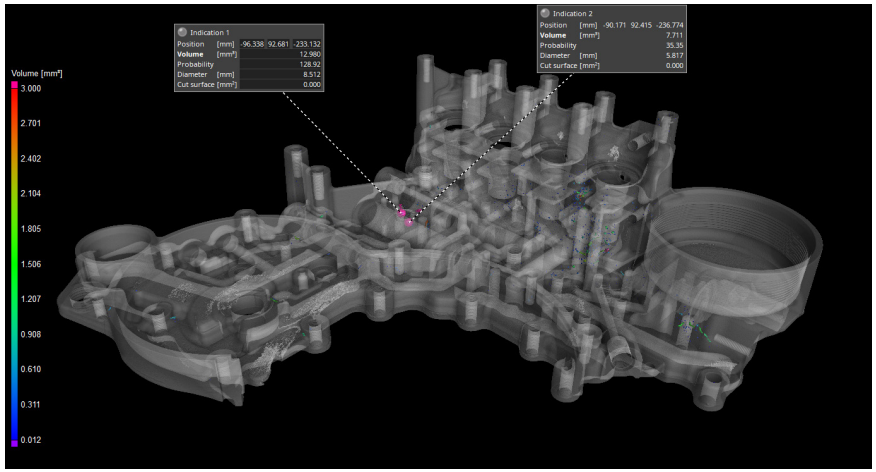
To read more about this system, scan the code to visit our website.



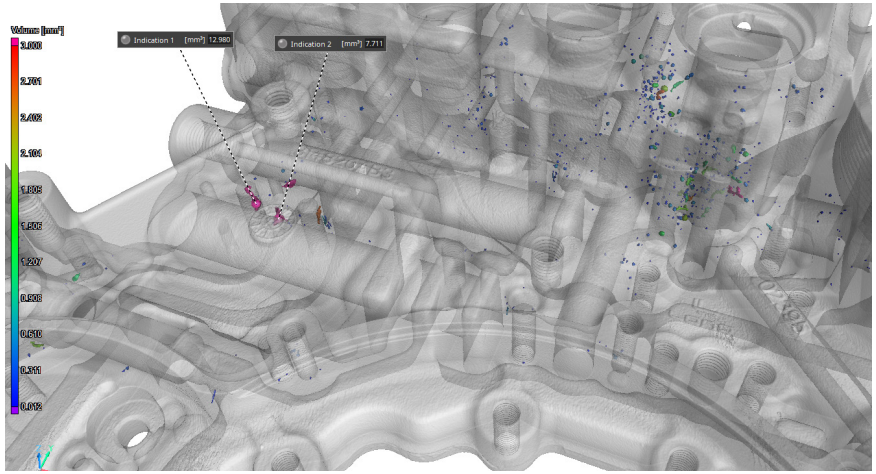
Section view

Application Case

Porosity/inclusion analysis of an aluminium die-cast part with colour map to indicate the volume of the pores.

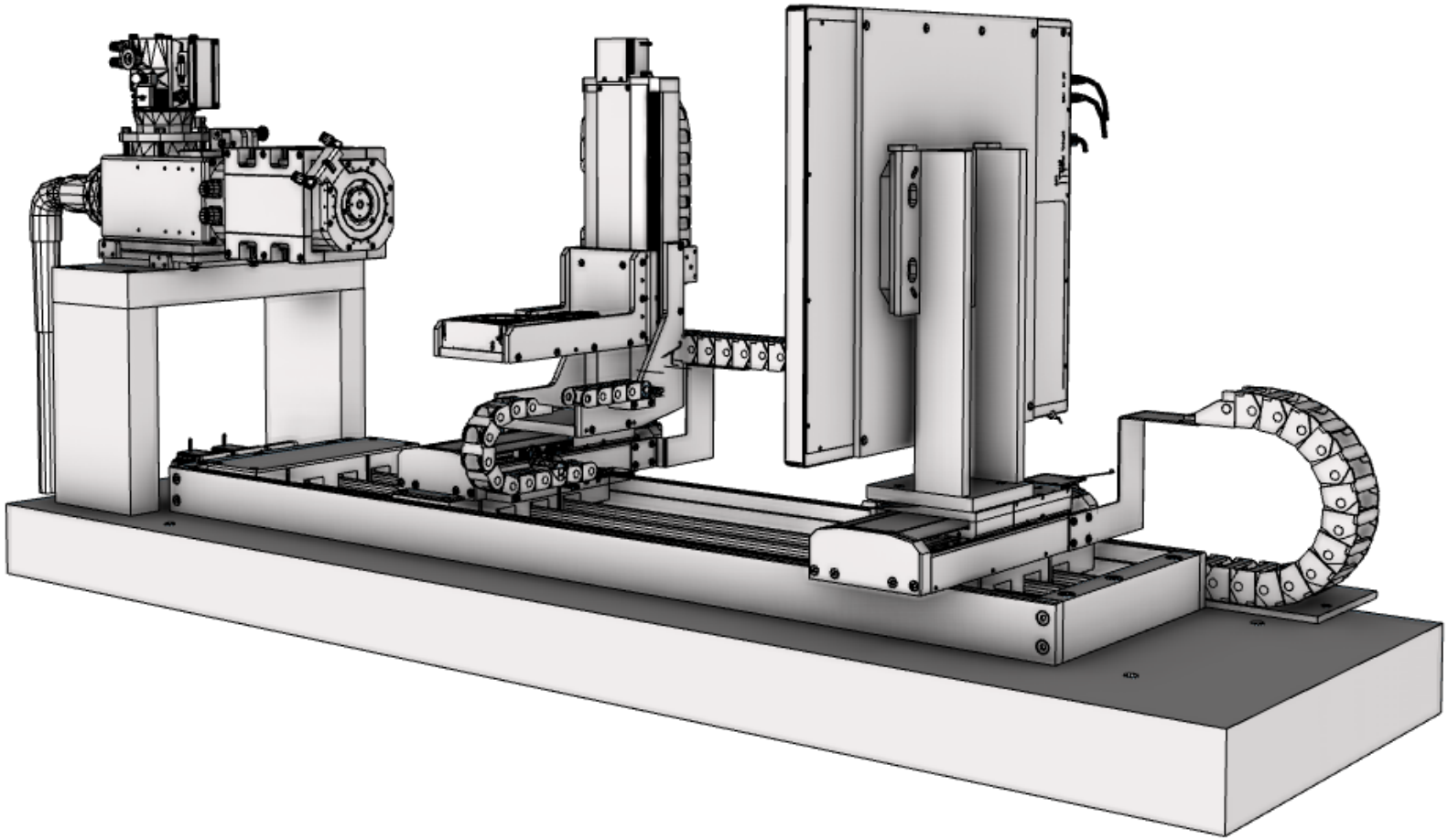


3D view



3D view

Drawing of CT-ALPHA



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