

PROCON X-RAY

CT-MINI

Optimised for laboratory and
research environments



When it is important to have a full CT-System in a limited space, PXR's benchtop-systems are the right choice. The application of CT allows one to conduct non-destructive testing to discover microscopic potential faults to optimise production. This system grants the best performance for minimal cost.

The CT-MINI is designed for inspecting plastics, ceramics and light metals. This system is equipped with a micro-focus 100 kV or 130 kV X-Ray-Source and a large 6.7 Megapixel Flat-Panel-Detector. The detector axis can be upgraded to offer extension of the field of measurement. A sliding door opens wide in order to easily mount the specimen up to 200 mm onto the rotation table. The system weighs ~500 kg, which enables application in every laboratory without the need for heavy load floors.

The CT-MINI offers multiple scanning options, like Axial-CT, Fast-CT, and Axial-CT with horizontal and/or vertical measurement field extension.

Key Facts

Lightweight and smaller footprint: Optimised for lab and research environments.

Two models: CT-MINI 100 and CT-MINI 130 available.

Up to the task: More powerful due to its 130 kV source.

Closing the gap: Suited to production and research applications.

Test, improve and automate: Seamless integration in your process.

Application examples: 3D printed metal, biological samples, gemstones, injection moulded plastic, electronics, and rubber.

The 130 kV X-Ray-Source has a maximum power of 39 Watt and the minimum focal spot can be less than 5 μm , which allows to resolve features smaller than 3 μm . The variable FDD assists in shortening the duration of scans while retaining a high level of image quality. The combination with a large Flat-Panel-Detector with 50 μm pixels enables the system to scan large objects in a very short time frame.

Like all benchtop systems, the CT-MINI is ideal for non-destructive testing, materials analysis, metrology, and rapid prototyping.

Specifications

The CT-MINI is available in 100 kV and 130 kV models

	100 kV	130 kV
X-ray source	20 - 100 kV up to 15 W 5 µm min. focal spot	20 - 130 kV up to 39 W 5 µm min. focal spot
Detector	6.7 Megapixel 50 µm pixel size 2802 x 2400 pixel	
Highest spatial resolution	< 3 µm	
Smallest voxel size	1,0 µm	1,7 µm
Max. object size	Ø 360 x H 185 mm	
Max. object weight	5 kg	
Max. scan size	Ø 200 x H 125 mm	
FDD	415 mm	
FOD	8 - 345 mm	13 - 345 mm
Number of axes	5	
System dimensions (L x W x H)	1250 x 575 x 800 mm	
System weight	~500 kg	
Power supply	100 - 240 V AC, 50/60 Hz	

*FDD - Focus Detector Distance

**FOD - Focus Object Distance

Features

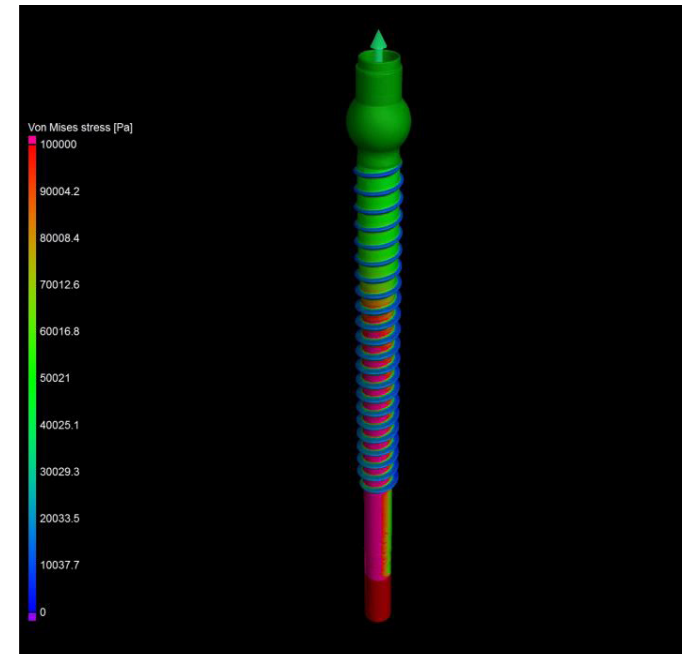
- ▶ Industrial X-ray Computed Tomography (CT)
- ▶ 3D volume CT
- ▶ Non-destructive testing (NDT) – 2D and 3D
- ▶ Quality control independent of material
- ▶ Defect recognition (voids, cracks, etc.)
- ▶ Contactless metrology
- ▶ Fast CT reconstruction
- ▶ Artefact reduction
- ▶ Easy operation & low maintenance needs
- ▶ Radiation safety better than 1 µSv/h



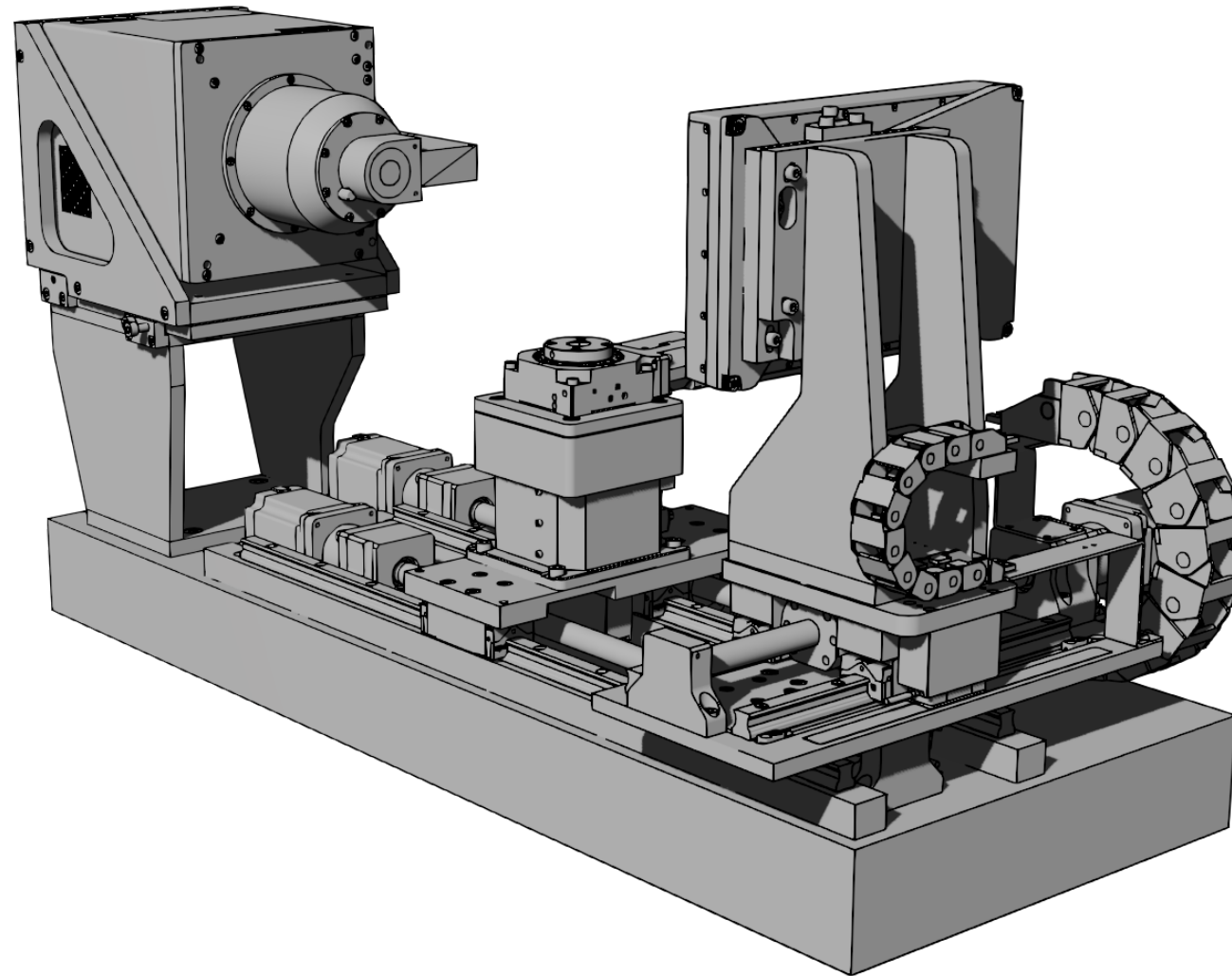
To read more about this system, scan the code to visit our website.

Application Case

Left: Tension simulation on a screw to determine where the part would be placed under stress when in use. The amount of stress can also be simulated and measured. This helps to determine whether the design of a part is adequate for its intended purpose.



Simulating tension on a screw



Concept drawing of a CT-MINI showing the X-ray source, sample table and detector.