

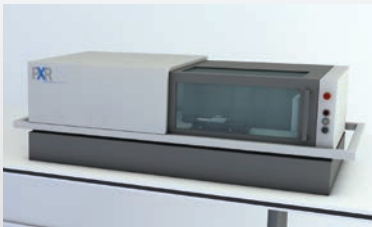


3D & CT Scanning Services and Equipment

PROCON X-RAY

Industrial Computed Tomography (CT) Scanners

Our Exclusive ProCon X-Ray Line-Up



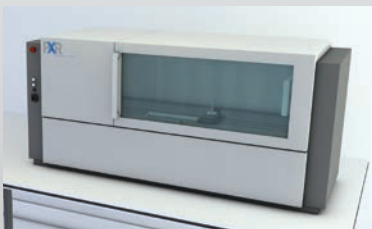
CT-MICRO



CT-XPRESS



CT-MINI



CT-COMPACT



CT-INLINE



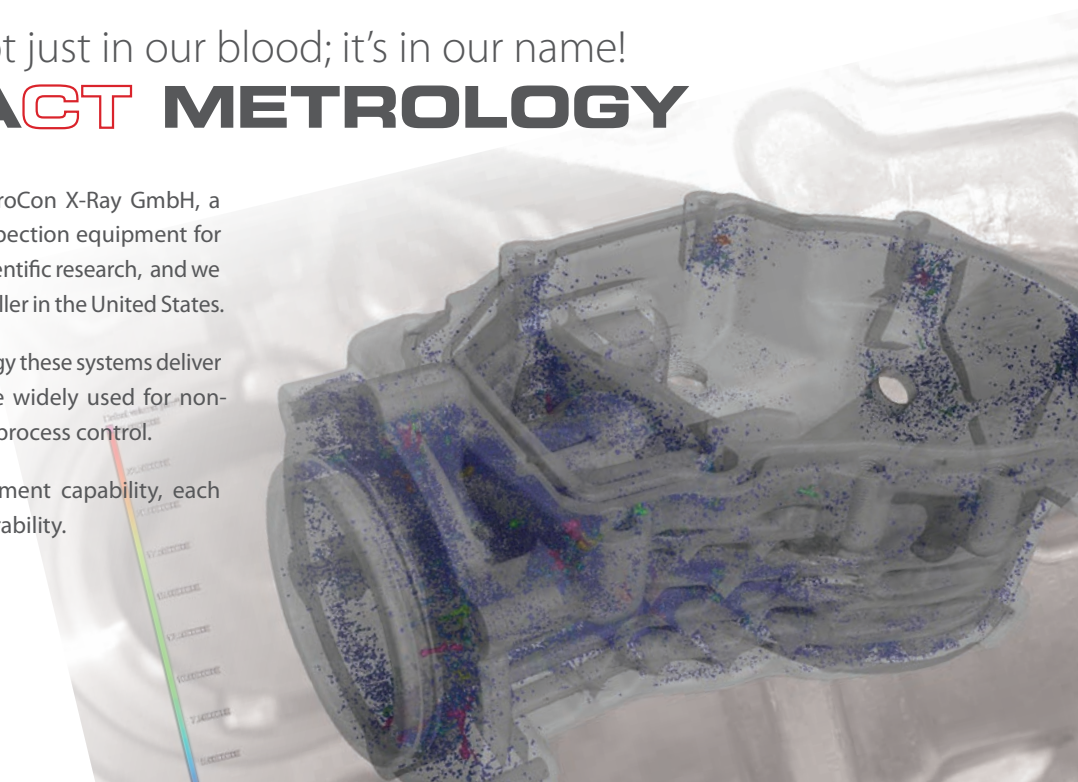
CT-ALPHA

It's not just in our blood; it's in our name!
EXACT METROLOGY

Exact Metrology has partnered with ProCon X-Ray GmbH, a premier German developer of x-ray inspection equipment for industrial applications and university/scientific research, and we are officially its sole representative and seller in the United States.

With high resolution focus x-ray technology these systems deliver uncompromised image quality and are widely used for non-destructive testing, failure analysis and process control.

Available in a wide range of measurement capability, each different size features user-friendly operability.



CT-ALPHA

This system meets the most stringent demands in CT X-ray. With the CT-ALPHA, we offer the highest possible flexibility for individual customer requirements.

This space-saving system can be equipped with different X-ray powers, from 160kV for nanometer resolution through 225 kV, 320 Watts to the highest power of 300 kV, 320 Watts.

The variable focus-detector distance permits maximum contrast. As an option, the CT-ALPHA offers the Helix-Scan technique for longer objects as well as for the best avoidance of volume CT artifacts for optimum results in dimensional measurement.

Very large geometric magnifications permit real-time reconstructions in the submicron range. The CT-ALPHA system is ideal for non-destructive testing, materials investigations and, in particular, dimensional measurements of internal structures, undercuts and free form surfaces.



CT-INLINE

The CT-INLINE is a versatile x-ray inspection system designed to be integrated into the customer's factory control procedures. It can provide x-ray inspection at line speed at any point in the manufacturing or packaging process.

- Transport system for full integration into the production line.
- Systems are optimized to provide best possible resolution for the application.

X-ray inspection offers the capability to detect, measure and analyze features hidden from view.

The CT-INLINE can identify:

- Contaminants such as metals, powders, bone, glass, PVC, plastics, stone, ceramic, cement and rubber
- Defects such as missing items, cracked or broken parts and misaligned parts



CT-COMPACT

The most versatile desktop system for 3D-CT requirements. We enable the CT-COMPACT, performing as the most flexible micro CT system on a bench.

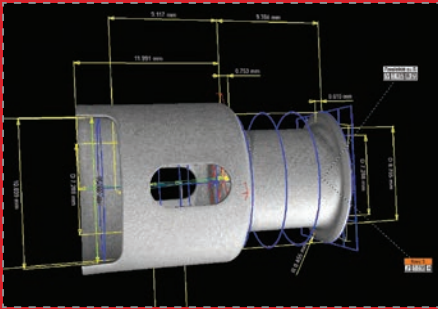
The space-saving CT-COMPACT can be equipped with micro-focus X-ray tubes capable of operation up to 160 kV, depending on specific customer requirements. The focus-detector distance can be adjusted to optimize the contrast.

A range of flat panel detectors is available, enabling the highest magnification. Due to the horizontally oriented X-ray beam, the CT scan remains uninfluenced by gravity.

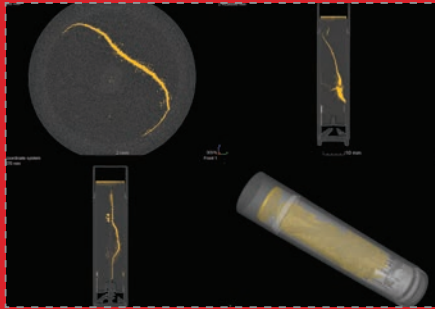
The CT-COMPACT system is ideal for nondestructive testing, materials analysis, metrology and, rapid prototyping. Due to our cabinet temperature concept the CT-COMPACT holds the certificate of proven measurement uncertainty, by Q-DAS.



Examples



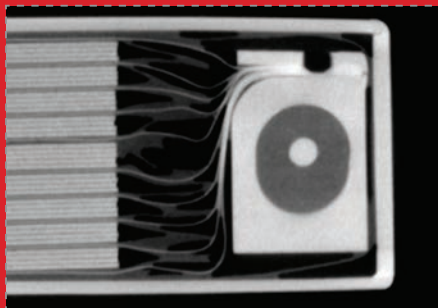
*Full Dimensional
Metrology Layout
(even on hidden features)*



*Void Analysis
in Lip Balm*



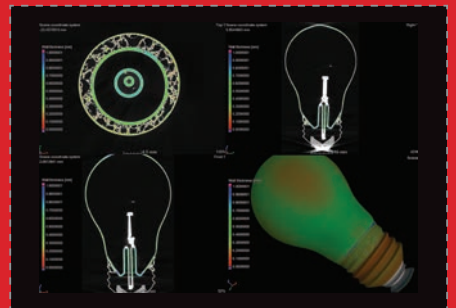
*Water Bottle
Closure Analysis*



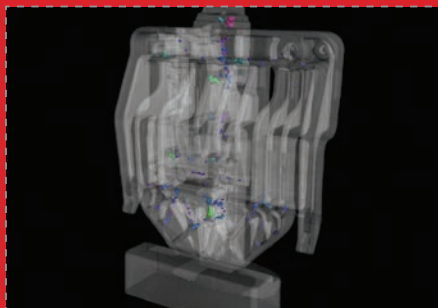
*Electrical Circuit
Visualization*



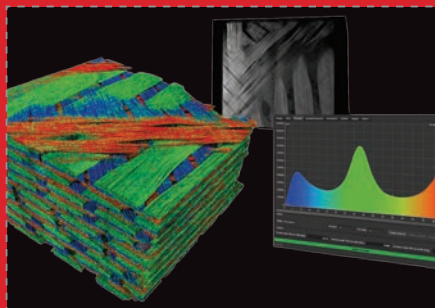
*Medical Needle Seat
Analysis in Plastic*



*Light Bulb Wiring
Connection Study*



Porosity in a Casting



Fiber Analysis



Food

CT-MINI

CT-MINI, - the Original- , with minimal space requirement, inspecting plastics, ceramics, and metals. This 3D-CT, from ProCon X-Ray GmbH "performs as laboratory micro CT by excellent CT results in real-time", comment of Norman Schott, our Applications Specialist.

The room-saving CT-MINI can be equipped with micro-focus X-ray tubes from 90 kV up to 130 kV, depending on specific customer requirements. The focus-detector distance can be adjusted to optimize the contrast. A range of flat panel detectors is available, to adapt customer's requirement. A sliding door opens wide in order to easily mount the specimen up to 200 mm onto the rotation table. The horizontal oriented X-ray beam helps to avoid gravity effects during scanning.

The CT-MINI system is ideal for nondestructive testing (NDT), materials analysis, rapid prototyping, and because of its fast on-line reconstruction capable for a production guided process control.



CT-XPRESS

The latest System generation by ProCon X-Ray GmbH is perfectly coordinated to the requirements in your dental laboratory. Dental impressions and implants can be scanned fast and precise. The results build the template for 3D Printers and milling machines.

The CT-XPRESS is equipped with a high productive 65W X-ray tube and a high-resolution flat panel detector.

The precision rotary table can be positioned between the tube and the detector as required for the needed magnification.

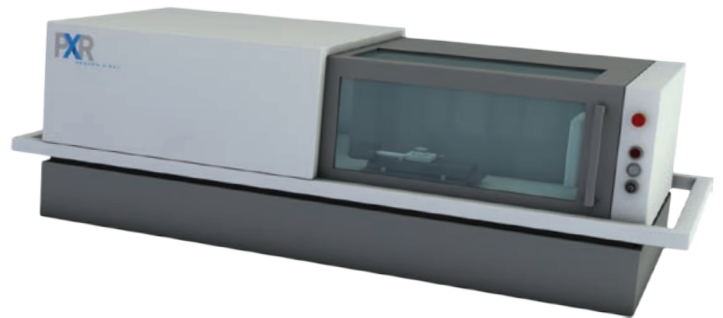


CT-MICRO

Fast and easy, CT-MICRO, the mobile microcomputertomograph from ProCon X-Ray GmbH provides 3D visualization and CT slices at any desired site of quality control. The CT-MICRO is an on-line process monitor for plastics, ceramics, and organic materials.

The CT-MICRO is configured with a highly productive 50W X-ray tube and a high-resolution flat panel detector. The precision rotary table can be positioned between the tube and the detector as required for the needed magnification.

With a selected 50 x 50 mm detector and pixel size of 50 µm, on-line reconstruction of 3D details less than 25 µm are possible in less than 2 minutes. Automatic generation of STL formats, makes the CT-MICRO a 3D process monitor of choice for nondestructive testing or rapid-prototyping at continuous production.



CUSTOM

In addition to our off-the-shelf selection, we can collaborate with ProCon to build custom CT Scanners to fit any application's requirements. At right you'll see CT-DrillCore and CT-LongCore models. Both are equipped with HELIX CT, FLY CT and Batch CT Script Program along with features specific to end result needs.

If you're not sure which CT technology is right for you, give us a call and we'll walk you through your options.



		CT-ALPHA	CT-COMPACT	CT-MINI	CT-XPRESS	CT-MICRO	
SPECIFICATIONS	X-ray voltage	Standard	160 kV	130 kV	90 kV	130 kV	50 kV
		Advanced	160 kV	150 kV	130 kV		60 kV
		Metrology	225 kV	160 kV			
	Detector	Standard	50 μm, 1 K ²	50 μm, 1 K ²	50 μm, 1 K ²	75 μm	50 μm, 1 K ²
		Advanced	33 μm, 9 K ²	50 μm, 4 K ²	100 μm, 1 K ²		100 μm, 1 K ²
		Metrology	100 μm, 8 K ²	200 μm, 1 K ²			
	Specimen	Standard	70 mm, 5 kg	70 mm, 5 kg	35 mm, 5 kg	100 mm, 5 kg	35 mm, 5 kg
		Advanced	70 mm, 20 kg	70 mm, 20 kg	70 mm, 20 kg		70 mm, 20 kg
		Metrology	300 mm, 50 kg	150 mm, 30 kg			
Axes	Standard	5	3	2	2	1	
	Advanced	5	3	2		1	
	Metrology	5	4				
Reconstruction	Standard	1 K ³ , real-time	1 K ³ , real-time	1 K ³ , real-time	real-time	1 K ³ , real-time	
	Advanced	1 K ³ , real-time; 27 K ³ , off-line	1 K ³ , real-time; 8 K ³ , off-line	1 K ³ , real-time; 8 K ³ , off-line		1 K ³ , real-time	
	Metrology	1 K ³ , real-time; 32 K ³ , off-line	1 K ³ , real-time				
Smallest 3D detail	Standard	1 μm	5 μm	5 μm	5 μm	25 μm	
	Advanced	0.33 μm	2.5 μm	5 μm		50 μm	
	Metrology	0.25 μm	5 μm				
System weight	Standard	2100 kg	500 kg	500 kg	300 kg	85 kg	
	Advanced	2300 kg	600 kg	500 kg		85 kg	
	Metrology	2600 kg	750 kg				
FEATURES	Industrial X-ray Computed Tomography (CT)	X	X	X		X	
	Laboratory X-ray Computed Tomography (CT)				X		
	3D volume CT	X	X	X	X	X	
	Non-destructive testing (NDT) – 2D and 3D	X	X	X		X	
	Quality control independent of material	X	X	X		X	
	Defect recognition (voids, cracks, ...)	X	X	X		X	
	Contactless metrology	X	X	X		X	
	CT reconstruction in real-time	X	X	X		X	
	Easy operation	X	X	X	X	X	
	Radiation safety better than 1 μSv/h	X	X	X	X	X	
	Ring artefact suppression	X	X				
	Optimized scan-time				X		
	Desktop system		X	X			
	Mobile deployable				X	X	
	Process Control						
	Helix CT	X					

CT-INLINE (Standard)

SPECIFICATIONS	TUBES	DETECTOR	GEOMETRICS		FEATURES	
	130 kV sealed, 160 kV sealed	Line detector 1 mm x 2000 mm 500 μm, 14 bit Flat Panel detector 2k x 2k, 50 μm, 12 bit	Spot detector distance FDD 650 mm / 300 mm Spot object distance FOD 13 mm - 500 mm Magnification up to 50 fold			<ul style="list-style-type: none"> X Process Control X Optimized scan-time X Easy operation X Radiation safety better than 1μSv/h
	SPECIMEN	RESOLUTION	INSPECTION SPEED	DIMENSION		
2 mm - 1500 mm, panels and volume 100 kg	Min. Voxel size 10 μm	Inline 10 mm / sec.	L 2000, W 700, H 2000, 750 kg			

OVERVIEW



Contract Measurement Services • Metrology Equipment Sales

Exact Metrology, Inc. is a full service measurement company. In addition to selling CT Scanners and performing CT contract services on-site or in-house, we provide contact (Probing & Digitizing) and non-contact (3D Scanning) measurement, on-site inspection, and reverse engineering technologies. Our complete range of portable Coordinate Measurement Machines (CMMs) and scanning equipment allows us to handle most measurement tasks at your facility. Once the measurements are complete, our team of technicians will convert and output the raw data into the model, report, image, animation or whatever deliverable best gives you the answers and results you need.

We also rent metrology equipment solutions, and offer software training.

When You Want Exact, You Need Exact Metrology



ISO 9001: 2008 & AS9001 Certified Company
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