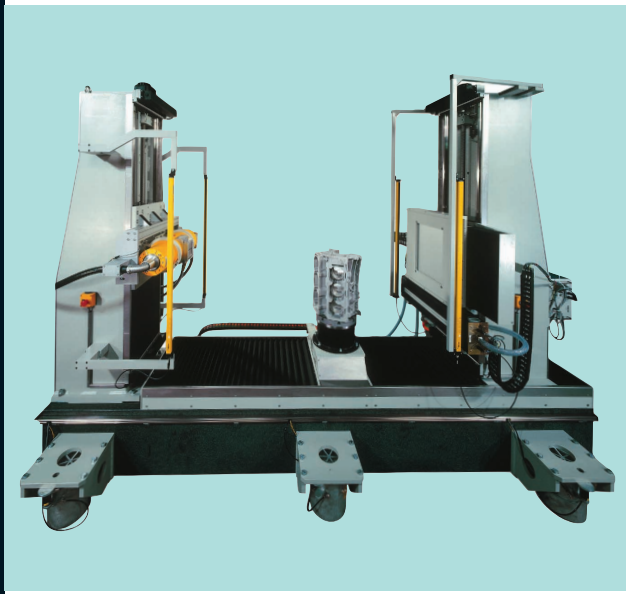
Technical Data

Y.CT Universal

YXLON.CT Universal
CT based X-ray Inspection System for a wide inspection item spectrum



Universal test requirements require a universal test system. With the Y.CT Universal, a CT system is offered that meet these requirements. This flexibility is made possible by the combination of a large test space, a manipulator for precise placement of items, a high energy X-ray source and a Line Array Detector and Flat Panel.

The strengths of the Y.CT Universal come into play when within the wide inspection item spectrum, voluminous and heavy components need to be tested. For instance, engine blocks can be as precisely researched as spark plugs.

This information is then available for the development of innovative products – which contributes to the economic strength of the company within the market.

YXLON. The reason why.

- Various material testing
- Wide Inspection envelope
- Voluminous and heavy inspection items
- Line Detector and Flat Panel
- Application for research and development

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Measurement modes	Computed Tomography Line Detector Array Computed Tomography Flat Panel Radiography	Slice images / Fan beam Volume scan / Cone beam Continuous rotation / stop & go mode Digital radiography / Real time		
X-ray system	X-ray system (see also separate datasheet) X-ray tube Tube voltage / Tube current Power Focal spot according to EN12543 Cooling Supplies	MG 452 Y.TU 450-D02 60 - 450 keV / 2.0 - 9.0 mA 900 W 2.5 mm Oil-Water / Oil-Air Filter kit and collimators		
		alternative **Line Detector Array**	alternative **Line Detector Array**	optional **Flat Panel**
Inspection envelope	Inspection item weight inspection item height Inspection item max. diameter	75 kg 1,200 mm 505 mm	75 kg 1,200 mm 620 mm	75 kg 1,200 mm 315 mm 630 mm (horizontal scan field extension)
Performance	Spatial resolution Contrast resolution Scan time Scan time incl. reconstruction Reconstruction	73 - 195 µm 1 % 15 sec 30 sec	73 - 195 µm 1 % 15 sec 30 sec	115 - 300 µm 1 % 300 ms / Projektion (1024^2 Pixel) Inline Reconstruction 512^2 Voxel, 360 Projections approx. 100 sec
Imaging system	Type of Detector Format / Sensor Resolution / Pitch Dynamic	Line Det. Array LDA2604-250-5X 651 mm effective length 2604 Pixel / 250 µm 16 bit	Line Det. Array LDA3224-250-5X 806 mm effective length 3224 Pixel / 250 µm 16 bit	Flat Panel PE RID 1640 CT 409,6 x 409,6 mm^2 Sensor area 1024 x 1024 Pixel / 400 µm 16 bit
Imaging parameters	Magnification Minimal Focus-Detector-Distance Maximum Focus-Detector-Distance	1.25 - 3.33 times 1,000 mm 2,000 mm	1.25 - 3.33 times 1,000 mm 2,000 mm	1.25 - 3.33 times 1,000 mm 2,000 mm
Manipulator	Material Dimensions (Length x Depth x Height) Weight Turntable diameter - max. speed / precision Longitudinal axis turntable - max. speed / precision Vertical axis X-ray source 450 kV - max. speed / precision Vertical axis detectors - max. speed / precision Longitudinal axis detectors - max. speed / precision Traverse axis Flat Panel (scan field extension) - max. speed / precision	Steel / Granite 3,800 x 1,300 x 2,850 mm^3 6 t 400 mm / plane surface, witch notches 45 °/s / 0,04 ° 1,500 mm 50 mm/s / < 50 µm 1,200 mm 50 mm/s / 50µm 1,200 mm 50 mm/s / 50µm 1,100 mm 50 mm/s / 50µm 500 mm 50 mm/s / 50µm		
Radiation protection	Radiation protection cabin	Customized radiation protection solutions Typical mass for walkable cabin (L x W x H): 5,500 x 3,000 x 3,200 mm^3		
Control unit	Operators Desk with two 19 " TFT Monitors Computer server cabinet with X-ray operation sector			
Software	Control software Analysis software	Y.CT Control Software Y.CT Inline Reconstruction 3D Volume Software VG Studio		
Environment	Power supply Ambient air temperature Humidity	3 phases + PE + N 63 A / 400 V / 50 Hz 20 - 25 °C 30 - 70 %, no condensation		
Optiones	Monitoring camera Laser for indicate slice position Hand-held control for manipulator Active vibration absorber Software	e.g. VG Studio Max, Nom. / Act. Value Comp. Measurement Software, Reverse Engineering		
Customized	At customer request configurations are freely eligible			

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