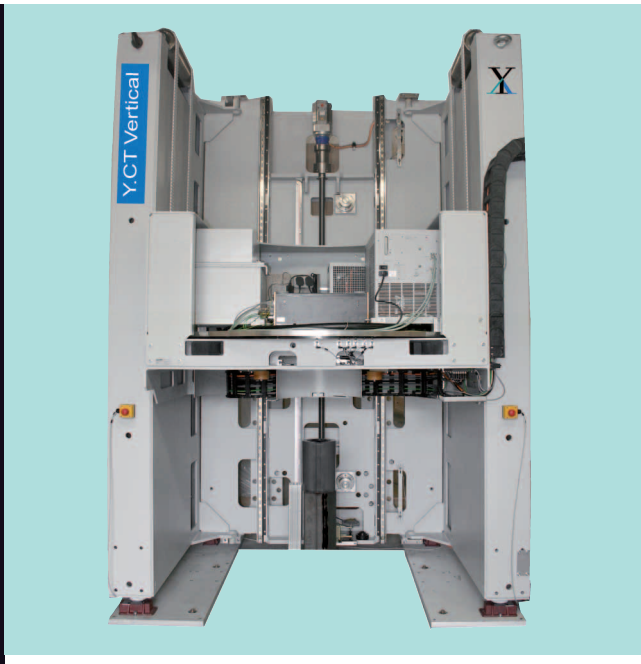
Y.CT Vertical
CT-based X-ray inspection system for testing long inspection items



When tomograms of particularly long inspection items are required, YXLON is offering a new solution for industrial computed tomography: Y.CT Vertical. The innovative manipulation principle makes use of a gantry to rotate the X-ray tube/detector unit around a standing inspection item. Free-standing, particularly long inspection items can now be tested and inspected with this method.

The applications range from cylindrical inspection items such as pipes or rotor blades all the way to core samples. The examples for inspection in practice include welding seams, material structures and composites, as well as geological soil strata.

Y.CT Vertical has the capacity to record full-scale data for objects to be inspected up to 3 meters long. The positioning accuracy of the manipulator continually lies on a µm scale, even when the system has to travel along axes this long.

YXLON. The reason why.

- **rotating X-ray tubes/detector unit**
- **fixed, standing inspection item**
- **inspection items up to 3 meters long**
- **highly precise travel axes**
- **fully automated determination of region of interest**

YXLON.Products

		Y.CT Vertical
Measurement modes	Computed Tomography Line Detector Array Radiography	Slice images / Fan beam Digital radiography
X-ray system	X-ray system (see also separate datasheet) X-ray tube Tube voltage Tube current Power Focal spot according to EN12543 Cooling	Y.MG226 Y.TU 225-D03 20 - 225 keV 2.8 mA @ 225 kV / max. 15 mA 640 W 1.0 Water
Inspection envelope	Inspection item diameter Inspection item height	260 mm 3,000 mm
Performance	Spatial resolution Contrast resolution Scan time	0.2 mm lateral / 0.2 mm vertical 0,4% 20 sec
Imaging system	Type of detector Format / Sensor Resolution / Pitch Dynamic	Y.Line Scan 500 mm effective length 2,048 Pixel / 250 µm 16 bit
Imaging parameters	Magnification Focus-detector-distance Focus-object-distance	1.8 times 800 mm 350 mm
Manipulator	Rotation axis Gantry openning inside diameter - max. speed / precision Vertical axis - max. speed / precision Dimensions (L x D x H)	 500 mm 3,2 Upm / 1.8" 3,200 mm 60 mm/sec / 0.005 mm 2,200 x 2,700 x 3,800 mm^3
Radiation protection	Radiation protection cabin	Customized radiation protection solutions
Control unit		Operators desk with one 19" TFT monitor Computer server cabinet with X-ray operation sector
Software	System software	Y.CT Software Control, reconstruction, remote maintenance automatic position control from inspection item
Environment	Power supply Ambient air temperature Humidity	3 phases + PE + N 63 A / 400 V / 50 Hz 20 - 25 °C 30 - 70%, no condensation
Options	X-ray source Software	320 kV e.g. pores-flaws analysis, analysis of wall thickness etc. Nom./Act. Value Comp
Customized	At customer request configurations are freely eligible	

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