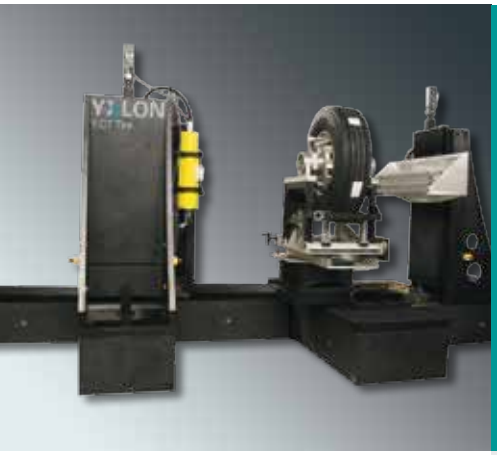
Y.CT Tire

CT system for the tire industry



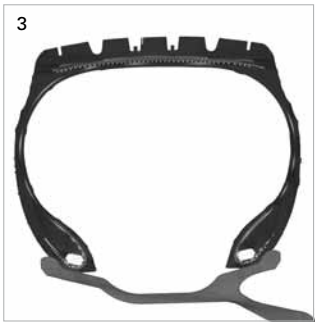
- Full 3D information on tire components and construction
- High-resolution images for research and development
- Wide range of tires and applications, wheel-mounted too
- Tire constraining unit for inspection under real-life loads

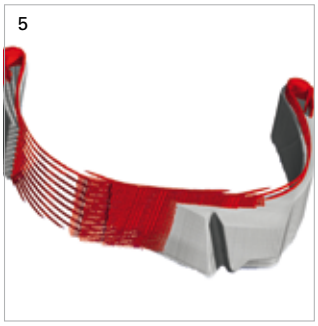
Y.CT Tire from YXLON is a R&D system based on computed tomography (CT) designed for a wide range of tires, from small motorcycles to large trucks. It provides full 3D information on the tire's inner structures. Different components such as bead, rubber and cord layers can be analyzed separately in the reconstructed 3D image. The line X-ray detector specially developed and manufactured at YXLON generates high-resolution images with excellent contrast and spatial resolution. In certain applications, it can even display different rubber components inside the tire.

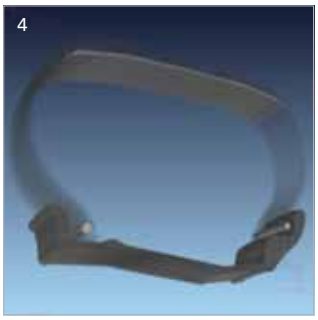
Tires can stay mounted on the wheel while taking images to provide a more realistic view. The most accurate representation of real-life performance can be achieved using the tire constraining unit (TCU). It is able to assert multiaxial load forces representing various accelerations, similar to what the tire experiences on the road.

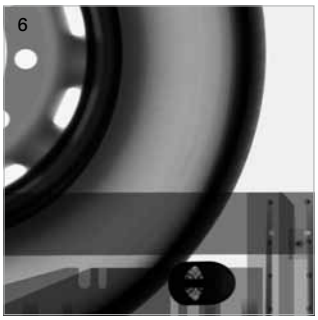
YXLON. X-ray technology at its best.

YXLON
Technology with Passion









1 450 kV X-ray tube
2 Line detector
3 CT slice, truck
4 3D segment, passenger
5 3D segment, truck
6 X-ray image

Excellent images

The system can be set up with a 450 kV X-ray tube or a 4 MeV linear accelerator, depending on the application. The object holders and manipulators have been designed by YXLON specially for tire applications.

Expert application support

We know CT inside-out. Our experts at YXLON are ready to take on your problem and find a solution with you.

High-end software

A standard YXLON CT software is installed on the system. It takes care of control, image acquisition and 3D reconstruction. Additional software is available for viewing, editing and measuring the 3D data.

YXLON
Technology with Passion

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X-ray system

X-ray tube	Y.TU 450-D09	Y.LINAC 4
Tube voltage	20 kV – 450 kV	4 MeV
Focal spot acc. to EN 12543	0.4 mm /1.0 mm	0.4 mm to 3 mm

Imaging System	
Type of detector	Y.LDA 250-16-100
Detector length	1,024 mm
Resolution	4.030 pixel, 250µm pitch

Performance	
Spatial resolution	0.10 mm – 0.60 mm
Contrast resolution	< 1%
Typical scan time	15 sec – 2 min

Inspection envelope	
Inspection item diameter	900 mm – 2,000 mm
Inspection item width	400 mm – 600 mm