

Y.MTIS Performance PCR Modular Tire X-Ray Inspection System



The Modular Tire X-Ray Inspection System (MTIS) meets the specific needs of the global tire industry for consistent high-quality inspection.

YXLON International – specialist for industrial X-ray systems and components – is offering turnkey solutions based on its expertise in X-rays, imaging and software.

Key components are manufactured by YXLON itself and adapted to the specific tire application. YXLON covers the full range of required inspection modes such as manual, semi-automatic and fully automatic modes.

These make MTIS the most successful X-ray inspection system in the tire industry.

YXLON. The reason why.

- Inline integration for high throughput
- High-contrast X-ray images (complies with ASTM F1035)
- Only system offering 4-point bead spread
- Simple operating principles and automatic tire handling
- Multiple upgrade options (e.g. fully automatic inspection)

Tire specification

	Passenger	
Weight	132 lbs.	(60 kg)
ID max.	26"	(660 mm)
ID min.	13"	(330 mm)
OD max.	43"	(1,092 mm)
OD min.	19.5"	(495 mm)
Overall width, max.	15.75"	(400 mm)
Min. inner bead-to-bead distance for incoming tire 2.36" (60 mm)		
Min. inner bead-to-bead distance during inspection 4.72" (120 mm)		

Quality modular components

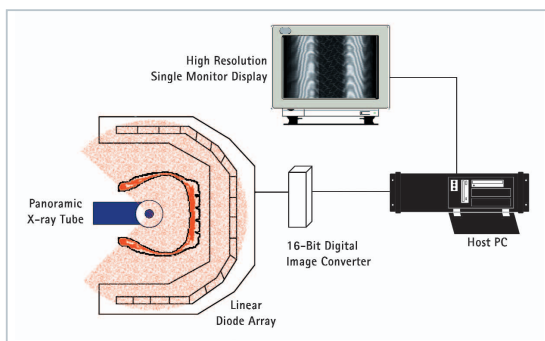
Automatic handling system

The PLC-controlled handling system supports a set up, manual and semi-manual mode. The tire is automatically loaded and unloaded. The tire manipulator includes four equidistant bead spreader and rotating spindles to provide rotation stability. The tire stays in a vertical position during inspection to ensure a symmetrical image.



Y.U-Scan

The YXLON U-shaped LDA imaging system is designed to meet the most stringent spatial resolution and contrast sensitivity requirements in compliance with ASTM F-1035.



AD conversion:	16 bit
Pitch:	0.019" (0.500 mm)
No. of pixels:	1,920

Unipolar constant potential X-ray system MG103

Includes the YXLON panoramic X-ray tube. Designed for high reliability and long life, the YXLON panoramic X-ray tube provides consistent geometrical presentation from bead to bead.

H.V. adjustment range	5 - 100 kV
H.V. adjustment increments	0.1 kV/step
mA adjustment range	0 - 6 mA
mA adjustment	in 0.05 mA steps

Operator console

Provides a comfortable and safe work environment, including:

- high resolution monitor
- PLC human/machine interface
- MGC 41 X-ray controller



Radiation-shielded cabinet

A welded construction with a sliding door for product access and a rear-access panel for servicing. Conforms with Title 21 of the U.S. CFR, Part 1020, Section 40 and the German „Röntgenverordnung“ (X-ray regulation) from 2003.

System specifications

3N PE 400 VAC + 10% - 15%, 50/60 Hz, approx. 5 kW

Temperature: 41 - 104 °F (5 - 40 °C)

Humidity: 80% max., non-condensing at 68 °F (20 °C)

Footprint*: 2.7 m x 4.8 m x 5.1 m (h x w x d)

106" x 189" x 201" (h x w x d)

*Actual system footprint is larger to allow for door openings and an operator room.

MTIS Performance options

- Operator room
- Accept/Reject marker
- Bar-code identification
- Sorter
- Offline station
- TireAxis™ automatic X-ray inspection system