

# Y.MTIS Advanced Modular tire X-ray inspection system



The MTIS modular tire X-ray inspection system was developed to meet the specific needs of the global tire industry. Whether you are inspecting passenger or truck tires, the MTIS modular design allows the unit to grow and meet your ever changing inspection demands while keeping your investment dollars at a minimum. Incorporating advanced real-time X-ray technology, YXLON has given the industry a more versatile method of verifying the integrity of tire construction.

X-ray testing of tires is the most widely accepted and proven quality control method available today. Manufacturers around the world choose YXLON's MTIS modular tire X-ray inspection system for its unique inspection capability and simplicity of operation.

*YXLON. The reason why.*

- compliant to ASTM F1035
- bead to bead inspection with consistent geometric presentation in one rotation
- high resolution images of high- and low-density materials such as steel, aramid, nylon and polyester
- simple operating principles, manual loading and unloading
- many performance enhancing options available

## Tire specification

|   | Passenger        | Truck             |
|---|------------------|-------------------|
| Weight  | 132 lbs. (60 kg) | 352 lbs. (160 kg) |
| ID max.   | 25" (635 mm)     | 26" (660 mm)      |
| ID min.   | 13" (330 mm)     | 14" (355 mm)      |
| OD max.   | 54" (1,372 mm)   | 54" (1,372 mm)    |
| OD min.   | 19.5" (495 mm)   | 19.5" (495 mm)    |
| Overall width, max.   | 20" (508 mm)     | 20" (508 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

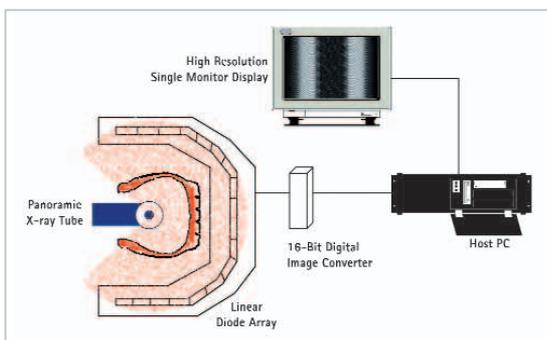
### ■ Unipolar constant potential X-ray system MG165

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

|                            |               |
|----------------------------|---------------|
| H.V. adjustment range      | 7.5 - 120kV   |
| H.V. adjustment increments | 0.1 kV/step   |
| mA adjustment range        | 0 - 8 mA      |
| mA adjustment              | 0.05 mA steps |

### ■ Y.U-Scan

YXLON's U-shaped LDA imaging system is designed to view the most stringent spatial resolution and contrast sensitivity requirements compliant with ASTM F-1035.



|                |                   |
|----------------|-------------------|
| Resolution:    | >16000:1          |
| Pitch:         | 0.033" (0.850 mm) |
| No. of pixel:  | 1,536             |
| Pre-processor: | 16 bit            |

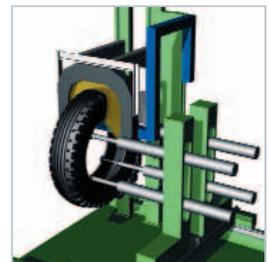
### ■ Operator's console

Provides a comfortable and safe work environment including:

- 22" high-resolution VGA monitor,
- PLC human/machine interface
- MGC 41 X-ray controller

### ■ Handling system

The PLC controlled tire handling system supports a set-up, manual and semiautomatic mode. The tire manipulator is loaded manually and includes four equidistant bead spreader and rotating spindles to provide stability of rotation. The image system manipulator provides linear motion of the LDA assembly radial to the centerline of the tire.



### ■ Radiation enclosure

A welded construction including a sliding door for product access and access panel for service purposes. Conforms to Title 21 of the U.S. CFR, Part 1020, Section 40 and the German Röntgenverordnung from 2002.

## 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)

Air pressure: 87 PSI (6 bar)

Footprint\*: 106" x 169" x 150" (h x w x d)

2,7 m x 4,3 m x 3,8 m (h x w x d)

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

## MTIS Advanced options

- Operator's room
- High resolution 20" monochrome TFT-LCD monitor
- TireAxis™ automatic X-ray inspection system
- System upgrade to MTIS Performance or MTIS Efficiency