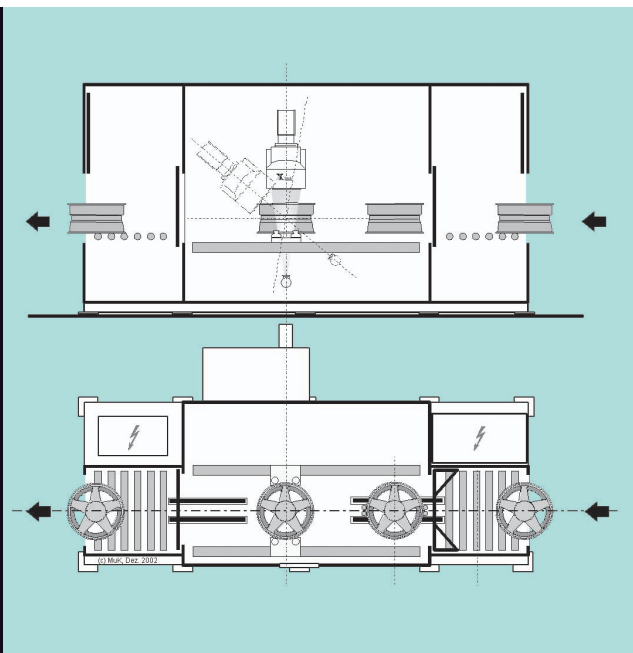


Y.WHEEL 6000

In-line Wheel inspection system



The YXLON.WHEEL 6000 is designed for the high-speed inspection of unmachined light alloy wheels up to 15.8 " height and 27.6 " in diameter. Due to the special conveyance and gripper unit, the system is insensitive even to big flashes. Either mixed mode or batch processing is possible.

The system can be operated in two standard modes: In the semi automated mode the manipulation of the wheel as well as the X-ray parameters are controlled by the numeric control. In the manual operation mode the operator positions the wheel via joysticks and adjusts the X-ray parameters manually.

The U-arm manipulator with the X-ray source and the image intensifier is fixed to one of the service doors and may be swung out of the X-ray enclosure for service purposes.

YXLON. The reason why.

- very fast cycle times, low idle times
- insensitive even to big flashes
- simple, intuitive user interface
- easy to maintain



Test samples

Wheels:	4J x 12 " to 12J x 25 "
Max. height incl. feeder:	400 mm
Max. diameter:	700 mm
Max weight capacity:	50 kg

Test cycle parameter

Cycle time:	≤ 30 sec for 3 rotations
Idle time:	≤ 5 sec
Machine uptime:	≥ 90 %

Operating modes

Semi-automated mode
(wheel manipulation, X-ray parameters via NC)
Manual mode
Service mode

Manipulation

U-arm with X-ray – Image Intensifier chain
Magnification: approx 1.8 up to 2.0,
manually adjustable
Tilt: -50 ° to +10 °
AC servo drives with absolute encoders
L-chain conveyor:
Traverse movement: 350 mm
Rotation: ± n x 360 °
AC servo drives with incremental encoding

Inspection enclosure

The enclosure is manufactured in compliance with the German X-ray law and designed for X-ray energies up to 160 kv / 19 mA. The enclosure contains 2 interlocked service doors (one with lead glass window). When disconnected, these interlocks deactivate the X-ray system and the manipulator. The wheels are loaded and unloaded through pneumatically driven sliding doors.

Dimensions incl. control enclosure
approx. values (W x H x D): 5,000 mm x 2,500 mm x 2,600 mm
Service doors: 2,000 mm x 1,000 mm
Pb glass window: 400 mm x 600 mm
Weight: 8,000 kg
Conveyer hook-up height: 800 mm

X-ray System MG165/2.25

With 160 kV metal-ceramic X-ray tube,
tube voltage: 8-160 kV*

Imaging Intensifier XRS233

With 9 " input window, 3-fold switchable*

Control Console

Integrated components:
Microprocessor based X-ray controller MGC 41
Operator controls for image intensifier and manipulation
Industrial PC with color TFT display for Windows based graphic user interface
PLC for system control
Dimensions:
approx. values (W x H x D): 1,200 mm x 1,600 mm x 1,000 mm
Weight: 160 kg

Utilities

3 x 240 / 400 VAC + 10 % – 15 % (3 phase, N, GND),
50 / 60 Hz, 35 A
Power consumption: approx. 4.5 kW
Air supply (typical): 5 MPa at 4 m³/h
Water cooling
for X-ray tube: 4 m³/h

Options

- Automated wheel identification system
- High performance tool YXLON.AI for fully automated X-ray inspection decision with detailed statistical process control
- Image Intensifier XRS303, 12" / 32 cm input window,*
- Motorized magnification axis

For further options, e.g. conveyor technique please contact YXLON International

Compliances / Regulations

Products manufactured by YXLON International X-Ray GmbH comply with stringent quality and safety regulations such as:

- DIN 54113 (tube leakage limits and safety requirements)
- IEC 529
- German X-radiation law of 2002
- CE-Conformity
- US-standard regulations on request
21CFR§1020.40, 47CFR§15 (FCC)

The quality assurance system of YXLON International X-Ray GmbH is certified to ISO 9001.

* Additional data available on separate datasheet