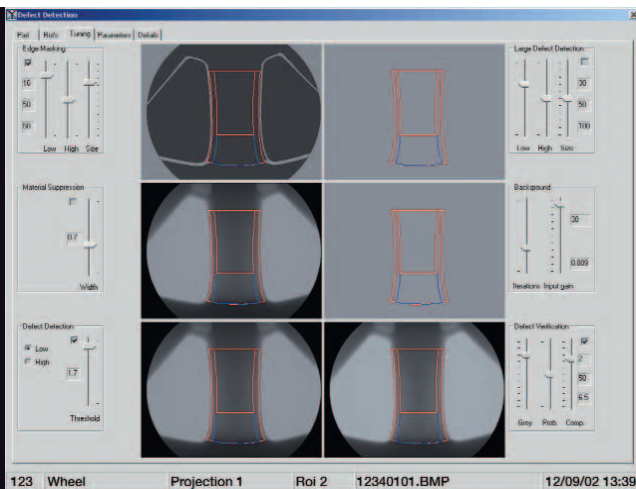


YXLON. Automatic Inspector Release-9



AI Rel-9 is the high performance tool for fully automatic X-ray inspection of light alloy wheels. Automatic monitoring of X-ray and imaging conditions ensures consistent boundary conditions for reliable inspection results. The unique ROI capability enables individual corrections and parameter settings for inspecting the different regions of the X-ray image. Thus any anomalies can be precisely surveyed and classified, and the false reject rate is minimized. The statistic can help to optimize the production process.

The system can run in fully automatic mode or in supervised inspection mode where the operator can override the computer's inspection decision.

YXLON. The reason why.

- fast, easy setup of new inspection specification
- high throughput
- consistent, reliable inspection results
- minimum false reject rate



User Interface

- Menu driven setup of inspection parameters
- Use of standard setups
- Password-protected access to setup data
- Selection of the dialog language

Parameter Setting for Image Processing

- Automatic image intensifier image correction (unfolding, normalization)
- Free definable Regions of Interest (ROI)
- Individual setup per ROI:
 - Calibration of the magnification factor
 - Optimal adjustment of detection sensitivity
 - Optimal adjustment of detection robustness
 - Specification of anomaly types
 - Classification of anomalies (cross reference of types and sizes vs. "Reject" levels)

Inspection Modes

- Teach mode
- Fully automatic inspection mode
- Supervised inspection mode (when used with 'Quick Programming', any new program for a part can be finished in less than 20 minutes)

Self-Monitoring

- Automatic, periodic test of the X-ray tube/imaging device (step wedge test)
- Automatic, continuous test of the image quality per ROI

Inspection Results Archiving

- Detailed record of all inspection results (e.g. part, location, classification, accept/reject) and inspection time
- Archiving of unprocessed and processed images with ROI and anomaly indication
- Automated report generation, e.g. survey of anomaly rate

Scope of Delivery

The AI Rel-9 is built up in multi processor architecture. Depending on the inspection task, several slave processors are linked to the host processor via Ethernet. Normal configurations consist of up to 3 slaves

Host Processor

Industrial PC with

- Intel® Pentium® 4 CPU, 2 GHz processor (min.)
- 512 MB RAM
- High-quality Frame grabber
- Dual hard disk > 60 GB
- CD/DVD writer with burning software
- Keyboard
- Optical Mouse
- Windows 2000® Professional
- Host software package for on-line operation of the AI/inspection system communication

Slave Processors

Industrial PC with

- Intel® Pentium® 4 CPU, 2 GHz processor (min.)
- 512 MB RAM
- Dual hard disk > 60 GB
- Slave software package for image analysis tasks

19 " Industrial Rack

For the host and slave PCs, UPS (1400 W), Ethernet switch and cables.
Dimensions: 1200 x 600 x 600 mm³ (47 " x 23.6 " x 23.6 ")

Options

- Off-line program for inspection parameter setup and result verification
- On-line statistics
- Wheel Identification System
 - Selection of the correct inspection program on the MU 231/AI
 - Computation of the wheel orientation
 - Physical adjustment of the wheel to a prespecified reference orientation