AI-based Visual Inspection system

μNET Inspector 1.6

Intelligent detection of microscopic defects

• High scan speed: < 10 seconds for a 1.6 gigapixel image
• Flexible vacuum table for different product types: sheets, hard plates
• Fast change over: one lens for different object sizes
• Software: fast custom AI-based algorithms, simple operation
• High-speed line scan cameras with 3.5 μm pixel size
• High-end inference platform with 90 TFLOPS
• Automation available for in-line applications

Self-learning Neural Network
Defect Detection & Sorting system

μNET Inspector 1.6

Haiku Tech introduces a vision inspection machine with an outstanding performance/speed ratio. Self-learning AI software in combination with high quality components allows new microscopic scale full object inspections at speeds previously impossible.

The machine comes with a linear motor X-Y vacuum table that transports sheets or plates to the high magnification line-scan cameras. The inspection information is processed by an intelligent AI server within the 20 ms range per image. The machine can run automatically in-line with production equipment by addition of product handling robots. The state of the art AI software achieves sophisticated standards of reliability and repeatability at a high inspection speed. The machine’s self-learning algorithm HiQtensor 1.6 achieves low inspection failure rates and teaches itself how to detect the defects of the future. A user interface displays the location of defects for corrective actions. A microscopic on-screen 2nd opinion check by operators or engineers is available in the software. The smart system allows to increase the yield and quality output of your factory.

Main Inspection Features
- Ceramic Defects
- Chipping, Crack
- Blister
- Crater
- Burst
- Pin Hole
- Scratches
- Surface Contamination
- Discoloration
- Hairs

Inspection of SOFC, LTCC and other Ceramic products

Specifications μNET Inspector 1.6

- Field of scanned view: 150 mm by 150 mm
  200 mm by 200 mm
- Cameras: 2x 8000 pixel line scan cameras
- Image collection speed: <8 s
- Image size: max 2 GPixel
- Pixel size: 3,5 or 4,9 μm
- Min. defect size: 10 μm
- Defect detection speed: appr. 10 s
- GUI: touch panel and HMI screen with keyboard/touchpad
- AI tensor performance: >90 TFlops
- Software: HiQtensor 1.6
- Safety: CE
- Electrical: 3 x 400 Vac with N, 50/60 Hz
- Fuse; Power: 32A; 8 kW
- UPS: 30 minutes for server and AI
- Air: 200 NL/min, 6 MPa
- Dimensions: W 74 cm, D 102 cm, H 178 cm
- Weight: 350 kg

www.haikutech.com