

WICKON HIGHTECH

SPEEDCube 3D AOI



The system where speed meets high accuracy, forming a high-end solution for 3D inspection. It is now possible to inspect both moist and sintered pastes and rough surfaces.

The technique is based on our patented technology to capture 3D images quickly and very stably. Each grabbed pixel from a line sensor has the third dimension included, this also given at moist pastes. Unlike other measurement procedures, data interpretation is not necessary.

Of course, an individually adapted system structure is possible to be created to perfectly correspond with your respective requirements.

SPEED

Up to **350 [cm²/s]**
@12µm

Available Optical Resolutions:

1,8 / 6,4 / 7,5 / 10 / 12,5 [µm]

Repeatability ± 0,4 µm @ 6 Sigma

Other resolutions upon request.

CHARACTERISTIC

- High speed – up to 300 cm²/s
- Maximum accuracy – up to 1,8 µm (height specification)
- Repeatability ± 0,4 µm @ 6 Sigma
- Innovative patented light technology
- Intelligent algorithms preventing pseudo error occurrences
- **NEW:** Moist / sintered pastes
- **NEW:** Inspection with double or triple inspection head.

INSPECTION PERFORMANCE

resolution	speed
3 µm	20 cm ² /s
7 µm	90 cm ² /s
10 µm	200 cm ² /s
12 µm	350 cm ² /s

* Inspection with one inspection head only. Speeding up the process time is still possible and available at request.

System Models

- \ Inline – single and double track
- \ Offline
- \ Integration in existing system (e.g. handling system, printer, etc.)
- \ Also available as table-top system with fully automatic handling for small products (macCube: mini automation cell)
- \ LEAN production cell

Options

- \ Offline programming unit
- \ Good-bad functions
- \ Vacuum table
- \ Bar code reader
- \ Electrical width setup
- \ Flat Conveyor belt drive
- \ Round belt drive
- \ MES system communication
- \ CSV export

Lightning

- \ **3D lighting** for topography specification
- \ **Top light 2D** (with two wavelengths) highlights structural changes
- \ **Dark field lighting** highlights relevant sub-areas
- \ **Diffuse light** highlights relevant sub-areas
- \ **Transmission light** Transparency of substrate needed.

PASTE

- \ Not enough soldering paste
- \ Too much soldering paste
- \ Soldering paste missing
- \ Bridge / short circuit
- \ Smeared paste
- \ Dust / contamination
- \ Incorrect paste form

PRINT

- \ Volume
- \ Height
- \ Area
- \ X / Y-offset
- \ Layout analysis
- \ Rotation
- \ Incorrect form
- \ Coplanarity
- \ Area analysis
- \ Print shift

BASE SIZE

length	70 – 460 mm
Width	50 – 460 mm
Thickness	0,8 – 4 mm
Weight	up to 3 kg
component space	20 mm at the top, 60 mm at the bottom

SYSTEM CONFIGURATION

Transport height	850 mm – 950 mm ± 50 mm
Transport width	max. 460 mm
Interface	SMEMA, Siemens
Transfer direction	left to right, right to left, bidirectional
operating side	front
fixed rail	front

INSTALLATION EQUIPMENT

power supply	230 V / 115 V, 50 / 60 Hz, ± 10 %
Electrical network	L1 + N + PE
power input	2.2 kW
compressed air connection	6 bar
Air consumption	<12 NI/min

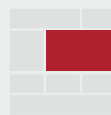
MACHINE DESCRIPTION

	2 or 3 segments
I x W x H	800 x 800 x 2000 mm
Netto weight	approx. 450 kg
color	RAL 7035 and RAL 9010
Noise level	< 62 dB



FAST

All sources are being checked – no loss of speed, with all details.



MODULAR

Our modular concept makes it possible to individually combine random options. We have it in our hands, we do software, optics and mechanical by ourselves. Customer wishes are welcome.



ACCURATE

Our promise of quality: accurate laboratory measurements, now available for your manufacturing process.