



SPEED Cube 3D SPI

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

It is derived from patented CCT technology (CCT: Confocal Chromatic Triangulation), which generates a 3D image using colour line cameras. Each colour pixel contains information about the height, this also includes moist pastes. Unlike other measurement procedures, data interpretation is not necessary.

Of course, an individually adapted system structure shall be created to perfectly correspond with the respective requirements.

SPEED

Up to **300 cm²/s**

ACCURACY

Up to **1 μm**

Repeatability ± 3 μm @ 6 Sigma

CHARACTERISTICS

- ✓ High speed – up to 300 cm²/s
- ✓ Maximum accuracy – up to 1 μm (height specification)
- ✓ Repeatability ± 3 μm @ 6 Sigma
- ✓ Innovative patented light technology
- ✓ Intelligent algorithms preventing pseudo error occurrences
- ✓ **NEW:** Moist/sintered pastes

INSPECTION PERFORMANCE

Resolution	Speed
3 μm	10 cm ² /s
7 μm	30 cm ² /s
10 μm	100 cm ² /s
12 μm	140 cm ² /s
16 μm	200 cm ² /s
18 μm	300 cm ² /s

SYSTEM MODELS

- Inline
- 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
- Testing unit
- Bar code reader
- Electrical width setup
- Flat Conveyor belt drive
- Round belt drive
- MES system communication
- CSV export

LIGHTING

- **3D lighting** for topography specification
- **Diffusion light** evenly lit image
- **Top light** highlights structural changes
- **Dark field lighting** highlights relevant sub-areas

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	± 30 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 REQUIREMENTS

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

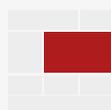
MACHINE DESCRIPTION

	2 segments	3 segments
L x W x H	1060 x 1200 x 1800 mm	1590 x 1200 x 1800 mm
Netto weight	approx. 450 kg	approx. 450 kg
Color	Basic Light	Basic Light
Noise level	< 75 dB	< 75 dB



QUICK

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



MODULAR

Our modular concept makes it possible to individually combine random options, for example, product resolution, speed and size.



ACCURATE

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