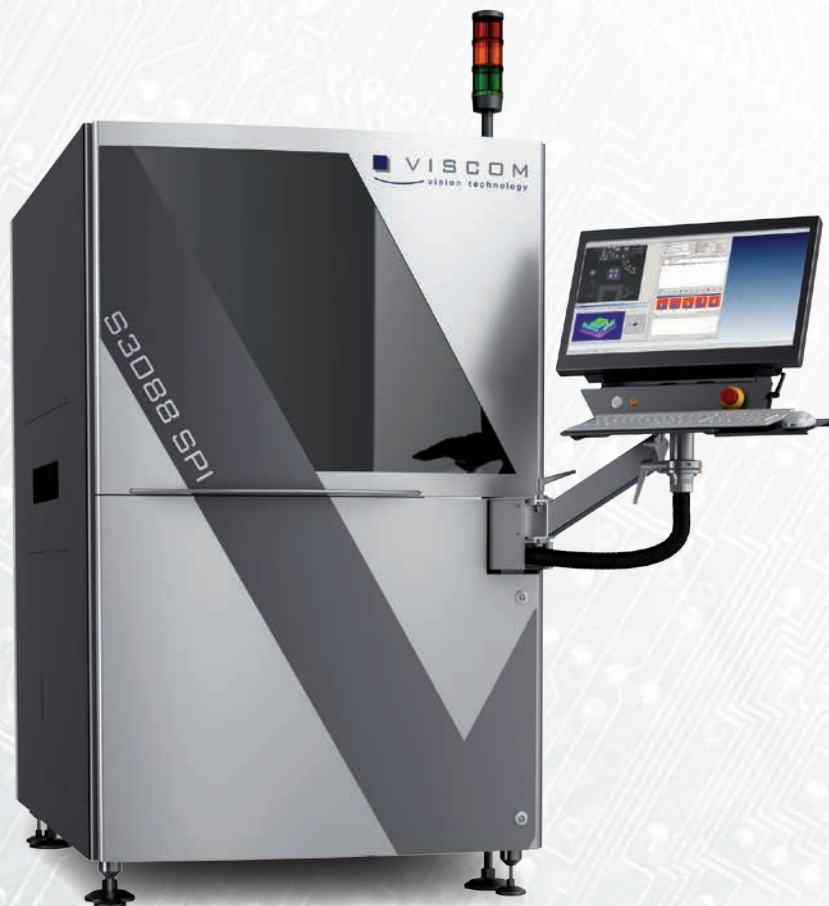




S3088 SPI

High Performance
3D Solder Paste Inspection
with Quality Uplink

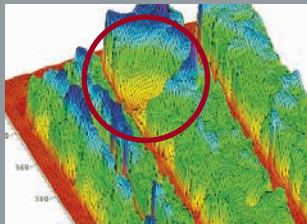


3D SPI

DualView

Reliable 3D SPI with Process Control

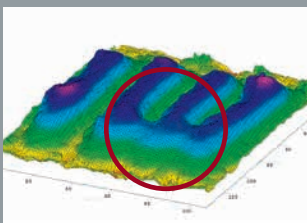
Extremely fast and highly accurate in-line inspection



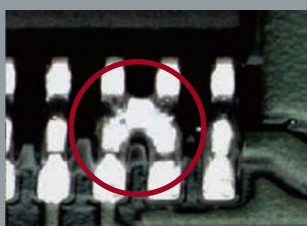
3D solder paste inspection



2D view of the solder paste



Paste bridge after printing



Paste bridge after soldering

Extremely high throughput due to FastFlow Handling

High reproducibility

Very efficient and easy operation

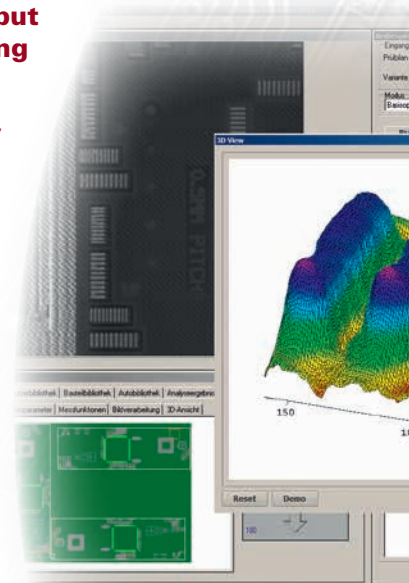
Fast program generation

**Viscom Quality Uplink:
Simple verification and process optimization**

Less scrap – higher first pass yield

**Combined high speed/
high resolution mode**

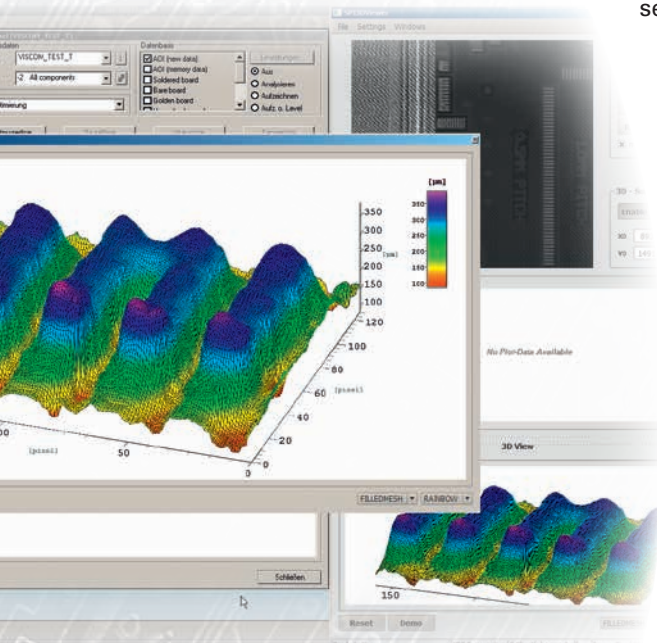
**Add-on modules:
verification,
offline programming
and SPC evaluation**



In SMT electronic assembly production, 3D solder paste print inspection has established itself as the additional inspection gate to complement optical or X-ray inspection of electronic assemblies. The key task of the 3D SPI is detecting impermissible printed pads in terms of volume, form, smearing, paste bridges and offset. Yet the Viscom SPI offers far more than just defect detection: By evaluating the 3D measurement data and linking the results with the the paste printer, placement systems, AOI and X-ray inspection, you have the possibility for effective process control. Furthermore, through the Viscom Quality Uplink, the measurement data can also be used in various ways during subsequent production steps.

Viscom Quality Uplink – Increasing quality, not just measuring

The S3088 SPI combines the advantages of the market-leading AOI system with powerful 3D SPI sensor technology and inspects the solder paste deposits with the **highest** possible speed and **precision**. Even the most demanding assemblies with CSPs or micro BGAs and pad sizes of 01005 are reliably inspected. All essential 3D features such as **volume, height** and **form** are recorded and checked, as are **surface area, displacement** and **smearing**. **Viscom's FastFlow Handling** provides extremely high throughput. Electronic assemblies are fed in and out **synchronously at high speed**.



The 3D technology of the S3088 SPI requires **no calibration**. The robust sensor head uses the fringe projection method to work without moving parts. With the assistance of the **high speed/high resolution combination**, the system can inspect up to 80 cm²/s with 15 µm. Thus, the highest inspection depth and inspection speed are guaranteed.

In addition to the fast, reliable paste print inspection, the S3088 SPI system offers the unique **Viscom Quality Uplink**. This software feature enables e. g. the **Closed Loop Connection** to the paste printer and placement system. This information delivers indications of process weaknesses and enables a **fast automatic optimization**, e. g. by adapting the screen cleaning cycle or correcting print displacement or placement offset.

Moreover, the communication with an AOI, AXI or MXI Viscom system is also possible. The advantages are evident. By linking the inspection data, the operator has all SPI and downstream inspection **information at a single glance**. The SPI additional images at the AOI or verification station simplify defect evaluation and help **prevent human errors** – that results in **less scrap** and **higher first pass yield**. Furthermore, a complete end-to-end documentation of all measurement data and inspection results is assured.

Viscom 3D SPI with Viscom Quality Uplink provides easy **cost optimization**, the highest **process security** and sustainable **increase in product quality**.

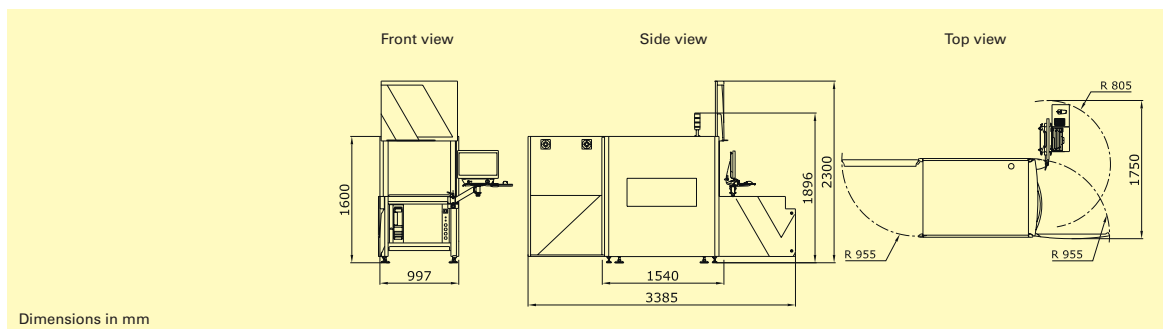


Technical Specifications

S3088 SPI

S3088 SPI DualView

Application		S3088 SPI	S3088 SPI DualView
Application		3D solder paste inspection	3D solder paste inspection
Camera technology			
Measurement method		Fringe projection process	Fringe projection process
Pixel size		15 µm	15 µm
Software			
User interface		Viscom EasyPro/vVision ready	Viscom EasyPro/vVision-ready
SPC		Viscom SPC (statistical process control), open interface (option)	Viscom SPC (statistical process control), open interface (option)
Verification station		Viscom S6002 HARAN/vVerify ready	Viscom S6002 HARAN/vVerify-ready
Remote diagnosis		Viscom SRC (option)	Viscom SRC (option)
Programming station		Viscom PST34 (option)	Viscom PST34 (option)
System computer			
Operating system		Windows®	Windows®
Processor		Intel® Core™ i7	Intel® Core™ i7
Performance data			
Measurement specifications			
Repeatability			
Height evaluation	< 1 % @ 3 σ (on certification target)		<< 1 % @ 3 σ (on certification target)
Repeatability			
Volume evaluation	< 3 % @ 3 σ (on paste)		<< 3 % @ 3 σ (on paste)
Gage R&R volume evaluation	<< 10 % @ 6 σ (on paste)		<< 5 % @ 6 σ (on paste)
	<< 5 % @ 6 σ (on certification target)		<< 2 % @ 6 σ (on certification target)
Height measurement accuracy	2 µm (on certification target)		2 µm (on certification target)
Paste			
Paste height max.	500 µm		500 µm
Paste height min.	50 µm		50 µm
Paste surface max.	15 x 15 mm (0.59" x 0.59")		15 x 15 mm (0.59" x 0.59")
Paste surface min.	150 x 150 µm		100 x 100 µm
PCB handling			
PCB dimensions max.	508 x 508 mm (20" x 20") (L x W)		450 x 508 mm (17.7" x 20") (L x W)
PCB dimensions min.	50 x 50 mm (1.97" x 1.97") (L x W)		50 x 50 mm (1.97" x 1.97") (L x W)
PCB support	Option		Option
Transport height	850 to 950 mm ± 20 mm (33.5" x 37.4")		850 to 950 mm ± 20 mm (33.5" x 37.4")
Width adjustment	Automatic		Automatic
Positioning unit	Synchronous linear motor		Synchronous linear motor
Transport concept	Single track transport		Single track transport
PCB clamping	Pneumatic		Pneumatic
Upper transport clearance	35 mm (1.1")		35 mm (1.1")
Lower transport clearance	40 mm (1.5") (standard), up to 85 mm (3.35") (option)		40 mm (1.5") (standard), up to 85 mm (3.35") (option)
Inspection speed (Standard)			
	Up to 80 cm ² /s (HighRes - 15 µm)		Up to 80 cm ² /s (HighRes - 15 µm)
			Up to 200 cm ² /s (HighSpeed - 30 µm)
Inspection Speed (DualView)			
			Up to 40 cm ² /s (HighRes - 15 µm)
			Up to 80 cm ² /s (HighSpeed - 30 µm)
Other system data			
Interfaces	SMEMA, SV70		SMEMA, SV70
Power requirements	190 V to 600 V, 50/60 Hz, 3 P/N/PE, consumption 2.5 kVA/h, compressed air 6 bar (90 psi)		190 V to 600 V, 50/60 Hz, 3 P/N/PE, consumption 2.5 kVA/h, compressed air 6 bar (90 psi)
System dimensions	997 x 1600 x 1540 mm (39.3" x 63" x 60.6") (W x H x D)		997 x 1600 x 1540 mm (39.3" x 63" x 60.6") (W x H x D)
Weight max.	750 kg (1653 lbs)		750 kg (1653 lbs)



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