

## 3D Solder Joint Inspection on PCB Bottom Sides

With this machine type, Viscom brings its great THT competence into line with its longstanding experience in developing high-quality 3D inspection systems for SMD production. The S3016 *ultra* is perfectly suited for inspecting SMD, THT and press-fit components as well as selective solder joints from below. THT solder joints, for example, can be precisely inspected in 3D with intelligent, high-throughput inspection technology from Viscom.

The S3016 *ultra* is easily and efficiently combinable with a Viscom verification station. Results can be conveniently evaluated with data and images from other Viscom inspection stages. Implementing an efficient statistical process control from Viscom is also an option.

Even under extreme cycle time requirements, the system's high-performance camera technology ensures the greatest inspection depth. Versatile illuminations can be tuned to the specific task. Previously captured images are evaluated at the same time an x/y unit moves the camera module beneath the printed circuit board to the next position – a decisive time advantage.

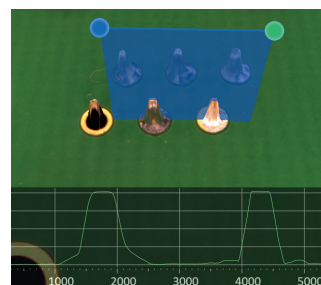
In addition to measuring pins, Viscom inspection algorithms also enable fast detection of open solder joints, solder bridges, missing pins and other defects.

**Powerful 3D sensor technology for quality control from below**

**Shadow-free results by using eight angled cameras**

**Versatile handling of many very different inspection object types**

**Optional return transport of the manufactured products**



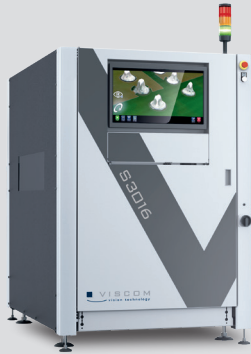
Reliable 3D inspection of THT solder joints



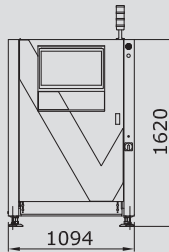
Insufficient wetting (front) and missing pin (back)

**3D AOI**

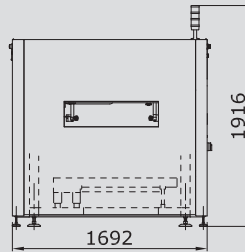
# Technical Specifications



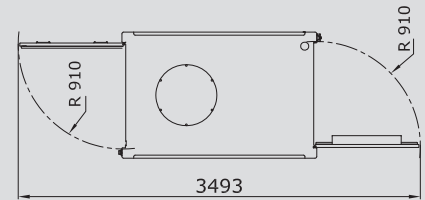
Front view



Side view with optional return transport



Top view



Dimensions in mm

		<b>S3016 ultra</b>
<b>Inspection scope</b>	3D AOI	Selective and wave soldering, standard solder joints according to IPC, press fit
<b>Camera technology</b>	<b>3D camera technology</b>	
	Z-resolution	0.5 µm
	Z-range	Up to 30 mm (1.2")
	<b>Angled view cameras</b>	
	Number of megapixel cameras	8
<b>Orthogonal camera</b>	<b>Orthogonal camera</b>	
	Resolution	15 µm
	Field of view	50 mm x 50 mm (2" x 2")
<b>Software</b>	User interface	Viscom EasyPro/vVision-ready
	Statistical process control	Viscom SPC/vSPC, open interface (optional)
	Verification station	Viscom HARAN/vVerify
	Remote diagnosis	Viscom SRC (software remote control) (optional)
<b>System computer</b>	Programming station	Viscom PST34 (optional)
	Operating system	Windows®
<b>System computer</b>	Processor	Intel® Core™ i7
	<b>PCB handling</b>	
<b>PCB handling</b>	Transport type	Single track transport, return transport (optional)
	PCB dimensions (L x W)	520 mm x 610 mm, minimum width 70 mm (19.7" x 19.7", min. width 2.8")
	Transport height	950 - 1000 mm ± 20 mm* (37.4" - 39.4" ± 0.8"); optional return transport: up to 300 mm (11.8")
	Width adjustment	Automatic
	Upper transport clearance (max)	Up to 80 mm (3.1")*, 100 mm (3.9") (optional)
	Lower transport clearance	Up to 50 mm (2")
<b>Inspection speed</b>		Up to 65 cm <sup>2</sup> /s
<b>Other system data</b>	Positioning/handling unit	Synchronous linear motors
	Interfaces	SMEMA
	Power requirements	400 V (other voltages on request), 3P/N/PE, 8 A, 4 - 6 bar working pressure
	System dimensions	1094 mm x 1620 mm x 1692 mm (43.1" x 63.8" x 66.6") (W x H x D)
	Weight	750 kg (1653 lbs)

\*Standard configuration, individual adjustments on request

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