

**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**

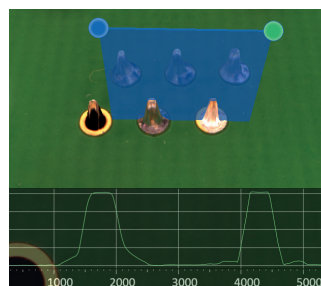
3D Solder Joint Inspection on PCB Bottom Sides

Viscom has developed the *S3016 ultra* for the rapid, high-precision inspection of selective solder joints as well as SMD, press-fit and THT components. This advanced 3D inspection solution performs bottom-side inspection of circuit boards with supreme flexibility. The unique, generously proportioned transport clearance is based on an upper clearance of up to 200 mm. Viscom's intelligent, high throughput inspection technology guarantees precise 3D inspection of components including THT solder joints.

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.



Reliable 3D inspection of
THT solder joints

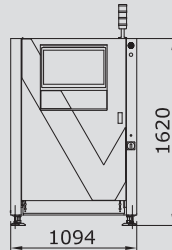


Insufficient wetting (front)
and missing pin (back)

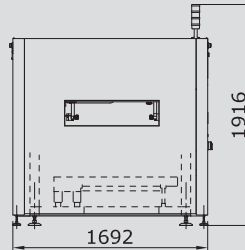
Technical Specifications



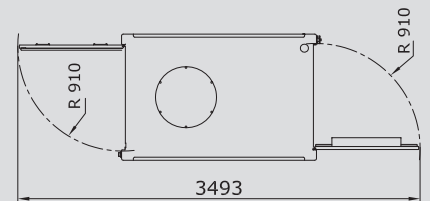
Front view



Side view with optional return transport



Top view



Dimensions in mm

		S3016 ultra
Inspection scope	3D AOI	Selective and wave soldering, standard solder joints according to IPC, press fit
Camera technology	3D camera technology	
	Z-resolution	0.5 µm
	Z-range	Up to 30 mm (1.2")
	Angled view cameras	
	Number of megapixel cameras	8
Orthogonal camera		
	Resolution	16 µm
	Field of view	50 mm x 50 mm (2" x 2")
Software	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)
	Programming station	Viscom PST34 (optional)
System computer	Operating system	Windows®
	Processor	Intel® Core™ i7
PCB handling	Transport type	Single track transport, return transport (optional)
	PCB dimensions (L x W)	520 mm x 550 mm, minimum width 70 mm (20.5" x 21.7", 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	Up to 80 mm (3.1")*, 200 mm (7.8") optional
Lower transport clearance	Up to 50 mm (2")	
Inspection speed		Up to 65 cm ² /s
Other system data	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