

Models: S31

ISO-SPECTOR



Mek ISO-Spector S31

Inline Full 3D Solder Paste Inspection

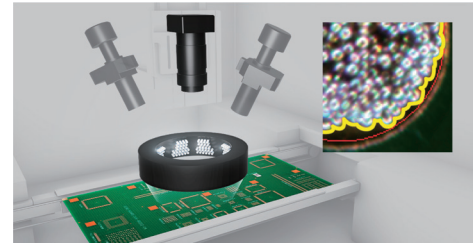
Full 3D Solder Paste Inspection



Benefits

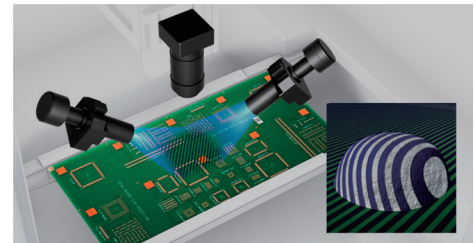
Ring Light

The Outline of the solder paste is extracted through the use of a 360 degree ring light that projects against inspection objects (solder paste). This method of inspection isolates solder paste on the PCB and performs three dimensional measurements to achieve more reliable inspections.



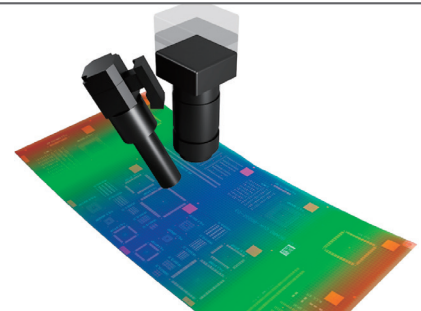
3D Projectors

The Camera captures the morie created from the dual projectors. The strip pattern is shifted to create multiple samples. This pattern is used to calculate the relative height of the solder paste.

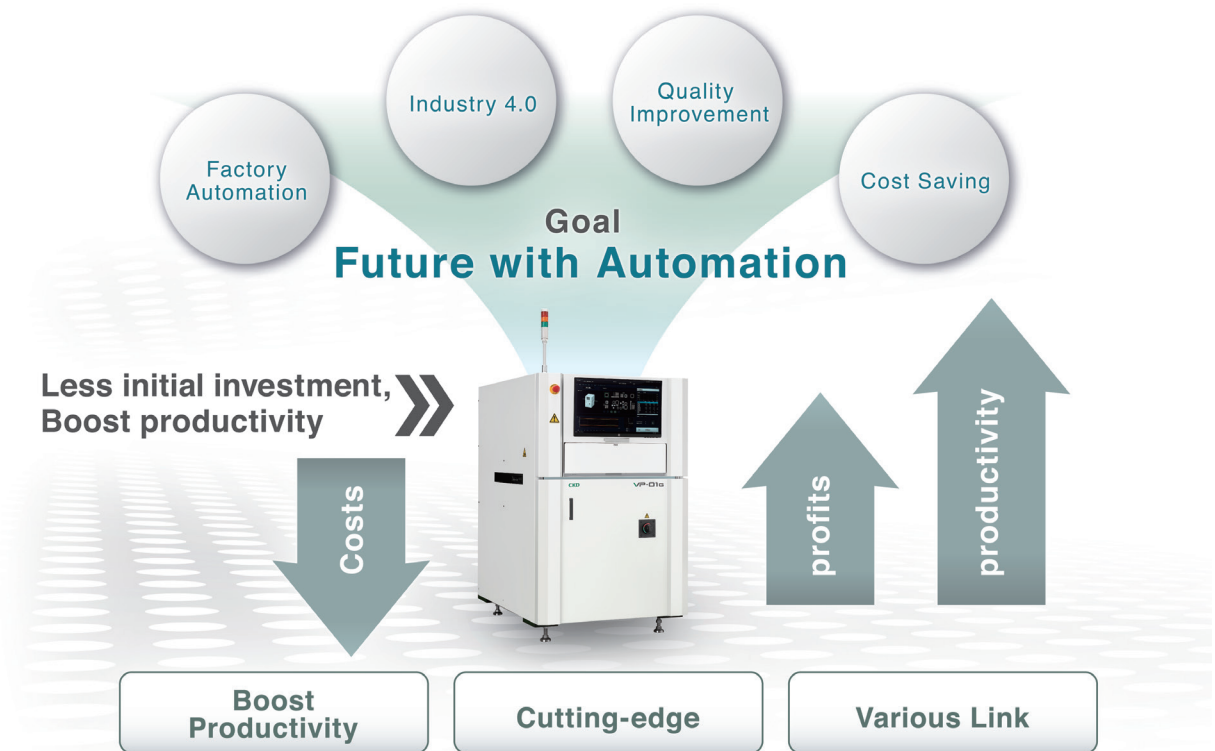


Z Axis Auto-Focus

PCB warpage is measured during the inspection and adjusts the height of the camera automatically to compensate for the PCB warpage.



Mek ISO-Spector S31 Features



→ SPC And Catch

Live SPC data for printing trends and distribution histograms. Allow for fast diagnosis of printing issues. Compatible with MEK Catch system

→ Resolution switching

Select inspection resolution High speed, Standard Speed and High resolution modes. The machine is available in 4 resolution ranges 25/12.5/8.5 micron, 20/10/7micron, 15/7.5/5 Micron and 10/5 micron

→ Closed Loop

Improve quality by feeding data to previous and next systems in line

→ Bad Mark communication

Share Skipped PCBs to reduce programming functions on later machines.

→ Foreign Material and glue detection

Detect solder smear and PCB contamination for out side of the aperture detection. Glue detection option to check correct glue application for wave soldered SMT applications.

→ Data log output

Data log file out put for use with external applications

Specifications ISO-Spector S31

Standard Specifications

Basic Specification	Dimensions (W x D x H)	938 × 1,191 × 1,480mm			
	Conveyor Height	900 ±20mm			
	PCB Size	50 x 50 - 510 × 510mm (L size)			
	Min. PCB Edge Clearance	4 mm			
	PCB Clearance (Top/Bottom)	Top 5mm, Bottom 30mm			
	PCB Thickness	0.3 - 5.0mm			
	PCB Weight	Less than 5kg			
	Machine Weight	600kg			
	Power Supply	Single phase AC200V - 240V ±10% 50/60Hz ±1Hz			
	Power consumption	Max. 1KVA			
	Pneumatic Supply	0.3 - 0.4Mpa (4kgf/cm ²)			
VP Inspection Technology	Camera	CMOS Mono Camera -Global shutter spec.-			
	Inspection Principle	Phase Shift + Hybrid Inspection - 2D Ring light and 3D Projector(s)			
	Inspection Item	Volume, Projection, Dimness, Area, Shift, Average Height, Bridging, No Solder, Coplanarity, Foreign Material, Glue (Option)			
Mechanical Technology	Clamping Method	Side, Top and Bottom Simultaneous Clamping			
	PCB Stop	Sensor Control System (No Stopper)			
	PCB Load/Transfer	Double Side PCB Loading/Transfer System			
	PCB Warpage	±5mm (Original Mechanical Adjustment System)			
Performance	Inspection Resolution (Multiple Resolution Switch Function)	25/12.5/8.5μm	20/10/7μm	15/7.5/5μm	10/5μm
	Solder Paste Height (Standard)	Less than 400μm	Less than 300μm	Less than 300μm	Less than 150μm
	Solder Paste Height (Option)	Less than 600μm	Less than 450μm	Less than 450μm	Less than 225μm
	Max. Inspection Speed	9400mm ² /sec	6000mm ² /sec	3300mm ² /sec	1400mm ² /sec
	FOV Size	50 x 50mm	40 x 40mm	30 x 30mm	20 x 20mm
	Min. Solder Paste Pitch	50μm (Stencil thickness: 100um)			
	Height Resolution	1μm			
	Accuracy (3σ)	Within 2% (Dual Projection)/Within 3% (Single Projection)			
	GR & R	Within 10%			
Software	Inspection Program	CKD VPDS Programing System (Program Creation Time Min. 3 mins) ePM Programing Software (Option)			
	SPC	CKD Realdata Software System (Real Time Histogram, X bar & R Chart, CP/CPK Chart, Real Time SPC, SPC Alarm, SPC Report)			
Optional	Closed Loop				
	ePM				
	Auto Program Launch				
	Area Standard Jig				
	Height Standard Jig				
	ITAC				
	Q-up Opti				
	Dual Projection				
CE Compliance					

Over view



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