

Mek ISO-Spector

Inline 5D Solder Paste Inspection System





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Benefits

→ SPC And Catch

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

\rightarrow Closed Loop

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

$\rightarrow\,$ Foreign Material And Glue Detection

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

→ Resolution Switching

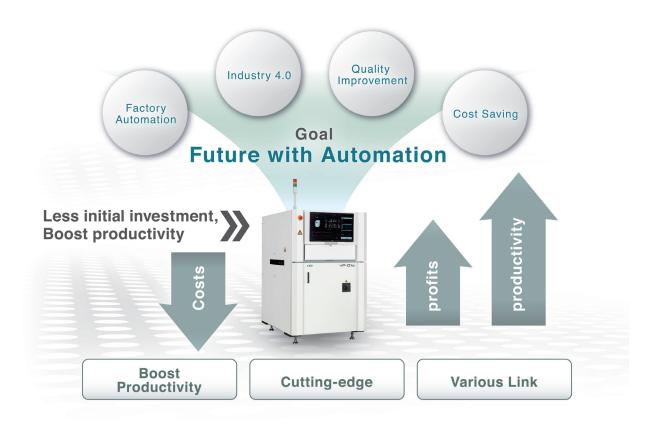
Select inspection resolution high speed, standard speed and high resolution modes. The machine is available in 4 resolution ranges $25/12.5/8.5\mu$ m, $20/10/7\mu$ m, $15/7.5/5\mu$ m and $10/5\mu$ m.

→ Bad Mark Communication

Share skipped PCBs to reduce programming functions on later machines.

→ Data Log Output

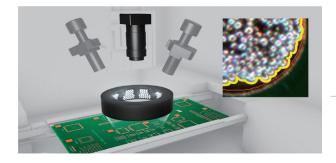
Data log file out put for use with external applications.







Mek ISO-Spector Features



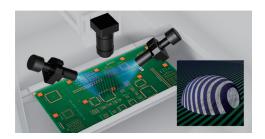
Ring Light

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 performes three dimentional measurements to achieve more reliable inspections.

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3D Projectors

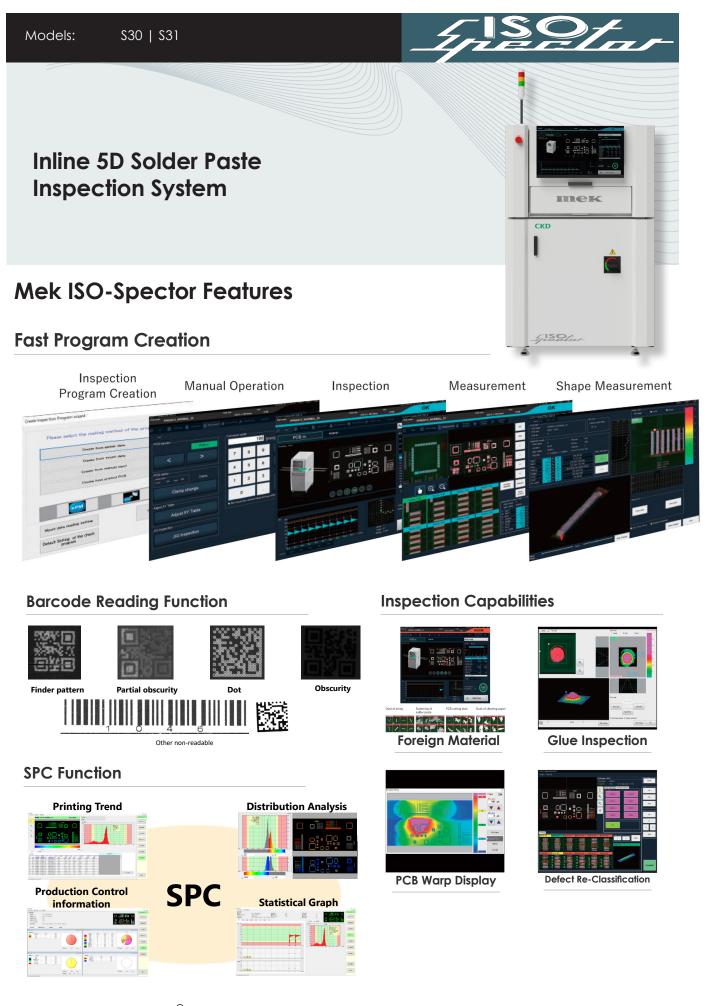
The camera captures the moiré created from the dual projectors. The strip pattern is shifted to create multiple samples. This pattern is used to calculate the relative height of the solder paste.



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.









Specifications ISO-Spector

Specifications	ISO-Spe	ector \$30	ISO-Spector S31	
PCB Size	Max Size: 510x510mm (21.3"x21.3")			
Projection	Single Projection Dual Projection			
Characteristics		I		
Product Type	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)			
Parts Inspection	Presence, Orientation (polarity), Shape, Offset, Text, Color			
Clamping Method	Side, Tom and Bottom Simultaneous Clamping			
PCB Stop/PCB Load&Transfer	Sensor Control System (No stopper)/Double Side PCB Loading&Transfer System			
PCB Warpage	±5mm (Original Mechanical Adjustment System)			
System Specifications				
Inspection Resolution	25/12.5/8.5 µm	20/10/7 µm	15/7.5/5 µm	10/5 µm
Solder Paste Height (Standard)	Less than 400µm	Less than 300µm	Less than 300µm	Less than 150µr
Solder Paste Height (Optional)	Less than 600µm	Less than 450µm	Less than 450µm	Less than 225µr
Max. Inspection Speed	9400mm²/sec	6000mm²/sec	3300mm²/sec	1400mm²/sec
Field of View	50x50mm	40x40mm	30x30mm	20x20mm
Height resolution	1 µm			
Accuracy	Within 2% (Dual Projection)/Within 3% (Single Projection)			
GR & R	Within 10%			
Interfacing				
Inspection Program	CKD VPDS Programming System (Program Creation Time Min. 3 mins) ePM Programming Software (Option)			
SPC	CKD Realdata software system (Real time histogram, X Bar & R Chart, CP/CPK Chart, Real time SPC, SPC			
SEC	Alarm, SPC report)			
Optional features	Closed Loop, ePM, Auto Program Launch, Area Standard Jig, Height Standard Jig, ITAC, Q-up Opti, Duc Projection, CE Compliance			
Repair/Monitor/SPC System/MES-interface	Mek Catch System (Windows 7/8/10) (Option)			
General				
Power Supply	Single phase AC200V - 240V ±10% 50/60Hz ±1Hz			
Power Consumption	Max. 1KVA			
Pneumatic Supply	0.3 - 0.4 Mpa (4kgf/cm²)			
Fixed Rail	Front (Or Specify)			
Flow Direction	Left To Right (Or Specify)			
Machine Interface	SMEMA			
External Size	W938 x D1191 x H1480 mm (37" x 47" x 58")			
Weight	600kg (1323lbs)			



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