

# Tabletop Full Automatic 3D Solder Paste Inspection System



## KY-3020T



**KOH  
YOUNG  
TECHNOLOGY**  
INTELLIGENT  
INSPECTION

The Standard in 3D Measurement & Inspection

# KY-3020T

## Top-Quality Inspection, Tabletop Convenience

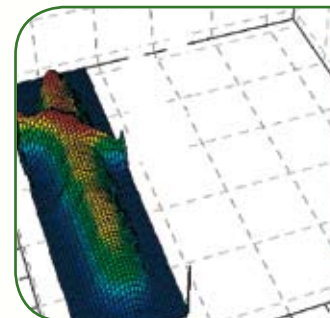
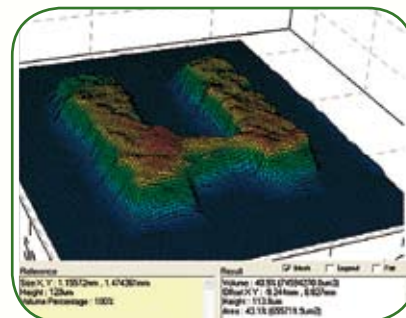
The full automatic KY-3020T packs superior Koh Young inspection technology into a compact, tabletop system that delivers precise, accurate SPI results while offering portability, convenience, and value.

- True patented 3D volume measurement
- No shadows or specular problems
- Highest accuracy and repeatability
- Great starter system, or for R&D, small shops
- No PCB color sensitivity
- Tabletop, portable, flexible
- Great value to performance and fast ROI



### Patented 3D shadow-free inspection

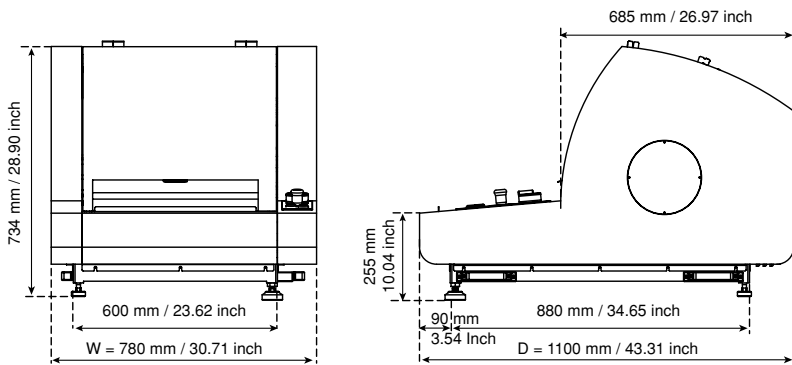
It's a great starter system, and the perfect SPI system for those with minimal volume requirements and small batch production. With the KY-3020T, you don't need to sacrifice inspection accuracy just because you don't need a high-production system. Because it's Koh Young, world class quality and performance are built in.



KY-3020T uses the same patented 3D shadow-free inspection as Koh Young in-line models, so you get 100% 3D Inspection of all pads, for flawlessly accurate and dependable results every time.

Remember, you can't optimize your printing process if you don't have reliable inspection data.

**Get Started in SPI Right with the KY-3020T.**



**Max. PCB Size**

460 x 410 mm      18.11 x 16.14 inch

**Min. PCB Size**

50 x 50 mm      1.97 x 1.97 inch

**PCB Thickness**

0.4 ~ 4.0 mm      0.016 ~ 0.16 inch

**Max. PCB Weight**

2 kg      4.4 lbs

**Machine Weight**

95 kg      209 lbs

**Bottom Side Clearance**

30 mm      1.18 inch

**Rapid Programming**

Less than 10 min. programming for a complete inspection file, with NO fine tuning needed.

**Accurate Compliance Solution**

The only way to guarantee correct solder joint volume per IPC 610 requirements.

**Best SPI Measurement Performance**

- <<10% GR&R at 6σ
- Volume repeatability < 1% at 3σ on a KY calibration target
- Average volume repeatability < 3% at 3σ on a PCB

**PCB Warp? No Problem!**

Unique real-time warpage tracking hardware and software ensures uninterrupted inspection of warped boards up to ± 3.5 mm.

**Detect all Defects**

Including insufficient and excessive deposits, shape deformation, missing paste, paste offset, smearing, bridging and more.





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## SPECIFICATIONS

<b>Inspection Range</b>			
<b>Metrology Capability</b>		Volume, Area, Height, Offset, Bridging and Shape Deformity	
<b>Types of Defects</b>		Insufficient/Excessive/Missing Paste, Bridging, Shape Deformity and Paste Offset	
<b>Measurement Principle</b>		3D Shadow Free Moiré	
<b>Camera Technology</b>			
<b>Camera</b>		1MPix	
<b>XY Pixel Resolution</b>		20 µm	0.79 mils
<b>Z Resolution</b>		0.37 µm	0.015 mils
<b>Inspection Performance</b>			
<b>Inspection Speed at 20 µm</b>		3 cm <sup>2</sup> /sec	0.47 sq. inch/sec
<b>Volume Repeatability (on a KY Calibration Target)</b>		< 1% at 3σ	
<b>Volume Repeatability (on a PCB)</b>		< 3% at 3σ	
<b>Height Accuracy (on a KY Calibration Target)</b>		2 µm	
<b>Gage R&amp;R (± 50 tolerance)</b>		<< 10 % at 6σ	
<b>Max. PCB Warp Compensation</b>		± 3.5 mm	0.14 inch
<b>Max. Paste Height</b>		400 µm	15.75 mils
<b>Min. Paste Deposit Size at 20 µm</b>	<b>Rectangle</b>	150 µm	5.91 mils
	<b>Circle</b>	200 µm	7.87 mils
<b>Min. Distance between Paste Deposit</b>		100 µm (at 150 µm paste height)	3.94 mils (at 5.91 mils paste height)
<b>PCB Handling</b>			
<b>Conveyor Width Adjustment</b>		Manual	
<b>Conveyor Fix Type</b>		Front/Rear Fixed (Factory Setting)	
<b>Conveyor Height</b>		N/A	
<b>System &amp; Installation requirements</b>			
<b>Supply</b>	<b>Electrical</b>	200~240VAC, 50/60 Hz Single phase	
	<b>Air</b>	N/A	
<b>Operating System</b>		Windows XP Professional	
<b>S/W</b>			
<b>Statistical Analysis Tool</b>		SPC Plus	
<b>Inspection Program Generation</b>		Import GERBER Data (274X, 274D)	
<b>Options</b>		<ul style="list-style-type: none"> <li>• ODB++ File Conversion</li> <li>• Handheld Barcode Reader (1D/2D)</li> <li>• Certified Calibration Target</li> <li>• UPS</li> </ul>	

*Above specifications are subject to change without notice.*

