

CesiStar Series

AOI inspection machine

The TV series AOI Inspection machine is a fully automated 3D optical inspection machine for semiconductor packaging inspection. It offers $5\mu\text{m}@3\sigma$ accuracy and supports package types such as FCBGA, Memory, and POP. Capable of 6-side and top/bottom 2D/3D inspection, it handles chip sizes from 2×2 to 120×120 mm. Integrated with high-precision 3D inspection, high-speed sorting, and intelligent defect classification, it achieves up to 60K UPH to meet the demands of high-accuracy, high-throughput inspection.



Key Features



High Precision

Supports $5\mu\text{m}@3\sigma$ 3D inspection with top/bottom multi-dimensional detection; minimum defect size detectable is $20\mu\text{m}$.



High Efficiency

Supports 4×14 nozzles with throughput up to 60K UPH; compatible with Tray to Tray and Tray to Reel; product changeover in under 20 minutes.



High Flexibility

Compatible with chip sizes from 2×2 to 120×120 mm; supports multiple package types, as well as top-side 3D/IR and micro-crack inspection.



High Adaptability

Supports 6-side inspection and intelligent defect classification; modular design enables adaptation to diverse processes and flexible line configurations.

Applications



QFP/SOP



LGA



FCBGA/CSP/WLP



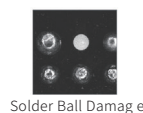
QFN



POP

Defect inspection range

2D/3D/Ball/Lead/ Pad Measurement



Solder Ball Damage



Foot Angle



Coplanarity



Coplanarity

Surface Defect Inspection



Scratches



Voids



Microcracks



Copper Exposure



Chipping



Cracks

Optional Specialized Inspection Items



Capacitor Damage



Capacitor Height



PoP Inspection



Side Inspection



LID Gap



LID Warpage

Technical Specifications

Standard:√ Not included:/ Optional:O

Specifications		TV6-15T		TV6-10T		
		TV6-15T	TV6-15TR	TV6-10T	TV6-10T-TC	TV6-10T-Plus
Loading and Unloading		Tray to Tray	Tray to Reel	Tray to Tray	Tray to Tray	Tray to Tray
Resolution		15μm	15μm	10μm	10μm	10μm
Chip Size		2x2-68x68mm	2x2-68x68mm	2x2-58x58mm	2x2-58x58mm	2x2-120x120mm
P&P Nozzles		2x14	2x14	2x14	2x14	2x14
Sorting Unit		1x4	1x4	1x4	1x4	1x4
Inspection Stations	Bottom 2D&3D	√	√	√	√	√
	Top 2D	√	√	√	√	√
	4-Side	√	√	√	√	√
	Top 3D	/	/	/	√	√
	Top AUX	/	/	/	√	O
	Bottom AUX	/	/	/	O	O
	Large-size:120×120mm	/	/	/	O	√
	Double Unit	√	√	√	√	√



Suzhou Bozhon Semiconductor Co., Ltd.

Headquarter:Bozhon Precision Industry Technology Co.,Ltd (688097)

📍 Add:No.666,Huxin West Road,Wujiang District,Suzhou,Jiangsu

☎ 0512-63414949-80512

✉ semi.sales@bozhon.com

🌐 www.bozemi.com