

Pre-wave Soldering Inline AOI

V320

Large FOV AOI



Large FOV AOI

Pre-wave Soldering Quality Defender

MagicRay V320 AOI is designed as a cost effective pre-wave inspection machine to root out errors caused by operators' fatigue. With low maintenance and high productivity, return-on-investment can be easily justified.

Product Features

- It can easily be put into use in any existing production line without the need for a line re-layout.
- Through the use of AI, programming is made simple. An inexperienced operator can generate a stable program within minutes.
- Support high-mix products changeover and barcode identification for traceability.
- The machine will trigger the voice and buzzer alarm when defect is detected and it stops entering of next board before the defect is corrected.



▲ Scene shooting: Cross-track design

Dual
Monitors
& Flexible
Installation

Structural Features

Equipped with dual monitors, programming and re-judgment can be done easily.

Multi-camera resolution option is available to adapt to different board sizes.

Adjustable height and depth, ensure ease of installation.

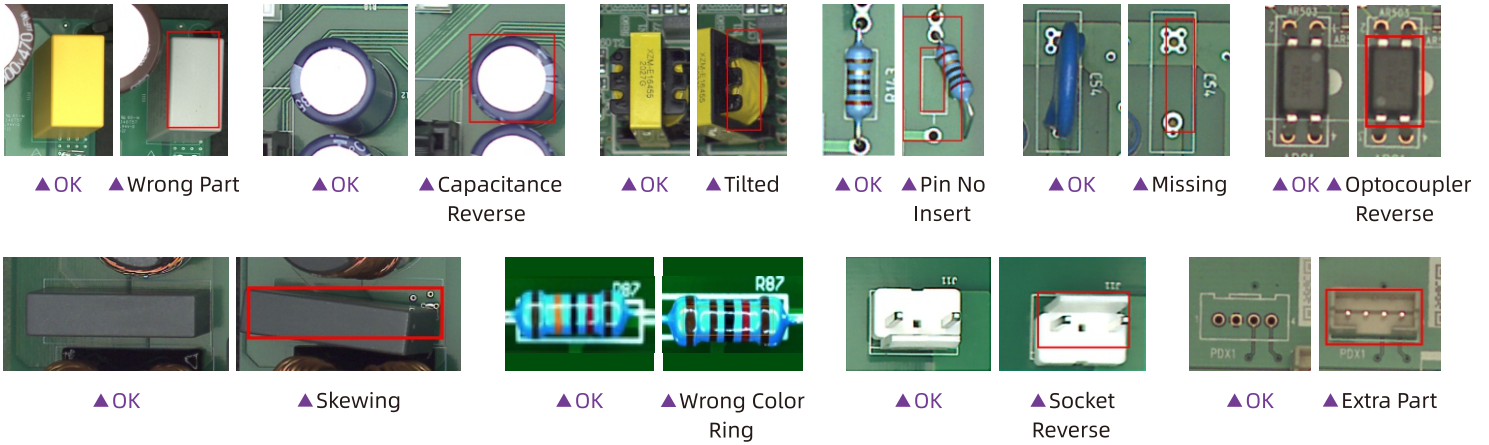


The secondary screen can be freely adjusted to adapt to the direction of flow of the production line.

Compact and cross-track design, allows ease of installation into the existing production line, without the need to increase production space.

Removable caster-wheel base provides greater flexibility of installation.

「Inspection Examples」



「Core Technology and Advantages」

■ Deep-learning Algorithm

Use of big data learning allows system to accurately identify component polarity and automate programming.

■ Feature-analysis Algorithm

Automatically extract partial features to effectively deal with complex and changeable detection scenes.

■ Image Intelligent Recognition

Extract PCB samples which makes high-speed and non-stop inspection a reality.

■ Color Difference Analysis Algorithm

Help to analyze differences in color and brightness, effectively overcoming challenges when inspecting for partial damage or mis-hole location.

■ Auto Model Assignment

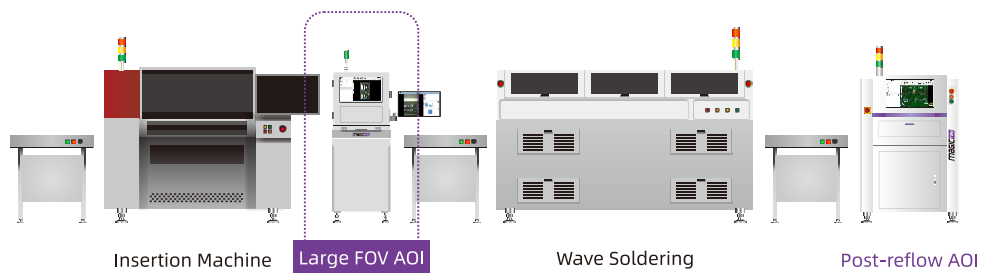
Automatically assign the component type to inspect defects such as missing, wrong or skewed components.

■ Search Detection Algorithm

Automatically scan for partial defects of the component in cases where the defects location is not fixed.

「Production Line Solution」

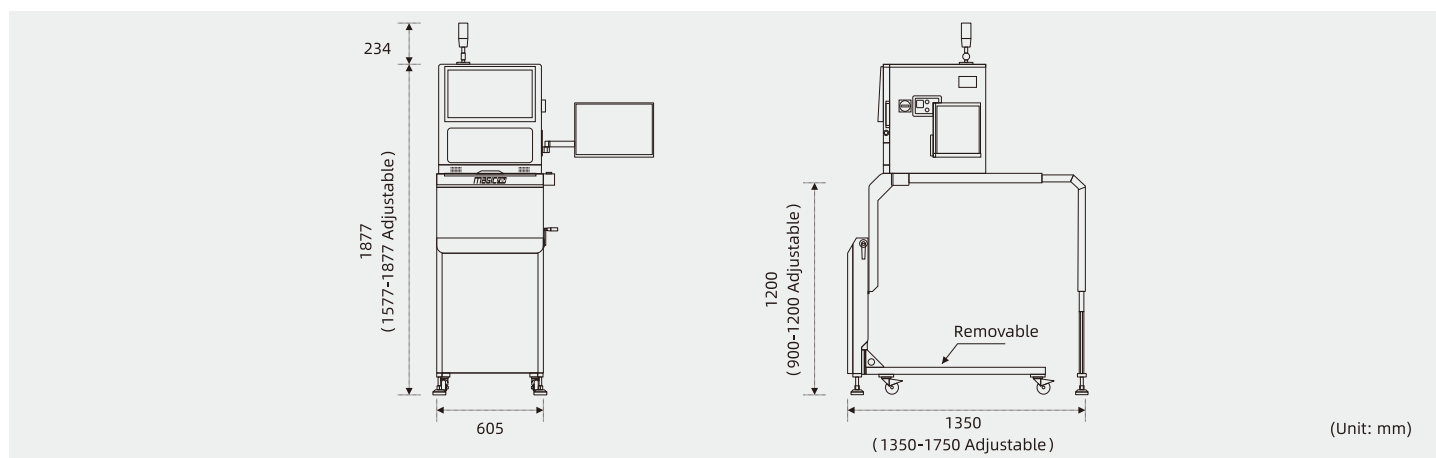
「Wave Soldering」



「Product Specification」

Equipment Model		V320
Image System	Camera	12MP/31MP industrial camera
	Resolution	40μm-85μm adjustable
	Lighting	LED
Movement Structure	Conveyor Height	No track, support line height at 700~1000mm
	Board Loading Direction	Dual direction
Hardware Configuration	Operating System	Win10
	Communication	Ethernet, SMEMA
	Power Requirement	Single phase 220V, 50/60Hz, 5A
	Equipment Weight	100kg
	Equipment Dimensions	L605*D(1350-1750)*H(1577-1877)mm (Without tower light)
PCB Size	Maximum Board Size	12MP: Width 160mm (40μm), 240mm (60μm), 350mm (85μm), Length is not limited 31MP: Width 290mm (45μm), 388mm (60μm), 540mm (85μm), Length is not limited
	Minimum Board Size	50*50mm
Inspection Categories	Component	Missing Component, Wrong Part, Reverse, Pin No Insert, Skewing, Extra Part
	Inspection Speed	100-200ms/FOV

「Equipment Dimensions」



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