



V9i CI

Advanced Robotic Vision System (ARV)



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V9i Coating Inspection (CI)

Advanced Robotic Vision Inspection (ARV)

Designed for safety and quality-ensured conformal coating inspection that involve co-work between human and the robot.

Key Benefits



100% coating thickness measurement during production



Uncompromized inspection coverage



Competitive Cost of Ownership with 2-in-1 platform



Zero experienced programmer is required



Minimum maintenance



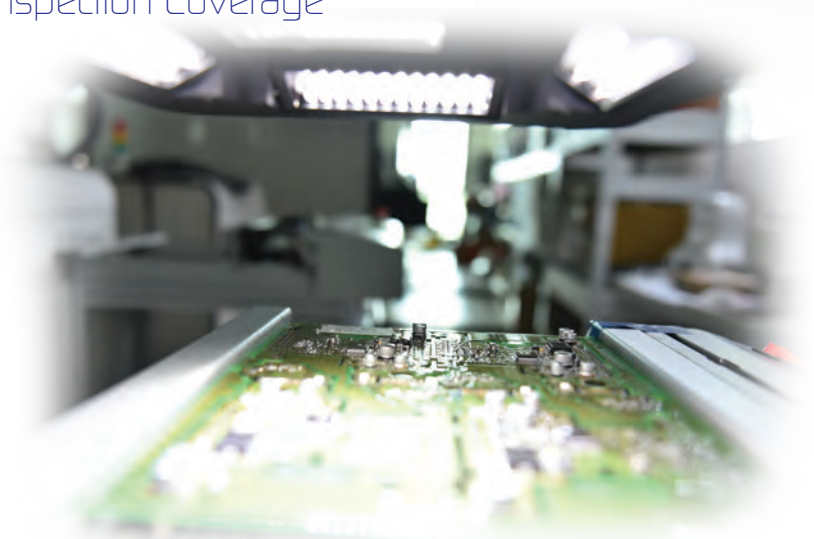
Compact in size



Breakthrough Technologies

1 Full Area and Variable Angle Inspection Coverage

V9i system provides flexible conformal coating inspection by using a robotic arm (Cobot) that allows the user to set side angle inspection with ease and also full board coverage.



2

Advanced CAD-less Smart Learning Programming

ViTrox Advanced smart learning programming method allows users to set up programs without CAD. The intuitive user interface provides a new user experience that helps users to create programs with minimum effort.



3

High Precision In-line Coating Thickness

Accurate Coating thickness measurement that caters for different coating thickness range which complies to IPC Coating thickness standard.

Importance of Coating Thickness:

- Improper coverage if coating is too thin.
- Will introduce disproportionate stress on components and solder joints if coating is too thick.

Additional Inspection Solution:

- Able to integrate Motorized Confocal Displacement Sensor.
- With this additional thickness sensor, it can measure the coating thickness of various range.



4

Compact Size and Space Saving

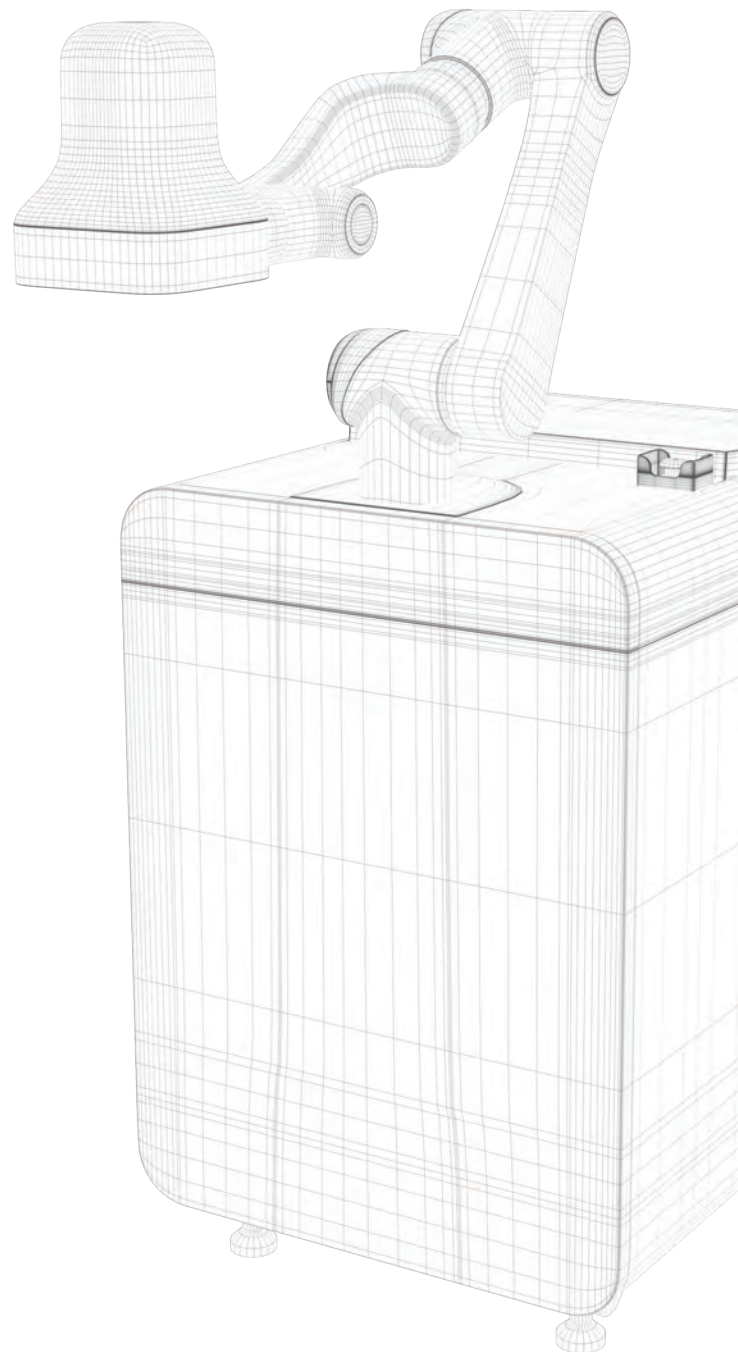
compact size and space saving unlike conventional CI AOI system, V9i system is compact in size and is designed to dock next to conveyor without increasing the production line length.



V9i

Advanced Robotic Vision Inspection (ARV)

Designed for safety and quality-ensured conformal coating inspection and final inspection that involves co-work between human and the robot.



V9i Coating Inspection (CI)

Inspection Functions	V9i CI provides fast and reliable conformal coating inspection. It has multi-angle views and both rule based & self-learn algorithms to cater for various inspection needs.
System Type	Stand alone system integrated with Cobot
Inspection Coverage	Coating Splash, Bubbles, Insufficient, Foreign Object, Coating Scratch, Orange Peel, Missing Coating, Excess Coating, Coating on Connector, Keep-out-area, Coating Thickness Measurement
Board & Component Level Traceability	Camera-Read Barcodes; External Barcode Reader Configured

System Hardware

Computer System	Intel Core i7, 32GB RAM, 512GB SSD, 1 TB HDD
Operating System	Windows 10 Pro (64 bit)
Camera & FOV Size	5MP color camera, FOV 65mm*65mm
Optical Resolution	~ 32 μ m / pixel
Inspection Speed	30cm ² /s
Lighting Module	Hybrid UV + White Light
X-Y-Z Axis Repeatability	\pm 50 μ m

PCB Dimension

Minimum PCB Size (L x W)	50mm (L) x 50mm (W)
Maximum PCB Size (L x W)	510mm (L) x 510mm (W)

Thickness Measurement

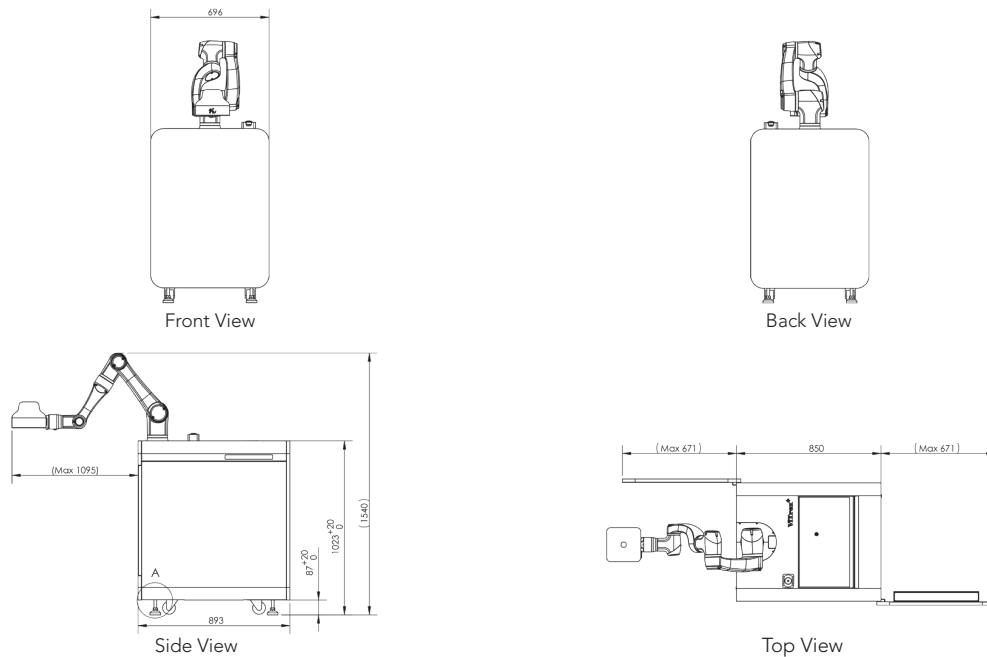
Minimum Thickness	>25 μ m*
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* Based on system configuration.

Specifications are subject to change.

Installation Specification

System footprint (Width X Depth X Height)	696mm x 893mm x 1600mm (normal robot operating height)
Weight	350 kgs
Electrical Supplies	200-240V, 8A Single Phase



* Based on system configuration.

Specifications are subject to change.