ViTrox ®
...innovating vision

V9i FI

Advanced Robotic Vision System (ARV)

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V9i Final Inspection (FI)

Advanced Robotic Vision Inspection (ARV)

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

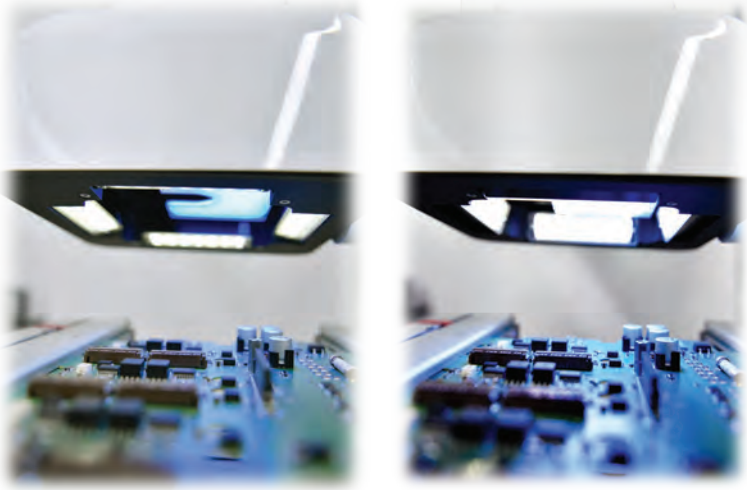
Key Benefits

- **FVI** — Final assembly visual inspection
- Uncompromized inspection coverage - mimic human inspection angle
- **2 in 1** — Optional combination of conformal coating & final inspection in a common system
- Flexible inspection platform - workbench or conveyor
- Height measurement option
- Compact in size

Breakthrough Technologies

1 Motorized Angle Lightning to Cater for Complex Assembly

With the state-of-the-art patented technology from ViTrox, which enables variable lighting angle for defect detection.



2 Precise Height Measurement through Laser Profiler

Trusted technology for accurate and repeatable results. Through laser profiler, the system extracts the profile and performs accurate height measurement.

3 Specialized Final Inspection Solution for Various Industries & Applications

Automated final inspection to replace manual inspection at the last gate to identify product defects before it is shipped. With V9i FI, it helps users to conduct a comprehensive detection such as cosmetic and assembly quality inspection. It serves various industry sectors such as automotive, industrial assemblies, telecommunication, etc.

4 2-in-1 (ultimate) Inspection Capability

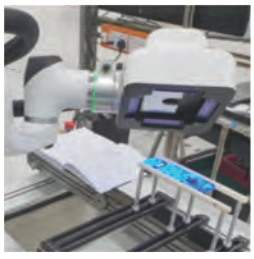
The V9i system combines both final inspection and conformal coating inspection capabilities into one system. Less is more: With a one-time investment, the user could enjoy multiple inspection capabilities.

Coating Inspection:

- Coating on Keep-Out Zone/Area
- Insufficient/Missing coating
- Foreign Object on coating
- Coating bubble
- Orange Peel
- Excess Coating
- Coating Scratch

Final Inspection:

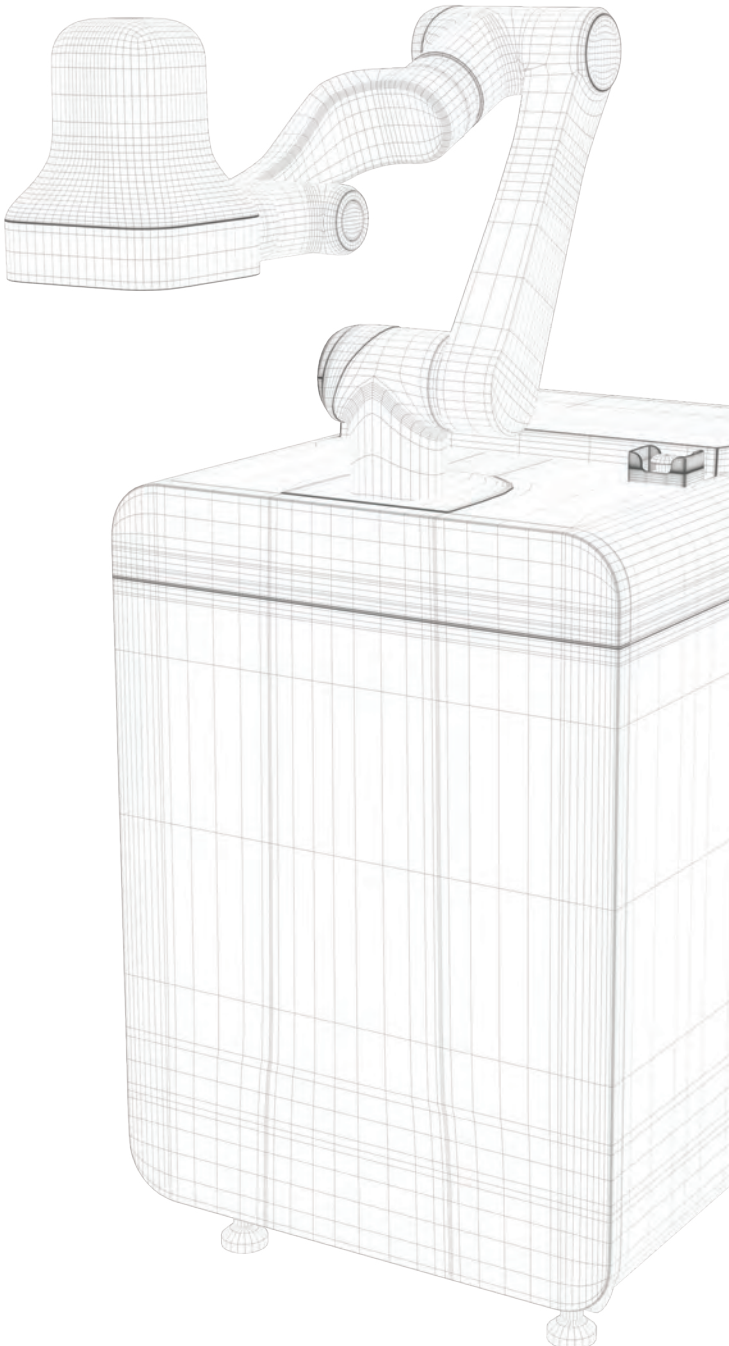
- Absence/Presence
- Polarity
- Dent/Damage
- Foreign/Extra Object
- Misalignment/Gap
- OCR
- Barcode
- Label
- Glue Inspection
- Pin Inspection



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 Final Inspection (FI)

Inspection Functions	V9i FI provides a wide coverage of final products inspection through the flexibility of multi-angle robotic arms and able to apply rule based & self-learn algorithms to cater for different industry sectors.
System Type	Stand alone system integrated with Cobot
Inspection Coverage	Polarity/ Orientation, Absense/Presence, Knock-off, Component Chip-off, Foreign Object, PCB Exposed Copper, Assembly Inspection, Label Print Inspection, Label Quality Inspection, Connector Inspection, Height Measurement
Board & Component Level Traceability	Camera-Read Barcodes; External Barcode Reader Configured

System Hardware

Computer System	Intel Core i7, 64GB RAM, 512GB SSD, 1 TB HDD, GPU
Operating System	Windows 10 Pro (64 bit)
Camera & FOV Size	5MP color camera, FOV 65mm*65mm (default)
Optical Resolution	~ 32μm / pixel
Inspection Speed	30cm²/s
Lighting Module	Motorized UVRGB + Coaxial Lighting or UV + White + Coaxial Lighting
X-Y-Z Axis Repeatabilty	± 50 μm

PCB Dimension

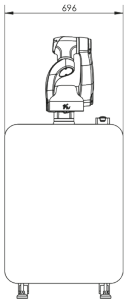
Minimum PCB Size (L x W)	50mm (L) x 50mm (W)
Maximum PCB Size (L x W)	510mm (L) x 510mm (W)

* *Based on system configuration.*

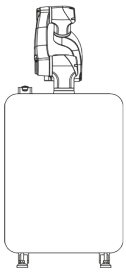
Specifications are subject to change.

Installation Specification

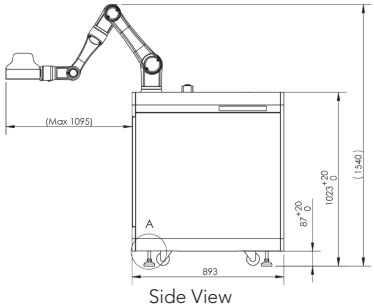
System footprint (Width X Depth X Height)	696mm x 893mm x 1600mm (normal robot operating height)
Weight	350 kg
Electrical Supplies	200-240V, 8A Single Phase



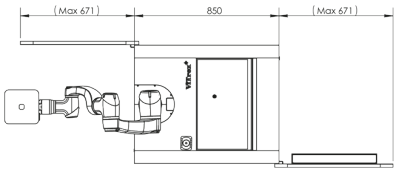
Front View



Back View



Side View



Top View