

The Full Spectrum of AOI Solutions

Tabletop Automated Optical Inspection - GEM Compact

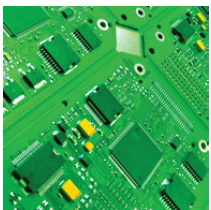
The **GEM Compact** AOI system features a revolutionary small, lightweight inspection solution. MVP now offers unsurpassed high performance and high resolution capabilities previously only available with MVP's existing in-line systems. The GEM Compact represents a breakthrough in tabletop inspection by providing comprehensive solutions to complex inspection challenges.

MVP now provides a single software platform for all of their AOI systems bringing the power of the in-line software to the GEM Compact tabletop AOI. Featuring MVP's wizard driven ease-of-use database programming ePro and the Auto-Optimize wizard the GEM Compact is a cost effective, yet powerful solution for low volume, high mix production environments including NPI.

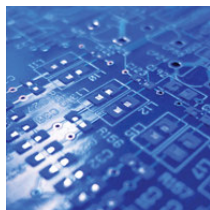
- Tabletop AOI with In-line Performance
- Optional Quad-Color Capability
- Ideal for High Mix or NPI
- Easy-To-Use, Award Winning iPro Software
- Component Inspection Pre/Post Reflow
- Program Compatibility with In-line Systems



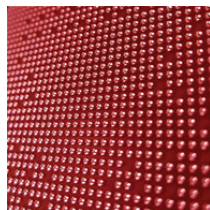
Discuss your SMT and Microelectronics inspection application with Machine Vision Products, Inc and discover your solution



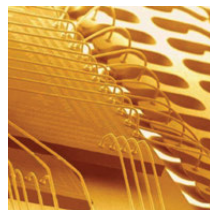
SMT AOI



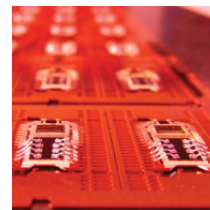
3D Paste AOI



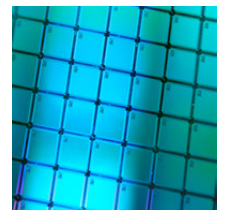
BGA AOI



Wire Bond AOI



Die and Epoxy AOI



Die Surface AOI



Comprehensive Defect Coverage Flexible Fast Inspection

MVP has created a new standard in the off-line AOI market by bringing the key elements of high performance AOI; such as structured lighting, flying camera image acquisition, and rule based, library driven inspection software to the GEM Compact tabletop. Incorporating the key technical elements of MVP's existing in-line AOI tools, the GEM Compact offers complete defect coverage, low false calls, and high speed usually only available on in-line systems

Key Features Include:

- Fifty Percent Smaller Footprint than Comparable Systems
- Full Solder Joint Inspection and Measurement
- Complete Compatibility and Program Portability with MVP's In-line Inspection Systems
- Optimized Price Performance Ratio
- Proprietary Flying Camera Inspection Brings a New Dimension of Speed to the Tabletop Market.

Defect Detection

Paste Inspection

Paste and glue for placement centroids (x and y), area, pad area coverage, shape, and overall translation and rotation of the board with respect to the screen printer.

Post Placement Inspection

Presence/absence, X, Y and Theta offset measurement, polarity and OCR.

Post Reflow Inspection

SMT and PTH parts for presence/absence, placement offset, polarity, bridging, solder opens, insufficient and excess solder, billboards, tombstones, lifted and bent leads, and OCV/OCR for wrong component detection & traceability.



GEM Compact Technical Specification

Inspection Speed	<ul style="list-style-type: none">• Acquisition Speed of 34 Megapixels per second with a Single 1.4 MP camera• Up to 32 sq.cm per Second (5 sq.inches per second) Inspection Dependant on Board Layout, Density and Field of View
System Hardware	<ul style="list-style-type: none">• State-of-the-art Large Format Color Camera• Proprietary "On-the-fly" Camera Acquisition• Programmable Variable LED Strobe Lighting
System Software	<ul style="list-style-type: none">• CAD-driven, Library-based Programming Software• Proven High Performance, Adaptable Algorithms with Highest Detectability and Lowest PPM False Accept and False Reject Rates• Full Network Integration (TCP/IP, NFS Protocol)• Real-time SPC Package• Report Generation Utilities for Production Inspection Measurements• Inspection Program Change Tracking• 5th Generation Proven Inspection Software• Multi-pass Technology, Adjustable Lighting Intensity• MVP Dynamic Process Control Compatible
Physical Specification	<ul style="list-style-type: none">• Size: Length 762 x Width 610 x Height 355mm (30 x 24 x 14")• Weight 55kg (121 lbs)• Maximum Board Size 305 x 406 mm (12 x 16") (10" x 15" with low angled light)• Top Side Clearance: 55mm (2")• Bottom Side Clearance: 38mm (1.5")• Power: 120VAC 50/60Hz, 1 Amp (max)
Options	<ul style="list-style-type: none">• Quad-color lighting• Barcode Reader Support• Black and White Camera• Ticket Printer• UPS

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