

*"The MIDAS automated part handler provides us with the speed, efficiency, and reliability our MLCC inspection process demands."*

## Part Handling Capabilities

In today's hypercompetitive markets, successful yield management mandates achieving higher throughput and lower cycle times without increasing labor costs. For MLCC (multilayer co-fired ceramic) part inspection, manufacturers simply cannot afford to rely on manual part handling, which introduces human inefficiencies, part defects, and increases the cost of production. Integrated part handling solutions for automated optical inspection (AOI) systems provide production efficiencies that quickly translate into profits.

wide variety of available options include delivery and storage magazines, part marking printers, part cleaners, and special pickup head configurations, which all adapt easily to specific process requirements.

### Proven Design, Adaptable, and Reliable



*Complete Part Inspection and Handling Process Module*

MIDAS Vision Systems Inc. has designed and implemented dozens of these modular systems to meet the demands of high capacity manufacturers. Whether operating as an island of automation or as a totally integrated process module, these systems can operate 24/7 with minimal operator interaction.

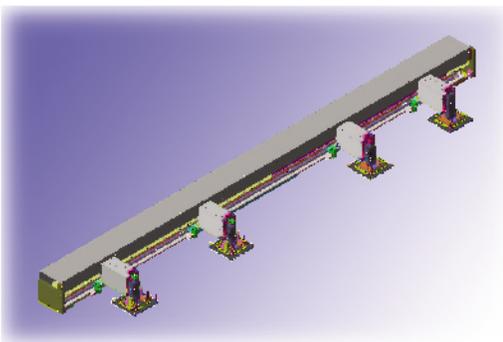
### The MIDAS Vision Solution

Capable of moving parts through inspection with unprecedented precision and speed, MIDAS automated part handlers reduce both labor cost and material waste by providing hands-free part handling and inspection.

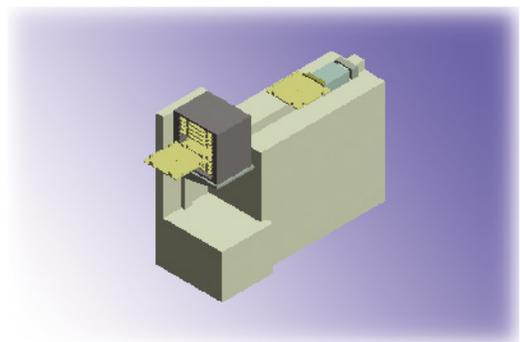
No matter which handling technique a facility is using, (walking beam, conveyor, edge grip, suction, etc.) the MIDAS development team can quickly tailor a handling solution that integrates seamlessly with the current production process.

During the inspection process, multiple pickup heads equipped with intelligent sensors detect the presence and orientation of a part and move it along a gantry. After inspection, the system places a part according to its pass or fail disposition. A

Modular components, low power requirements, and a fully developed motion control platform make these systems easy to configure, operate, and maintain.

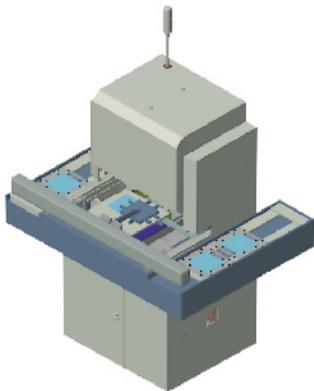


*Gantry Module in a 4 Pickup Head Configuration*



*Magazine Elevator and Part Placement Module*

# System Specifications



*Inspection system with integrated handler*

## Inspection

<b>Application</b>	Multi-layer ceramic, flex, wafer, thick film, photo masters
<b>Inspection rate</b>	As fast as 400 parts per hour
<b>Part size</b>	Up to 30.5 cm (12 in.)

## Utilities

<b>Power</b>	120 VAC 15A (220 VAC 7.5 A)
<b>Pneumatics</b>	Filtered, compressed air
<b>Vacuum</b>	Varies according to application and options

## Handling

<b>Lot stacking</b>	Application specific magazine and/or trays
<b>Gantry motion</b>	X axis: brush-less linear motors; Z axis: pneumatic
<b>Elevator(s)</b>	Z axis: motor driven ballscrew
<b>Part placement</b>	Y axis: pneumatic
<b>Sensors</b>	part presence, part orientation, spacer presence, vacuum, etc.
<b>User interface</b>	LCD touch screen
<b>System status</b>	Load, unload, system interrupts, system interlock, etc.

## Options

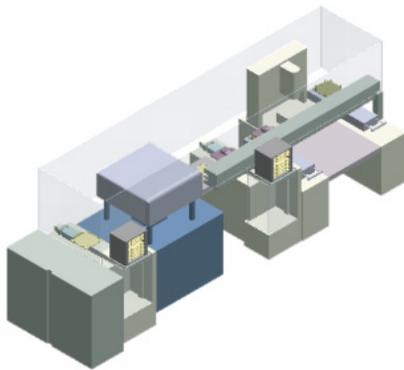
<b>Part cleaners</b>	Vacuum, compressed air, or other
<b>Part marking</b>	Ribbon or inkjet printers, laser marking
<b>Network interface</b>	Ethernet LAN for use with custom process control programs
<b>Static control</b>	Forced ionized air
<b>Enclosures</b>	Filtered, mini clean room environments
<b>Repair station</b>	Locates defects for repair via inspection data coordinates

## Miscellaneous

All part handling systems conform to the following industry standards:

SMEMA, interface protocol

SEMATech S2/S8, safety and ergonomics



*Inline inspection for punch processing*



US Headquarters

25 Commercial Drive  
Wrentham, MA 02093  
[www.midasvision.com](http://www.midasvision.com)

Tel: (508) 384-9600  
Fax: (508) 384-8183  
Email: [sales@midasvision.com](mailto:sales@midasvision.com)