

# ACU-GAGE

## High Precision Line

The HPL combines fast, precision mechanics, the Quadra-Chek 4000 metrology software, and sophisticated image processing to provide automatic inspection solutions for the most challenging, non-contact dimensional measurement applications.

The HPL is designed for the high volume customer that requires accurate, repeatable results, rapid throughput and flexible, comprehensive documentation & reporting.

Programming tools such as point filtration and path optimization enable operators to execute programs for first article inspections. A step & repeat function accommodates multi-part staging to monitor critical features for process capability.

Thanks to our user friendly software, factory training, and robust mechanical design, our customers experience a rapid learning curve. This translates into increased measurement accuracy and repeatability, improved documentation and higher inspection throughput.

8"x8"x4" HPL with QC-4000 and Z Axis, Auto Focus and Programmable Zoom



The HPL is particularly suited for measurement of production volume precision parts such as lead frames, interconnects, chip packaging, electronic components and plastic molded parts.

### Standard Features:

- > 8" x 8" measuring envelope
- > Quadra-Chek 4000 Windows™-based metrology software
- > 7:1 zoom range (30X-210X mag. range)
- > .00002"/.0005mm resolution linear encoder
- > Black & white video System
- > Video edge detection
- > Black impala granite base & column
- > Field of view measurement
- > Programmable profile & surface illumination
- > CNC stage positioning
- > Teach mode programming
- > CAD interface for programming & reverse engineering
- > Off-line programming & editing
- > Full geometric dimensioning & tolerancing
- > Custom report generation
- > Programmable data link for automatic data collection
- > Non-linear error correction
- > Rack & pinion focus mechanism
- > Image archiving
- > Workstation
- > NIST traceability
- > Installation & training by factory personnel

### Optional Equipment:

- > Auxiliary lenses & filters
- > Z axis with auto focus
- > Programmable zoom
- > SPC software
- > Printer
- > Video printer
- > NIST traceable glass grid

## ACU-GAGE SYSTEMS

175 Ammon Drive  
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# ACU-GAGE HIGH PRECISION LINE

## Technical Data

Model	HPL082	HPL083
<b>Measuring Range</b>		
X-Axis	8" (203mm)	8" (203mm)
Y-Axis	8" (203mm)	8" (203mm)
Z-Axis	-	4" (100mm)
<b>Resolution*</b>	0.00002" (0.0005mm)	
<b>Image Sensor</b>	High-resolution CCD camera system	
<b>CNC Motor Control</b>	— Standard —	
<b>Illumination System</b>		
Programmable Fiberoptic Ring	— Standard —	
Fluorescent Back-Lit Surface	— Standard —	
Programmable Light Control	— Standard —	
On Axis/Through Lens Lighting	— Available —	
<b>Video Edge Detection</b>		
Black and White	— Standard —	
Color	— Available —	
<b>Automatic Focus</b>	-	Standard
<b>Programmable Zoom</b>	-	Available
<b>Workstation</b>	— Standard —	
<b>Monitor Magnification</b>		
1x Objective	30x-230x	-
2x Objective	-	60x-460x
<b>Measuring Accuracy**</b>		
Inches	±0.0002"	±0.0002"
Millimeters	0.005mm	0.005mm
<b>Drive Speed</b>		
X-, Y-Axis	— 0.6"/sec (15mm/sec) —	
Z-Axis	-	1"/sec (25mm/sec)
<b>Dimensions (WxDxH)</b>	42"x72"	42"x72"
<b>Weight</b>	600lbs (272kg)	600lbs (272kg)
<b>Maximum Workspace</b>		
Loading Height (Standard)	— 4" (100mm) —	
Loading Height (Optional)	— 6" (150mm) —	
Loading Height (Optional)	— 8" (200mm) —	
Loading Weight	— 25lbs (12kg) —	

\* Higher resolutions optional

\*\* Accuracy specified is over the entire measuring range (corner to corner across the table)



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