

AST-200H

Advanced Detection and Metrology System with Wafer Handling

SPECIFICATIONS

PLATFORM:

- 200mm (optional 300mm) wafer/part size capacity
- Maximum stage Load capacity: 50 lb
- 250mm/second maximum staging speed
- Granite base and Z-column, stainless steel finish
- Class 100 (10 optional) clean room compatible
- Closed loop linear stages, with position feedback from 0.02 μm resolution linear glass encoders
- Non-linear 2D accuracy error correction

ACCURACY (XY):

- 1.5+0.6L/100 μm , U1 (z): 1.5+3L/100 μm . Where L is length in mm

COMPUTER:

- Windows 7 Pro

OPTICAL SYSTEM:

- Flat Field objectives, with motorized 5 position turret

CAMERA:

- High resolution CCD array 60+db S/N ratio
- Image Processing 256 grayscale with 1:5-1:50 sub-pixel ratio
- Video and optional Laser Auto focus

ILLUMINATION:

- Software controlled Coaxial & backlight

OTHER:

- Environmental: 17-23 deg C, 20-80% Humidity
- Electrical: 120/240 VAC, 15A single phase
- Footprint: WxD: 32x36 inches, Height: 67 inches
- Weight: 2100 lbs. crated

SOFTWARE FEATURES:

- Automatic defect detection and classification
- Graphical Defects maps, Image Archival, offline review of defects, and reprocessing of archived images
- Flexible part scanning for operator convenience and throughput optimization
- High Precision vision based part alignment

DIMENSIONAL METROLOGY TOOLS:

- **Video Tools:** Point, Line, Circle, Arc edge detectors with built in best fit and defect removal
- **Constructions:** Extensive geometric constructions, with distance and angle measurements (e.g. line to line, etc.)
- **Origin & Skew:** Unlimited reference frames
- **Tolerancing:** Dimensional, Angular, Geometric True Position (MMC, LMC, RFS)
- **Units:** Metric & inches
- **Coordinates:** Cartesian & Polar
- **Step & Repeat:** Repeat Loops for repeating features and multiple parts
- **Reports:** Data on screen, text file, or exports to Excel
- **SPC:** Average, SD, Range, Min, Max, Cp, Cpk
- **Graphics & CAD:** Drawing import/Export
- **Other:** Auto Focus, Auto Lighting & Outlier Removal

AST carries a complete line of precision devices to accommodate your inspection, metrology, and infrared imaging requirements. We also specialize in assembling customized systems, built to your specific need. Call us today for a consultation.