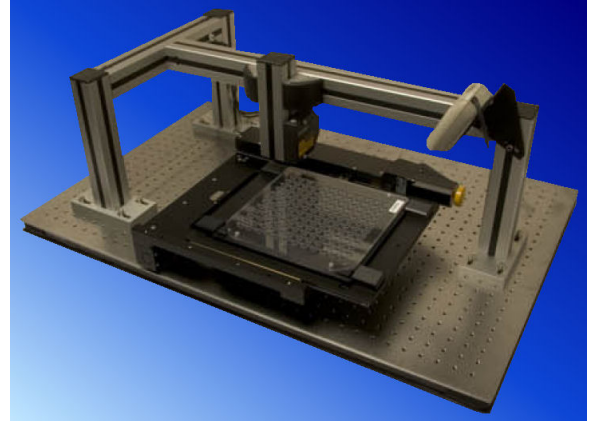


Precision Instrumentation Design

Semi-Custom Inspection Systems

Precision Instrumentation Design has developed a base platform that is easily configured to inspect a wide variety of products including:

- Semiconductor wafers
- Machined parts
- Formed or molded parts
- Assemblies
- Printed, etched, or masked parts



Industries served by PID inspection equipment include biotechnology, semiconductor, nanomaterials, electronic components, and alternative energy.

The base platform may be configured to inspect any number of parts in a batch mode. Both 2D and 3D features may be measured and graded based on user configurable control parameters. The data may then be stored in a flat file on the inspection machine or a network server. Direct data storage in customer databases is also possible.

Standard options for the inspection system are:

- Custom algorithms for part inspection and grading
- Custom part handling and carriers to provide easy batch inspection of parts
- Camera integration for 2D inspection
- Simultaneous inspection of the top and bottom of the device under test
- Inking and laser marking
- Automated sorting via pick and place integration
- Offline manual sorting
- Integration of data output directly to customer R&D or SPC database
- Large formats for devices to be inspected: A 200 mm x 200 mm x 10 mm inspection volume is shown in the picture above. Formats 1 m x 1 m x 1 m and larger are available.

Please contact Precision Instrumentation Design to discuss the details of your individual application.

2916 Scott Boulevard
Santa Clara, CA 95054

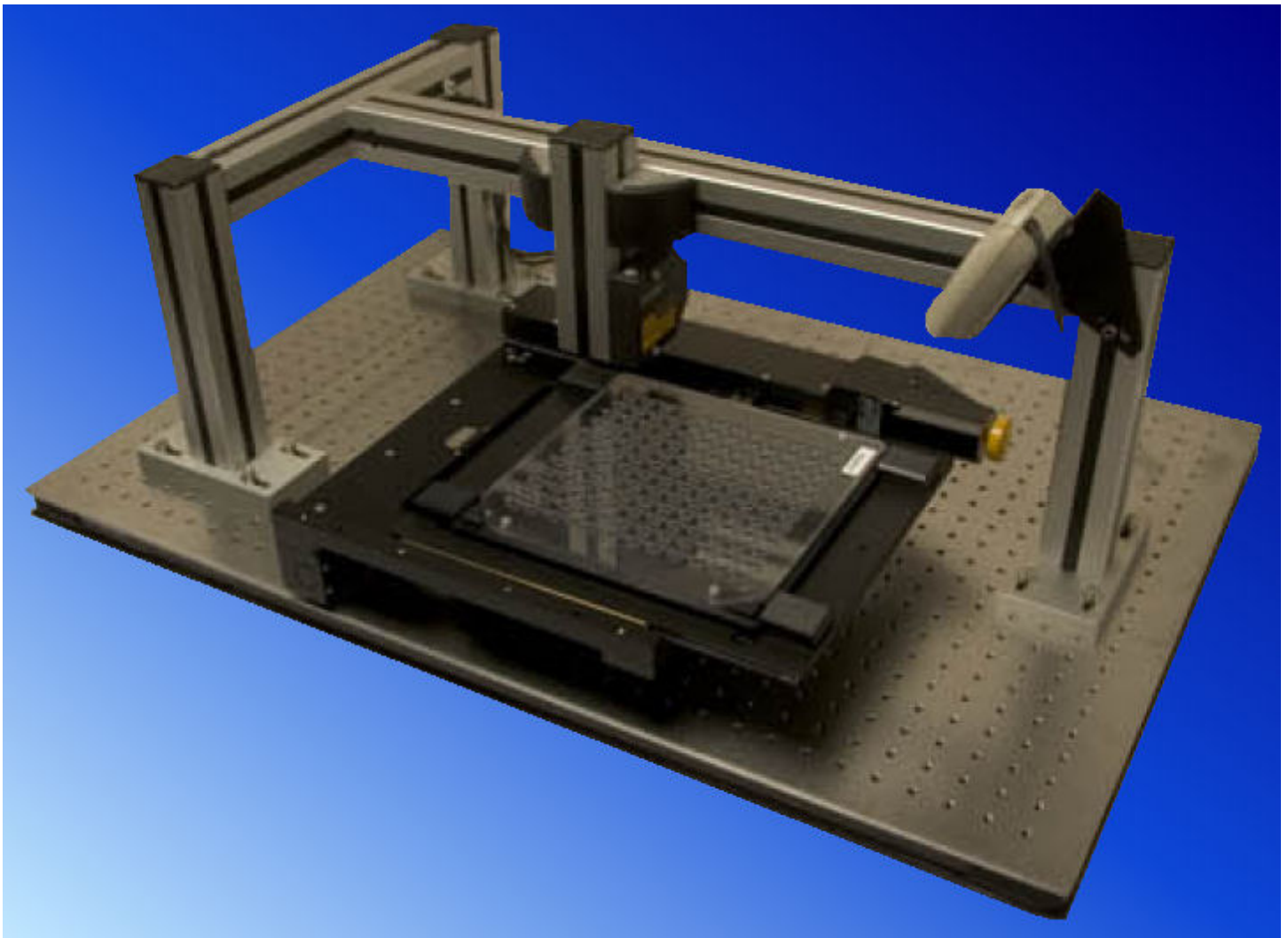
Phone: 408-855-8208
Email: Info@pld-inc.com
web: <http://www.pld-inc.com>

Precision Instrumentation Design

Innovation Enabling Technology



Automated Inspector Configured for Z-height Measurement [200mm x 200mm x 10 mm]



Instrument Rack with Control Computer and Electronics Chassis



2916 Scott Boulevard
Santa Clara, CA 95054

Phone: 408-855-8208
Email: Info@pld-inc.com
web: <http://www.pld-inc.com>

Precision Instrumentation Design

Innovation Enabling Technology

The logo for Precision Instrumentation Design, consisting of the letters 'Pfd' in a stylized, blue, serif font.

Offline Sorting Station Showing Bin Status for Inspected Parts [200mm x 200mm array of 144 parts]



2916 Scott Boulevard
Santa Clara, CA 95054

Phone: 408-855-8208
Email: Info@pld-inc.com
web: <http://www.pld-inc.com>

Precision Instrumentation Design

Innovation Enabling Technology

Pfd

System Specifications:

Power:

120-240 VAC, 50-60 Hz autosensing; 700 W maximum

Dimensions:

Automated Inspector: 155 lb [70 kg]; 32" wide x 24" deep x 18" tall [820 mm x 610 mm x 460 mm]

Electronics Chassis: 60 lb [28 kg]; 21" wide x 17.5" deep x 24" tall [535 mm x 445 mm x 610 mm]

Offline Sorting Station: 40 lb [18 kg]; 17" wide x 24" deep x 24" tall [525 mm x 610 mm x 610 mm]

Measurement accuracy:

The standard 200 mm x 200 mm x 10 mm Z-height measurement tool shown here has an X/Y accuracy of +/- 5 micron and a Z height resolution of +/- 1 micron.

Actual measurement accuracy depends heavily on the hardware selected for your particular application. Please contact PID to discuss your requirements and we will be happy to configure a system that will meet your needs.

Throughput:

The standard 200 mm x 200 mm x 10 mm Z-height measurement tool shown here can inspect 144 parts in under 10 minutes including tray loading and unloading. If the system is used for on 8 hour shift 5 days per week and 50 weeks per year, the number of parts that may be inspected in a year is 1,728,000.

Conveyor systems are also available for continuous line monitoring and automated loading.

About PID:

Precision Instrumentation Design has been serving the equipment needs of customers in the semiconductor, biotechnology, and alternative energy sectors since 1998. Our experience and understanding of our customers' requirements allow us to design and build systems that give them the ability to perform research and manufacture devices for emerging as well as mature markets. Our primary goal is maximizing the success of our customers.



**2916 Scott Boulevard
Santa Clara, CA 95054**

**Phone: 408-855-8208
Email: Info@pid-inc.com**

web: <http://www.pid-inc.com>

Precision Instrumentation Design

Innovation Enabling Technology

