

Development and production

of laser and sorting systems

IL 2000 Wafer Marking System



The Innolas IL 2000 series laser system is designed to mark various wafer materials with diameters ranging from 2" to 200mm.

Different laser types and setups are available to achieve optimum process results for various materials such as Si, GaAs, Ge, SiC, GaP, InP, Sapphire, Quartz and others.

A deep or debree free marking process is available. Our application engineers are happy to help you with the best process setup.

The wafer marking system is controlled by a 19" industrial PC.

The powerful WindowsTM based software package includes user friendly operator and engineer interface along with sophisticated diagnostic features for maintenance and service personal.

Software options include wafer sorting and SECS/GEM host interface. Customized software solutions are available upon request.



INNOLAS Ø1



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Technical Specifications IL 2000 Series

HANDLING SYSTEM

Wafer sizes: 2", 2.25", 3", 3.25" and 100, 125, 150, 200mm

Wafer transfer: Robot - double end effector Wafer alignment: Opto mechanical aligner Wafer handling: Vacuum or edge grip Number of stations: 4 stations (input / output)

Throughput: 220 wafers/hr (SEMI M13-88 without reading)

LASER AND OPTICS

Nd:YAG 1064nm, 532nm and 355nm (diode pumped) Laser type:

Nd:YAG 1064nm (lamp pumped)

Others on request

Class 1 (Class 4 with open cabinet / service access) Laser class:

Beam expansion: Two lens system Focus lens: F-Theta objective

Digitally controlled (field: 110x110mm) Galvo head

Laser stability: +/- 1% peek to peek

MARKING

Fonts: Dot Matrix (SEMI 5x9, 10x18, 15x23 and 9x17)

Barcode (SEMI 412, IBM 412)

2D Code (SEMI T7) Engrave Mode (optional)

Checksum: SEMI, IBM, customized (optional) Numeric, alphanumeric, IBM Serialization: (ascending or descending)

Adjustable in X and Y direction Text position: Repeatability: +/- 80µm in X and Y direction

Marking Depth: 0.1μm - 100μm (depending on material type

and process setup)

STANDARD OPTIONS

- · Reading system for wafer front and / or backside
- · Auto laser power controller
- · Barcode hand scanner
- · Process viewing window with laser safety glass (100x200mm)
- · Motorized auto zoom (3 lens system)
- · SECS/GEM host software
- · Service area control system at backside of machine
- · Wafer thickness measurement

FACILITY REQUIREMENTS

400V AC / 3P / N / PE / 50Hz / 16A Electrical:

> 208V AC / 3P / N / PE / 60Hz / 25A 208V AC / 2P / PE / 60Hz / 30A

Ethernet RJ45 connector Communication:

Vacuum: -800mbar (23.6Hg) - Festo 8mm OD connection Exhaust: 75m³/hr (44.1ft³/min) - 50mm ID connection Weight: 1000kg (2205 lb) depending on options

For lamp pumped laser only:

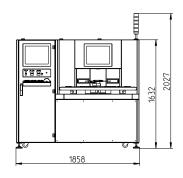
5.5l/min @ 15°C (1.5gal/hr @ 59°F) Cooling water:

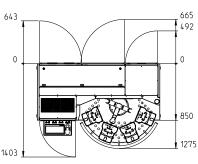
Water pressure: min. 2bar (29psi)

CERTIFICATIONS

· CDRH accession # 0010530

· CE certified





Dimensions in mm

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