

Development and production
of laser and sorting systems

IL C3000 Wafer Marking System



The InnoLas IL C3000 is a state of the art class 1 mini environment marking system for 300mm Silicon wafers.

The system allows fully automated laser marking of polished 300mm wafers in FOUP cassettes using our debris free processing techniques.

The integrated mini environment has an ionization unit with laminar flow and pressure control.

The two station system can be loaded by the system operator or with an OHT (over head transport) system following the SEMI E84 standard.

The unique InnoLas Semiconductor designed 300mm vacuum or edge grip handling (including aligner) is available. The system offers marking capability on the front and/or backside of the wafer.

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



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Technical Specifications IL C 3000 Series

HANDLING SYSTEM

Wafer sizes:	300mm (12")
Wafer transfer:	Robot - single end effector
Wafer alignment:	Opto mechanical aligner
Wafer handling:	Vacuum or edge grip
Number of stations:	2 stations (input / output) + inspection (optional)
Throughput:	120 wafers/hr (SEMI M13-88 without reading)

LASER AND OPTICS

Laser type:	Nd:YAG 1064nm, 532nm and 355nm (diode pumped)
Laser class:	Class 1 (Class 4 with open cabinet/service access)
Beam expansion:	Two lens system
Focus lens:	F-Theta objective
Galvo head:	Digitally controlled (field: 110x110mm)
Laser stability:	+/- 1% peak to peak

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)
Serialization:	Numeric, alphanumeric, IBM (ascending or descending)
Text position:	Adjustable in X and Y direction
Repeatability:	+/- 80µm in X and Y direction
Marking Depth:	0.1µm - 5µm (depending on process setup)

STANDARD OPTIONS

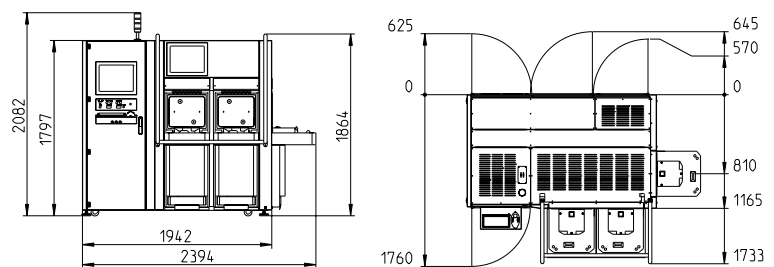
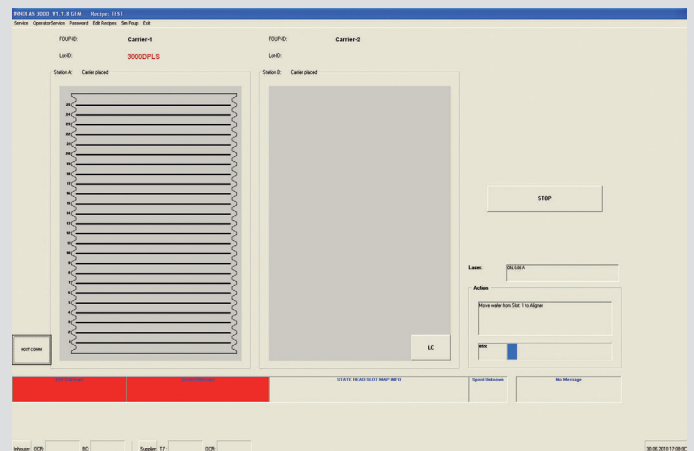
- Reading system for wafer front and / or backside
- Second galvo head for wafer front and / or backside
- 3rd station for wafer inspection
- OHT (Over Head Transport) for cassette loading/unloading
- Auto laser power controller
- Barcode hand scanner
- Process viewing window with laser safety glass (100x200mm)
- Motorized auto zoom (3 lens system)
- SECS/GEM host software
- Service area control system at backside of machine

FACILITY REQUIREMENTS

Electrical:	400V AC / 3P / N / PE / 50Hz / 16A 208V AC / 3P / N / PE / 60Hz / 25A 208V AC / 2P / PE / 60Hz / 30A
Communication:	Ethernet RJ45 connector
Vacuum:	-800mbar (23.6Hg) - Festo 8mm OD connection
Compressed air:	8bar (116psi) - Festo 8mm OD connection
PFO:	Process Fluid Outlet - Festo 8mm OD connection
Exhaust:	75m³/hr (44.1ft³/min) - 50mm ID connection
Weight:	1250kg (2756 lb) depending on options

CERTIFICATIONS

- CDRH accession # 0010530
- CE certified



Dimensions in mm