

where ideas become technology



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Laser Marking **GREEN, FIBER & CO₂**

Main characteristics:

- Fiducial check for accurate marking position
- 100% data and quality level check on 2D code
- Bad mark recognition
- PCB supplier logo recognition for on-fly optimal parameter set-up
- OCR for PCB version recognition
- Optical check for component presence/absence
- PCB polarization check
- Automatic parameter adjustment in production
- Automatic width adjustment
- Full library (2D code, Bar code, QR code and others)
- Tailored DB communication for traceability
- Remote connection
- Datalog available for fast diagnostic



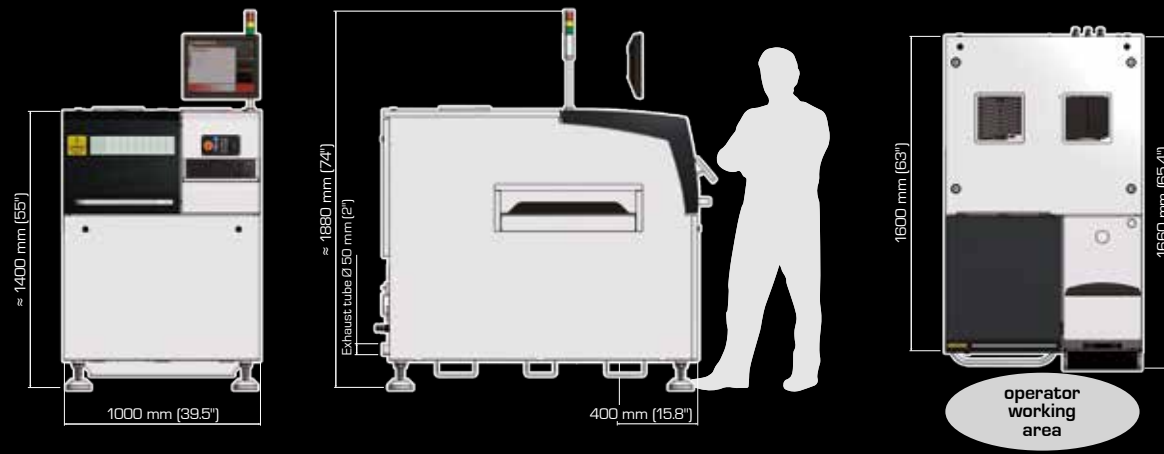
Wavelength

 **Osai**
automation systems
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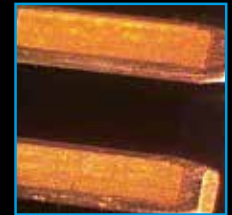
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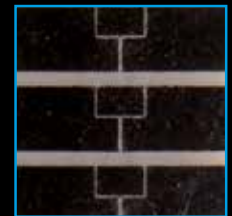
Plastic marking



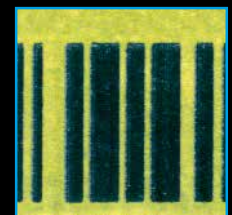
Trimming



Deflashing



Scribing



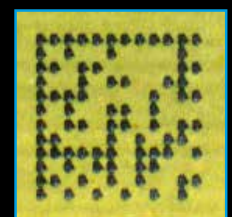
Barcode



YAG on copper



CO₂ color change on solder resist



YAG on gold

MACHINE CONFIGURATION

Transport (Height)	SMEMA compliant
Max. transport (Width)	480 mm (19") with automatic width adjustment
Interface	SMEMA
Transfer direction	From left to right (optional from right to left or pass-back)
Operating side - Fixed rail	Front of the machine

PANEL DIMENSIONS

Panel (Length)	70 mm to 480 mm (2.8" to 19")
Panel (Width)	50 mm to 480 mm (2" to 19")
Panel (Weight)	Up to 3 kg (6,6 lbs)
Transport PCB	3 mm flat belt
Panel thickness	0.5 mm to 3.5 mm (19,7 mils to 138 mils)
Panel clearance	Up 66 mm - Down 40 mm
Marking area (Length - Width)	Up to 480 mm (Up to 19")

INSTALLATION REQUIREMENTS

Power supply	CE 230V	ETL 208/240/277/440/480/575V
Power supply system	CE 1P+N+PE - 50/60 Hz, +/-10%	ETL 2Ph+GND 3 Wire - 50/60 Hz, +/-10%
Power consumption	Typical 1 kW (+ 0,2 up to 0,8 kW depending on Laser)	
Air pressure	6 bar (87 p.s.i.)	
Average consumption	<10 NI/min (2,64 gpm)	

MACHINE DESCRIPTION

Length x Width x Height	1000 mm x 1660 mm x 1880 mm (39.5" x 65.4" x 74")
Codes reading and writing	Data Matrix ECC200, Code 39, Code 128, 2/5 Interleaved, QR code
Repeatability	+/- 50 µm (1,96 mils)
Accuracy	+/- 100 µm (3,93 mils)
Axis speed (X - Y)	48 m/min
Weight	Approx. 800 kg (1763 lbs)
Color	RAL 9018, RAL 7016
Noise level	< 70 dB

LASER DESCRIPTION

Laser power (Green)	Up to 40W
Spot Laser (Green)	35 µm (1,96 mils)
Laser power (Fiber)	Up to 100W
Spot Laser (Fiber)	70 µm (2,76 mils)
Laser power (CO ₂)	Up to 30W
Spot Laser (CO ₂)	100 µm (3,9 mils)

UPGRADES AND OPTIONS

- 2D code and fiducial recognition
- Bottom side reader
- In focus belt conveyor
- Bended PCB support

UPGRADES AND OPTIONS

- External Flip unit
- Exhauster
- DB connection

The specifications given in this document represent the state of engineering at the time of publishing. Osai reserves the right to make modifications on the specifications and materials.