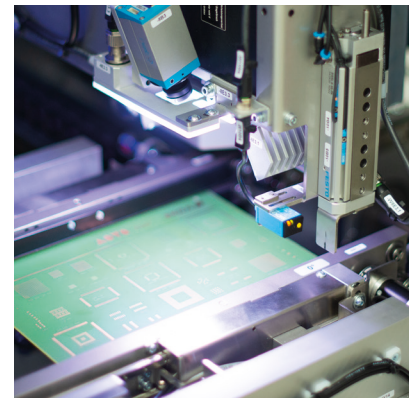
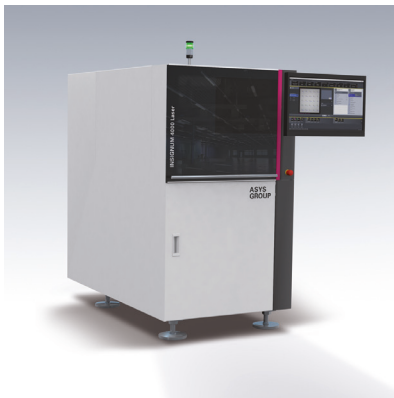


INSIGNUM 4000 Laser



Description

The ASYS inline laser marking system, INSIGNUM 4000, is used for direct laser marking for PCBs. The laser unit is mounted on a linear driven X/Y axis system above the transport system. The PCB to be marked is taken over by the transport system, fixed in position with an integrated side clamp and moved into the target area for lasering. The laser now moves to a pre-programmed position and marks the predefined content, such as barcode, datamatrix codes, text or logos onto the product. The code content is verified with a high-resolution camera-system. An optional software-upgrade for fiducial recognition can be used for position correction. The machine can be connected to a MES via the easy to implement interface "Asys Standard Interface".

Features

- _ Short cycle times
- _ Smallest module size $\geq 0.127 \text{ mm} \geq 5 \text{ mil}$
- _ Maximum precision
- _ Very compact design
- _ Available as CO₂-laser or fiber laser

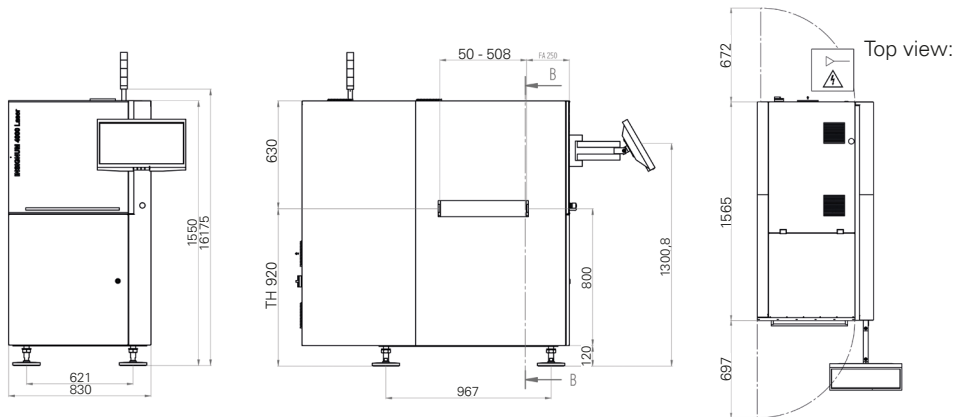
Options

- _ Integrated flip station
- _ Fume extraction unit
- _ OPTIMAP – Automatic field mapping for cycle time optimization
- _ Try & Check
- _ Laser power measurement
- _ Offline programming station (programming of the system during production)
- _ Product Pool (networking of INSIGNUM systems to reduce set-up times)
- _ Connection to MES via ASYS Standard Interface
- _ Customized MES/ERP connections

SI SIMPLEX

SIMPLEX is a unique Human Machine Interface for monitoring. Immediately it is clear: operators and their specific needs are the focus. Buttons are optimized for quick touch screen entry and for the conditions in a manufacturing environment and control of highly complex machines.





INSIGNUM 4000 Laser

Machine configuration

Transport height	920 mm ± 50 mm
Interface	SMEMA
Transfer direction	From left to right/from right to left
Operating side	Front of the machine
Fixed rail	Front of the machine

Panel dimensions

Panel length	70 to 508 mm
Panel width	50 to 508 mm
Panel thickness	0.8 to 4.0 mm
Panel weight	Up to 2 kg
Component height	± 40 mm (+25/-40 mm for the fibre laser)
Coating	Solder Resist (other coatings upon request)

Installation requirements

Power supply	230V/115V, 50/60 Hz, ± 10 %
Power supply system	L1 + N + PE
Power consumption	0.69 kW
Air supply	6 bar
Air consumption	<12 NI/min

Machine description

Length × Width × Height	830 × 1565 × 1550 mm
Max laser window	80 × 80 mm
Codes	Data Matrix ECC200 (Cellsize ≥ 0.127 mm ≥ 5 mil), Code 39, Code 128, 2/5 Interleaved
Positioning accuracy	± 100 µm @5Sigma (at 460x460mm PCB format)
Noise Level	< 75 dB

Upgrades

Machine networking via IC Net