

## INSIGNUM Laser – Power & Precision in Marking



### ASYS The perfect match for any application

The **INSIGNUM Series of Laser Marking Systems** from ASYS provides a comprehensive line-up of marking solutions that ranges from an offline model to a high-throughput inline system. A choice of lasers, CO<sub>2</sub>, Fiber or Green, can be selected to meet the requirements of any application and various materials ranging from PCBs, solder resists, metals, plastics or ceramics.

The **INSIGNUM 1000 Laser** is an inline/offline Marking System which utilizes a CO<sub>2</sub> laser for direct marking onto various types of plastics and PCBs. Alternatively the machine can be equipped with a fibre laser for marking other materials e.g. metals.

The **INSIGNUM 2000 Laser**, the high speed model of the series, can mark up to 20 codes in just 15 seconds (incl. handling and verification) making it an ideal choice for multi-up applications. Options include an integrated flip station for double sided marking and galvo-integrated camera for high-speed verification. The **INSIGNUM 2000 Laser Twin** is even faster. With an additional laser from below it obtains an improvement of the cycle time by up to 50 %.

The **INSIGNUM 3000 Laser** is a midrange model which can be implemented as a marking island with integrated PCB loading and unloading. This system is especially useful for marking large PCBs of up to 508 mm x 508 mm.

The high-end system of the series is the **INSIGNUM 4000 Laser**. It utilizes linear motors to offer the highest code resolutions, precision and an impressive cycle time of 4 seconds for handling plus 0.8 seconds for DMC. An integrated flip-station enhances the efficiency of the system even more.

**INSIGNUM 4000 with OPTIMAP:** The unique innovation provided by the OPTIMAP option is that the system can now automatically optimize the X/Y movements to complete the fastest and most efficient way to mark a multi-up panel.

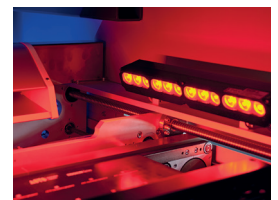
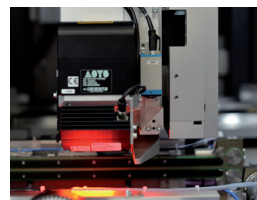
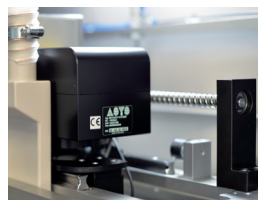
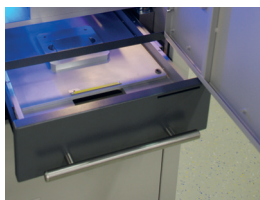
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	INSIGNUM 1000	INSIGNUM 2000	INSIGNUM 3000	INSIGNUM 4000	INSIGNUM 2000 Twin
<b>Marking Area (mm)</b>					
105 x 105 (other areas on request)	●				
350 x 350 (max PCB size 460 x 460)		●			●
460 x 460				●	
508 x 508			●	○	
Upgradeable with second stopper	*	○			○
<b>Marking Criteria</b>					
Code size 5 mil	*		●	●	
Code size 7,5 mil	●	●			●
<b>Verification</b>					
Scan after print	○	●	○	●	●
Camera coupling using a galvo-mirror		●			○
AIM classification	○	○	○	○	○
Scan on the fly at the inlet	*	*	*	○	*
Scan from below	○	○	*	○	○
OPTIMAP				○	
RGB Lighting		○		○	
<b>Programming</b>					
ASYMark server tool	○	○	○	○	○
ASYMark offline programming station	○	○	○	○	○
ASYMark database connection	○	○	○	○	○
MES database connection	○	○	○	○	○
<b>Width Adjust and Conveyor</b>					
Automatic width adjust	○	○	○	○	○
Loader and unloader controlled by INSIGNUM	○	○	○ (1)	○	○
External flip-station	○		○	○	
Integrated flip-station	*	○		○	
PCB thickness < 0,8 mm	*	○ (2)	*	○	○ (2)
Side clamps	○	○	○	●	○
PCB support	○	○	○	●	
Sliding conveyor belt					○
<b>Marking Unit</b>					
Fiber laser	○		○	○	
CO <sub>2</sub> -laser	●	●	●	●	●
Adjustable focus (focus shifter)	○		○	○	
Stationary laser from bottom	*			*	●
<b>Position and Fiducial Recognition</b>					
Camera fiducial recognition		○	○	○	○
Camera bad-mark recognition		○	○	○	○
Camera type orientation check		○	○	○	○
<b>Other</b>					
Exhaust	○	○	○	○	○
Remote access	○	○	○	○	○
RAID controller	○	○	○	○	○

● Standard  
○ Option  
\* On Request

**Laser**  
CO<sub>2</sub>-Laser 10600 nm  
Fiber Laser 1064 nm

**Upgrades**  
Line networking via IC Net  
Flexible dual lane version

**PCB Size**  
(1) PCB Size 460x460 mm  
(2) Only with integrated flip station possible

Subject to change without notice. Some general descriptions and performance characteristics may not be applicable to all products. Technical specifications are subject to change without notice. Only features and technical data provided in purchasing contract are legally binding. Printed in Germany