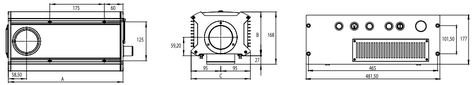
Fast and powerful lasers for marking delicate substrates with high contrast marking.

Meet the needs of each industry at an affordable price

D Duo Series



D-DUO & GREEN DUO & UV (DPSS)														
MODEL			Series D DUO			GREEN DUO PS				UV	
POWER			6W	10W	20W	5W	10W	1,5W		5W	
WAVELENGTH			1532 nm			532 nm				355 nm	
LASER SYSTEM			D - 5000 DUO			GREEN				UV	
MAINS SUPPLY			100V - 240V 50 / 60 Hz (1 Phase + N) 300 VA	100V - 240V 50 / 60 Hz (1 Phase + N) 400 VA		100V - 240V 50 / 60 Hz (1 Phase + N) 300 VA	100V - 240V 50 / 60 Hz (1 Phase + N) 400 VA			100V - 240V 50 / 60 Hz (1 Phase + N) 600 VA	
DIMENSIONS	Head		601x190x141 mm							314x106x108 mm	
	Rack		550x480.5x177 mm								
WEIGHT (Falta comprovar)			Net weight: 28Kg Gross Weight: 33Kg							Net weight: 18Kg Gross Weight: 20Kg	
COOLING			Air							Water	
SYSTEM			Resonator of the laser source, DACs board, drivers of the scanners, and galvanometric scanners built into the laser and marking head. Control and power electronics, CPU, power supplies and laser source pumping unit built into the control rack.								
FOCAL SPECIFIC.	TECHNOLOGY		D DUO				GREEN				UV	
			F -	6	10	20	F -	5	10	PICO	F -	5
	MA (mm)	WD (mm)	FI (mm)	BD (µm)	PD (KW/cm2)	PD (KW/cm2)	PD (KW/cm2)	BD (µm)	PD (KW/cm2)	PD (KW/cm2)	PD (KW/cm2)	BD (µm)	PD (KW/cm2)
	55x55	141	100	16	5825	9709	19417	10	12333	13875	2081	5	43278
	100x100	205	163	26	2192	3654	7308	17	4642	5222	783	9	16289
	168x168	347	254	41	903	1505	3009	26	1912	2151	323	-	-
	212x212	458	346	56	487	811	1622	35	1030	1159	174	-	-
	242x242	554	420	68	330	551	1101	-	-	-	-	-	-
	500x500	889	815	132	88	146	292	-	-	-	-	-	-
	LEGEND			WD:Working Distance FD:Focal Distance MA:Marking Area BD:Beam Diameter PD:Power Density									
	IMPORTANT NOTE			- Working Distance (WD): The distance between the laser system base and the surface to be marked.									
				- Focal Length (FL): The distance between the center of the lens and the surface to be marked.									
				- Approximate values: These values are an approximation, and they are different for each laser system, due to the different optical paths.									
SOFTWARE			• ScanLinux V5.2.7 and later. • Marca Software V5.6.9 and later. • Internal Barcode.										
USER INTERFACE			• Touch Screen. • Hand Held Terminal. • Pc.										
CONTROLLED BY			• Hand Held Terminal with ScanLinux software. • Touch Screen with ScanLinux software. • Full Graphics Interface: includes Marca software™, dongle and Ethernet cable (TCP / IP). • Marca Lite Software: includes Marca™ software, dongle and Ethernet cable (TCP / IP).										
LASER SOURCE			• End pumped Nd:YAG resonator by an optical fiber. • Beam pointer (optional red diode).										
ACCESSORIES			Handheld Terminal-Touch Screen Terminal - Beam pointer - Encoder Kit - Photocell Kit - Alarm Kit Fume Extractor - Mounting support - Mounting Bracket U-ARM - Marking paper - Protection goggles - Air Cooling Kit - Water Cooling Kit (only for UV)										
ENVIRONMENTAL CONDITIONS			+15ºC [59ºF] at 40ºC [104ºF] external temperature with 50% Duty Cycle or 36ºC[100ºF] external temperature with 100% Duty Cycle. Humidity between 10% and 95%, without condensation. UV working humidity: 30-80%.										

** approximate data that may have small variations in reality*

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D DUO Series

INDUSTRIAL DPSS LASER

High quality marking for plastics and delicate substrates

D DUO Series by **MACSA**

Reliable. Smart. Easy

INDUSTRIAL DPSS LASER

D DUO Series

A family of industrial DPSS lasers.

D DUO lasers are designed for industrial laser marking applications. In-built motion control, TCP-IP communication and digital I/O make it possible to integrate the laser in to most production lines. Alternatively D-Duo lasers can be installed in workstations for standalone applications.

They are fast and powerful lasers **designed for marking delicate substrates and for coating ablation**. High contrast marks can be achieved with no thermal damage to the substrate.

The lasers are available in a range of different powers meaning that they can meet the needs of most applications at an affordable price.

Dual processor architecture for fast cycle times even with variable data.

D DUO lasers are short pulse, high peak power lasers and are available in 1064nm, 532nm (Green) and 355nm (UV) wavelengths.

Compatible with the iLaserBox range of workstations

D DUO

For delicate substrates

The D-5000 SERIES is an end-pumped DPSS Laser system, on a Nd-YV04 active medium. Ideal for marking delicate substrates and coating ablation.

- D-5000 lasers have short pulse width to minimize thermal impact
- Compact head design is ideal for high-speed, on-line integration
- D-5000 lasers include full 3 axis motion control for driving external axes.

D DUO UV

For thermo formed and exotic plastics

The D 5000 UV 5 is a DPSS Laser system, based on a Nd: YV04 active medium.

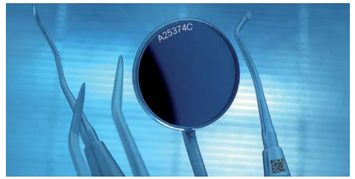
- Solid state Nd: YV04 laser λ = 355nm
- Wide range of materials – Thermo-formed and exotic plastics.
- Water-cooled
- Single phase power input
- Easily integrated into automated production line or the iLaserBox range of workstations

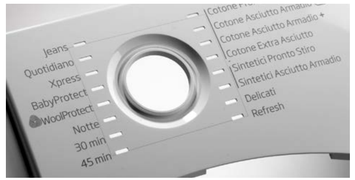
D DUO GREEN

For marking plastics with minimal thermal impact

The gLASER series is a DPSS Laser system, based on a Nd: YV04 active medium. gLASER series deliveries a high beam performance at a wavelength of 532nm.

- D DUO Green lasers are short pulse, high peak power lasers
- Ideal for marking plastics with minimal thermal impact.
- Air cooled
- Single phase power input
- Available as PS model with shorter pulse widht and higher peak power
- Easily integrated into automated production line or the iLaserBox range of workstations





marca
Macsa id

Macsa lasers are very easy to use thanks to our powerful propietary marking software.
Marca makes it simple to code and mark precisely and consistenly. A userfriendly software to create text, 1D and 2D codes, 3D graphics, graphical files, etc...

integra
Macsa id

YOUR PASSPORT TO 4.0 SMART FACTORY

The modular software to control, manage and optimize the production line.

integraoptima
Application for the centralised management of the coding, marking and labelling process.

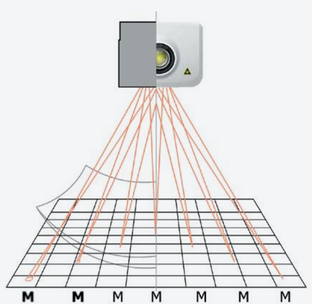
integratrack&trace
Solution for controlling production, quality and traceability.

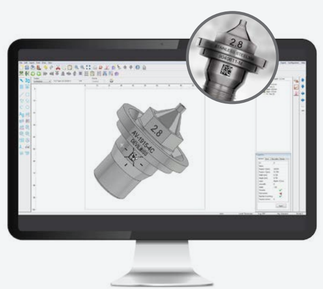
3D marking

2D marks can be mapped to regular 3D geometries such as cylinders, spheres and cones. Additionally irregular geometries can be loaded as 3D CAD files in to Marca software enabling 2D marks to be mapped to irregular 3D surfaces.

The Macsa 3D scan head greatly simplifies the mechanical handling of 3D geometries and can eliminate the need for rotary and robotic handling devices. This can significantly increase productivity.

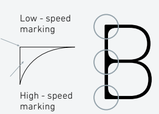
3-D Print Head transform your 2D laser to 3D





DUO by Macsa

Dual Processor Technology Lasers by Macsa allows high precision marks to be produced even with variable data with no loss of performance. This technology dedicates one processor to data processing and the other to controlling the laser.

MACSA LASER SYSTEM

OTHER