SALES GUIDE

NOT QUITE SMALL ENOUGH TO FIT IN YOUR POCKET BUT AT A PRICE WHICH YOU CAN AFFORD

776mm

NANO by **MACSA**

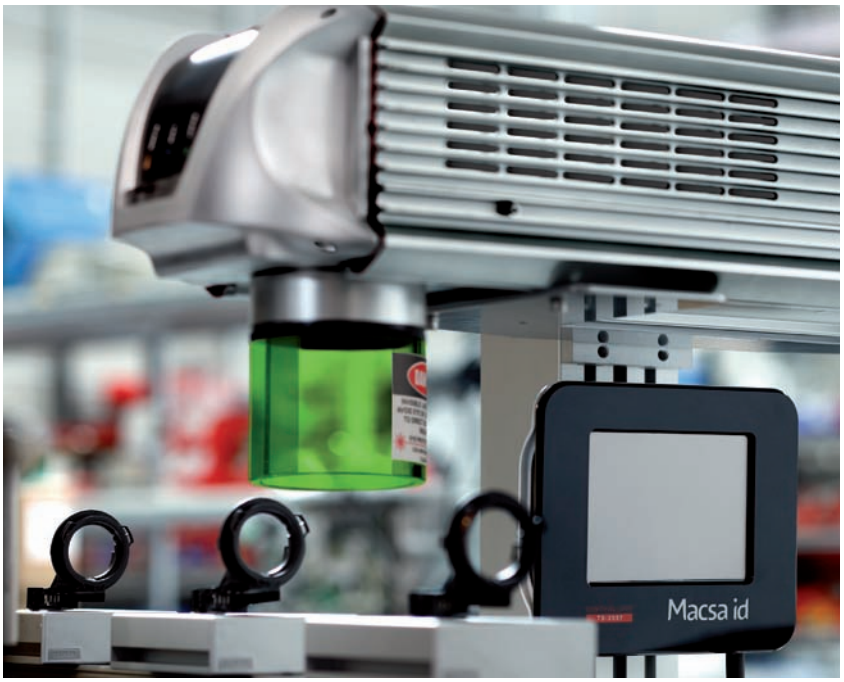
Smart. Compact. Affordable.

Macsa id®

a code you can trust

NANO LASERS

SMART, COMPACT AND AFFORDABLE YAG LASERS



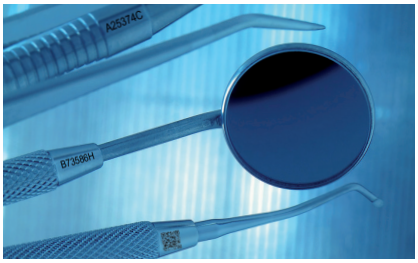
NANO YAG lasers from Macsa are compact and affordable low cost laser coders. They are used by industrial manufacturers to mark their products. They work effectively with a range of plastic and metal substrates.

These lasers have been developed with Macsa's 20 years' development experience and in partnership with Macsa's suppliers. This has resulted in lasers which are smaller and more affordable than competitive products.

- NANO lasers are also cost competitive with traditional marking technologies.
- NANO lasers are easy to install and integrate. They are small and compact and can be fitted in limited space. They are fully network enabled and equipped with an on-board computer making an external PC unnecessary.
- NANO lasers are easy to use: they use Marca software to code precisely and consistently. This is not possible with traditional technologies.
- NANO lasers may be integrated with iLASERBOX workstations. Such lasers are fully-automated plug and play class I laser marking systems.

USED IN INDUSTRIAL MARKETS

FOR MARKING AND ENGRAVING A RANGE OF PLASTICS AND METALS



NANO MARKET INDUSTRIES

- General industry
- Aerospace
- Automotive
- Electronics
- Medical devices
- Security
- Jewelry
- Telecommunications
- Promotional giftware

MACSA

A CODE YOU CAN TRUST

Macsa is a leading global supplier of coding and marking laser equipment and label printer applicators. It supplies customers, including multi-nationals and OEMs, in packaged goods and industrial markets world-wide.

Macsa's laser product range includes CO_2, YAG and fiber lasers.

- The CO_2 range includes the iCON laser coder: a cost effective alternative to continuous inkjet printers; and
- The YAG and fiber ranges include the NANO industrial lasers: attractive, all-in-one alternatives to more expensive systems.

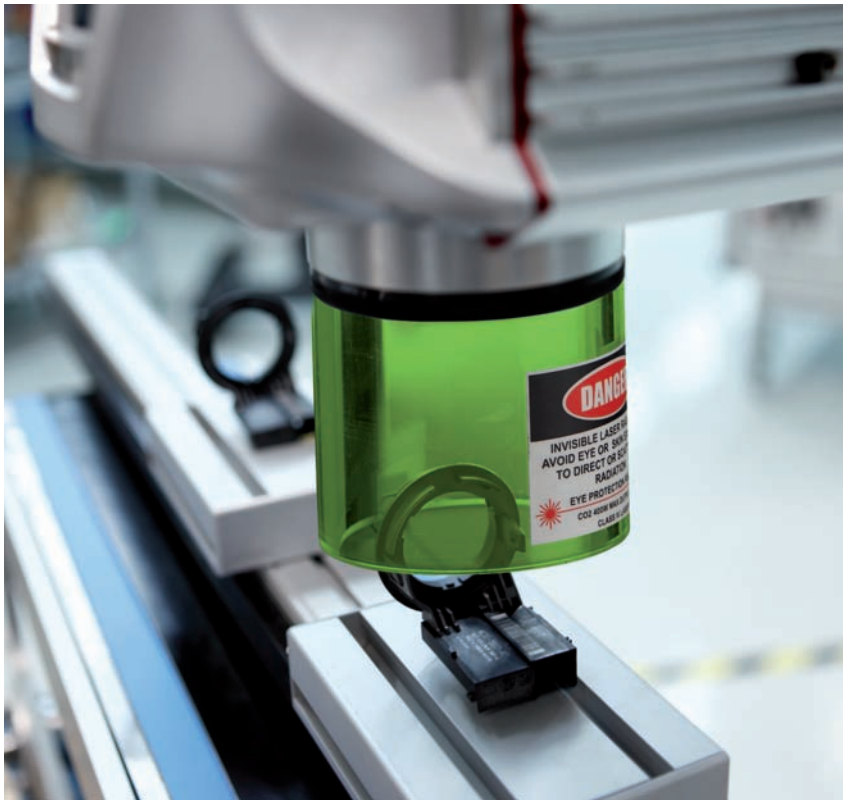
Macsa's products are easy to install and easy to use.

Marca software enables users of Macsa's lasers to develop messages, communicate across networks and operate their lasers. They may be controlled using a touch screen controller. The iLASERBOX laser marking workstation provides a safe operating environment for small semi-manual YAG and fiber applications.

Macsa's label applicator range includes the mLABEL series of modular label and label printer applicators and the iLABEL laser print and apply labelling system.

NANO LASERS ARE EASY TO INTEGRATE

NANO lasers are smart. Their full graphics interface, Marca message creation and laser control software, means that NANO lasers are easy to install, configure and use, and can apply variable information to a range of metals and plastic substrates with precision: time after time.



MACSA ID CAN OFFER

iLASERBOX, the marking system solution for difficult-to-mark products

For those products that do not lend themselves to conveyor belt marking and require special handling, iLASERBOX is the perfect solution developed by Macsa. iLASERBOX ensures safety, precision, durability and quality in product identification and marking.

NANO LASERS ARE EASY TO INSTALL

NANO lasers are compact. Because NANO lasers are small, they are easy to install even where there is limited space. And the laser head and controller are contained in a single unit making such installations even easier.

EMERGENCY STOP
Totally accessible emergency stop button, in compliance with laser safety regulations.

INTERFACE PANEL
Multiple connections including power supply, photocell, shaft encoder, remote input/output, Ethernet (TCP/IP) and external shutter.

MONOBLOC CONSTRUCTION
NANO's single-piece construction makes it extremely robust and compact.

AIR COOLED

CONTROL UNIT
Advanced touch screen

LED STATUS INDICATORS
Green: Laser ready to print.
Blue: Laser printing.
Red: Alarm, laser unable to print.

SEVERAL OPTIONS TO COMPLEM

D Series
DPSS YAG lasers designed for heavy duty industrial marking. D series lasers are effective on a wide range of plastics and metals.

F Series
Pulsed fiber lasers designed for industrial marking. F Series lasers may also be configured for coding film and foil flexible packaging.

NANO LASERS ARE AFFORDABLE

NANO lasers are affordable. With over 20 years' experience designing industrial lasers and close relationships with leading component suppliers in the US and Europe Macsa has been able to reduce the cost of NANO lasers.

ENT NANO

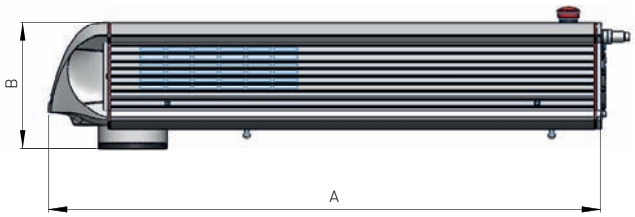
S Series

Variants of the K Series with a small detached laser head. S Series lasers are ideal for installation where access is restricted.

Green Laser

A specialist YAG laser designed for use on special applications, used in high-tech sectors such as aerospace, solar energy and electronics.

NANO



					NANO D			NANO F	
SYSTEM TYPE					**NANO D-6000P**	**NANO D-6000A**	**NANO D-6020**	**NANO F-6010**	**NANO F-6020**
Q-SWITCH/FREQUENCY					Passive/Fixed	Active/Adjustable			
POWER					4W	6W	20W	10W	20W
MAINS SUPPLY					125V / 230 V 50/60 Hz (1 Phase + N) Typ: 150 VA Max: 250 VA	125V / 230 V 50/60 Hz (1 Phase + N) Typ: 160 VA Max: 250 VA	125V / 230 V 50/60 Hz (1 Phase + N) Typ: 300 VA Max: 400 VA	125V / 230 V 50/60 Hz (1 Phase + N) Typ: 200 VA Max: 300 VA	125V / 230 V 50/60 Hz (1 Phase + N) Typ: 250 VA Max: 350 VA
WAVELENGTH					1.064µm			1.062µm	
DIMENSIONS (A x B x C)					776mm x 168mm x 190mm			895mm x 191mm x 235mm	
WEIGHT					Net weight: 18kg Gross weight: 20kg			Net weight: 26kg Gross weight: 30kg	
SYSTEM					Laser generator, galvanometric scanners, power supply unit, control electronics and CPU.				
OPTICS	Working distance (mm)	Focal length (mm)	Marking area (mm x mm)	Beam diameter (µm)	Power density (kW/cm^2)	Power density (kW/cm^2)	Power density (kW/cm^2)	Power density (kW/cm^2)	Power density (kW/cm^2)
	100	128	55x55	< 27-O	1387,5 - O	2081 - O	6938 - O	3482 - O	6964 - O
	162	205	100x100	< 44-S	528,7 - S	793 - S	2648 - S	1327 - S	2653 - S
	254	321	160x160	< 69-O	215,1 - O	323 - O	1075 - O	540 - O	1079 - O
	346	427	200x200	< 94-O	-	174 - O	578 - O	291 - O	582 - O
	µm: microns S: Standard O: Optional Built in marking 90º								
SOFTWARE					▪ ScanLinux V5.2.7 and later ▪ Marca software V5.6.9.a and later ▪ Internal barcode				
USER INTERFACE					▪ Hand held terminal ▪ Touch screen ▪ PC				
CONTROL					▪ Touch screen with ScanLinux software. ▪ MarcaLite® software, with security key and ethernet (TCP/IP) cable connection ▪ Hand held terminal ▪ Full graphics interface, key protected software and ethernet (TCP/IP) cable connection				
LASER SOURCE					▪ ND:YAG resonator pumped by the endpoint (NANO D) ▪ Beam Pointer (optional red diode).				
ACCESSORIES / OPTIONS					Touch screen terminal – Hand held terminal – Photocell kit – Photocell – Encoder kit – Alarm kit – Fume Extractor – Floor stand – U-ARM assembly support Marking papers – Safety goggles				
ENVIRON. CONDITIONS					▪ 15º C (59º F) to 40º C (104º F) external temperature ▪ Humidity < 95%, without condensation ▪ Vibration free area				

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