

POWERFUL, HIGH PERFORMANCE
CO₂ LASERS FOR CUTTING,
SCORING AND SLITTING FLEXIBLE
PLASTICS, FILMS AND FOILS AND
FOR HIGH RESOLUTION MARKING



HPD SERIES by **MACSA**
Power. Pace. Precision.

Macsa id[®]
a code you can trust

HPD SERIES

POWERFUL,
PACE, PRECISION
AND EASY TO USE



HPD Series are powerful, high performance CO₂ lasers. They deliver exceptionally high power density which enables them to be effective in cutting and perforating flexible plastic films and foils and other materials, marking high resolution images onto several non-metallic substrates and coding difficult to code substrates.

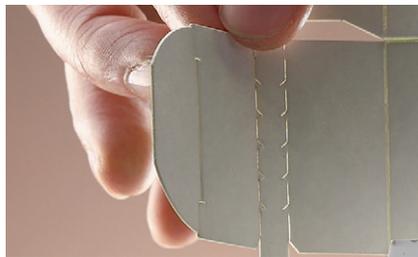
This combination of cutting and coding makes HPD lasers appropriate for integration with form, fill and seal and similar equipment where it is needed to both cut plastic film and to apply lot code information to it.

Macsa has been developing lasers for over 20 years and the HPD Series have been developed with this experience and with Macsa's component suppliers who are themselves industry. This has enabled the development of products which are best of class.

HPD lasers are easy to install and integrate. They are fully network enabled and equipped with an on-board computer making an external PC unnecessary. And they are easy to use: they use Macsa software to code precisely and consistently.

USED IN PACKAGED GOODS MARKETS

ESPECIALLY READY MEALS,
SNACK FOODS AND BEVERAGES.



HPD SERIES
MARKET INDUSTRIES

- Beverage
- Food
- Personal care
- Household care
- Pharmaceutical

- Aerospace
- Automotive
- Electronics
- Medical Devices

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 CO₂, YAG and fiber lasers.

- The CO₂ 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.

Macsa 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.

HPD SERIES ARE POWERFUL

HPD lasers are equipped with a high magnification beam expander which results in high power density.



Laser scoring.

Precise control of the properties of the laser beam allows the selective cutting of layers in the most complex plastic films. This allows easy opening while leaving other layers intact to protect the product from light and humidity. Unlike mechanical tools (dies, blades, punches, etc.) the laser suffers minimal wear as it does not come into physical contact with the integrity of the product at risk.



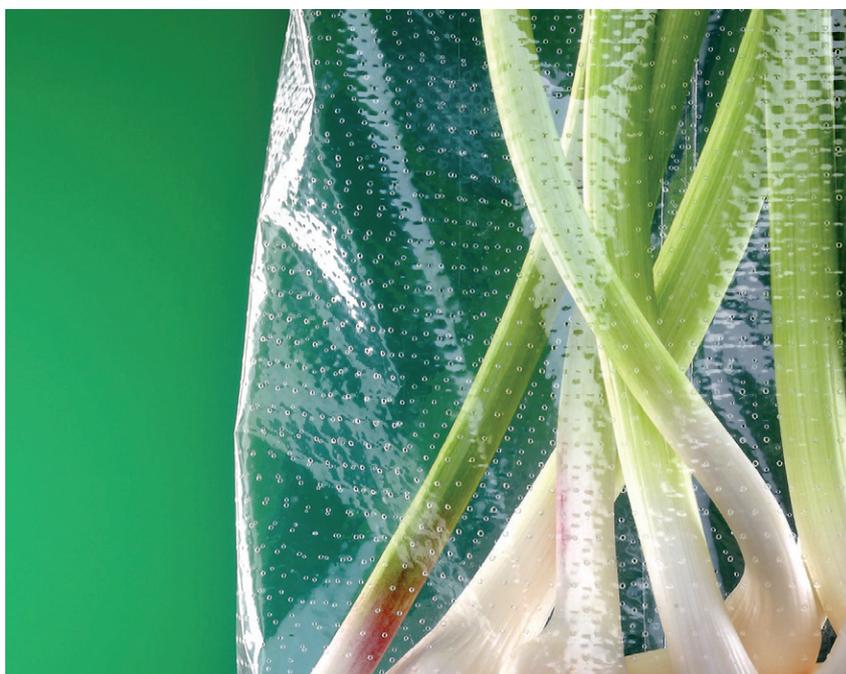
HPD SERIES HAVE PACE

Because HPD lasers are more powerful they need less dwell time to mark or code. This effect is strengthened by the use of long focal length lenses.



μ -perforation.

Polymers allow the transport of low molecular weight components, resulting in the permeation of oxygen, water, components of food aromas and any other gases and vapours. That is the basis of Modified Atmosphere Packaging (MAP). In porous packaging the longevity of perishable products is increased and the exchange flow between atmospheres is controlled.



HPD SERIES MARK WITH PRECISION

HPD lasers are equipped with a high magnification beam expander and long focal length lenses which deliver very small spots.

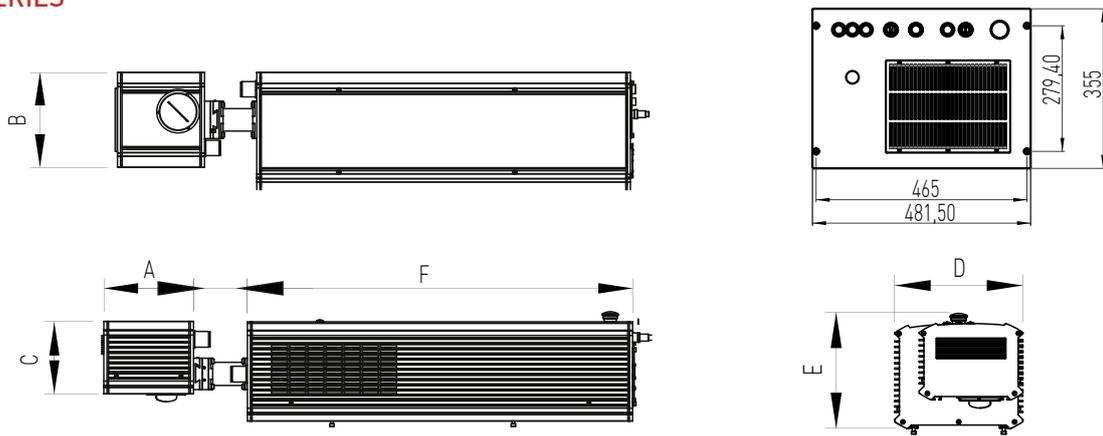


Coding over large printing areas.

Spot size is directly proportional to the wavelength of the laser, beam quality (M^2) and focal distance of the lens. In general there's a physical limitation to achieve a small spot when printing over large areas from long focal distance. HPD lasers compensate such a limitation targeting big areas and keeping a perfect round spot which is traduced into high quality and thin line characters.



HPD SERIES



SYSTEM TYPE		K-1030 HPD UHS PLUS	S-3100 HPD UHS PLUS	S-3200 HPD UHS PLUS			
POWER		30W	100W	200W			
WAVELENGTH		9.3µm / 10.2µm / 10.6µm		10.6µm			
DIMENSIONS	Head (A x B x C)	173x190x141mm		190x168x140mm			
	Tube (D x E x F)	235x193x743mm	235x193x868mm	250x336,5x2180mm			
	Rack	-	481,5mmx355mmx800mm				
WEIGHT		Net: 32kg Gross: 35kg	Net: 76kg Gross: 91kg	Net: 96kg Gross: 100kg			
SYSTEM		Laser built into the laser tube. Scanners built into the scanning head. Power, control electronics and computer built into the laser tube.	Laser built into the laser tube. Scanners built into the scanning head. Power, control electronics and computer built into the cabinet.	Laser built into the laser tube. Scanners built into the scanning head. Power, control electronics and computer built into the cabinet.			
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)
	115	125	75x75	<128-0	464-0	1548-0	3096-0
	150	160	100x100	<203-S	186-S	620-S	1240-S
	310	320	209x209	<405-0	47-0	157-0	313-0
	400	410	250x250	<540-0	26-0	87-0	173-0
µm: microns S: Standard O: Optional Built in marking 90°							
SOFTWARE	<ul style="list-style-type: none"> ScanLinux V5.2.7 and later Marca Software V5.6.9.a and later Internal bar code 						
USER INTERFACE	<ul style="list-style-type: none"> Hand held terminal Touch screen PC 						
CONTROL	<ul style="list-style-type: none"> 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							
ACCESSORIES / OPTIONS	Mounting support – Photocell kit – Encoder kit						
ENVIRON. CONDITIONS	<ul style="list-style-type: none"> +15° C (59° F) to 40° C (104° F) external temperature Humidity < 95%, without condensation Vibration free area 						

HPD SERIES by MACSA

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