

# macsa F-1000

laser system

Laser Marking & Coding System

The Macsa series F-1000 are the solution for marking your products with incredibly clear messages at minimal operational costs



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# From evolution to innovation

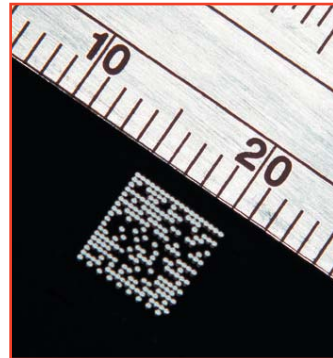
**The incredibly compact design** along with an adjustable marking head ensures that you can install this system on even the most complicated production lines. The system can even be integrated with other manufacturer's equipment.

**This easy to use system** works through a combination of extremely fast mirror tracking systems and the most modern software and hardware you can be assured of reliable high speed marking.

**The latest in laser technology** along with the fact that you don't need expensive replacements results in a system that requires little maintenance, minimal operational costs and no headaches.

**The marking process** is unimpeded because you don't need an expensive and space consuming PC on the production line. Even more, in Macsa lasers, with MACSA's software, you can link several F-1000 laser systems together for even greater control and increased production or increase graphic features of the Flymark laser connecting a PC through the full graphic interface kit.

**All of these features** ensures that everyone of your products is marked with the same high degree of quality and permanence guaranteeing accurate identification for the lifetime of your products. A diverse range of materials can be marked utilizing the Flymark system including labels, cardboard, PET, glass, coating and wood.



## User Interface for Laser Systems

### Hand-held Terminal

Connection via RS-232 with ScanDOS software included in laser marking system • creation and editing of text messages • able to create up to 4 lines of text • 4 types of MFF fonts • modify size (max. 20 mm) and separation between characters • modify message XY position • time marking in multiple formats • clock adjustment • laser system control parameters • sequential numbers • password protection system • for both static and dynamic applications.



### Touch Screen

Connection via RS-232 with ScanDOS software included on marking laser system • Handheld Terminal emulator • allows control of the laser marking system from a remote touch screen • easy integration • easy and safe operator access for changing messages and parameters on line • for both static and dynamic applications.



### Personal Computer

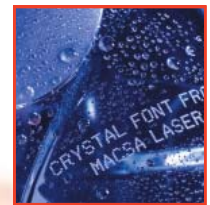
Connection via RS-232 (Dynamon™) or Ethernet TCP/IP (Marca™) with ScanDOS software included on marking laser system • compatible with all kinds of operating systems Windows 95/98/NT/Me/2000/XP • able to control the laser marking system from a remote PC • quickly transfer of messages from PC to ScanDOS • confers powerful graphics capabilities • quick and easy access to the editing and graphics capabilities • able to create messages in all of the marking area • for both static and dynamic applications.



## Software for Laser Systems

### SCANDOSTM V 1.6 Internal software controlling the laser marking system

ScanDos is the internal software running on MS-DOS managing the laser marking system • controlling laser beam position • calculating printer laser position • controlling angular position of scanner mirrors • calculating corrections for marking on the fly • controlling electronic scanning board input/outputs • ScanDos allows the operation of the Handheld, Dynamon™ and Marca™ software • ScanDos includes Crystal Font™ dot matrix fonts • ScanDos software provides the option of changing the menu language of the Handheld terminal. It also allows the user to see the number of marks made during a printing session without going out of the printing menu.



### DYNAMONTM V 2.6 Software for networking, static and dynamic applications via serial port RS-232

Easily installed • Software compatible with Windows 95/98/NT/Me/2000/ XP for networking, static and Dynamon™ software supplied with protection key • networking capabilities of several laser dynamic application systems via RS-232/422 ports • basic graphic interface able to built in text and graphic in all the marking area • create simple logos • capable of downloading MFF fonts and DXF vector files • selection of the user message via RS-232 • alarm control • messages activated by hourly, daily or monthly changes.



### MARCA™ V 4.9 Software for high resolution & static applications via Ethernet TCP/IP

Easily installed • Software compatible with Windows 95/98/ NT/Me/2000/XP for high resolution & Marca™ software supplied with protection key • controls laser systems via Ethernet static applications TCP/IP • powerful WYSWYG design editor in all the marking area • zoom • unlimited layering • bar codes • 2D barcodes • MFF font editor • character filling features • capable of downloading BMP, JPG, GIF, TIF, PCX and other graphic files • capable of downloading DXF vector files with multiple import options • objects and characters morphing • ODBC (database) features • fill object features • true type text fonts • messages activated by hourly, daily or monthly changes • networking capabilities of several systems via Ethernet TCP/IP • access registration for all the users • creation of reports of the registered marking in the CPU laser memory • synchronization of PC and laser clocks • "auto text" external messages • aligns the selected objects • power, frequency, resolution and speed adjustments by software • allows to configure function keys.



## Series F-1000 PLUS / SP - CO<sup>2</sup> - AIR COOLED

MODEL	F-1010 PLUS	F-1030 PLUS	F-1010 SP	F-1030 SP																											
<b>NOMINAL POWER</b>	10W	30W	10W	30W																											
<b>MAINS SUPPLY</b>	110V /220V 50/60Hz 1 Phase + N 600W	110V /220V 50/60Hz 1 Phase + N 1000W	110V /220V 50/60Hz 1 Phase + N 600W	110V /220V 50/60Hz 1 Phase + N 1000W																											
<b>FOCAL SPECIFICATIONS</b>																															
<b>Focal distance</b>	<b>Marking Area</b>	<b>Beam Diameter</b>		<b>Beam Diameter</b>																											
80 mm	60x60 mm	<160 µm Optional	<170 µm Optional	<320 µm - <310 µm Standard																											
190 mm	100x100 mm	<360 µm Standard	<390 µm Standard	<730 µm - <700 µm Optional																											
240 mm	170x170 mm	<480 µm Optional	<520 µm Optional	- - <930 µm Optional																											
320 mm	200x200 mm	- -	<700 µm Optional	- - <1200 µm Optional																											
410 mm	250x250 mm	- -	<900 µm Optional	- - - -																											
			µm: microns Built in 90o marking as standard (easily convertible in 0o marking).																												
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<b>WEIGHT</b>	<b>Net weight: 19 Kg / Gross weight: 24 Kg</b>	<b>Net weight: 32 Kg / Gross weight: 40 Kg</b>	<b>Net weight: 19 Kg / Gross weight: 24 Kg</b>	<b>Net weight: 32 Kg / Gross weight: 40 Kg</b>																											
<b>SOFTWARE</b>	<b>SCANDOS from V. 1.6 and higher MARCA from V. 4.9 and higher DYNAMON</b>		<b>SCANDOS from V. 1.6 and higher</b>																												
<b>USER INTERFACE</b>	HandHeld Terminal / Touch Screen / PC		HandHeld Terminal																												
<b>CONTROL BY</b>	<ul style="list-style-type: none"> <li>• Handheld Terminal with ScanDos software</li> <li>• Touch screen with ScanLinux software.</li> <li>• Full Graphics Interface: includes Marca software protection key and Ethernet cable (TCP/IP)</li> <li>• Network Interface: includes DynamonTM, software protection key and RS-232 serial cable.</li> </ul>		<ul style="list-style-type: none"> <li>• Handheld Terminal with ScanDos software</li> <li>Fonts: <ul style="list-style-type: none"> <li>• Crystal Font 7 x 5</li> <li>• Crystal Font 5 x 5</li> <li>• Newpal</li> <li>• Newpal 2</li> </ul> </li> </ul>																												
<b>SPEED</b>	<table border="1"> <thead> <tr> <th rowspan="2">Scanners Speed</th> <th rowspan="2">Marking Type</th> <th colspan="2">Lens</th> </tr> <tr> <th>100x100</th> <th>60x60</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1500 mm/s</td> <td>Static</td> <td>231 c/s</td> <td>138 c/s</td> </tr> <tr> <td>Dynamic</td> <td>207 c/s</td> <td>124 c/s</td> </tr> <tr> <td rowspan="2">2500 mm/s</td> <td>Static</td> <td>297 c/s</td> <td>178 c/s</td> </tr> <tr> <td>Dynamic</td> <td>255 c/s</td> <td>153 c/s</td> </tr> <tr> <td rowspan="2">3500 mm/s</td> <td>Static</td> <td>333 c/s</td> <td>200 c/s</td> </tr> <tr> <td>Dynamic</td> <td>300 c/s</td> <td>180 c/s</td> </tr> </tbody> </table> <p>mm/s: millimetres per second c/s: characters per second Speeds calculated with 2 text lines of 7 characters + 8 characters of 2.5mm of height. Example of dynamic marking with F-1030 PLUS with a 100x100 lens. Max. speed of 71m/min, which means 35.000 bottles per hour.</p>				Scanners Speed	Marking Type	Lens		100x100	60x60	1500 mm/s	Static	231 c/s	138 c/s	Dynamic	207 c/s	124 c/s	2500 mm/s	Static	297 c/s	178 c/s	Dynamic	255 c/s	153 c/s	3500 mm/s	Static	333 c/s	200 c/s	Dynamic	300 c/s	180 c/s
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<b>SYSTEM CABINET</b>	Laser, Control electronics, computer and Scanners built into the laser system																														
<b>MARKING HEAD</b>	CO <sup>2</sup> sealed laser tube / R.F. technology / Wavelength: 10,6 microns																														
<b>ACCESORIES</b>	Diode marking area indicator / Mounting support / Encoder and photocell kit																														
<b>AMBIENT CONDITIONS</b>	10oC (50oF) to 35oC (95oF) external temperature / Humidity <95% non-condensating No vibrations																														

Authorized Distribution by:



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