

# F - SERIES

VERSATILE FIBER LASERS  
TO MARK A WIDE RANGE

# OF PLASTICS AND METALS



**F-9000** by **MACSA**  
Fast. Powerful. Flexible.

**Macsa id**  
a code you can trust

# A CODE YOU CAN TRUST



- **ITS COMPACT DESIGN** with adjustable marking head enables this laser to be installed on even the most complex production lines or in tight spaces where other lasers just won't fit.
- **DYNAMIC "ON THE FLY"** marking is a reality with this system thanks to MACSA's sophisticated software and many years' experience of high speed applications.
- **LOW COST OPERATION** thanks to an innovative fiber source which requires no maintenance and no consumables.
- **SUPERIOR QUALITY MARKING** provides you with sharper bar codes and more precise logos and technical drawings.
- **OPERATOR FRIENDLY** using different user interfaces with special software to design and control all your marking requirements.
- **RELIABLE & CLEAN** laser technology results in less maintenance and less worries about "downtime".
- **EXCELLENT RESULTS** on a wide range of metals, including even highly reflective metal surfaces and plastics.





# USER INTERFACE FOR LASER SYSTEMS

## HAND-HELD TERMINAL (1)

Connection via RS-232 with ScanLINUX 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 message XY position • time marking in multiple formats • clock adjustment • sequential numbers • password protection system.

## TOUCH SCREEN (2)

Connection via RS-232 with ScanLINUX software included on marking laser system • Handheld Terminal emulator • allows control of the laser marking system from a remote touch screen.

## PERSONAL COMPUTER (3)

Connection via TCP/IP (Marca Lite™) or Ethernet TCP/IP (Marca™) • compatible with all kinds of operating systems Windows NT/Me/2000/XP/7/8 • able to control the laser marking system from a remote PC • confers powerful graphics capabilities • able to create messages in all of the marking area.



1



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# SOFTWARE FOR LASER SYSTEMS

## SCANLINUX™ V 3.3 INTERNAL SOFTWARE CONTROLLING THE LASER MARKING SYSTEM (4)

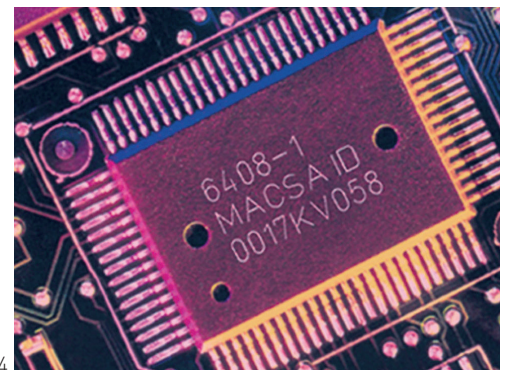
ScanLINUX is the internal software running on LINUX managing the laser marking system • ScanLINUX allows the operation of the Handheld, Touchscreen, Marca Lite™ and Marca™ software • ScanLINUX includes Crystal Font™ dot matrix fonts • ScanLINUX software provides the option of changing the menu language 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.

## MARCA LITE™ V 5.3 SOFTWARE FOR NETWORKING, STATIC AND DYNAMIC APPLICATIONS VIA TCP/IP (5)

Easily installed • Software compatible with Windows NT/2000/ XP/7/8 for networking, static and dynamic supplied with protection key • basic graphic interface able to build in text and graphic in all the marking area • create logos • capable of downloading MFF fonts and DXF vector files • alarm control.

## MARCA™ V 5.3 SOFTWARE FOR HIGH RESOLUTION & STATIC/DYNAMIC APPLICATIONS VIA ETHERNET TCP/IP (6)

Easily installed • Software compatible with Windows NT/2000/XP/7/8 for high resolution & Marca™ software supplied with protection key • controls laser systems via Ethernet static/dynamic applications TCP/IP • powerful WYSWYG design editor in all the marking area • zoom • bar codes • 2D barcodes • MFF font editor • character filling • capable of downloading BMP, JPG, GIF, TIF, PCX and other graphic files • capable of downloading DXF vector files with multiple import options • ODBC (database) features • true type text fonts • messages activated by hourly, daily or monthly changes • networking capabilities of several systems via Ethernet TCP/IP • Unicode Enable. Allows UHS.



4

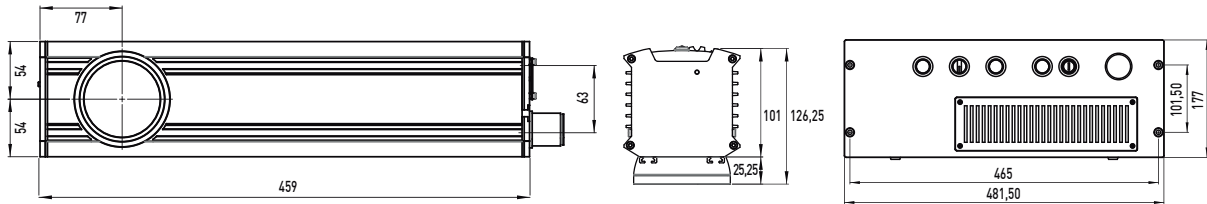


5



6

## F-9000



SYSTEM TYPE				F-9010-P		F-9020-P		F-9030-P		F-9050-P UHS	
POWER				10W		20W		30W		50W	
WAVELENGTH				1.062μm							
MAINS SUPPLY				115V / 230V 50/60 Hz (1 Phase + N) 400VA		115V / 230V 50/60 Hz (1 Phase + N) 500VA		115V / 230V 50/60 Hz (1 Phase + N) 600VA		115V / 230V 50/60 Hz (1 Phase + N) 700VA	
DIMENSIONS		Head		108x126x459 mm							
		Rack		482x177x454 mm (19" x 4u x 454 mm)							
WEIGHT				N.W.: 26kg G.W.: 30kg							
SYSTEM				Optical isolator and collimator of the laser source, DACs board, drivers of the analogue scanners (F-9010-P, F-9020-P, F-9030-P and F-9050-P UHS laser systems) and galvanometric scanners built into the marking head. Control and power electronics, drivers of the digital scanners (F-9020-P, F-9030-P and F-9050-P UHS PULSED laser systems), CPU, power supplies and laser source built into the control rack.							
OPTICS	Working distance (mm)	Focal length (mm)	Marking area (mmxmm)	F-9010 PULSED		F-9020 PULSED		F-9030 PULSED		F-9050 PULSED	
				Beam diameter (μm)	Power density (kW/cm²)	Beam diameter (μm)	Power density (kW/cm²)	Beam diameter (μm)	Power density (kW/cm²)	Beam diameter (μm)	Power density (kW/cm²)
	128	100	55x55	27 - O	3481.9 - O	27 - O	6963.7 - O	27 - O	10445.6 - O	27 - O	17409.3 - O
	205	162	100x100	44 - S	1326.7 - S	44 - S	2653.4 - S	44 - S	3980.2 - S	44 - S	6633.6 - S
	321	254	150x150	69 - O	539.7 - O	69 - O	1079.4 - O	69 - O	1619.1 - O	69 - O	2698.4 - O
	427	346	200x200	94 - O	290.8 - O	94 - O	581.7 - O	94 - O	872.5 - O	94 - O	1454.2 - O
μm: microns    S: Standard    O: Optional    Standard configuration marking at 90°											
SOFTWARE		<ul style="list-style-type: none"><li>▪ ScanLinux V5.2.7 and higher for the F-9000 laser system.</li><li>▪ Marca software V5.6.9.a and higher for the F-9000 unit.</li><li>▪ Internal bar code.</li><li>▪ Marca Lite software.</li></ul>									
USER INTERFACE		<ul style="list-style-type: none"><li>▪ Hand held terminal / Touch screen / PC</li></ul>									
CONTROLLED BY		<ul style="list-style-type: none"><li>▪ Hand held terminal with ScanLinux software.</li><li>▪ Touch screen with ScanLinux software.</li><li>▪ Full graphics interface: includes Marca software™, dongle and Ethernet cable (TCP / IP).</li><li>▪ Marca Lite software: includes Marca™ software, dongle and Ethernet cable (TCP / IP)</li></ul>									
ACCESSORIES		<ul style="list-style-type: none"><li>▪ Beam pointer - Encoder kit - Mounting support - Photocell Kit</li></ul>									
ENVIRONMENTAL CONDITIONS		+15° C (59 F) at 40 °C (104° F) external temperature Humidity <95%, without condensation No vibrations									

## F-9000 by MACSA

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