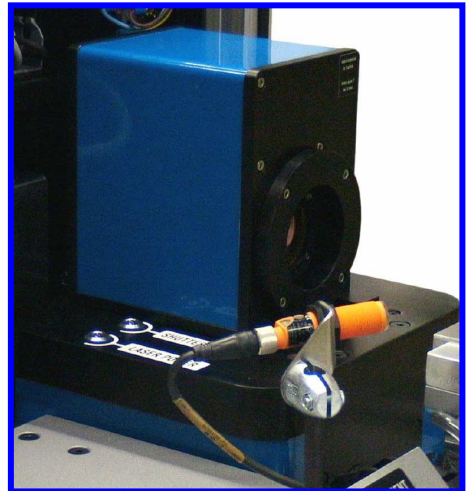
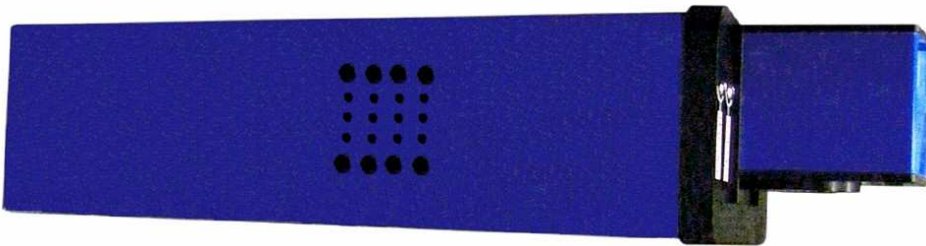

MeccoMark[®] CO₂ Laser Marking System

Technical Specification



System Overview:

The MeccoMark CO₂ Laser Marking systems feature the latest in laser marking technologies. Our continuous wave CO₂ system delivers superior performance and reliability in a compact package. For marking part numbers, 2D Data Matrix, logos and graphics, CO₂ series is the ideal laser for your marking applications.

Standard Features:

- 10, 30, 60 and 100 Watt models
- Windows based software interface
- Integrated Safety Shutter
- Industrial Computer
- 19" Rack Power Control Box
- High Performance Scanhead
- 140mm square mark field
(other field sizes available)
- Real time system controller
- 24 bit I/O Card
- Two Year System Warranty

Optional Accessories:

- Visible Pointer for mark preview
- 100mm, 250mm and 305mm square mark fields
- Class I Safety Enclosure
- Rotary Indexer for cylindrical marking
- XY and Z Class 1 Automated Workstations
- Rotary Workstations

System Benefits:

- Compact design for minimal footprint
- Estimate 45,000 hours + of laser lifetime before recharging
- Mount in any orientation
- Air-cooled design *(no water or external chiller required)*
- Zero maintenance
- Low cost of ownership

General Laser Safety:

The MeccoMark CO₂ Laser Marking system can be supplied in either Class IV or Class 1 configuration. The standard system (without enclosure) is a Class IV system. The laser operator is exposed to laser radiation at the work surface. This laser radiation can be harmful to the operator if laser light is scattered or reflected into the eye.

If the system is sold as a Class IV system, it is the responsibility of the integrator to properly safeguard the operator from laser radiation. The MeccoMark CO₂ Laser Marking System does comply with the Center of Device and Radiological Health and Safety Act of 1968.

The Class IV system features:

- Spring Loaded mechanical safety shutter
- Emergency Off (EMO) circuitry and pushbuttons
- Remote Interlock (RIC) circuitry for use with external equipment such as Class 1 Enclosures and/or safety guarding.

If the system is sold as a Class 1 system, the operator is properly protected from laser radiation. Mecco has submitted this design to the CDRH to be compliant with all safety regulations per 21 CFR 1040.10.

The Class 1 system features:

- Spring Loaded mechanical safety shutter
- Emergency Off (EMO) circuitry and pushbuttons
- Remote Interlock (RIC) circuitry
- Light-tight safety enclosure with interlocked doors and access panels.

Please consult the MeccoMark CO₂ Laser Operator Manual for full laser safety information.

Laser Specifications:

Parameter	Value	Notes
Laser type	CO ₂	
Wavelength	10,600 nm	
Output Power	10, 30, 60 and 100W versions	
Beam Quality	TEM ₀₀	
M ²	<1.2	
Operation Mode	Continuous wave	
Pulse Rep Rate	5 kHz	
Cooling	Air	
Scanning Method	XY galvanometer	
Integral Shutter	Yes	

Performance Specifications:

Parameter	Value	Notes
Repeatability	+/- 1 part in 4,000	
Max Line Speed	3,000 mm/sec	Using 160 lens
Max Characters	250 character/sec	Using 160 lens, 1mm high characters on mirror

Computer Specifications:

	Value	Notes
Operating System	Windows 2000 or XP	
Processor	Pentium or better	
Processor Speed	500 MHz min.	
RAM	128 MB min.	
Hard Disk	4.3 GB min.	
Screen Display	1024 x 768 resolution min	

Environmental Specifications:

Parameter	Value	Notes
Electrical	90–250VAC, 50/60 Hz, 15A	
Operating Temp.	15°C to 40°C	
Relative Humidity	20 to 90% non- condensing	
Warm-up time	30 minute for full stability	Laser can be fired after 1 minute of warm up time.