

MQC series

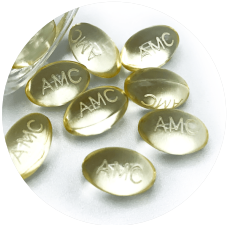
CO2 RF laser marking machine

PRODUCT SERIES

MQC-T、MQC-S、MQC-C
Sub-series



Marking of bamboo
and wood products



Drug capsule mark



PRODUCT DESCRIPTION

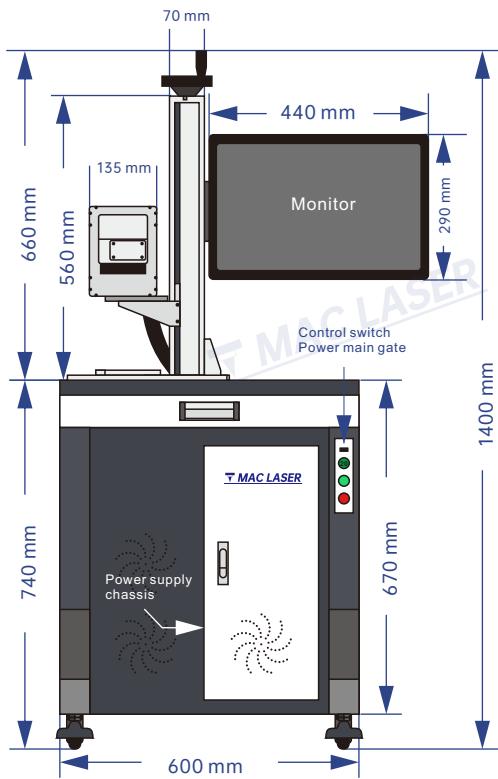
The MQC series CO2 laser marking machine of Mac Laser is a gas laser machine, which produces a wavelength of 10.6um, which belongs to the mid-infrared frequency band. The CO2 laser machine has larger power and higher electro-optical conversion efficiency. **At present, it is mainly used for marking most non-metallic materials.**

MQC CO2 series products are widely used in the marking and cutting of graphics and text in clothing accessories, leather bags, food and beverage packaging, wood furniture, electronic components, handicraft processing, electrical equipment, glass and stone processing and other fields. Such as bamboo and wood products, plastic products, glass ceramics, paper packaging, label paper, leather fabrics, resin plastics, PCB boards, etc.

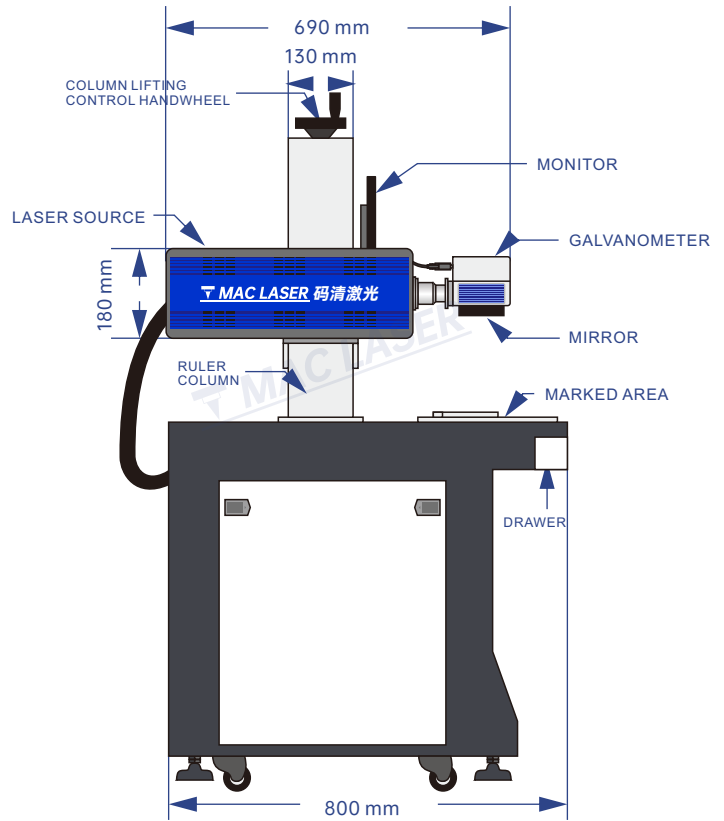


INTEGRATED, FLEXIBLE AND LIGHT-WEIGHT

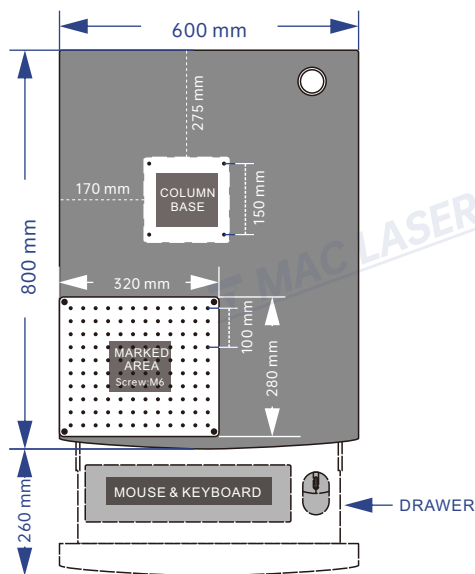
Overall-integrated cabinet design, small footprint and easy to use.



FRONT VIEW



END VIEW



VERTICAL VIEW



INTEGRATED



EXCELLENT HARDWARE CONFIGURATION

Main equipment configuration: CO2 RF laser source + dual red light metal galvanometer + industrial computer host + industrial display



CO2 RF laser

CO2 laser is a kind of laser source with high continuous output power at present, which has the characteristics of high stability, high power and long life.

Double red light metal galvanometer

Metal body structure, built-in double red light marking instructions, with the advantages of adjustment-free, maintenance-free and high stability.



Industrial computer host

Built-in Windows system, it supports a variety of software and can be connected to different extended peripherals.

Industrial display

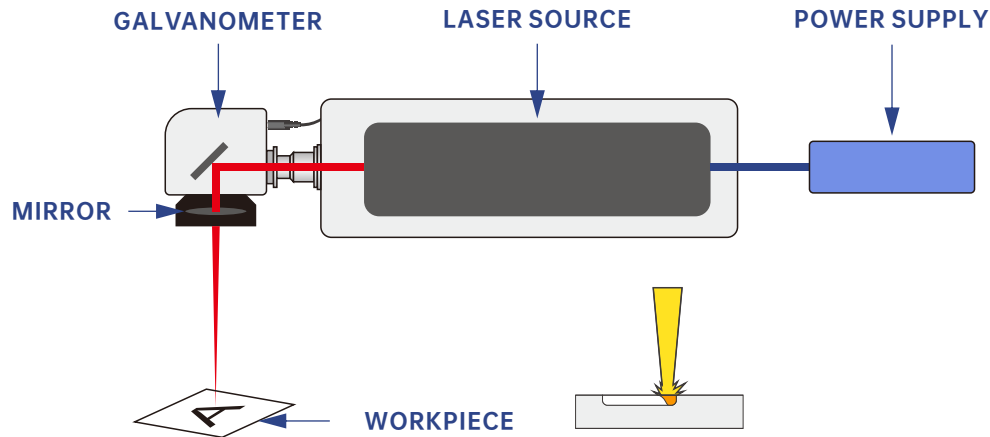
1440*900 full high new resolution, low energy consumption design industrial display





LONG-LASTING MARKINGS AND CORROSION RESISTANCE

The marking is directly hit on the surface with the help of a strong pulsed laser beam to produce extremely deep, high-contrast markings on the surface, achieving permanent markings with uniform viewing angles, and corrosion resistance.

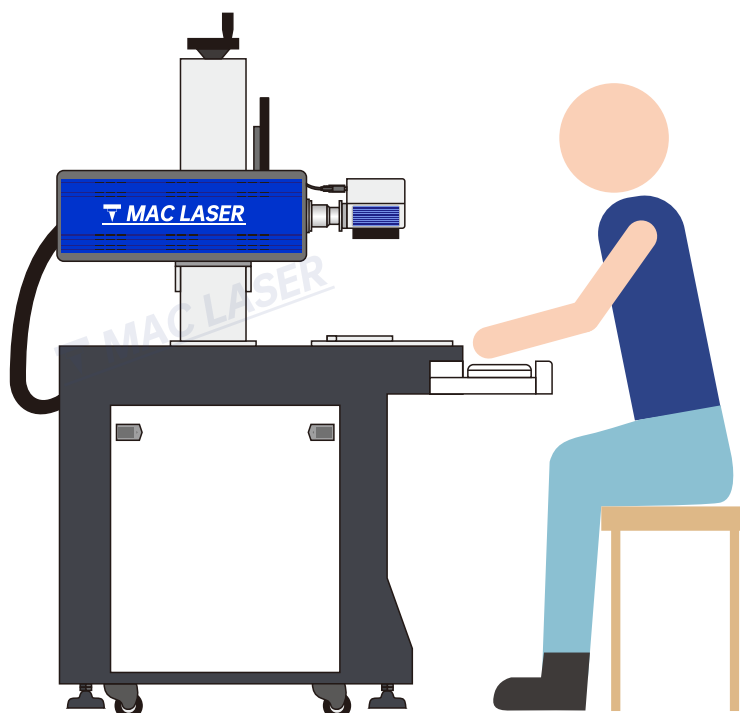


The laser generates a high-energy laser beam. After the scene is focused, the focused very small spot acts on the material to be processed to show that the material is oxidized, melted, or even vaporized, thereby producing changes in color or depth, and achieving the purpose of laser marking.



APPLICATION IS SIMPLE, SAFE, PRECISE AND EASY TO USE

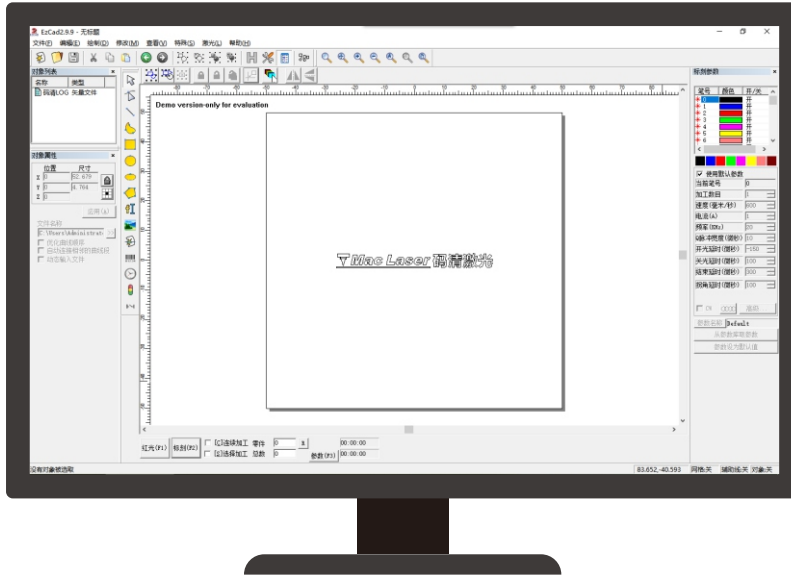
Desktop computer with keyboard, mouse and LCD monitor with Windows system.





GENUINE MARKING SOFTWARE

Full English interface based on Windows system, convenient for daily application in intuitive content.



FLEXIBLE USE AND WIDE APPLICATION

This series of marking machines are flexible and widely used to meet your requirements.



CLOTHING ACCESSORIES



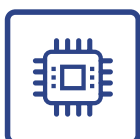
GLASS CERAMICS



FOOD PACKAGING



BUILDING MATERIALS AND FURNITURE



ELECTRONIC COMPONENTS



ELECTRICAL EQUIPMENT



CRAFTS

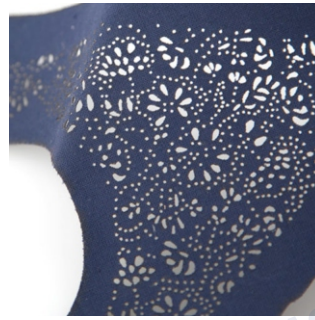


GLASS STONE

Clothing accessories / Leather bag decoration



● Jeans whitewashing mark



● Fabric cutout mark



● Fashion soft shell mark



● L leather card holder mark



● Leather clothing mark



● Carpet cushion mark



● Leather strap mark

Food packaging / Building materials and furniture



● Drug capsule mark



● Water bottle date mark



● Plastic medicine bottle mark



● Paper package mark

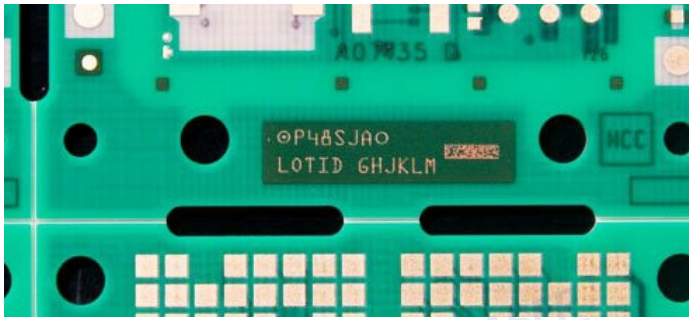


● Cable mark



● Wallpaper mark

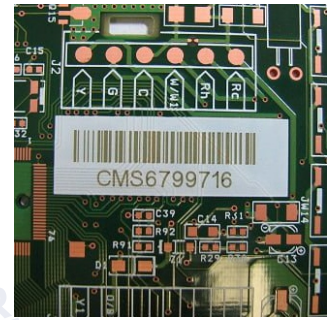
Electronic Components / Electrical Equipment



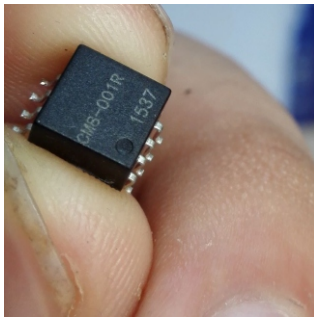
● Circuit board mark



● Circuit board information mark



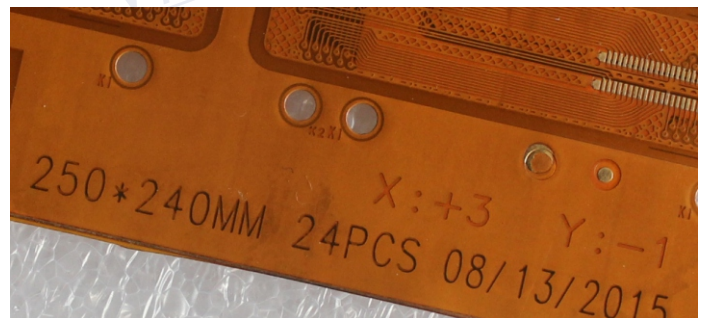
● Circuit board traceability code mark



● Electronic Components mark



● Plastic parts mark



● Circuit board parameters mark

Crafts / Glass Stone / Others



● Solid wood photo frame mark



● Wooden jar mark



● Solid wood board pattern mark



● Glass bottle mark



● Stone crafts mark



● Bone products mark



● Carton mark

MQC-T sub-series

CO2 RF laser marking machine

The MQC-T sub-series adopts **Davi** CO2 radio frequency laser source, which uses special materials to make a stable cavity structure design, which has the characteristics of ultra-high stability, high power and long life. It can stably output the required spectrum, and the power stability can be better than $\pm 5\%$.

PRODUCT PARAMETER

Model		MQC-30T	MQC-35T	MQC-36T	MQC-40T	MQC-60T	MQC-61T	MQC80T
Laser parameters	Laser source model	D30L	D35L	D35i-9.3/10.2	D35	D60	D60i-9.3/10.2	D80
	Output Power	> 25W	> 35W	> 25W	> 40W	60W	50W	80W
	Beam quality M ²	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.3
	Laser wavelength	10.55~10.6 μm	10.55~10.6 μm	9.3 / 10.2 μm	10.55~10.6 μm	10.55~10.6 μm	9.3 / 10.2 μm	10.55~10.6 μm
	Pulse frequency	0-25 kHz						
	Exit beam diameter	1.8 \pm 0.2 mm						
	Output power stability	$\pm 5\%$						
	Working life	About 20,000 hours						
Optical properties	Marking range	100~300mm (range optional)						
	Engraving depth	$\leq 1\text{mm}$ (depending on power and time)						
	Engraving speed	$\leq 10000\text{mm/s}$						
	Repeat accuracy	± 0.002						
	Minimum marking line width	0.1mm						
	Minimum character height	0.15mm						
Environment	Cooling way	Standard Built-in air cooling (Water cooling can be customized)						
	System power supply	500W / 220V / 50Hz(Can be connected to 110V)						
	Temperature humidity	5~40°, 30% RH 85%, air conditioner should be installed when used outside the range						
	Oil mist, condensation	StandardNot allowed						
Other parameters	Operating system	Windows operating system						
	File format	All fonts/types of WINDOWS operating system font library (standard USB input)						
	Dimension	850X600X1400 mm						
	Packing dimension	860X730X1050 mm						
	Total Weight	About 80kg						

Note: Laser marking machines of different power (W) have differences in marking accuracy, depth, speed, color depth, and service life. Please contact the sales staff of Mac Laser according to the marking products and requirements.

MQC-S sub-series

CO2 RF laser marking machine

The MQC-S sub-series adopts the CO2 radio frequency laser of **Synrad laser**. It adopts all-metal sealing design and exclusive manufacturing method to ensure the purity of the gas and essentially extend the working life. The laser tube has a sturdy cavity design. It provides an ultra-stable platform for the laser resonator to ensure that the laser can adapt to the harsh working environment of modern industry.

PRODUCT PARAMETER

Model		MQC-15S	MQC-35S	MQC-36S	MQC-65S	MQC-66S
Laser parameters	Laser source model	48-1	Vi30	Vi30-9.3/10.2	Ti60	Ti60-9.3/10.2
	Output Power	10W	40W	30W	80W	65W
	Beam quality M ²	≤1.2	≤1.2	≤1.2	≤1.3	≤1.3
	Laser wavelength	10.6 um	10.6 um	9.3 / 10.2 um	10.6 um	9.3 / 10.2 um
	Pulse frequency	0-25 kHz	0-100 kHz	0-100 kHz	0-160 kHz	0-160 kHz
	Exit beam diameter	3.5mm	2.5±0.5 mm	2.5±0.5 mm	2.2±0.3 mm	2.2±0.3 mm
	Output power stability	±10%	±5%	±5%	±7%	±7%
	Working life	About 20,000 hours				
Optical properties	Marking range	100~300mm (range optional)				
	Engraving depth	≤1mm (depending on power and time)				
	Engraving speed	≤10000mm/s				
	Repeat accuracy	±0.002				
	Minimum marking line width	0.1mm				
	Minimum character height	0.15mm				
Environment	Cooling way	Standard Built-in air cooling (Water cooling can be customized)				
	System power supply	500W / 220V / 50Hz ((Can be connected to 110V)				
	Temperature humidity	5~40°, 30% RH 85%, air conditioner should be installed when used outside the range				
	Oil mist, condensation	Not allowed				
Other parameters	Operating system	Windows operating system				
	File format	All fonts/types of WINDOWS operating system font library (standard USB input)				
	Dimension	850X600X1400 mm				
	Packing dimension	860X730X1050 mm				
	Total Weight	About 80kg				

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MQC-C sub-series

CO2 RF laser marking machine

The MQC-C sub-series adopts the CO2 radio frequency laser of American **Coherent Laser**. Based on the waveguide technology of compact integrated design, it is a product with high power/size ratio on the market. Because its radio frequency drive is integrated in the laser head, the system is not only compact, but also more stable, making it very suitable for normal operation in various harsh industrial environments.

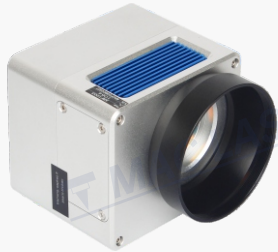
PRODUCT PARAMETER

Model		MQC-35C	MQC-36C	MQC-65C	MQC-66C
Laser parameters	Laser source model	C30	C30-9.3/10.2	CH-C55	CH-C55-9.3/10.2
	Output Power	40W	25W	70W	55W
	Beam quality M ²	≤1.2	≤1.2	≤1.2	≤1.2
	Laser wavelength	10.6 um	9.3 / 10.2 um	10.6 um	9.3 / 10.2 um
	Pulse frequency	0-25 kHz	0-25 kHz	0-200 kHz	0-200 kHz
	Exit beam diameter	1.8±0.2 mm	1.8±0.2 mm	1.8±0.2 mm	1.8±0.2 mm
	Output power stability	±5%	±5%	±5%	±5%
	Working life	About 20,000 hours			
Optical properties	Marking range	100~300mm (range optional)			
	Engraving depth	≤1mm (depending on power and time)			
	Engraving speed	≤10000mm/s			
	Repeat accuracy	±0.002			
	Minimum marking line width	0.1mm			
	Minimum character height	0.15mm			
Environment	Cooling way	Standard Built-in air cooling (Water cooling can be customized)			
	System power supply	500W / 220V / 50Hz ((Can be connected to 110V)			
	Temperature humidity	5~40°, 30% RH 85%, air conditioner should be installed when used outside the range			
	Oil mist, condensation	Not allowed			
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	File format	All fonts/types of WINDOWS operating system font library (standard USB input)			
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OPTIONAL ACCESSORIES

METAL GALVO HEAD



● Without double red light galvo head MACF1003



● With double red light galvo head MACC1006



● High-speed digital scanning galvo head MACC1016

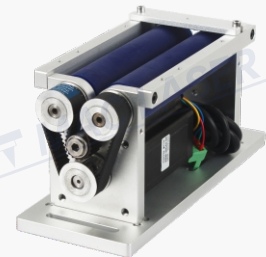
ROTARY DEVICE



● Standard rotary device S3



● Jewelry rotary device S4



● Roller rotating table S5

ELECTRIC LIFTING COLUMN



● Electric lifting column (bottom motor)



● Electric lifting column (Top motor)