



# Sintec Optronics Pte Ltd

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## 1. SR Series Integrated CO2 Laser Marking Systems

Laser marking methods offer several advantages when compared to traditional marking and labelling practices. A list of typical advantages might include ability to produce high-quality permanent and contamination-free marks, no character distortion since the method is non-contact, easily automated and integrated into manufacturing systems, and can have high speeds and throughputs. The flexibility of laser marking often helps improve the product quality, traceability, process control, and customer satisfaction. Laser marking systems are often more economical, especially when applied to high production line applications. Smart CO2 lasers and high-speed optical galvanometers are from USA. Our own powerful laser marking software is developed by our engineers. These laser marking systems are being widely used in laser marking of hard, fragile, cylindrical or soft products or materials in production lines.



Model	M-SR-10	M-SR-25	M-SR-30	M-SR-50	M-SR-100
<b>Laser Head</b>					
Laser tube model	CO2-SR-10	CO2-SR-25	CO2-SR-30	CO2-SR-50	CO2-SR-100
Laser wavelength (um)	10.6	10.6	10.6	10.6	10.6
Laser power (W)	10	25	30	50	100
Power stability (%)	±5	±5	±10	±5	±6
Laser beam quality (M <sup>2</sup> )	<1.2	<1.2	<1.2	<1.2	<1.2
Beam mode	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	95%, TEM <sub>00</sub>
Beam diameter (mm)	3.5	3.5	3.5	3.5	3.5
Beam divergence (mrad)	4	4	4	4	4
Polarisation	Linear	Linear	Linear	Linear	Linear
Max. beam pulse (kHz)	10	10	10	10	10
Cooling method	Air	Air	Air	Water	Water
<b>Marking Head</b>					
Scanner	High-speed optical galvanometers				
Marking field (mmxmm)	50x50, 70x70, 105x105, 140x140, 210x210, 255x255				
Scanning speed	300 characters/second or 10m/s				
Marking line (mm)	Min. 0.05				
<b>Marking software</b>					
Various fonts, pictures (PLT, DXF, BMP), automated series numbers, barcodes, DataMatrix					
<b>Required Power Input</b>					
220VAC, 50Hz					

### Typical Applications:

1. Laser marking of non-metal materials and products: acrylic, ceramics, plastics, organics, wood, thermo-elastomer rubbers, paper
2. Electronic industry: capacitor, inductor, PCB, IC, connector, control panel, instrument
3. Others: button, cosmetics, food package, bottle, gift, advertisement & sign crafts, craft & gift making

Other CO2 lasers & customised laser marking systems available upon request.

## 2. UL Series Integrated CO<sub>2</sub> Laser Marking Systems

UL series CO<sub>2</sub> lasers from USA are used. These lasers have high quality & good stability performance. High-speed optical galvanometers made in USA are used for laser beam scanning. Our own powerful laser marking software is suitable for producing characters, pictures, barcode and DataMatrix marking. These laser marking systems are being widely used in laser marking of hard, fragile, soft and cylindrical products or materials in production lines. The prices are very low but the quality is still high.



Model	M-UL-10	M-UL-30	M-UL-50	M-UL-100
<b>Laser Head</b>				
Laser model	UL-10	UL-30	UL-50	UL-100
Laser power (W)	10	30	50	100
Beam quality M <sup>2</sup>	1.4	1.4	1.4	1.4
Beam diameter (mm)	4.0	4.0	4.0	4.0
Max. pulse frequency (kHz)	5	5	5	5
Cooling	Air			
<b>Marking Head</b>				
Scanner	High-speed optical galvanometer (USA)			
Marking filed (mm)	50x50,70x70,105x105, 140x140, 175x175, 210x210 or 255x255			
Max. scanning speed (m/sec)	8			
Marking resolution (mm)	0.05			
Dimension (mm)	210x138x120			
<b>Marking software</b>				
Various fonts, pictures (PLT, DXF, BMP), automated series numbers, barcodes, DataMatrix				

### Typical Applications:

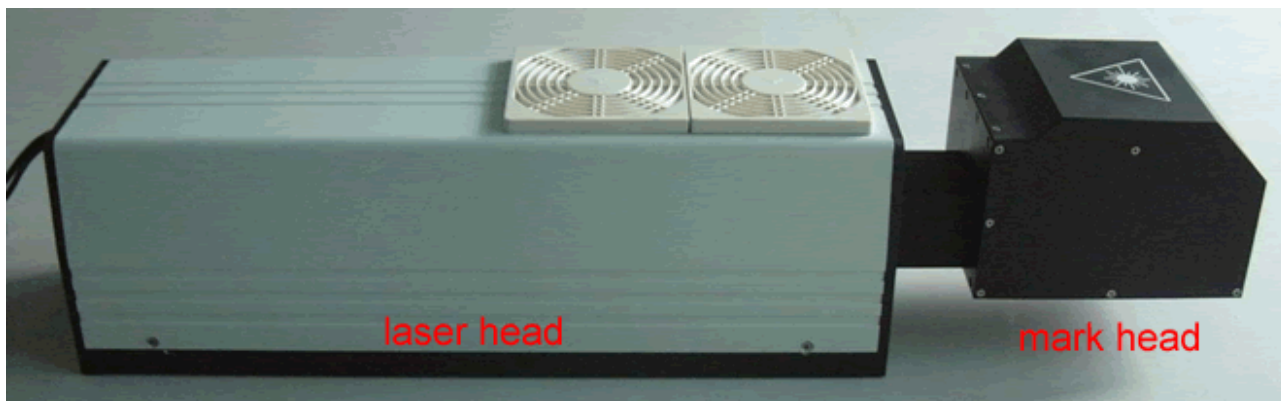
4. Laser marking of non-metal materials and products: acrylic, ceramics, plastics, organics, wood, thermo-elastomer rubbers, paper, button
5. Electronic industry: capacitor, inductor, PCB, IC, connector, control panel, instrument
6. Others: button, cosmetics, food package, bottle, gift, advertisement & sign crafts, craft & gift making

**Other CO<sub>2</sub> lasers & customised laser marking systems available upon request.**



### 3. OEM CO2 Laser Marking Systems

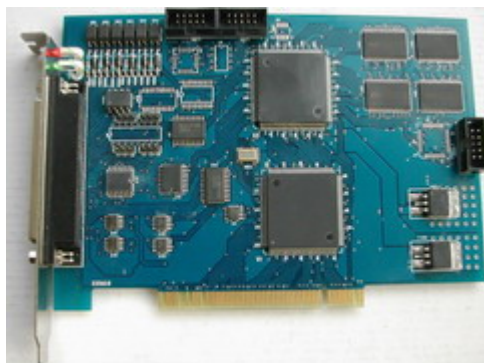
For OEM users or laser integrators or the end users for the production line, we can provide OEM laser markers at more attractive prices. The OEM laser marker consists of 3 parts: a laser head with marking head, a control box, a D/A card & marking software. A chiller may be needed depending on the models.



1. Laser head with mark head (The picture shows 30W CO2 laser).



2. Control box



3. D/A card & marking software

Model	M-UL-10OEM	M-UL-30OEM	M-UL-50OEM
Laser wavelength	10.6um	10.6um	10.6um
Laser power	10W	30W	50W
Mark linewidth	0.15mm	0.15mm	0.15mm
Marking field	50x50 - 250x250mm	50x50 - 250x250mm	50x50 - 250x250mm
Marking speed	<5m/sec	<5m/sec	<5m/sec
Weight (laser with mark head)	20kg	26kg	30kg
Electric	200VAC, 50Hz	200VAC, 50Hz	200VAC, 50Hz

## 4. Portable CO2 Laser Marking Systems



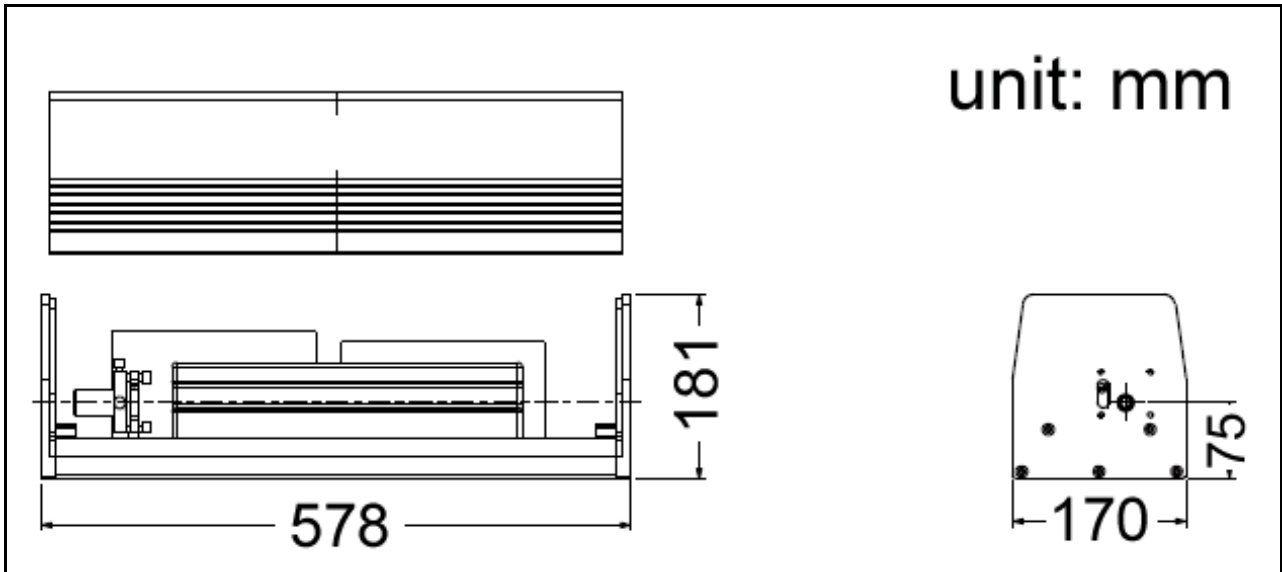
The gross weight of a common laser marking machine is about 400kg and it is not easy to move. If you want to mark some products or workpieces, you have to do this in the workshop because the machine is always fixed there. If the products or workpieces are huge and heavy, it is very difficult to move them from a place to another. For facilitating the marking job, we have developed a new generation laser marking machine----Portable Laser Marking Machine, which is compact in size and light in weight. It is convenient to move this machine to anywhere. What you need to do is just to connect it with a computer and turn on the power supply, then you can mark your products or workpieces as you want.

- compact in size
- light in weight
- convenient to move
- Don't use any ink and marking is permanent.

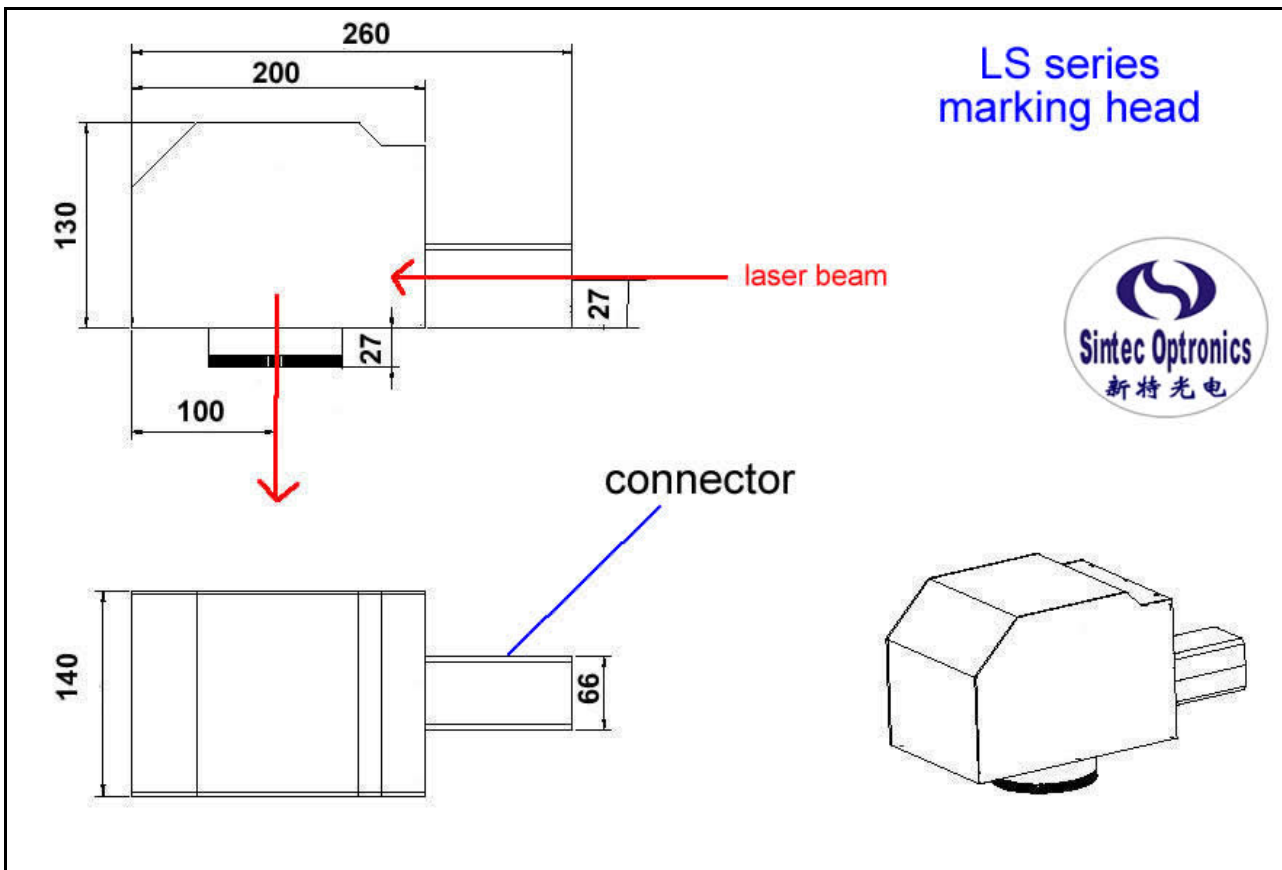
In a portable CO2 laser marker, CO2 laser, marking head and relevant electrical controller are assembled together as a whole unit.

Model	M-UL-10P	M-UL-30P
Laser wavelength	10.6um	10.6um
Laser power	10W	30W
Mark linewidth	0.15mm	0.15mm
Marking field	50x50 - 250x250mm	50x50 - 250x250mm
Marking speed	<5m/sec	<5m/sec
Weight	20kg	32kg
Dimension	840x170x180mm	1350x170x180mm
Electric	200VAC, 50Hz	200VAC, 50Hz

Dimension of Laser Head of Portable/OEM CO2 Laser Marker (M-xx-10OEM or M-xx-10P)



Dimension of Mark Head (LS-xxxx-xx-xxx)



### Dimension of Laser Controller (CO2-LC)

