G series

CO2 flying laser marking machine

Average output power:

25W/35W/40W/60W/80W/100W

Marking speed
200m/min

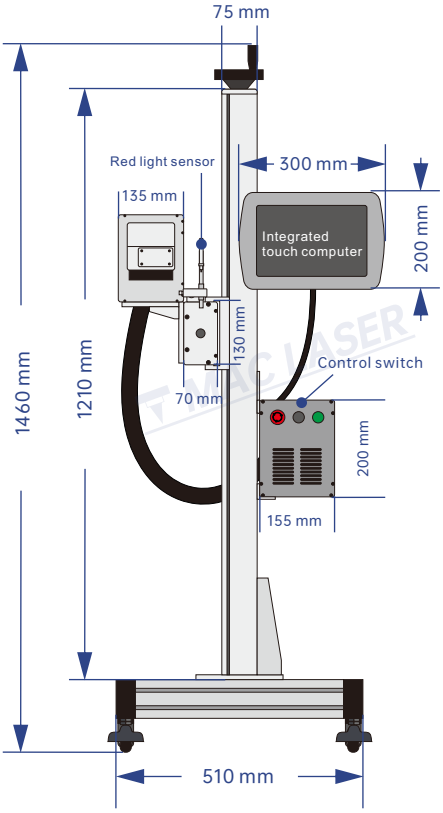
No consumables,
long-term maintenance-free

PRODUCT DESCRIPTION

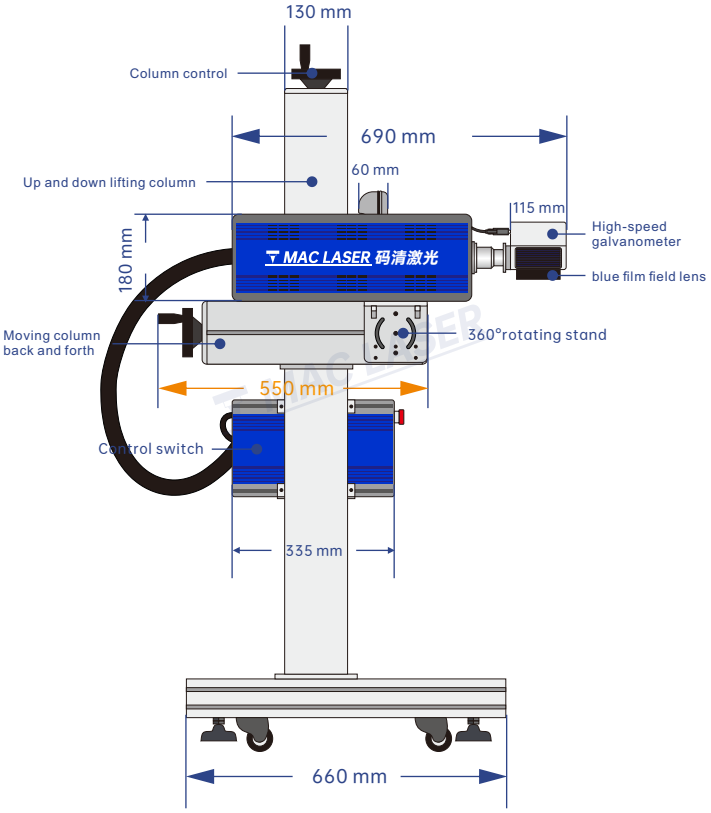
The G series CO2 flying laser marking machine is a high-speed continuous marking model designed to improve productivity. It uses DAVI industrial-grade metal RF CO2 laser tube. It has good optical modes and fast processing efficiency. The marking speed of the production line is up to 200m/min (Single-line 2MM-high numbers and letters), it provides high-speed, high-yield application identification requirements, it mainly used in production date, anti-counterfeiting, medical and food packaging industries. This model supports functions such as automatic encoding, serial number, batch number, date, barcode, two-dimensional code, automatic number skipping, etc., to meet the needs of customers in different industries.

The CO2 flying laser marking machine is suitable for online marking of most non-metallic materials, such as paper packaging, film packaging, coated metal, plexiglass, resin plastic, bamboo and wooden products, PVC products, etc. It is widely used in food and beverage packaging, alcohol, dairy products, clothing accessories, leather, electronic components, medicine, personal care products, tobacco, chemical building materials,production and expiration date, batch number, shift, manufacturer name and logo, etc.

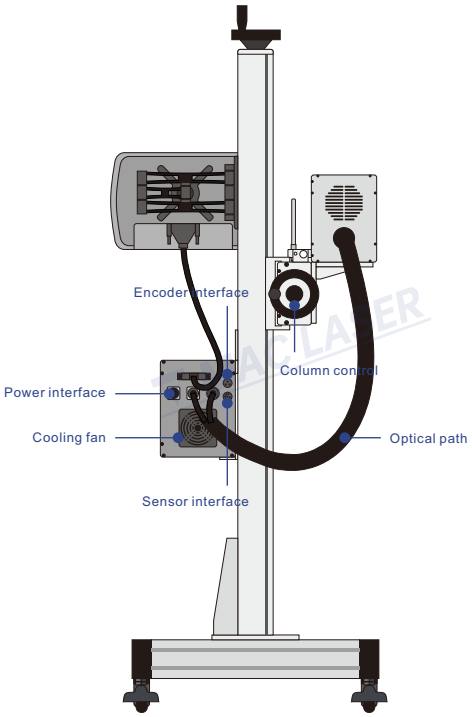
PRODUCT SIZE



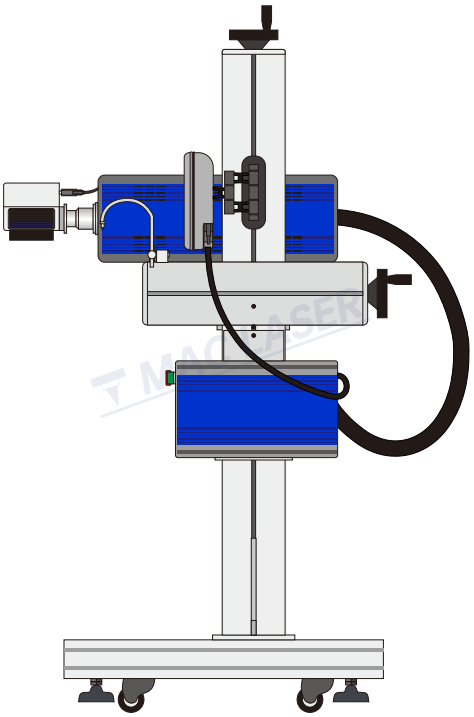
FRONT OF THE DEVICE



THE RIGHT SIDE OF THE EQUIPMENT



THE BACK OF THE DEVICE

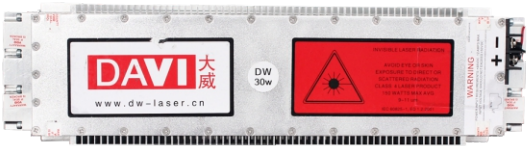


LEFT SIDE OF DEVICE

G series

CO2 flying laser marking machine

The G series uses **DAVI Laser's** 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 ±5%.



PRODUCT PARAMETER

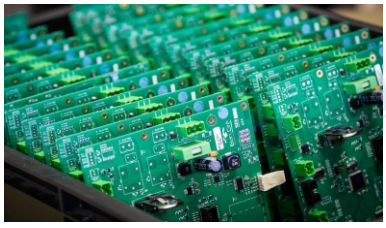
Model series		G series (DAVI laser source)						
Model		G300L	G300	G300D	G301	G600	G800	G1000
Laser parameters	Laser source model	DW-D30L	DW-D35L	DW-D35	DW-D35i-9.3	DW-D55	DW-T80	DW-D100
	Output Power	> 25W	> 35W	> 40W	> 25W	60W	80W	100W
	Beam quality M^2	≤1.2	≤1.2	≤1.2	≤1.2	≤1.2	≤1.3	≤1.3
	Laser wavelength	10.55~10.6 um	10.55~10.6 um	10.55~10.6 um	9.3 / 10.2 um	10.55~10.6 um	10.55~10.6 um	10.55~10.6 um
	Pulse frequency	0-25 kHz						
	Exit beam diameter	1.8±0.2 mm						
	Output power stability	±5%						
	Working life	About 20,000 working hours (non-lifetime)						
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 (110V can be connected)						
	Temperature humidity	0~40°, 30% RH 85%, air conditioner should be installed when used outside the range						
	Oil mist, condensation	Not allowed						
Other parameters	Operating system	Flying laser marking system						
	File format	The software supports text, QR code, barcode, serial number, graphics and other marking content						
	Dimension	660X510X1460 mm						
	Packing dimension	Host: 980X600X370 mm Column: 1350X350X280 mm						
	Total Weight	About 63kg						

SCOPE OF APPLICATION

Food and beverages and
fast moving consumer goods

Medicines and medical devices

Cosmetics, personal and
home care products



Electrical components

Clothing accessories

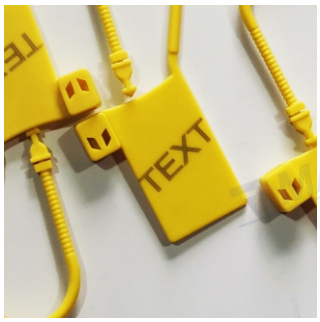
Chemical building materials

SAMPLE PICTURES

● Cable mark

● Egg mark

● Marking of mineral water bottle



● Marking of marking plate

● Plastic bag marking

● Carton packaging marking

LASER MARKING ADVANTAGES

G series CO2 flying laser printer series

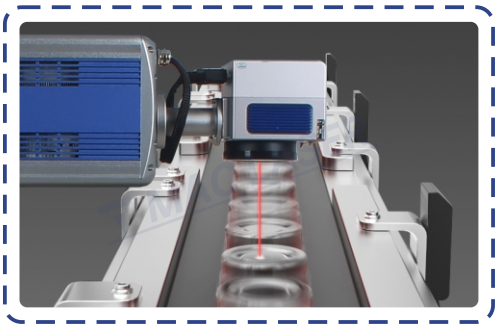
With the development of the national economy driving the progress of various industries, the laser marking equipment plays a pivotal role in the production line. Laser marking equipment shows the unique personality of the product through packaging, which is a key part of the enterprise to win the trust of consumers.

The three-phase (production date, expiration date, batch number) and traceability code are assigned to each product through the identification equipment, which is required by various industries, especially the fast-moving consumer goods industry. The current main processing methods are ink coding and laser coding.

COMPARE THE PROS AND CONS

	Laser	Ink
Excellent performance, flexible and reliable	Using online high-speed non-stop laser marking, high production efficiency, can work in both static and high-speed flow state of the production line	It can only be marked when the product is in motion and the production efficiency is high. Some inkjet printers may block the nozzles with ink, which affects production
	It can print serial codes, batch numbers, barcodes, QR codes, logos and patterns. The number of information printing lines and font size are limited	Bar codes, batch numbers and simple patterns can be printed, the number of printing lines and font size are limited
	The performance is stable and reliable,it can work continuously around the clock, free of maintenance for a long time. Minimal maintenance provides the longest stable operation time. Little environmental impact	The performance is basically stable,the failure rate is relatively high. The nozzle will be blocked due to changes in ambient temperature and dust. Maintenance and cleaning work is heavy. Affected by the environment
	Intuitive Windows software, display interface with high resolution and clear picture. It makes the creation and editing of print information convenient and fast	The display page is simple and the resolution is low. It can only enter the printed information Simple editing process
Simple installation, convenient and easy to use	Simple, lightweight chassis, the smallest and lightest laser print head can be directly installed on the production line, it's suitable for any production space	The size is large or small,some models need to be connected to external equipment such as air compressors
Low operating cost, long-term maintenance-free	One-time purchase price is higher	Low one-time purchase price
	The operating cost is extremely low, no unplanned shutdown of production is avoided. The equipment can be operated without maintenance for a long time, without the need for maintenance by a dedicated person, without any consumables and zero operating costs	The inkjet printer consumes a large amount of special inks and solvents, consumes a large amount of consumables. The replacement of nozzles, pumps and other accessories is expensive. The cost of consumables for a single inkjet printer is between 20,000 and 40,000 RMB
Powerful data processing, strong anti-counterfeiting	The control host adopts an embedded flight system, which has powerful data transmission and processing capabilities, it can be connected to all anti-counterfeiting data systems to meet multi-level anti-counterfeiting needs, with clear and permanent markings	It adopts single-chip microcomputer control, limited data processing capacity, few anti-counterfeiting functions, clear marking effect, easy to erase and change
Safety and environmental protection	It does not produce substances harmful to the environment and the human body, it produces surface scratches on the objects to be printed. It is an environmentally friendly high-tech product. It has been widely used in food and medicine production. Complies with G B 7 2 4 7-87; GB10320-88 standard	Ink and solvent are highly volatile substances, which will produce more chemical toxic residues and pollute the environment. The chemical composition and odor of ink and solvent may penetrate into the marked object. Internationally, it is also gradually replacing ink jet coding equipment

PRODUCT CHARACTERISTICS



MARKING SPEED UP TO 200 METERS PER MINUTE

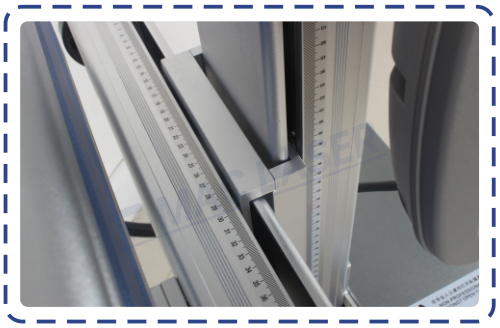
This is the industry's fastest marking laser coding system, with a marking speed of up to 200 m/min (single line of 2MM-high numbers and letters), which can be used in medium-speed or high-speed production lines

RELIABLE AND DURABLE CO2 LASER SOURCE

Using DAVI CO2 metal radio frequency laser source, the laser power density is uniform, the output light power is stable, there is no light leakage, anti-interference and there will be no shadows and virtual disconnection on special materials.

COMPACT DESIGN AND FLEXIBLE CONFIGURATION

This model uses compact laser printer marking head to achieve simple integration to reduce installation costs and improve positioning flexibility

FLEXIBLE INSTALLATION WAY, CONVENIENT INSTALLATION POSITION ADJUSTMENT

The flying model is specially designed for high-speed production lines, which can be flexibly combined with production lines for installation and use. The frame can be moved up and down and left and right to adjust, the marking head can also be rotated 360° for marking.