A8 Static Marking Series

Integrated Fiber Laser Marking Machine

Laser + Control Card + Galvanometer + Field Lens

Average Output Power

20W/30w

HIGH EFFICIENCY AND STABILITY
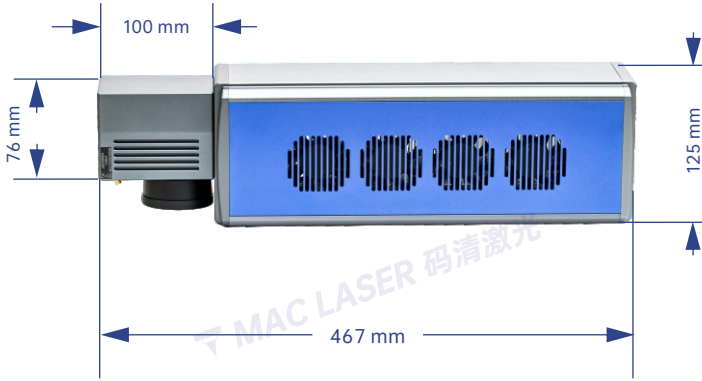
High Continuity

PRODUCT DESCRIPTION

The A8 series integrated fiber laser marking machine is an intelligent model designed to improve production efficiency and stability. It uses independently developed lasers, ensuring higher reliability, stable performance, and fast processing efficiency. It meets the marking requirements of high-speed and high-yield applications, mainly applied in the production of date codes, anti-counterfeiting marks, pharmaceutical and food packaging industries. This model supports daily laser marking, date coding, barcode, QR code, and other functions, catering to the diverse needs of different industries.

It is suitable for online marking of most metal materials and some non-metal materials with surface treatment, such as metal products, PVC, HDPE, aluminum foil, rubber, and plastic, widely used in personal care products, food and beverage packaging, liquor, dairy products, electronic components, chemical building materials, and other fields for marking graphics and text such as expiration dates, batch numbers, shifts, manufacturer names, and identification.
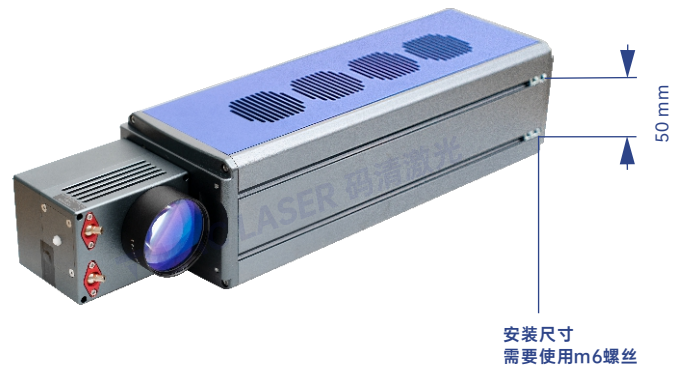
PRODUCT DISPLAY

100 mm

76 mm

125 mm

467 mm

On the right side of the device

108 mm

73 mm

On the left side of the device

On the right side of the device

50 mm

安装尺寸
需要使用m6螺丝

On the bottom of the device

IO Interface

Power Interface

Control Computer
Connection Port

Power Switch

Device diagram

495mm

110mm

128mm
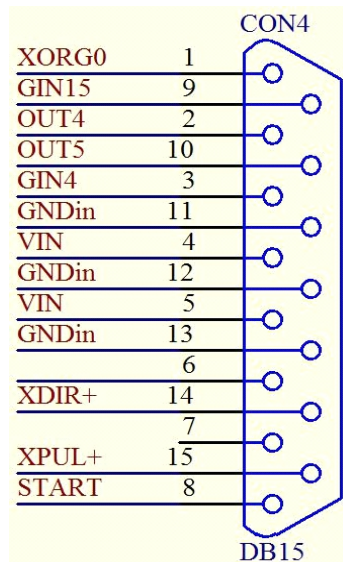
467mm

226mm

353mm
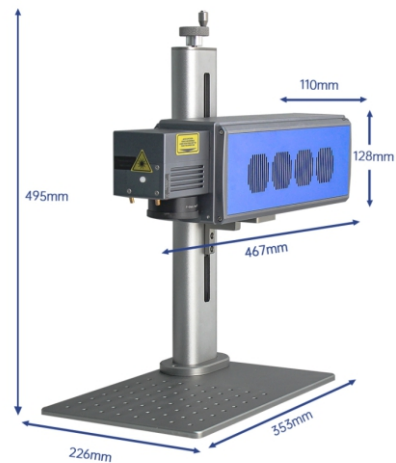
A8 version with stand

Golden Orange Fiber Non-Axis Control Card

PRODUCT DISPLAY

Power Interface and Digital IO
Socket Pin Definition Schematic

Note: The standard machine does not include rotation.
Fiber Static Marking Laser
3. Expansion Port (DB15 Core Connector)

管脚号	型号名称	描述
8	START	Repeat marking signal. Connect this signal and Gnd signal to form a circu connecting this signal and ground to the two ends of the switch respective When using this signal, the control card will mark the content retained in t cache from the last marking. This signal is an input signal.
1，9	GIN14 ， GIN15	Common input signals GIN14, GIN15. Form a circuit with the ground of t control card (pins 11, 12, 13)When using this signal, connect this signal an ground to the two ends of the switch respectively. This signal is an input sign
4，5	Vin	Positive polarity terminal of 5V input power. This signal is an input signal.
11，12，13	GND	Negative polarity terminal of 5V input power (ground signal), i.e., the groun signal of the control card. This signal is an input signal.
2，10	OUT4 ， OUT5	Common output signal. TTL compatible. Form a circuit with the Gnd signal.
14	XDIR+	Direction signal of the expansion axis X (stepper motor or servo motor), outpu in common anode output (TTL output) mode. This signal is an output signal.
15	XPUL+	Pulse signal of the expansion axis X (stepper motor or servo motor), output common anode output (TTL output) mode. This signal an output signal.
3	GIN4	Common input signal GIN4. Form a circuit with the ground of the control ca (pins 11, 12, 13). When using this signal, connect this signal and ground to t two ends of the switch respectively. This signal is designated as input with filtering function, suitable for connecting a foot switch or relay to trigger t input.

A8 系列

光纤静打激光器

A8系列采用自主研发的集成式光纤激光打标机。保障性更高，该激光器具具有极高的泵浦效率，脉冲波形可调或固定，脉冲重复频率范围广，设计紧凑，性能可靠的特点，能够为用户提供最佳的激光方案，满足用户的应用需求。

机型参数 PRODUCT PARAMETER

| Model series		A8 Static Marking Series	
model		A8-20T	A8-30T
Laser parameters	Laser model	Integrated laser	
	output power	≤20w	≤30w
	Beam quality M 2	≤2	
	Pulse Repetition Frequency	30-80 kHz	
	wavelength	1064nm	
	Output power stability	< 5%	
	life	Approximately 100000 working hours (non service life)	
optical characteristics	Scope	70-175MM （Scope optional）	
	Engraving depth	≤1mm（Depending on power and time）	
	Engraving speed	≤8000m／s	
	repeatability	±0.002	
	Minimum marking line width	0. 1mm	
	Minimum character height	0.15mm	
Usage environment	Cooling method	Built in air cooling	
	System power supply	350W／220V／50Hz	
	Temperature and humidity	0~40º，30%≤RH≤85% Air conditioning needs to be installed when used beyond the scope	
	Oil mist and condensation	not allow	
Other	Operating software	LC2000	
	file format	The software supports marking content such as text, QR code, barcode, graphics, etc	
	Dimensions	108X125X467 mm	
	Package size	package：533x195x242	
	Weight	5.5kg	
	Overall weight	9.1kg	

APPLICATION SCENARIO

Electrical Components and Electronic Devices
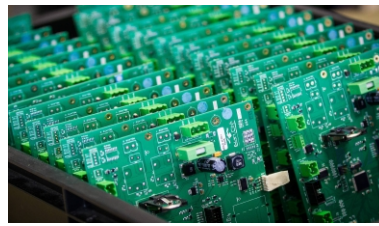
Semiconductors and Electronic Components
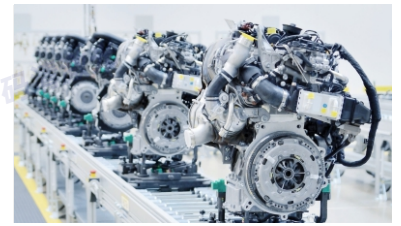
Aviation and Automotive

**Food, Beverages
and Fast-Moving Consumer Goods**

Pharmaceuticals and Medical Devices

**Cosmetics, Personal
and Home Care Products**

MARKING EFFECT

● Marking on Soda Cans

● Marking on Hardware Parts

● Marking on Electronic
   Component Accessories

● Marking on Iron Wire

● Date Coding on Plastic Bags

● Marking on ABS Tubing

Compare the pros and cons

Laser

printing ink

	Laser	printing ink
Outstanding Performance with No Limitations	Capable of printing serial numbers, batch codes, barcodes, QR codes, logos, and patterns. The number of printed lines and font size is limited within the galvanometer range.	Capable of printing barcodes, batch codes, and simple patterns, with limitations on the number of lines and font size.
	Stable and Reliable Performance, Operable 24/7, Long Maintenance Intervals Minimal maintenance required, providing the longest stable runtime. Minimally affected by environmental conditions.	Basic stability in performance with a relatively higher failure rate. Prone to nozzle blockages due to changes in environmental temperature and dust. Requires extensive maintenance and cleaning efforts. Highly affected by environmental conditions.
	Intuitive Window Software with High Display Resolution Facilitates convenient and quick creation and editing of printed information.	Simple Display Interface with Low Resolution Only allows basic editing of printed information.
Simplified and Convenient Installation	Compact and lightweight casing, with the smallest and lightest laser printing head directly installable on the production line, suitable for any production space.	Varied sizes, with some models requiring external equipment such as an air compressor.
Low Operating Costs, Long-Term Maintenance-Free	Higher initial purchase cost.	Lower initial purchase cost.
	Extremely low operating costs, eliminating unplanned downtime. Equipment can operate maintenance-free for an extended period without the need for dedicated personnel or consumables, resulting in zero operating costs.	Inkjet printers consume a large amount of specialized ink and solvents, with high consumable costs. Replacement of nozzles, pumps, and other accessories incurs high expenses. Consumable costs for a single inkjet printer range from 20,000 to 40,000 RMB.
Safety and Environmental Protection	Produces no harmful substances to the environment and human body, causing surface marks on printed objects. It is an environmentally friendly high-tech product widely used in the production of food and pharmaceuticals, complying with GB7247-87; GB10320-88 standards.	Ink and solvents are volatile substances, generating a considerable amount of chemically toxic residues that can pollute the environment. The chemical components and odors of ink and solvents may penetrate the marked objects. There is an international trend to gradually replace inkjet coding equipment.

ADVANTAGES OF LASER CODING

A8 Series Integrated Fiber Laser Marking Machine

This generation of products is more compact and lightweight compared to other products of the same type.

By employing the marking device to assign three key elements (production date, expiration date, batch number) and traceability codes to each product, it addresses the specific needs of various industries, particularly the fast-moving consumer goods sector. The primary methods of processing currently involve inkjet coding and laser marking.

This product can be purchased independently, eliminating the need to purchase it together with a computer for operating and controlling marking. It comes with a random installation package, allowing flexible installation and operation on any computer.

PRODUCT FEATURE

Highly Efficient and Stable Marking Speed

The fastest laser coding system in the industry, meeting the requirements for high-frequency marking applications.

Reliable and Durable Fiber Laser Source

Utilizes a self-developed laser generator, ensuring higher reliability. The laser power density is uniform, and the highly focused laser beam achieves superior marking contrast. The design lifespan of the laser can reach up to 100,000 hours.
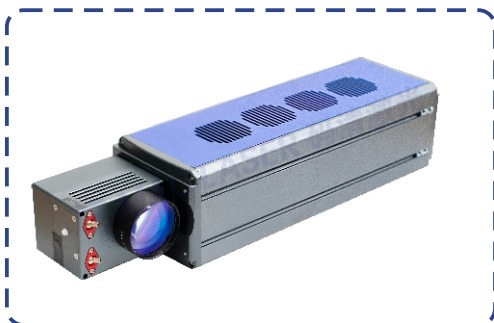
Ultra-Compact Design and Dual Red Light Focusing System

Incorporates an industry-innovative compact laser marking head for simple integration, reduced installation costs, enhanced positioning flexibility, and features a dual red light focusing system.

Flexible Installation Methods and Convenient Position AdjustmentConvenient Position Adjustment

Tthe flying model is adaptable to high-speed production lines and can be flexibly integrated with workbenches. The marking position can be adjusted in multiple dimensions for versatile marking applications.