

UV LASER MARKING MACHINE

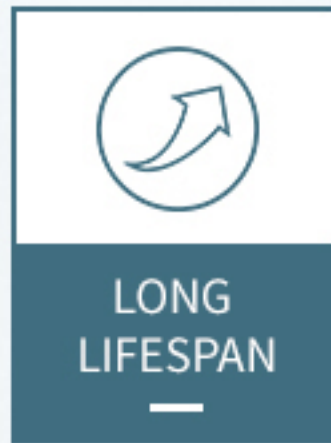


COLD WORKING

Ultra-fine Processing

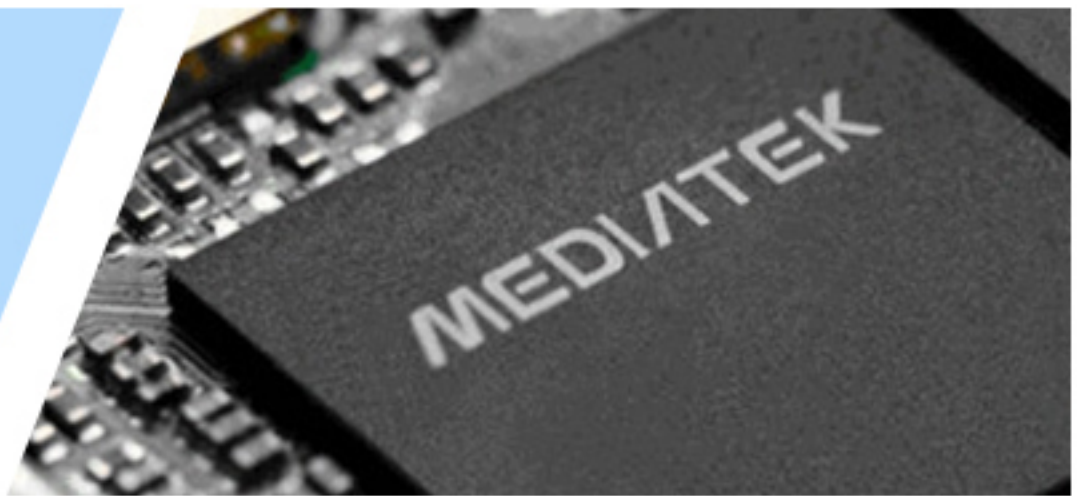
Suitable for wide range of materials

PRODUCT ADVANTAGES



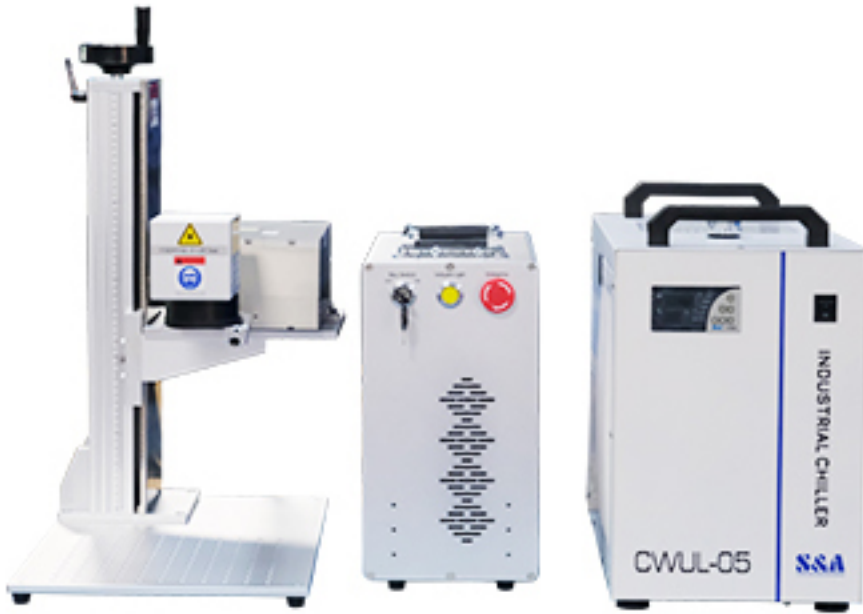
1. Suitable for various material;
2. High quality beam, focusing spot is smaller, that can achieve hyper fine marking;

3. Thermal impact area is very small, will not produce thermal effect, will not produce material burning problem;



4. Fast marking speed and high efficiency;
5. Stable performance, small size, low power consumption.

WORKING PRINCIPLE



The processing process of the ultraviolet laser marking machine is called the "photoetching" effect. The "cold processing" has a very high load energy (ultraviolet) photon, which can break the chemical bond in the material or the surrounding medium to cause the material to undergo non-thermal process damage, The inner layer and nearby areas do not produce heating or thermal deformation, etc. The final processed material has smooth edges and extremely low carbonization, so the fineness and thermal influence are minimized.

The reaction mechanism of ultraviolet laser processing is realized by photochemical ablation, that is, relying on laser energy to break the bonds between atoms or molecules, so that they become small molecules and vaporize and evaporate. The focused spot is extremely small, and the processing heat-affected zone is minimal, so it can be used for ultra-fine marking and special material marking.

PRODUCT DETAILS



PRODUCT
DETAILS

Galvometer

SINO-GALVO

- Good running stability.
- High positioning accuracy.
- High marking speed.
- Strong anti-interference ability.





Laser source

JPT SEAL355-3/5/10S/15S

- Photoelectric integration, anti-interference, one-key start.
- Fully sealed structure, dust-proof and moisture-proof.
- Introduce self-purification in the cavity, longer life.
- Small size, compact laser, saving installation space.

Lens

JOLLYSTAR & OPEX

- Thea Lenses feature multiple elements for the ultimate in image resolution.
- An air-spaced design and high efficiency AR coating guarantee excellent throughput and ability. An industry-standard M85 threading on all F-theta Lenses allows for easy mounting and simple retrofitting of OEM systems.



Water Chiller

S&A Water Chiller CWUL-05/10/15

- With environmental refrigerant.
- Compact size, long working life and simple operation;
- $\pm 0.2^{\circ}\text{C}$ precise temperature control.
- The temperature controller has 2 control modes, applicable to different applied occasions; with various setting and display functions.
- Multiple alarm functions: compressor time-delay protection, compressor overcurrent protection, water flow alarm and over high / low temperature alarm.

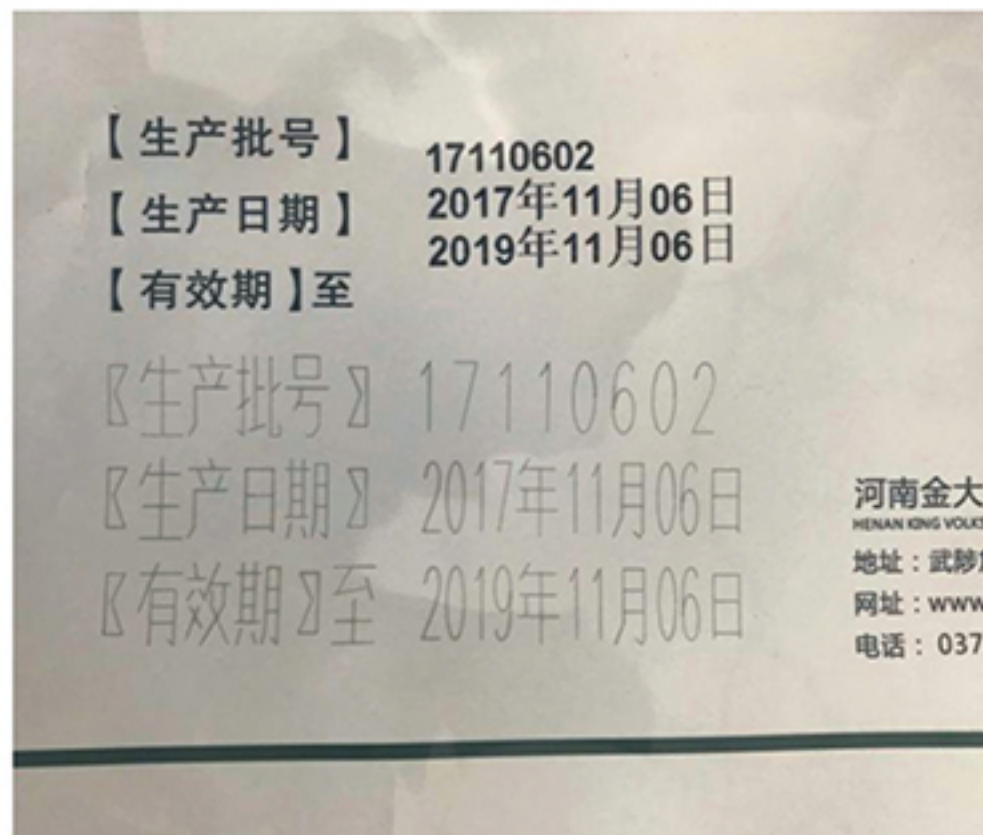
Laser power	3W/5W/10W/15W
Laser wavelength	355nm
Beam quality	M2 < 1.2
Laser repetition frequency	20–200KHz
Marking Area	110mm × 110mm (Standard fitting)
Maximum optional range	175 × 175/220 × 220/300 × 300/400 × 400/500 × 500(mm)
Marking speed	≤ 8000mm/S
Engraving depth	≤ 0.01mm–0.5mm(It depends on the material)
Minimum line width	0.01mm
Minimum character	0.15mm
Repeat accuracy	± 0.001mm
Demand for electricity	110V/60HZ 220V/50HZ
Power consumption	≤ 1500W
Cooling way	Water–cooling

**DETAILED
PARAMETERS**

MARKING EFFECT DISPLAY



Glass&Crystal Marking



Plastic Bags Marking

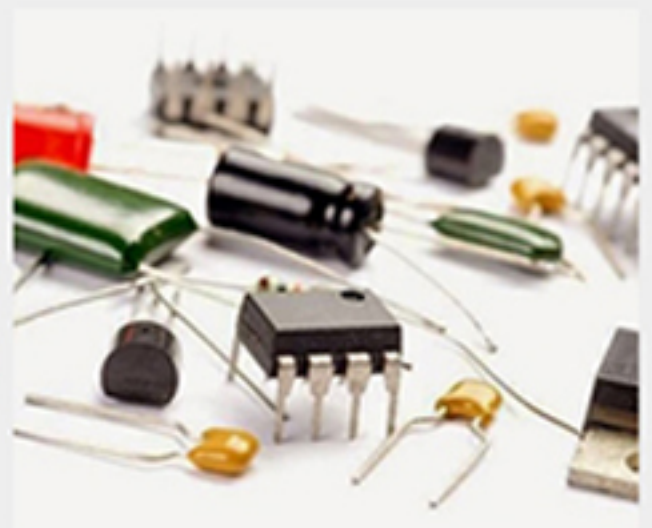


Chip Marking



Electronics Marking

UV laser marking machine is mainly based on its unique low-power laser beam, especially suitable for the high-end market of ultra-fine processing. It is very suitable for cosmetics, drugs, food and other macro-molecule material packaging surface marking. The marking effect is fine, clear and firmly, and better than ink jet code, no pollution. It is widely used in marking and slicing of flexible PCB, silicon wafer micro-hole, blind hole processing, LCD glass qr code, glassware surface punching, metal surface coating, plastic keys, electronic components, gifts, communication equipment, construction materials, rubber and other non-metallic materials.



UV LASER MARKING MACHINE PACKING LIST



NO.	NAME	SPEC	NUMBER	NO.	NAME	SPEC	NUMBER
1	UV Laser Engraver		1 SET	9	Positioning Screw	M6	Some
2	Goggles		1 PAIR	10	Lock Bar		2 PCS
3	Allen Wrench		1 SET	11	Water Chiller	CWUL-05	1 SET
4	USB Drive	16G	1 PC	12	Transformer	110V to 220V	1 SET
5	Installation and Use Video	In USB Drive		13	Workbench	300*200	1 PC(Optional)
6	Software User Manual	In USB Drive		14	Rotary Device	D80	1 SET(Optional)
7	Power Line USB Line	1.5m	1 PC	15	Laptop	Lenovo	1 SET(Optional)
8	Foot Switch		1 PC	Pictures are only for information, take practicality as standard.			