

UV Laser Marking Machine

Description

UV Laser Marking Machine adopts UV Laser source, the third-order cavity frequency doubling technology, compared with infrared laser, UV lasers at 355nm provide a small-size spot and a big focal depth, short laser wavelength interrupts molecular chains of material, can greatly reduces the mechanical deformation and temperature distortion of materials, it is a cold laser, mainly used for super precise marking and engraving, particularly suitable for food, pharmaceutical packaging material marking, micro porous, high-speed dividing for glass, complex graphics wafer cutting on silicon materials, etc.

UV laser is an ultraviolet laser beam which generated after the high-power multimode diode pumped laser and then frequency doubling again, and mark through computer-controlled high-speed scanning galvanometer deflection to change the path of laser beam automatically.

Application

1. UV Laser Marking Machine is mainly used in precision processing of high-end market, handicrafts, medicine, cosmetics, video and other polymer materials packaging bottle, the mark is very precise and stands wear, better than ink printing and pollution-free.
2. The flexible PCB marking and scribing, silicon and wafer micro hole, blind hole processing.
3. LCD glass QR code marking, glass wares punching, metal surface coating marking, plastic buttons, communications equipment, electronics, gifts, building materials and so on.

Features

1. High-quality laser beam, small-size spot, can do super precise marking/engraving.
2. Perfect marking performance:
 - (1) Short UV wavelength 355nm reduces heat effect on work piece;
 - (2) Precise marking effect and available repeatable marking;
 - (3) High precision scanning galvanometer laser head;
 - (4) Extraordinary fine spot guarantees perfect marking performance;
 - (5) Non-contact marking;
 - (6) Permanent mark.
3. Heat affected area is very small, no heating effect, material will not be burned or deformed.
4. High marking speed, high efficiency, stable performance, small size, low power consumption.
5. Very suitable for the material which is greatly reacted by thermal radiation, can work with production line to feed and discharge materials automatically.



<https://www.youtube.com/watch?v=KApuQ07CEEU&list=UUlpzJahB5JxpkBoKTWBvmaQ>

Technical Parameters

Model	MY-UV03
Laser Power	3W
Optional Laser Power	5W/7W/10W

Laser wavelength	355nm
Working Area	150*150mm
Beam Quality	M2 <1.1
Output Laser Power	0~100% adjustable
Output Frequency	5KHz~80KHz adjustable
Power Stability (8h)	<±1%rms
Pulse Width	10-50ns
Focus Spot Diameter	<0.01mm
UV Laser Source (Manufacturer)	Huaray Laser
Scan Head (Manufacturer)	GalvoTech
Controller (Manufacturer)	BJCZ
Marking Speed	7000mm/s
Min. Line Width	≤0.005mm
Min. Character	0.15mm
Repeated Precision	±0.003mm
Compatible Format of File	PLT, DXF, AI, BMP, JPG and so on.
System Operation Environment	Windows XP/7/8/10 64bits
Cooling Mode	Water Cooling
Operation Environment	15°C~35°C
Lifespan of UV Laser Source	Max. 20 000 hours

