

YAG Laser Marking System Introduction



Working Principle:

YAG laser machine is a solid laser machine with infrared light whose wavelength of frequency is 1064nm. It uses krypton lamp as energy source (driving source). As a medium for producing laser, Nd:YAG can send out special wavelength to let effective substance's level of energy jump higher so that it can let off laser. After the energy of laser is strengthened it will form a laser beam to process the material. The path of the laser beam will be changed through the resonance mirror controlled by computer so as to accomplish automatic marking.

Main Performance Characteristics:

1. Adopt high speed scanning resonance mirror to get high precision and high speed. Machine is qualified with long life period for parts and a low depreciation cost.
2. The software controlling system has the interface of WINDOWS and comprises files output by software such as CORELDRAW, AUTOCAD, PHOTOSHOP, etc. It can support graphic file formats such as PLT, PCX, DXF, BMP etc, and use fonts such as SHX, TTF directly. It also can mark automatic code, sequence number, batch number, date, bar code and two-dimensional code. The software can mark the figures on the opposite side.

Product Application:

It can be used in the industries of metal, alloy and oxide, ABS, epoxy resin, printing ink, etc. Also it's widely used in the industries such as electron components, electric appliance, jewels, glasses, hardware, car components, communication products, plastic keystroke and IC.

Product Advantage:

1. The ideal combine of designer, controlling system and marking software makes the life of fittings stronger. The rate of failure is lower after long-time working and the capability of product is steady.
2. Laser cavity: Adopt laser cavity imported from England with higher photoelectricity exchanging efficiency and longer life.
3. Q-switch: It is well equipped and can release qualified laser with steady capability.
4. Controlling computer: We use industrial controlling computer so that it can ensure the equipment to work long-time and steadily in the industrial condition and will not easily crash.
5. Controlling software: It has strong capability. It can even figures, laminate set up parameters and preview the place of infrared light. It can calculate the figures precisely and mark all kinds of bar code and graphic code. Besides, it can mark on the opposite side.
6. Excellent workable can match flying marking system and requires no changing fittings.
7. Strong design capability can offer several hundreds of automatical marking and delivering stuffs projects to satisfy our customers.

Environment:

Occupy: 6 m², machine offers a installation bit for air-condition

Surroundings: it needs clean, no dust and no resonance source around.

Temperature: 55°F (13°C) to 82°F (28°C)

Humidity: 5% to 75% (free of condensed water).

Electrical source: 220VAC±5% 50HZ AC, capacity is over 5KW. There is null line and absolute earth wire which should be well earth connection. It also equips specialized air-switch (specification: C32) and a creepage safeguard implement.

Technology Parameters for YAG laser Marker



Technology Parameters are as below:

Parameters	AHL-YAG-50W	AHL-YAG-90W
Max Laser Power	60W	90W
Laser wavelength	1064nm	1064nm
Beam quality	<8M2	<8M2
Repetition frequency	≤50KHz	≤50KHz
Standard marking area	100mm×100mm	100mm×100mm
Marking area option	50mm×50mm 150mm ×150mm 200mm×200mm 300mm×300mm	
Marking depth	≤1.2mm	≤1.8mm
Linear speed	≤7000mm/s	≤7000mm/s
Min.line width	0.015mm	0.015mm
Min.character size	0.2mm	0.2mm
Repetition accuracy	±0.002mm	±0.002mm
Power consumed	≤5KW	≤6KW
Electrical source	220V±10%/50Hz/30A	
Software	AHLASER MARKER SYSTEM Support operation systems: WIN98/WIN2000/WINXP	
Consumed materials	Lamp Krypton, Filter core. water	
Selected accessories	Safety glasses, metal card, Frequency doubling patch(to adjust laser)	

Remark: The machine is made up by laser, chiller, power supply, display, outer air-conditon. There are rotation worktable, automatical sets of equipment for you to make a choice.