



GEM

Green Laser Marking Machine

GEM-GL-005



GEM LASER LIMITED

A Legend Laser machine Manufacture & Solutions

Add . : No.442 ,Wuluo Road,Wuhan,430061 P.R.China .

Tel. : +86-27-84793136

Fax : +86-27-84793136

E-mail: sales@gem-lasers.com

Web : www.gem-lasers.com

SPECIFICATIONS



OVERVIEW

Green laser marking machine, the use of semiconductor lasers as a pump source, coupled by the fiber from the end into the laser crystal. So that the pump beam into the gain medium and cavity mode space to the greatest degree of overlap, which can be high power and high beam quality laser output. The All-In-One structure, no optical pollution, power coupling loss and air cooling, makes the laser machine has high efficiency, long life and less maintenance and other properties, excellent resonant cavity and temperature control system optimization design, to achieve a high beam quality and high light conversion efficiency, no large water cooling system, compact design, stable structure, with 20,000 hours of service life.

FEATURES

- 1, The air-cooled heat, which has the volume decreases, the whole structure is compact; (water-cooled, for the laser output is very stable models.)
- 2, the laser output as the base model, good beam quality, $M^2 \leq 1.2$, played fine lines, suitable for high-precision marking applications;
- 3, Q-device makes modulation pulse width, peak power, power stability, good impact on the material heat ablation happen.
- 4, the pump source using Germany modules, pump efficiency, long life, can reach 20,000 hours;
- 5, the laser using a sealed vacuum, easy maintenance, no need to replace the important parts

	Characteristic	Parameters	Remark
Lasers information	Laser Type	Green Laser	
	Laser wavelength	532nm	
	Laser mode	TEM00	
	Beam quality	$M^2 \leq 1.2$	
	Output laser power	5w	
	Laser pulse width	<15ns@20kHz	
	Pulse repetition rate	1-100 kHz	
	Output power adjustment range	10 - 100%	
	Output power stability	$\leq 2\%$	
Laser marking head	Scan head	High speed digital scanning galvanometer	
	Scan speed	≤ 7000 mm/s	
	Marking accuracy	0.02 mm	
	Repeat accuracy	± 0.003 mm	
	Marking Range	100*100 mm ²	
Marking software system	PCI& control System		
Cooling System	Air-cooled		
Supported graphics formats	PLT、PCX、DXF、BMP&etc		
GPS	Red light positioning		
Working condition	Temperature:15℃-30℃,Humidity 10-70%, Not condensation		
Power	220VAC、50Hz		
Power consumed	≤ 500 W		

Device configuration list (Standard, Option)

Item	Subsystem	Component	Model	Quantity	Mark
1	Laser marking head	High speed scanning galvanometer	Light Φ10mm	1pcs	China
		Galvanometer drive card		1pcs	
		Scanning field mirror	f=160mm	1pcs	China/Import
		Beam expander	10X	1pcs	China/Import
2	Laser	Green Laser	pulse-532-005	1set	China
3	Laser marking machine cabinet	Cabinet		1set	GEM
4	Computer&software	Computer	Desktop	1set	Lenovo
		Software	Software	1set	GEM
6	Workbench	Precision workstation		1set	GEM
7	Seat				

Laser Marked Samples



Applications

It's widely used in electrical appliances, communications, precision instruments, electronic components, electrical industry, integrated circuits, hardware tools products, auto parts, plastic products, crafts ornaments, etc.