

ELF

Total solutions
of industry laser system

ELF Science & Technology (Beijing) Co., Ltd

Company Profile

We are a company specialized in developing and manufacturing industry machinery with perfect quality and excellent after-sales services.

After years of continuous efforts, we become one of the leading suppliers in China. We had provided numerous well-known companies with wide-ranging solutions and reliable equipment, with a sustainable and robust traceability to the industry.

It's our great honor to be here and to share our visions with your esteemed company. Thank you for your interests and trust in our products, your support to our products brings up our confidence, proud and self-realization. ELF company always concentrate on products innovating, upgrading, and researching to meet our customers' requirements and satisfaction.

Today, our equipment are widely used and accepted all over the world, covering Europe, America, Mexico, Brazil, South Korea, India, Thailand, Vietnam, Malaysia, Singapore, and Indonesia, etc.

Office



Certificates:



Exhibitions



Table Series laser marking machine



Description:

- 1, Extremely fast, with high-speed galvanometer;
- 2, Small volume, light weight;
- 3, No consumables, low power consumption, less than 500W;
- 4, Completely air cooled, do not need water chiller, lower power consumption;
- 5, Robust under harsh environment and temperature change, can operate with batteries or supply from automobile cigarette lighter in case of power failure;
- 6, Low product depreciation cost. Ability to meet customers' mass and stable production;

Parameter:

Laser Wavelength	1064nm	Beam Quality	<1.5
Laser Repetition	≤100KHz	Standard Marking Area	110mm x 110mm
Marking Depth	≤1.5mm	Marking Speed	≤12000mm/s
Min. Line Width	0.01mm	Min. Character Size	0.05mm
Repetition Precision	±0.001mm	Power Consumption	≤500W
Cooling method	Air cooled	Power Supply	220V/50Hz/10A
Field Lens	Ronar Smith	Control system	JCZ

Samples:



Tabletop Series Laser Marking Machine



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Samples



Tabletop mini Series Laser Marking Machine



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Samples



Handheld laser marking machine

Features:

Handheld fixed focal length, can mark on big/heavy/unmovable objects, just put the head on the surface. It can also be applied to mark on small materials. Fiber laser marking machine, air cooling, portable design, easy to move equipment, divided type machine, high reliability, no consumables, long life working, maintenance-free. Imported Germany IPG fiber laser or China made Raycus, or other brand laser source. Low power consumption, no-voltage so no need large water cooled system. Close to the ideal beam, USB interface, output control, optical scanning system, high laser repetition rate, high speed without distortion.



Application Industries:

Applied to the higher marking precision such as mobile phones buttons, plastic translucent keys, electronic components, integrated circuits, pipes, valves, flanges, steel sheet, metal sheets and so on.

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Cooling method	Air cooled	Power Supply	220V/50Hz/10A
Field Lens	Ronar Smith	Control system	JCZ

Samples



Tabletop series enclosed laser marking machine

Description:

- 1, Equipped with Germany or Britain, or RAYCUS. The working time can reach 100,000 hours or above, competent in different work locations.
- 2, Variety of applications such as in the marking of gold, silver diamond and other jewelries, sanitary tools, and so on.
- 3, Can mark barcode, series number, logo and so on.
- 4, Extremely fast, with high-speed galvanometer.
- 5, No consumables, low power consumption, less than 500W.
- 6, Robust under harsh environment and temperature change, can operate with batteries or supply from automobile cigarette lighter in case of power failure.
- 7, Design and manufactured according to European standards.



Parameter:

Laser Wavelength	1064nm	Beam Quality	<1.5
Laser Repetition	≤100KHz	Standard Marking Area	110mm x 110mm
Marking Depth	≤1.5mm	Marking Speed	≤12000mm/s
Min. Line Width	0.01mm	Min. Character Size	0.05mm
Repetition Precision	±0.001mm	Power Consumption	≤500W
Cooling method	Air cooled	Power Supply	220V/50Hz/10A
Field Lens	Ronar Smith	Control system	JCZ

Samples:



Online flying laser marking machine



Parameter

Laser Power	≥30W	Repeat Accuracy	±0.01mm
Machine Power	600W	Laser wavelength	10.6 μ m
Assembly line speed	≤200m/min	Marking speed	12000mm/s
Flying mark line	≤10 lines	Marking area	110mm x 110mm
Min line width	0.15mm	The optimal mark interval	≥1mm
Min character	0.2mm	Control interface	USB
Continuous working hours	24h	Power Demand	220V 50HZ

Description:

- 1, Marking Process in automation, fast speed, high efficiency, good anti-counterfeit effect;
- 2, High rate of Electro-optical conversion, low running costs, without consumables, no need of maintenance;
- 3, Stable equipment performances, the optical system can be adjusted as to and fro, up and down, and can be equipped with Red Light Position Indicating device;
- 4, Easy to operate, broad application area, suitable for ink-jetting of various materials;
- 5, Flying Laser Marking Machine can be matched directly with product line, it can work continuous 24 hours which meet industrialize large-scale production;
- 6, Control software supports automatic encoding, variable text, date, serial number, lot number, bar code and two-dimensional code printing, and can be modified according to customer's different needs of production line flexibly.

Samples:



Laser cleaning machine

Superiority:

- 1, The domestic first high power fiber laser cleaning machine;
- 2, No-contact cleaning, no hurt to materials;
- 3, Accurate cleaning, position and size. Alternative cleaning;
- 4, Safe and environmental, no any clean-out fluid and consumable when use;
- 5, Stable laser cleaning system, almost no maintenance;



Products Introduction:

Laser cleaning machine is new generation high-tech product for surface cleaning. Easy to install and operate. It can be automation simple handled with electricity. It can be used without any chemical, medium nor water when using. With high cleaning performance. Ship building auto spare parts rubber mold high-end machine tools tyre mould rail environmental industry etc. Good for metal surface rust removal, paint cleaning, oil, bolt and dirt of object cleaning Clad layer and coating remove, solder side and coating surface preprocess, dust and attachments of statues surface, rubber mold cleaning.

Parameter:

Laser work media	Yb Fiber			
Laser Power	50W	70W	100W	200W
Laser Wavelength	1064nm			
Pulse Frequency	20-100KHz	20-100KHz	20-200KHz	20-50KHz
Type of Cooling	Air-cooled	Air-cooled	Air-cooled	Water-cooled
Cooling water				Deionized water
Water Temperature				19°C
Dimensions	760mm x 780mm x 790mm			1100x950x700mm
Total Weight	56kg	60kg	65kg	130kg (include water tank)
Total Power	350W	500W	600W	1000W
Scan Width	10-60MM			
Choices	Handheld/Automatic			
Working Temperature	5-40°C			

Samples:



Fiber type handheld laser welding machine



Application

It can weld wide range of metal, includes the stainless steel, carbon steel, cooper, aluminium alloy, Zinc plated board, etc. For example, welding 2mm stainless steel plates, cabinets and work pieces. It has wide field application, includes aerospace, instruments, manufacturing industry, metal process industry.

Technical parameter

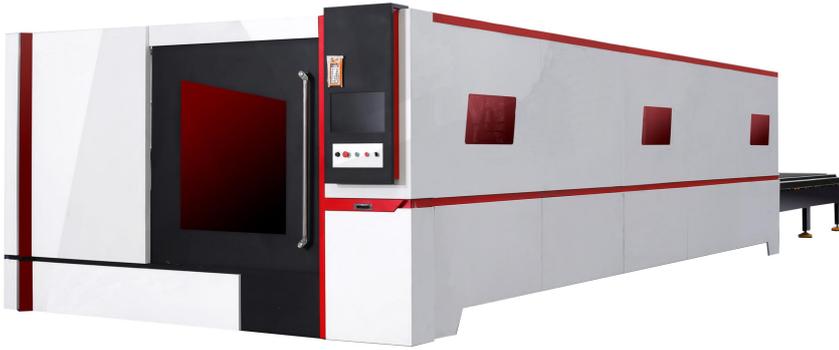
Model	ELF-WL500	ELF-WL750	ELF-WL1000
Max. Laser output power	500W	750W	1000W
Working mode	Continuous or modulate		
Laser wavelength	1070nm	1070nm	1070nm
Beam quality	M2<1.1	M2<1.15	M2<1.2
Standard output laser power	± 2%	± 2%	± 2%
Line width	<4nm	<4-5nm	<5nm
Power supply	AC220 ± 10% 50/60HZ	AC220 ± 10% 50/60HZ	AC380 ± 10% 50/60HZ
Cooling system	Water cooling	Water cooling	Water cooling
Whole machine power consumption	4KW	5KW	6KW

Welding ability

metal	Output power(W)	Welding depth(mm)	Speed(n/min)
Stainless steel	500	1.5	1
Stainless steel	500	0.5	8
Stainless steel	750	2	1
Stainless steel	750	0.5	10
Stainless steel	1000	2.5	1
Stainless steel	1000	0.5	15

Fiber laser cutting machine

Laser Power:300W-3000W



Description:

Adopting world famous Germany Fiber laser source and USA laser Mech cutting head & Dynamic Focus System, it can cut and punch different kind of metal material with high precision and high speed. Since laser is transmitted by fiber, it is no need to and maintenance or adjusts the laser optical path. It greatly reduces the machines fault rate prolongs the working life. Large format cutting area meets the demands of various kinds of metal processing.

- 1, Smaller focus diameter and high work efficiency, high quality;
- 2, High cutting speed: 2-3 times faster than YAG or CO₂ laser;
- 3, Adopting the top world import fiber lasers, stable performance, key parts can reach 100,000 hours;
- 4, High efficiency for photoelectric conversion: Compared with CO₂ laser cutting machine, fiber laser cutting machine has three times photoelectric conversion efficiency:
 - a. Low cost; Photoelectric conversion rate is up to 25-30%. Low electric power consumption, it is only about 20-30% of traditional CO₂ laser cutting machine;
 - b. Low maintenance: Fiber line transmission no need reflect lens, save maintenance cost;
 - c. Easy operations: fiber line transmission, no adjustment of optical path;
- 5, Super flexible optical effects: Compact design, easy to flexible manufacturing requirements;

Mainly used for cutting carbon steel, silicon steel, stainless steel, aluminum alloy, titanium alloy, galvanized steel sheet, picking board, aluminum zinc plate, copper and many kinds of metal materials cutting and so on.

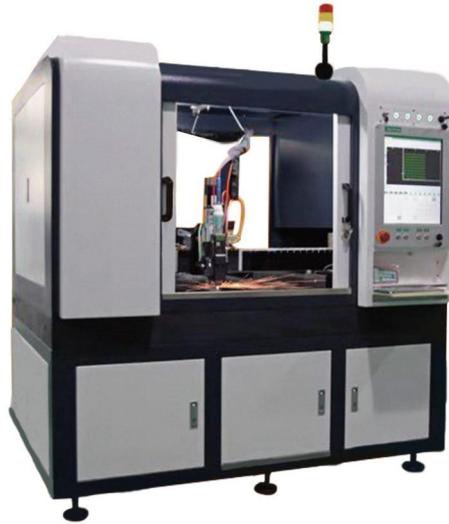
Applied in sheet metal processing, aviation, spaceflight, electronics, electrical appliances, subway parts, automobile, machinery, precision components, ships, metallurgical equipment, elevator, household appliances, gifts and crafts, tool processing, adornment, advertising, metal foreign processing various manufacturing processing industries.

Parameter:

Laser Source	Raycus or IPG Laser Fiber Laser Source	Laser cutting head	WSX/Ray Tools
Laser Power	300W-4000W	Control Software	CypCut
Laser wavelength	1060-1080nm	Table-Driven System	Japanese Yaskawa Servo Motor
Working Dimensions	3000mm x 1500mm 4000mm x 2000mm	Location Precision	$\leq \pm 0.02\text{mm}$
Minimum Line Width	$\leq 0.12\text{mm}$	Max. Moving Speed	80m/min
Power Demand	380V 50HZ	Cooling Way	Water Cooling

Samples:

Precision laser cutting machine



Model		ELF-6060
Laser wavelength		1070-1080nm
Working area		600*600mm
Max.acceleration		1.5g
X-axis	Fast moving speed	60m/min
	stroke	600mm
	Position Accuracy	±0.01mm
	Repeat accuracy	±0.004mm
Y-axis	Fast moving speed	60m/min
	stroke	600mm
	Position Accuracy	±0.01mm
	Repeat accuracy	±0.004mm
Z-axis	stroke	100mm
Floor area		2.646 m ²
Machine size		1800*1470*1890mm
Weight		1.5T

Application:

Can cut varieties of metal plates and pipes, and mainly suitable for rapid cutting of stainless steel, carbon steel, manganese steel, copper sheet, aluminium sheet, galvanized sheet, various alloy sheet, rare metals and other materials

Application industry:

Jewelry, glasses, lighting, kitchen and bathroom products, mobile, digital products, electronic components, watches, computer accessories, and other precision instruments, metal molds, auto parts, craft gifts and others.

ELF

Ever last flourishing

Ever last friendship

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