

How does 3D laser marking machine work?

Here is a video to show you laser marking working on curved surface.

Product Information

Product Description:

Carmanhaas 3D Dynamic marking and engraving machine is suitable for engraving of three-dimensional products with large arc and high drop. It is equipped with three-axis control "3-AXIS" to control the focal length freely. It can be engraved on any shape with high precision. It can cope with various stepped surfaces and realize the absence of various shapes. Differential marking. Switching settings can cope with changes in focal length, position and shape of different products. The switching can be completed without moving the workpiece. Can choose 3D curved surface marking, relief, visual positioning system, dynamic assembly line marking and other functions.

With this laser marking and engraving technology, users can creatively quick building arbitrary drawing or patterns, free embossing personalized signs, non-tactile sensation surface marking and even laser marking colors in certain model of stainless and titanium. Users can also select automatic loading and unloading sub-system, which significantly saves setup time and the labor cost.



Product Size



Side



Front

立柱刻度: 45cm



Fiber 3D Galvo Marking system
Front dynamic focusing mode

3D Galvo Back View

3D Galvo Side View



Product Features:

- (1) Engrave many different 3D shapes: Carmanhaas 3D dynamic marking machine subvert traditional 2D marking mode. It can engrave many different 3D shapes, for example: Slope, Cylinder, Cone, Ball, and so on.
- (2) Large Scanning Filed Lenses: Our standard lens field sizes are 4", 7", and 12" (11.75"). Each serving a specific function to achieve different results. Need a custom solution, contact us today.
- (3) Customized Beam Delivery Engineering: Our engineers and software developers are able to customize the beam delivery for specific applications.
- (4) Perfect Working Performance: Perfectly present target graphics on work pieces, avoid deforming such as elongation, slope.

(5)Simple and easy is better! The software fully developed by ourselves, it is easy to learn and use. What you see is what you get.

(6)The border won't be "ignored". Everywhere is marked uniformly.

(7)Details show ingenuity, no matter observing from any angles, it is exquisite, perfect.

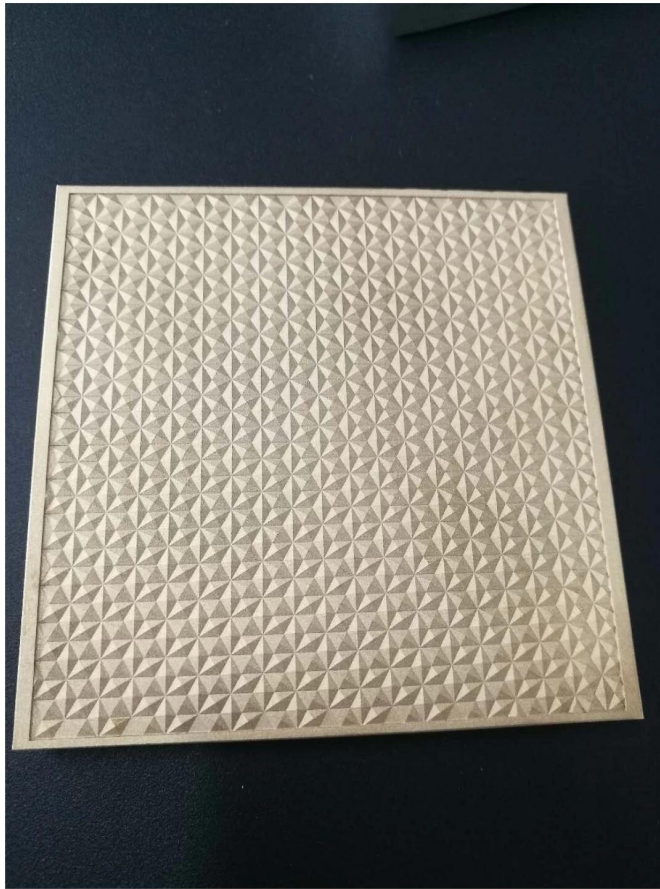
Application industry:

Mobile phone, electronic components, electrical appliances, communication products, sanitary ware, tools, accessories, knives, jewelry, auto parts, luggage buckle, cooking utensils, stainless steel and other industries.

Meanwhile, we use 3D Laser Engraving In medical industry, aerospace, tooling, automotive, military defense, electronics, home goods, oil and gas and industrial.

Application materials:

It adapts to the major range of industrial parts organic and non-organic material, including metal, glass, ceramic, graphite, plastics, rubber, engineering plastics, electroplating materials, fiber and composite. If you're not sure if your material will mark, send it in for a free material testing study by our applications experts. ([Marking Machine china supplier](#))



Machine Technical Parameters:

P/N	P/N	LMCH-3DF20	LMCH-3DF30	LMCH-3DF50	LMCH-3DF100
Laser	Laser Output Power	20W	30W	50W	100W
	Wavelength	1064nm	1064nm	1064nm	1064nm
	Pulse Energy	1mJ@20kHz	1mJ@30kHz	1mJ@50kHz	1mJ
	Repeat accuracy	30k-6KKHz	30k-6KKHz	50k-100kHz	20k-200kHz
	Laser Source Life	>100,000 hours	>100,000 hours	>100,000 hours	>100,000 hours
Craft	Pointer Laser	633nm or 650nm	633nm or 650nm	633nm or 650nm	633nm or 650nm
	Marking Area	70x70mm/100x100mm/175x175mm/200x200mm/220x220mm/300x300mm			
	Deepening range	±20mm	±20mm	±20mm	±20mm
	Marking method	XYZ three-axis dynamic focusing			
	Minimum line width	0.03mm	0.03mm	0.03mm	0.03mm
Machine	Environmental requirements	Temperature: 10 ℃ -35 ℃ Humidity: 5% -75%			
	Input power	220V ±10%, 50/60Hz 220V ±10% 50HZ or 110V ±10% 60HZ			
	cooling method	Air Cooling	Air Cooling	Air Cooling	Air Cooling
Software	operating system	WINXP/WIN7			
	Support style	True type font, AUTOCAD single line font, custom font			
	File type	PLT/DXF/DWG/SVG/STL/BMP/JPG/JPEG/PNG/TIF/DST/AI,etc			

Related Products



Marking Samples





Factory



Certificate&Exhibition





Packing List

Packing details	One set in a wooden case
Single package size	113x85x173cm
Single gross weight	300Kg
Delivery time	Shipped in 2-5 days after receiving full payment

Packing List:

P/N	Item Name		Quantity
	Laser Marking Machine	Carmanhaas	1 set
	Machine body	Desktop/Split/Enclosed	
Free Accessories			
1	Foot Switch		1 piece
2	CD for EzCard	Marking Software	1 piece
3	Power cord(Optional)	EU/USA/National Standard	1 set
4	Inner hexagon wrench		1 set
5	Ruler	30cm	1 piece
6	User Manual& Laser Source Report		1 piece
7	Laser Protective Googles	1064nm	1 piece

Accessories(free)









Return Policy:

We provide a free ONE YEAR Full Machine WARRANTY and TWO YEARS Laser Source WARRANTY Should returns be required:

Step 1) Contact us with this website email.

Step 2) Provide as much detail as possible about the problem you are having.

Step 3) Authorization to return the item will be issued.

Step 4) Return the item for the agreed replacement or refund.

Logistics:

Optics order ship by DHL, UPS, FedEx, TNT, EMS etcFor Laser machine order delivery, can be optional with terms of Exwork, FOB, CNF, CIF by air or by sea based on the buyer's forwarder or ours

Q1.Are you a manufacturer?

A1: Yes, we are professional and experienced manufacturer with our own molds and production lines.

Q2.How about quality of products?

A2: Our technicians and QC teams test the products one by one using aging line, professional devices and instruments to ensure the quality for all products.

Q3.How about price?

A3: We are a manufacturer and always offer our customers the most competitive prices.

Q4.How to place an order?

A4: Contact with online service, or sent email to us directly, we will reply to you with product price, specifications, packing etc. soon. Thank you.

Q5.May I send material to test marking performance?

A5: Yes! You are welcome to send material to test our superior quality and service.

Q6.Can I visit your factory?

A6: Yes, welcome to visit our factory at your convenient time.

Q7.How can I make OEM or ODM orders?

A7: We have different print processing for different OEM/ODM orders. Please contact us with online service or send email to us directly.

Q8. How should I pay for my orders?

A8: You can pay by T/T would be available for qualified bank and MOQ required for each order.