

Product Specifications

GANTRY NC LASER CUTTING MACHINE

| Advance Design | Quality Assurance |



Prepared By

Danox Welding Pte Ltd

2024

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Indonesia- Pt. Inti Bangunan Perkasa

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29453
Retail
Blok D, No. 5 Jalan Pembangunan 2, Komplek
Batama, Batam, Kepulauan Riau- 29432



- Machine can cut any flat shape parts composed of straight lines and arcs.
- The graphic is static and dynamic, easy to learn, can be programmed directly on the machine, or can be drawn on a computer or attached by using a ready-made CAD file.
- The gifted software is directly converted into a G code program file, and is automatically cut by copying it to the operating system through a USB flash drive.
- Advantage: double-sided drive structure, exquisite system structure, high degree of automation, simple operation, convenient maintenance, easy cutting from sheet metal to large thickness steel plate.
- Application: machine can cut carbon steel, stainless steel, alloy steel, aluminum and other non-ferrous metal sheets.

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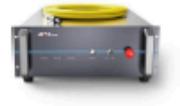
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Basic Configuration

NO	Main parts	Unit	Quantity	Picture	Instruction
1	Host	1	1		RM-1530
2	Machine size	m	1		2000mm×3500mm
3	Effective cutting area	m	1		1500mm×3000mm
4	Rail	pc			
5	Laser source		1		Max brand, 1500W-6000W
6	Laser cutting torch				Raytool
7	Controller	set	1		FL4310H
8	Driver	pc	3		Leadshine
9	Motor	pc	3		Leadshine
10	Lifter	set	1		
11	THC	set	1		Fangling iHC100
12	Wire	set	1		
13	Limit switch	set	1		TAIWAN
14	Cutting model		1		Laser cutting head

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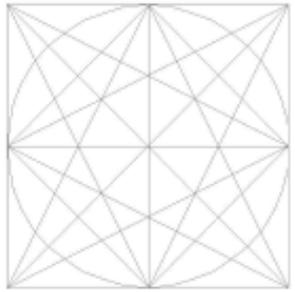
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Technical Parameter

No	Item	Accessibility index
1.	Lifer range	180mm
2.	Working speed	0-20000mm/min
3.	Cutting thickness	According to laser power
4.	Machine integration accuracy (based on the right composite image) side length (four sides) 1000*1000 line speed 500-800mm/min	
11	Intersection offset	$\pm 1.0\text{mm}$
12	Straightness	$\pm 0.1\text{mm}$
13	Roundness	$\pm 0.2\text{mm}$
14	Diagonal error	$\pm 0.2\text{mm}$
15	Repeatability	$\pm 0.1\text{mm}$
16	Machine marking accuracy	$\cong 0.1\text{mm}$
17	Cutting surface quality (roughness) (select $\delta=25$ sheets)	$RZ(\mu\text{m})=70+1.2a$ Visual inspection: roughness 12.5

Description

Main parts of machine

1, Shanghai Fangling brand Control system FL4310H



- 1. Display: 10.4-inch 800 × 600 high-resolution 16 million color high-brightness LCD screen.
- 2. Memory: 64M SD RAM.
- 3. User program space: 256M.
- 4. Main frequency: 400MHZ system main frequency.

L4310HX laser tube plate cutting system adopts high-performance ARM chip and ultra-large-scale programmable device FPGA, and runs a multi-task real-time operating system. The combination of software interpolation and hardware interpolation makes the high-speed operation more stable, reliable and responsive.

This numerical control system is a product with more powerful functions, easier operation and better cost performance developed by our company by absorbing the advantages of many domestic and foreign numerical control systems. This product adopts a three-axis digital position control method, which is suitable for laser plane cutting and round tube cutting machine tools.

2. THC



- 5-inch high-definition display
- Network RJ45 communication
- Support offline USB upgrade and online network upgrade
- Speed loop servo control
- Support one-key calibration process
- Support edge detection and automatic edge finding
- Support leapfrog lifting, saving processing time.

Description

3, **Big size Track**, use high precision linear guide, and light weight **alloy-aluminum** horizontal rail, not easy become deformation.



Use gapless rack and pinion in walking department,

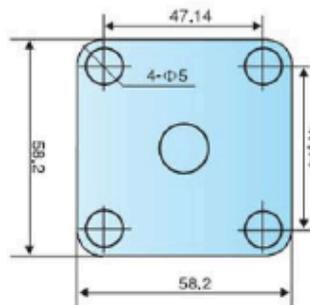
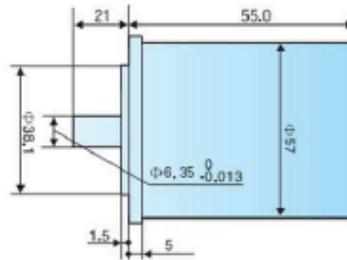
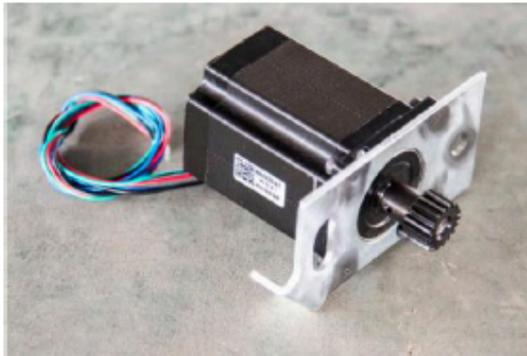
Use stepper motor with stepper motor driver, START brand;

Vertical track use Linear guide from Taiwan, high precision and operate more stable;

Horizontal rail is alloy-aluminum in light weight, not easy be deformation;

use axis type linear guide in horizontal rail, reduce abrasion to beam and make sure high precision.

4, **Chinese famous Leadshine brand Stepper motor and Driver;**



5, **Leadshine brand Driver**

Extra-low motor noise offers excellent quietness

Anti-Resonance, provides optimum torque and nulls

Description

Microstep MX-2H354D

CP+	CP-	DN+	DN-	EN+	EN-	status1 (green)	status2 (red)
100000	100000	100000	100000	100000	100000	100000	100000
50000	50000	50000	50000	50000	50000	50000	50000
25000	25000	25000	25000	25000	25000	25000	25000
12500	12500	12500	12500	12500	12500	12500	12500
6250	6250	6250	6250	6250	6250	6250	6250
3125	3125	3125	3125	3125	3125	3125	3125
1562	1562	1562	1562	1562	1562	1562	1562
781	781	781	781	781	781	781	781
390	390	390	390	390	390	390	390
195	195	195	195	195	195	195	195
97	97	97	97	97	97	97	97
48	48	48	48	48	48	48	48
24	24	24	24	24	24	24	24
12	12	12	12	12	12	12	12
6	6	6	6	6	6	6	6
3	3	3	3	3	3	3	3
1	1	1	1	1	1	1	1

Start Co., Ltd.

mid-range instability

Self-test and Auto-configuration technology, offers optimum responses with different motors

6. Cutting torch and lifting station

Use ball screw to driving, more precision, and more steady

7. Taiwan CLION brand

Relay, very famous brand

Description

<p>11. Laser source</p> <p>MAX brand, 1500W-6000W</p>	
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5. Drawings in the system

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
						F6 上一页	F7 下一页	F8 确认	