

PRECISE LASER CUTTING MACHINE

i5 SERIES



World brand



Swiss design



WIFI Control



Honors

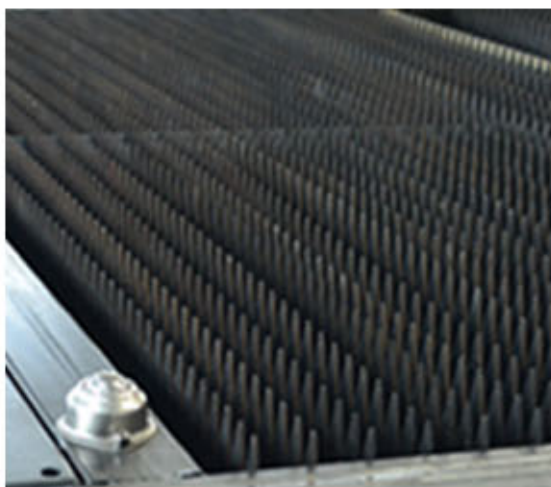


Multi-language
service

3 Years Warranty
the first manufacturer who
support 3 years warranty in China



MACHINE DETAILS



Sawtooth blade table, suitable for sheet metal cutting.



Back open to put the long material through



All around design with ball bearing, easy to edge feeding.



Foldable cart for waste collecting



Attached to control system to adjust the parameter



Wireless controller

PARTS AND FUNCTION



WIFI wireless control

To provide speedy service, we add WIFI function for our technician operates troubleshooting and adjusts parameters remotely.



Switzerland RAYTOOLS Laser Head

Optimization of the optical configuration
Smooth and efficient air flow design Rotary Knob focus adjustment. More easy and flexible.



Auto lubrication system

Electrical lubrication is a kind of Gear pump with rational construction , great performance , complete functions.



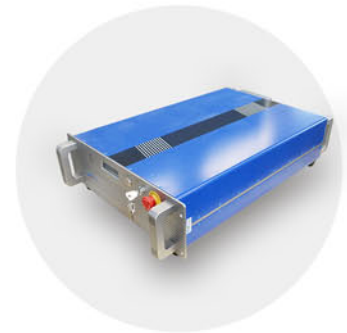
Schneider Servo Motor

It has many functions, including auto-adjusting, position / speed / torque control and internal positioning sequences etc.



Japan NSK Bearings

These bearing housings have square flange which can be easily attached to a machine with four bolts. With its simple mounting face, this bearing unit is widely used.



Laser Source

Wavelength range: 1070~1090nm
Beam quality TEM00 ($M^2 < 1.8$)
Forced air/Water cooling
More than 100000 hours work-life of pumped diode



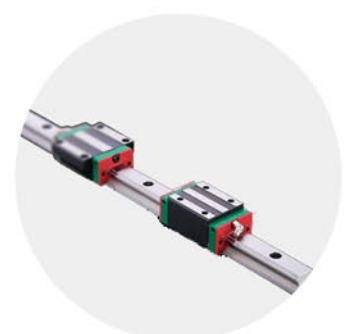
Japan SMC pneumatic components

Stepless control of air pressure proportional to an electrical signal.
Serial communications specifications.
Compact/lightweight (Integrated communication parts).



France Schneider Electronic Component

Circuit protection against short-circuit currents, overload currents,

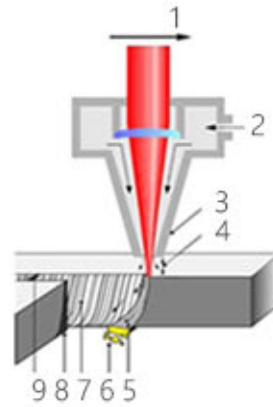


HIWIN

It features equal load ratings in the radial, reverse radial and lateral directions, and self-aligning to absorb installation-error.

WORKING PRINCIPLE

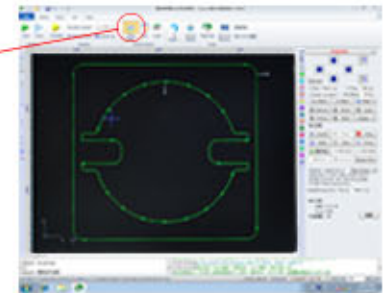
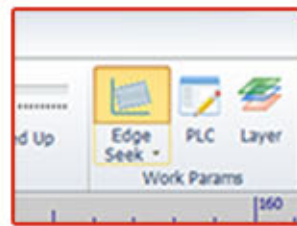
1. Moving direction
2. Auxiliary Gas
3. Nozzle
4. Nozzle Distance
5. Molten Material



6. Residues
7. Cutting section
8. Heat Affected Zone
9. Joint-Cutting

Automatic edge seeking function

Auto-induct materials cutting edge and adjust cutting range according to their inclination angle automatically case any incorrect position.



VS

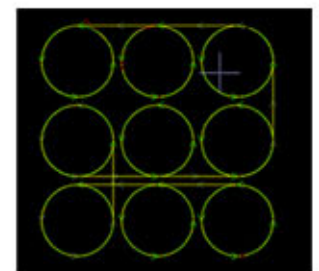
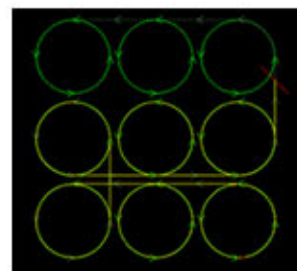
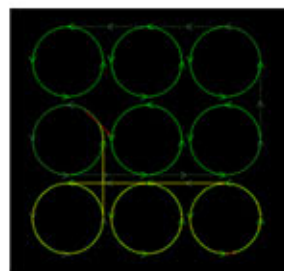
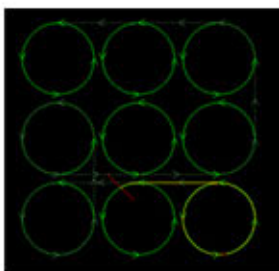


With automatic edge seeking function

Without automatic edge seeking function

Flying cutting function

To reduce the change of cutting path, and improve the cutting efficiency, saving working time



Wide control system compatibility

Support DXF, PLT, AI, GBX, NC, etc



HELP YOU TO SOLVE THE FOLLOWING PROBLEMS EASILY

SAVE MAN POWER

Save manpower cost

Solve the problem

High cost and difficult management of labor force

HIGH EFFICIENCY

High speed, convenient operation

Solve the problem

Artificial or common mechanical processing
with low speed ,low efficiency

GOOD QUALITY

High precision smooth section is convenient for welding processing or assembling

Solve the problem

Poor precision, coarse section, large slit

STANDARDIZATION

Computer operation standardization production

Solve the problem

Batch job error

LOW COST

Almost zero maintenance cost

Solve the problem

The equipment maintenance cost is high,
the continuous investment.

ENVIRONMENTAL PROTECTION

High-efficiency laser source ,dust and smoke treatment device

Solve the problem

High energy consumption,serious pollution

1

Smart size
Create productive Work-space

The most space-efficient
overall dimension but makes
great work efficiency

2

High Precise Craft Creation

Adopt utmost precision cutting
process and high stability
maintains to make accurate craft

3

Higher performance,
Lower Using Cost

1/3 of CO2 laser ,
2/5 of CNC Punching laser ,
2/5 of plasma laser..

4

Faster Cutting Speed,
Higher Working Efficiency :

Cutting speed is 5 times faster
than Plasma cutter,YAG cutter etc.,
and greatly improves working
efficiency and creates double-profit.

5

Better Cutting Quality

Cutting smaller holes ,
higher-thickness metals are
finished with cleaner edge ,
no need secondary processing

6

Unique Modern Design

ALL designed are made by
swiss excellent professional team,
which is a superior quality service
of guarantees best.

EUROPORPEAN QC SYSTEM

Precision testing and installation process



1

Flatness

Large CNC milling machine processing

2

Solidness

Each equipment is processed with 650°C heat aging treatment machine body is stable without any deformation

3

Precision

3 axes coordinate meter tests coordinate setting precision

4

Straightness

Laser collimator detects guide line



5

Fineness

Every tiny parts is detected with many times

6

Flintiness

Lathe Bed hardness measurement

7

Parallelism

Rack gear parallelism test

8

Skillfulness

Quantity production with skilled technique and advanced manufacturing process



9

Parallelism

Ball screw installation test

10

Perpendicularity

Marble feet for lathe bed verticality test

11

Durability

72 hours aging test without laser

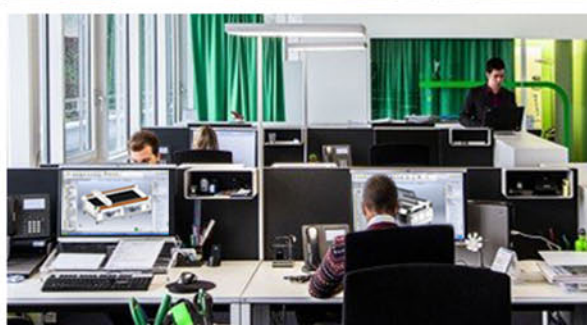
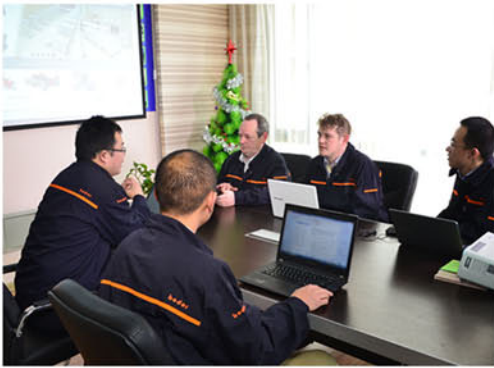
12

Stability

12 hours cutting test with laser

SWITZERLAND CENTER

BODOR Switzerland R&D center is located in yverdon-les-bains Switzerland, which is the center with many years of experience for the products research and development .



PRECISE LASER CUTTING MACHINE i5

MACHINE PARAMETER

Model	i5	Option
Working Area	1300*900mm	According to demands
Max. moving speed	40m/min	
Max. cutting speed	35m/min	
Positioning accuracy	0.03mm	
Repeated positioning accuracy	0.02mm	
Laser output power	500W/1000W/1500W/2000W/2500W/3000W	
Related weight	Whole machine: approx 1500 kg actual weight based on final configuration(depends on model)	

Application

Advertising board, sheet metal structure, Hv/lv electrical ark production, textile machinery parts, kitchen utensils, car, machinery, elevator, electric parts, spring coil slice, subway line spare parts, etc. stainless steel, carbon steel, alloy steel, spring steel, copper, aluminum, gold, silver, titanium metal plate and steel tubes



CUTTING THICKNESS AND SPEED

Material	Thickness	500W	1000W	2000W	3000W	4000W	6000W	8000W
		speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min
Carbon steel	1	8-13	15-24	20-28	25-35	30-40	35-45	35-45
	2	3.5-4.5	5-6.5	5.5-7	7-9	8-10	9-12	10-13
	3	2.0-3.0	3-3.5	3.5-4.8	4-5	4.3-5.3	4.3-5.5	4.5-5.5
	4	1.3-1.5	2-2.4	2.8-3.5	3.5-4.5	4.0-5.0	4.2-5.5	4.5-5.5
	5	0.9-1.1	1.8-2	2.5-3	3-3.5	3.0-4.2	3.5-4.2	3.5-4.2
	6	0.6-0.9	1.4-1.6	1.8-2.6	2.5-3.2	3.0-3.5	3.0-4	3.0-4
	8	-	0.7-1	1.2-1.8	1.8-2.4	2.0-3.0	2.2-3.2	2.5-3.2
	10	-	0.6-0.9	1.1-1.3	1.4-1.7	1.5-2.5	1.8-2.5	2-2.5
	12	-	-	0.9-1.2	1.2-1.5	1.4-2	1.6-2	1.8-2
	14	-	-	0.7-0.8	0.9-1.2	1.0-1.6	1.5-1.8	1.5-1.8
	16	-	-	0.6-0.7	0.8-1	0.8-1.2	0.8-1.5	0.8-1.5
	20	-	-	-	0.6-0.8	0.7-1	0.8-1	0.8-1
	22	-	-	-	-	0.7-0.8	0.7-0.8	0.7-0.8
	25	-	-	-	-	0.3-0.5	0.4-0.6	0.4-0.6
Stainless steel	1	8-13	16-24	20-28	25-35	30-45	50-65	60-85
	2	2-2.2	5-6	7-10	10-16	12-20	30-40	35-55
	3	0.6-0.8	1.8-2	4-6.5	6-8	8-12	18-22	25-36
	4	-	1.2-1.3	3-4.5	5-6	6-8	10-14	18-24
	5	-	0.6-0.7	1.8-2.5	2.5-3.5	4-6	8-12	12-17
	6	-	-	1.2-1.8	1.5-2.5	2.5-4	6-8	8-12
	8	-	-	0.7-1	1-1.2	1.5-2.5	4-5	6-8
	10	-	-	-	0.8-1	0.8-1.5	1.8-2.5	2-4.5
	12	-	-	-	-	0.6-1.0	1.2-1.8	1.8-3
	16	-	-	-	-	-	0.6-0.8	1.2-1.8
	20	-	-	-	-	-	-	0.4-0.7
Aluminum	1	4-5.5	6-10	20-25	30-43	40-55	55-65	80-90
	2	0.7-1.5	2.8-3.6	7-10	10-18	15-25	25-35	35-50
	3	-	0.7-1.5	4-6	7-10	10-15	13-18	21-30
	4	-	-	2-3	4-5	8-10	10-12	13-18
	5	-	-	1.2-1.8	3-4	5-7	5-8	9-12
	6	-	-	0.7-1	1.5-2.5	3.5-4	4-6	4.5-8
	8	-	-	-	0.7-1	1.5-2	2-3	4-6
	10	-	-	-	-	0.8-1	1-2.1	2.2-3
	12	-	-	-	-	0.6-0.8	0.8-1.4	1.5-2
	16	-	-	-	-	-	0.6-0.9	1-1.6
	20	-	-	-	-	-	-	0.6-0.9
Brass	1	4-5.5	6-10	14-16	30-35	35-45	50-60	70-85
	2	0.5-1.0	2.8-3.6	4.5-6.5	8-12	10-15	25-30	30-40
	3	-	0.5-1.0	2.5-3.5	4-6	5-8	12-18	15-24
	4	-	-	1.5-2	2.2-2.8	3-5.5	8-10	9-15
	5	-	-	1.4-1.6	1.5-2.4	2.0-3.2	6-7	7-9
	6	-	-	-	1.1-1.5	1.5-2.5	3.5-4.5	4.5-6.5
	8	-	-	-	0.7-0.9	0.8-1.5	1.6-2.2	2-4.4
	10	-	-	-	-	0.5-0.8	0.8-1.4	1.5-2.2
	12	-	-	-	-	-	0.6-0.8	0.8-1.5
	16	-	-	-	-	-	-	0.6-0.8