i SERIES

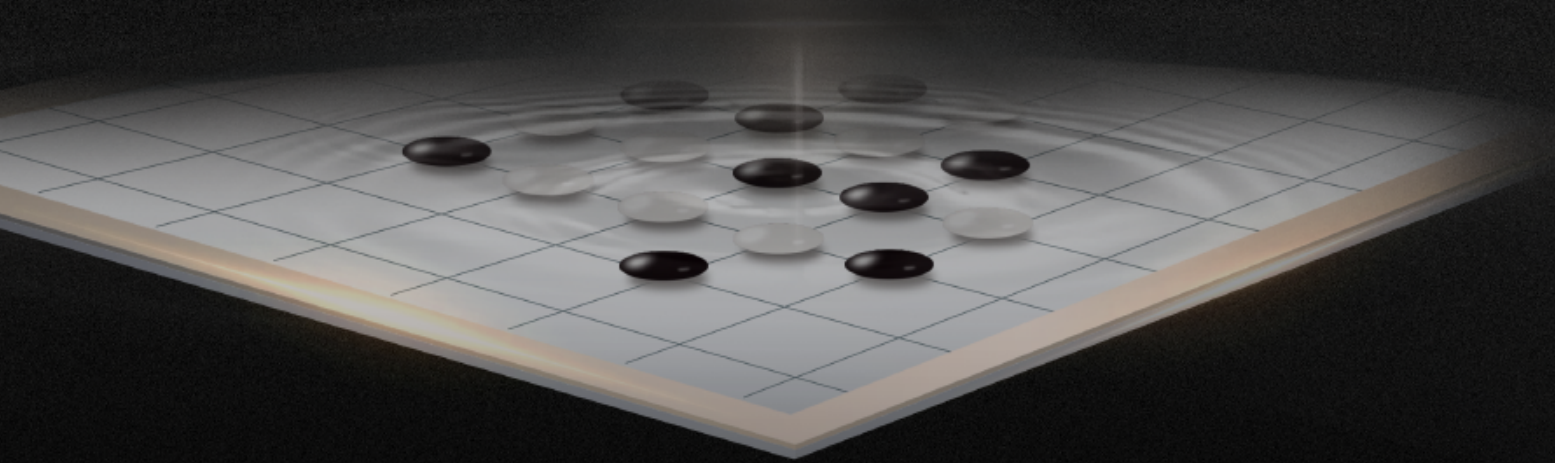## COMPAC T LASER CUT TING MACHINE

1.5kW–12kW

bodor
Dare to dream

THE BLACK GO CHESS

bodor

Black Go chess — inspired by Go

Circular — endless loop, endless exploration

Black — derived from obsidian crystal, steady and deep

iF

SMALL IN SIZE, MORE IN FLEXIBILITY

Advantages

- The compact design with small space occupation

- Full enclosed protection and isolated work area completely isolate smoke and laser radiation.

- Single-phase power supply can ensure the normal operation of equipment, which makes it more convenient to connect, it could work in various places.

SELF-DEVELOPED CONTROL SYSTEM

Advantages

⦿ Bodor Laser independent research and development system, perfect combination with BodorGenius laser head, brings to customers upgraded cutting technology and efficiency.

⦿ BodorThinker
  - Integration of CAD and CAM can directly identify drawings and nest
  - Good adaptability, support G code(NC)、DXF、PLT、ENG and other file formats
  - The newly added batch processin function, in conjunction with the processing data-base, makes it more convenient in batch cutting.
  - The updated CAM logic and more open CAM function make it more convenient to change drawings, use more comprehensively, and easier to cut.

INTELLIGENT FUNCTIONS
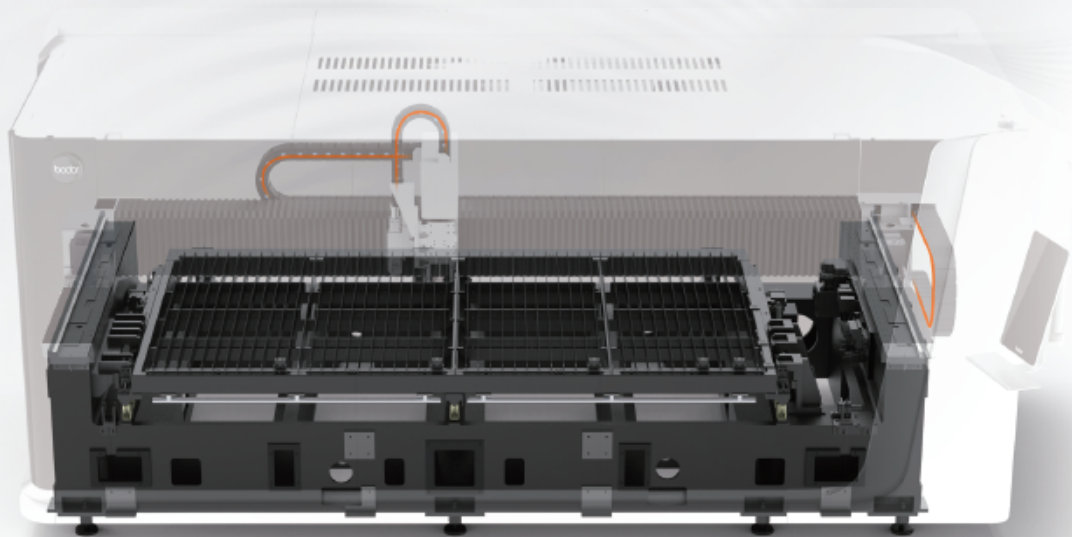
Automatic lubrication system

⊙ Automatic lubrication system provides timing and ration lubricating oil for equipment to ensure its normal and high speed operation, and owns functions of abnormal alarm and liquid level alarm. The system greatly enhances cutting accuracy and effectively extends service life of transmission mechanism.

Intelligent travel protection

⊙ Automatically monitor operation range of crossbeam and cutting parts, keeping operation within machining range. Double guarantees of fixed limitation greatly improve equipment and personal safety, minimizing the using risks.
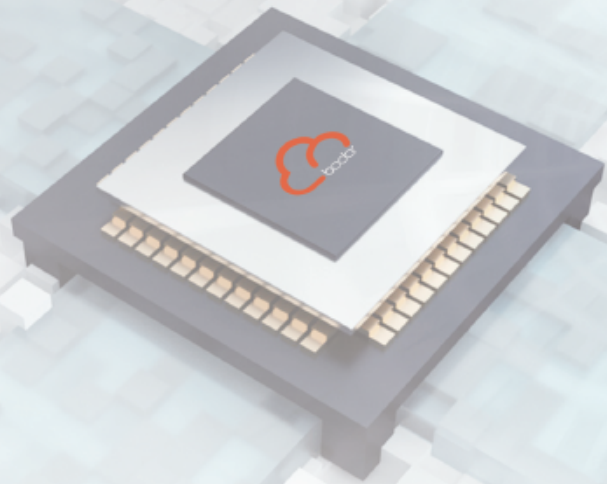
INTELLIGENT FUNCTIONS

A new generation of safety following module

⊙ Laser head keeping distance with work piece in cutting process can reduce collision risks. It will stop cutting when colliding plate. The safety following module reduces accident rate and improves cutting performance.

INTELLIGENT FUNCTIONS

## Intelligent alarm system

● The system will start full abnormal alarm and push it to the interface through control center when equipment is abnormal.

● Finding equipment abnormal in advance and reducing hidden dangers can multiply improve the equipment troubleshooting efficiency.

Various intelligent sensor modules

● Various intelligent sensor modules to improve safety and device protection

ELECTRIC VERTICAL DOOR & PULL-OUT TABLE
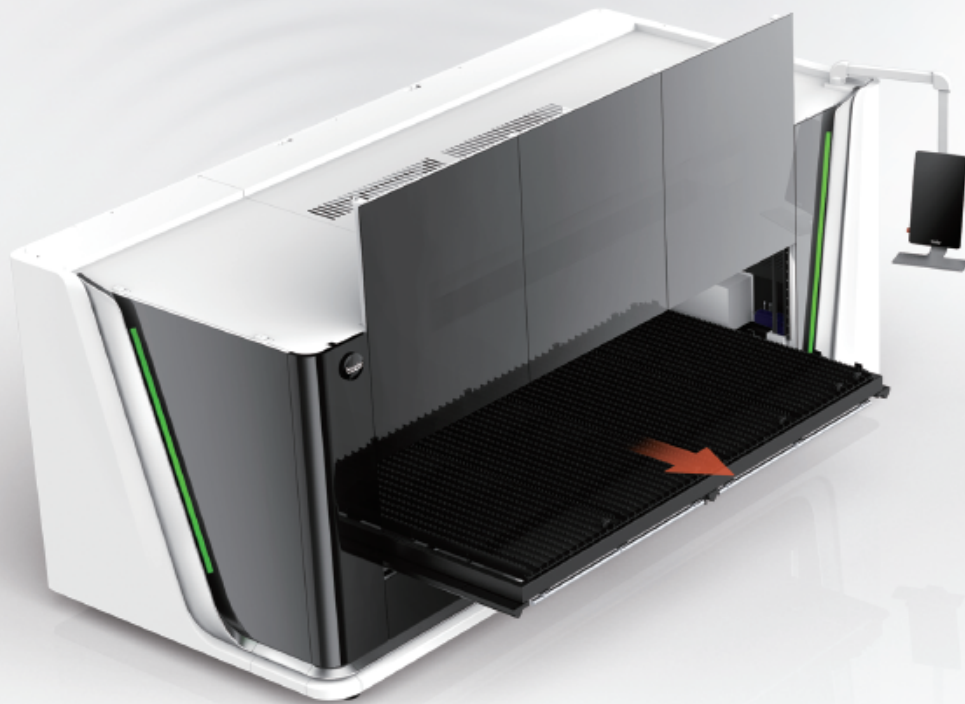
Advantages

- Side door design; Easy, fast opening and closing with just one finger's press

- The new manual pull-out table design and optional electric table make operation experience fresh and satisfying. (Available only for i7)

![Bodor - Dare to dream]

STRETCHED ALUMINUM GANTRY(i5)
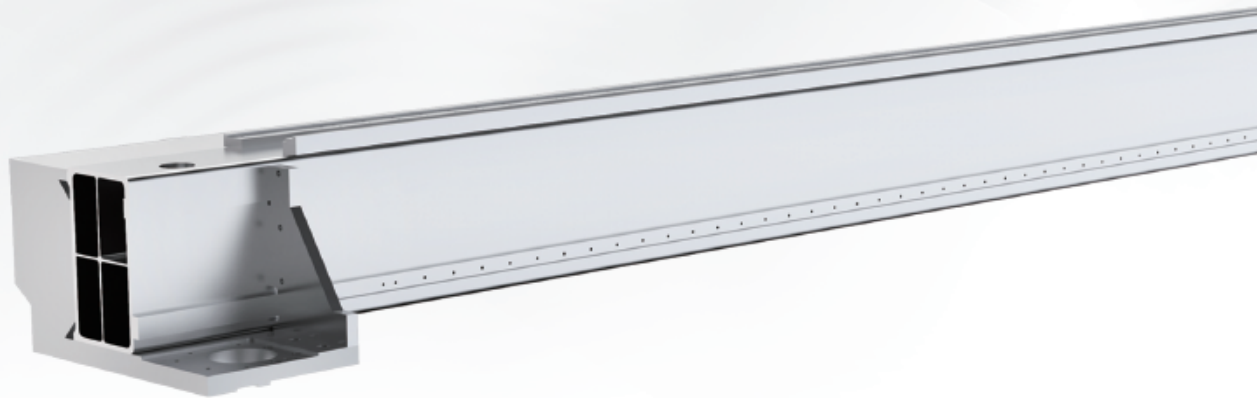
Advantages

- Integral pressure casting by steel mold makes it light, flexible and efficient

- The light weight and strong rigidity of aluminum alloy are suitable for high speed movement during processing, and the high flexibility is beneficial to high-speed cutting of various graphics.

- Light crossbeam offers high operation speed, improving efficiency and ensuring quality.

BODOR CLOUD

Advantages

◉ Daily equipment status management (processing data, report forms)

◉ Alarm and maintenance reminder

◉ Cloud transmission for processing programs

◉ Remote online service access with one key
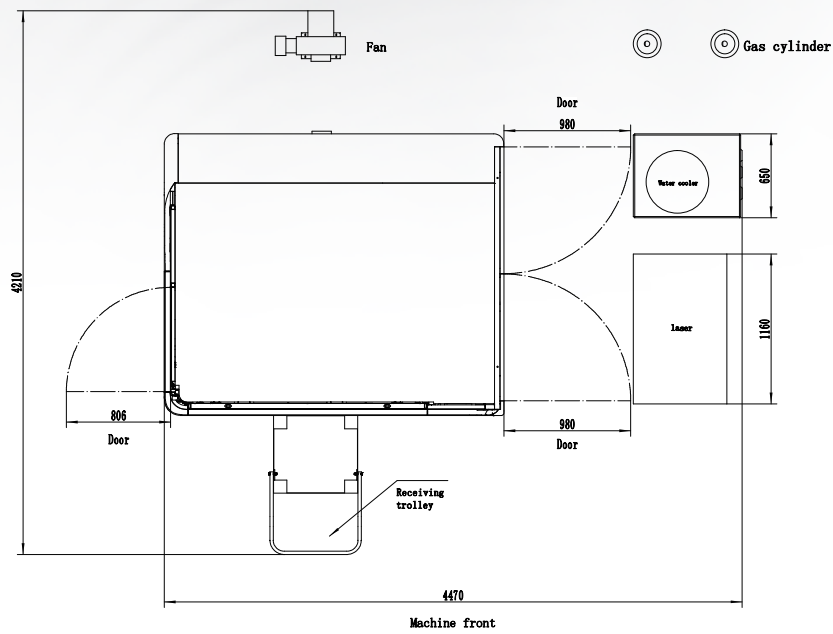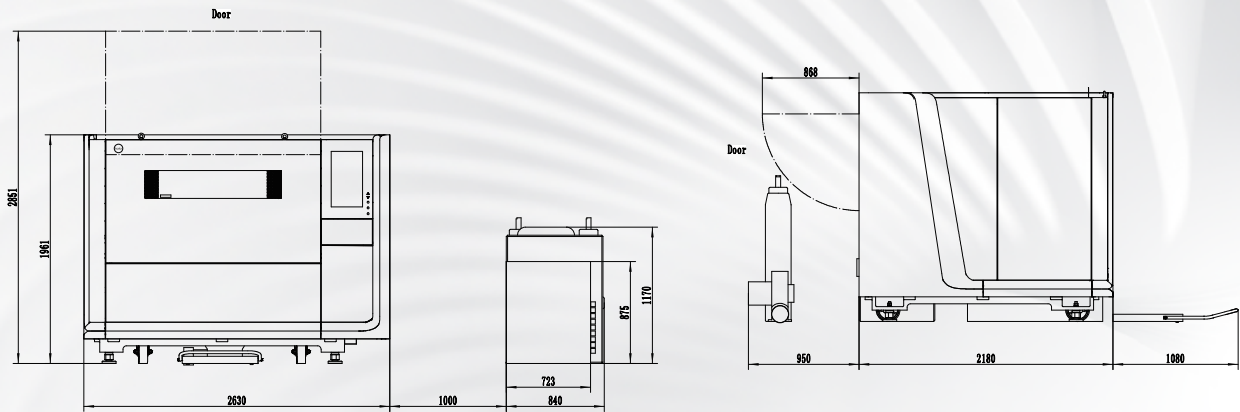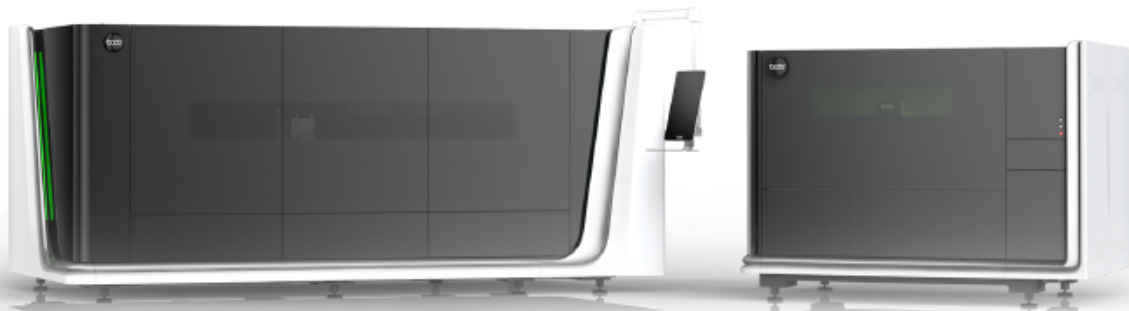
◉ Real-time information of the latest cutting process

Layout

The above layout drawings and figures are for referrence only, the actual drawing shipped with machine prevails.

i7
3048mm*1524mm

i5
1000mm*1500mm

Technical Data

ITEM	i7	i5
Working area	3048*1524mm	1000*1500mm
Max. linkage speed	100m/min	100m/min
Max. acceleration	1.5G	1.5G
Table load bearing	900kg	250kg
Machine overall dimensions	4960×2280×2200	2820×2180×1995
Overall weight	4980kg	2000kg
Z axis travel	120mm	100mm
Positioning accuracy	±0.05mm	±0.05mm
Repositioning accuracy	±0.03mm	±0.03mm
Total power capacity/current with 12kW source	87.6kVA 133A	×
Total power capacity/current with 6kW source	57kVA 86.6A	×
Total power capacity/current with 3kW source	50.7KVA/77A	39.4KVA/59.8A
Total power capacity/current with 2kW source	39.6KVA/60.2A	28.3KVA/43A
Total power capacity/current with 1.5kW source	39.3KVA/59.7A	single-phase:28KVA/73.5A three-phase:28KVA/42.5A

Configuration And Components

	i7	i5
laser head	Bodor Genius	
Laser source	Bodor Thinker	
Machine bed	Mortise-and-tenon type plate welded segmented bed	
Bed functions	Easy-access sliding bed	Stationary bed (optional pneumatic sheet-clamping)
X-axis、Y-axis、Z-axisServo motor and driver	Bodor	
Linear Rails	Bodor	
Rack	Bodor	
Protective Enclosure	●	
Control system	BodorThinker	
Display size	21.5 inches	
Water Chiller	●	
Dust removal	Centrifugal fan	

Cutting Parameters

		1000W	1500W	2000W	3000W	6000W	12kW	20kW	30kW
	Thickness	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min
"Carbon steel (Q235A) O2"	1	8.0--10	8.0--10	8.0--10	8.0--10	8--10	9--11	9--11	9--11
	2	4.0--6.5	4.5--6.5	4.7--6.5	4.8--7.5	5--7.5	5--7.5	5--7.5	5--7.5
	3	2.4--3.0	2.6--4.0	3.0--4.8	3.3--5.0	3.5--5	3.5--5.5	3.5--5.5	3.5--5.5
	4	2.0--2.4	2.5--3.0	2.8--3.5	3.0--4.2	3.0--4.5	3.5--5	3.5--5	3.5--5
	5	1.5--2.0	2.0--2.5	2.2--3.0	2.6--3.5	3.0--4.2	3.3--4.8	3.3--4.8	3.3--4.8
	6	1.4--1.6	1.6--2.2	1.8--2.6	2.3--3.2	2.5--3.5	3.0--4.2	3.0--4.2	3.0--4.5
	8	0.8--1.2	1.0--1.4	1.2--1.8	1.8--2.6	2.2--3.2	2.5--3.8	2.5--3.9	2.5--3.9
	10	0.6--1.0	0.8--1.1	1.1--1.3	1.2--2.0	1.8--2.5	2.2--3.6	2.0--3.8	2.2--3.8
	12	0.5--0.8	0.7--1.0	0.9--1.2	1.0--1.6	1.2--2.1	1.2--3.5	1.6--3.7	1.6-3.7
	14		0.5--0.7	0.8--1.0	0.9--1.2	1.2--1.8	1.7--3.3	1.5--3.6	1.6-3.6
	16			0.6-0.8	0.7--1.0	0.8--1.5	1.2--3.1	1.4--3.5	1.5--3.5
	18			0.5--0.7	0.6--0.8	0.6--1.2	1.0--2.7	1.4--3.4	1.4--3.4
	20				0.5--0.8	0.5--0.8	0.6--2.4	1.5--3.3	1.5--3.3
	25					0.3--0.55	0.5--1.6	1.0-2.8	1.0-2.8
	30						0.3--1.0	0.8--2.0	1.2-2.0
	35						0.3--0.7	0.6--0.9	0.9--1.1
	40						0.2--0.4	0.5--1.0	0.8-1.0
	45						0.2--0.3	0.3--0.5	0.5--0.8
	50							0.2--0.5	0.4--0.6
	60							0.2--0.4	0.2--0.4
"Stainless steel (201) N2"	1	18--25	20--27	24--50	30--35	42--52	70--85	72--100	72--100
	2	5--7.5	8.0--12	9.0--15	13--21	20--33	40--66	50--75	50--75
	3	1.8--2.5	3.0--5.0	4.8--7.5	6.0--10	15--22	35--45	38--55	38--55
	4	1.2--1.3	1.5--2.4	3.2--4.5	4.0--6.0	10--15	20--32	25--33	30-35
	5	0.6--0.7	0.7--1.3	2.0-2.8	3.0--5.0	7.0--12	18--25	22--30	25--32
	6		0.7--1.0	1.2--2.0	2.0--4.0	4.8--9.0	12--15	17--25	18-26
	8			0.7-1.0	1.5--2.0	3.0--4.0	8--12	12--18	15-20
	10				0.6--0.8	1.6--2.5	6.0--8.0	8.0--12.0	12--15
	12				0.4--0.6	0.8--1.5	4.0--5.5	6.0--8.5	8--12
	14					0.6--1.2	3.0--5.0	5.0--7.0	6--10.5
	16					0.5--1.0	2.2--2.8	3.0--5.0	5--9
	18					0.4--0.8	1.2--2.0	1.8--2.7	3--6.5
	20					0.3--0.6	1.0--1.6	1.5--3.2	2--4.7
	25						0.5--0.8	1.5--2.0	1.8-2.5
	30						0.3--0.6	1.0--1.5	1.5--1.8
	35						0.3--0.5	0.4--0.8	1.0-1.5
	40						0.3--0.5	0.3--0.6	0.6-1.3
	45							0.2--0.6	0.8-1.0
	50							0.2--0.5	0.25-0.5
	60							0.1-0.3	0.2-0.3
	70								0.17-0.3
	80								0.15-0.3
"Aluminum N2"	1	6.0--10	10--20	20--30	25--38	42--55	60--85	70--100	
	2	2.8--3.6	5.0--7.0	10--15	10--18	20--40	38--50	40--70	
	3		2.0--4.0	5.0--7.0	6.5--8.0	15--25	30--40	35--60	
	4		1.0--1.5	3.5--5.0	3.5--5.0	9.5--12	20--30	30--43	
	5			1.8--2.5	2.5--3.5	5.0--8.0	15--25	20--32	
	6			1.0--1.5	1.5--2.5	3.8--5.0	10--15	15--26	
	8				0.7--1.0	2.0--2.5	7.0--12	10--18	
	10				0.4--0.7	1.0--1.5	4.5--8.0	6.0--10.0	
	12					0.8--1.3	4.0--5.0	4.0--6.0	
	14					0.9--1.2	1.8--2.7	2.2--3.2	
	16					0.5--0.8	1.5--2.5	2.0--3.0	
	18					0.5--0.7	1.0--1.8	1.5--2.0	
	20					0.5--0.7	0.9--1.5	1.3--1.8	
	25						0.6--0.9	0.6--1.2	
	30						0.3--0.8	0.5--1.0	
	35						0.3--0.6	0.3--0.8	
	40						0.3--0.4	0.3--0.5	
"Brass N2"	1	6.0--10	8.0--13	12--18	20--35	35--45	55--65	65-75	
	2	2.8--3.6	3.0--4.5	6.0--8.5	6.0--10	20--30	38--42	40--60	
	3		1.5--2.5	2.5--4.0	4.0--6.0	12--18	18--30	25-40	
	4		1.0--1.6	2.0--3.0	3.0-5.0	8.0--12.0	15--20	20--35	
	5			0.9--1.2	1.5--2.0	6.0--8.0	10--15	18--25	
	6				1.0--1.8	3.0--6.5	6.0--8.0	10--18	
	8					1.6--2.2	5.0--7.0	8.0--10.0	
	10					0.8--1.2	4.5--6.0	5.0--9.0	
	12					0.3--0.5	2.4--4.0	2.8--4.2	
	14						0.8--1.5	1.5--5.0	
	16						0.6--1.2	1--2.4	
	18						0.4--0.6	0.8--2.2	
	20							0.4--2.0	
	25							0.3--0.5	

Cutting Capacity

Laser power	Material Thickness	1mm	2mm	3mm	4mm	5mm	6mm	8mm	10mm	12mm	14mm	16mm	18mm	20mm	25mm	30mm	35mm	40mm	45mm	50mm	60mm	70mm	80mm

Legend:
- Carbon steel
- Stainless steel
- Max cutting thickness (long-term using isn't recommended)
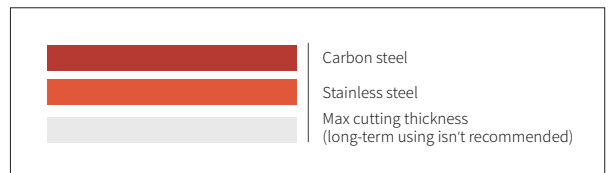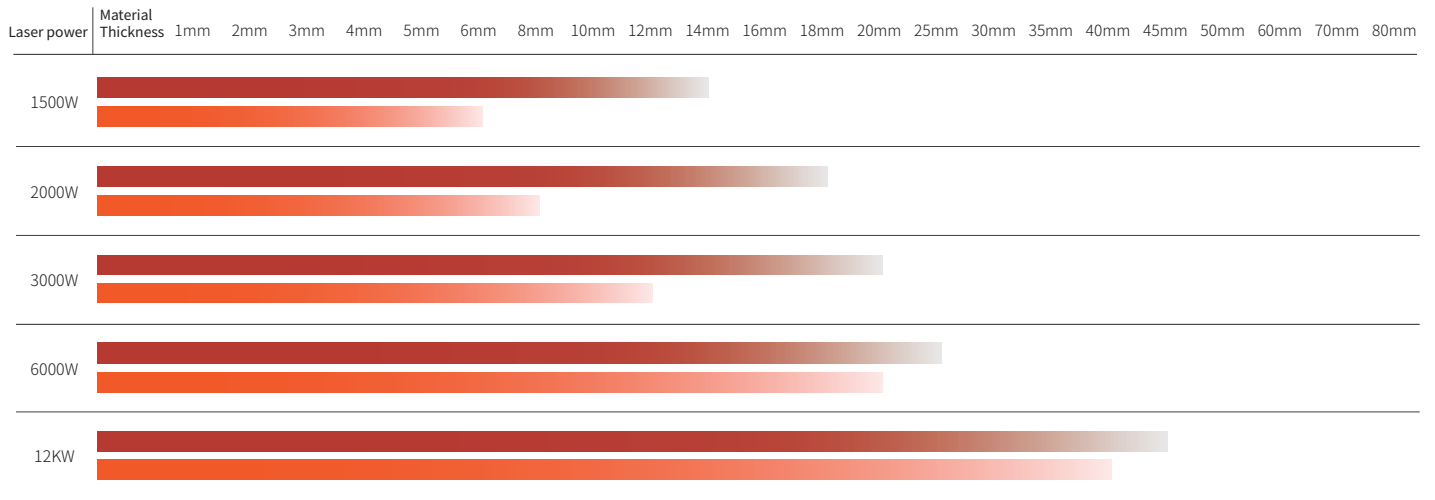
Above data is only for reference

Cutting Samples