bodor
Dare to dream

A SERIES

SINGLE PLATFORM LASER CUTTING MACHINE

A3/A4/A6: 1kW-6kW, A14: 3kW-30kW

For more information, please go to the website : www.bodor.com

INTRODUCTION

Now the company has more than 2,000 employees from more than 20 countries around the world. Headquartered in Jinan, China, Bodor sets up 9 oversea subsidiaries, respectively in the US, India, Hungary, Turkey, Brazil, Mexico, Japan, South Korea, and Germany. The global footprint of Bodor has now covered over 180 countries and regions on six continents, building a complete sales channel and service network around the world to provide global customers with the best laser cutting application solutions.

51000m²
Production Base

7000+
Delivery Capability

2000+
Global Employees



COMPANY HISTORY

2008

2008.10
Company established

2010-2015

2010
Started International business with CE, FDA qualified

2013
Bodor Laser first fiber laser cutting machines launched

2015
"Bodor" trademark registered in over 140 countries

2016-2018

2018
Won award of Reddot

2017
Launched BodorPro , BodorGenius

2016
Luanched the high power series S

2019-2020

2019
Won iF design award

World premier of 25000W and 30000W laser cutting machines

2020
World premier of 40000W laser cutting machines

2021

2021.12
Sales of 10kW+ machines reaches 1000 units

2021.5
World premier of 22000W laser together, unique in the world

2021.4
Won two iF design awards with Dream-series and A2.0-Series

2022-Present

2022.3
Launched the category creator—Laser Scanning Cutting Machine

Dare to DREAM
Bodor Never Stop

GLOBAL NETWORK

180
countries covered

10+
global branches

4
Technical centers

ULTRA-HIGH POWER CAPABILITY

◉ World premier

World premier of 25000w, 30000w, 40000w and world unique 22000w laser cutting machine.

◉ Sales record(Until 31th, Dec. 2021)

Choice of 1000 companies worldwide on 10kW+ laser cutting machines, in 46 different countries and regions

◉ No. 1

Leading sales volume of 10kW+ laser cutting machines

R&D CAPABILITY

- Strong R&D team lead by the drafter of National Standards for CNC laser cutting machines
- Over 200 R&D Technicians, the R&D level is in line with international standards
- 10 subdivision platforms, including plate cutting, pipe cutting, application engineering, etc.
- 2 core R&D Centers in China and 4 overseas Technology Centers
- More than 200 patent certificates, 5 international awards, 22 industry awards

200+
R&D Team

200+
Patents

10
R&D Platform

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THE BLACK GO CHESS

Black Go chess — inspired by Go

Circular — endless loop, endless exploration

Black — derived from obsidian crystal, steady and deep

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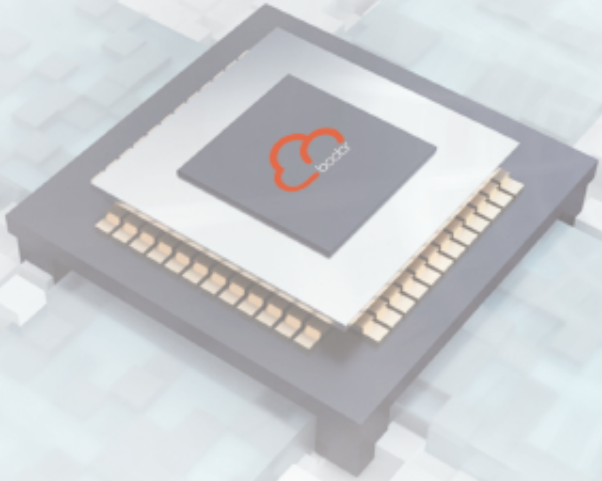
ETHERCAT BUS CONTROL



Advantages

- The synchronization time of each axis is controlled within 1 microsecond; And the axis is more responsive and with higher control accuracy when using the bus to control multiaxis linkage.
- Easy installation and maitenance, the signal interference problem caused by a large number of wiring is avoided.
- Maximum acceleration increased by 50%, and work efficiency increased by 30%;

BODOR THINKER

Advantages

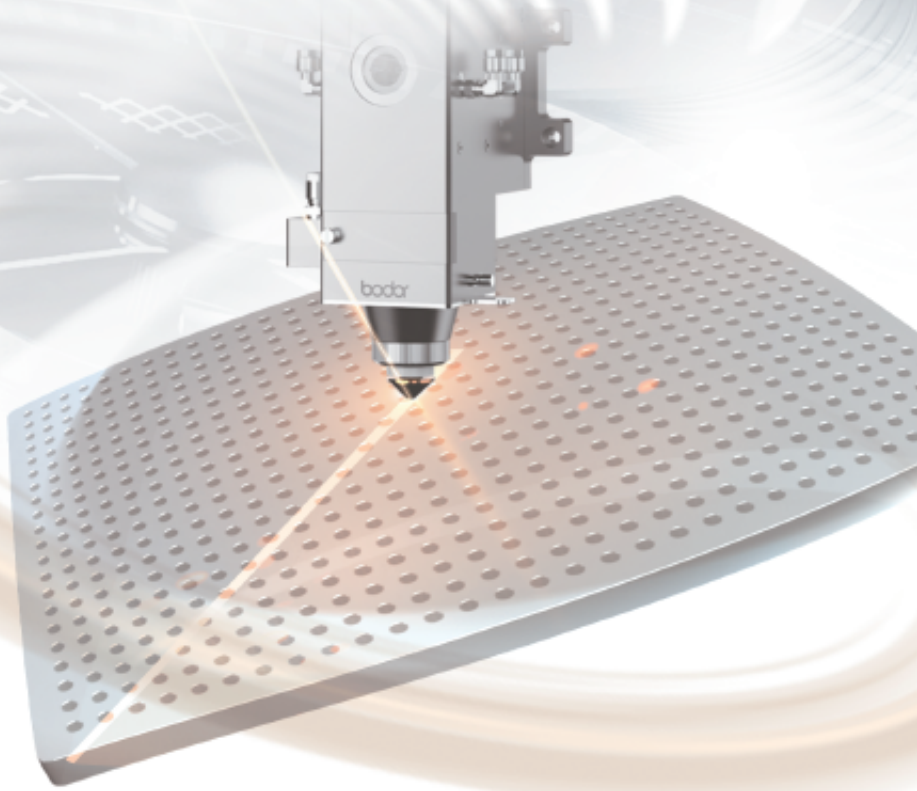
- High-end intelligent system, stable and reliable, easy to setup and debug, keep safe in production, rich in functions, and excellent in performance.
- It supports modular, personalized, automated, and informatized solutions.

INTELLIGENT ANTI-SHAKE OF SHEET EDGE

Advantages

- Avoid the danger of cutting head stall caused by plate shake, keep continuous and high-effective cutting.
- Ensure continuous processing consistency of materials without repeated modification of processing drawings.
- Intelligent identification of various sheet specifications, improve the dynamic performance of the cutting head and quick response.

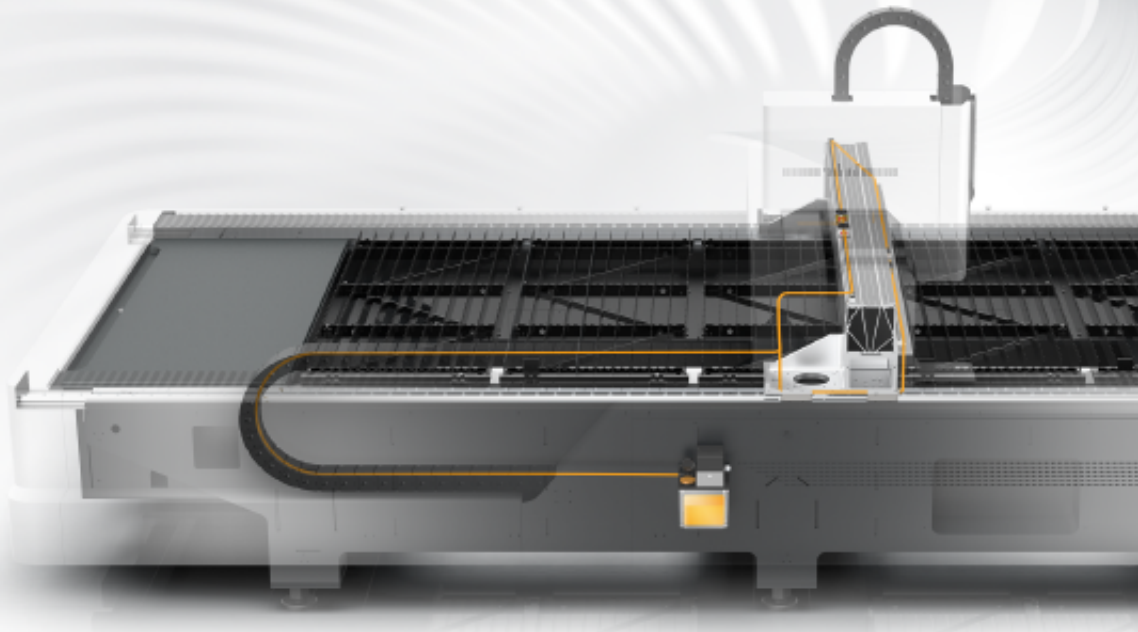
BODOR LIGHTNING PERFORATION TECHNOLOGY



Advantages

- The lightning rapid perforation process reduces perforation time by 90%.
- The perfect combination of lightning rapid perforation process and BodorGenius ensures the laser head complete the whole perforation process during its moving fall.
- No additional action and time to be taken when cutting sheets with medium thickness.

AUTOMATIC LUBRICATION



Advantages

- **Lubrication:** Immediate replenishment for the loss of lubrication oil greatly extends the interval of lubrication maintenance, which improves the accuracy and service life of the equipment.

- **Automatic:** Automatically supplied lubricant to the slider, only need to replace the oil pot for the maintenance, easy and fast.

ACTIVE OBSTACLE AVOIDANCE FUNCTION

Advantages

- By optimizing the servo algorithm, predicting the obstacles and exerting the optimal performance of the motor can ensure the stability of the cutting process and the sensitivity and speed of the idle motion process;
- When an obstacle is detected, the Z axis responds at a very high speed and avoids obstacles.
- Avoid to interfering cutting caused by the tilted cutting piece and effectively solve the problem of collision of laser head during the thin plate cutting process.

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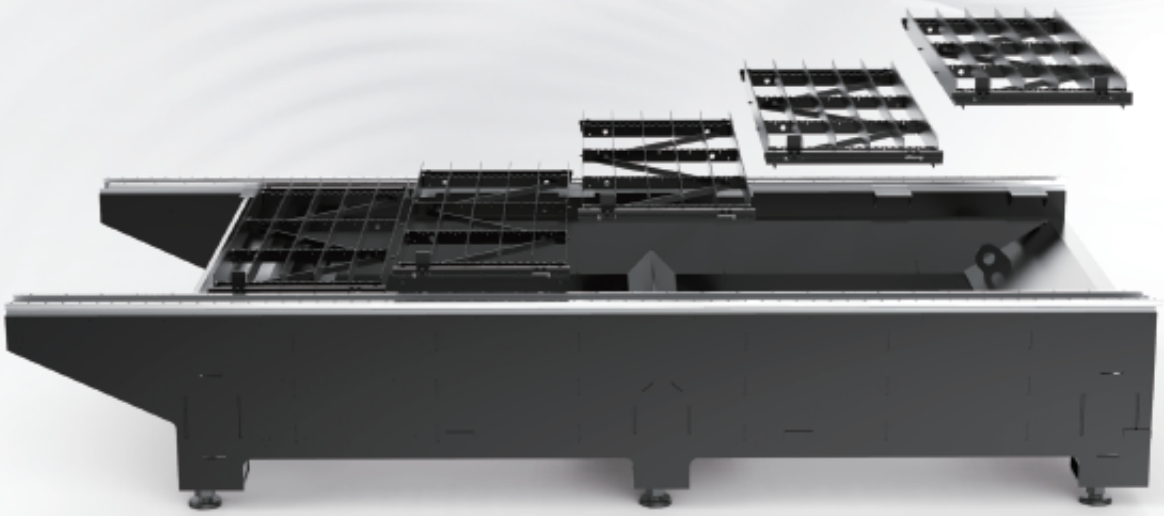
MORTISE-AND-TENON TYPE PLATE WELDED SEGMENTED BED



Advantages

- Using Chinese traditional tenon-and-mortise structure to provide stronger bearing capacity.
- Solder joint fixing and structural bearing ensure long-standing operation stability.
- Welded structure improves shock absorption effect, lowering deviation caused by shock, offering more accurate cutting.
- Brand new modular platform solves deformation problem caused by heat and facilitates parts replacement.

STRETCHED ALUMINUM GANTRY

Advantages

- Adopt aviation-level aluminum with rigidity enhanced by 60%, high temperature resistance, improve the operation stability.
- Aviation-level aluminum is of light weight with overall weight reduced by 20%, to meet the need of high operation speed and precision of the gantry, and not easy to deformation.
- Processed by 10000 tons extrusion technology, ensures excellent mechanical performance of the gantry, reduce the failure rate.

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BODORGENIUS

Advantages

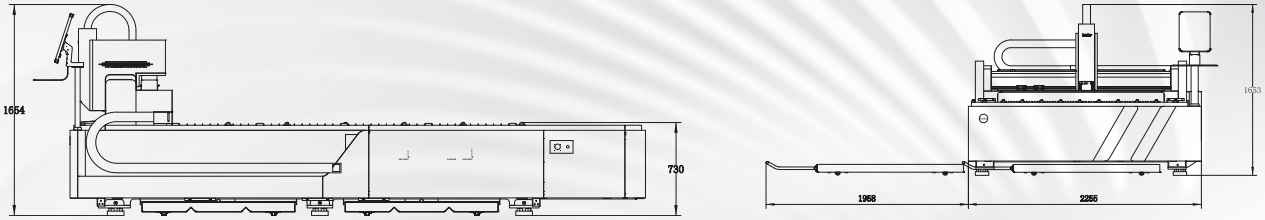
- The lightweight design ensures excellent acceleration performance and cutting speed.
- Excellent design in air flow and water-cooling structure enables the laser-head to continuously and efficiently operate at high power.
- Built-in drive unit, the automatic focus adjustment range is +10~ -12 mm, adjustment accuracy of 0.05mm.
- Collimation mirrors and focus mirrors are all using composite lenses, which can obtain the optimal optical quality and cutting effect.
- Distance detection device has no drift, ensures rapid reaction.

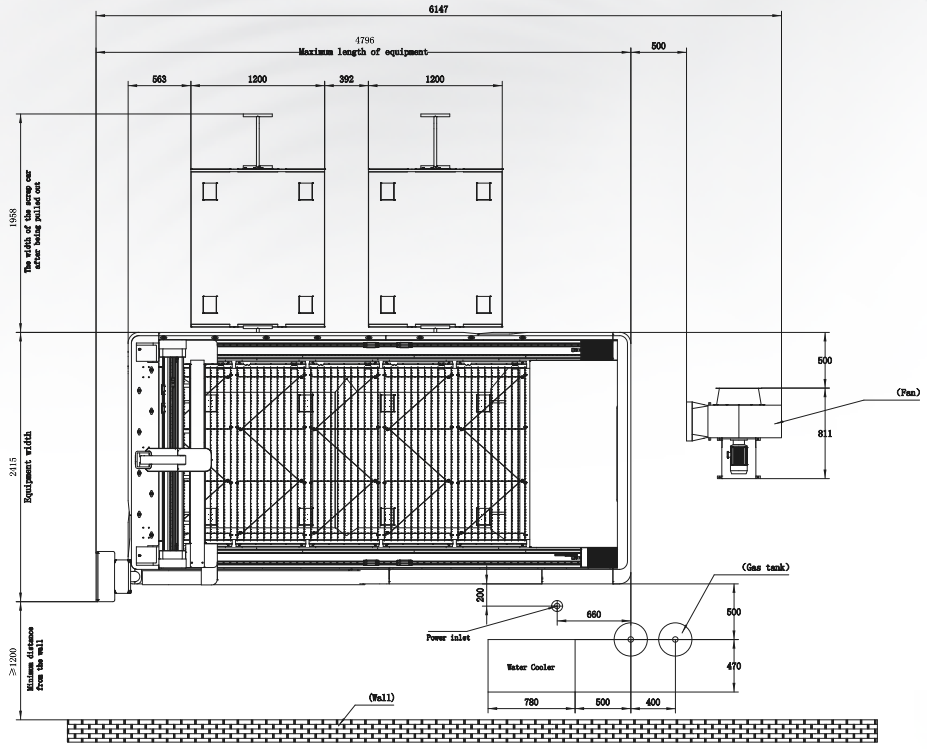
BODOR CLOUD

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 reference only, the actual drawing shipped with machine prevails.

A3	A4	A4 Plus	A6	A6 Plus	A8	A14
3048mm*1524mm	4000mm*1524mm	4000mm*2000mm	6100mm*1524mm	6100mm*2500mm	8050mm*2500mm	14000mm*3100mm

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Technical Data

ITEM	A14	A8	A6 Plus	A6	A4 Plus	A4	A3
Working area	14000mm*3100mm	8050mm*2500mm	6100mm*2500mm	6100mm*1524mm	4000mm*2000mm	4000mm*1524mm	3048mm*1524mm
Max. linkage speed	100m/min	100m/min	100m/min	100m/min	100m/min	100m/min	100m/min
Max. acceleration	1.5G	1.5G	1.5G	1.5G	1.5G	1.5G	1.5G
Table load bearing	10220kg	3160kg（3kw） 6319kg（≥6kw）	2394kg（1-3kw） 2992kg（6kw）	1459kg（1-3kw） 1824kg（6kw）	1256kg（1-3kw） 1570kg（6kw）	957kg（1-3kw） 1196kg（6kw）	583kg（1-2kw） 729kg（3kw） 911kg（6kw）
Machine overall dimensions	17400*4000*2000	10377*3950*1830	8121*3925*1830	8108*2910*1770	5699*3396*1830	5726*2901*1770	4748*2901*1770
Overall weight	About 18000kg	About 7800kg	About 4000kg	About 3600kg	About 2800kg	About 2600kg	About 1900kg
Z axis travel	120mm	100mm	100mm	100mm	100mm	100mm	100mm
Positioning accuracy	±0.03mm/m	±0.05mm	±0.05mm	±0.05mm	±0.05mm	±0.05mm	±0.05mm
Repositioning accuracy	±0.02mm/m	±0.03mm	±0.03mm	±0.03mm	±0.03mm	±0.03mm	±0.03mm
Total power capacity/current with30KW source	178.8KVA/271.6A	×	×	×	×	×	×
Total power capacity/current with 22KW source	123KVA/190A	×	×	×	×	×	×
Total power capacity/current with 12KW source	83.1KVA/126.3A	86.8KVA/131.8A	×	×	×	×	×
Total power capacity/current with 6KW source	52.6KVA/79.9A	48.1KVA/73.1A	48.1KVA/73.1A	45.6KVA/69.3A	46.8KVA/71.2A	45.6KVA/69.3A	45.6KVA/69.3A
Total power capacity/current with 3KW source	×	41.8KVA/63.4A	41.8KVA/63.4A	39.3KVA/59.6A	40.5KVA/61.5A	39.3KVA/59.6A	39.3KVA/59.6A
Total power capacity/current with 2KW source	×	×	30.7KVA/46.6A	28.2KVA/42.8A	29.4KVA/44.7A	28.2KVA/42.8A	28.2KVA/42.8A
Total power capacity/current with 1.5KW source	×	×	30.4KVA/46.2A	27.9KVA/42.4A	29.1KVA/44.3A	27.9KVA/42.4A	27.9KVA/42.4A
Total power capacity/current with 1KW source	×	×	×	×	×	21.1KVA/32.1A	21.1KVA/32.1A

Configuration And Components

laser head	Bodor Genius					
Laser source	Bodor Power					
Machine bed	Mortise-and-tenon type plate welded segmented bed					
Gantry structure	Triangular type ultra-high pressure honeycomb aluminum gantry	Stretched Aluminum gantry				
X-axis、Y-axis、Z-axisServo motor and driver	BODOR					
Linear Rails	BODOR					
Protective Enclosure	BODOR					
Control system	BodorThinker					
Display size	21.5 inches					
Water Chiller	●	●	●	●	●	●

Additional options

125mm focus distance laser head（3-4kw）	○	groove cutting modular	○
Integrated compressed air system	○	security light curtains	○
Parker Gas post-treatment device	○A8、A14	Air conditioning room	○A8、A14
Parker Gas post-treatment device Integrated compressed air system	○A8、A14	Laser case plus air conditioner	○A8、A14
laser fume filter	○	Electric cabinet with air conditioner	○
centrifugal fan	○	iCleaner	○
Dust removal	○A14	Bodor MES（Digital Factory Management System）	○A14

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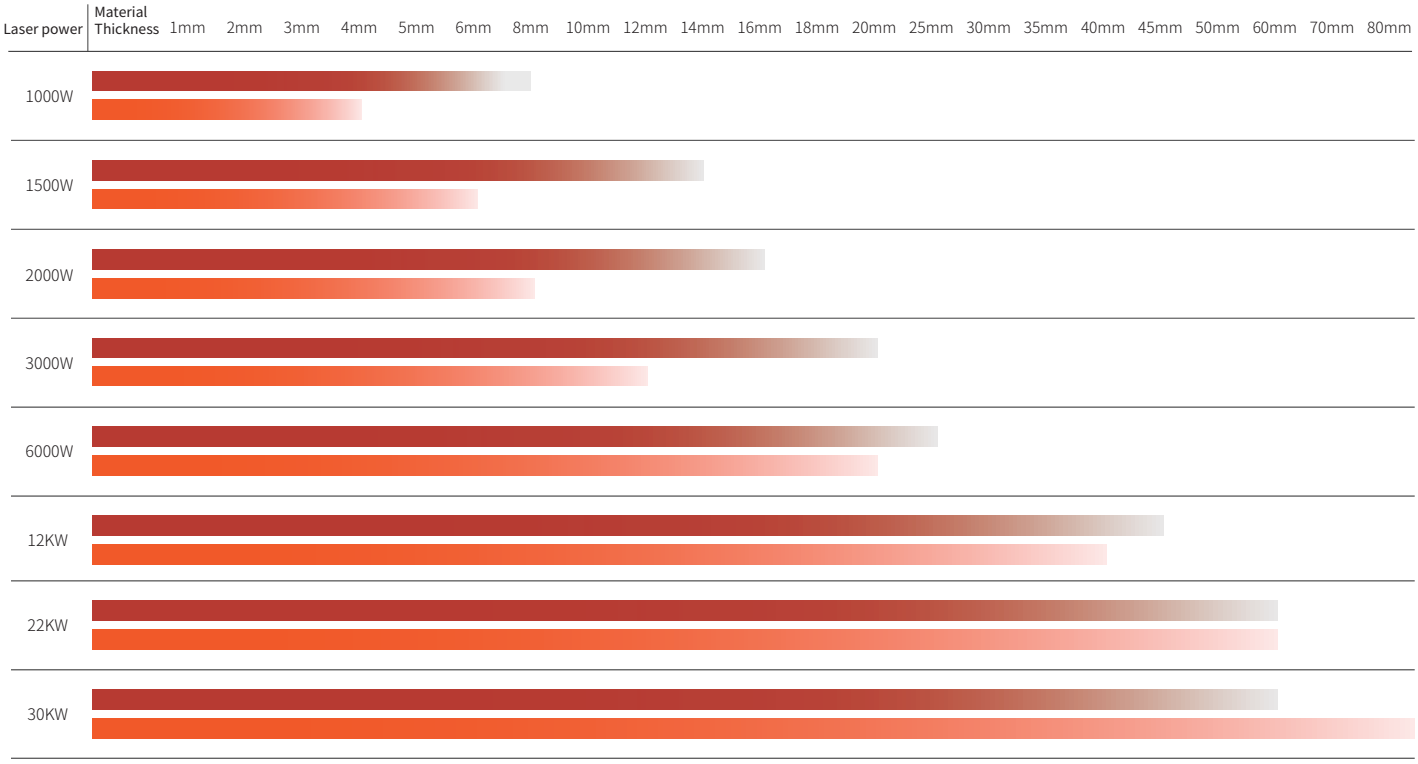
Cutting Parameters

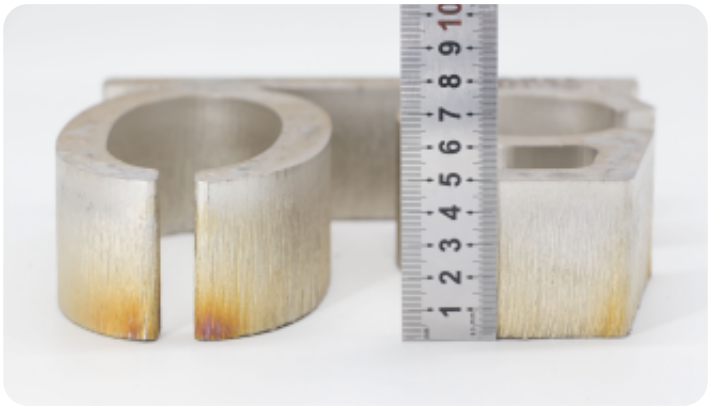
		1000W	1500W	2000W	3000W	6000W	12kW	15kW	22kW	30kW
	Thickness	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min
"Carbon steel (Q235A) O2"	1	8.0--10	8.0--10	8.0--10	8.0--10	8--10	9--11	9--11	9--11	9--11
	2	4.5--5.5	4.5--5.5	4.0--6.0	5.5--7.5	5--7.5	5--7.5	5--7.5	5--7.5	5--7.5
	3	2.4--3.0	2.5--3.4	3.0--4.0	3.0-4.0	3.5--5	3.5--5.5	3.5--5.5	3.5--5.5	3.5--5.5
	4	1.8-2.2	2.1--2.4	2.8-3.3	2.8-3.5	3.0--4.5	3.5--5	3.5--5	3.5--5	3.5--5
	5	1.6-1.8	2.0--2.5	2.2--2.8	2.6-3.2	3.0--4.2	3.3--4.8	3.3--4.8	3.3--4.8	3.3--4.8
	6	1.2-1.3	1.6--1.8	1.8-2.3	2.5-2.6	2.5--3.5	3.0--4.2	3.0--4.2	3.0--4.2	3.0--4.5
	8	0.6-0.8	1.0--1.2	1.2-1.7	1.6-1.8	2.2--3.2	2.5--3.8	2.5--3.8	2.5--3.9	2.5--3.9
	10		0.7--0.9	1.0-1.2	1.4-1.6	1.8--2.5	2.2--3.6	2.2--3.6	2.0--3.8	2.2--3.8
	12		0.7--0.8	0.8-1.0	1.0-1.4	1.2--2.1	1.2--3.5	1.2--3.6	1.6--3.8	1.6-3.8
	14		0.5--0.7	0.6-0.85	0.8-0.9	1.2--1.8	1.7--3.3	1.5--3.5	1.5--3.8	1.6-3.8
	16			0.6-0.75	0.7-0.8	0.8--1.5	1.2--3.1	1.2--3.5	1.4--3.7	1.5--3.7
	18				0.6-0.7	0.6--1.2	1.0--2.7	1.2--3.0	1.4--3.6	1.4--3.6
	20				0.5-0.6	0.5--0.8	0.6--2.4	1.2--2.7	1.5--3.5	1.5--3.5
	25					0.3--0.55	0.5--1.6	0.8--1.8	1.0-3.0	1.0-3.1
	30						0.3--1.0	0.6--1.4	0.8--2.2	1.2-2.6
	35						0.3--0.7	0.4--0.7	0.6--1.0	0.9--2.2
	40						0.2--0.4	0.3--0.5	0.5--1.1	0.8-1.7
	45						0.2--0.3	0.2--0.5	0.3--0.6	0.5--0.8
	50								0.2--0.6	0.4--0.6
	60								0.2--0.5	0.2--0.4
"Stainless steel (201) N2"	1	18-20	20-30	24--50	30-55	42--52	70--85	72--100	72--100	72--100
	2	5.0-7.0	8.0-16	9.0-17	12-30	20--33	40--66	45--70	50--75	50--75
	3	2.2-4.0	3.0-5.5	4.0-7.0	6.0-10.0	15--22	35--45	38--50	38--55	38--55
	4	1.2-2.3	1.5-3.2	3.2-4.0	4.0-6.0	10--15	20--32	25--35	25--33	30-35
	5		0.7-1.5	2.0-2.7	3.0--5.0	7.0--12	18--25	20--30	22--30	25--32
	6		0.7-1.3	1.2-1.8	2.0-3.2	4.8--9.0	12--15	15.0--25.0	17--25	18-26
	8			0.7-1.2	1.0-1.8	3.0--4.0	8--12	8.0--12.0	12--18	15-20
	10				0.5-0.85	1.6--2.5	6.0--8.0	6.0--10.0	8.0--12.0	12--15
	12				0.4-0.5	0.8--1.5	4.0--5.5	4.0--6.0	6.0--9	8--12
	14					0.6--1.2	3.0--5.0	3.5--5.5	5.0--7.0	6--10.5
	16					0.5--1.0	2.2--2.8	2.5--3.0	3.0--5.0	5--9
	18					0.4--0.8	1.2--2.0	1.2--2.2	1.8--4.2	3--6.5
	20					0.3--0.6	1.0--1.6	1.3--1.8	1.5--3.3	2--4.7
	25						0.5--0.8	0.6--1.2	1.5--2.0	1.8-2.5
	30						0.3--0.6	0.5--1.0	1.0--1.5	1.5--1.8
	35						0.3--0.5	0.4--0.8	0.4--0.8	1.0-1.5
	40						0.3--0.5	0.3--0.6	0.3--0.6	0.6-1.3
	45							0.2--0.5	0.2--0.6	0.8-1.0
	50							0.1--0.5	0.2--0.5	0.25-0.5
	60							0.1--0.2	0.1-0.3	0.2-0.3
	70									0.17-0.3
	80									0.15-0.3
"Aluminum N2"	1	8-10	10-15	15-25	25-30	42--55	60--85	70--100	70--100	70--100
	2	2.8-3.6	5.0-7.0	7-10	13-20	20--40	38--50	40--55	40--70	40--70
	3	0.7-1.1	2.0-2.6	4.0-8.0	6.5-7.5	15--25	30--40	35--45	35--60	35--60
	4		1.0-1.4	2.5-3.0	3.5-5.0	9.5--12	20--30	30--40	30--43	30--45
	5		0.5-0.7	1.2-2.5	2.5-3.5	5.0--8.0	15--25	20--30	22--35	22--340
	6			0.6-0.9	1.5-2.5	3.8--5.0	10--15	15--24	18--28	18--32
	8				0.7-1.0	2.0--2.5	7.0--12	8.0--12.0	12--20	12--23
	10					1.0--1.5	4.5--8.0	5.0-9.0	7.0--12.0	7.0--16
	12					0.8--1.3	4.0--5.0	4.0--6.0	4.5--6.5	4.5--12
	14					0.9--1.2	1.8--2.7	2.5-3.2	3.0--4.0	3.0--8.0
	16					0.5--0.8	1.5--2.5	2.0--3.0	2.5--3.5	2.5--6
	18					0.5--0.7	1.0--1.8	1.5--1.9	1.8--2.2	1.8--2.2
	20					0.5--0.7	0.9--1.5	1.3--1.8	1.5--2.0	1.5--2.0
	25						0.6--0.9	0.6--1.2	0.8--1.5	0.8--1.5
	30						0.3--0.8	0.5--1.0	0.6--1.2	0.6--1.2
	35						0.3--0.6	0.3--0.8	0.4--0.9	0.4--0.9
	40						0.3--0.4	0.3--0.5	0.3--0.5	0.4--0.6
"Brass N2"	1	6.0--10	8.0--13	10-16	20--30	35--45	55--65	60-70	65-75	65-75
	2	2.8-3.2	3.0--4.5	5.0--6.0	6.0--10	20--30	38--42	40--45	40--60	40--60
	3		1.5--2.5	2.5--7.0	3.0--8.0	12--18	18--30	20--35	25-40	25-40
	4		0.8-1.2	1.8-3.0	2.5-4.0	8.0--12.0	15--20	18--30	20--35	20--35
	5				1.5--2.0	6.0--8.0	10--15	15--20	20--28	20--30
	6				1.0--1.8	3.0--6.5	6.0--8.0	8--15	12--20	12--22
	8					1.6--2.2	5.0--7.0	8.0--10.0	9.0--12	9.0--15
	10					0.8--1.2	4.5--6.0	5.0--6.5	6.0--10	6.0--13
	12					0.3--0.5	2.4--4.0	2.8--4.2	3.0--4.5	5.0--10
	14						0.8--1.5	1.0--1.8	1.8--4.0	3.0--7.0
	16						0.6--1.2	0.8--1.5	1.5--3.0	1.5--3.0
	18						0.4--0.6	0.6--0.8	1.0--2.5	1.2--2.5
	20							0.4--0.6	0.4--2.0	1.2--2.0
	25								0.3--0.5	0.5--0.8
	30									0.4--0.6

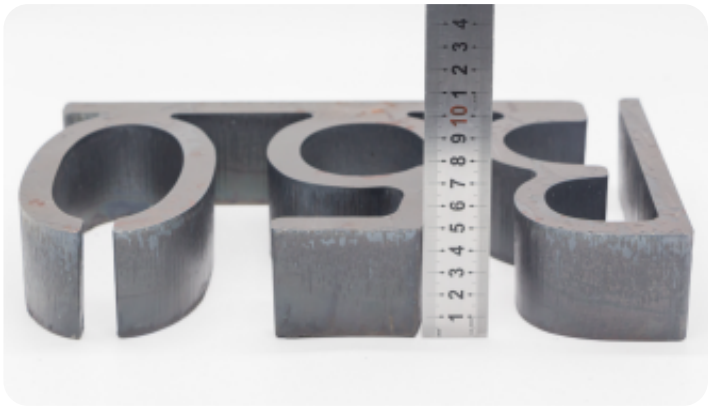
Cutting Capacity

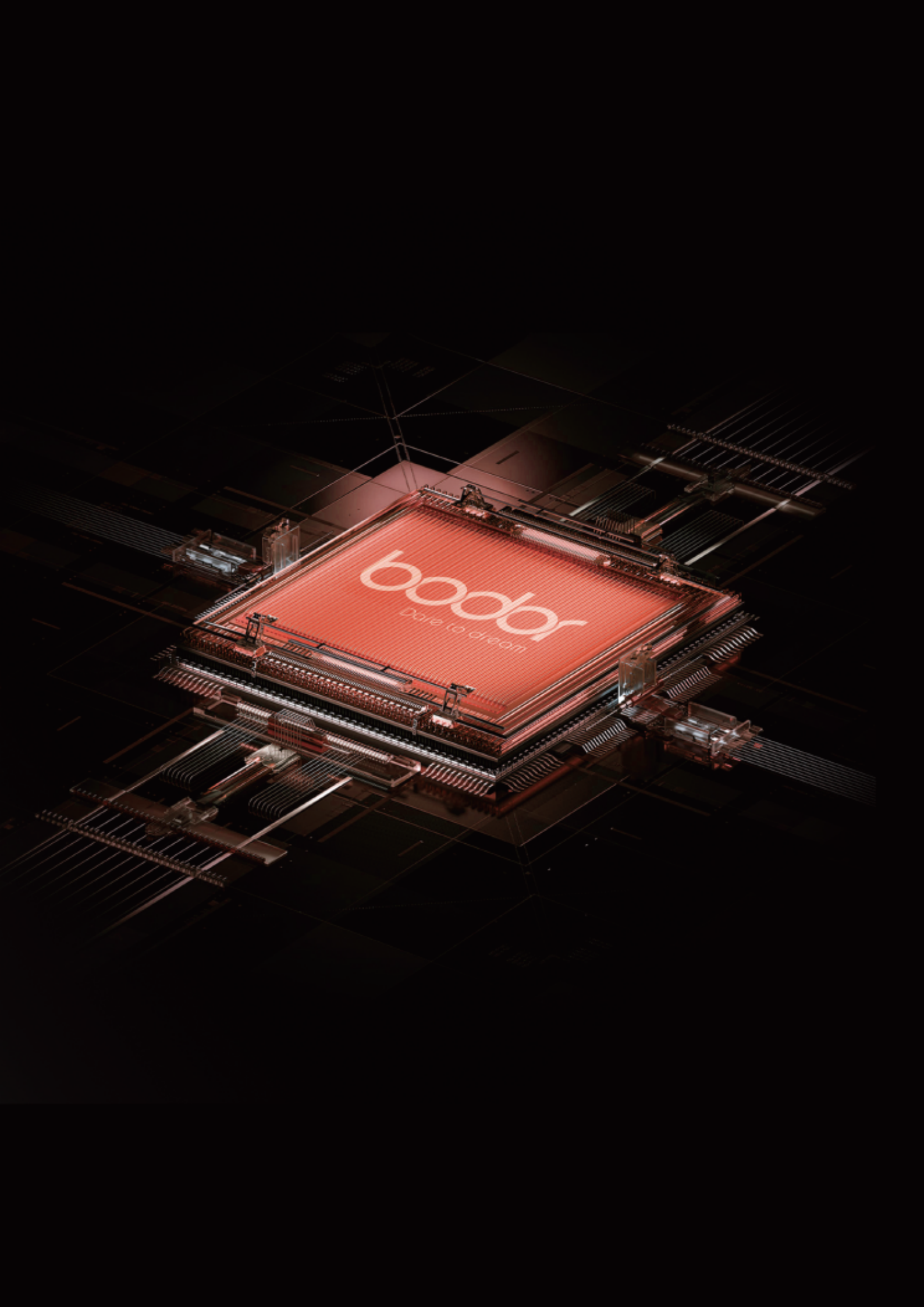


Above data is only for reference

Cutting Samples



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