bodor
Dare to dream

AT SERIES

ENTRY-LEVEL FIBER LASER METAL SHEET&TUBE CUTTING MACHINE

1.5kW-6kW

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

2016
Luanched the high power series S

2017
Launched BodorPro , BodorGenius

2018
Won award of Reddot

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

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

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

2021.12
Sales of 10kW+ machines reaches 1000 units

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

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

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 informationized solutions.

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.

AUTOMATIC TUBE DETECTION

Advantages

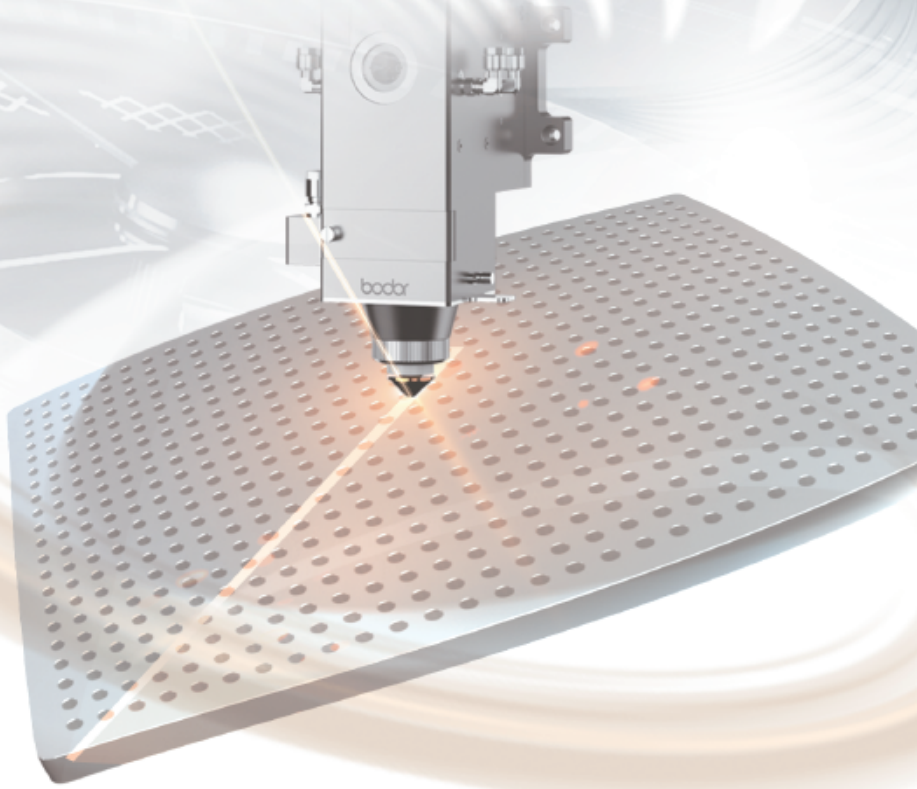
- Optimized edge searching method and algorithm guarantee higher cutting precision and better steadiness.

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

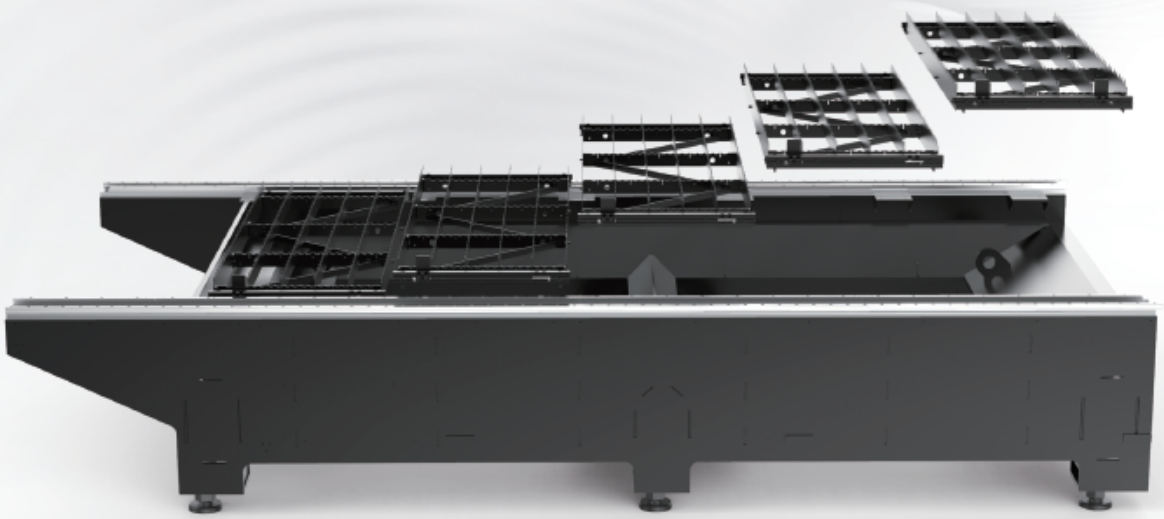
- The lightning rapid perforation process reduces perforation time by 90%.
- The perfect combination of lightning rapid perforation process and BodorGenius ensures the laser head complete the whole perforation process during its moving fall.
- No additional action and time to be taken when cutting sheets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

PNEUMATIC CHUCK

Advantages

- Quick clamping improves the work efficiency.
- The clamping force is large, stable and adjustable.
- Strong safety and reliability.

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.

BODOR GENIUS

Advantages

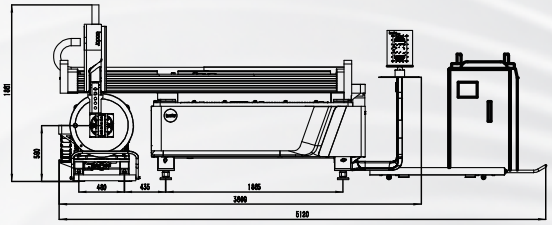
- The lightweight design ensures excellent acceleration performance and cutting speed.
- Excellent design in air flow and water-cooling structure enables the laser-head to continuously and efficiently operate at high power.
- Built-in drive unit, adjustment accuracy of 0.05mm.
- Collimation mirrors and 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.

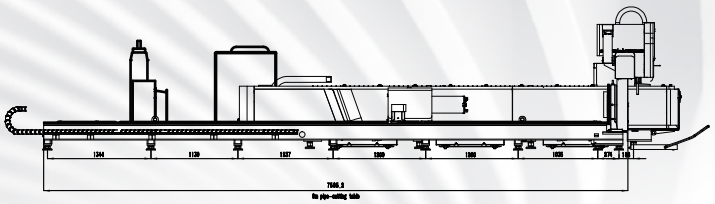
BODOR CLOUD

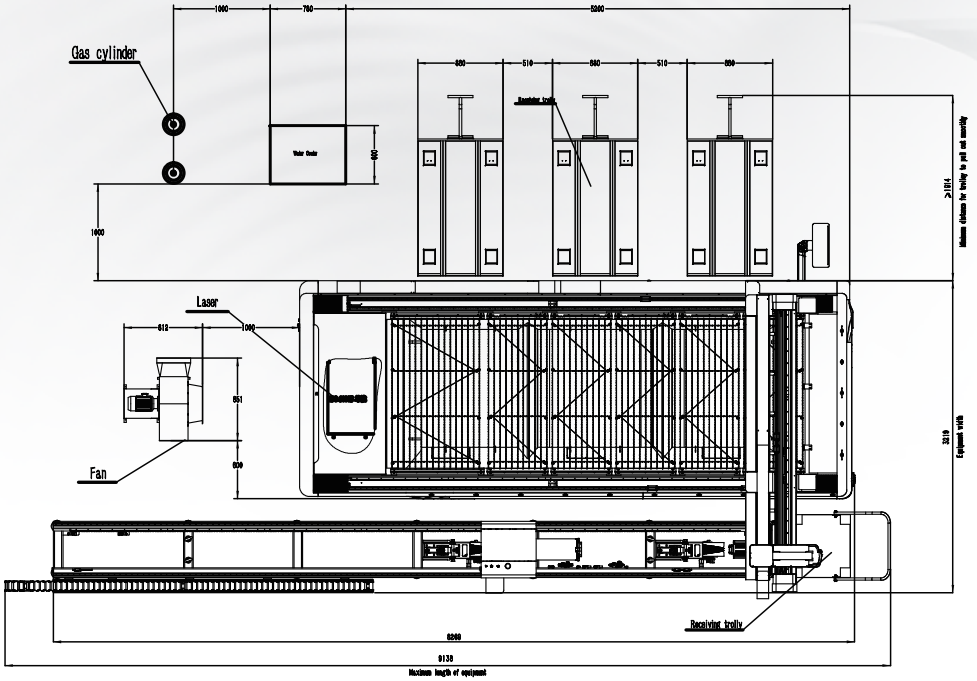
Advantages

- 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

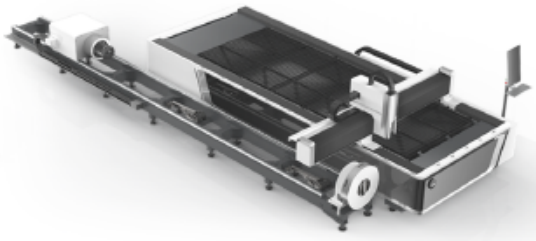




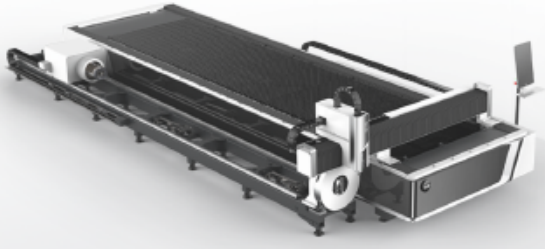


The above layout drawings and figures are for referrence only, the actual drawing shipped with machine prevails.

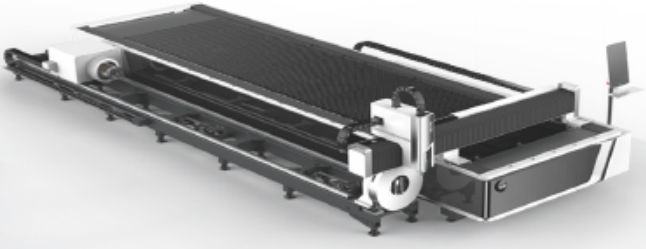
A3T
3048mm*1524mm



A4T
4000mm*1524mm



A6T
6100mm*1524mm



A6T Plus
6100mm*2500mm

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Technical Data

ITEM	A6T Plus	A6T	A4T	A3T
Working area	6100mm*2500mm	6100mm*1524mm	4000mm*1524mm	3048mm*1524mm
Max. linkage speed	100m/min	100m/min	100m/min	100m/min
Max. acceleration	1.5G	1.5G	1.5G	1.5G
Table load bearing	3000kg	1459kg（1-3kw） 1824kg（6kw）	957kg（1-3kw） 1196kg（6kw）	583kg（1-2kw） 729kg（3kw） 911kg（6kw）
Machine overall dimensions	8641*4879*2103mm	8641*3870*1858mm	8641*3870*1861mm	8641*3870*1861mm
Overall weight	±7000kg	5300kg	4300kg	3900kg
Z axis travel	315mm	315mm	315mm	315mm
Positioning accuracy	±0.05mm	±0.05mm	±0.05mm	±0.05mm
Repositioning accuracy	±0.03mm	±0.03mm	±0.03mm	±0.03mm
Total power capacity/current with 3KW source	50.6KVA/76.9A	50.6KVA/76.9A	50.6KVA/76.9A	50.6KVA/76.9A
Total power capacity/current with 3KW source	44.3KVA/67.2A	44.3KVA/67.2A	44.3KVA/67.2A	44.3KVA/67.2A
Total power capacity/current with 2KW source	33.2KVA/50.4A	33.2KVA/50.4A	33.2KVA/50.4A	33.2KVA/50.4A
Total power capacity/current with 1.5KW source	32.9KVA/49.9A	32.9KVA/49.9A	32.9KVA/49.9A	32.9KVA/49.9A

Configuration And Components

laser head	Bodor Genius
Laser source	Bodor Power
Machine bed	Mortise-and-tenon type plate welded segmented bed
Gantry structure	Pneumatic chuck
X-axis、Y-axis、Z-axisServo motor and driver	BODOR
Linear Rails	BODOR
Rack	BODOR
Control system	Bodor Thinker
Display size	21.5 inches
Water Chiller	●

Additional options

Laser protective glasses	○	Voltage regulator（Including 10m power line）	○
Integrated compressed air system	○	laser fume filter（Made in China）	○
centrifugal fan	○	Security light curtains	○
iCleaner	○	BodorNest Tube	○
Bodor MES	○	BodorGenius T	×

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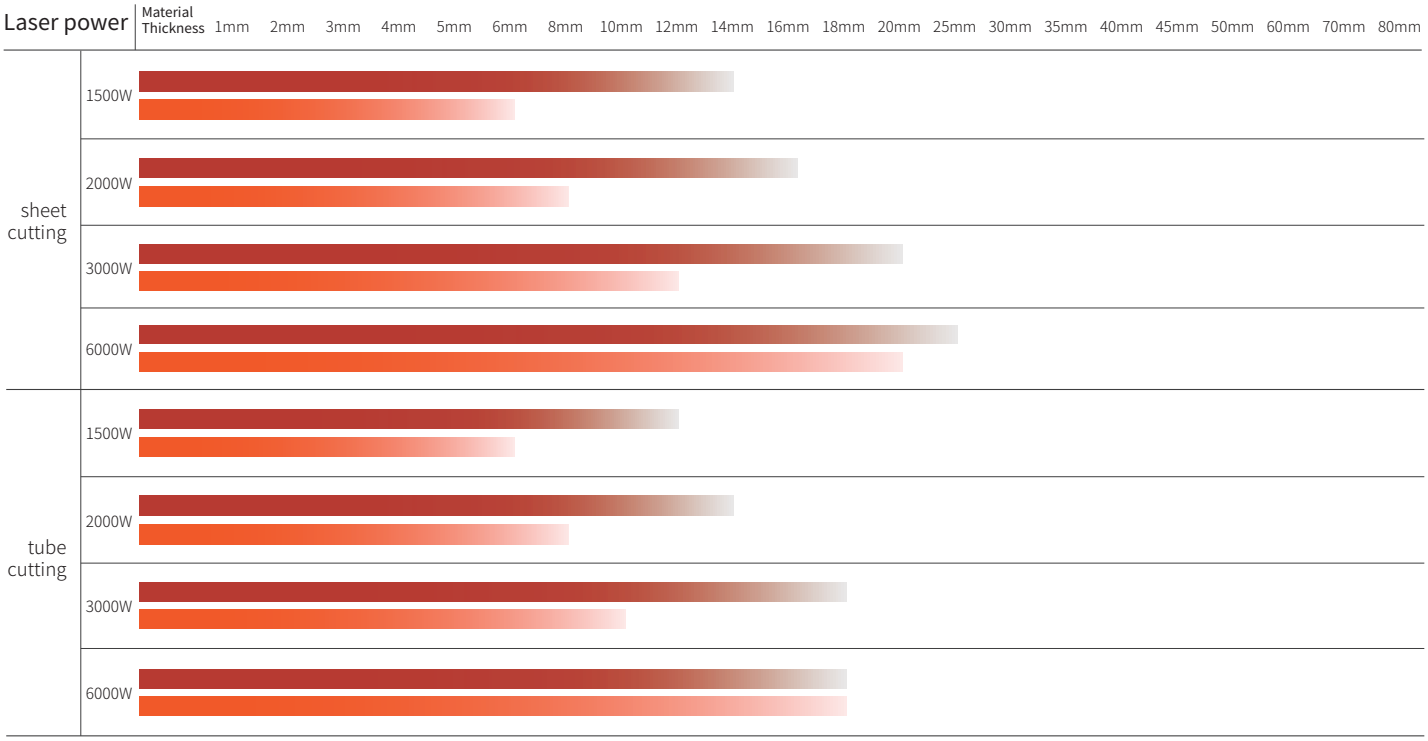
Cutting Parameters

		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

Tube Cutting Parameters

		1000W	1500W	2000W	3000W	6000W	12kW
	Thickness (mm)	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min
Carbon steel	1	12--15	17--19	16--20	18--21	18--21	18--21
	2	5--7	6--8	8--10	10--12	15-20	15-20
	3	2--3	2.5--3.5	3.0--4.8	3.5--5	3.8--5.5	4--6
	4	2--2.4	2.3--2.8	2.8--3.5	3--3.8	3.2--4.3	3.3--4.5
	5	1--1.6	1.8--2.4	2.5--3	2.6--3.2	3--4	3.5--4.3
	6	1.1--1.4	1.4--1.8	1.8--2.2	1.9--2.4	2.5--3.5	2.7--4
	8	0.8--1.1	1--1.4	1.4--1.8	1.6--2	2--3	2.5--3.5
	10	0.6--0.9	0.8--1.1	1.0--1.3	1.2--1.6	1.3--2.2	1.8--2.5
	12	0.6--0.7	0.6--0.9	0.8--1	0.9--1.3	1.2--1.7	1.5--2
	14		0.5--0.6	0.6--0.7	0.8--1	0.9--1.3	1.2--1.8
	16				0.6--0.9	0.6--1.1	1--1.5
	18				0.5--0.6	0.5--0.7	0.8--1
	20						0.5--0.8
Stainless steel	1	12--16	15--20	20--24	23--28	23--28	23--28
	2	7--9	9--12	10--15	14--18	20--22	20--22
	3	2--2.5	2--3	3--4	4.2--5.4	8--10	8--12
	4	0.6--0.9	1.2--1.5	2--3	2.8--3.6	9--12	12--14
	5		0.6--0.9	1.2--1.6	1.8--2.4	6--8	7--9
	6		0.5--0.6	0.8--1.1	1--1.5	4--5.5	6--8
	8			0.5--0.6	0.8--1.2	2--3	3--4
	10				0.4--0.6	1--1.5	1.5--2.5
	12					0.5--1	1--2
	14					0.4--0.7	0.8--1.5
	16					0.2--0.4	0.6--1
	18					0.2--0.4	0.6--0.8
	20						0.4--0.5

Cutting Capacity



Carbon steel

Stainless steel

Max cutting thickness
(long-term using isn't recommended)

Above data is only for reference

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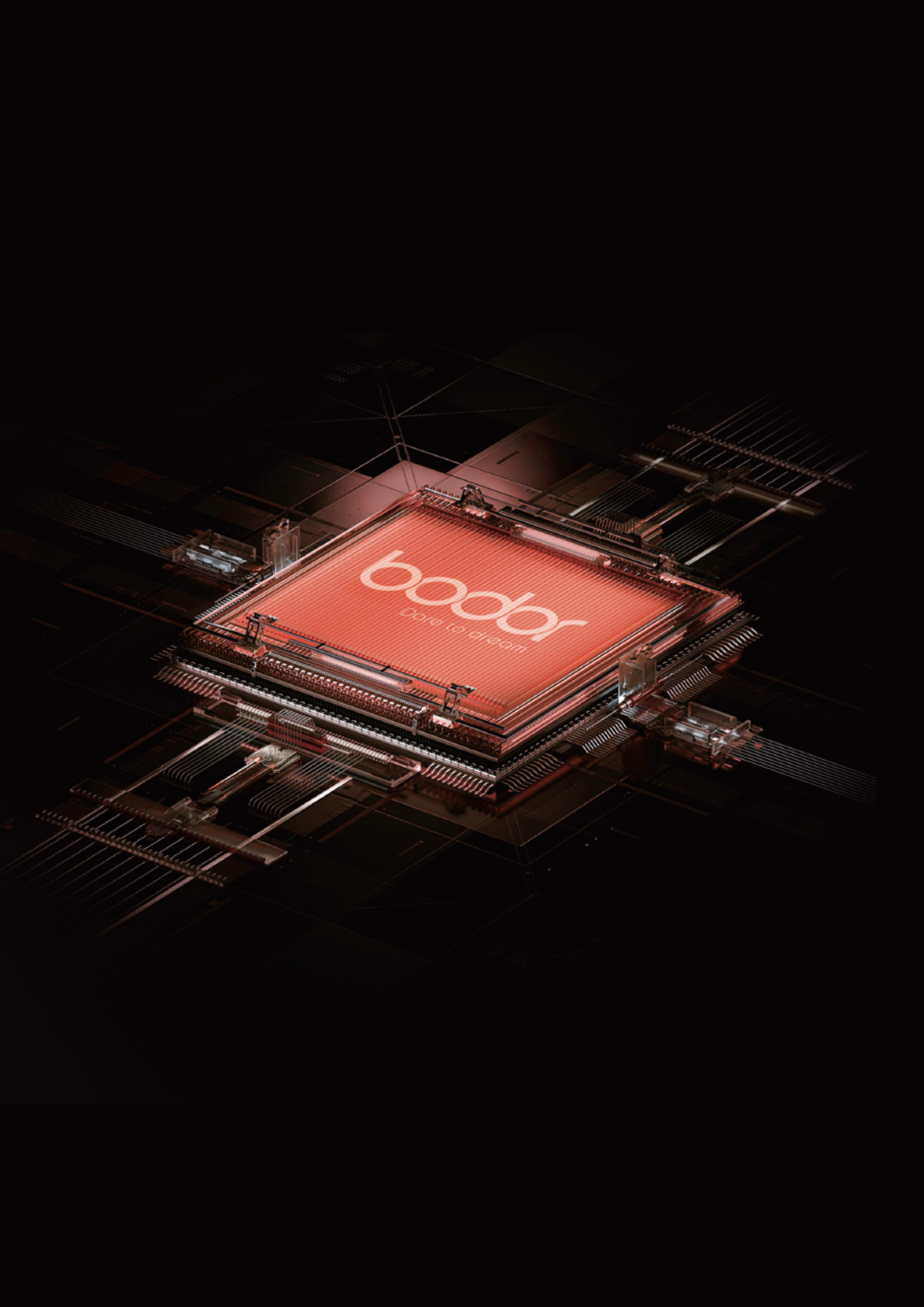
Cutting Samples


boot
born to dream