

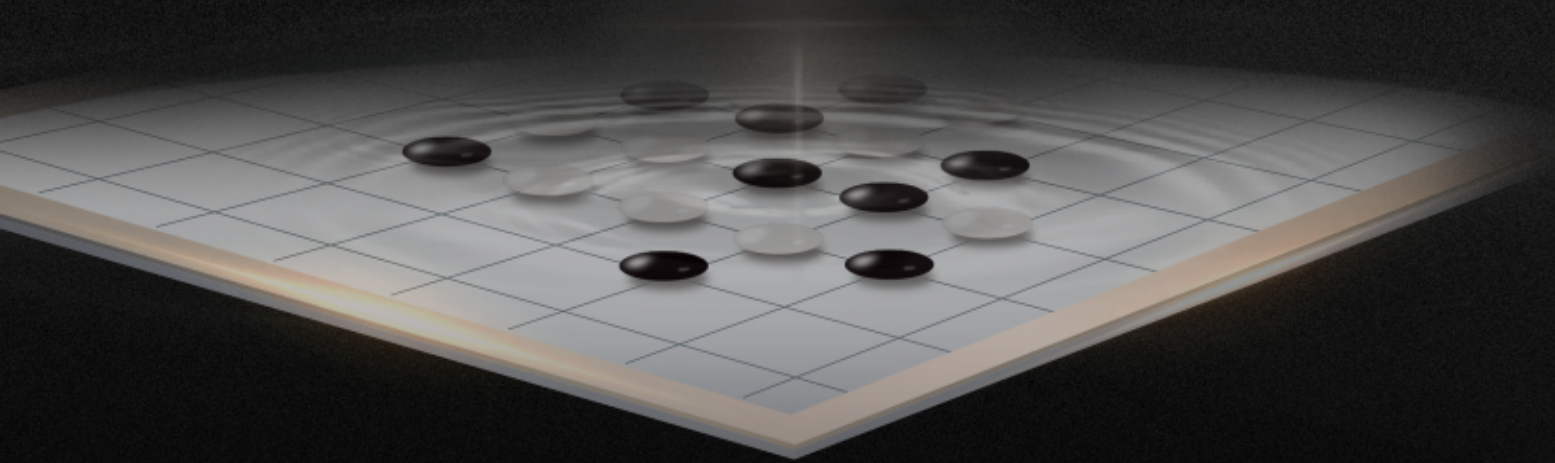
P SERIES

ALL-ROUND PROTECTIVE LASER CUTTING MACHINE

1.5kW-40kW



THE BLACK GO CHESS



Black Go chess — inspired by Go

Circular — endless loop, endless exploration

Black — derived from obsidian crystal, steady and deep



HIGHER SAFETY LEVEL



Advantages

- The all-around protective covering isolates laser radiation and pollution, offering higher safety level.
- Smoke and dust produced during cutting will be automatically collected to ensure a clean operating area.
- Smart monitoring system helps reduce accident rate.

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.
- Different powers of the P series are adapted to different systems, and both systems support various intelligent functions.
- BodorPro (suitable for 6 kW below)
 - Integration of CAD and CAM can directly identify drawings and nest
 - Good adaptability, support G code(NC)、DXF、PLT、ENG and other file formats
- BodorThinker 3.0 (suitable for 6 kW and above)
 - 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

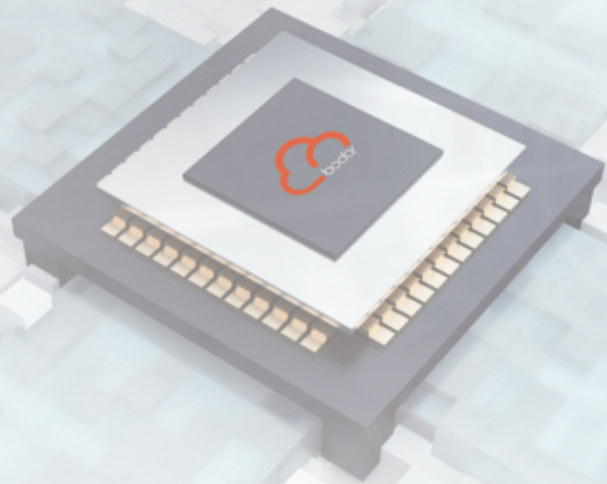
Automatic Nozzle Changer

- Accurate control system is used to automatically replace nozzles based on material and thickness.
- The latest fully automatic calibration and cleaning functions lower manual repetitive labor.

Intelligent Anti-collision

- 360°radar system can detect any obstacles in advance, and Z axis high-speed motion will be activated to immediately avoid obstacles, avoiding collisions.

INTELLIGENT FUNCTIONS



Auxiliary Low Gas Pressure Alarm Function

- Real-time gas pressure detection and abnormal information report ensure cutting quality and precision, and remind operators to replace gas in time.

High Speed Cutting Expert Database

- Including data for various cutting techniques, such as carbon steel oxygen fast cutting (COF), carbon steel Economic fast cutting (CEF), Low Pressure Nitrogen fast cutting (LNF), etc.
- For COF, the speed is doubled without changing the cutting quality when cutting thick plate
- For LNF, the nitrogen pressure reduces to 4 bar when cutting 10mm stainless steel, the cutting speed can be improved at least 10%.

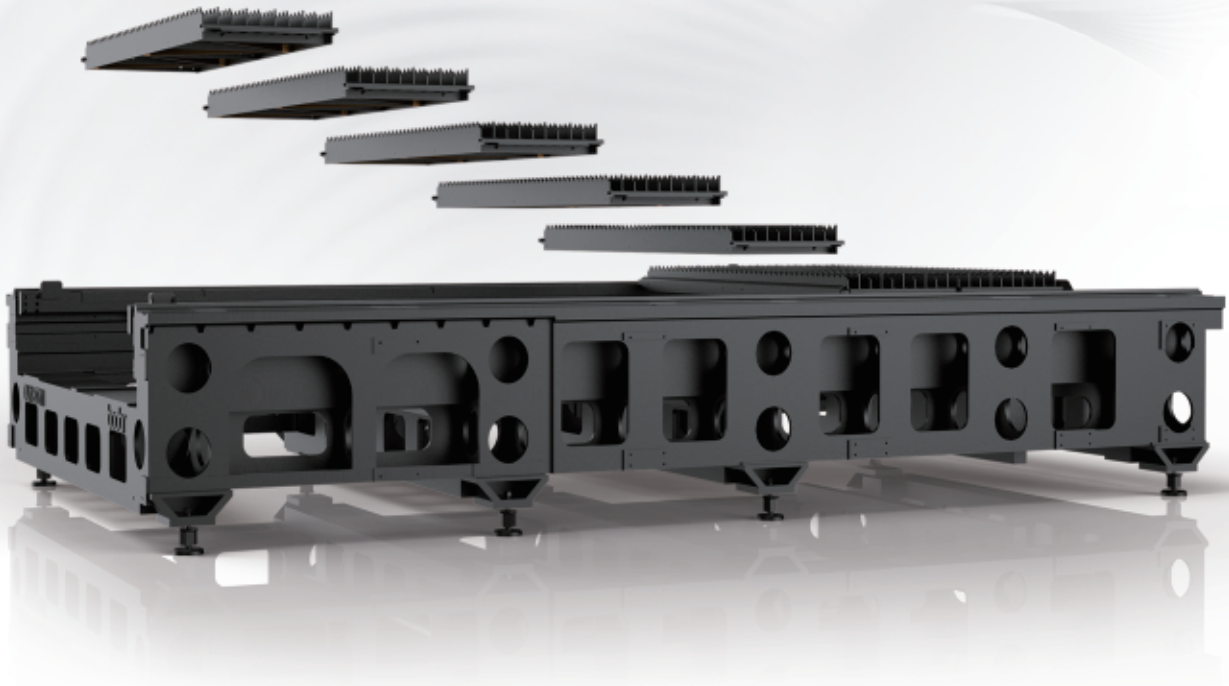
INTELLIGENT FUNCTIONS



One-click Processing

- The machine can automatically exchange the workbench after processing, execute automatic edge seeking and cutting.
- Reduce the repetitive operation in batch cutting, reasonably distribute each function, realize human-machine cooperation, greatly improve the processing efficiency.

CAST IRON BED



Advantages

- Pouring Mold, clone production; integrally formed, reject splicing
- The usage of flake graphite with the lowest tensile strength of 200MPa gives the whole equipment strong shock absorption, wear resistance, high hardness, high carbon content, high compressive strength.
- Low notch sensitivity and thermal sensitivity of cast iron bed reduces the loss of equipment in using, keeps the precision of cutting unchanged and no deformation in its life cycle.

DOUBLE FAST EXCHANGE TABLES



Advantages

- Fast exchange of two tables greatly improves efficiency.
- Rack and gearwheel transmission system has better rigidity and higher accuracy, saving feeding time.

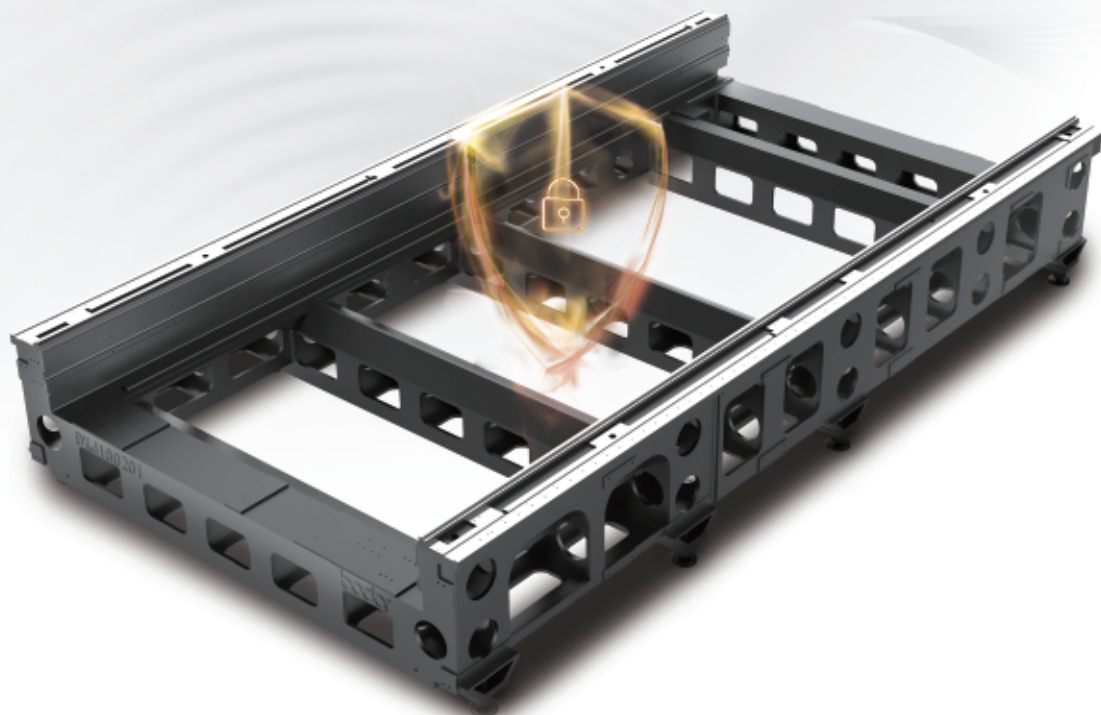
BODORGENIUS AUTO FOCUS LASER HEAD



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.

UNIQUE ANTI-BURNING MACHENISM (FOR 6KW AND ABOVE)



Advantages

- The table adopts the way of cast iron plate cushion backing the cooper plate to absorb cutting heat and prevent table from being damaged.
- The bed surface is covered with additional cast iron plates to prevent the bed from being damaged by the falling material and cutting splash.

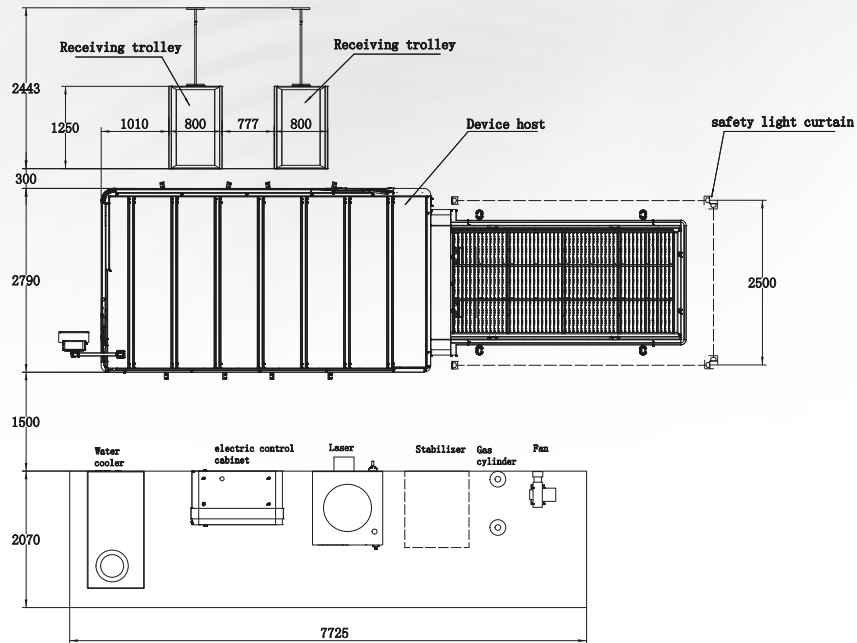
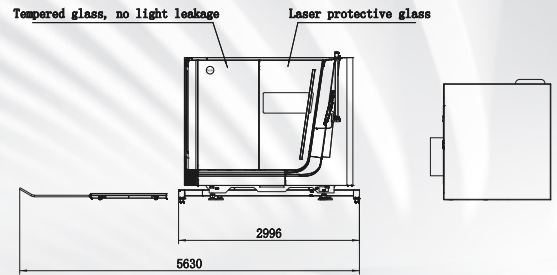
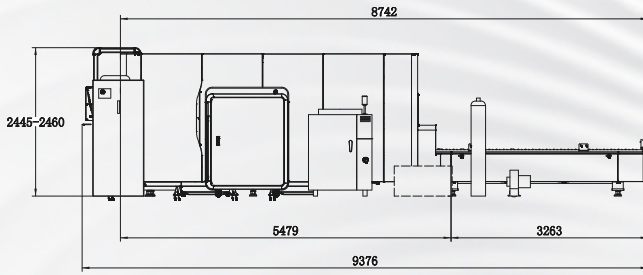
BODOR CLOUD



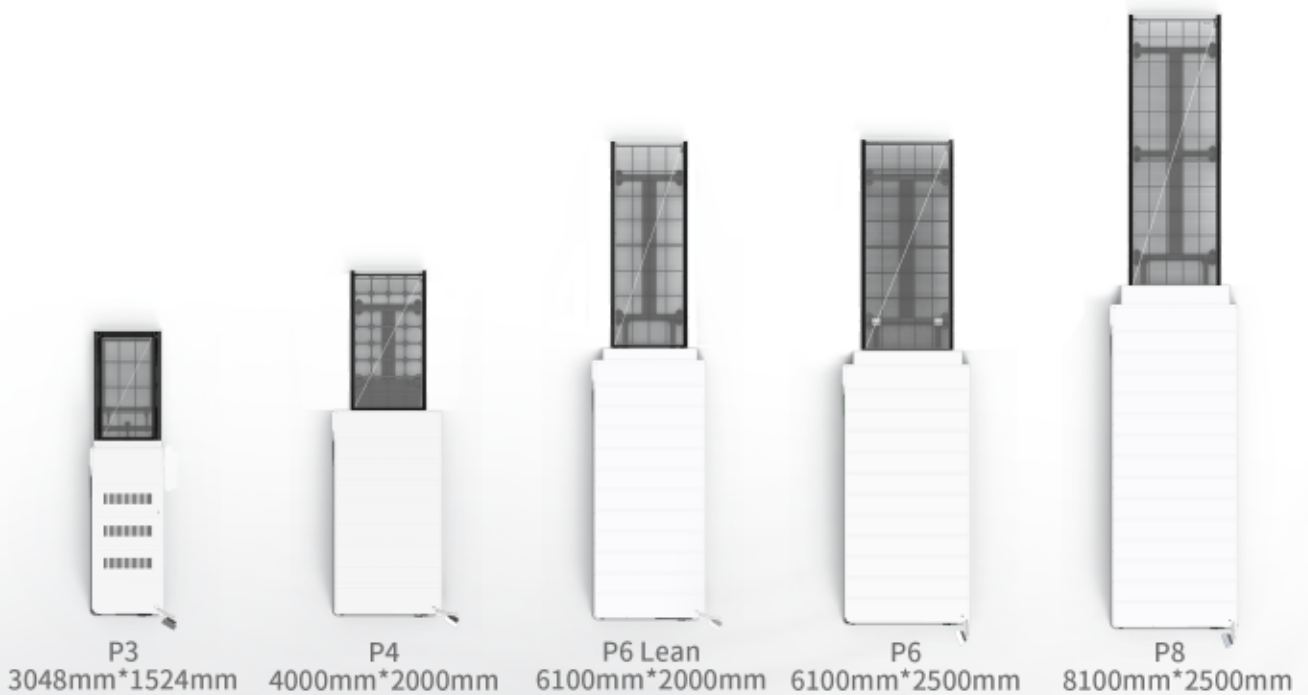
Advantages

- 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.



Technical Data

ITEM	P8	P6	P6 Lean	P4	P3
Working area	8100mm*2500mm	6100mm*2500mm	6100mm*2000mm	4000mm*2000mm	3048mm*1524mm
Max. linkage speed	169m/min	169m/min	169m/min	169m/min	140m/min
Max. acceleration	2G	2G	2.5G	2.5G	2.5G
Table load bearing	"4750kg (1-4kw) 6300kg (≥6kw) "	"3550kg (1-4kw) 4700kg (≥6kw) "	"2800kg (1-4kw) 3800kg (≥6kw) "	"1800kg (1-4kw) 2500kg (≥6kw) "	"1050kg (1-4kw) 1450kg (≥6kw) "
Machine overall dimensions	19700*4200*2400mm	15300*4500*2400mm	15000*4000*2300mm	12000*3700*2300mm	9950*3050*2300mm
Overall weight	22500kg	19500kg	17500kg	11000kg	8300kg
Z axis travel	315mm	315mm	315mm	315mm	315mm
Positioning accuracy	0.05mm	0.05mm	0.05mm	0.05mm	0.03mm
Repositioning accuracy	0.03mm	0.03mm	0.03mm	0.03mm	0.02mm
Total power capacity/current with 40KW MAX source	276.9KVA/420.7A	276.9KVA/420.7A	271.4KVA/412.3A	268.9KVA/408.5A	264.6KVA/402.0A
Total power capacity/current with 30KW MAX source	216.9KVA/329.5A	216.9KVA/329.5A	211.4VA/321.2A	208.9KVA/317.4A	204.6KVA/310.8A
Total power capacity/current with 22KW source	154.3KVA/235.8A	154.3KVA/235.8A	148.8KVA/227.5A	146.3KVA/223.7A	141.9KVA/217.1A
Total power capacity/current with 20KW source	151.3KVA/229.8A	151.3KVA/229.8A	145.8KVA/221.5A	143.3KVA/217.7A	138.9KVA/211.1A
Total power capacity/current with 12KW source	107.4KVA/163.1A	107.4KVA/163.1A	101.9KVA/154.8A	99.4KVA/151.0A	95.1KVA/144.4A
Total power capacity/current with 6KW source	72.6KVA/110.3A	72.6KVA/110.3A	67.1KVA/102.0A	64.6KVA/98.2A	60.3KVA/91.6A
Total power capacity/current with 3KW source	56.9KVA/86.4A	56.9KVA/86.4A	51.4VA/78.1A	48.9KVA/74.3A	44.6KVA/67.7A
Total power capacity/current with 2KW source	48.2KVA/73.2A	48.2KVA/73.2A	42.7KVA/64.8A	40.2KVA/61.0A	35.8KVA/54.5A
Total power capacity/current with 1.5KW source	54.4KVA/82.6A	54.4KVA/82.6A	48.9KVA/74.3A	46.4KVA/70.5A	42.1KVA/63.9A

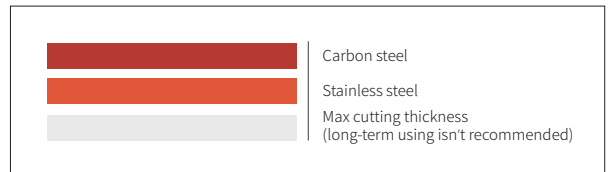
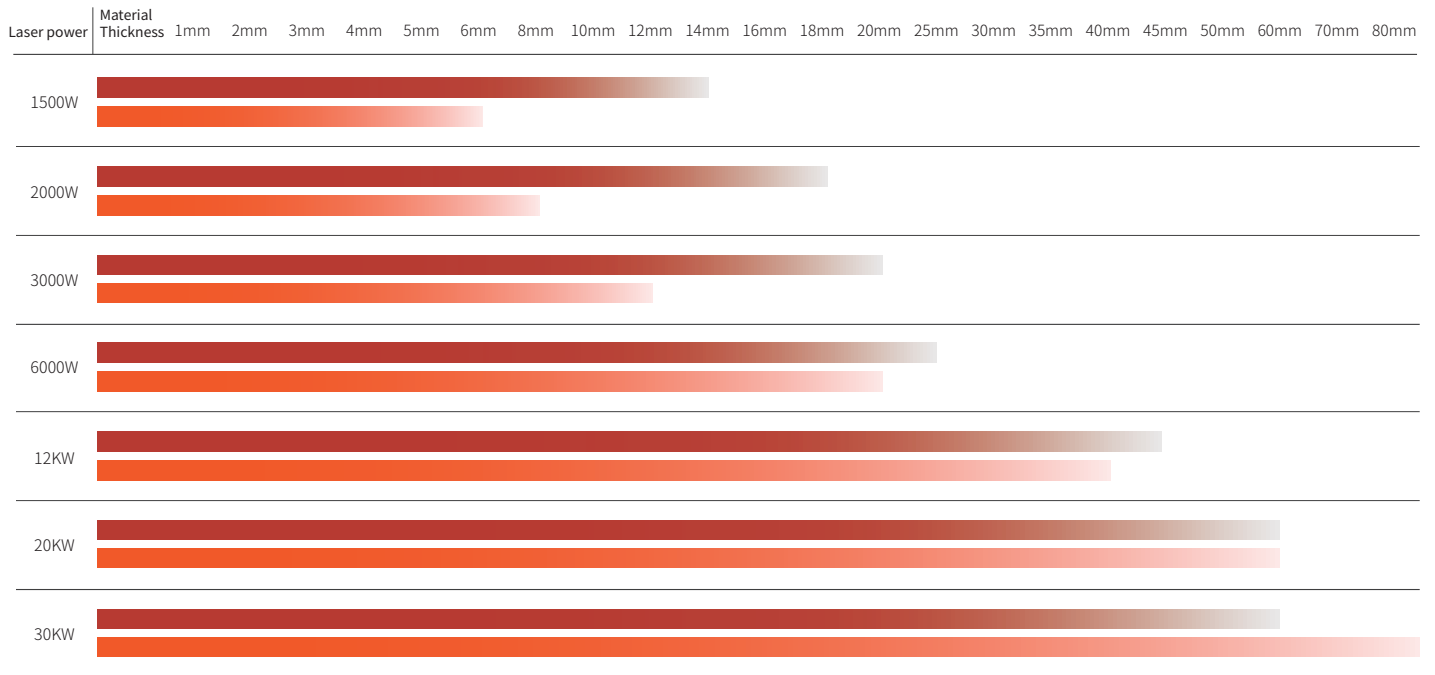
Configuration And Components

laser head	22KW and below: BodorGenius 22KW and above: Germany Precitec
Laser source	BODOR/IPG
Machine bed	Cast Iron Bed
X-axis、Y-axis、Z-axis Servo motor and driver	Japan Yaskawa
Linear Rails	Made in Taiwan"
Protective Enclosure	●
Enhanced-partition Dust Removal	●
Control system	"BodorPro2.0 6kw: BodorThinker 3.0"
Display size	21.5 inches"
Electrical proportional valve	Japan SMC/Germany AVENTICS"
O2 Cutting gas control valve	Japan SMC"
N2 Cutting gas control valve	4KW and below: Japan SMC 6KW and above: America Parker"
Door-open Protection	●
Intelligent alarm	●
Water Chiller	●
Centrifugal fan	●

Cutting Parameters

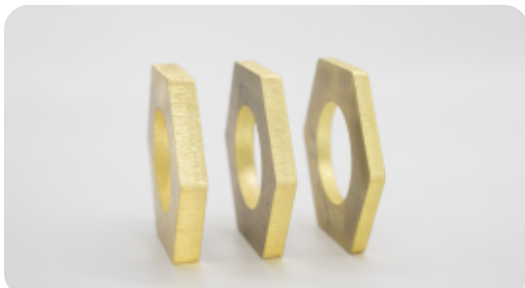
		1000W	1500W	2000W	3000W	6000W	12kW	15kW	20kW	30kW
	Thickness	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min
"Carbon steel (Q235A) O2"	1	8.0-10	8.0-10	8.0-10	8.0-10	8-10	9-11	9-11	9-11	9-11
	2	4.0-6.5	4.5-6.5	4.7-6.5	4.8-7.5	5-7.5	5-7.5	5-7.5	5-7.5	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	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	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	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	3.0-4.2	3.0-4.2
	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	2.5-3.8	2.5-3.8	2.5-3.8
	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	2.2-3.6	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	1.2-3.6	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	1.5-3.5	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	1.2-3.5	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	1.2-3.0	1.4-3.4	1.4-3.4
	20				0.5-0.8	0.5-0.8	0.6-2.4	1.2-2.7	1.5-3.3	1.5-3.3
	25					0.3-0.55	0.5-1.6	0.8-1.8	1.0-2.8	1.0-2.8
	30						0.3-1.0	0.6-1.4	0.8-2.0	1.2-2.0
	35						0.3-0.7	0.4-0.7	0.6-0.9	0.9-1.1
40						0.2-0.4	0.3-0.5	0.5-1.0	0.8-1.0	
45						0.2-0.3	0.2-0.5	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	72-100
	2	5-7.5	8.0-12	9.0-15	13-21	20-33	40-66	45-70	50-75	50-75
	3	1.8-2.5	3.0-5.0	4.8-7.5	6.0-10	15-22	35-45	38-50	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	25-35	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	20-30	22-30	25-32
	6		0.7-1.0	1.2-2.0	2.0-4.0	4.8-9.0	12-15	15.0-25.0	17-25	18-26
	8			0.7-1.0	1.5-2.0	3.0-4.0	8-12	8.0-12.0	12-18	15-20
	10				0.6-0.8	1.6-2.5	6.0-8.0	6.0-10.0	8.0-12.0	12-15
	12				0.4-0.6	0.8-1.5	4.0-5.5	4.0-6.0	6.0-8.5	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	1.8-2.7	3-6.5
	20					0.3-0.6	1.0-1.6	1.3-1.8	1.5-3.2	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	6.0-10	10-20	20-30	25-38	42-55	60-85	70-100	70-100	
	2	2.8-3.6	5.0-7.0	10-15	10-18	20-40	38-50	40-55	40-70	
	3		2.0-4.0	5.0-7.0	6.5-8.0	15-25	30-40	35-45	35-60	
	4		1.0-1.5	3.5-5.0	3.5-5.0	9.5-12	20-30	30-40	30-43	
	5			1.8-2.5	2.5-3.5	5.0-8.0	15-25	20-30	20-32	
	6			1.0-1.5	1.5-2.5	3.8-5.0	10-15	15-24	15-26	
	8				0.7-1.0	2.0-2.5	7.0-12	8.0-12.0	10-18	
	10				0.4-0.7	1.0-1.5	4.5-8.0	5.0-9.0	6.0-10.0	
	12					0.8-1.3	4.0-5.0	4.0-6.0	4.0-6.0	
	14					0.9-1.2	1.8-2.7	2.5-3.2	2.2-3.2	
	16					0.5-0.8	1.5-2.5	2.0-3.0	2.0-3.0	
	18					0.5-0.7	1.0-1.8	1.5-1.9	1.5-2.0	
	20					0.5-0.7	0.9-1.5	1.3-1.8	1.3-1.8	
	25						0.6-0.9	0.6-1.2	0.6-1.2	
	30						0.3-0.8	0.5-1.0	0.5-1.0	
	35						0.3-0.6	0.3-0.8	0.3-0.8	
40						0.3-0.4	0.3-0.5	0.3-0.5		
"Brass N2"	1	6.0-10	8.0-13	12-18	20-35	35-45	55-65	60-70	65-75	
	2	2.8-3.6	3.0-4.5	6.0-8.5	6.0-10	20-30	38-42	40-45	40-60	
	3		1.5-2.5	2.5-4.0	4.0-6.0	12-18	18-30	20-35	25-40	
	4		1.0-1.6	2.0-3.0	3.0-5.0	8.0-12.0	15-20	18-30	20-35	
	5			0.9-1.2	1.5-2.0	6.0-8.0	10-15	15-20	18-25	
	6				1.0-1.8	3.0-6.5	6.0-8.0	8-15	10-18	
	8					1.6-2.2	5.0-7.0	8.0-10.0	8.0-10.0	
	10					0.8-1.2	4.5-6.0	5.0-6.5	5.0-9.0	
	12					0.3-0.5	2.4-4.0	2.8-4.2	2.8-4.2	
	14						0.8-1.5	1.0-1.8	1.5-5.0	
	16						0.6-1.2	0.8-1.5	1-2.4	
	18						0.4-0.6	0.6-0.8	0.8-2.2	
20							0.4-0.6	0.4-2.0		
25								0.3-0.5		

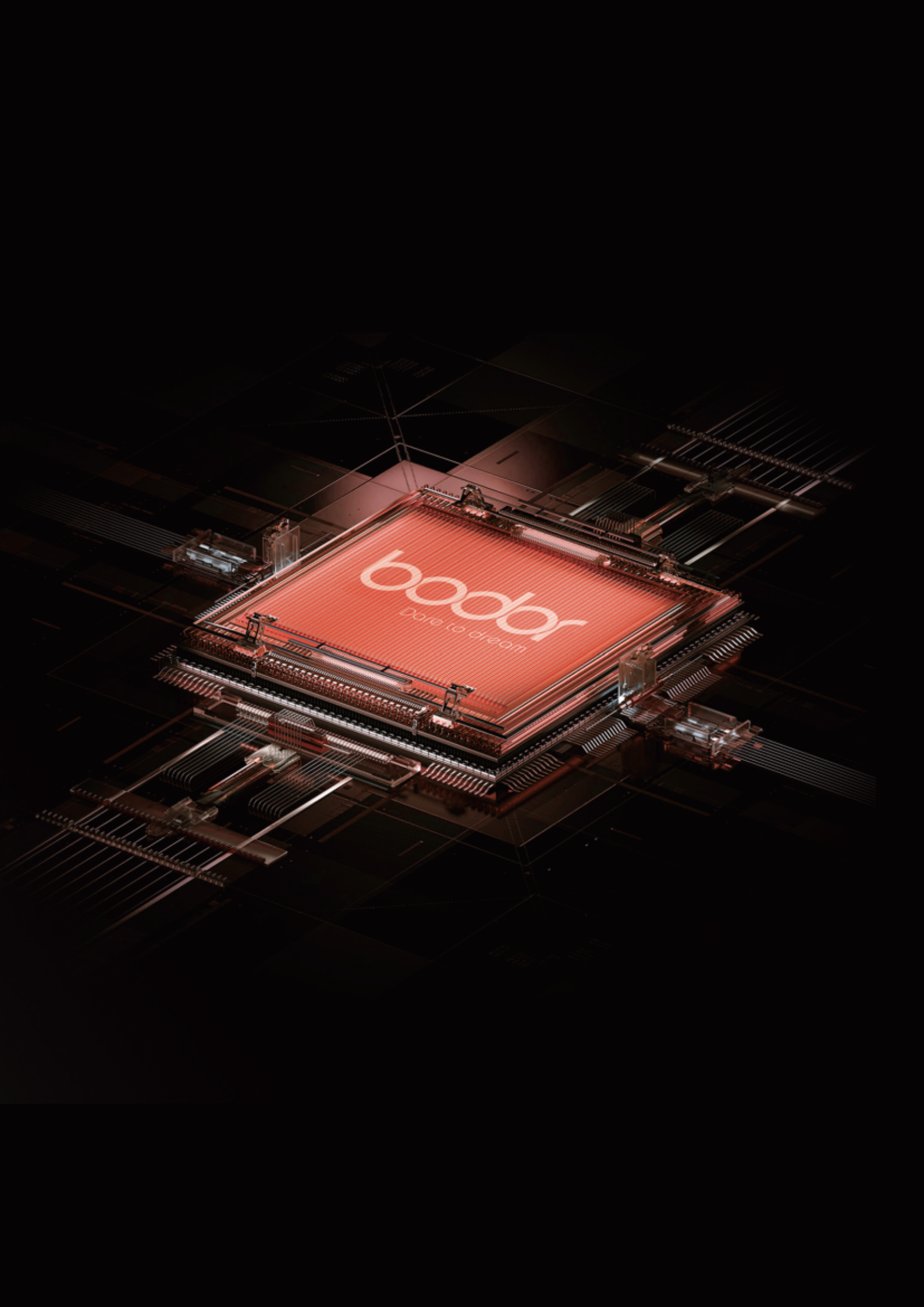
Cutting Capacity



Above data is only for reference

Cutting Samples





boodor
care to dream