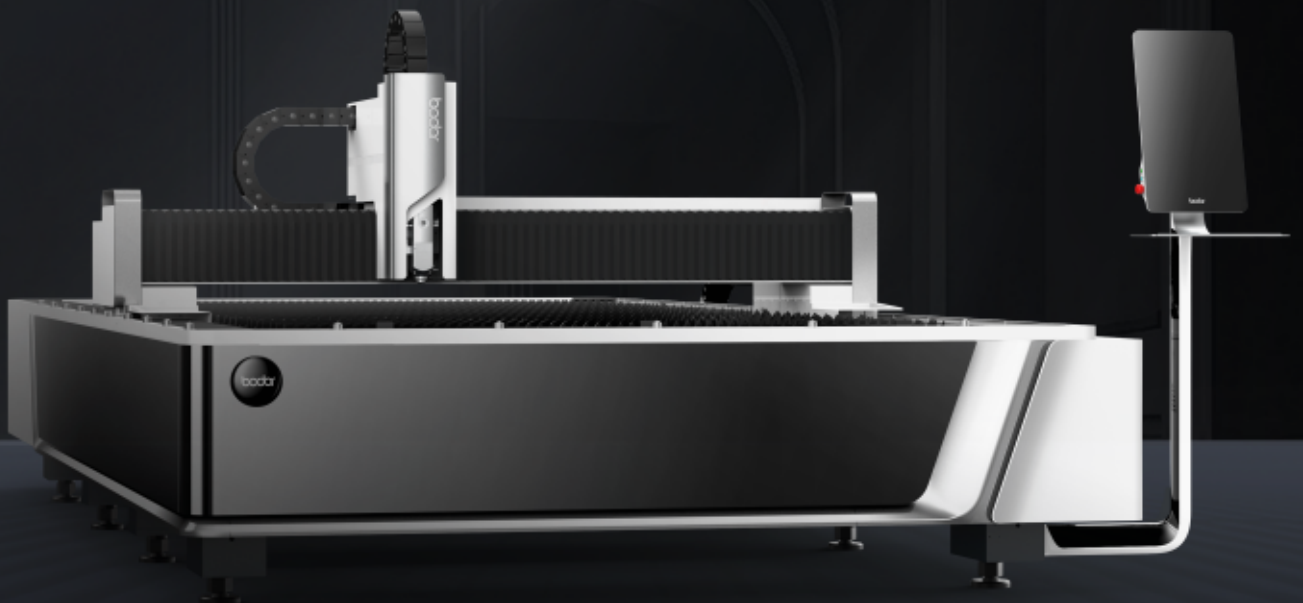


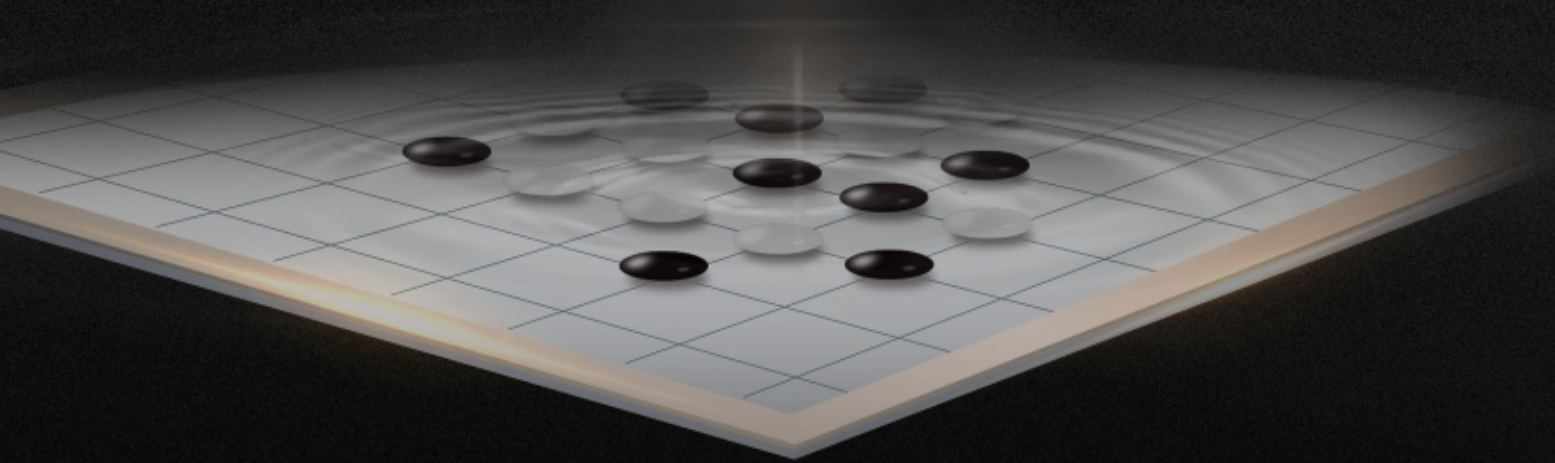
# A SERIES

SINGLE PLATFORM LASER CUTTING MACHINE

A3/A4/A6: 1kW-3kW, A14: 3kW-22kW



# THE BLACK GO CHESS



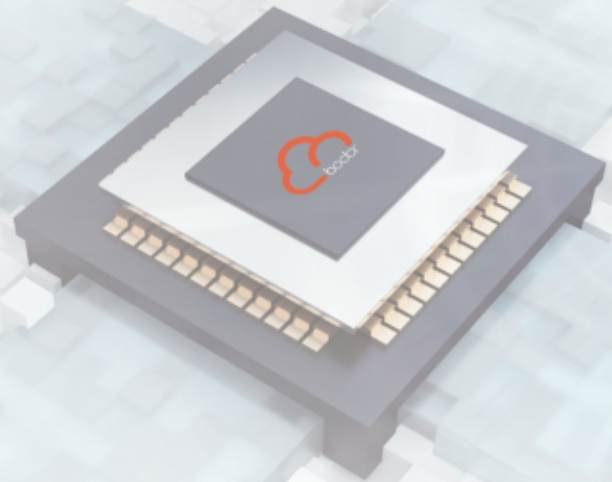
Black Go chess — inspired by Go

Circular — endless loop, endless exploration

Black — derived from obsidian crystal, steady and deep



# ETHERCAT BUS CONTROL



## Advantages

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- 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 multi-axis linkage.
- Easy installation and maintenance, 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 THINKER3.0



## Advantages

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- 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

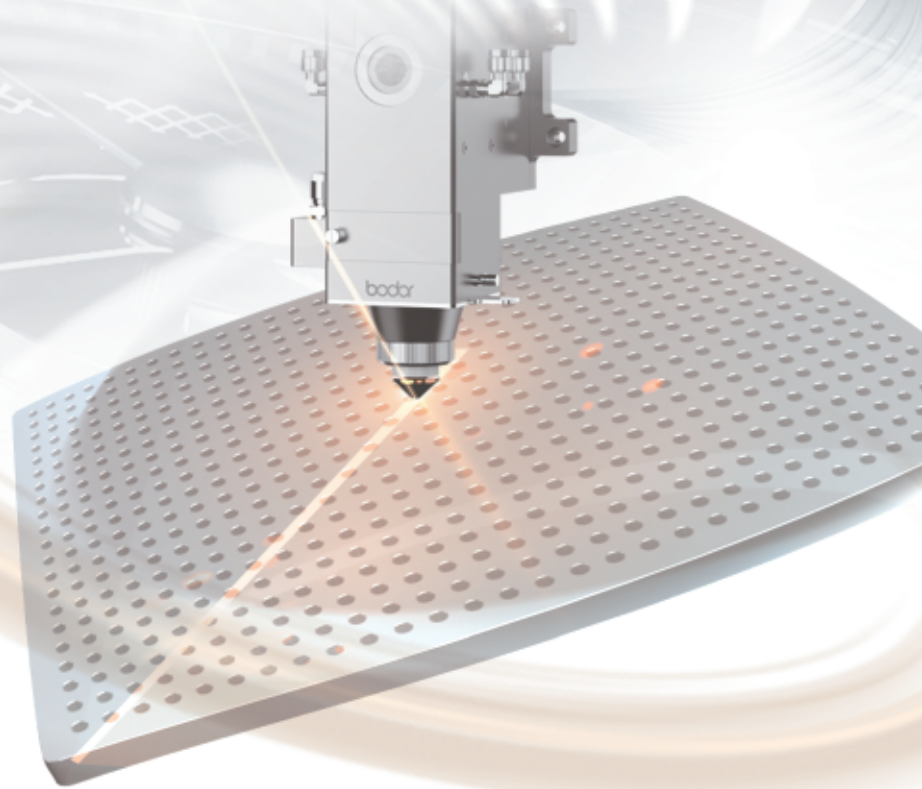


## Advantages

---

- 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

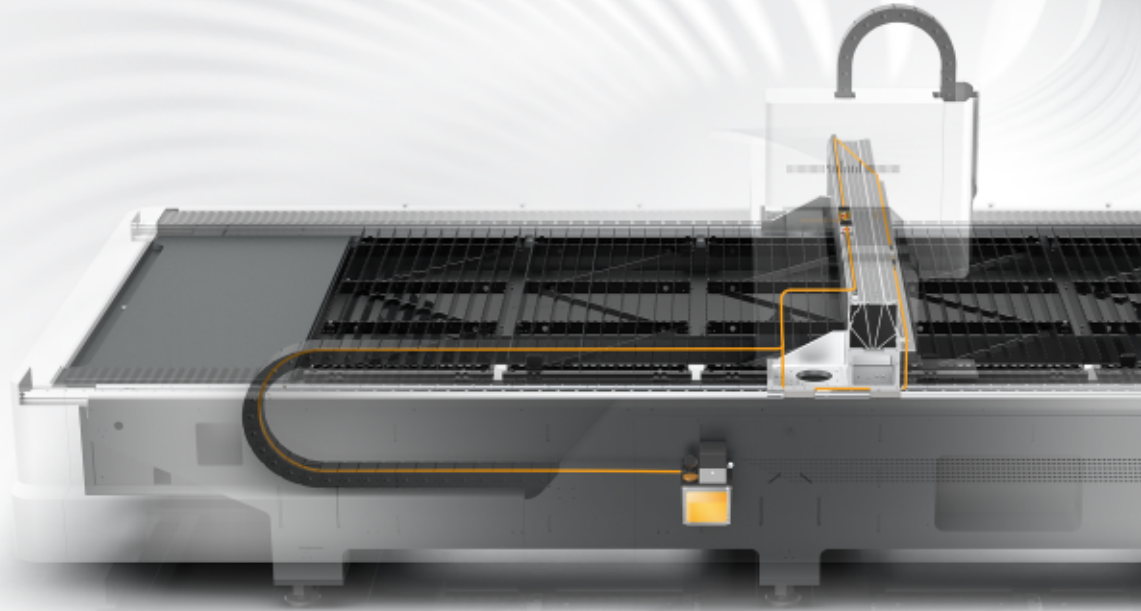


## Advantages

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- 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

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- **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



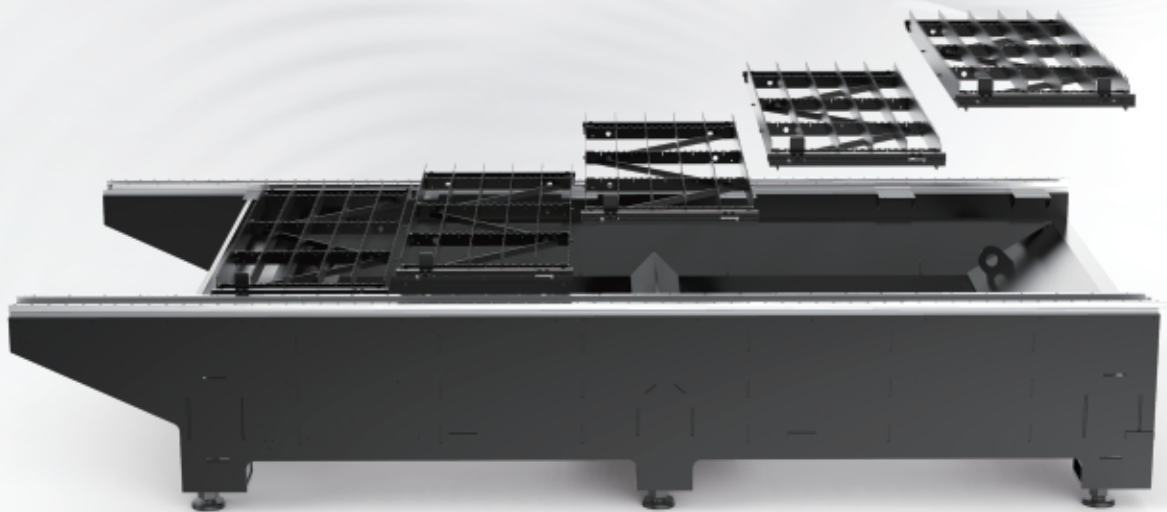
## Advantages

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- 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.



# 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

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- 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.

# BODORGENIUS



## Advantages

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- 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

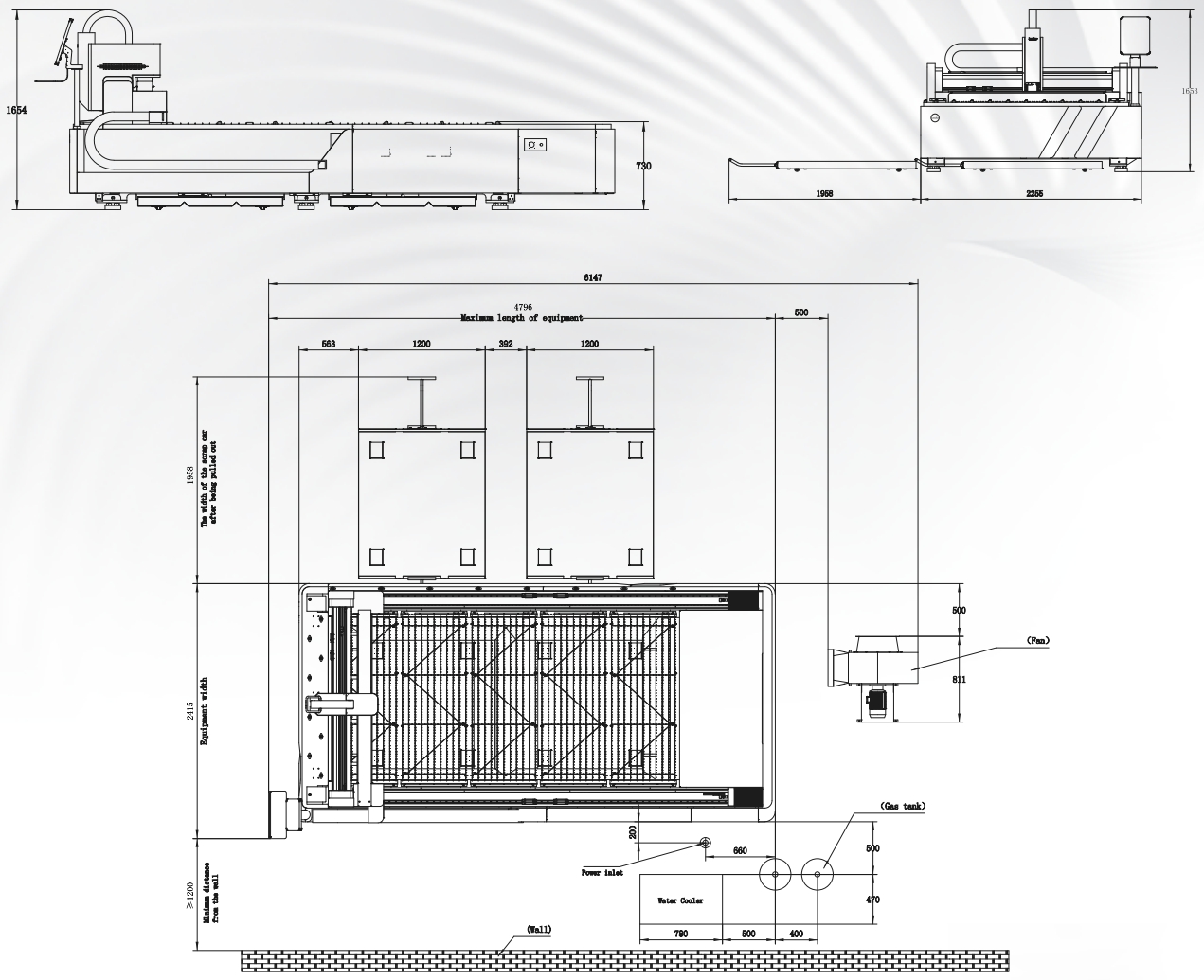


## Advantages

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- 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	A14	A6 Plus	A6	A4 Plus	A4	A3
Working area	14000mm*3100mm	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
Max. acceleration	1.5G	1.5G	1.5G	1.5G	1.5G	1.5G
Table load bearing	10000kg	2400kg	1500kg	1300kg	950kg	750kg
Machine overall dimensions	17400*4000*2000	8154*3389*1830	8100*2247*1755	5726*2840*1828	5726*2247*1755	4670*2247*1755
Overall weight	est. 18000kg	est. 4200kg	est. 3400kg	est. 2800kg	est. 2500kg	est. 2100kg
Z axis travel	120mm	110mm	110mm	110mm	110mm	110mm
Positioning accuracy	±0.05mm/m	±0.05mm	±0.05mm	±0.05mm	±0.05mm	±0.05mm
Repositioning accuracy	±0.03mm	±0.03mm	±0.03mm	±0.03mm	±0.03mm	±0.03mm
Total power capacity/current with 22KW source	153.3KVA/234.3A	x	x	x	x	x
Total power capacity/current with 20KW source	150.3KVA/228.3A	x	x	x	x	x
Total power capacity/current with 12KW source	106.4KVA/161.6A	x	x	x	x	x
Total power capacity/current with 6KW source	71.6KVA/108.8A	x	x	x	x	x
Total power capacity/current with 3KW source	55.9KVA/84.9A	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	x	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	x	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	x	x	x	x	21.1KVA/32.1A	21.1KVA/32.1A

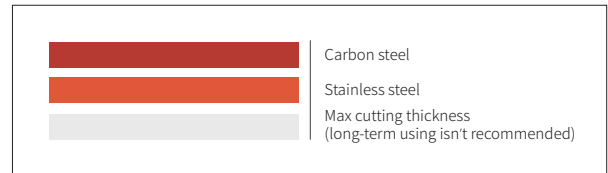
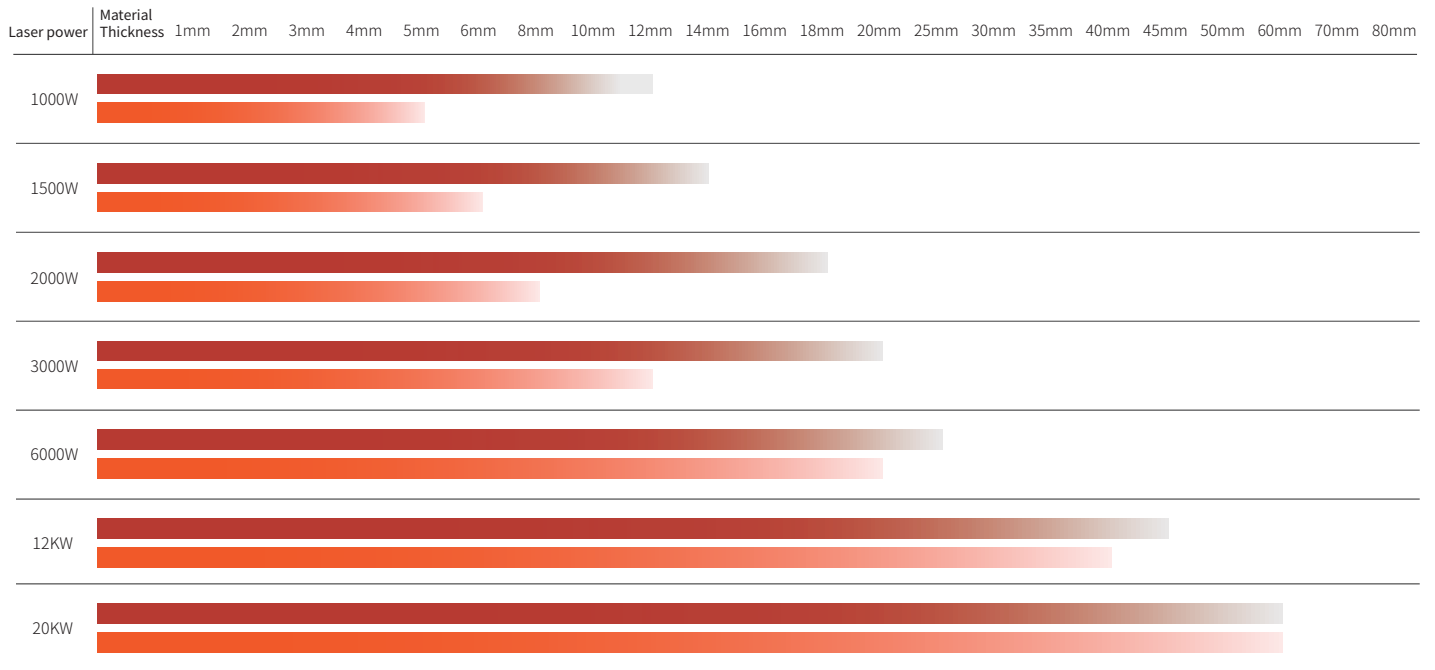
## Configuration And Components

laser head	12KW and below: BodorGenius 12KW above: Germany Precitec	BodorGenius				
Laser source	BODOR/IPG					
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-axis Servo motor and driver	BODOR					
Linear Rails	BODOR					
Protective Enclosure	BODOR					
Control system	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	Japan SMC					
Water Chiller	●	●	●	●	●	

## 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		

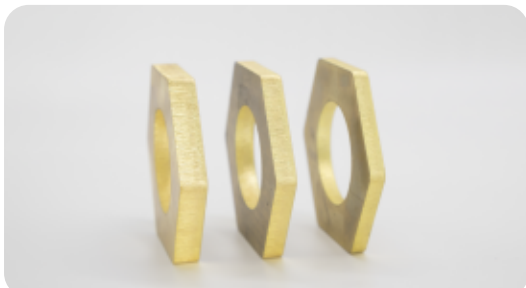
## Cutting Capacity

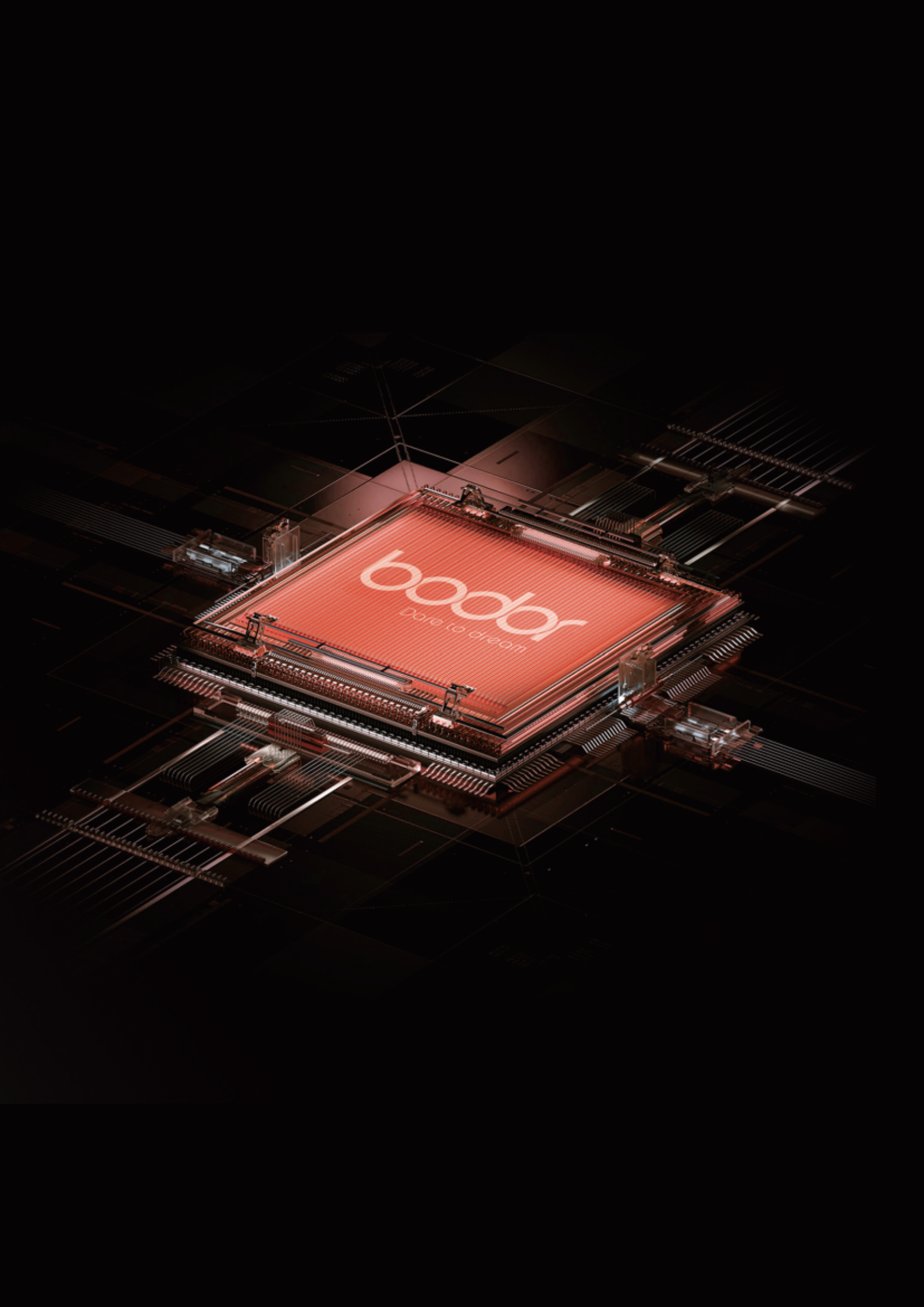


Above data is only for reference



Cutting Samples





boddor  
care to dream