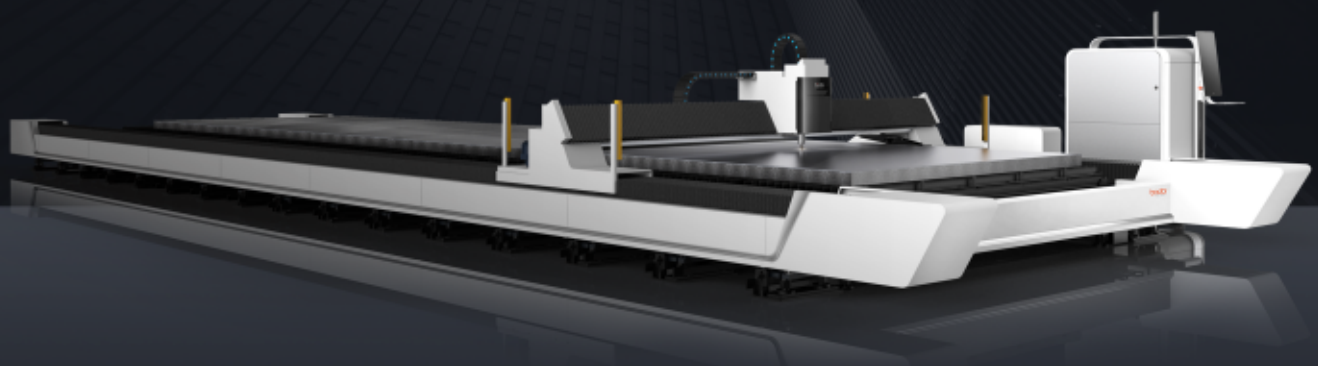
bodor
Dare to dream

G PRO

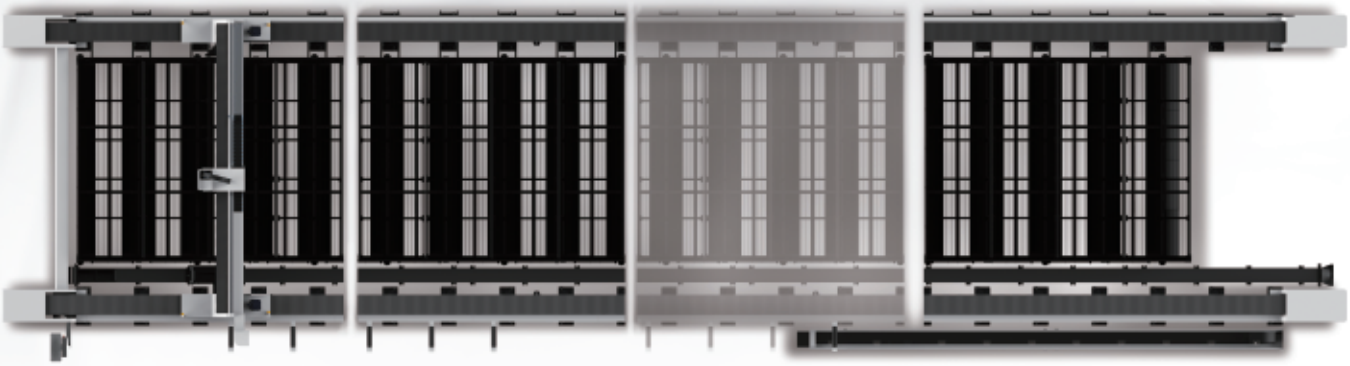
ULTRA-LARGE FORMAT LASER CUTTING MACHINE

6kW - 40kW, OPTIONAL CONFIGURATION - BEVEL CUTTING



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

ULTRA-LARGE FORMAT



12 + 4×N

(The modular bed length reaches a maximum of 24M.)

Advantages

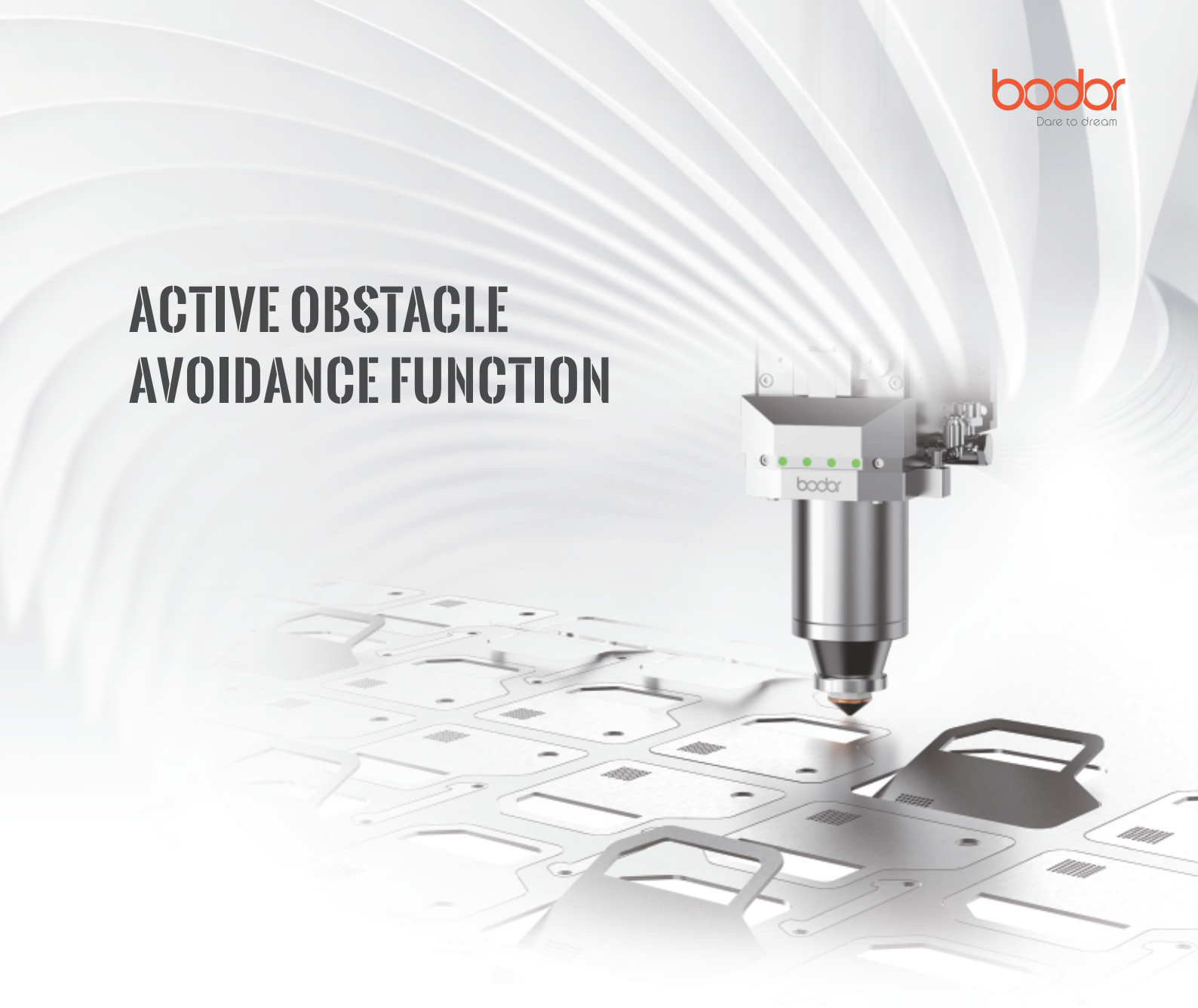
- Various sizes are available with a maximum of 24500mm*3200mm thanks to the sectional modules of machine bed.
- Achieve overall machining of long workpieces, meet more cutting demands.

BODOR THINKER 3.0

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.

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.

HIGH QUALITY CUTTING EXPERT DATABASE

2kW to 40kW

Suitable for machines with power from 2kW to 10kW, applicable for cutting aluminum, copper, stainless steel, carbon steel etc.

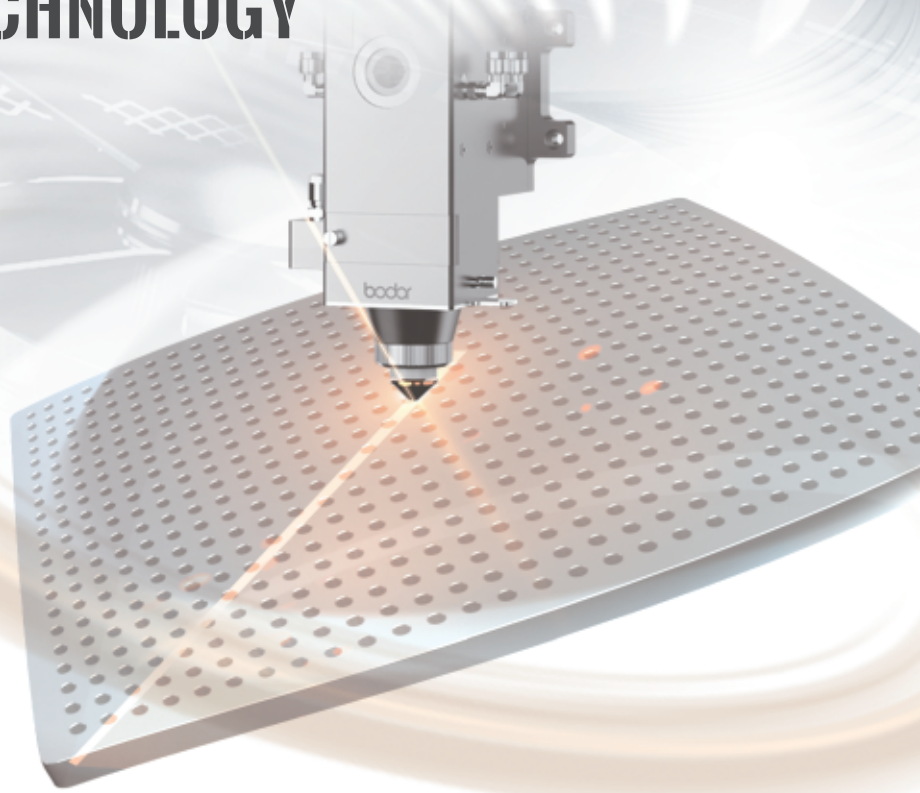
30%

The overall processing efficiency is 30% higher than the traditional processing, and the higher quality makes the cutting more delicate and smooth.

35%

With a wider selection of gases, cost saving more than 35%.

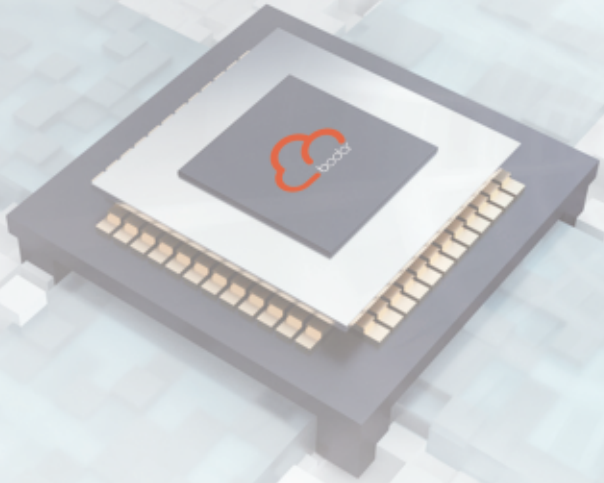
BODOR LIGHTNING PERFORATION TECHNOLOGY



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.

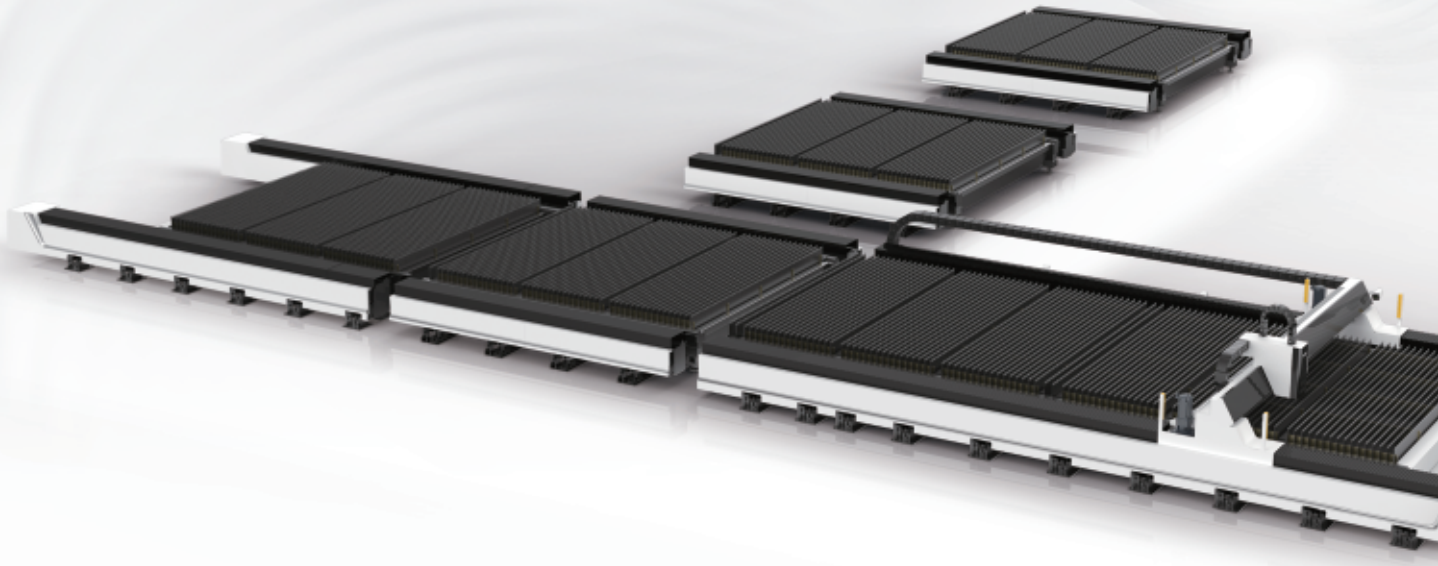
AIR PRESSURE INTELLIGENT CONTROL



Advantages

- Accurate monitoring of gas pressure, full closed-loop control, ensures stability of cutting and reduces production cost.
- The operation is simplified with no need of manual calibration, and improve the sensitivity and accuracy of air pressure changes through machine autonomous learning.

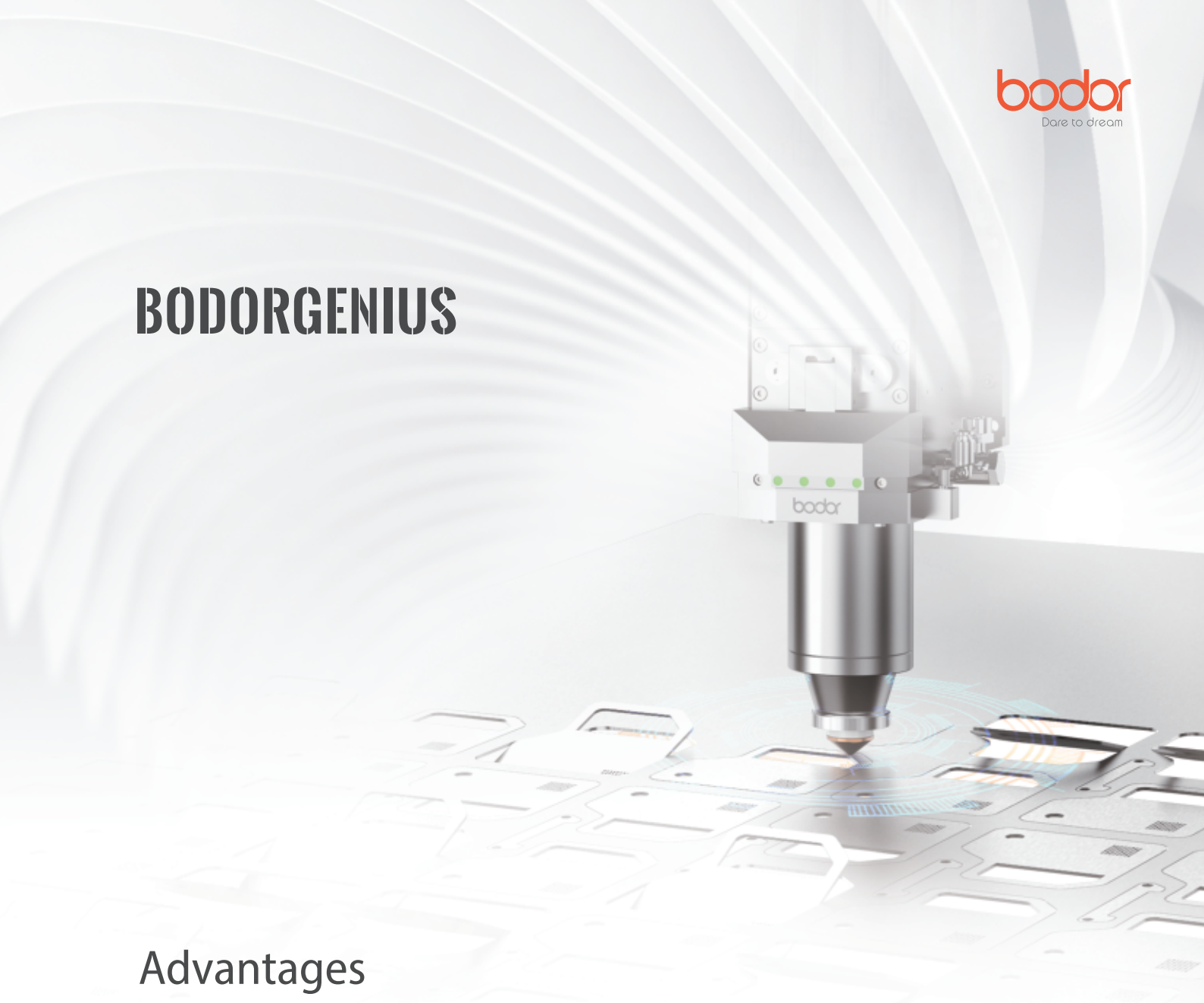
GROUND-RAIL WELDED BED



Advantages

- Ground-rail welded bed with high intensity, small footprint, stable precision, good wear resistance, fully guarantees the equipment's life.

BODORGENIUS



Advantages

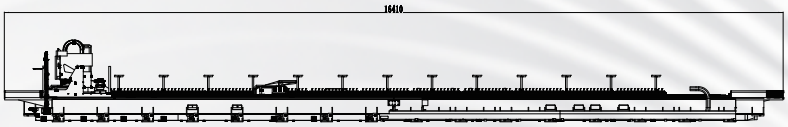
- The light-weight design ensures excellent acceleration performance and cutting speed.
- Excellent design in air flow and water-cooling structure enables the laser-head to continuously and efficiently operate at high power.
- Built-in drive unit, the automatic focus adjustment range is +10~ -12 mm, 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.

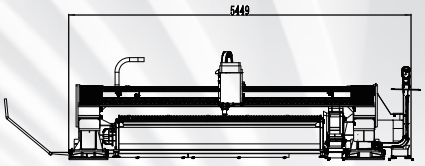
BODOR CLOUD

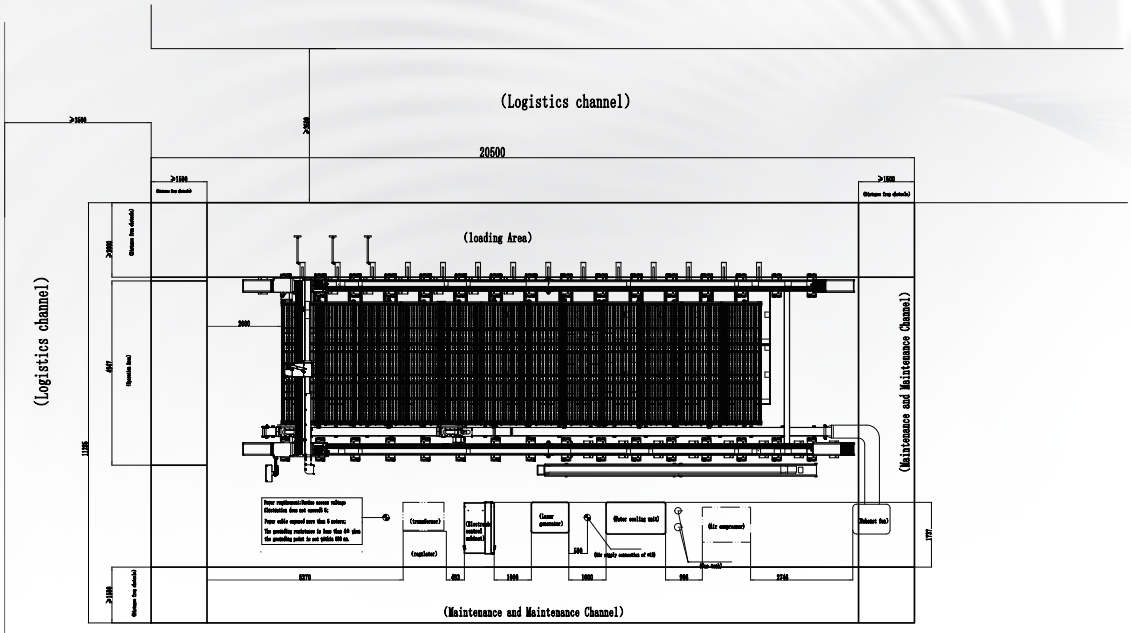
Advantages

- 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 referrence only, the actual drawing shipped with machine prevails.

G12 Pro
12500mm*3200mm

G16 Pro
16500mm*3200mm

G20 Pro
20500mm*3200mm

G24 Pro
24500mm*3200mm

Technical Data

ITEM	G24	G20	G16	G12
Working area	24500mm*3200mm	20500mm*3200mm	16500mm*3200mm	12500mm*3200mm
Max. linkage speed	80m/min	80m/min	80m/min	80m/min
Max. acceleration	0.8G	0.8G	0.8G	0.8G
Table load bearing	34000KG	28000KG	23000KG	17000KG
Machine overall dimensions	28600*5500*1800	24300*5500*1800	20000*5500*1800	15700*5500*1800
Overall weight	14500kg	12500kg	10500kg	8500kg
Z axis travel	135mm	135mm	135mm	135mm
Positioning accuracy	0.02mm/m	0.02mm/m	0.02mm/m	0.02mm/m
Repositioning accuracy	0.01mm/m	0.01mm/m	0.01mm/m	0.01mm/m
Total power capacity/current with 40KW MAX source	×	×	268.6KVA/408.1A	266.1KVA/404.3A
Total power capacity/current with 30KW MAX source	×	×	208.6KVA/317A	206.1KVA/313.2A
Total power capacity/current with 22KW source	×	×	130.8KVA/200.1A	143.5KVA/219.5A
Total power capacity/current with 20KW source	157.9KVA239.9A	152.4KVA/231.5A	127.8KVA/194.1A	140.5KVA/213.5A
Total power capacity/current with 12KW source	114.0KVA/173.2A	108.5KVA/164.9A	99.1KVA/150.6A	96.6KVA/146.8A
Total power capacity/current with 6KW source	79.3KVA/120.4A	73.8KVA/112.1A	64.4KVA/97.8A	61.9KVA/94A

Configuration And Components

laser head	22KW and below：BodorGenius	22KW above：Germany Precitec
Laser source	Bodor	Bodor/IPG
Machine bed	Segmented type welded lathe bed	
Gantry structure	Triangular type ultra-high pressure honeycomb aluminum gantry	
X-axis、Y-axis、Z-axisServo motor and driver	Japan Yaskawa	
Linear Rails	Made in Taiwan	
Rack	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	6KW and above：America Parker	
Water Chiller	●	

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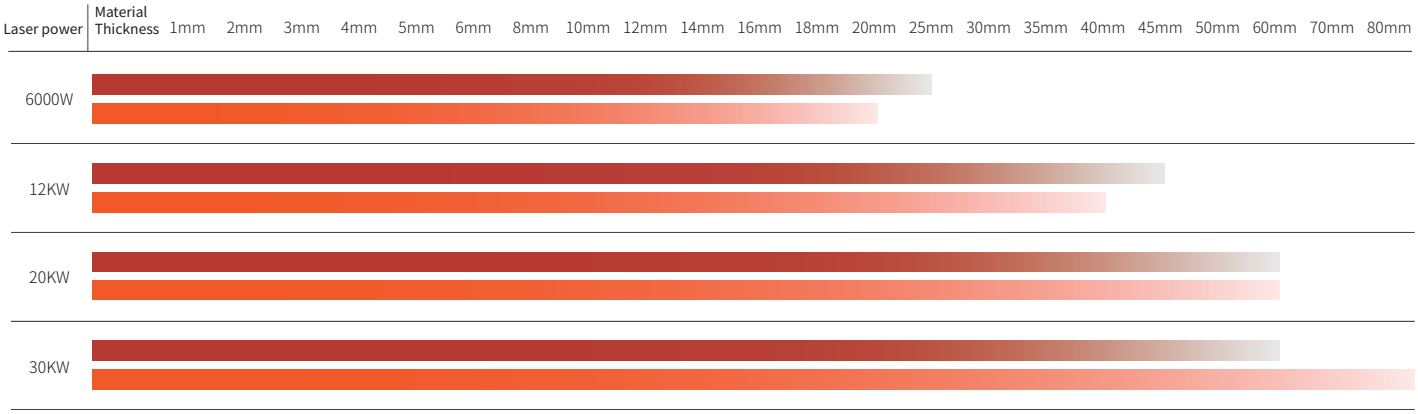
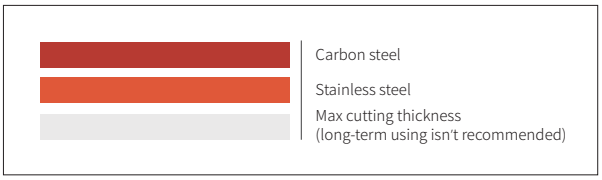
Cutting Parameters

		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--4.5
	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--3.8	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	2.2--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

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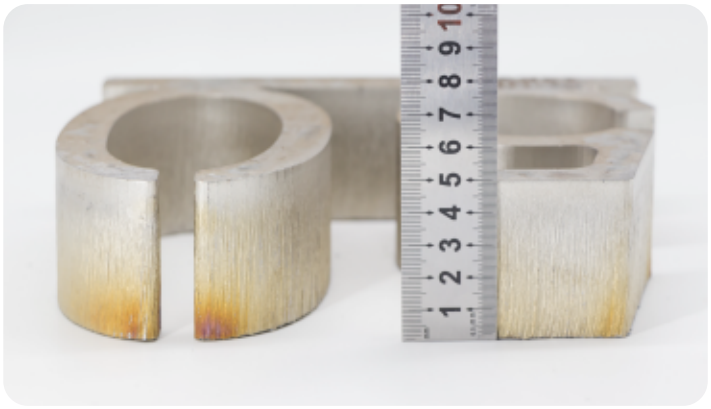
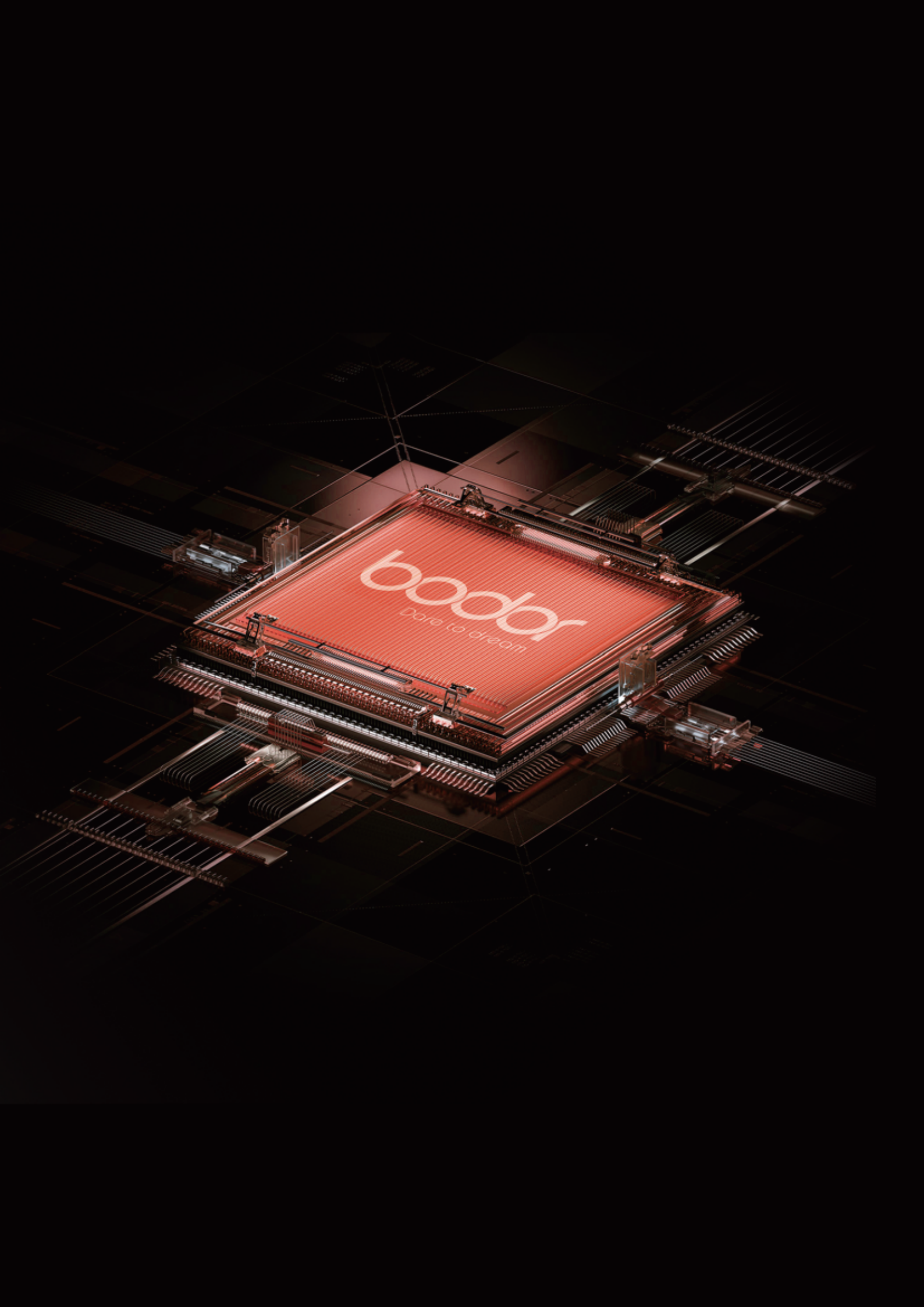
Cutting Samples

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