bodor
Dare to dream

C SERIES

LASER CUTTING MACHINE

1.5kW–40kW

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

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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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BODORTHINKER

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.

HIGH QUALITY CUTTING EXPERT DATABASE

1.5kW to 40kW

Suitable for machines with power from 1.5kW to 40kW, 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%

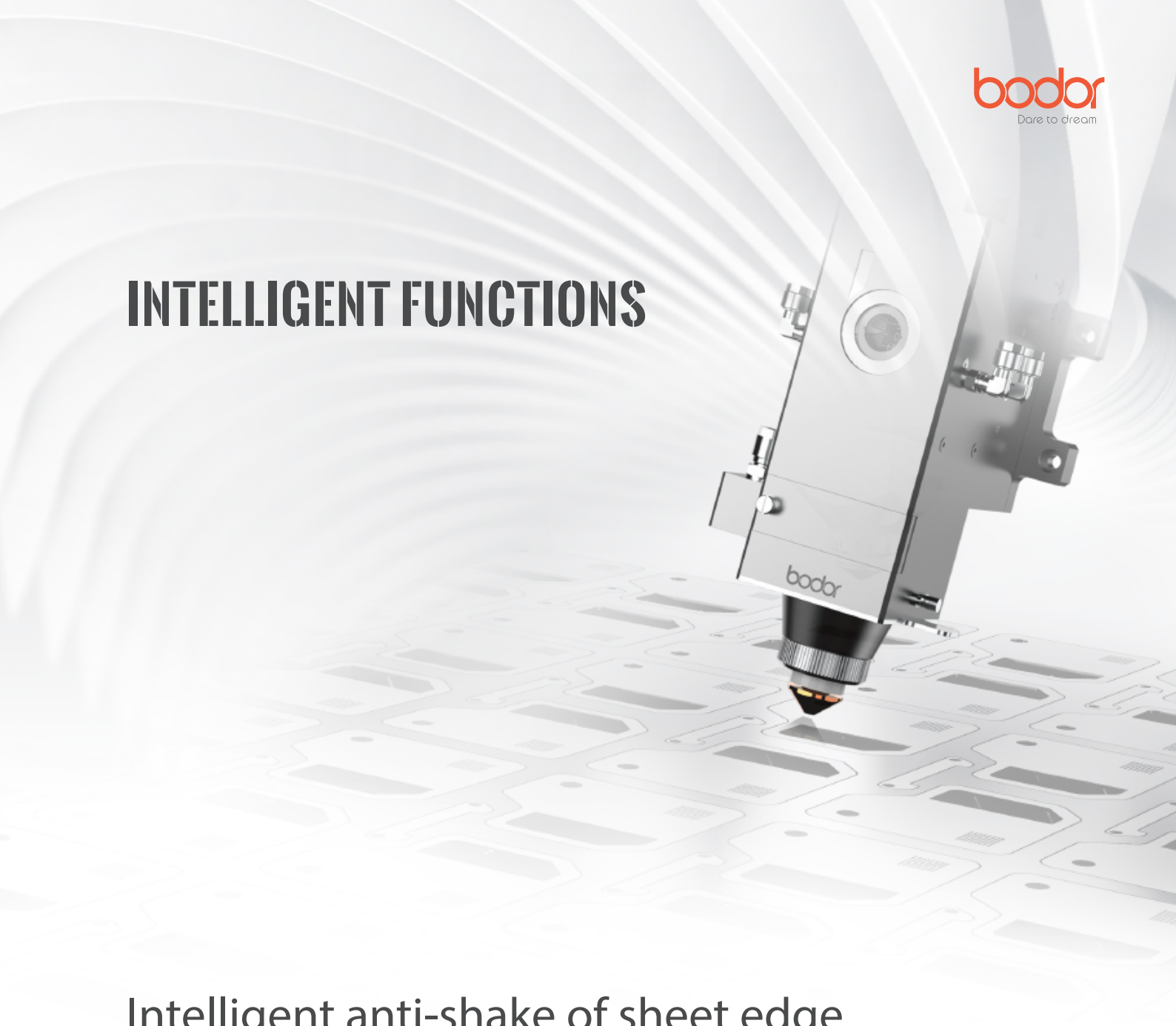
With a wider selection of gases, cost saving more than 35%.

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.

INTELLIGENT FUNCTIONS



Intelligent anti-shake of sheet edge

- 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.

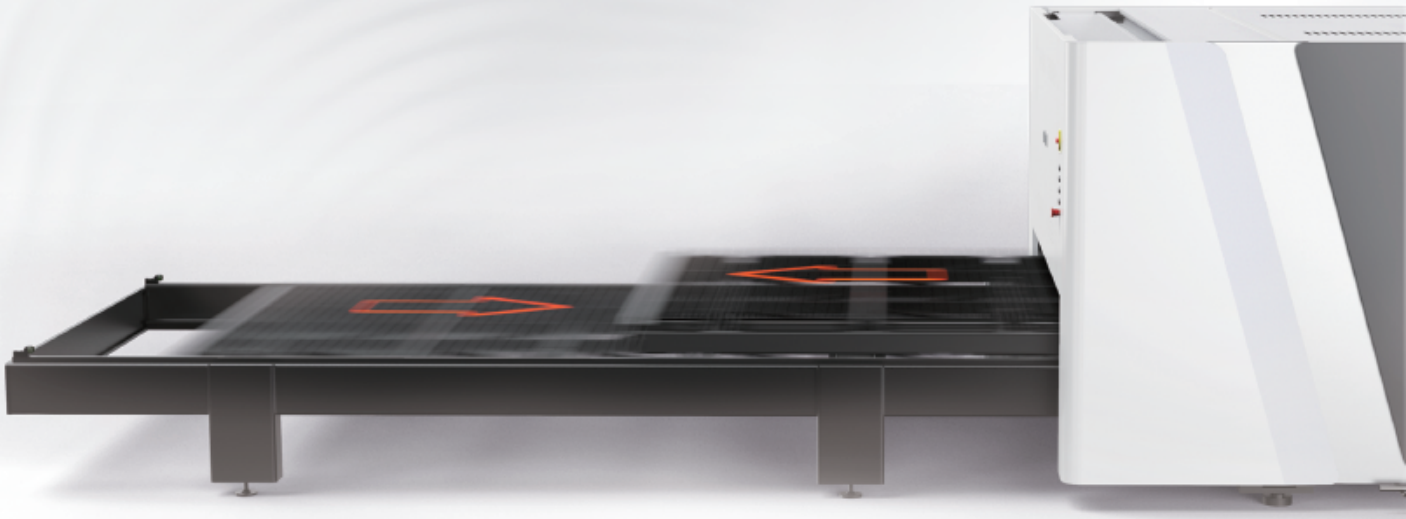
ALL-ROUND PROTECTIVE COVERING

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.

DOUBLE FAST EXCHANGE TABLES



Advantages

- Double fast exchange tables greatly improve efficiency
- Rack and gearwheel transmission system have better regidity and higher accuracy, saving feeding time.

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.

BODOR GENIUS

Advantages

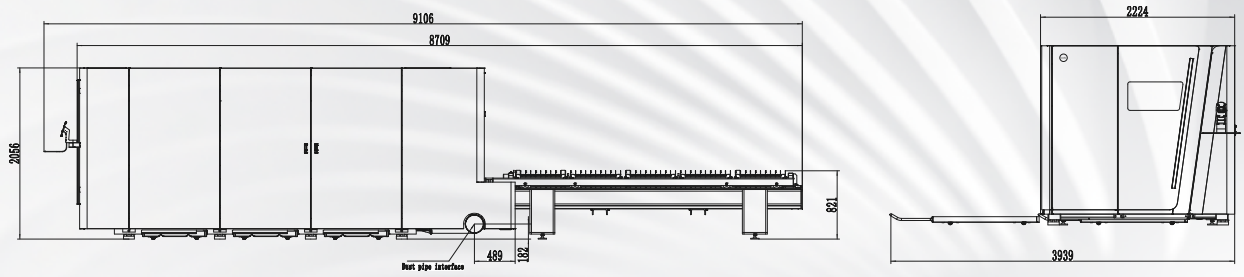
- **Auto focus:**Applicable to multiple focal lengths, automatically adjusts focal position in cutting process by different sheet thickness.
- **Free your hands:**Focal length is controlled by operating system, which effectively avoids errors or faults caused by manual operation.
- **Simple and fast:**Applying Bodor lightning perforation technology reduce almost 90% work time. When technicist changes different metal sheet, Auto focus laser head can automatically read system storage parameters, which make the cutting process less gas, less electricity, lower cost, high efficiency.
- **Accurate:**By setting perforation focal length and cutting focal length respectively, the cutting is more accurate.
- **Durable:**By increasing collimation & focus protective lens, the key components can be protected.Built-in double water-cooling structure ensures constant temperature of collimating and focusing components, prevents lenses from overheating and prolongs service life of lenses.

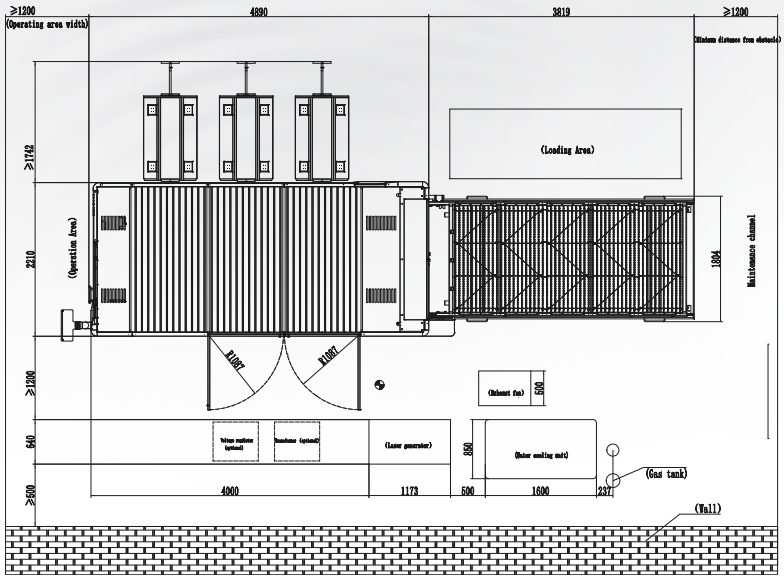
BODOR CLOUD

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.

C3	C4	C6	C8	C12
3048mm*1524mm	4100mm*2000mm	6100mm*2500mm	8000mm*2500mm	12000mm*2500mm

Technical Data

ITEM	C12	C8	C6	C4	C3
Working area	12500mm*2600mm	8000mm*2500mm	6100mm*2500mm	4000mm*2000mm	3048mm*1524mm
Max. linkage speed	110m/min	110m/min	110m/min	110m/min	110m/min
Max. acceleration	1.5G	1.5G	1.5G	1.5G	1.5G
Table load bearing	"7100kg （1-4kw） 9500kg （≥6kw）"	"4750kg （1-4kw） 6300kg （≥6kw）"	"3550kg （1-4kw） 4700kg （≥6kw）"	"1600kg （1-4kw） 2500kg （≥6kw）"	"900kg （1-4kw） 1450kg （≥6kw）"
Machine overall dimensions	28735*4050*2670mm	19300*3875*2440mm	15100*3700*2155mm	11084*2995*2055mm	9100*2225*2055mm
Overall weight	36000kg	21000kg	13000kg	6000kg	4500kg
Z axis travel	400mm	370mm	300mm	300mm	300mm
Positioning accuracy	±0.05mm	±0.05mm	±0.05mm	±0.05mm	±0.05mm
Repositioning accuracy	±0.03mm	±0.03mm	±0.03mm	±0.03mm	±0.03mm
Total power capacity/current with 40KW MAX source	275.9KVA/419.2A	275.9KVA/419.2A	275.9KVA/419.2A	268.4KVA/407.8A	264.1KVA/401.2A
Total power capacity/current with 30KW MAX source	215.9KVA/328A	215.9KVA/328A	215.9KVA/328A	208.4KVA/316.6A	204.1KVA/310.0A
Total power capacity/current with 22KW source	153.3KVA/234.3A	153.3KVA/234.3A	153.3KVA/234.3A	145.8KVA/222.9A	141.4KVA/216.3A
Total power capacity/current with 20KW source	150.3KVA/228.3A	150.3KVA/228.3A	150.3KVA/228.3A	142.8KVA/216.9A	138.4KVA/210.3A
Total power capacity/current with 12KW source	106.4KVA/161.6A	106.4KVA/161.6A	106.4KVA/161.6A	98.9KVA/150.2A	94.6KVA/143.7A
Total power capacity/current with 6KW source	71.6KVA/108.8A	71.6KVA/108.8A	71.6KVA/108.8A	64.1KVA/97.4A	59.8KVA/90.9A
Total power capacity/current with 3KW source	55.9KVA/84.9A	55.9KVA/84.9A	55.9KVA/84.9A	48.4KVA/73.5A	44.1KVA/66.9A
Total power capacity/current with 2KW source	×	×	47.2KVA/71.6A	39.7KVA/60.2A	35.3KVA/53.7A
Total power capacity/current with 1.5KW source	×	×	57.2KVA/86.9A	49.7KVA/75.6A	45.4KVA/69A

Configuration And Components

laser head	BodorGenius	
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	Semi-closed	●
Enhanced-partition Dust Removal	●	
Control system	BodorThinker	
Display size	21.5 inches	
Water Chiller	●	
Centrifugal fan	●	

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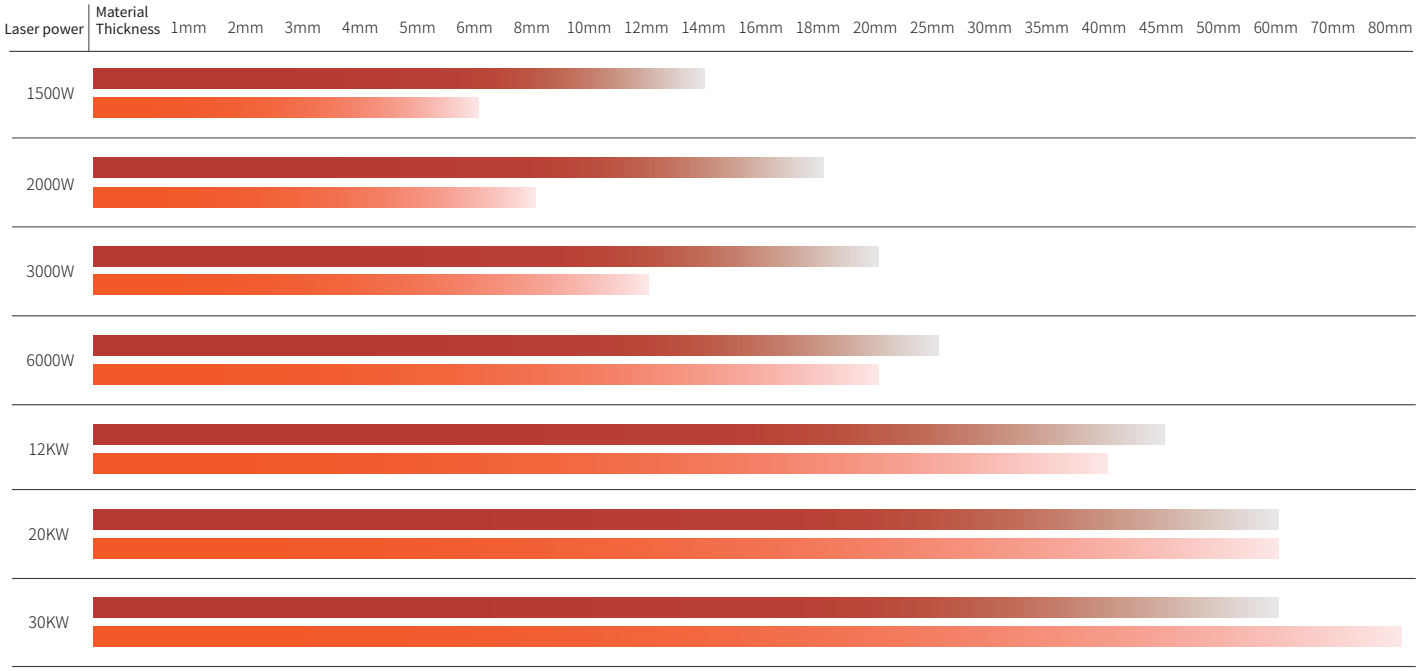
Cutting Parameters

		1000W	1500W	2000W	3000W	6000W	12kW	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
"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
	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
	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
	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
	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
	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--4.5
	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--3.9	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	2.0--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	1.6--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--3.6	1.6-3.6
	16			0.6-0.8	0.7--1.0	0.8--1.5	1.2--3.1	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	1.4--3.4	1.4--3.4
	20				0.5--0.8	0.5--0.8	0.6--2.4	1.5--3.3	1.5--3.3
	25					0.3--0.55	0.5--1.6	1.0-2.8	1.0-2.8
	30						0.3--1.0	0.8--2.0	1.2-2.0
	35						0.3--0.7	0.6--0.9	0.9--1.1
	40						0.2--0.4	0.5--1.0	0.8-1.0
	45						0.2--0.3	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
	2	5--7.5	8.0--12	9.0--15	13--21	20--33	40--66	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--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--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	22--30	25--32
	6		0.7--1.0	1.2-2.0	2.0--4.0	4.8--9.0	12--15	17--25	18-26
	8			0.7-1.0	1.5--2.0	3.0--4.0	8--12	12--18	15-20
	10				0.6--0.8	1.6--2.5	6.0--8.0	8.0--12.0	12--15
	12				0.4--0.6	0.8--1.5	4.0--5.5	6.0--8.5	8--12
	14					0.6--1.2	3.0--5.0	5.0--7.0	6--10.5
	16					0.5--1.0	2.2--2.8	3.0--5.0	5--9
	18					0.4--0.8	1.2--2.0	1.8--2.7	3--6.5
	20					0.3--0.6	1.0--1.6	1.5--3.2	2--4.7
	25						0.5--0.8	1.5--2.0	1.8-2.5
	30						0.3--0.6	1.0--1.5	1.5--1.8
	35						0.3--0.5	0.4--0.8	1.0-1.5
	40						0.3--0.5	0.3--0.6	0.6-1.3
	45							0.2--0.6	0.8-1.0
	50							0.2--0.5	0.25-0.5
	60							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	
	2	2.8--3.6	5.0--7.0	10--15	10--18	20--40	38--50	40--70	
	3		2.0--4.0	5.0--7.0	6.5--8.0	15--25	30--40	35--60	
	4		1.0--1.5	3.5--5.0	3.5--5.0	9.5--12	20--30	30--43	
	5			1.8--2.5	2.5--3.5	5.0--8.0	15--25	20--32	
	6			1.0--1.5	1.5--2.5	3.8--5.0	10--15	15--26	
	8				0.7--1.0	2.0--2.5	7.0--12	10--18	
	10				0.4--0.7	1.0--1.5	4.5--8.0	6.0--10.0	
	12					0.8--1.3	4.0--5.0	4.0--6.0	
	14					0.9--1.2	1.8--2.7	2.2--3.2	
	16					0.5--0.8	1.5--2.5	2.0--3.0	
	18					0.5--0.7	1.0--1.8	1.5--2.0	
	20					0.5--0.7	0.9--1.5	1.3--1.8	
	25						0.6--0.9	0.6--1.2	
	30						0.3--0.8	0.5--1.0	
	35						0.3--0.6	0.3--0.8	
	40						0.3--0.4	0.3--0.5	
"Brass N2"	1	6.0--10	8.0--13	12--18	20--35	35--45	55--65	65-75	
	2	2.8--3.6	3.0--4.5	6.0--8.5	6.0--10	20--30	38--42	40--60	
	3		1.5--2.5	2.5--4.0	4.0--6.0	12--18	18--30	25-40	
	4		1.0--1.6	2.0--3.0	3.0-5.0	8.0--12.0	15--20	20--35	
	5			0.9--1.2	1.5--2.0	6.0--8.0	10--15	18--25	
	6				1.0--1.8	3.0--6.5	6.0--8.0	10--18	
	8					1.6--2.2	5.0--7.0	8.0--10.0	
	10					0.8--1.2	4.5--6.0	5.0--9.0	
	12					0.3--0.5	2.4--4.0	2.8--4.2	
	14						0.8--1.5	1.5--5.0	
	16						0.6--1.2	1--2.4	
	18						0.4--0.6	0.8--2.2	
	20							0.4--2.0	
	25							0.3--0.5	

Cutting Capacity



Above data is only for reference

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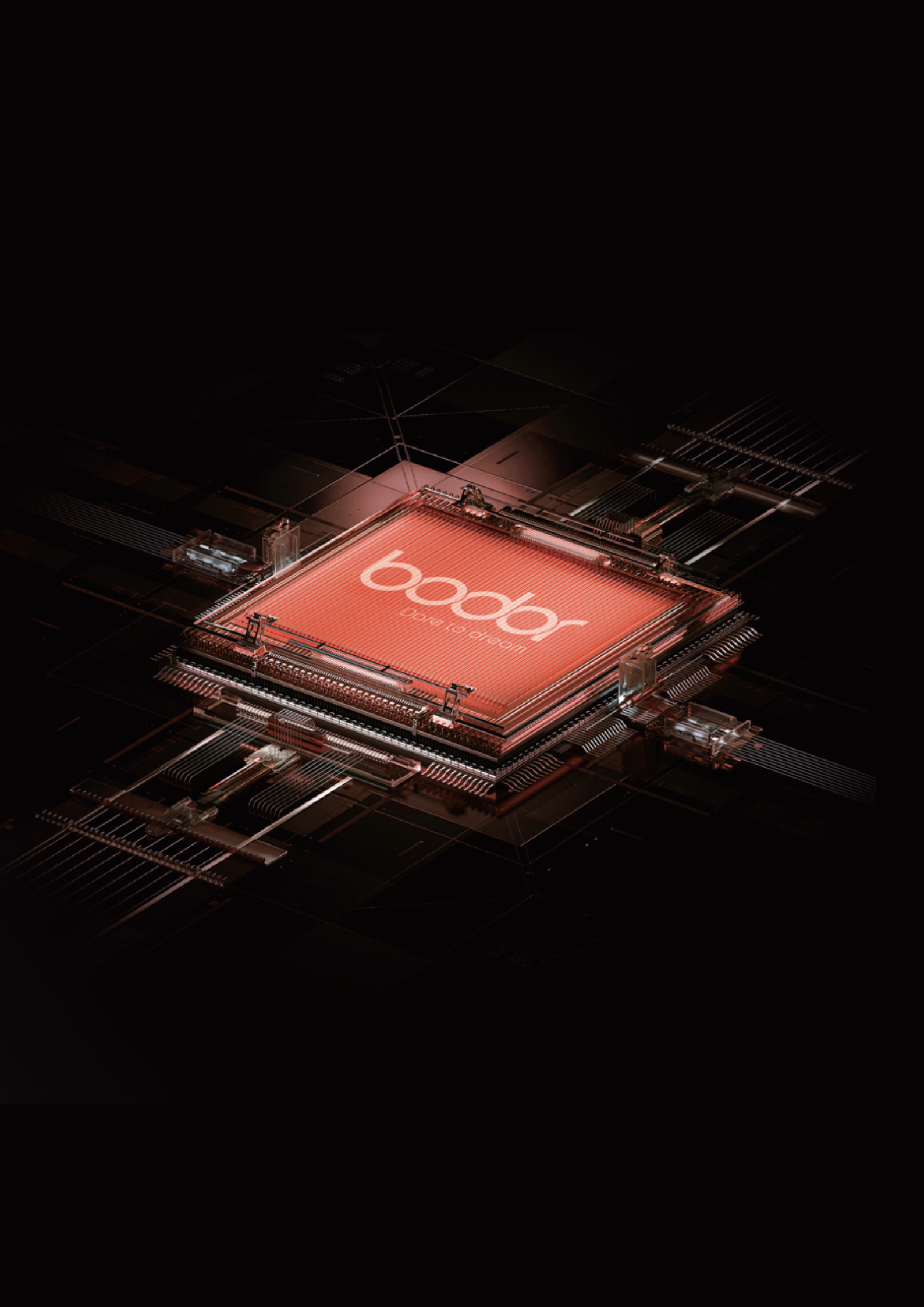
Cutting Samples







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