

K SERIES

TUBE LASER CUTTING MACHINE

1kW-3kW



THE BLACK GO CHESS



Black Go chess — inspired by Go

Circular — endless loop, endless exploration

Black — derived from obsidian crystal, steady and deep



SMALL AND SMART



Advantages

- Compact design, easy to operate, specially tailored for new users in the market
- Customized sheet metal material, stable and durable, high space utilization
- Widely used in different industries, such as guardrails, fitness equipment, shelves, crafts processing, small home appliances, and lighting etc.

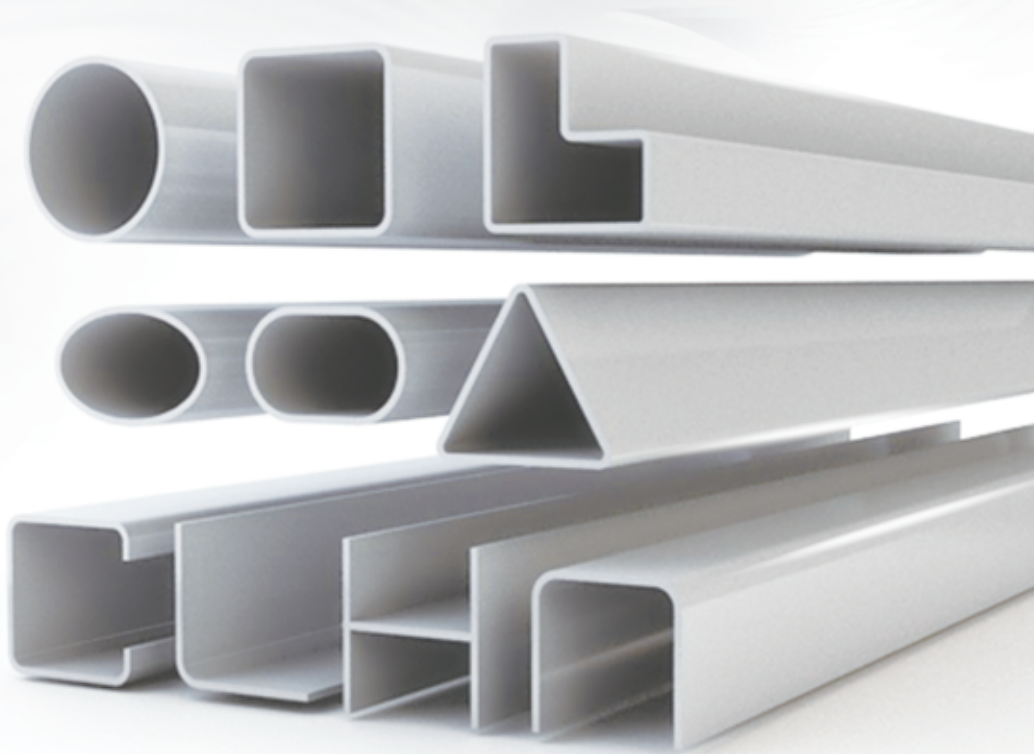
BODORTHINKER3.0



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 informationized solutions.

APPLICABLE FOR VARIABLE TYPES OF TUBE



Advantages

- K Series is applicable for different kinds of tubes, such as round, square, rectangle, triangle, l-beam etc.
- The dedicated control system of tube cutting machine integrated with the most advanced technology, can cut angle steel and channel steel directly without nesting and zero-returning.

BODORNEST TUBE



Advantages

- The system, presenting convenient layout and processing all the time even when offline, applies to groove steel, I-shaped steel, and other special-shaped tubes and is accessible for third-party machine tools.

AUTOMATIC TUBE DETECTION

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

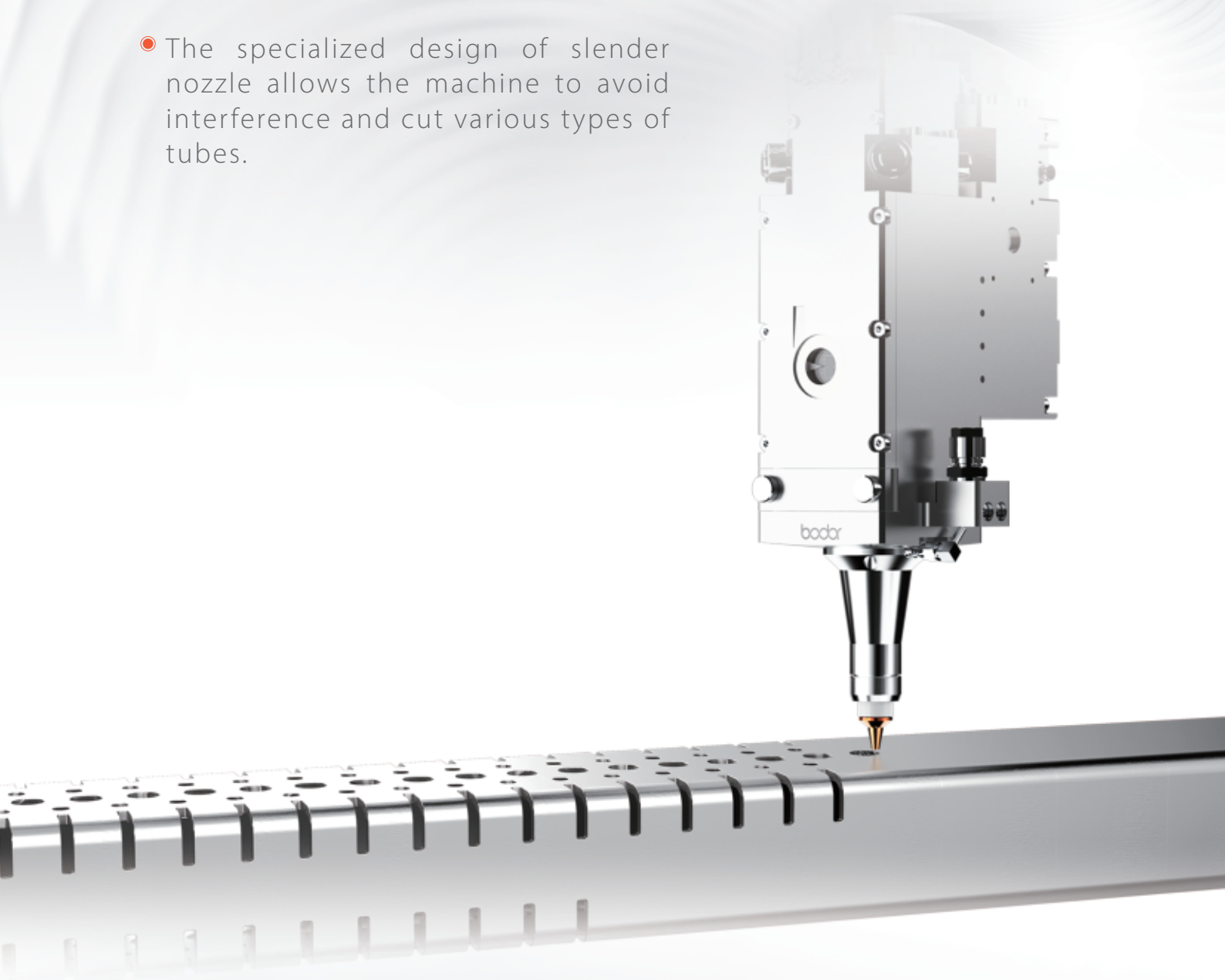


ERGONOMICS

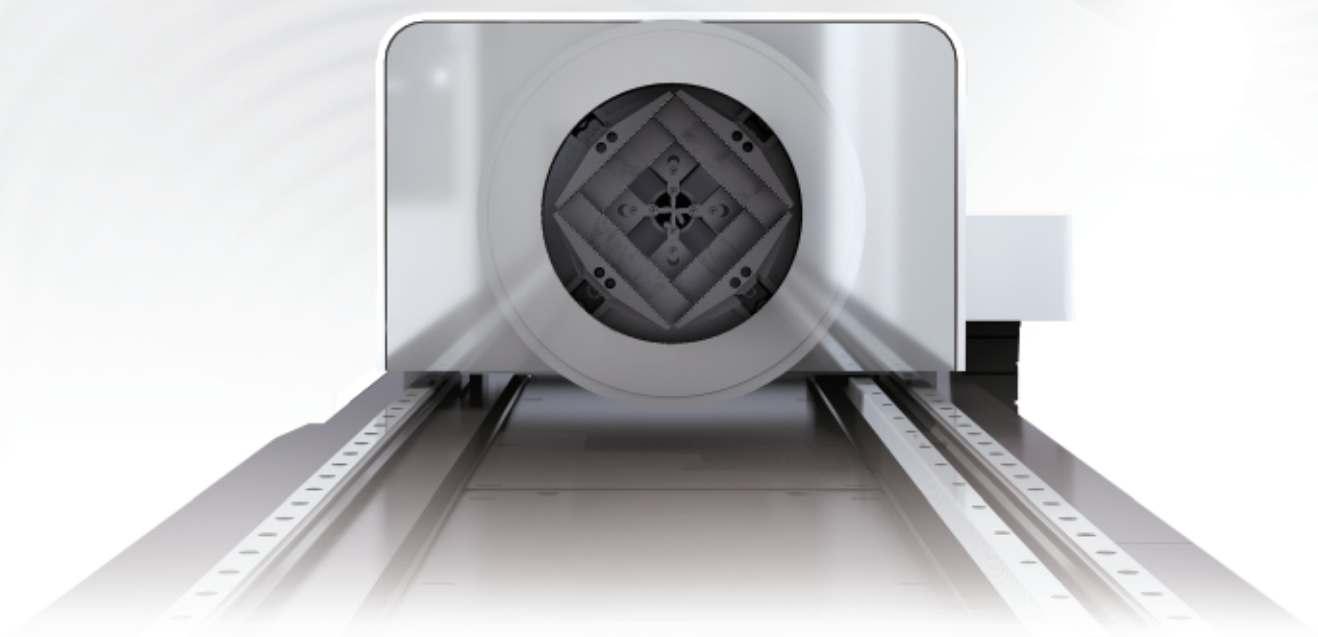
- Loading and operating on both sides. Humanized interaction interface, convenient and smooth operation brings favorable user experience.

BodorGeniusT

- The specialized design of slender nozzle allows the machine to avoid interference and cut various types of tubes.



PNEUMATIC CHUCK



Advantages

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

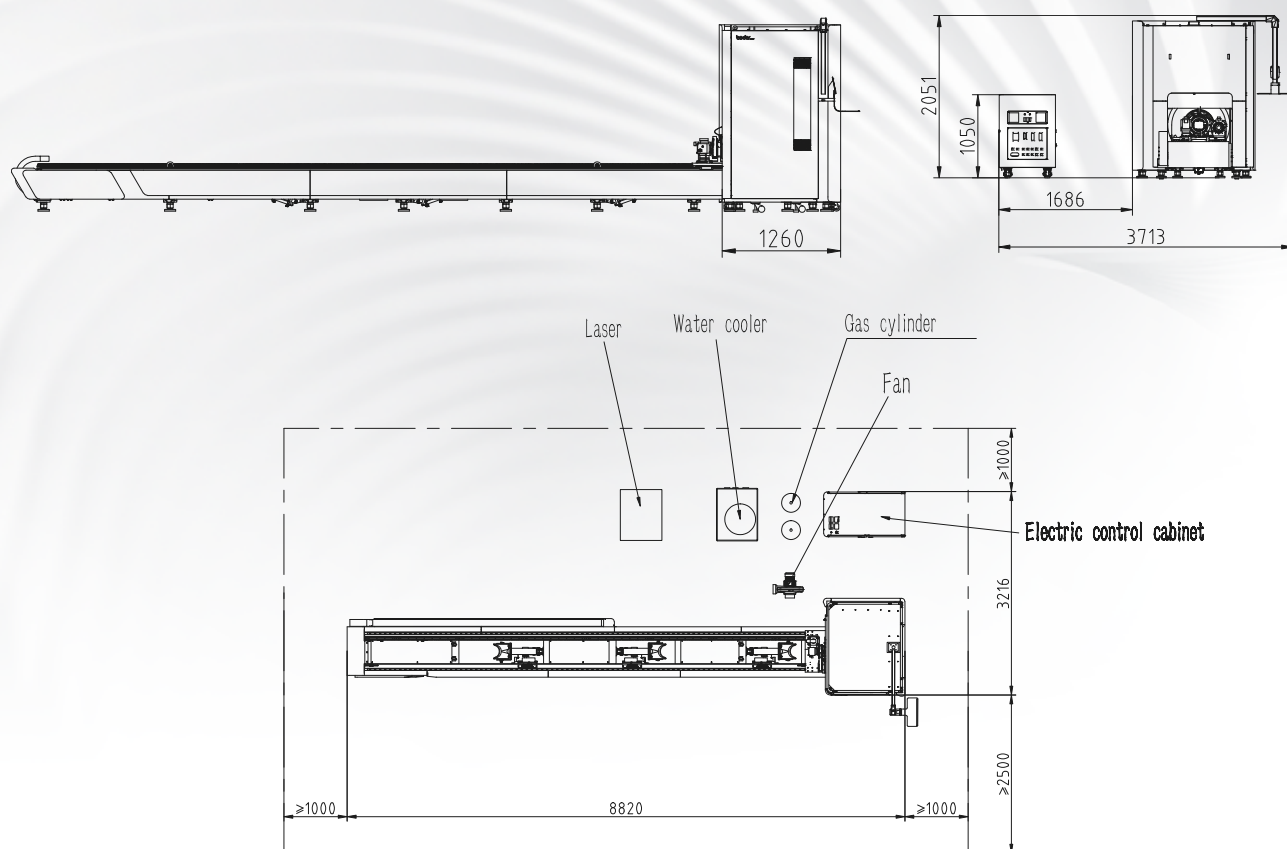
BODOR CLOUD



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.



K110
8649×1398×1811mm



K230
8800×3200×2100mm



K360
10000×3500×2100mm

Technical Data

ITEM	K360	K230	K110
Tube cross-sectional shape	Round, square, rectangular, oval, rounded rectangular, Angle steel, channel steel and other tubes		
Tube size range	Round tube: ϕ 20- ϕ 350mm Square tube: $\square$ 20- $\square$ 250mm Rectangular tube: 300mm $\geq$ Side length $\geq$ 20mm Circumscribed circle diameter $\leq$ 350mm	Round tube: ϕ 20- ϕ 230mm Square tube: $\square$ 20- $\square$ 160mm Rectangular tube: 170mm $\geq$ Side length $\geq$ 20mm Circumscribed circle diameter $\leq$ 230mm	Round tube: ϕ 10- ϕ 110mm Square tube: $\square$ 10- $\square$ 110mm Rectangular tube: 110mm $\geq$ Side length $\geq$ 10mm Max.length of angle steel or channel steel $\leq$ 80mm
Maximum machinable tube length	6300mm	6300mm	6500mm
Maximum tube weight	300Kg 50kg/m	200Kg 33.4Kg/m	80Kg 13.3Kg/m
Max. Chuck rotating speed	75r/min	75r/min	130r/min
X axis maximum speed	30m/min	30m/min	100m/min
Y axis maximum speed	60m/min	60m/min	60m/min
X maximum acceleration	1G	1G	0.8G
Y maximum acceleration	1G	1G	0.8G
Z axis maximum speed	$\geq$ 50m/min	$\geq$ 50m/min	$\geq$ 60m/min
Dimensions	10000x3500x2100mm	8800x3200x2100mm	8649*1398*1811mm
Overall weight	3450kg	3400kg	1700kg
Positioning accuracy	0.05mm	0.05mm	0.05mm
Repositioning accuracy	0.03mm	0.03mm	0.03mm
Total power capacity/current with 3KW source	34.7KVA/52.7A	32.2KVA/48.9A	31.2kVA/47.4A
Total power capacity/current with 2KW source	26KVA/39.4A	23.5KVA/35.6A	22.5kVA/34.18A
Total power capacity/current with 1.5KW source	32.2KVA/48.9A	29.7KVA/45.1A	28.7kVA/43.6A
Total power capacity/current with 1KW source	x	24.1KVA/36.6A	23.1kVA/35A

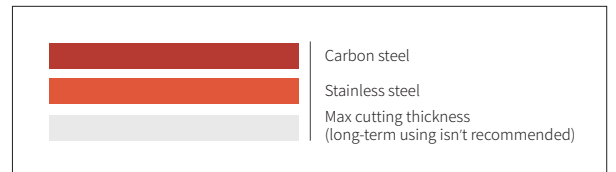
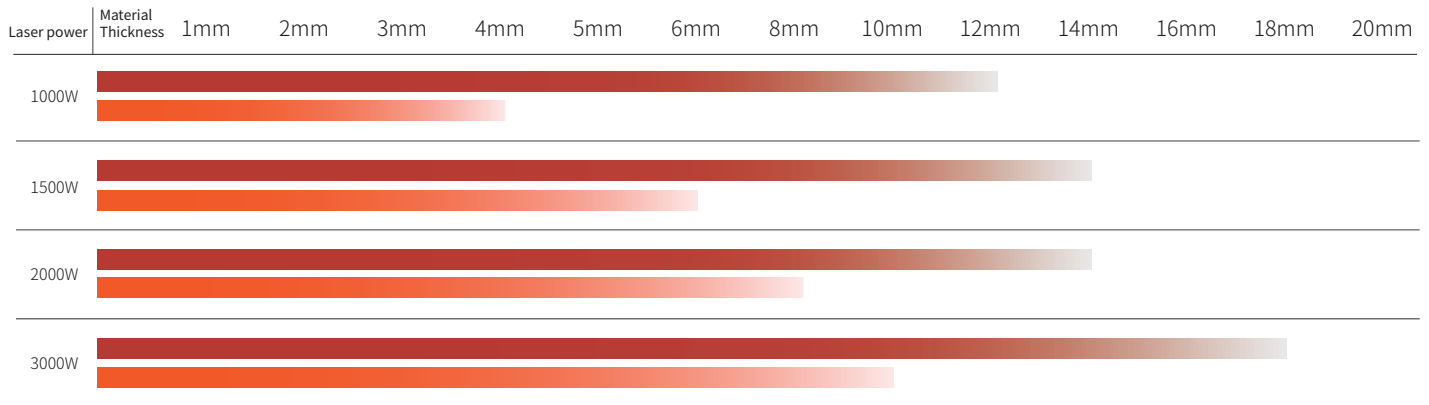
Configuration And Components

laser head	Bodor Genius T		
Laser source	BODOR/IPG		
Chuck	pneumatic chuck		
Waste Trolley	●		x
Standard tube support holder	●		
Linear Rails	bodor		
Rack	bodor		
X-axis、Y-axis、Z-axis Servo motor and driver	Japan Yaskawa	Japan Yaskawa	France Schneider
Control system	Bodor Thinker 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	●		
Dust removal	Centrifugal fan	Centrifugal fan	x

Tube Cutting Parameters

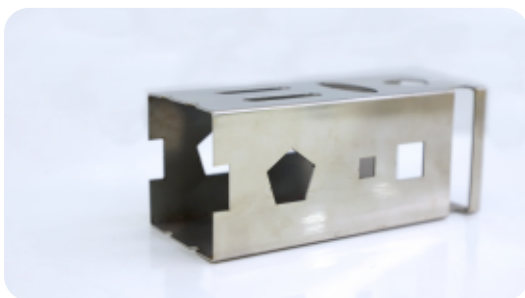
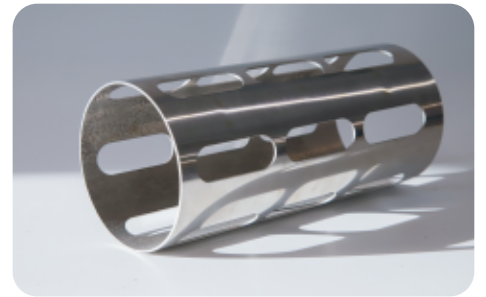
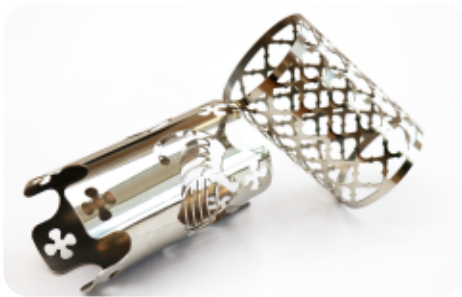
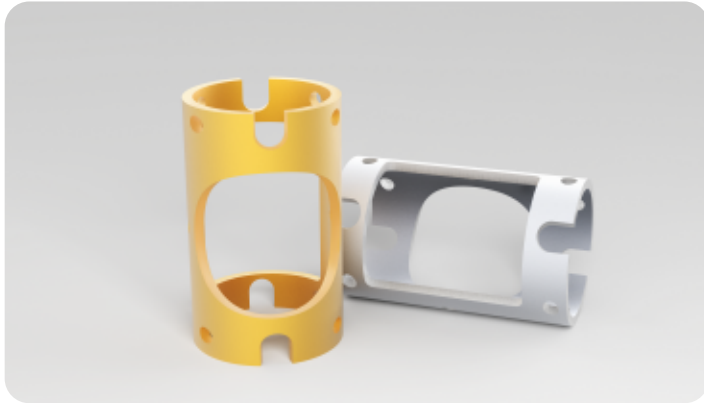
		1000W	1500W	2000W	3000W	6000W
	Thickness (mm)	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min
Carbon steel	1	12--15	17--19	16--20	18--21	18--21
	2	5--7	6--8	8--10	10--12	15--20
	3	2--3	2.5--3.5	3.0--4.8	3.5--5	3.8--5.5
	4	2--2.4	2.3--2.8	2.8--3.5	3--3.8	3.2--4.3
	5	1--1.6	1.8--2.4	2.5--3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

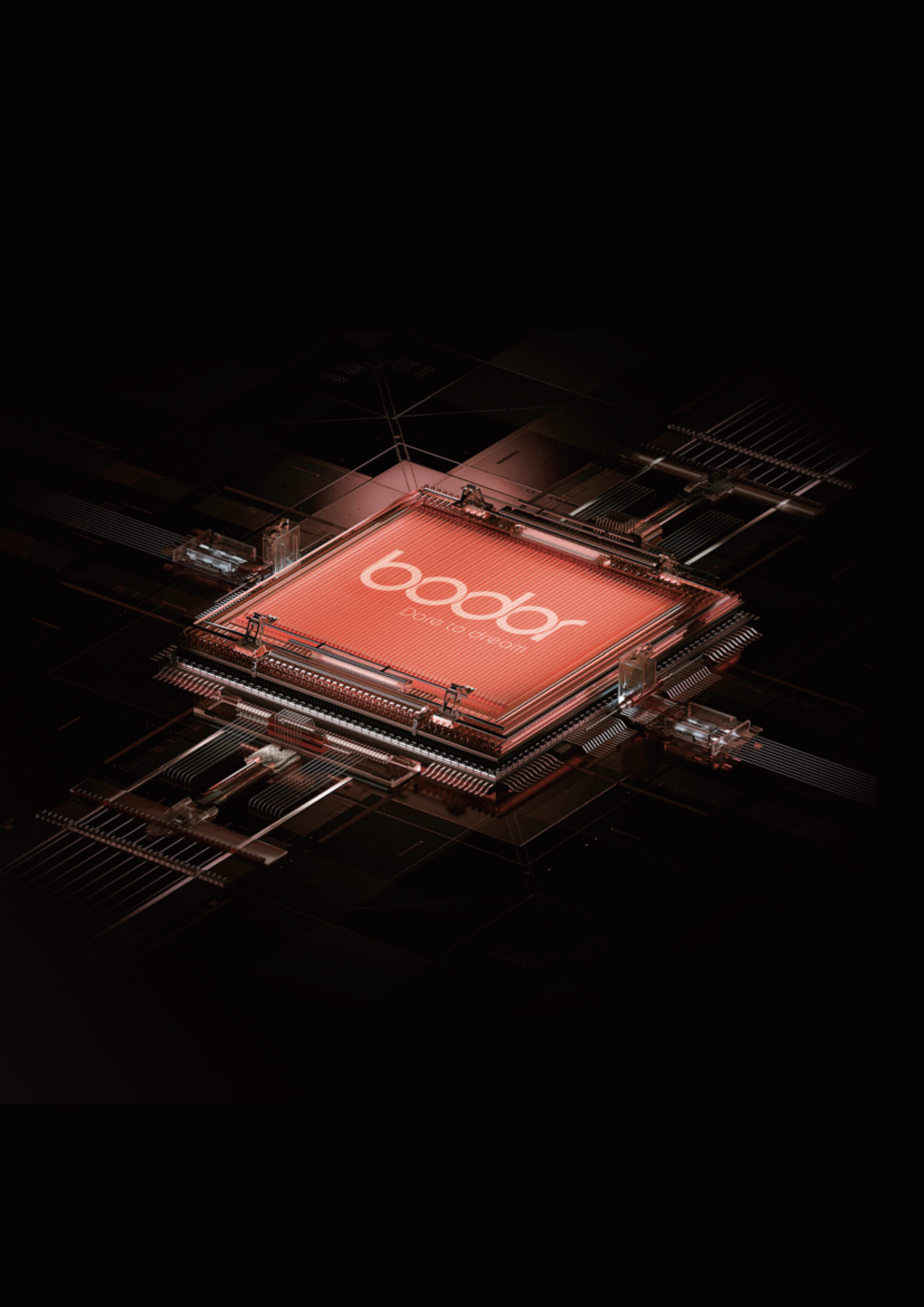
Cutting Capacity



Above data is only for reference

Cutting Samples





boodyr
care to dream