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X SERIES MULTIFUNCTION TUBE

FIBER LASER CUTTING MACHINE

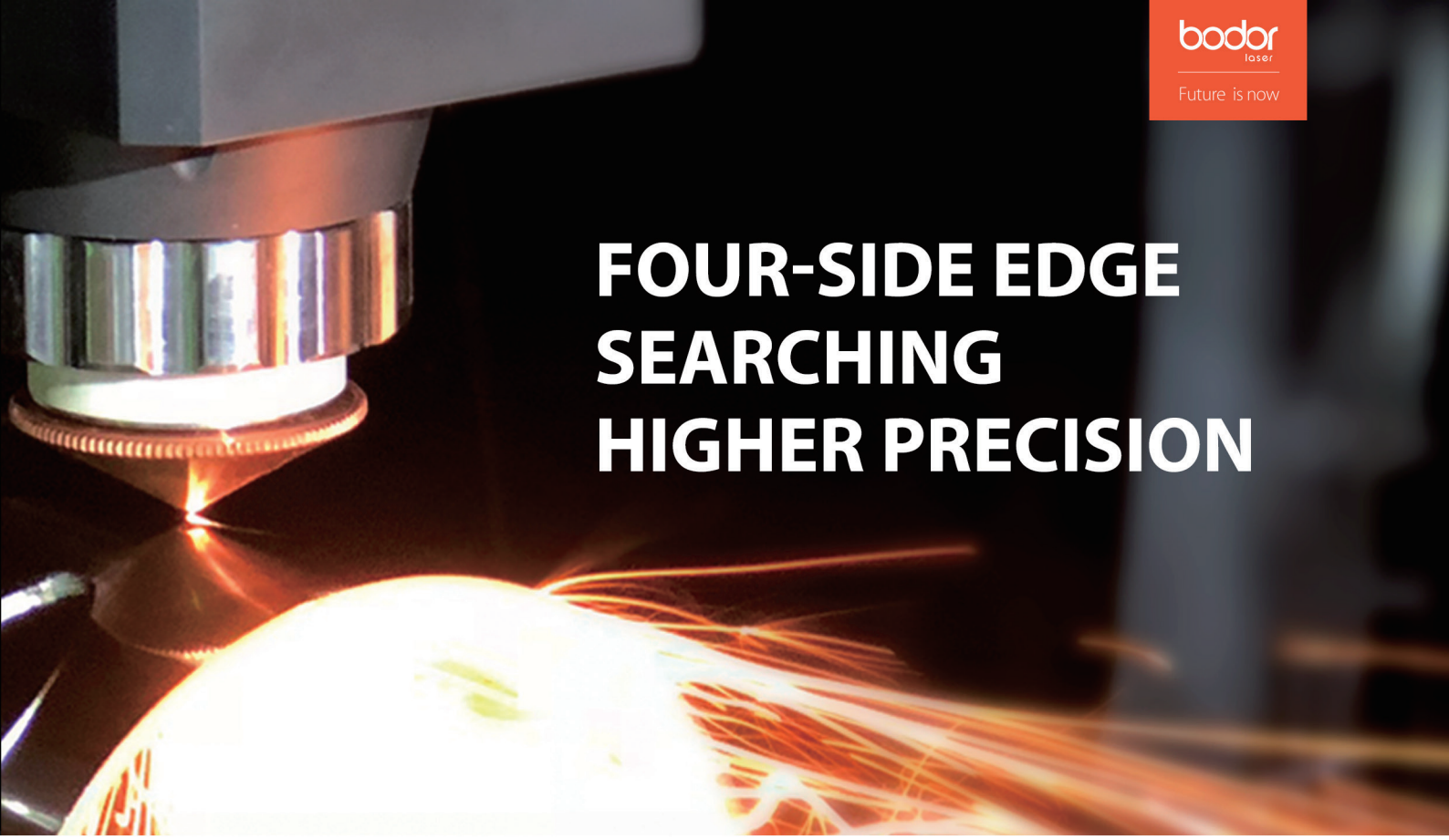
Tube Laser Cutting Machine--X Series

The equipment meets the parts processing requirements of most industries, working accuracy is stable. Selecting the optimal force and supporting structure, the overall mechanical property of equipment is perfect. Adopting cutting-edge optical concept to improve cutting performance. High speed cutting, auxiliary loading and unloading and efficient production reduce labor costs. At present, laser cutting machines have been widely used in electronics, electrical, mechanical hardware, new energy lithium, packaging, solar, LED, automotive and other industries.

Product parameters

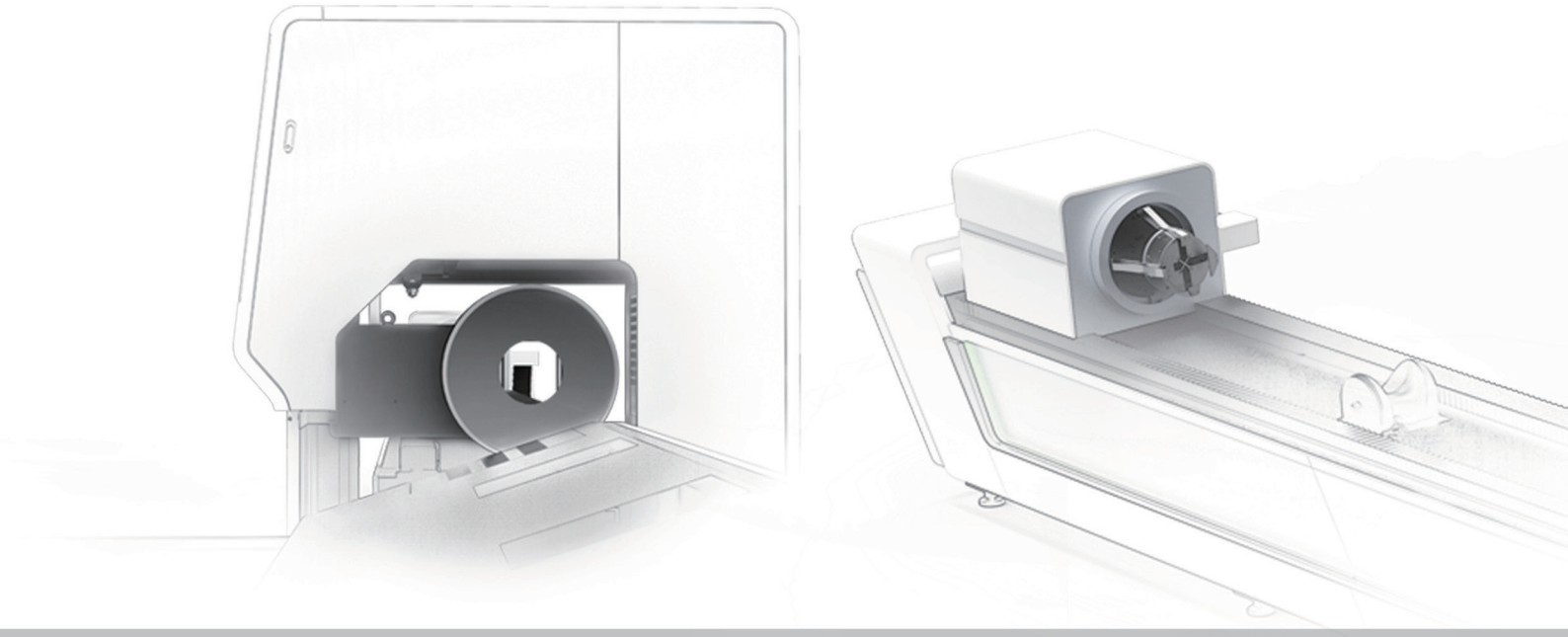
Model	X160	X260
Maximum machinable tube length	6500mm	
Laser power	6000W/4000W/3000W/2000W/1500W/1000W	
X/Y-axis positioning accuracy	0.05mm	
X/Y-axis repositioning accuracy	0.03mm	
X axis maximum speed	140m/min	120m/min
Y axis maximum speed	90m/min	
Round tube	Φ10-Φ160mm	Φ20-Φ260mm
Square tube	□10×10 - □140×140mm	□20×20 - □180×180mm
160mm≥Rectangular tube Side length≥10mm	200mm≥Rectangular tube Side length≥20mm	
Circumscribed circle diameter≤160mm	Circumscribed circle diameter≤260mm	

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



Four-side Edge Searching, Higher Precision

Brand new four-side edge searching
Optimized method and algorithm
Higher cutting precision and stability



Self-centering Chuck

DC motor driven jaws, fast automatic centering and clamping pipe, stable performance, wide clamping range, strong clamping force.

Smaller chuck size, lower rotating inertia, stronger dynamic performance.

Gear transmission mode, higher transmission efficiency, long working life span and high reliability.

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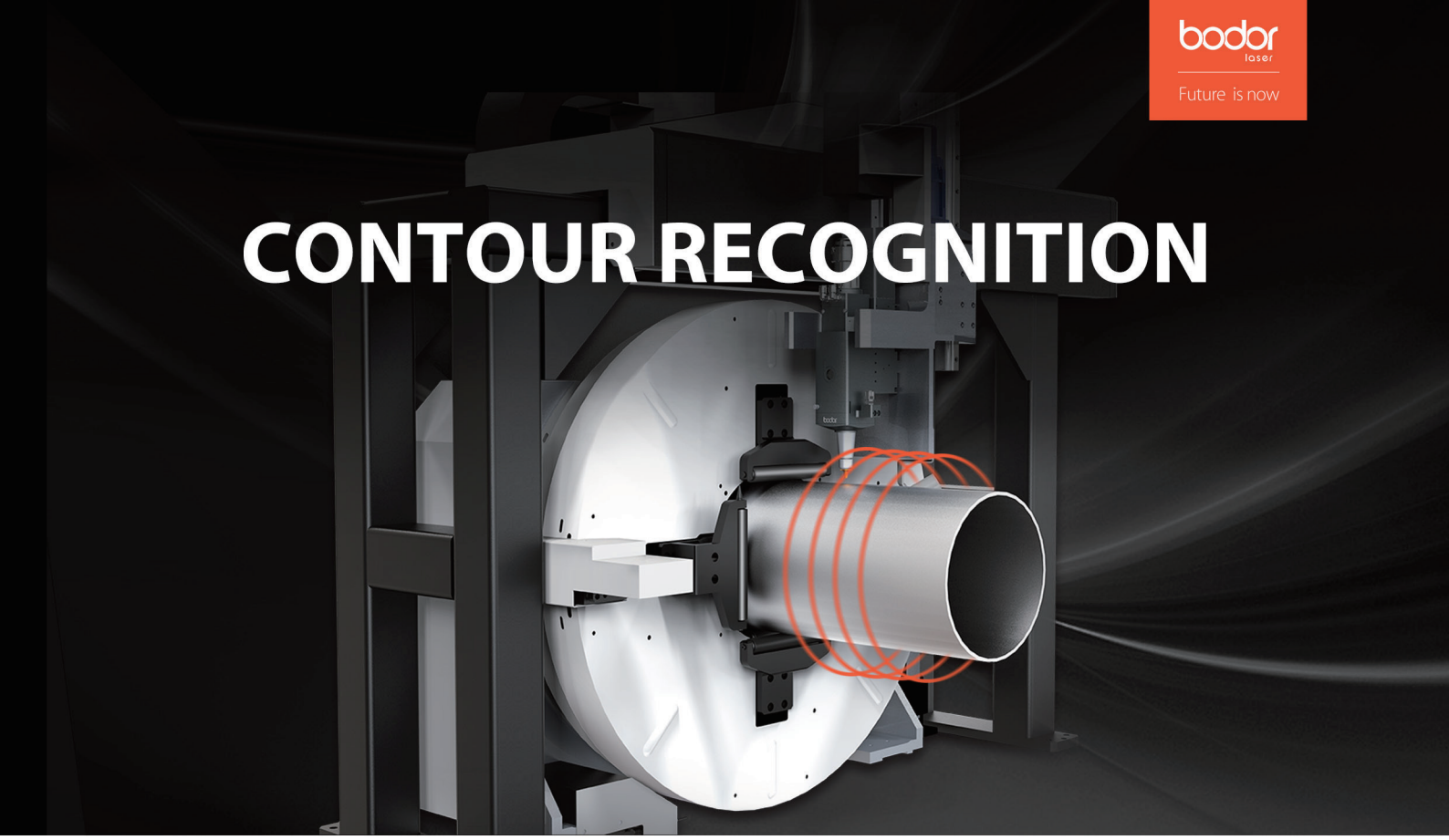
CONTOUR RECOGNITION



Stable and High Precision

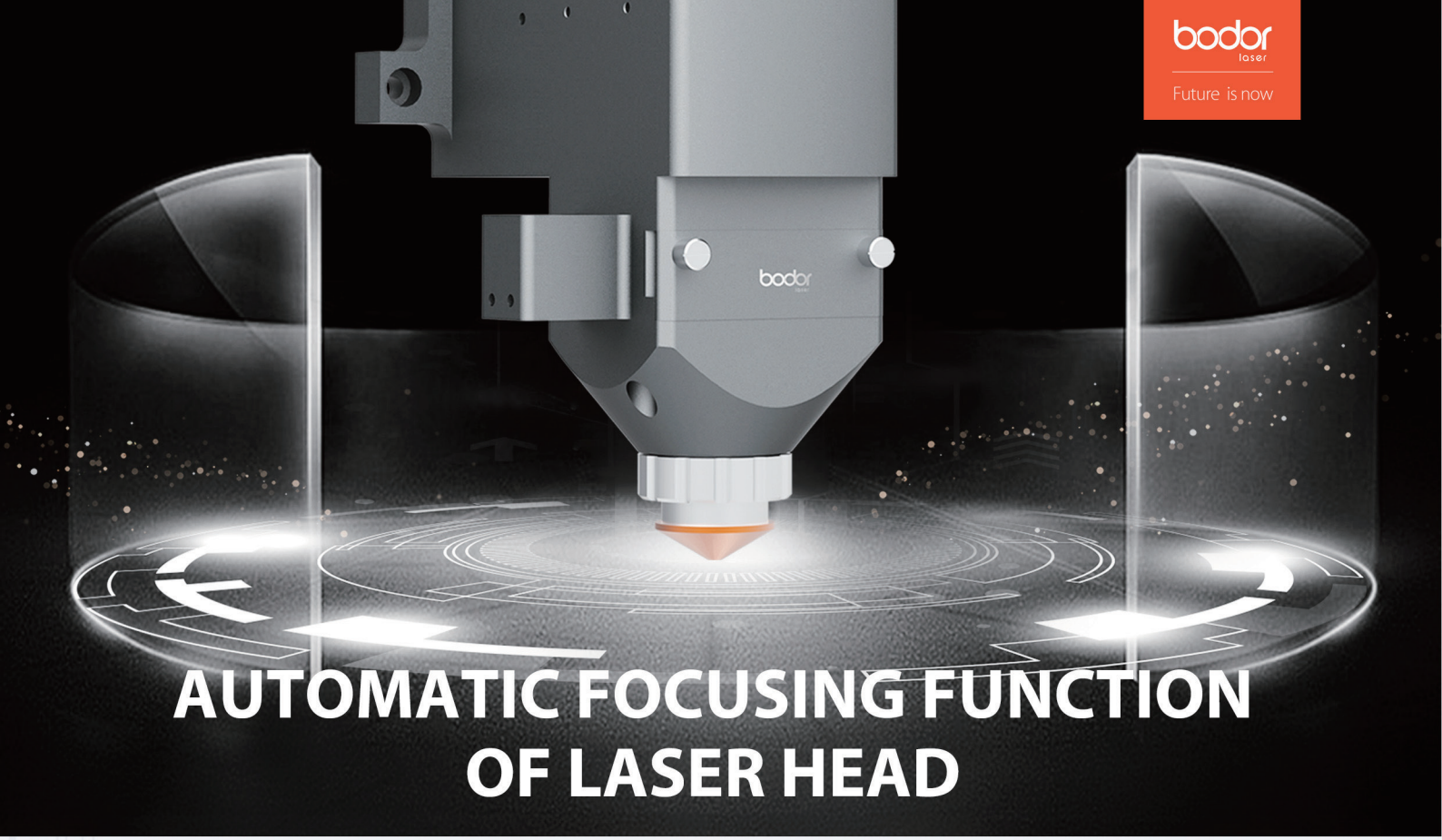
Use innovative photoelectric positioning
replace the unstable capacitance positioning
greatly improves recognition precision and stability

Flash Recognition

It takes only 0.8s to finish the recognition, and the processing can be started immediately
Low Deviation for All Suitable Lengths
The cutting spot deviation is within 0.15mm for tubes of all suitable lengths

High Applicablity

Automatic compensation for different tubes to achieve high-precision recognition for square tube, round tube, oval tube and waist tube.



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AUTOMATIC FOCUSING FUNCTION OF LASER HEAD

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.

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

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Bodor Thinker 3.0

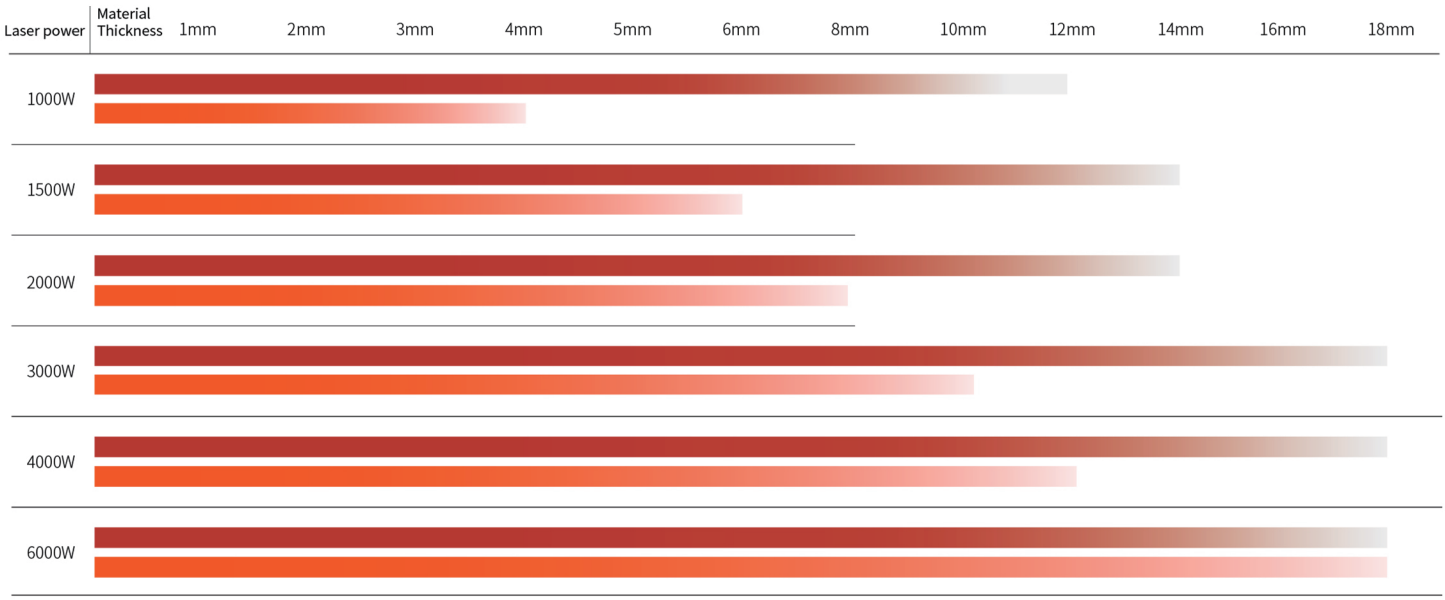
Bodor Thinker 3.0

Smart control system supports NC code. No need for nesting software, direct support for cutting angle steel and channel steel. 2D and 3D display makes it intuitive and operable. Press one button to find the edges and align laser head. Process library makes it easy to operate.

Appearance design

Aesthetics was introduced to industrial ID, perfect combination of technology and aesthetics.

Cutting Capacity



Above data is only for reference

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Fiber Laser Cutting Process Parameters

		1000W	MAX-1000W(25um)	1500W	2000W	MAX-2000W(50)	YLR-2000W	3000W	MAX-3000W(50)	4000W	MAX-4000W(50)	IPG 6000W	MAX 6000W	8000W
Material	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	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	8.0--10	8.0--10	8.0--10	8.0--10	8--10	8--10	8--10	8--10	
	2	4.0--6.5	4.5--7.0	4.5--6.5	4.7--6.5	4.7--6.5	4.7--6.5	4.8--7.5	4.8--7.5	5--7.5	5--7.5	5--7.5	5--7.5	
	3	2.4--3.0	2.4--3.0	2.6--4.0	3.0--4.8	3.0--4.8	3.0--4.8	3.3--5.0	3.3--5.0	3.5--5.0	3.5--5.0	3.5--5	3.5--5	
	4	2.0--2.4	2.0--2.4	2.5--3.0	2.8--3.5	2.8--3.5	2.8--3.5	3.0--4.2	3.0--4.2	3.0--4.0	3.0--4.0	3.0--4.5	3.0--4.5	
	5	1.5--2.0	1.5--2.0	2.0--2.5	2.2--3.0	2.2--3.0	2.2--3.0	2.6--3.5	2.6--3.5	2.7--3.6	2.7--3.6	3.0--4.2	3.0--4.2	
	6	1.4--1.6	1.4--1.6	1.6--2.2	1.8--2.6	1.8--2.6	1.8--2.6	2.3--3.2	2.3--3.2	2.5--3.4	2.5--3.4	2.5--3.5	2.5--3.5	
	8	0.8--1.2	0.8--1.2	1.0--1.4	1.2--1.8	1.2--1.8	1.2--1.8	1.8--2.6	1.8--2.6	2.0--3.0	2.0--3.0	2.2--3.2	2.2--3.2	
	10	0.6--1.0	0.6--1.0	0.8--1.1	1.1--1.3	1.1--1.3	1.1--1.3	1.2--2.0	1.2--2.0	1.5--2.4	1.5--2.4	1.8--2.5	1.5--2.2	
	12	0.5--0.8	0.5--0.8	0.7--1.0	0.9--1.2	0.9--1.2	0.9--1.2	1.0--1.6	1.0--1.6	1.2--1.8	1.2--1.8	1.2--2.0	1.2--2.0	
	14			0.5--0.7	0.7--0.8	0.7--0.9	0.8--1.0	0.9--1.2	0.9--1.2	0.9--1.2	0.9--1.2	1.2--1.8	1.0--1.5	
	16				0.6-0.7	0.6--0.8	0.6-0.8	0.7--1.0	0.7--1.0	0.8--1.0	0.8--1.0	0.8--1.3	0.7--1.2	
	18				0.4--0.6	0.5--0.7	0.5--0.7	0.6--0.8	0.6--0.8	0.6--0.9	0.6--0.9	0.6--0.9	0.6--0.9	
	20							0.5--0.8	0.5--0.7	0.5--0.8	0.5--0.8	0.5--0.8	0.5--0.8	
	22							0.3--0.7	0.3--0.7	0.4--0.8	0.4--0.8	0.4--0.8	0.4--0.6	
	25											0.3--0.55	0.2--0.5	
Stainless steel (201) N2	1	18--25	24--36	20--27	24--30	24--50	24--50	30--35	30--58	32--45	40--72	42--52	42--52	
	2	5--7.5	6--10	8.0--12	9.0--12	9.0--14	9.0--15	13--21	13--39	16--28	24--45	20--33	20--33	
	3	1.8--2.5	2.2--3.5	3.0--5.0	4.0--6.5	4.0--7.0	4.8--7.5	6.0--10	6--14	7.0--15	7.0--18	15--22	15--22	
	4	1.2--1.3	1.2--1.6	1.5--2.4	3.0--4.2	3.2--4.5	3.2--4.5	4.0--6.0	4.0--7.0	5.0--8.0	6.0--10.0	10--15	10--15	
	5	0.6--0.7	0.6--0.75	0.7--1.3	1.8-2.5	2.0-2.8	2.0-2.8	3.0--5.0	3.0--5.0	3.5--5.0	4.0--5.0	8.0--12	6.5--8.0	
	6			0.7--1.0	1.2-1.8	1.2-2.0	1.2-2.0	2.0--4.0	2.0--4.0	2.5--4.5	3.0--4.5	4.8--8.0	4.2--6.0	
	8				0.7-1.0	0.7-1.0	0.7-1.0	1.5--2.0	1.5--2.0	1.6--2.0	1.6--2.0	3.0--4.0	2.5--3.5	
	10							0.6--0.8	0.6--0.8	0.8--1.2	0.8--1.2	1.6--2.5	1.2--2.0	
	12							0.4--0.6	0.4--0.6	0.5--0.8	0.5--0.8	0.8--1.5	0.8--1.5	No support
	14									0.4--0.6	0.4--0.6	0.6--0.8	0.5--0.8	
	16											0.5--0.8	0.4--0.7	
	18											0.4--0.6	0.3--0.6	
	20											0.3--0.5	0.2--0.5	
	25											0.2--0.4	0.2--0.4	
Aluminum N2	1	6.0--10	6.0--10	10--20	15--25	15--25	20--30	25--38	25--40	35--45	35--45	42--55	42--55	
	2	2.8--3.6	2.8--3.6	5.0--7.0	7--10	7--10	10--15	10--18	13--20	13--24	13--24	20--40	20--40	
	3	0.7--1.5	0.7--1.5	2.0--4.0	4.0--6.0	4.0--6.0	5.0--7.0	6.5--8.0	6.5--8.0	7.0--13	7.0--13	15--25	15--25	
	4			1.0--1.5	2.0--3.0	3.5--4.0	3.5--5.0	3.5--5.0	3.5--5.0	4.0--5.5	4.0--5.5	9.5--12	9.5--12	
	5			0.7--1.0	1.2--1.8	1.2--1.8	1.8--2.5	2.5--3.5	2.5--3.5	3.0--4.5	3.0--4.5	5.0--8.0	5.0--8.0	
	6				0.7--1.0	1.0--1.5	1.0--1.5	1.5--2.5	1.5--2.5	2.0--3.5	2.0--3.5	3.8--5.0	3.8--5.0	
	8				0.6--0.8		0.6--0.8	0.7--1.0	0.7--1.0	0.9--1.6	0.9--1.6	2.0--2.5	2.0--2.5	
	10							0.4--0.7		0.6--1.2	0.6--1.2	1.0--1.5	1.0--1.5	
	12							0.3-0.45		0.4--0.6		0.8--1.0	0.8--1.0	
	16									0.3--0.4		0.5--0.8	0.5--0.8	
	20											0.5--0.7		
	25											0.3--0.5		
Brass N2	1	6.0--10	6.0--10	8.0--13	10--16	10--16	12--18	20--35	20--35	25--35	25--35	35--45	35--45	
	2	2.8--3.6	2.8--3.6	3.0--4.5	4.5--7.5	5.0--6.0	6.0--8.5	6.0--10	6.0--10	8.0--12	8.0--12	20--30	20--30	
	3	0.5--1.0	0.5--1.0	1.5--2.5	2.5--4.0	2.5--4.0	2.5--4.0	4.0--6.0	4.0--6.0	5.0--8.0	5.0--8.0	12--18	12--18	
	4			1.0--1.6	1.5--2.0	2.0--3.0	2.0--3.0	3.0-5.0	3.0-5.0	3.2--5.5	3.2--5.5	5.0--8.0	5.0--8.0	
	5			0.5--0.7	0.9--1.2		0.9--1.2	1.5--2.0	1.5--2.0	2.0--3.0	2.0--3.0	4.5--6.0	4.5--6.0	
	6				0.4--0.7		0.4--0.9	1.0--1.8	1.0--1.8	1.4--2.0	1.4--2.0	3.0--4.5	3.0--4.5	
	8							0.5--0.7		0.7--1.2		1.6--2.2	1.6--2.2	
	10									0.2--0.5		0.8--1.2	0.8--1.2	
	12											0.3--0.5	0.3--0.5	
	14											0.3--0.4	0.3--0.4	
	16													
	18													
	20													
	25													
	30													
	35													

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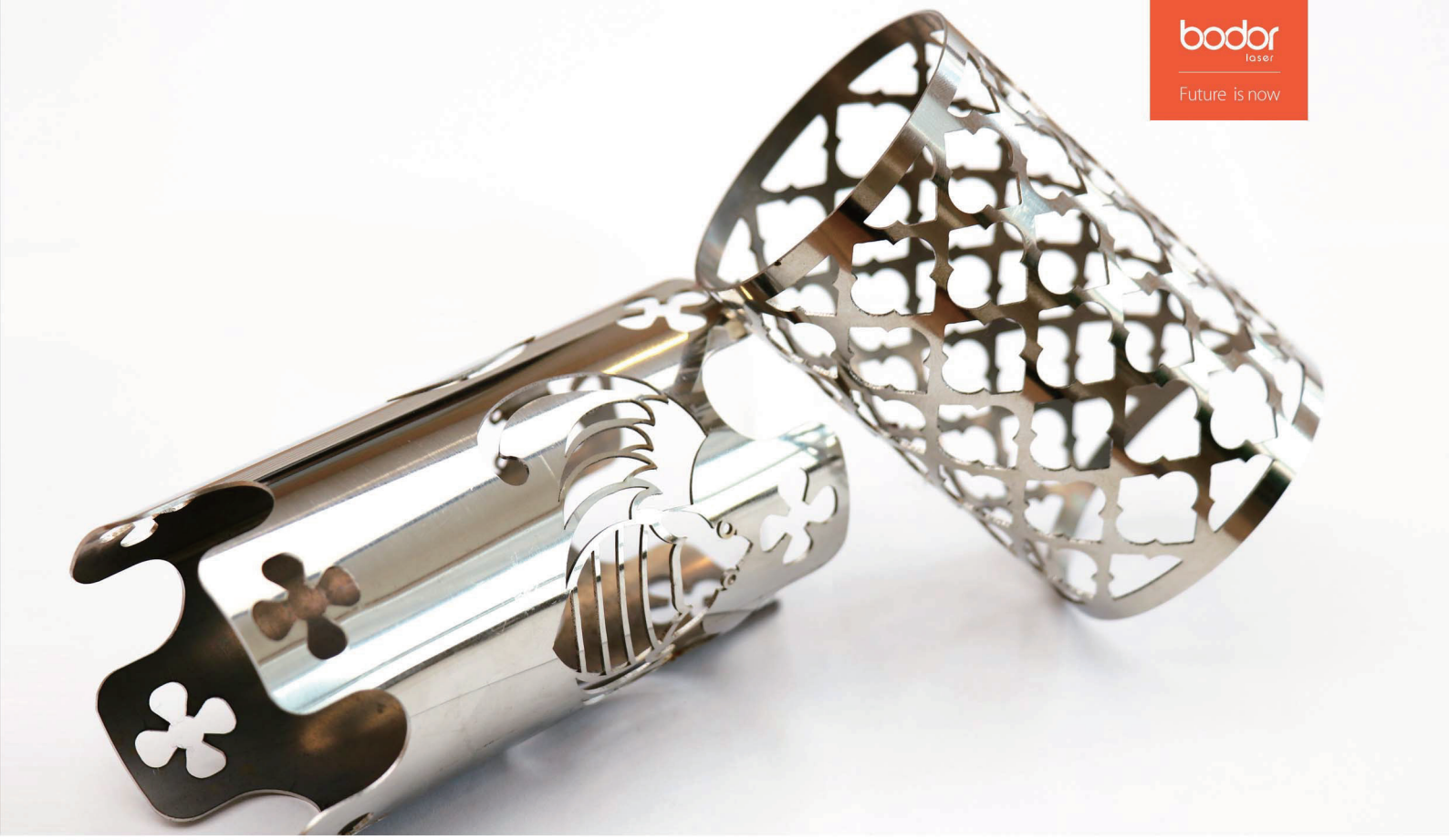

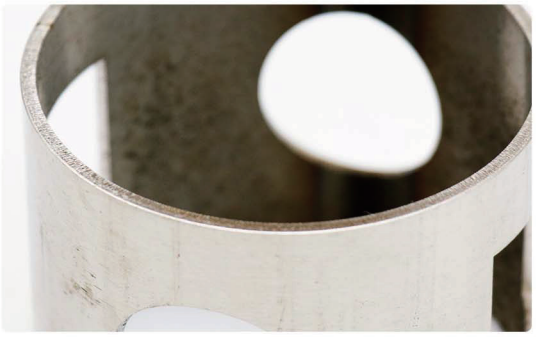

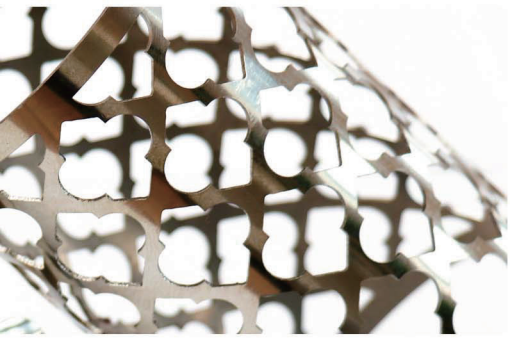

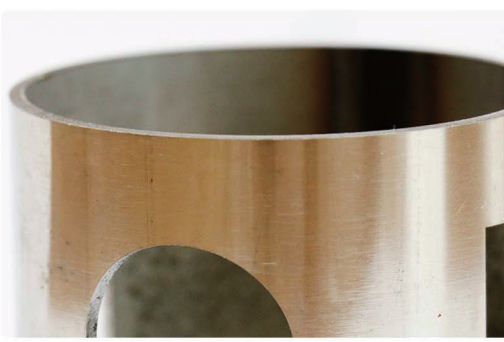

Metal Samples

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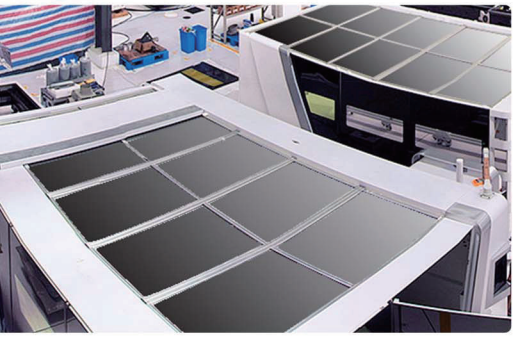

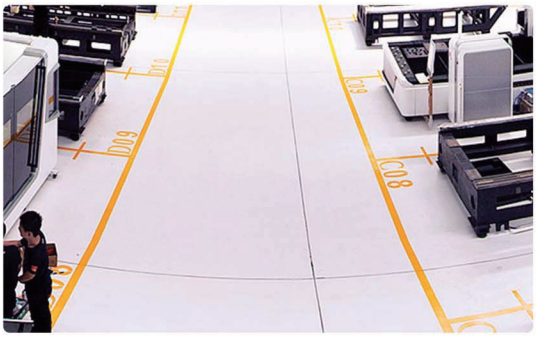

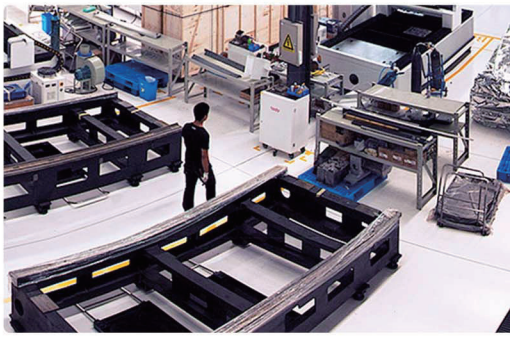

WORKSHOP

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