

# A BEST-SELLING MODEL OVERSEAS

40HQ+40GP Standard Container Transport Model

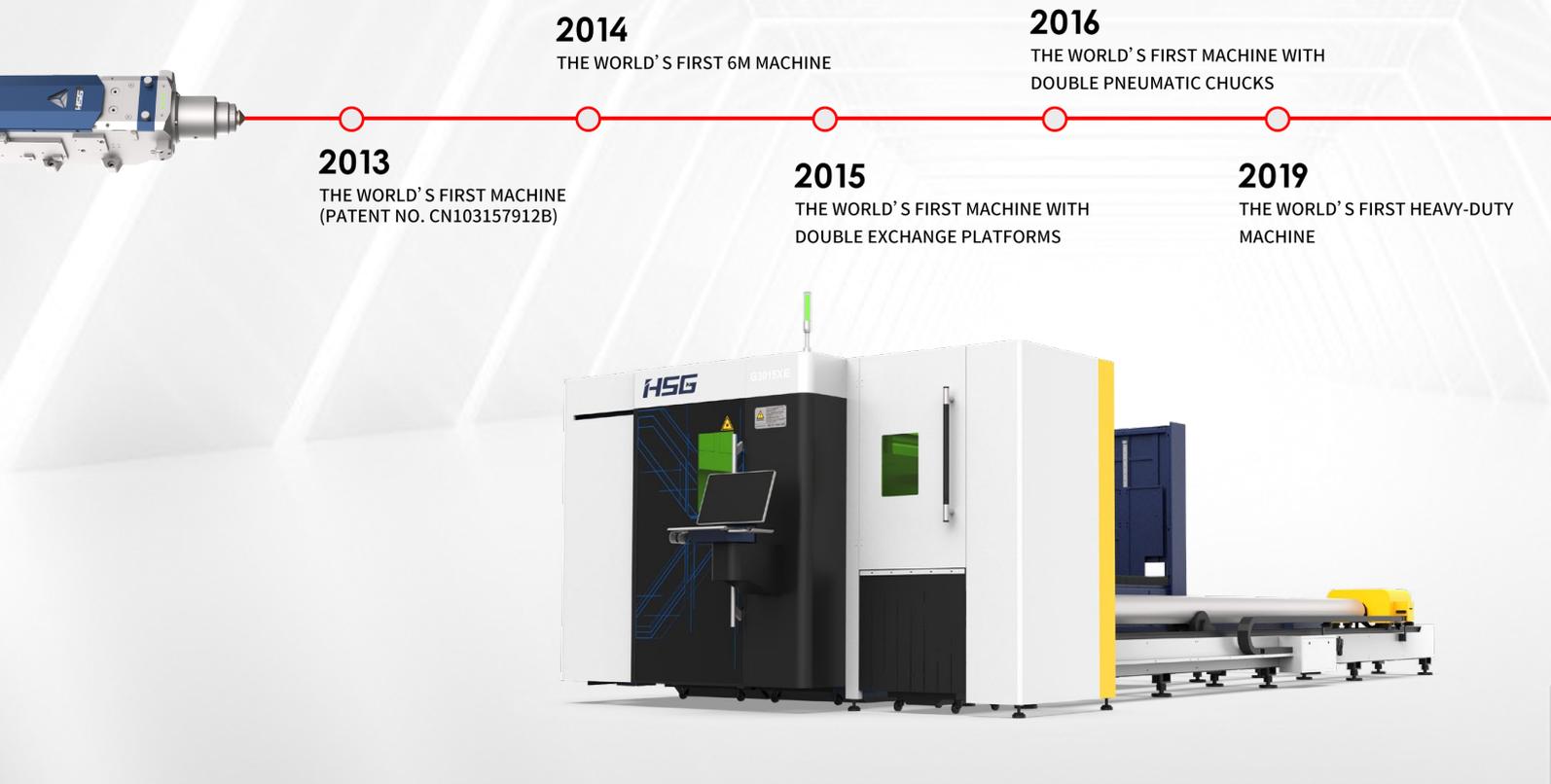


## GXE

Medium-to-low-power Sheet & Tube Laser Cutting Machine

Technical Parameter	GXE
Power	1500-6000W
Standard Processing Format	3000*1500mm
X/Y Axis Positioning Accuracy	0.03mm/m
X/Y Axis Repositioning Accuracy	± 0.03mm
Max. No-load Speed	60m/min
Max. Acceleration	0.5G
Processing Materials	Round tube dia. Φ20-210mm ,square tube dim. 20*20-150*150mm rectangular tube: diagonal ≤210mm
Standard Cutting Length	6000mm
Max. Loading Weight of Sheet Platform	950kg
Max. Loading Weight of Tube Platform	100kg
Overall Dimensions (L*W*H)	9200*3500*2200mm

# DEVELOPMENT HISTORY



## FAMILY OF OUR SHEET & TUBE LASER CUTTING MACHINES

			
One machine with two functions	Save purchasing costs	Improve cutting efficiency	Help to accept more diversified orders

📦 The machine can cut both sheet and tube metals, replacing a professional sheet laser cutting machine and tube laser cutting machine in total. For users, it will save purchasing costs, expand their scope of cutting materials, improve workshop utilization and cutting efficiency, help them to accept more diversified orders and enhance their market competitiveness.



## SALES CHAMPION AMONG SAME-TYPE MODELS

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After years of R&D and constant technical upgrades, the size of our sheet & tube laser cutting machine family has increasingly expanded. GXE, as one of the best-selling models overseas, has ranked first in the industry by its 3000+ total sales worldwide.





More solid in  
entire structure



Keep high precision  
and stability for  
50+ years



Much safer in  
cutting



Long service life

## HIGH-QUALITY CARBON STEEL WELDED SEMI-HOLLOW MACHINE BED

### MADE OF HIGH-QUALITY CARBON STEEL

Compared with general carbon steel, the high-quality material is relatively pure with less impurity and has good mechanical properties and rigidity. Due to thermal treatment, it is featured by less heat absorption, rapid heat dissipation and deformation prevention, which will remain stable even after long-term working at high speed.

### ENTIRE STRUCTURE OF HIGH QUALITY

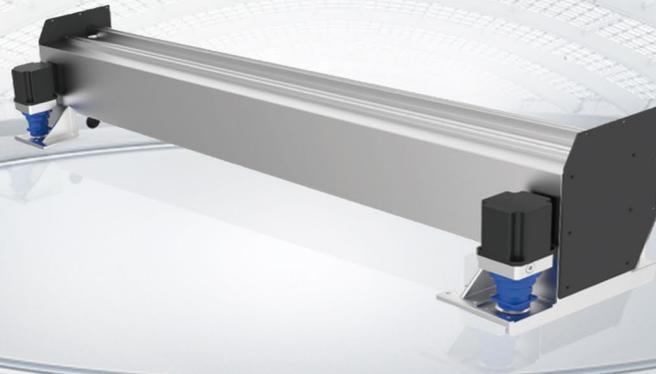
Our machine bed, with mechanical properties simulation analysis in the static and dynamic state, is made of high-quality carbon steel of which tensile strength is 500Mpa and welding stress is entirely relieved by 600°C annealing and natural aging. After that, it is anti-deformation and durable with good rigidity.

### HIGH PRECISION, MORE STABLE

Our machine bed is designed as semi-hollow to lessen the area heated by laser and keep itself nondeformable after long work.

### PERFORM WELL IN VENTILATION

The built-in butterfly valve damper can protect air ducts from scorching and contribute to the further enhancement of ventilation effects.



- Lighter in weight
- More solid in structure
- Uniform textures
- Higher in strength

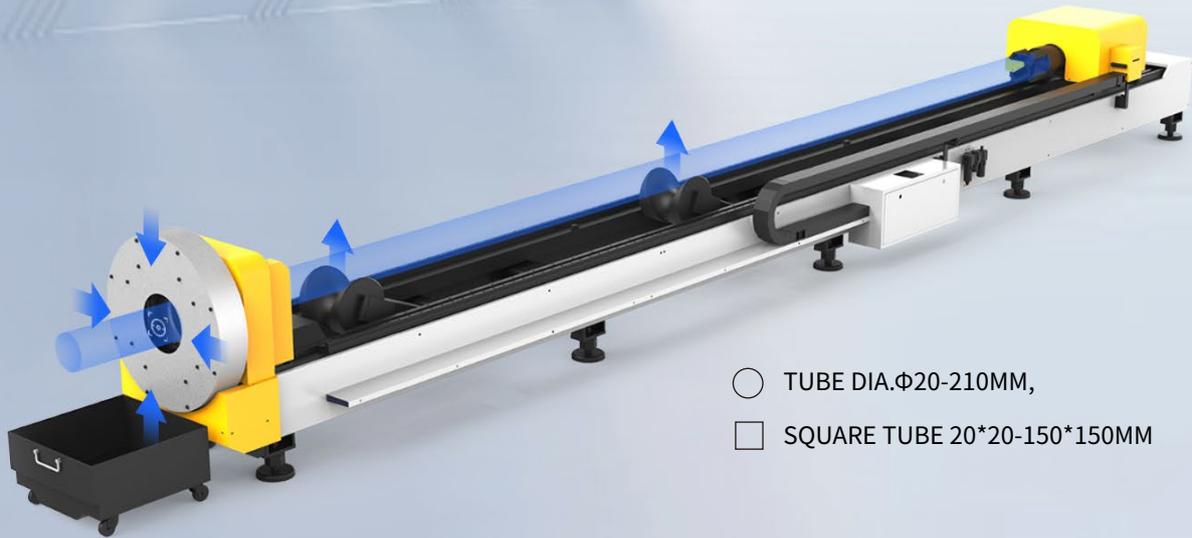
## WHY WE CHOOSE THE 4TH GENERATION EXTRUDED AVIATION ALUMINUM BEAM?

### REASONS FOR PREFERRING EXTRUDED ALUMINUM TO CAST ALUMINUM

- \* To address the complex structure and heavy weight of beam, HSG decides to choose aluminum featuring lower density, lighter weight and higher toughness for our beam.
- \* Compared with cast aluminum, our beam is made by extrusion forming technology, which is good for the improvement of deformation capacity, plasticity utilization and the enlargement of deformation amount. Compared with other technologies, the extruded aluminum beam is more uniform in textures, smoother in surface and higher in strength without air or sand hole.
- \* The 6 series aviation aluminum alloy is light-weight and corrosion-resistant, which gets good rigidity and toughness after vibration aging and finish machining, therefore, high-speed working, good dynamic performance, high precision and speedy cutting come true. Our beam is designed as honeycomb anti-compression structure in accordance with aerospacecraft criteria.

### INTEGRATED BEAM

Our beam is integrated with its column, hence, its mechanical properties are more stable than that of split-type beam. With such beam, the machine bed will keep high precision for 50+ years.



- TUBE DIA.Φ20-210MM,
- SQUARE TUBE 20\*20-150\*150MM



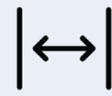
3 times faster than electric chucks



Keep small tubes nondeformable and large tubes stable



Cutting precision is guaranteed



Wide range of clamping

## FULL-AUTOMATIC DOUBLE PNEUMATIC CHUCKS

### ≡ MUCH FASTER

Wireless remote control, one-button clamping, automatic centering, 3 times faster than electric chuck, reducing waiting time for loading & unloading.

### ≡ MUCH LARGER

Large and constant clamping force helps to clamp heavy tubes tightly.

### ≡ MUCH HIGHER

Special concave support frame avoids tube sagging and deformation, improving cutting precision.

### ≡ MUCH WIDER

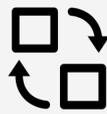
Clamp conventional tubes like round tube dia.Φ20-210mm, square tube 20\*20-150\*150mm, and profiles like channel and angle steel.



## INTELLIGENT EXCHANGE PLATFORMS



One-button start  
of exchange



Only 15s required once



Improve efficiency and  
save labor forces

🔗 The intelligent exchange platforms self-developed and applied for innovative technical patents by HSG Laser will start exchange instantly after cutting, only 15s required, to save loading & unloading duration, labor costs and improve cutting efficiency.

# ALPHA A CNC SYSTEM



Ultra-high-speed scanning & cutting with micro-connection



Active obstacle avoidance



Real-time monitoring of core components



Flexible/batch processing mode



Special cutting technology for thick sheets



Built-in nesting software



## 🔑 EASY TO OPERATE EVEN BY GREEN HANDS

- \* Match with 2000+ process data on its graphical programming interface
- \* Compatible with multiple graphic files, incl. DXF, DWG, PLT and NC code
- \* Improve stock layout and material utilization by 20% and 9.5%, with no limit of quantity of spare parts





Autofocus



Lightning-fast  
piercing



Micro-connection  
available for high-speed  
flying cutting



Anti-pollution  
design

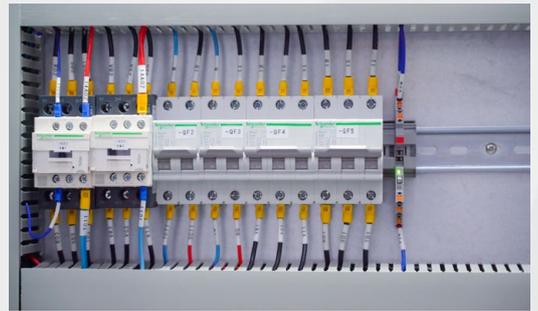


Active obstacle avoidance

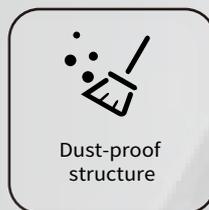
## KLINGE AUTOFOCUS LASER CUTTING HEAD

- Its cutting head can adjust its focal point automatically according to material thickness, and apply to various focal lengths.
- It has the function of obstacle avoidance and will always remain safe during cutting.
- Micro-connection appears in ultra-high-speed scanning and cutting, which means that cutting parts are not thoroughly separated from the sheet during cutting, in other words, small connecting points are reserved between them to keep cutting head safe while it works fleetly.
- Due to its high-speed cutting, the punching duration and quality are shortened and improved respectively.
- Z axis of cutting head has dust cover to prevent itself from flying slags.

# INNOVATIVE INTEGRATED ELECTRIC CABINET



Shipshape wiring



Dust-proof structure



Low occurrence rate of accidents

📦 The wiring in electric cabinet is tidy and normative. With IP54 standard sealing, GXE is effective in dust-proof and will protect its elements from being ignited.



PIERCING AT  
MILLISECOND LEVEL



PIERCING WITH  
HIGH PRECISION



LOW POPPING RATE



CLEAN AND SLAGLESS



IMPROVE PRODUCTION  
EFFICIENCY



SAVE CUTTING GAS  
AND COSTS



## LIGHTNING-FAST PIERCING

- Because of our autofocus cutting head, international first-class laser device and other gas control components, we only take 0.5s to pierce 20mm iron sheet.
- The pierced holes will remain unchanged in shape, be smooth in cutting surface, high in precision and almost slagless. Never worry about popping rate because it is nearly negligible.



## THREE-FACED PROTECTION, SAFETY GUARANTEED

- ▲ Easy to load and unload tubes
- ▲ Easy to install and remove protective plates
- ▲ Protect workers from laser harm
- ▲ Protect the whole machine and other components

### THREE-FACED PROTECTION

GXE is designed as three-faced protection and has large laser-proof glass to protect human body from laser radiation and keep cutting visual for workers standing next to the console. The three-faced protective plates are module-based to facilitate installation.

### EASY TO LOAD AND UNLOAD TUBES

The tube cutting area is uncovered to not only keep cutting process visible, but also make loading & unloading easier.

### INTELLIGENT SAFETY MONITORING SYSTEM

It will stop automatically when protective door opens to reduce accident rate.

### ACTIVE PROTECTION SYSTEM

The cutting head, with safety follow-up modules, always keeps a safety distance from cutting surface. Working status of beam and cutting components are detected automatically. With abnormality alarming system, GXE will stop instantly when abnormal occurs to protect itself.



## UPGRADED MODEL WITH SMALL SIZE

After being upgraded, GXE can be packed in 40HQ+40GP standard containers to greatly reduce the cost of transportation and improve workshop utilization for users.



Further upgrade  
in functions



Standard container  
transport



Improve workshop  
utilization



Save freights



# FAMOUS-BRAND COMPONENTS

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**German WITTENSTEIN Alpha**  
Speed reducer (incl. gear wheels)

**IPG/Raycus**

Lasers



**Taiwan brands**

High-precision racks and  
linear guides

# CLASSY MACHINE APPEARANCE

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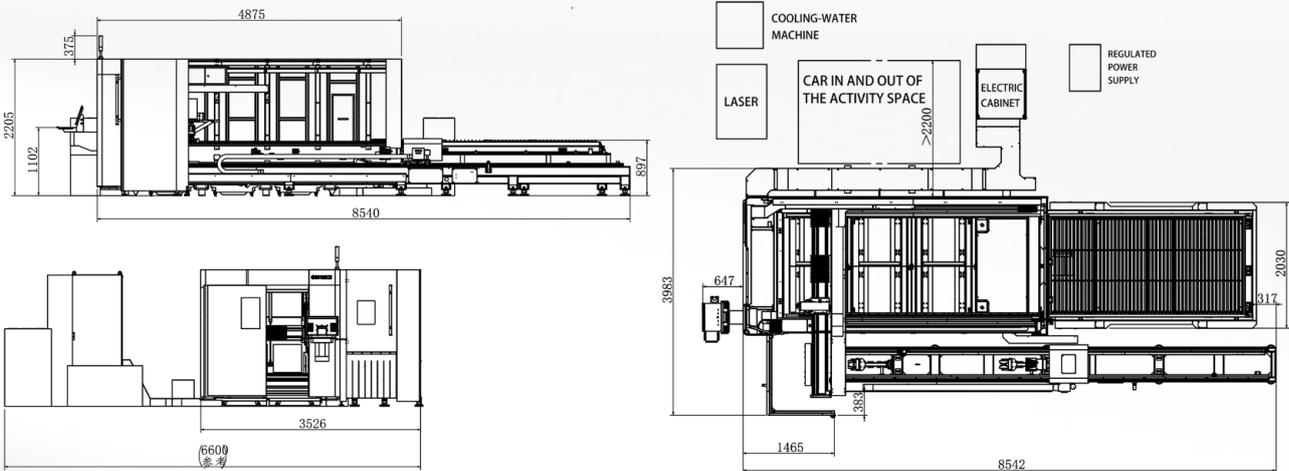


- 📦 In strict accordance with European design standards, HSG Laser adopts humanized console, suspension lamp and stainless steel edging for our machines.
- 📦 GXE is in blue and white, which will don't look dirty compared with the first generation's gray machine bed and rear floorstand.
- 📦 We prefer sliding door to folding door, which avoids door from getting stuck and offers satisfactory sealing effect.
- 📦 Large operating screen and electric console. Our console will lift or fall only by pressing a button, which is friendly to all users of different heights and in different postures.

# CUTTING SAMPLES



# MACHINE FOUNDATION





# Intelligent Manufacturing Changes Future

## A HI-TECH ENTERPRISE IN CHINA

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HSG Laser, founded in 2006 as a hi-tech enterprise focusing on R&D, production and sales of laser equipment, is dedicated to serve global customers with intelligent metal forming solutions.



33 patents for  
invention



316 patents  
in total

# STRESS ON MACHINES

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## Complete

We have the most complete types of laser machines, incl. sheet metal laser cutting machines, sheet & tube laser cutting machines, tube metal laser cutting machines, welding machines, bending machine, automatic loading & unloading system.



## Wide

Range of machine power, 1.5-30kW, wide range of cutting dimensions,  $\Phi 10$ -426mm, 50kg-1500kg, 6000-12000mm sheets or tubes are easily processed.



## High

Our machine bed, beam, platforms, operating system, chucks, ventilation system and others are above industry criteria. Cutting is higher, faster, more stable and better in cutting effects. It is easy to get bright surface cutting with no need for subsequent polishing.



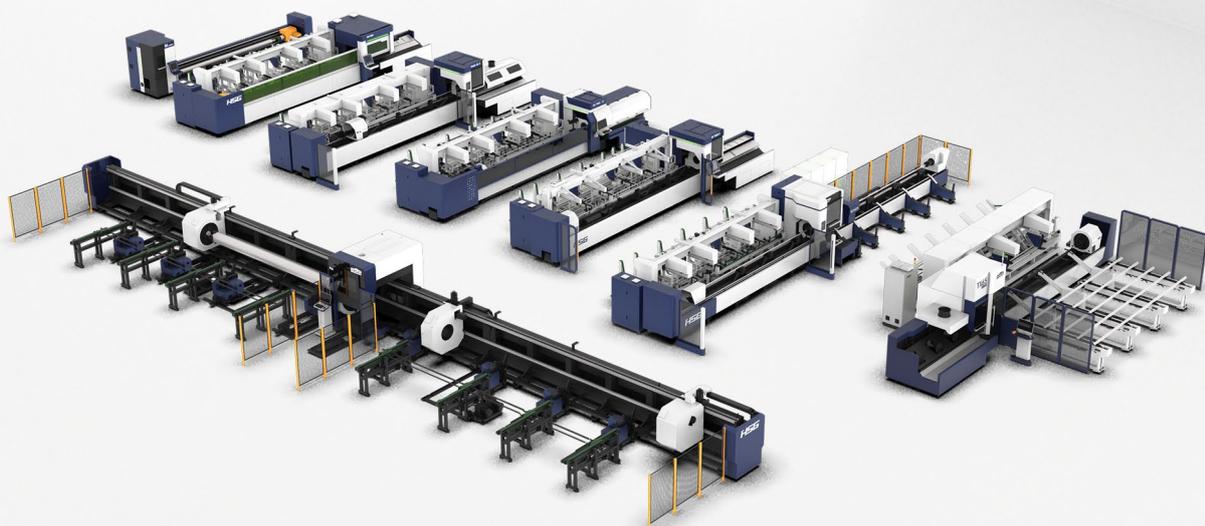
## Intelligent

HSG cloud intelligent system works with our Alpha T bus control system to enable remote repair, maintenance and working guidance. Users will get a full understanding of production and workers.



## Save

Our automatic loading & unloading system and intelligent operating system will free you from inefficient and time-consuming manual operation and help you to save labor forces and production costs.



# STRESS ON SAFETY, ENVIRONMENTAL PROTECTION AND DETAILS

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## SAFETY

Our machines are designed as full-protective and equipped with laser-proof glass in line with international standards. Safety grating will protect workers effectively and our cutting heads are anti-collision.



## ENVIRONMENTAL PROTECTION

Zoning hurricane-force ventilation system, under the control of butterfly valve, can realize almost smoke-free effects in combination with positive-pressure dust removal.



## MACHINE DETAILS

The front-placed electric cabinet will not be collided during loading or unloading. In this CE-compliant cabinet, weak current is separated from strong current area. The fail-safe wiring terminals and distributed wiring duct can prevent signal interference and frictional loss among lines.

# SERVE 100+ COUNTRIES AND REGIONS



10

branches/subsidiaries  
/sub-subsidiaries

30+

service outlets overseas

170+

R&D personnel

3000+

Global Sales in 2020

4

standardized manufacturing  
bases in China

1500+

employees

80000m<sup>2</sup>+

total area of production  
factories

5000+

annual productivity

## R&D ACHIEVEMENTS

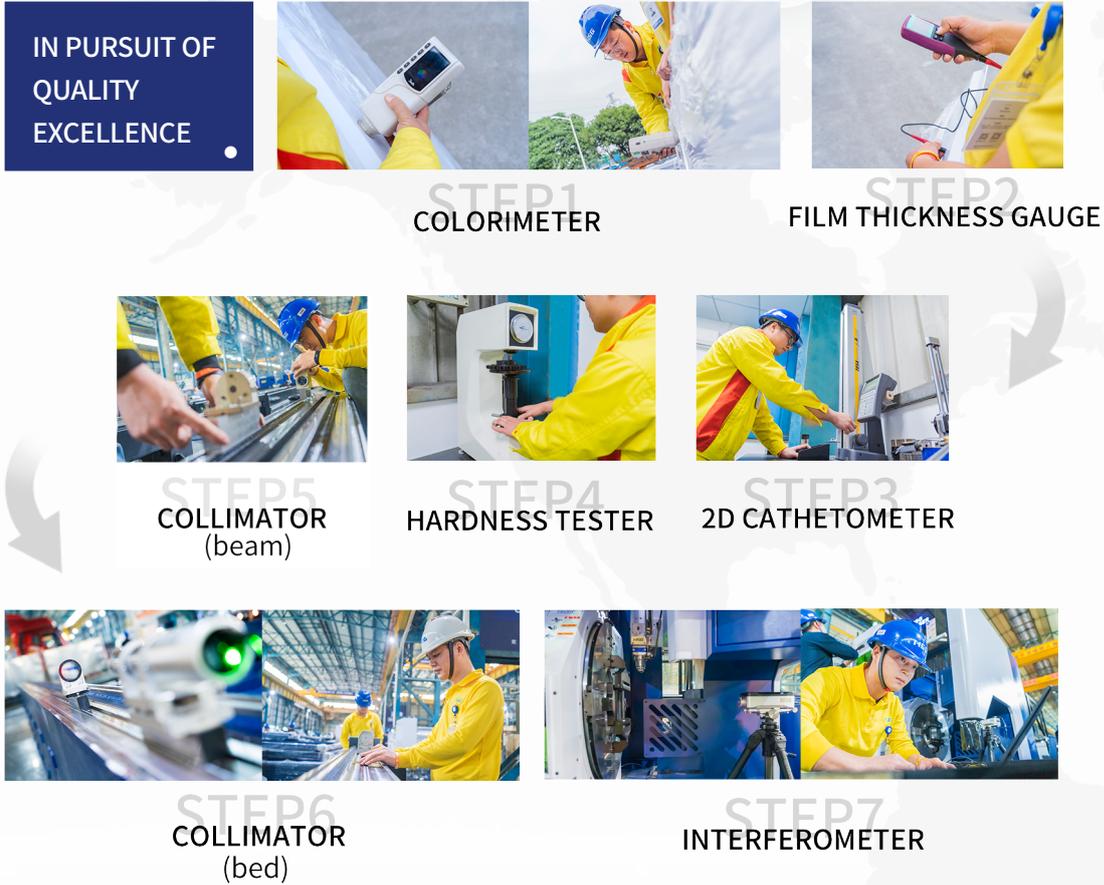
- \* 3D five-axis bevel cutting technology
- \* P30 ultra-high-power intelligent laser cutting head
- \* Intelligent digital four chucks
- \* Alpha T bus system
- \* HSG-XMT multi-touch operating system

## STRESS ON COOPERATION WITH STRONG ENTERPRISES

We import international first-class spare parts. HSG is the world's largest cooperative partner of IPG. The speed reducer, gear wheel and racks of many machines are completely imported from German Alpha. We also develop extensive cooperation with Japanese SMC, Panasonic, German Lanny and Aventics, French Schneider, etc.



# STRICT IN QUALITY CONTROL FLOW



## PROFESSIONAL AFTER-SALES SERVICE



### One-year Warranty

All unit components are warranted for 1-year, except items listed in the Exclusions section below. Our after-sales engineer or local agent will supply new or remanufactured component of equal or better quality to replace the failed one.

### Exclusions

Unit components subjected to normal wear during the Warranty Period are not covered by warranty, including:

1. Nozzle
2. Protective lens
3. Ceramic ring

Machine breakdown caused by part handling/misuse or corrosion due to exposure to caustic materials, voids the warranty.

Component failure caused by customer misuse/abuse of the unit (e.g. using incompatible materials or wrong axial position settings), voids the warranty.





OUR  
HEADQUARTERS



SUZHOU  
SUBSIDIARY



GERMAN  
SUBSIDIARY



JINAN  
SUBSIDIARY



JAPANESE  
SUBSIDIARY



## TABLE OF SHEET THICKNESS AND CUTTING SPEED

Material name	Thickness (mm)	IPG CUTTING SPEED (m/min)		RAYCUS CUTTING SPEED (m/min)	
		8000W	12000W	8000W	12000W
Carbon steel (O <sub>2</sub> )	1	8.0-12.0	8.0-12.0	8.0-12.0	8.0-12.0
	2	6.0-7.5	6.0-7.5	6.0-7.5	6.0-7.5
	3	3.3-4.5	3.6-4.5	3.2-4.5	3.5-4.5
	4	3.0-3.8	3.2-3.8	2.9-3.8	3.1-3.8
	5	2.8-3.4	3.0-3.4	2.7-3.4	3.0-3.4
	6	2.3-3.2	2.6-3.3	2.2-3.2	2.5-3.3
	8	2.1-2.7	2.3-2.8	2.0-2.7	2.2-2.8
	10	1.6-2.4	2.0-2.8	1.5-2.4	2.0-2.8
	12	1.5-2.2	1.6-2.7	1.4-2.2	1.5-2.7
	16	1.0-1.6	1.4-2.4	1.0-1.6	1.3-2.4
	20	0.7-1.2	1.0-2.4	0.6-1.2	1.0-2.4
	25	0.4-0.8	0.8-1.3	0.3-0.8	0.7-1.3
	30	0.2-0.6	0.4-1.2	0.2-0.6	0.4-1.2
	40		0.2-0.6		0.2-0.6
Carbon steel (N <sub>2</sub> )	1	40.0-52.0	46.0-60.0	40.0-52.0	46.0-60.0
	2	23.0-30.0	25.0-30.0	22.0-30.0	24.0-30.0
	3	18.0-25.0	20.0-25.0	17.0-25.0	20.0-25.0
	4	13.0-18.0	19.0-25.0	12.0-18.0	18.0-25.0
	5	8.0-12.0	13.0-20.0	7.0-12.0	12.0-20.0
	6	6.0-9.0	8.0-13.0	6.0-9.0	7.5-13.0
	8	4.5-6.5	7.0-9.0	4.0-6.5	6.0-9.0
	10	3.1-4.2	5.0-7.0	3.0-4.2	5.0-7.0
	12		3.5-5.0		3.0-5.0
	14		2.0-3.5		2.0-3.5
16		2.0-2.3		1.8-2.3	
Carbon steel (AIR)	1	42.0-53.0	47.0-60.0	42.0-53.0	47.0-60.0
	2	22.0-30.0	24.0-30.0	21.0-30.0	23.0-30.0
	3	18.0-25.0	20.0-25.0	17.0-25.0	19.0-25.0
	4	13.0-18.0	18.0-24.0	12.0-18.0	17.0-24.0
	5	9.0-12.5	13.0-18.0	8.5-12.5	12.0-18.0
	6	7.5-10.0	11.0-15.0	7.0-10.0	10.0-15.0
	8	4.5-6.5	8.0-12.0	4.3-6.5	7.5-12.0
	10	3.5-4.5	5.5-7.5	3.2-4.5	5.0-7.5
	12		3.5-5.5		3.3-5.5
	14		3.0-3.6		2.7-3.6
Stainless steel (N <sub>2</sub> )	1	46.0-60.0	48.0-60.0	46.0-60.0	48.0-60.0
	2	22.0-30.0	24.0-30.0	22.0-30.0	24.0-30.0
	3	18.0-23.0	20.0-25.0	18.0-23.0	20.0-25.0
	4	11.0-16.0	18.0-24.0	11.0-16.0	18.0-24.0
	5	8.0-11.0	14.0-19.0	8.0-11.0	14.0-19.0
	6	6.0-9.5	9.0-12.0	6.0-9.5	9.0-12.0
	8	4.0-7.0	6.5-10.0	4.0-7.0	6.5-10.0
	10	3.4-5.5	5.0-7.0	3.4-5.5	5.0-7.0
	12	2.0-3.5	3.2-5.5	2.0-3.5	3.2-5.5
	14	1.6-2.8	2.8-4.5	1.6-2.8	2.8-4.5
	16	1.2-1.7	2.0-3.0	1.2-1.7	2.0-3.0
	18	0.7-1.2	2.0-2.3	0.7-1.2	2.0-2.3
	20	0.7-0.9	1.2-1.9	0.7-0.9	1.2-1.9
	25	0.4-0.5	0.7-1.0	0.4-0.5	0.7-1.0
30	0.2-0.3	0.5-0.7	0.2-0.3	0.5-0.7	
40		0.2-0.3		0.2-0.3	
Stainless steel (AIR)	1	46.0-60.0	48.0-60.0	46.0-60.0	48.0-60.0
	2	23.0-30.0	25.0-30.0	23.0-30.0	25.0-30.0
	3	20.0-25.0	22.0-27.0	20.0-25.0	22.0-27.0
	4	13.0-23.0	21.0-26.0	13.0-23.0	21.0-26.0
	5	10.0-12.0	18.0-20.0	10.0-12.0	18.0-20.0
	6	8.0-9.0	13.0-15.0	8.0-9.0	13.0-15.0
	8	5.0-6.0	10.0-12.0	5.0-6.0	10.0-12.0
	10	3.0-4.6	5.0-7.0	3.0-4.6	5.0-7.0
	12	2.1-3.0	4.0-6.0	2.1-3.0	4.0-6.0
	14	1.3-2.3	3.0-4.0	1.3-2.3	3.0-4.0
	16	1.2-1.7	2.3-3.2	1.2-1.7	2.3-3.2
	20	0.7-0.8	1.1-1.8	0.7-0.8	1.1-1.8
	25		0.7-1.3		0.7-1.3
	30		0.7-0.9		0.7-0.9

## TABLE OF SHEET THICKNESS AND CUTTING SPEED

Material name	Thickness (mm)	IPG CUTTING SPEED (m/min)							RAYCUS CUTTING SPEED (m/min)						
		3000W	6000W	8000W	10000W	12000W	15000W	20000W	1000W	4000W	6000W	8000W	10000W	12000W	
Aluminum alloy (N2)	1	35.0-55.0	45.0-55.0	55.0-60.0	55.0-62.0	60.0-80.0	62.0-82.0	65.0-85.0	12.0-16.0	35.0-40.0	45.0-55.0	55.0-60.0	55.0-62.0	60.0-80.0	
	2	12.0-20.0	20.0-30.0	38.0-42.0	40.0-46.0	40.0-47.0	43.0-50.0	45.0-55.0	2.5-4.0	13.0-22.0	20.0-30.0	38.0-42.0	40.0-46.0	40.0-47.0	
	3	7.0-10.0	13.0-18.0	18.0-24.0	24.0-30.0	25.0-36.0	26.0-38.0	28.0-40.0		7.0-13.0	13.0-18.0	18.0-24.0	24.0-30.0	25.0-36.0	
	4	3.7-5.0	10.0-12.0	12.0-16.0	15.0-23.0	17.0-28.0	18.0-30.0	20.0-35.0		4.0-5.5	10.0-12.0	12.0-16.0	15.0-23.0	17.0-28.0	
	5	2.5-3.5	5.0-8.0	9.0-11.0	17.0-20.0	18.0-21.0	20.0-23.0	25.0-30.0		3.0-4.0	5.0-8.0	9.0-11.0	17.0-20.0	18.0-21.0	
	6	1.5-2.5	4.0-6.0	6.5-7.3	10.0-12.1	12.0-17.0	13.0-20.0	18.0-26.0		2.2-3.5	4.0-6.0	6.5-7.3	10.0-12.1	12.0-17.0	
	8	0.6-1.2	2.0-3.0	4.0-5.0	5.0-6.2	9.0-13.0	10.0-15.0	12.0-18.0			2.0-3.0	4.0-5.0	5.0-6.2	9.0-13.0	
	10		1.0-1.9	2.0-2.7	2.8-3.5	3.5-7.0	4.0-7.5	5.0-9.5			1.0-1.9	2.0-2.7	2.8-3.5	3.5-7.0	
	12		0.8-1.4	1.5-1.9	1.9-2.4	2.0-5.0	3.0-6.0	4.0-7.0				1.5-1.9	1.9-2.4	2.0-5.0	
	16		0.6-0.9	1.0-1.3	1.1-1.7	1.3-2.5	1.5-3.0	1.8-4.0					1.1-1.7	1.3-2.5	
	20			0.6-0.8	0.7-1.0	1.0-1.5	1.2-1.7	1.4-2.0						1.0-1.5	
	25			0.4-0.6	0.6-0.8	0.7-1.0	0.8-1.1	1.0-1.5							
	30				0.3-0.5	0.4-0.6	0.5-0.7	0.6-0.8	0.7-1.0						
	40							0.5-0.8							
	Aluminum alloy (AIR)	1		45.0-55.0											
		2		21.0-32.0											
3			14.0-19.0												
4			11.0-13.0												
5			6.0-9.0												
6			4.5-6.5												
8			2.4-3.5												
10			1.2-2.3												
Brass (N2)	1	28.0-55.0	45.0-55.0	50.0-60.0	55.0-60.0	55.0-65.0	58.0-70.0	62.0-75.0	10.0-12.0	25.0-32.0	45.0-55.0	50.0-60.0	55.0-60.0	55.0-65.0	
	2	9.0-20.0	25.0-31.0	28.0-33.0	30.0-38.0	32.0-40.0	35.0-44.0	40.0-50.0	2.0-3.8	10.0-13.0	25.0-35.0	28.0-33.0	30.0-38.0	32.0-40.0	
	3	4.5-10.0	12.0-18.0	13.0-19.0	15.0-23.0	16.0-26.0	18.0-30.0	25.0-35.0		5.0-6.5	12.0-18.0	13.0-19.0	15.0-23.0	16.0-26.0	
	4	2.5-4.5	8.0-10.0	9.0-12.1	10.0-16.5	12.0-19.5	13.0-21.5	15.0-28.0		3.0-5.2	8.0-10.0	9.0-12.1	10.0-16.5	12.0-19.5	
	5	1.2-2.5	4.5-6.0	7.5-8.8	9.0-12.8	10.0-14.8	11.0-15.8	13.0-17.0		2.0-3.0	4.5-6.0	7.5-8.8	9.0-12.8	10.0-14.8	
	6	0.9-2.0	3.0-4.0	6.0-6.6	7.0-9.0	8.0-13.0	9.0-14.0	11.0-16.0		1.4-2.0	3.0-4.0	6.0-6.6	7.0-9.0	8.0-13.0	
	8		1.6-2.2	3.5-4.7	4.5-5.7	5.5-7.7	6.0-8.0	7.0-10.0			1.6-2.2	3.5-4.7	4.5-5.7	5.5-7.7	
	10		0.8-1.2	1.8-2.6	2.7-3.7	3.5-4.7	4.0-5.0	5.0-7.0				1.8-2.6	2.7-3.7	3.5-4.7	
Red cooper (O2)	1	18.0-38.0	30.0-40.0	50.0-59.4	52.0-59.4	54.0-60.0	55.0-64.0	60.0-70.0	6.0-8.0	25.0-35.0	30.0-40.0	50.0-59.4	52.0-59.4	54.0-60.0	
	2	5.5-9.5	9.0-11.0	28.0-33.0	30.0-35.8	33.0-38.0	35.0-40.0	40.0-50.0		8.0-10.0	9.0-11.0	28.0-33.0	30.0-35.8	33.0-38.0	
	3	1.7-3.8	7.0-9.8	12.0-17.6	14.0-21.1	16.0-23.0	18.0-25.0	20.0-30.0		2.5-3.5	7.0-9.8	12.0-17.6	14.0-21.1	16.0-23.0	
	4		4.0-6.0	9.0-11.0	10.0-14.3	12.0-15.3	13.0-16.3	15.0-20.0		1.0-1.5	4.0-6.0	9.0-11.0	10.0-14.3	12.0-15.3	
	5		1.3-2.0	6.0-7.9	8.0-10.3	9.0-12.0	10.0-14.0	12.0-18.0			1.3-2.0	6.0-7.9	8.0-10.3	9.0-12.0	
	6		0.8-1.3	4.0-6.1	5.0-7.9	6.0-9.0	7.0-10.0	8.0-15.0			0.8-1.3	4.0-6.1	5.0-7.9	6.0-9.0	
8		0.6-1.0	2.2-3.2	2.8-4.2	3.3-5.2	3.7-6.0	5.0-7.0				2.2-3.2	2.8-4.2	3.3-5.2		
10			1.2-1.7	1.4-2.1	1.8-2.5	2.0-2.8	3.5-4.5					1.4-2.1	1.8-2.5		
12			0.8-1.1	1.0-1.4	1.2-1.6	1.3-1.8	1.5-2.8						1.2-1.6		
14							1.0-2.0								



## TABLE OF SHEET THICKNESS AND CUTTING SPEED

Material name	Thickness (mm)	IPG CUTTING SPEED (m/min)		RAYCUS CUTTING SPEED (m/min)	
		8000W	12000W	8000W	12000W
Aluminum alloy (N <sub>2</sub> )	1	40.0-50.0	40.0-50.0	40.0-50.0	40.0-50.0
	2	22.0-30.0	25.0-30.0	22.0-30.0	25.0-30.0
	3	20.0-23.0	20.0-25.0	20.0-23.0	20.0-25.0
	4	13.0-20.0	18.0-23.0	13.0-20.0	18.0-23.0
	5	8.0-9.5	14.0-17.0	8.0-9.5	14.0-17.0
	6	5.5-7.0	11.0-14.0	5.5-7.0	11.0-14.0
	8	4.0-4.5	7.0-8.5	4.0-4.5	7.0-8.5
	10	2.3-3.3	3.5-4.5	2.3-3.3	3.5-4.5
	12	1.5-2.0	3.3-4.0	1.5-2.0	3.3-4.0
	16	1.0-1.3	1.5-2.0	1.0-1.3	1.5-2.0
	20	0.6-0.9	1.0-1.2	0.6-0.9	1.0-1.2
	25	0.4-0.5	0.8-0.9		
	30	0.2-0.3	0.5-0.7		
40		0.3-0.4			
Brass (N <sub>2</sub> )	1	40.0-50.0	40.0-50.0	40.0-50.0	40.0-50.0
	2	18.0-25.0	20.0-25.0	18.0-25.0	20.0-25.0
	3	13.0-19.0	14.0-20.0	13.0-19.0	14.0-20.0
	4	9.0-13.0	13.0-17.0	9.0-13.0	13.0-17.0
	5	7.0-8.5	10.5-11.5	7.0-8.5	10.5-11.5
	6	5.0-6.5	8.0-9.5	5.0-6.5	8.0-9.5
	8	3.0-4.0	5.0-6.5	3.0-4.0	5.0-6.5
	10	2.0-3.0	4.0-5.0	2.0-3.0	4.0-5.0
	12	1.3-2.0	2.5-3.5	1.3-2.0	2.5-3.5
	1	18.0-35.0	28.0-45.0	18.0-35.0	28.0-45.0
	2	15.0-25.0	18.0-25.0	15.0-25.0	18.0-25.0
	3	12.0-15.0	14.0-18.0	12.0-15.0	14.0-18.0
4	5.5-7.5	10.0-14.0	5.5-7.5	10.0-14.0	
5	4.0-5.5	8.0-9.5	4.0-5.5	8.0-9.5	
6	3.0-4.5	6.0-7.0	3.0-4.5	6.0-7.0	
8		4.0-5.0		4.0-5.0	
10		2.0-3.0		2.0-3.0	

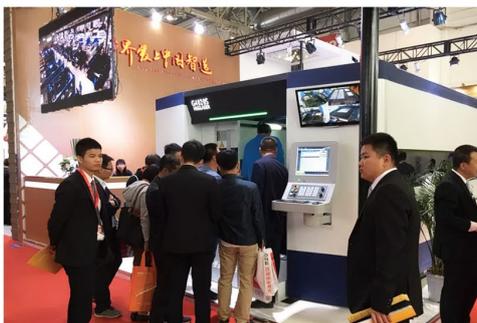
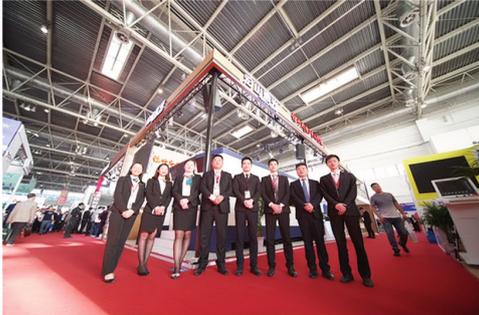
## COMPARISON OF CUTTING GAS AND COSTS BETWEEN LOW AND HIGH POWER

		2000-3000W				8000-15000W			
Material Name	Thickness (mm)	Cutting pressure (Mpa)	Gas consumption (M <sup>3</sup> /H)	Weight of liquefied gas (kg/H)	In total (RMB)	Cutting pressure (Mpa)	Gas consumption (M <sup>3</sup> /H)	Weight of liquefied gas (kg/H)	In total (RMB)
<b>Stainless Steel (N2)</b>	0.5-1	1.2	14.625	13.16	13.16	1.2	14.625	13.1625	15.795
	1.1-2.0	1.3	15.75	14.17	14.17	1.3	15.75	14.175	17.01
	1.5-2.0	1.4	16.875	15.18	15.18	1.4	16.875	15.1875	18.225
	2.1-3.0	1.5	34	30.6	30.6	1.5	34	30.6	36.72
	3.1-4.0	1.6	53.125	47.81	47.81	1.6	53.125	47.8125	43.03125
	4.1-5.0	1.7	72	64.8	64.8	1.7	72	64.8	77.76
	5.1-6.0	1.9	90	81	81	1.9	90	81	97.2
	6.0-8.0	2.2	140.875	126.78	126.78	2.2	140.875	126.7875	152.145
	9.0-10.0	2.3	192	172.8	172.8	2.3	192	172.8	207.36
	10.1-12.0					2.4	200	180	216
	14.0-16.0					2.5	208	187.2	224.64
	18.0-22.0					2.5	208	187.2	224.64
	24.0-26.0					2.5	208	187.2	224.64
	30.0-50.0					2.5	208	187.2	224.64
<b>Carbon Steel (O2)</b>	0.5-1	0.5	6.75	6.07	7.29	0.5	6.75	6.075	7.29
	1.1-2.0	0.45	6.1875	5.56	6.68	0.45	6.1875	5.56875	6.6825
	2.1-3.0	0.4	5.625	5.06	6.07	0.4	5.625	5.0625	6.075
	3.1-6.0	0.2	3.375	3.03	3.64	0.2	3.375	3.0375	3.645
	6.1-8	0.15	5	4.5	5.4	0.15	5	4.5	5.4
	10.0-12.0	0.15	5	4.5	5.4	0.15	5	4.5	5.4
	12.1-14.0	0.15	7.815	7.03	8.44	0.15	7.815	7.0335	8.4402
	14.1-16.0	0.15	11.25	10.12	12.15	0.15	11.25	10.125	12.15
	16.1-20.0	0.15	20	1.8	21.6				
	16.1-50.0					0.15	20	1.8	21.6



# EXHIBITIONS

ALL OVER THE WORLD



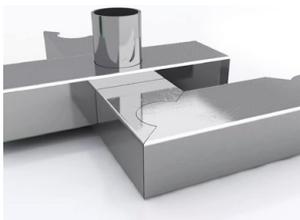
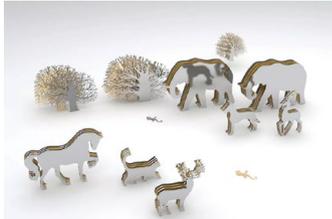
# CUTTING SAMPLES

Sheet cutting

Tube cutting

High-precision cutting

Artistic decorations



Edition No.: 2021.06

All technical parameters shall be subject to the latest edition.