

A PIONEER FOR HIGH-POWER 2-IN-1 LASER CUTTING MACHINES

GTE Pro

High-power Large-caliber Sheet & Tube Laser Cutting Machine





OUR CURRENT SHEET & TUBE LASER CUTTING MACHINES



One machine with two functions



Save purchasing costs



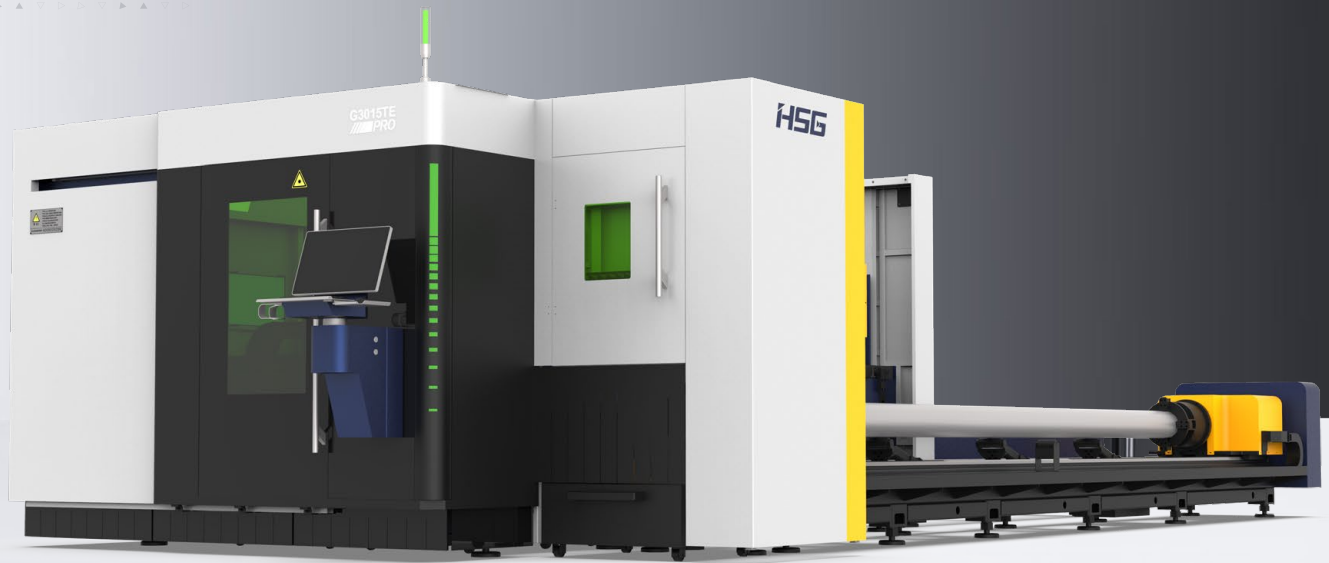
Significant reduction in occupied area



Help to accept more diversified orders

Power	Single Platform	Double Exchange Platforms		325mm Large-caliber Pneumatic Chucks
1500W	GB	GE	GXE	\
3000W		GE Pro		
4000W				
6000W	\	GTE P ro		
8000W				
12000W				
15000W		GHE P ro		
20000W				

8000W- | 2000W



Technical Parameter	GTE Pro			
Processing Format (L*W)	3000*1500mm	4000*2000mm	6000*2500mm	8000*2500mm
Power	8-12kW			
X/Y Axis Positioning Accuracy	0.03mm/m			
X/Y Axis Repositioning Accuracy	± 0.03mm			
Max. No-load Speed	100m/min			
Max. Acceleration	1.2G			
Max. Cutting Capacity of Sheet	35-40mm CS, 25-40mm SS, 30mm AL, 12-15mm brass, 12mm red copper			
Max. Cutting Capacity of Tube	Round tube Φ20-325mm, square tube 20*20-230*230mm, rectangular tube: diagonal ≤ 325mm			
Standard Cutting Length	6000mm			
Max. Loading Weight of Sheet Platform	1100kg	2000kg	3500kg	4680kg
Max. Loading Weight of Tube Platform	100kg or 200kg			
Overall Dimensions (L*W*H)	10300*4380*2750mm	11480*4880*2750mm	15960*5400*2750mm	20100*5400*2750mm



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

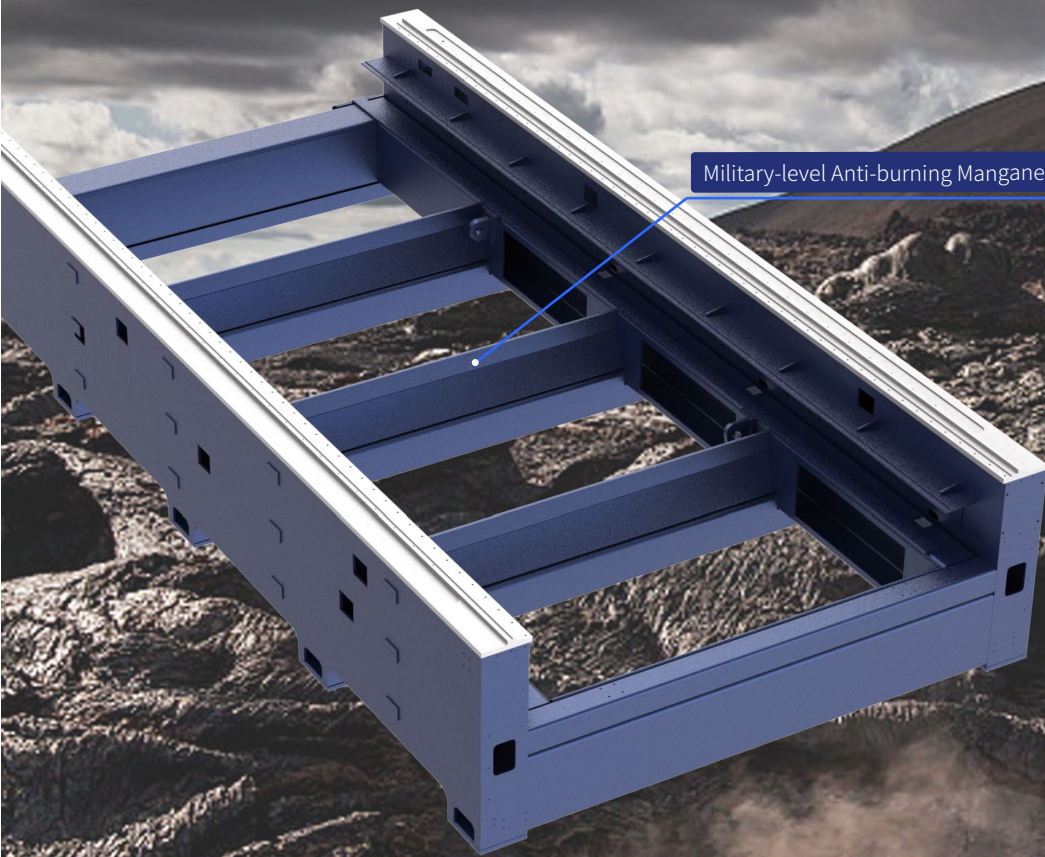


Built-in nesting software



🔹 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



Military-level Anti-burning Manganese Steel



More solid in entire structure



Highly precise and stable for 20+ years



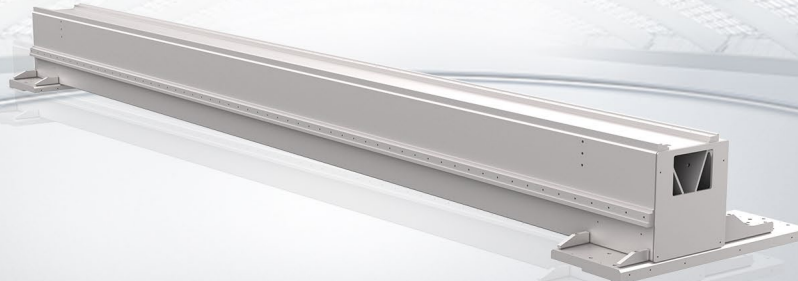
Much safer in cutting



Keep operators safe

HIGH-QUALITY CARBON STEEL WELDED MACHINE BED

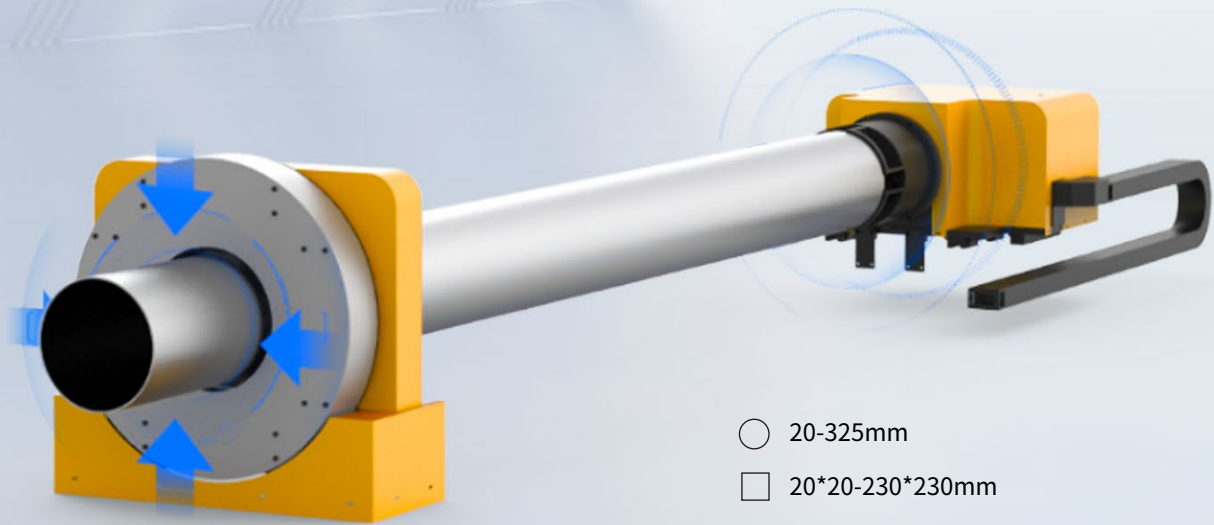
- Covered with military-level anti-burning manganese steel
- 20 years using without deformation
- Lessen the area heated by laser



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

THE LATEST GENERATION OF EXTRUDED AVIATION ALUMINUM BEAM

- 🌀 Adopt 6 series aviation aluminum alloy
- 🌀 Keep up with aerospacecraft design standards
- 🌀 Keep high precision for 20+ years



○ 20-325mm

□ 20*20-230*230mm

Max. weight of single tube 100kg or 200kg



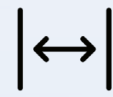
High efficiency



High precision



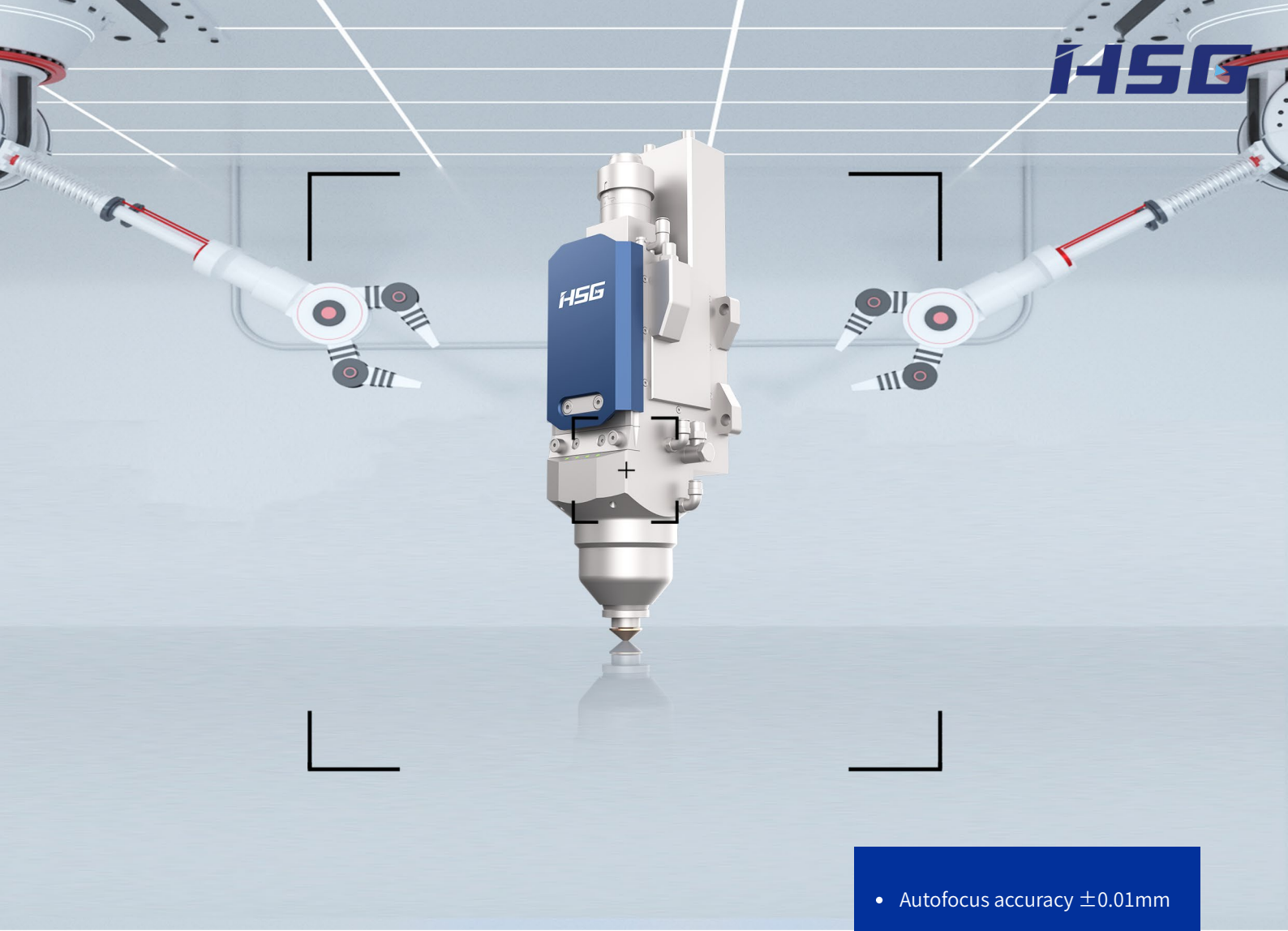
Extremely stable



Wide range of clamping

325MM LARGE-CALIBER HEAVY-DUTY PNEUMATIC CHUCKS

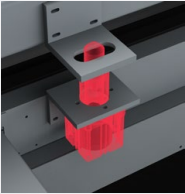
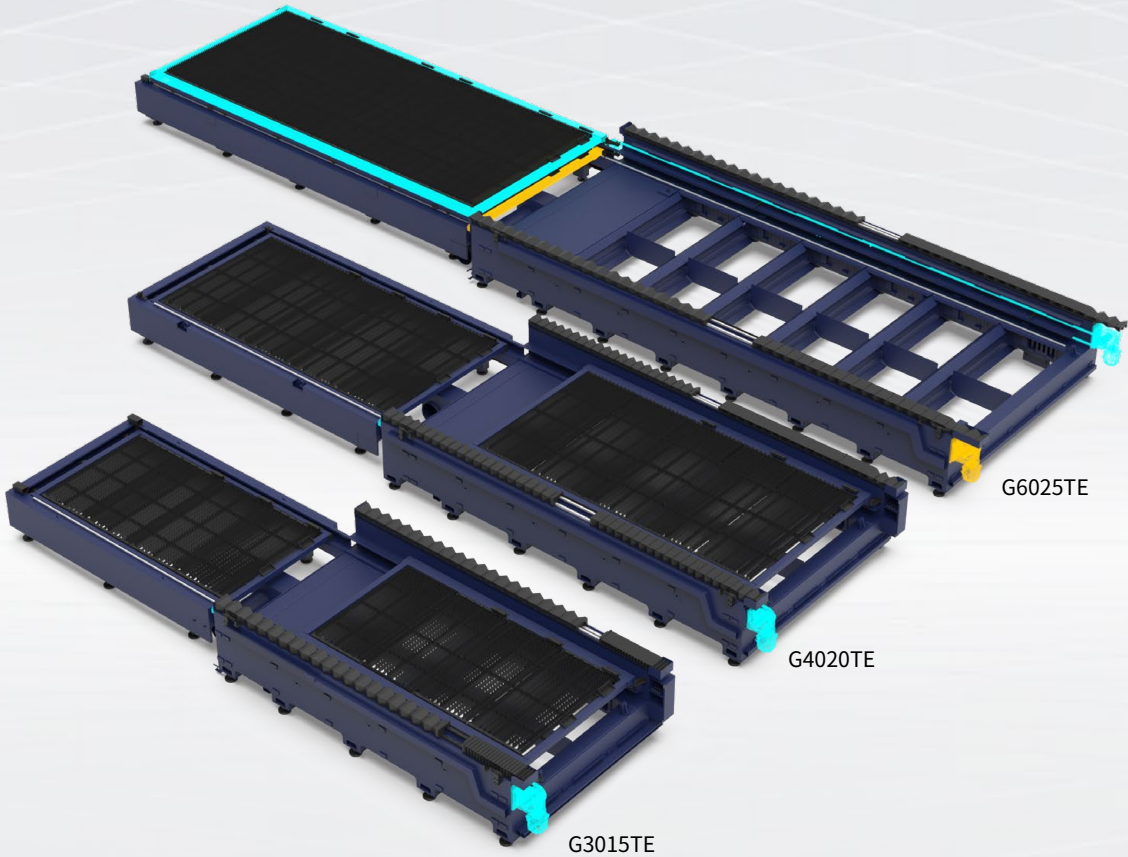
- Wireless remote control, automatic centering, 3 times faster than electric chucks
- Clamp heavy tubes by constant clamping force
- Use concave support frames to prevent tubes from sagging and deformation
- Clamp profiles like angle and channel steel, except for conventional tubes



P10/P06 INTELLIGENT AUTOFOCUS CUTTING HEAD

- Autofocus accuracy $\pm 0.01\text{mm}$
- High laser transmittance
- Active obstacle avoidance
- Give warning if abnormal
- Real-time monitoring
- Fast-cooling modules

- 📦 Self-developed by HSG Laser
- 📦 Range from medium-to-high power (6-8kW) to high power (10-15kW)
- 📦 Easy to cut thin, thick and ultra-thick sheets without stop
- 📦 Make low demands for quality of materials loaded
- 📦 Easy to repair and maintain at low costs



Taper Pins Positioning

DUAL-MOTOR DRIVEN EXCHANGE PLATFORMS



Quality above industry criteria



3 times faster than hydraulic platforms

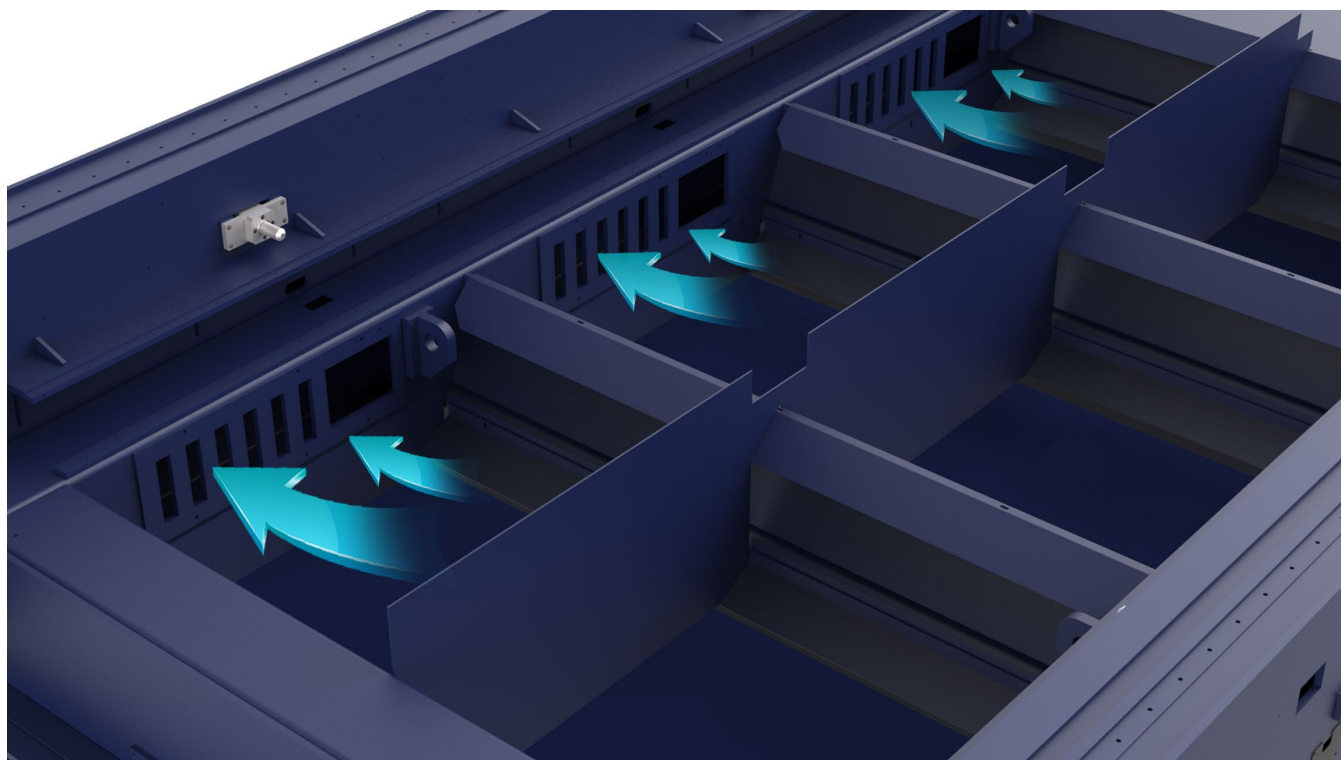


Positioning precision $\leq 0.5\text{mm}$



Visible exchange process

- 📏 Taper pins positioning
- 📏 Take $\leq 15\text{s}$ to exchange
- 📏 16A chains, 4mm wider than industry criteria
- 📏 Driven by dual motors and work independently (only for 6000*2500mm or other larger formats)



Almost smoke-free



Good ventilation effects



Cleaner work environment

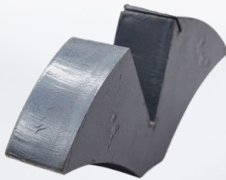
ECO-FRIENDLY CUTTING

- Discharge cutting smoke by timing and zoning ventilation and butterfly valve dampers

MIRROR-LIKE SURFACE CUTTING

- * Cutting section as smooth as a mirror
- * Smaller degree of taper $\leq 0.18^\circ$
- * High cutting precision
- * Save energy and costs
- * With no need for secondary polishing

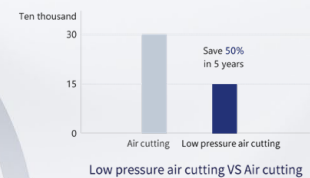
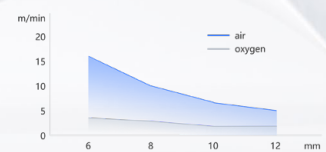
Tips: It is only applicable to carbon steel cutting by oxygen.



LOW-PRESSURE AIR CUTTING

- * Triple cutting speed
- * Halve total costs and energy consumption
- * Require little polishing due to less adhering slags

Tips: It is suitable for all 6kW+ machines.



PROFITABLE COOL TECHNOLOGIES FOR YOU



LIGHTNING-FAST PIERCING

- * Piercing at millisecond level
- * Piercing with high precision
- * Negligible popping rate
- * Clean and slagless



MICRON-LEVEL SUPERFINE CUTTING

- * Micron-level precision
- * Smooth section, no subsequent polishing
- * Fit for precision-demanding industries

STANDARD WIRING



CE

CE-compliant
electrical cabinet



No worry about
wiring error

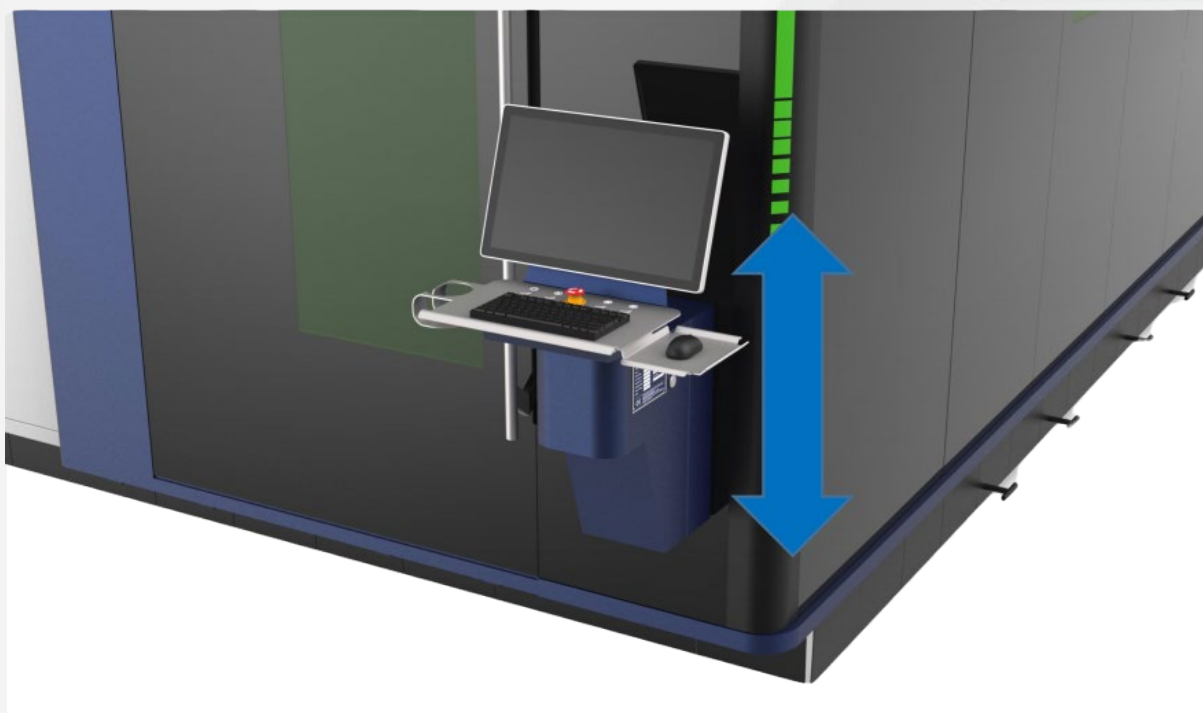


Much safer in
operation

- ☞ Independent electric cabinet
- ☞ Separates weak current from strong current
- ☞ Phoenix pluggable fail-safe wiring terminal
- ☞ Prevent signal interference and frictional loss among lines

ELECTRIC CONSOLE

- 🔑 One-key lift or fall
- 🔑 Friendly to all users of different heights and in different postures



REMOTE CONTROLLER

- 🔑 Simply-set buttons
- 🔑 Magnetic design for pick up or put down

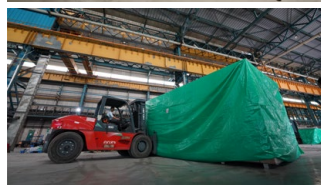




Meet ocean shipping criteria



\$1500 higher than other manufacturers



HIGH-STANDARD PACKAGE

- Our machines are packed by aluminum foil, metal framework, fumigation wooden case, anti-rust oil+oilpaper, moisture-barrier bag, plastic waterproof film, filled with foam and covered by vacuum aluminum foil and plastic film.



FAMOUS-BRAND COMPONENTS



German WITTENSTEIN Alpha
Speed reducer (incl. gear wheels)

IPG/Raycus

Lasers



Taiwan brands

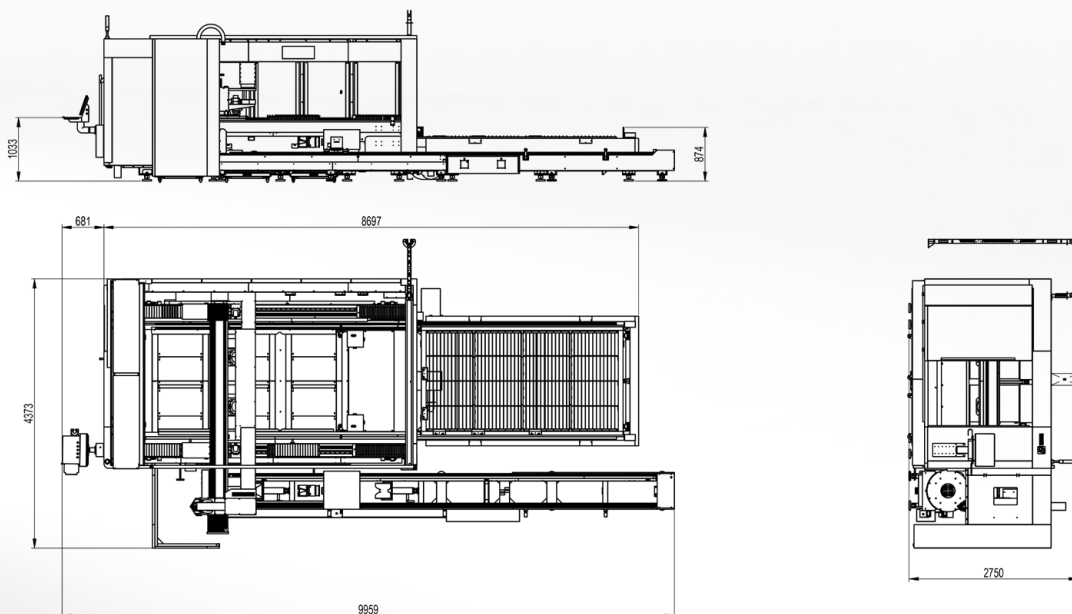
High-precision racks and
linear guides



CUTTING SAMPLES



MACHINE DIMENSION





HSG LASER

THE LIGHT OF INTELLIGENT MANUFACTURING

A HI-TECH ENTERPRISE IN CHINA

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.

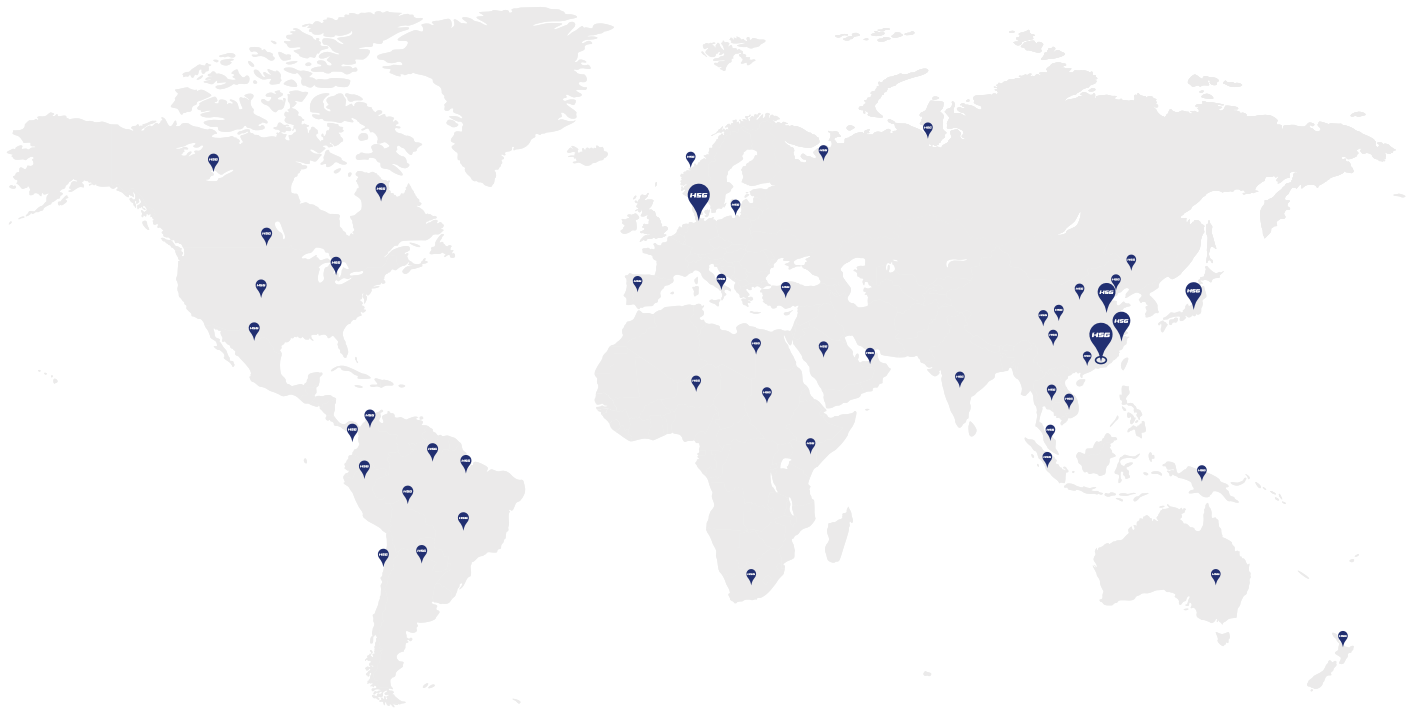


33 patents for
invention



316 patents
in total

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

80000m²+

total area of production
factories

5000+







annual productivity

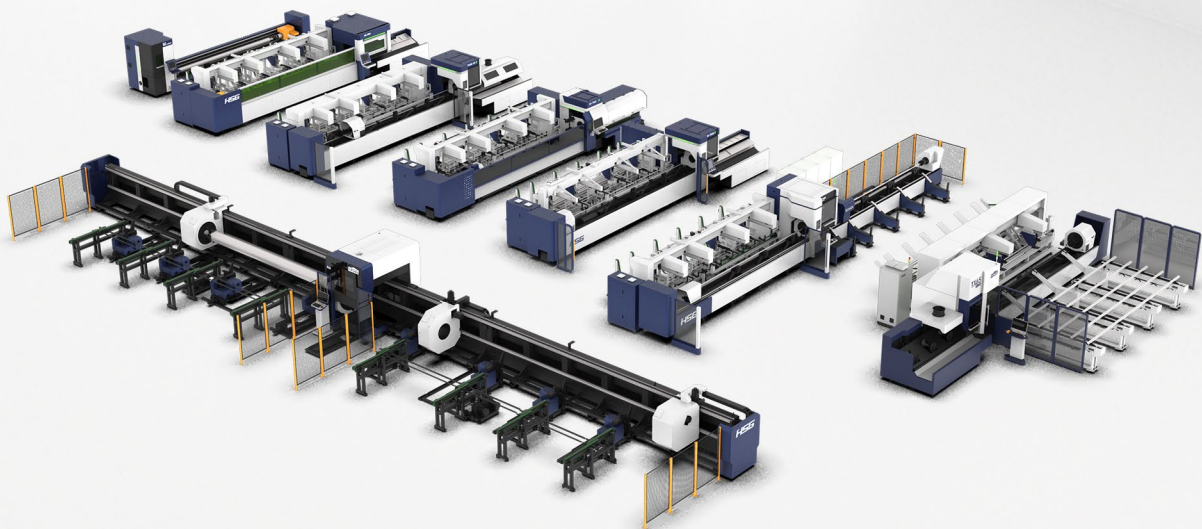
R&D

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

MACHINES AVAILABLE FOR SALE

-  Sheet metal laser cutting machines
-  Sheet & tube laser cutting machines
-  Tube metal laser cutting machines
-  Bending machines
-  Welding machine
-  Automation devices



STRICT IN QUALITY CONTROL FLOW

IN PURSUIT OF
QUALITY
EXCELLENCE



STEP 1
COLORIMETER



STEP 2
FILM THICKNESS GAUGE



STEP 5
COLLIMATOR
(beam)



STEP 4
HARDNESS TESTER



STEP 3
2D CATHETOMETER



STEP 6
COLLIMATOR
(bed)



STEP 7
INTERFEROMETER

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.

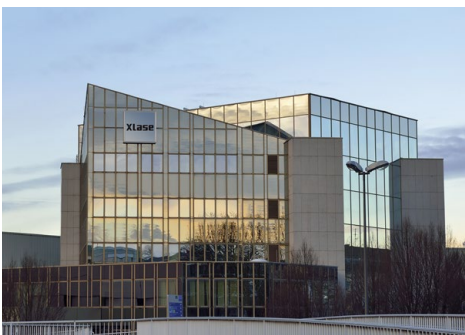




OUR
HEADQUARTERS



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 ₂)	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	
Carbon steel (N ₂)	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 ₂)		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	
	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)	
		8000W	12000W	8000W	12000W
Aluminum alloy (N ₂)	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 ₂)	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
Red copper (O ₂)	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