

HIGH-EFFICIENT LINEAR MOTOR

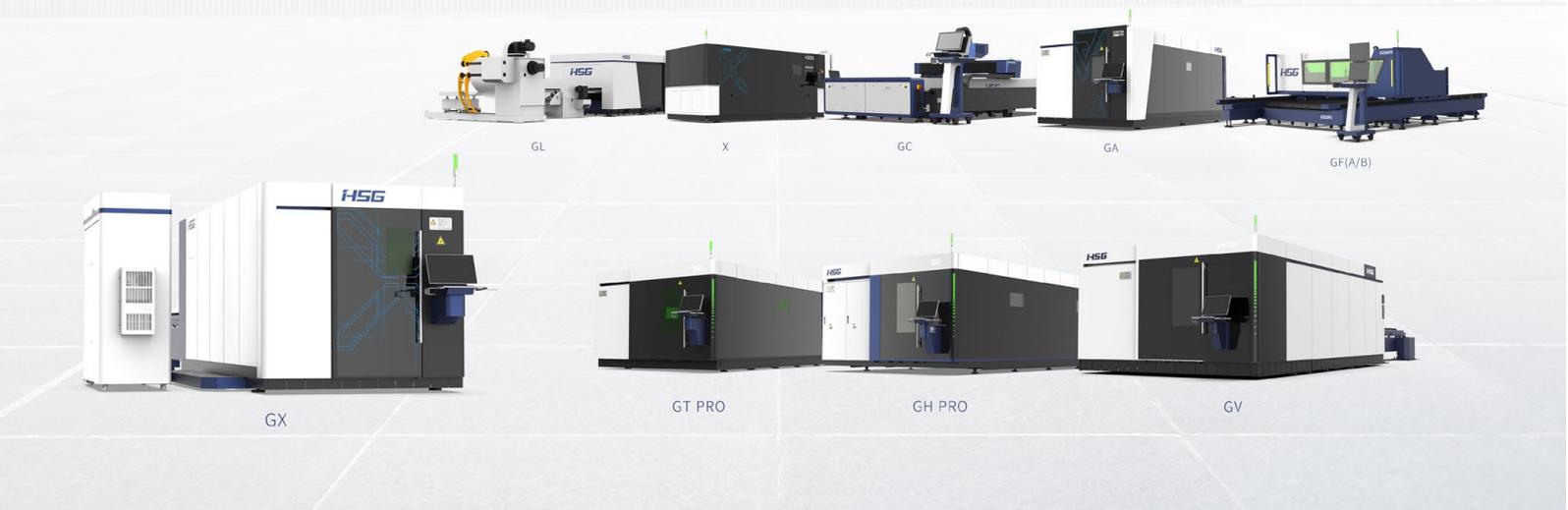
DOUBLE EXCHANGE PLATFORMS LASER CUTTING MACHINE

2000-6000W



GX-M

Technical Parameter	G3015X-M
Power	2000-6000W
Processing Format (L*W)	3048*1524mm
X/Y-axis Positioning Accuracy	$\pm 0.03\text{mm/m}$
X/Y-axis Repositioning Accuracy	$\pm 0.03\text{mm}$
Max. Acceleration	2.0G
Max. No-load Speed	200m/min
Max. Loading Weight	950kg
Overall Dimensions (L*W*H)	8900*2260*2200mm



OUR CURRENT FAMILY OF SHEET METAL LASER CUTTING MACHINES



Power range 1.5-30kW



Cut ultra-large formats
(24000*5000mm)



Cut super-thick sheets
(100mm CS)



Max. 45° bevel cutting



Cut with ultra-high
precision (X0606: max.
±0.005mm/m)

Power	Single Platform	Double Exchange Platforms			Coil Stock Cutting
1500W	GC III, X	GA IV	N/A	GX IV	GL, GL-S
2000W			GX, GX-M (2/3/6KW)		
3000W				N/A	
4000W			GF-A/GF-B	GT PRO II	
6000W	GH PRO II	GV		N/A	
8000W					N/A
12000W	N/A				
15000W		N/A			
20000W	N/A				
30000W		N/A			



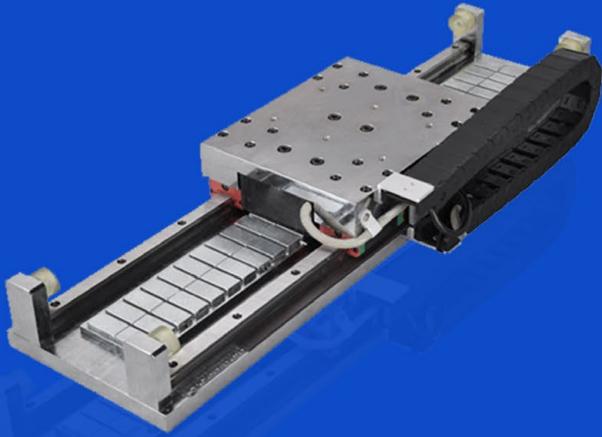
WHY CHOOSE GX-M?



- 🌀 A high-end model with better configurations
- 🌀 20% higher than machine with servo motor because of linear motor adopted
- 🌀 German WITTENSTEIN alpha speed reducer and racks, for higher precision

KEY CONFIGURATIONS

	GX-M
Control System	Alpha T bus CNC system
Speed Reducer	German WITTENSTEIN Alpha
Racks	German WITTENSTEIN Alpha
Laser-proof Glass	Standard
Top Cover	
Positive-pressure Blowing on Top Cover	
Zoning Ventilation System	
Pneumatic Door for Exchange Platforms	
Safety Light Curtain	Optional
CCD Monitoring Camera	



Linear Motor

- Convert electricity into mechanical energy directly for linear motion
- High-precision positioning control from high speed to low speed
- Max. no-load speed 200m/min
- Max. Acceleration 2.0G

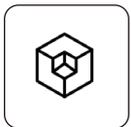
Servo Motor

- Indirect speed variator
- Prone to low-frequency vibration at low speed
- Max. no-load speed 140m/min
- Max. acceleration 1.5G



HIGH-PERFORMING LINEAR MOTOR

- 📦 Large thrust, small resistance force, pick up speed quickly
- 📦 Perform stable and efficient due to its module-based structure
- 📦 Improve processing efficiency and total profits by 20%, resulting in shorter payback period



Compact size



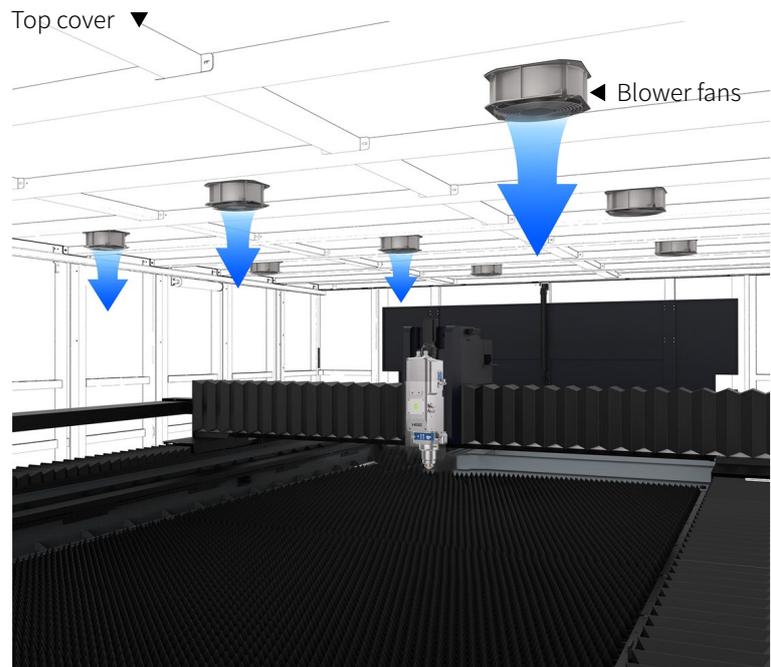
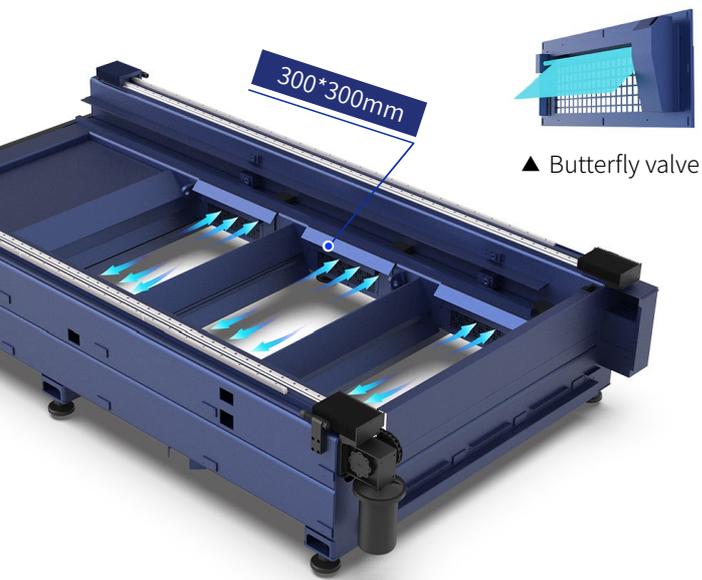
Small power loss



Quick travel



High acceleration



Almost smoke-free in an instant



Environmental and pollution-free



Low noise



Long-life components

ECO-FRIENDLY CUTTING

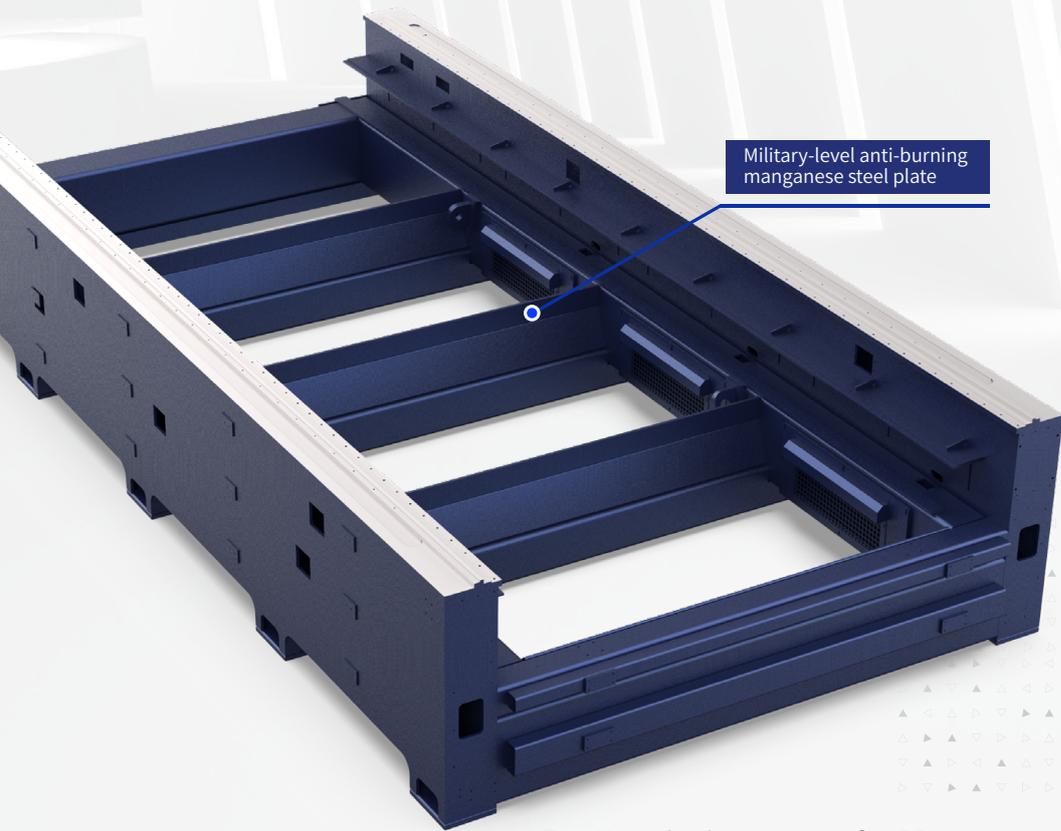
☰ ZONING VENTILATION

- * Divide cutting area into left and right zone
- * Generally controlled by butterfly valve
- * 300*300mm full-hollow air ducts on both sides of machine bed
- * Synchronize cutting and smoke discharge

☰ POSITIVE-PRESSURE PROTECTION

- * At national standard level
- * Several blower fans on top cover and beam, pressing smoke below machine bed
- * Work with button hurricane-force ventilation system
- * Air outlet on Z axis of P10 can blow away cutting smoke to keep itself clean





Military-level anti-burning manganese steel plate

- Keep high precision for 20+ years



More solid in structure



Highly precise and stable for 20+ years



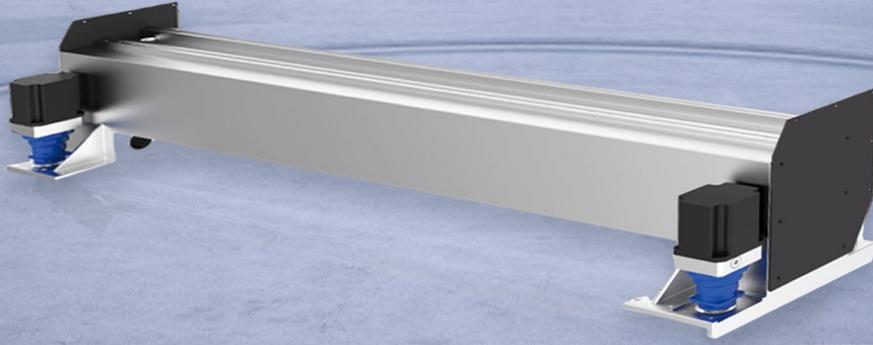
Much safer in cutting



Keep operators safe

HIGH-QUALITY CARBON STEEL WELDED MACHINE BED

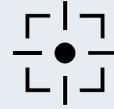
- 📦 Cover with military-level anti-burning manganese steel
- 📦 20 years using without deformation
- 📦 Lessen the area heated by laser



- 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



Autofocus accuracy
 $\pm 0.01\text{mm}$



Active obstacle
avoidance



Autoalarm if
abnormal



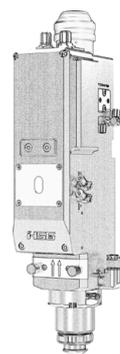
Simple to
maintain



Cut thin and thick
sheets in batch stably

HIGH-PRECISION LASER CUTTING HEAD

- ⇒ Special monitoring sensor for cutting head
- ⇒ Keep away from barrier or obstacle automatically during cutting
- ⇒ Easy to cut with mirror-like surface



⇒ **99.95%+** laser transmittance

⇒ **0.05%-** power loss

⇒ **3** protective lens

ALPHA T BUS CNC SYSTEM

- Data transmission only via a network cable
- Easy to operate even by green hands
- Match with 2000+ process data
- Graphical programming interface
- Compatible with DXF, DWG, PLT, NC code, etc.
- Improve stock layout and material utilization by 20% and 9.5%



1
Ultra-high-speed scanning & cutting with micro-connection

2
Active obstacle avoidance

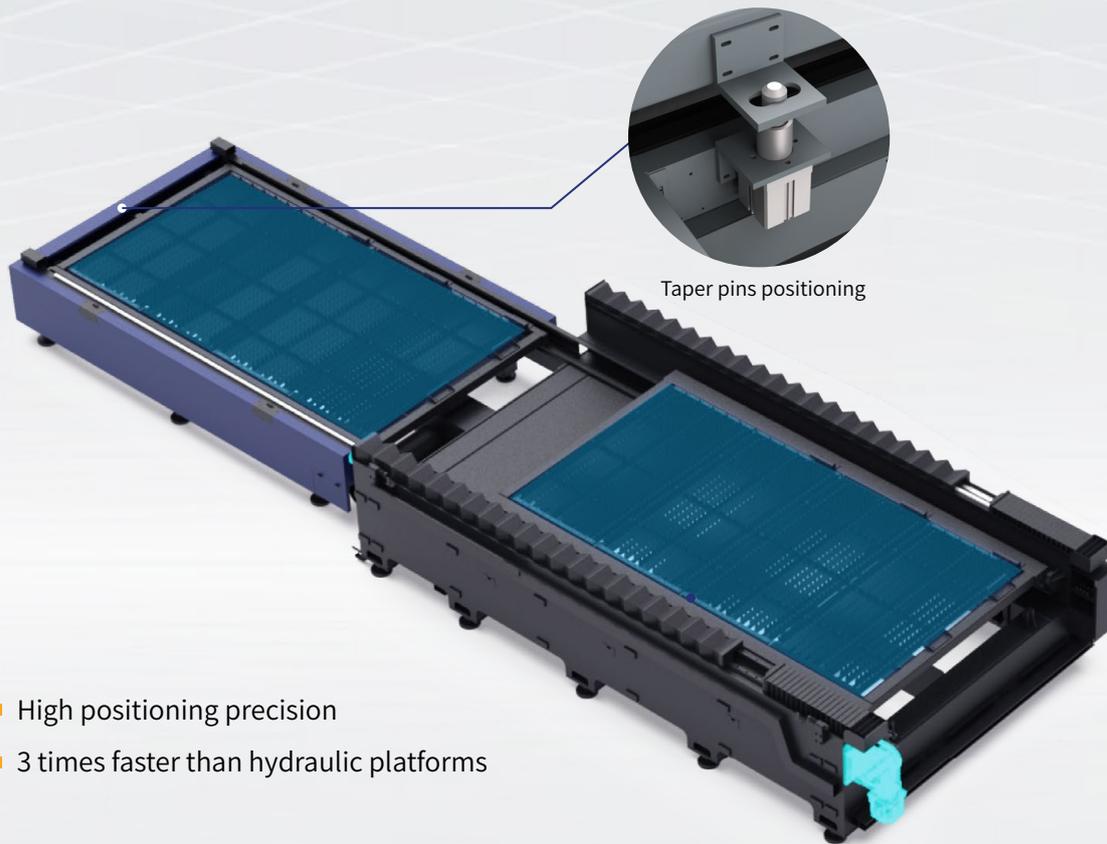
3
Real-time monitoring of core components

4
Flexible/batch processing mode

5
Built-in nesting software

Alpha T, self-developed by HSG LASER, can make data transmission rapid, stable and accurate only via a network cable based on EtherCAT protocol as a technically advanced bus system.

Tips: Lantek nesting software is offered for selection.



- High positioning precision
- 3 times faster than hydraulic platforms

DOUBLE EXCHANGE PLATFORMS TAPER PINS POSITIONING

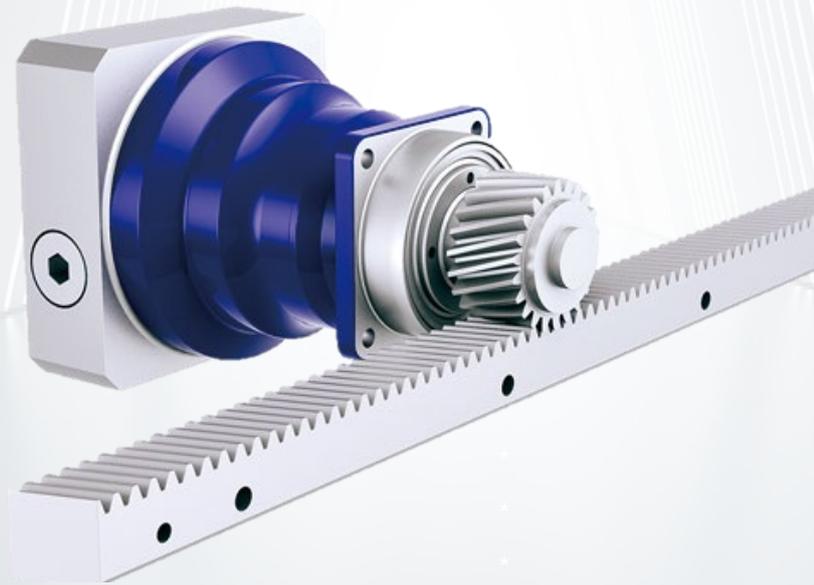
- 🌀 16A wide chains for more stable cutting
- 🌀 High-precision CNC system, protecting the machine and operators well
- 🌀 Pneumatic door between exchange platforms can prevent cutting smoke diffusion and keep working environment clean



Quality above
industry criteria



Visible exchange
process

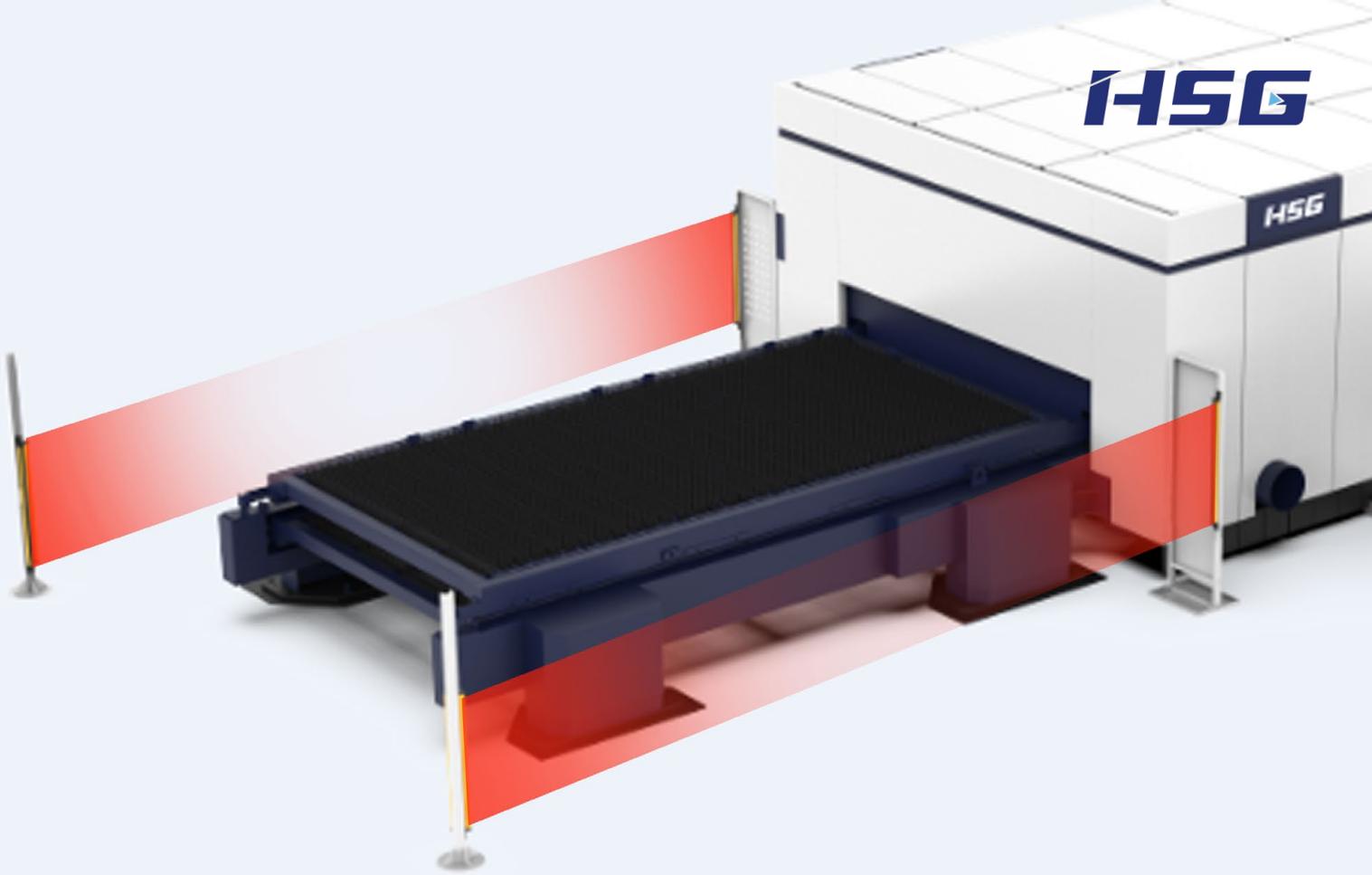


GERMAN WITTENSTEIN ALPHA SPEED REDUCER (INCL. RACKS)

- 🏆 World's top brand
- 🏆 Keep high precision for 10 years
- 🏆 Low running noise
- 🏆 High precision



WITTENSTEIN

The HSG logo is positioned in the top right corner of the image, above the machine. It consists of the letters 'HSG' in a bold, blue, sans-serif font.

OPTIONAL FEATURES

SAFETY LIGHT CURTAIN

- ☞ Halt the machine instantly when any intruder is detected
- ☞ Protect workers and the whole machine well

PROFITABLE COOL TECHNOLOGIES FOR YOU



MIRROR-LIKE SURFACE CUTTING

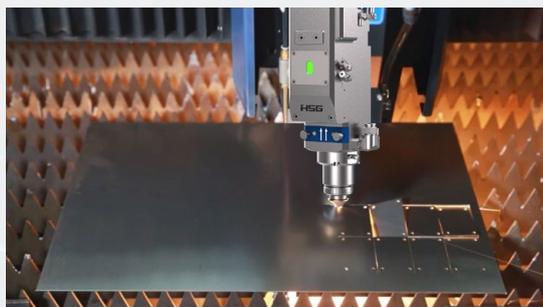
- * Cutting section as smooth as a mirror
- * Smaller degree of taper
- * High cutting precision
- * Save energy and costs
- * With no need for secondary polishing

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



INTELLIGENT PERFECT FINISH CUT (PFC)

- * No built-up edge
- * No external surface scaldy
- * No overburning on cut endpoint



INTELLIGENT CUTTING PATH PLANNING

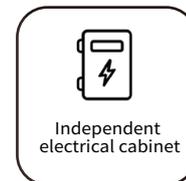
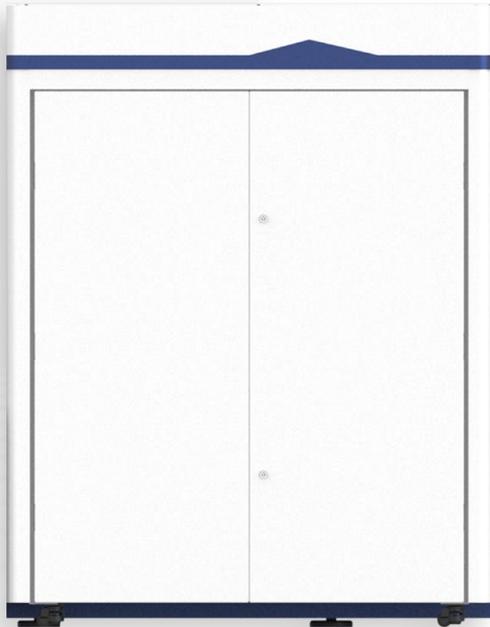
- * Improve cutting efficiency by 30%
- * Huge reduction in costs



LIGHTNING-FAST PIERCING

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

STANDARD WIRING



-  The independent electrical cabinet caters to EU CE standards and separates weak current from strong current area to prevent electromagnetic interference, dust entry and possible ignition.
-  External control elements are equipped with Phoenix pluggable fail-safe wiring terminal.
-  Every line matches with its own code. The optical fiber line, gas hose, water hose, strong current line and weak current line in wiring duct are arranged in different zones to prevent signal interference and frictional loss among lines.



HSG LASER

Intelligent Manufacturing Changes Future

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



4
Standardized
manufacturing
bases in China

80000m² +
Total area of
production factories

5000+Sets
Annual productivity

3000+Sets
Global sales in 2020

1500+
Employees

170+
R&D personnel

10
Branches/subsidiaries/
sub-subsidiaries

30+
Service outlets overseas

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



STEP1
COLORIMETER



STEP2
FILM THICKNESS GAUGE



STEP5
COLLIMATOR
(beam)



STEP4
HARDNESS TESTER



STEP3
2D CATHETOMETER



STEP6
COLLIMATOR
(bed)



STEP7
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

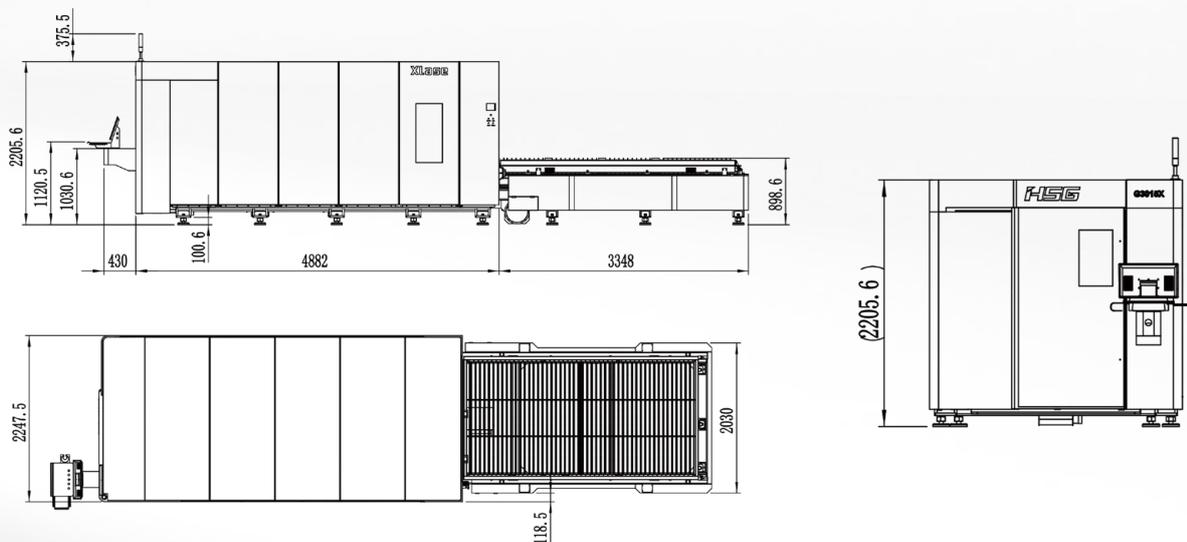
Machine breakdown caused by part handling/misuse or corrosion due to exposure to caustic materials, voids the warranty.

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

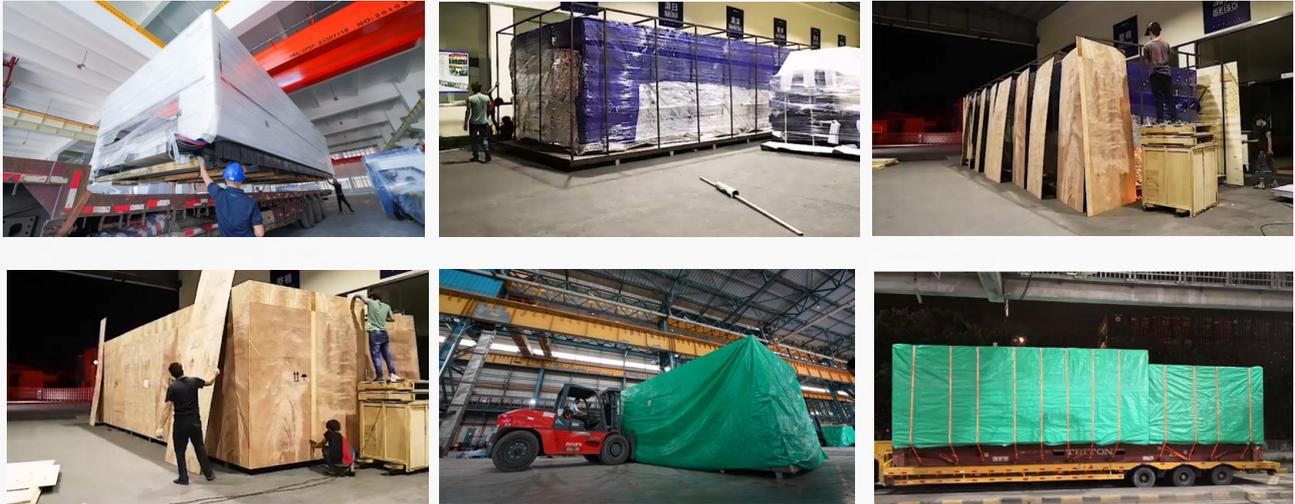
CUTTING SAMPLES



MACHINE DIMENSION



SHIPMENT DIAGRAM



CUSTOMER TESTIMONIALS



TABLE OF SHEET THICKNESS AND CUTTING SPEED

Material Name	Thickness (mm)	Cutting Speed (m/min)		
		2000W	3000W	6000W
Carbon steel (O ₂)	1	7.0-12.0	7.0-12.0	8.0-12.0
	2	5.0-6.5	5.0-7.0	5.0-7.5
	3	3.0-3.7	3.0-3.8	2.8-4.0
	4	2.5-3.3	2.6-3.5	2.4-3.7
	5	2.2-3.0	2.5-3.1	2.3-3.2
	6	2.0-2.8	2.0-3.0	2.1-3.0
	8	1.3-2.0	1.4-2.2	1.3-2.2
	10	1.0-1.4	1.2-1.8	1.2-2.1
	12	0.9-1.2	1.0-1.5	1.0-1.6
	16	0.60-0.75	0.7-0.85	0.6-0.9
	20	0.3-0.5	0.6-0.75	0.4-0.8
	25			0.3-0.4
Stainless Steel (N ₂)	1	35.0-50.0	42.0-62.0	45.0-55.0
	2	10.0-15.0	12.0-25.0	20.0-30.0
	3	4.0-7.0	7.0-12.0	11.0-16.0
	4	2.5-4.5	4.0-6.5	9.5-12.0
	5	1.6-2.5	2.5-4.5	6.0-7.5
	6	0.7-0.8	1.5-3.2	4.5-6.5
	8	0.4-0.6	0.6-1.0	3.0-4.0
	10		0.4-0.8	1.8-2.4
	20			0.4-0.5
Aluminum Alloy (N ₂)	1	20.0-38.0	35.0-55.0	40.0-50.0
	2	10.0-15.0	12.0-20.0	20.0-25.0
	3	5.0-6.0	7.0-10.0	10.0-15.0
	4	3.0-3.6	3.7-5.0	8.0-9.5
	5	2.0-2.4	2.5-3.5	5.0-7.0
	6	0.8-1.5	1.5-2.5	4.5-5.5
	8		0.6-1.2	2.2-3.5
	10			1.5-2.3
	16			0.8-1.0 0.6-0.7
Brass (N ₂)	1	19.0-30.0	28.0-55.0	40.0-45.0
	2	6.5-9.0	9.0-20.0	14.0-20.0
	3	2.5-4.0	4.5-10.0	10.0-12.5
	4	1.6-2.2	2.5-4.5	8.0-9.5
	5	0.9-1.2	1.2-2.5	5.0-6.0
	6		0.9-2.0	3.0-3.8
	8			2.0-2.5
Red Copper (O ₂)	1	12.0-18.0	15.0-33.0	16.0-30.0
	2	4.5-6.5	5.5-9.5	8.0-12.0
	3	1.1-1.8	1.7-3.8	5.5-8.5
	4			4.0-6.0
	5			3.0-4.0