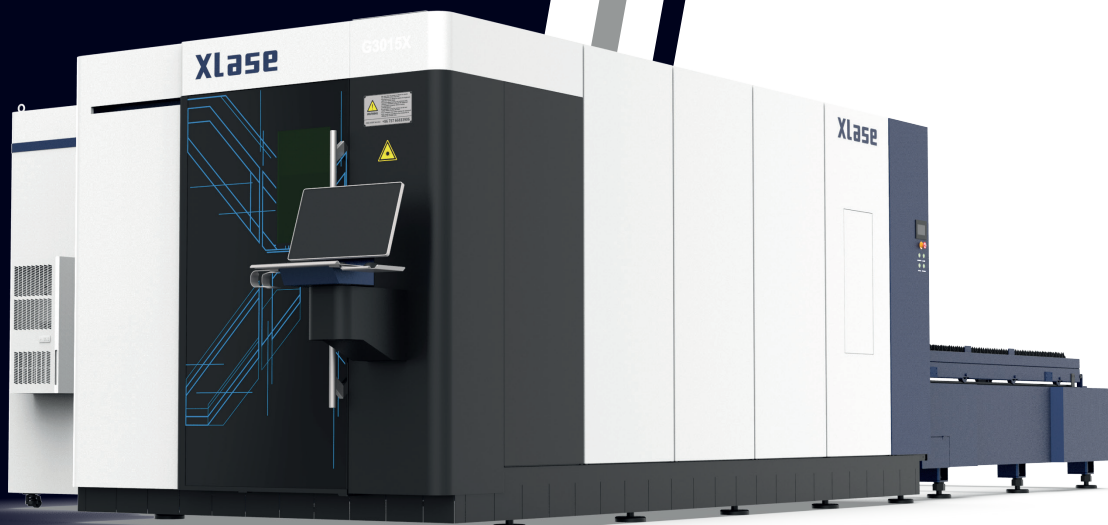


HSG



HSG X Series

Industrial Fiber Laser Cutting

TECHNICAL INFORMATION



HSG X SERIES FIBER LASER

HIGH POWER INDUSTRIAL LASER CUTTING

HSG is proud to unveil its latest generation X Series Fiber Laser; a powerful, fully enclosed laser cutting machine that ensures accuracy and speed in processing a large range of cutting thicknesses.

HSG are the global industry leader in fiber laser sales, having already sold to over 80 countries worldwide.

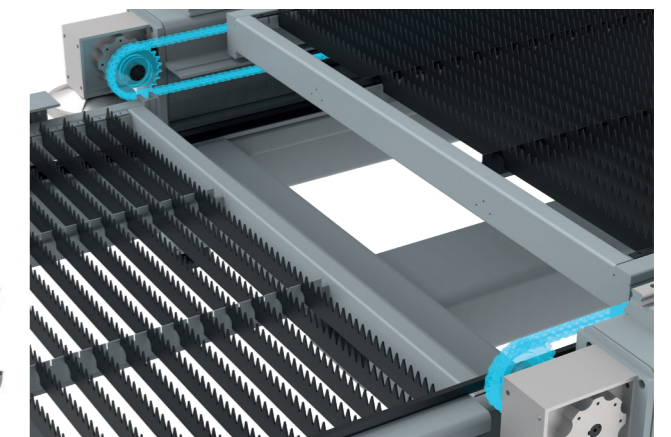
Recommended for heavy usage in large industrial applications, the X Series Fiber Laser Cutters provide precise, reliable cutting at a great price.

UNDER THE HOOD

FULLY ANNEALED FRAME

HSG steel frames are annealed at over 600° to relieve internal stress. This ensures they can withstand heavy use without distortion.

The auto changing dual chain transmission pallet system reduces machine down time to ensure you're always cutting.



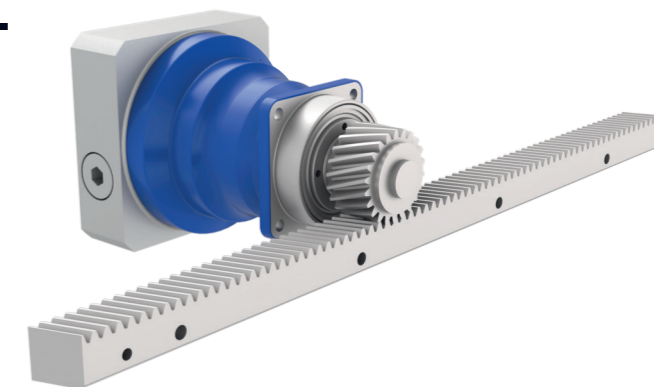
EXTRUDED ALUMINIUM GANTRY

HSG's 4th generation aluminium crossbeam is extruded using 6 series aviation grade aluminium alloy.

It measures less than 50% of the weight of traditional iron gantries, ensuring superior rigidity, higher acceleration and reduced inertia, diminishing the associated wear and tear on the machine and its components.



ALPHA RACK & PINIONS



HSG Laser uses the best racks and pinions from Alpha Wittenstein.

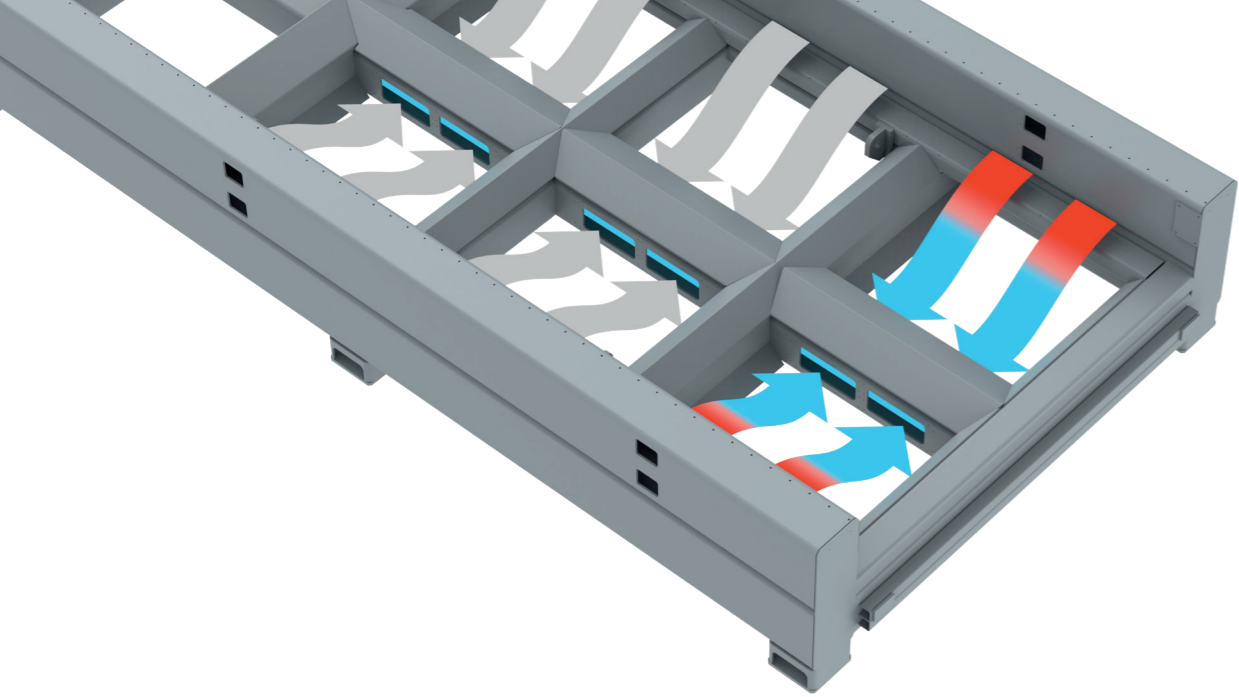
Advanced German engineering and precision manufacturing have created the highest quality linear systems available today, precision machined to a Japanese standard of JIS #2.

HSG KLINGE CUTTING HEAD

HSG's latest cutting head underlines the competence of the machine manufacturer in the laser-optical field. The cutting head (including the capacitance sensors) have been developed in-house to guarantee the best possible interaction with the machine.

The result combines maximum reliability and performance with advanced cutting functionality.





ENHANCED SUCTION

Separate suction bays activate below the cutting head with separated left and right partitions to ensure a clean cutting environment and minimal smoke.

HSGs patented butterfly valves mute the noise of the shutters for quiet operation.

IPG LASER SOURCE

IPG Photonics is the world leader in fiber laser technology. The beam is of the highest quality, allowing constant cutting with extreme precision.

IPG features a compact, water-cooled, modular design, which allows for easy maintenance and relocation as required. IPG also boasts a class-leading wall plug efficiency of 50%, making them the industry standard for good reason.



- ✓ The highest quality laser beam in the world
- ✓ High efficiency



PANASONIC SERVO MOTORS

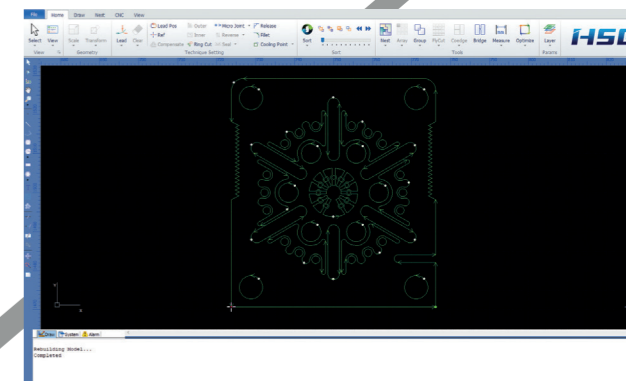
The X series comes equipped with premium Japanese inertia servo motors from Panasonic.

Unmatched in durability, these servo motors allow rapid acceleration while maintaining incredible precision.



INDEPENDENT AIR CONDITIONED CABINET

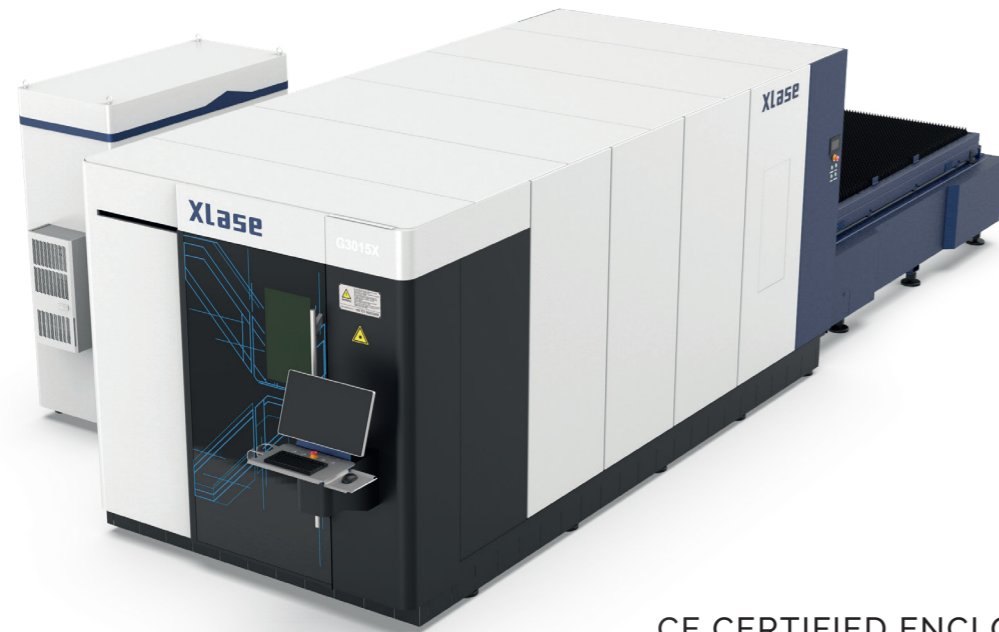
A separate humidity controlled refrigeration system houses all of the important components, effectively dissipating heat and prolonging the service life of all units.



HSG-X2000 CONTROL SYSTEM

Easy to use one button system initiation for common functions.

Advanced nesting included along with drag and drop cutting functionality straight from the machine.



CE CERTIFIED ENCLOSURE

Fully enclosed design with no laser leakage and Optical density safety viewing windows (CE Requirement).

MACHINE SPECIFICATIONS

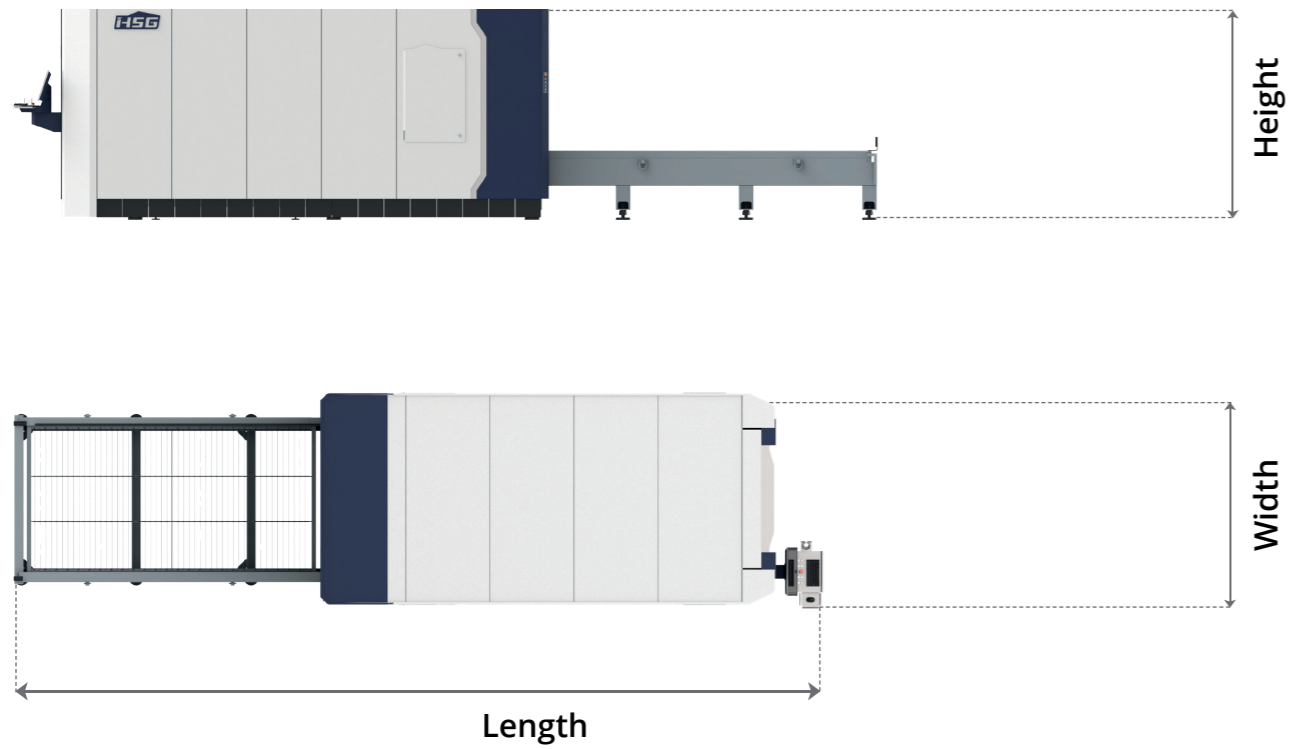
TECHNICAL SPECIFICATIONS

Items	HSG X
Z-Axis Running Area	270mm
X/Y Positioning Accuracy	±0.05mm/m
X/Y Repeated Positioning Accuracy	±0.05mm
Max. Running Speed	120m/min
Max. Accelerating Speed	1.2G

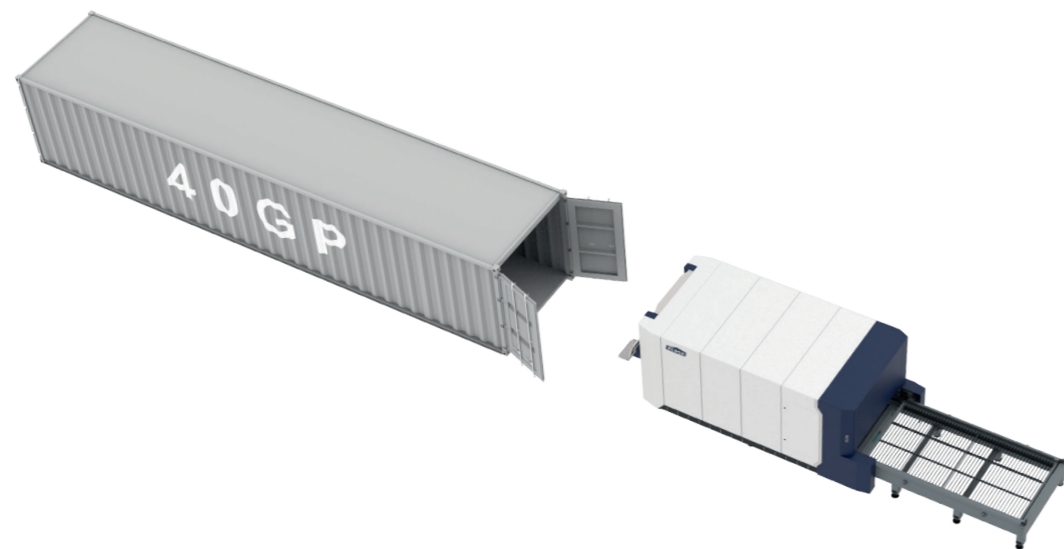
Laser Power	1kW	1.5kW	2kW	3kW	4kW
Max. Cutting Thickness (mm)					
Stainless steel	4.5	8	12	12	16
Carbon steel	14	16	18	22	25
Aluminium	4	5	8	10	16
Total electricity consumption (kW)	<12	<15	<17	<21	<24

Model / Specification	Name	Quantity
IPG 1 / 1.5 / 2 / 3 / 4kW	Fiber Laser Source	1 set
HSG Klinge Cutting Head	Fiber Laser Head	1 set
Alpha Wittenstein (German)	Rack and Pinions	3 sets
Alpha Wittenstein (German)	Speed Reducer	3 sets
Panasonic High Speed (Japan)	Servo Motors and Drives	4 sets
Schneider (France)	CNC Electrical Controller	1 set
Lenovo Industrial Computer (Windows 10) w/ 17" Monitor	CNC Console	1 set
Bosch-Rexroth (German)	Gas Circuit Control	1 set
HSG X-2000 with Nesting	Software	1 set
HSG Wireless Controller	Remote Control	1 set
HSG Dual Circuit S&A	Water Chiller	1 set

MACHINE DIMENSIONS



	HSG 3015X	
X-Axis Stroke	1525	mm
Y-Axis Stroke	3025	mm
Length	8300	mm
Width	2260	mm
Height	2200	mm
Weight	7000	kg



CUTTING SAMPLES



HIGH QUALITY EDGE FINISH FOR ALL THICKNESSES

HSG COMPANY BACKGROUND



HSG Laser is one of the world's leading manufacturers of high-tech industrial laser solutions, dedicated to providing laser intelligent equipment solutions and enabling our customers in various branches around the world to become more efficient and competitive. With more than 15,000 laser cutting systems in the market

and a rapidly increasing global base, HSG is in a favorable position to serve the international customer base, guaranteeing highest quality and shortest response times in already more than 100 countries.

We pride ourselves on innovation, continuous improvement and rapid development in the fiber laser cutting industry. We aim to provide key technologies and customised integration by helping manufacturers make perfect use of the many solutions we offer. Our goal is to produce highly sustainable and environmentally

friendly industrial machines, and we achieve this goal by focusing on efficiency, flexibility and minimisation of wastage.

COMMITMENT TO QUALITY

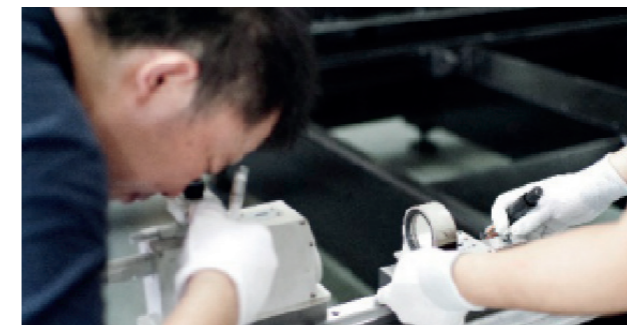
HSG assemble their machines to the strictest quality standards utilising precise tools and methods to ensure excellence throughout the manufacturing process.



The use of an interferometer records the machines x and y axis movement during cutting to ensure accuracy.



A Marble Test is performed to measure the x and y axis, calculating any necessary adjustments to ensure perfect level and alignment along the length of the machine.



A collimator is run along the full length of the guide rail, testing for straightness. As required, micro-adjustments are made to ensure linear accuracy is achieved before shipment.

WARRANTY & SUPPORT

HSG machines come with a one year free-of-charge warranty for the entire machine. Machinery consumables are held locally in stock for immediate dispatch as required.

Any issues will be handled quickly and effectively by the local support team.

After the warranty period, spare parts will be provided by HSG at below market prices.

