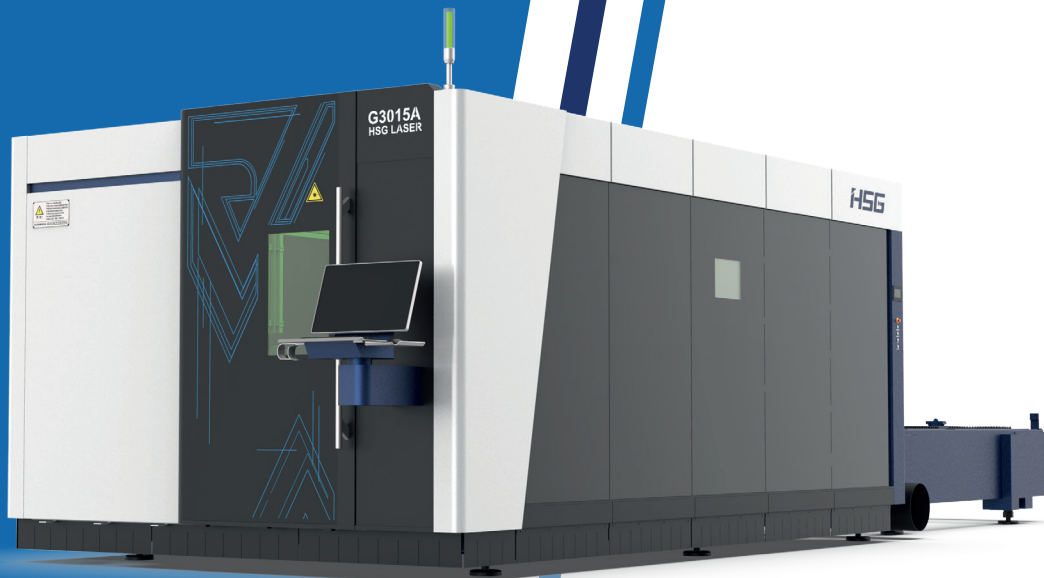


**HSG**



## HSG A Series

Industrial Fiber Laser Cutting

**TECHNICAL INFORMATION**



## HSG A SERIES FIBER LASER

### HIGH POWERED INDUSTRIAL LASER CUTTING

HSG is proud to unveil its latest generation A 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 A Series Fiber Laser Cutters provide precise, reliable cutting at a great price.

## UNDER THE HOOD

### 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.



### 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 drive pallet system reduces machine down time to ensure you're always cutting.



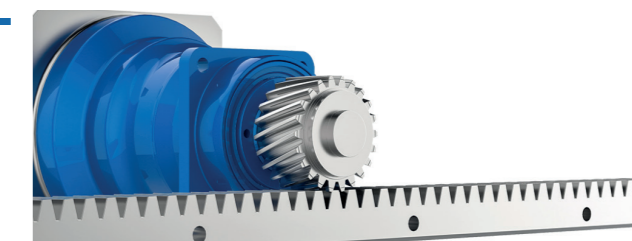
### HSG KLINGE CUTTING HEAD

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.



### 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.



### PANASONIC SERVO MOTORS

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

Unmatched in durability, these servo motors allow rapid 1.5G acceleration while maintaining incredible precision.

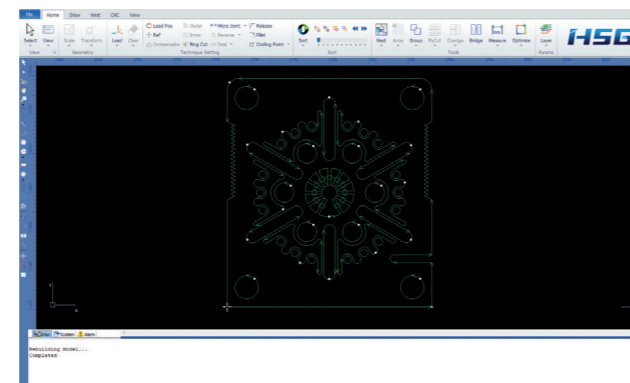
### IPG LASER SOURCE

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.



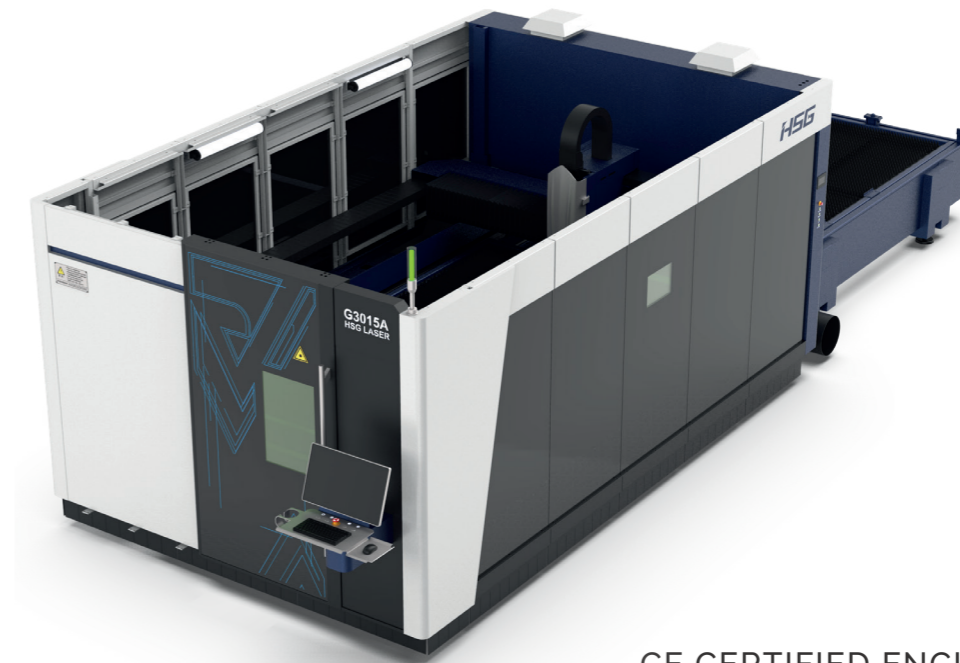
- ✓ The highest quality laser beam in the world
- ✓ High efficiency



### HSG FSCUT CNC SOFTWARE

The A Series comes standard with advanced nesting along with drag and drop cutting functionality.

With simple one-button functionality, program all of your jobs from the office or machine.



### CE CERTIFIED ENCLOSURE

Fully enclosed design with no laser leakage and Optical Density 4 or 6 viewing windows.

## MACHINE SPECIFICATIONS

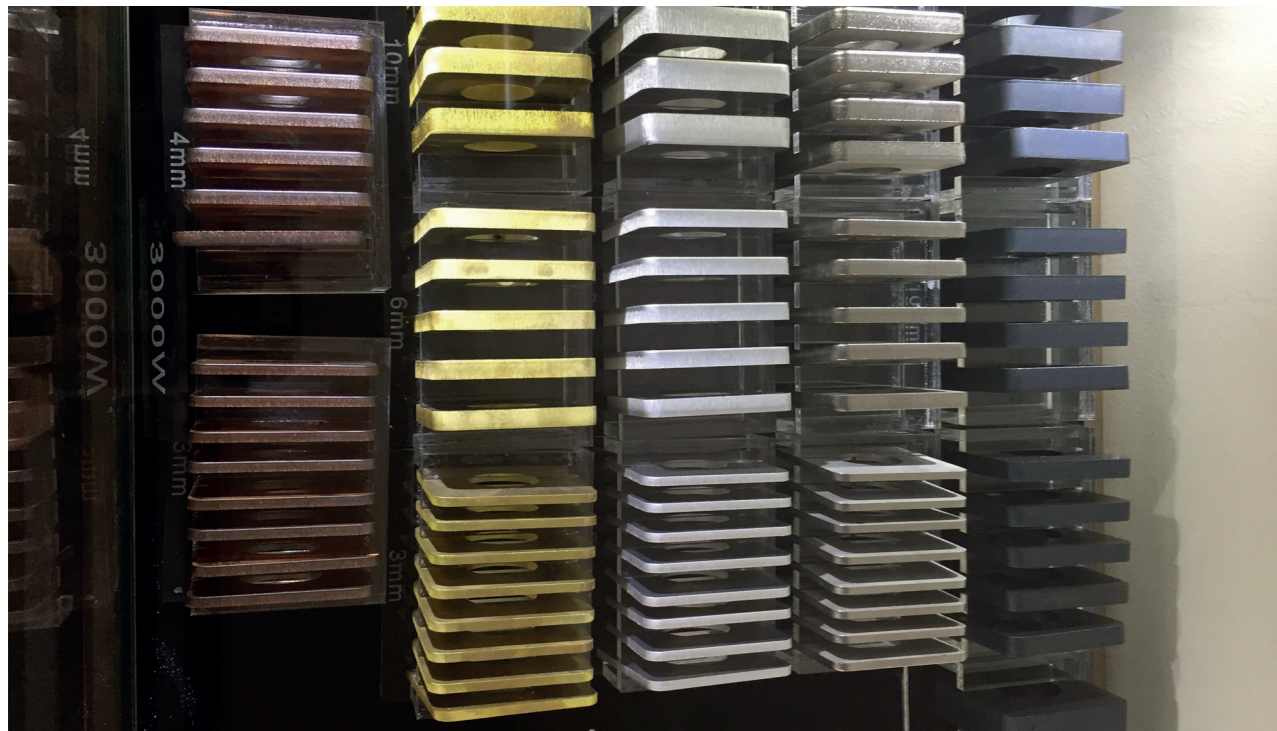
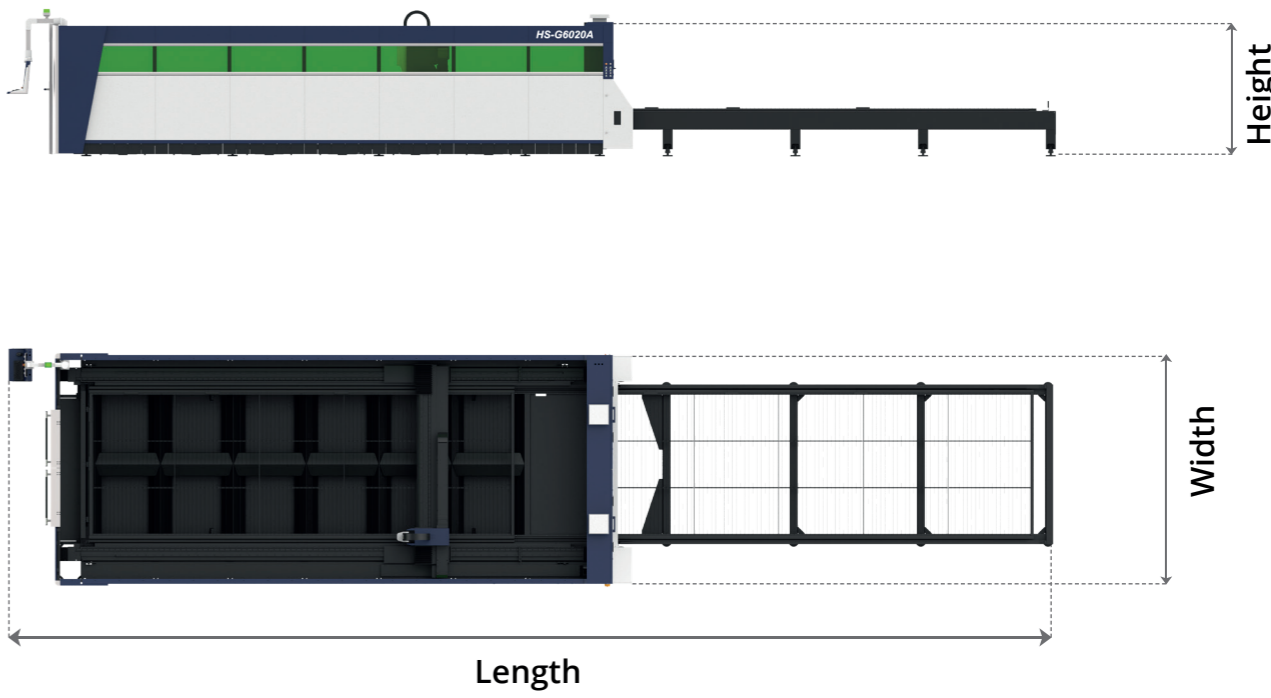
Model / Specification	Name	Quantity
IPG 1 / 1.5 / 2 / 3 / 4kW	Fiber Laser Source	1 set
HSG Klinge Autofocus Cutting Head	Fiber Laser Head	1 set
Alpha Wittenstein (German)	Rack and Pinions	3 sets
Alpha Wittenstein (German)	Speed Reducer	3 sets
Panasonic High Speed (Japan)	Servo Motors and Drives	4 sets
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 FSCut with Nesting	Software	1 set
HSG Wireless Controller	Remote Control	1 set
HSG Dual Circuit Industrial	Water Chiller	1 set

# TECHNICAL SPECIFICATIONS

Items	HSG A
Z-Axis Running Area	120/260mm
X/Y Positioning Accuracy	±0.05mm/m
X/Y Repeated Positioning Accuracy	±0.03mm
Max. Cutting Speed	45m/min
Max. Accelerating Speed	1.2G

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

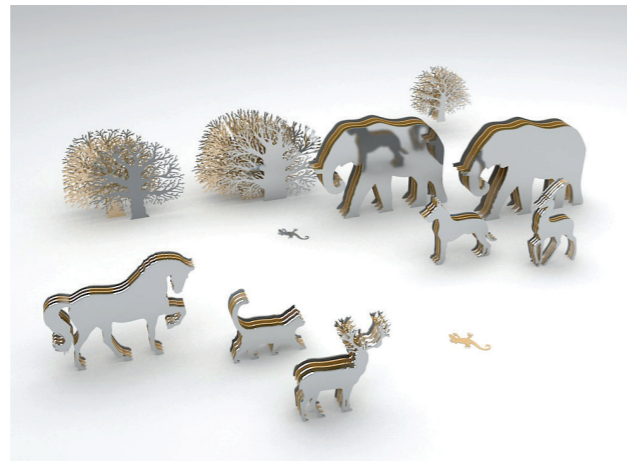
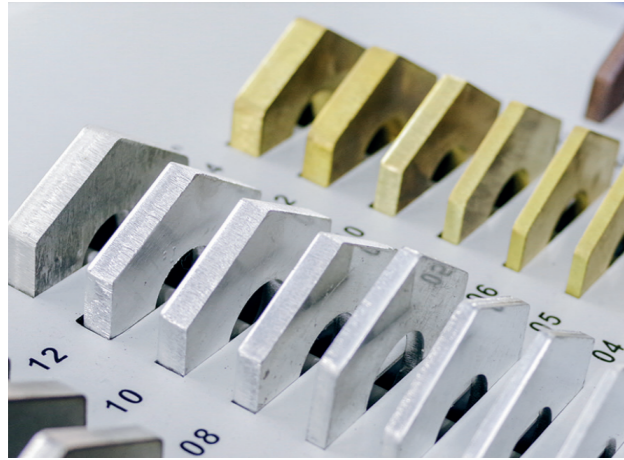
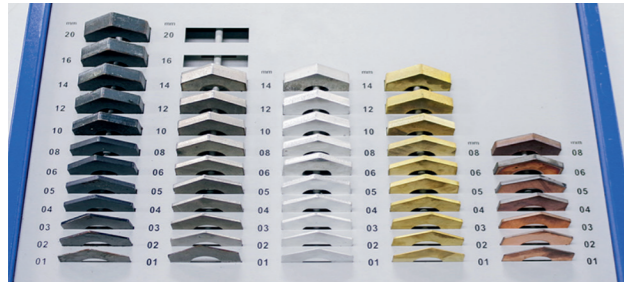
# MACHINE DIMENSIONS



	HSG 3015A	HSG 4020A	HSG 6020A	
X-Axis Stroke	1525	2025	2025	mm
Y-Axis Stroke	3025	4025	6025	mm
Length	8600	10800	15500	mm
Width	2900	3400	3400	mm
Height	2260	2260	2260	mm
Weight	6500	8300	11200	kg
Max. Workbench Weight	800	1400	2000	kg



## CUTTING SAMPLES

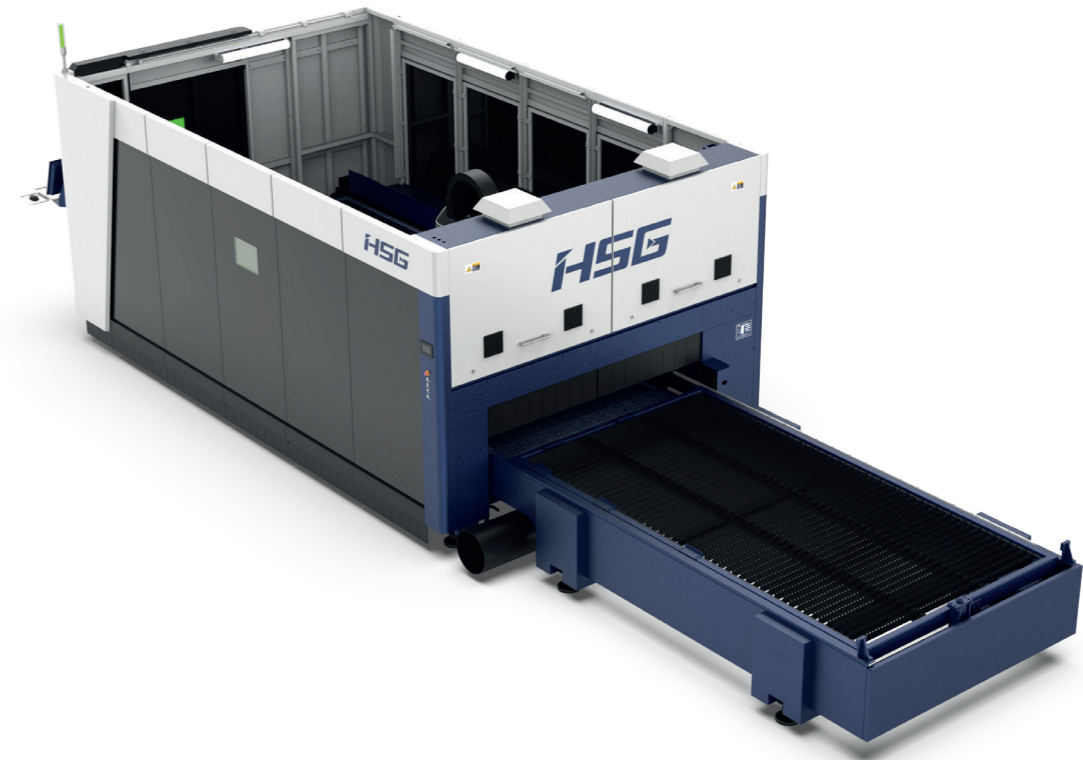


**HIGH QUALITY EDGE FINISH FOR ALL THICKNESSES**

## HSG COMPANY BACKGROUND

HSG Laser leads the world in manufacturing high-tech industrial laser solutions. We dedicate ourselves to providing intelligent laser equipment solutions, whilst enabling our customers a competitive edge on the international stage. With more than 20,000 laser cutting systems in the market and a rapidly increasing global

base of over 80 countries, HSG is in a favourable position to serve its international customer base, whilst guaranteeing short response times and the highest quality.



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

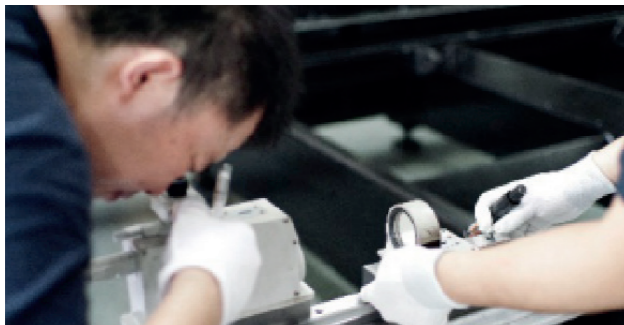
HSG assemble their machines to the strictest quality standards utilising precise tools and methods to ensure excellence throughout the manufacturing process.



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.