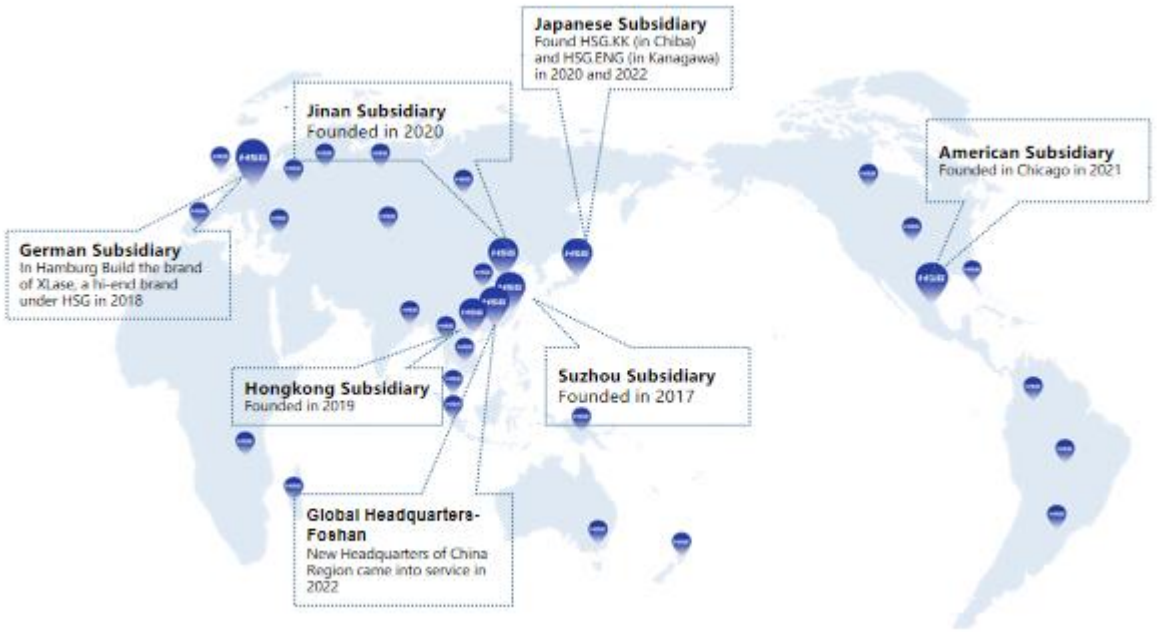
C3015

Technical Offer Sheet

International Brand | European Standard | Local Service

About HSG Laser



Headquartered in Foshan, focusing on world market. HSG has its main R&D center based on Chiba-ken, Japan. Till date, over 18000 users around the world are happy with HSG fiber laser products, and the number is still growing.

Founded in 2006

Global headquarters in Foshan, China

4 manufacturing plants in Foshan, Suzhou and Jinan

Leading player in laser industry globally

Today, HSG has the capacity of supplying 8000 sets high quality laser cutting machines yearly thanks to lean production mode and six Sigma management methods.

(Picture shown for reference only)

Model Features

◎ Reliable Optical System

Adopt world-famous laser source and HSG self-developed laser head with Japanese optical technology.

◎ High Accuracy Transmission System

Equipped with Germany DIN6 level transmission system, which can provide high accuracy during high speed cutting and stable performance with high performance servo system.

◎ Stable Mechanical System

Semi hollow machine body and aviation aluminum crossbeam provide the machine with better stability and dynamic performance.

◎ HSG Cutting Technologies

Integrated the state-of-the-art cutting technologies developed by HSG Laser in the past decades, which allows the machine to get a better cutting performance during running.

Offer Sheet

To	*XX Company*		
Date			
Validity			
Model	Main Configuration	Quantity	FOB
C3015	◎ *Laser Head* ◎ *Laser Source* ◎ *Operating System* *Alpha T Bus Control System* ◎ *Mechanical platform* ◎ *Accessories* *Water Chiller*	1	
Warranty Period			
Packing Size			
Delivery Period			
Payment Terms			
Installation & Training	*we will send list of preparation before installation, unloading guidance, installation guidance, user manual and maintenance manual to the customer.*		

Technical Data

Cutting Size	mm	X Axis: 1524 Y Axis: 3048
Max Acceleration	G	1.5
Max Speed	m/min	120
Positioning Accuracy	mm/m	±0.05
Repeat Positioning Accuracy	mm	±0.03
Loading Weight	kg	600
Voltage	V	380
Frequency	Hz	50 /60HZ
Dimension	mm	About 4500×2500×1650mm
Power Data	KW/A	16KW/41A （1500W) 18.5KW/37A （2000W) 23.5KW/47A （3000W)

Operation Requirement

Electricity

Voltage: 380V
Frequency: 50Hz
Voltage stability: ±5%
Voltage regulation: <2%

Assist gas Supply Cutting

Purified dry compressed air and high purity,Discharge Oil Content : ≤0.01ppm.Solid≤0.01um .Dew point：-20℃ ~-40℃
Oxygen (O_2) and nitrogen (N_2) purity not less than 99.9%
Air ,Oxygen and nitrogen pressure not less than 16 bar

Sheet metal

Homogeneous
Smooth
Clean

Compressed Air Supply Device

Pressure: 8 bar
Volume: 0.6m³
Discharge Oil Content : ≤0.01ppm.Solid≤0.01um .
Dew point：-20℃ ~-40℃

Configuration List

Optical	*Laser Source*	
	Laser Head	*Klinge-NC30*
Transmission	*Reducer*	*Motoreducer*
	Rail	*Lapping/JingWei*
	Rack	*Taiwan Brand*
	Servo Motor	*Leadshine*
Mechanical	*Machine Body*	*Semi-hollow Welding Body*
	Cross Beam	*4th Gen Aviation Aluminum Beam*
Control	*Operating System*	*Alpha T Bus Control System*
	Nesting Software	*HSG NEST*
	Gas Circuit Control	*SMC*
External	*Water Chiller*	*Standard*
	Protective Goggles	*Standard*
	Installation Kits	*Standard*

Accessory List		
Name	*Unit*	*Qty*
Nozzle	*Piece*	*≥10*
Protective lens	*Piece*	*2*
Isopropanol	*Bottle*	*1*
Lens Cleaning Tissue	*Piece*	*1*
Cotton Swab	*Pack*	*1*
Compressed Air	*Bottle*	*1*
Oil Gun	*Piece*	*1*
Open Wrench	*Piece*	***1***
300MM Shifting Wrench	*Piece*	*1*
Allen Key	*Set*	*1*
Cross Screwdriver	*Piece*	*1*
Flat Screwdriver	*Piece*	***1***
Tool Box	*Piece*	***1***
Fiber Protective Glass	*Pair*	***1***

Main Configurations

Laser Source- Raycus or IPG

The most well-known brands of laser resonator in the market.

High output power, high quality laser beam, over 40% coefficient of efficiency.

Compact design, solid and easy to install. high electrical efficiency and environmental friendly.

HSG global strategic partner

Laser Head- HSG Self Developing (1.5-3kw)

Focusing Accuracy up to 0.01mm

With close-loop motor installed inside the laser head, the focus speed is much faster than market level to achieve higher piercing speed in high thickness materials.

Full Protection Inside & Outside

Equipped with double bottom protective lens inside, extending the lifetime of main lens. Equipped with stainless steel cover outside, protect the lines from laser flares.

Speed Reducer & Gears

Backlash of less than 4 arc min. Smooth operation, high transmission accuracy and good feed force.

The reduction gear and wheel gear are welded to effectively guarantee the accuracy of the machine tool.

Control System- HSG Alpha T

Bus control through EtherCAT protocol, fast control speed with HSG fiber laser cutting optical and transmission system.

Equipped with multiple function like scan cutting, 5 stage piercing, laser energy precise control, maintenance reminder, process report etc.

Machine Body- Semi Hollow Welding Structure

Extra-high Strength Steel

Tensile strength over 500 MPa, same material was used for chassis of Mercedes-Benz.

Professional Manufacture Process

Each machine body will pass at least 6 steps including welding process,stress annealing , rough machining etc. for release the welding stress.

Crossbeam- Aviation Extruded Aluminum Beam

Light-weight, and with good dynamic performance, with better flexibility and ductility. Without heavy weighted iron beam, no need to operate beam with large inertial motor power. Less electricity is consumed during running.

Functional List		
Laser Energy Precise Control	*Alpha T Nesting*	*Auto Path Obstacle Avoidance*
Automatic Height Following	*Scan Cutting Technology*	*HSG Self Developing Laser Head*
Perfect Finish Cut Technology	*Scrap Shredding Craft*	*5 Stage Piercing Technology*
Co-Edge Cutting	*Scan Cutting Technology*	*High-Speed Micro Joint*

Cutting Parameter

Material	Thickness	1.5 kW (m/min)	2 kW (m/min)	3 kW (m/min)	4 kW (m/min)	6 kW (m/min)
Carbon Steel (O2)	1	6.0-11.0	7.0-12.0	7.0-12.0	8.0-12.0	8.0-12.0
	2	4.5-6.5	5.0-6.5	5.0-6.5	5.0-7.5	6.0-7.5
	3	2.3-3.5	3.0-4.0	3.5-4.0	3.8-5.0	4.0-5.0
	4	2.0-3.0	2.8-4.0	3.0-4.0	3.5-4.5	3.5-4.5
	5	1.5-2.2	2.0-2.5	2.5-3.0	3.0-3.8	3.0-3.8
	6	1.2-1.5	1.8-2.3	2.6-3.2	2.6-3.2	2.6-3.2
	8	0.9-1.3	1.3-1.7	1.5-2.6	2.0-2.6	2.0-2.6
	10	0.6-1.0	1.0-1.2	1.2-1.5	1.8-2.1	1.8-2.1
	12	0.5-0.7	0.9-1.1	1.0-1.5	1.0-1.5	1.0-1.5
	16		0.4-0.6	0.5-0.7	0.7-0.85	0.7-0.85
	20			0.2-0.4	0.6-0.75	0.6-0.75
	22					0.55-0.65
	25					0.4-0.6
Stainless Steel (N2)	1	18.0-28.0	20.0-27.0	42.0-62.0	45.0-55.0	45.0-60.0
	2	5.0-7.0	9.0-12.0	12.0-25.0	18.0-27.0	20.0-35.0
	3	2.0-3.0	4.0-4.3	7.0-12.0	10.0-15.0	15.0-20.0
	4	1.0-1.7	2.0-2.3	4.0-6.5	5.0-7.5	10.0-14.0
	5	0.5-0.8	1.5-1.8	2.5-4.5	4.0-5.0	8.0-12.0
	6	0.3-0.7	0.7-0.9	1.5-3.2	3.0-4.0	6.0-8.0
	8		0.3-0.4	0.6-1.0	1.5-2.6	3.5-4.0
	10			0.4-0.8	0.7-1.3	1.8-2.2
	12					1.2-1.5
	14					0.8-1.2
	16					0.6-0.8
	20					0.3-0.4
Aluminum (N2)	1	15.0-25.0	20.0-27.0	35.0-55.0	35.0-40.0	45.0-55.0
	2	3.0-6.5	8.0-11.0	12.0-20.0	13.0-22.0	20.0-30.0
	3	1.2-1.7	4.0-5.5	7.0-10.0	7.0-13.0	13.0-18.0
	4		1.5-2.8	3.7-5.0	4.0-5.5	10.0-12.0
	5			2.5-3.5	3.0-4.0	5.0-8.0
	6				2.2-3.5	4.0-6.0
	8					2.0-3.0
	10					1.0-1.9
Brass (N2)	1	10.0-13.0	12.0-14.0	28.0-55.0	25.0-32.0	45.0-55.0
	2	2.5-4.0	6.0-7.5	9.0-20.0	10.0-13.0	25.0-35.0
	3	2.0-3.0	2.5-3.5	4.5-10.0	5.0-6.5	12.0-18.0
	4		1.6-2.1	2.5-4.5	3.0-5.2	8.0-10.0
	5			1.2-2.5	2.0-3.0	4.5-6.0
	6				1.4-2.0	3.0-4.0
	8					1.6-2.2
Copper (O2)	1	7.0-8.0	9.0-9.5	25.0-38.0	25.0-35.0	30.0-40.0
	2	0.8-1.2	4.0-5.2	6.5-9.0	8.0-10.0	9.0-11.0
	3		1.0-1.1	1.7-3.8	2.5-3.5	7.0-9.8
	4				1.0-1.5	4.0-6.0
	5					1.3-2.0
	6					0.8-1.3

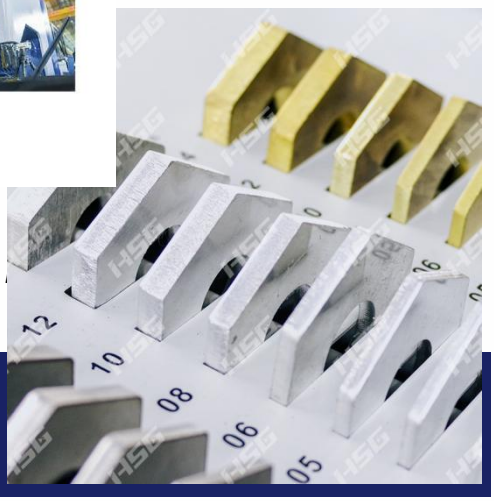
（Attention: Cutting parameters above just for reference）

IN PURSUIT OF QUALITY EXCELLENCE

Shining Cutting *ecise Cutting Sample*

Carbon Steel

Mini Bicycle Sample



Aluminum

Sharp Edge Cutti

Thin Wall Cutting Sample

Packing: Seaworthy wooden case with vacuum packing, tinfoil and metal frame inside.

Remarks: Above cutting samples & speed are for reference only, the real cutting finish will be influenced by laser power, running condition etc.

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