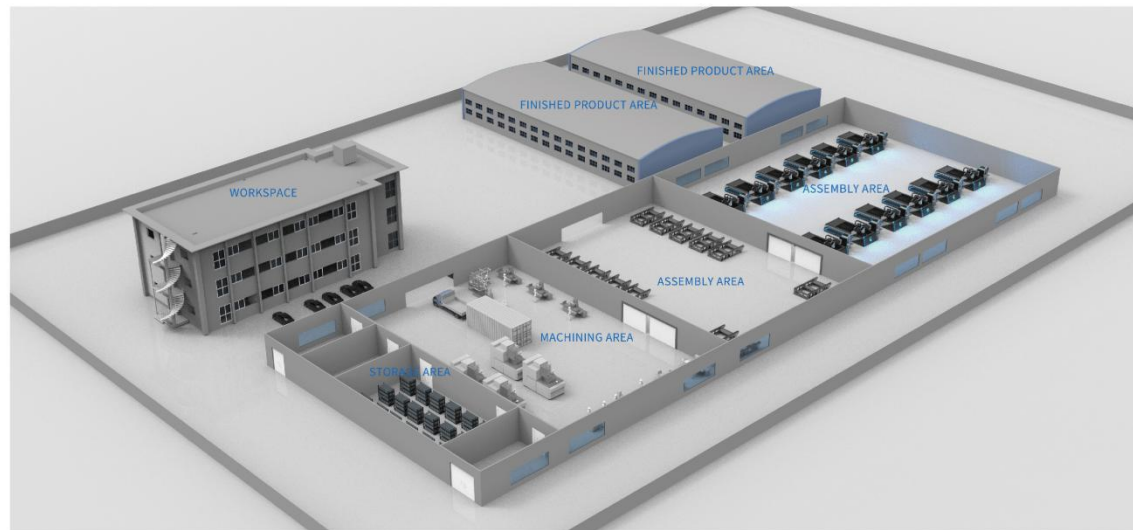


GORGEOUS RELIABLE SMART

# GRS LASER TECHNICAL SOLUTION

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## Intelligent laser solutions provider

GRS machine increases value for your production: Integrated R&D, production and marketing together. Excellent products, one stop service, more professional and more assured.



## Strong and professional R&D team

Ten millions funds were invested into R&D projects each year; R&D center owns more than 50 researchers, New research achievements bring us more efficient cutting methods and more perfect cutting effect.



## Multilingual service

16 languages support, let conversations more clear. 24h\*7 online support, providing customers with pre-sales, during-sales and after-sales services all the time, eliminate customer's worries



## Reliable quality

Production meets the European standards and international quality control, obtains certificates such as CE/F-DA/I-SO9001/SGS etc.

## Who is GLORIOUS?

GLORIOUS , AKA, "GRS", represents the ultimate pursuit of Gorgeous Reliable and Smart. GLORIOUS Laser is a high-tech enterprise specializing in the R&D, manufacturing and marketing of intelligent laser equipment.



## Laser

What is "Laser"? GLORIOUS gives it a brand-new definition of every letter. L: Life、A: Around、S: Service、E: Excellence、R: R&D. This is GLORIOUS Laser.

## Life

The understanding of GLORIOUS' s dream is to "Change human life by laser technology". From the perspective of future enterprises, GLORIOUS laser perseveres in continuous innovation in the hope of making human life better by its strong technical R & D strength.

## Around

In order to make global clients truly feel "laser technology changes human life", GLORIOUS laser has set up global marketing and service network, ensuring GLORIOUS' s products and services reach your side, let more people who share our dreams find us.



# Products

## Service

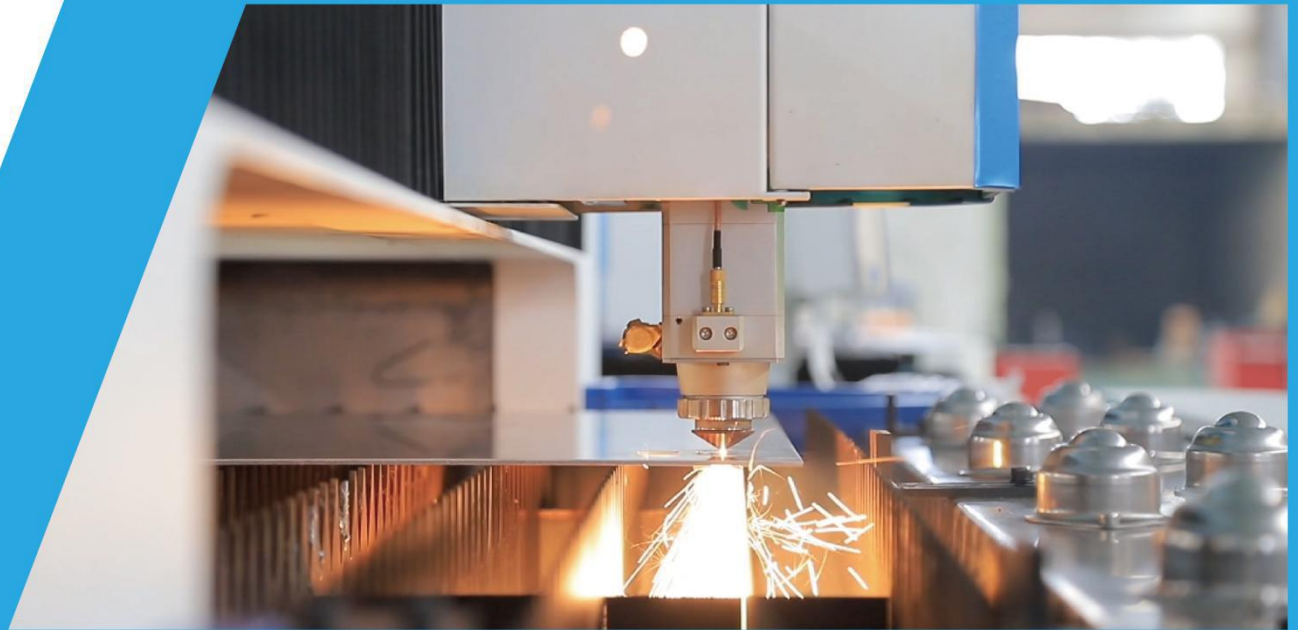
GLORIOUS laser sticks to moving clients and partners by extreme service, GLORIOUS provides "house-keeping service " for global clients, let service fulfill the dream.

## Excellence

We speak with our strength, in which the excellence we have been always pursuing for can be shown to the public.

## R & D

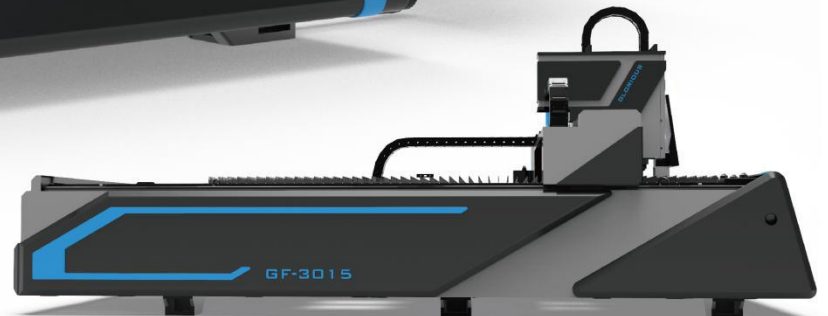
GLORIOUS laser, driven by technology source power, adhere to the innovation development strategy, attach importance to talent cultivation so as to provide advanced technology and reliable products.



As a professional laser equipment company, GLORIOUS can provide customers fiber laser plate cutting machines and fiber laser tube cutting machines from 1 kilo Watt to 15 kilo Watt.

## Metal Sheet Laser Cutting Machine GF SERIES

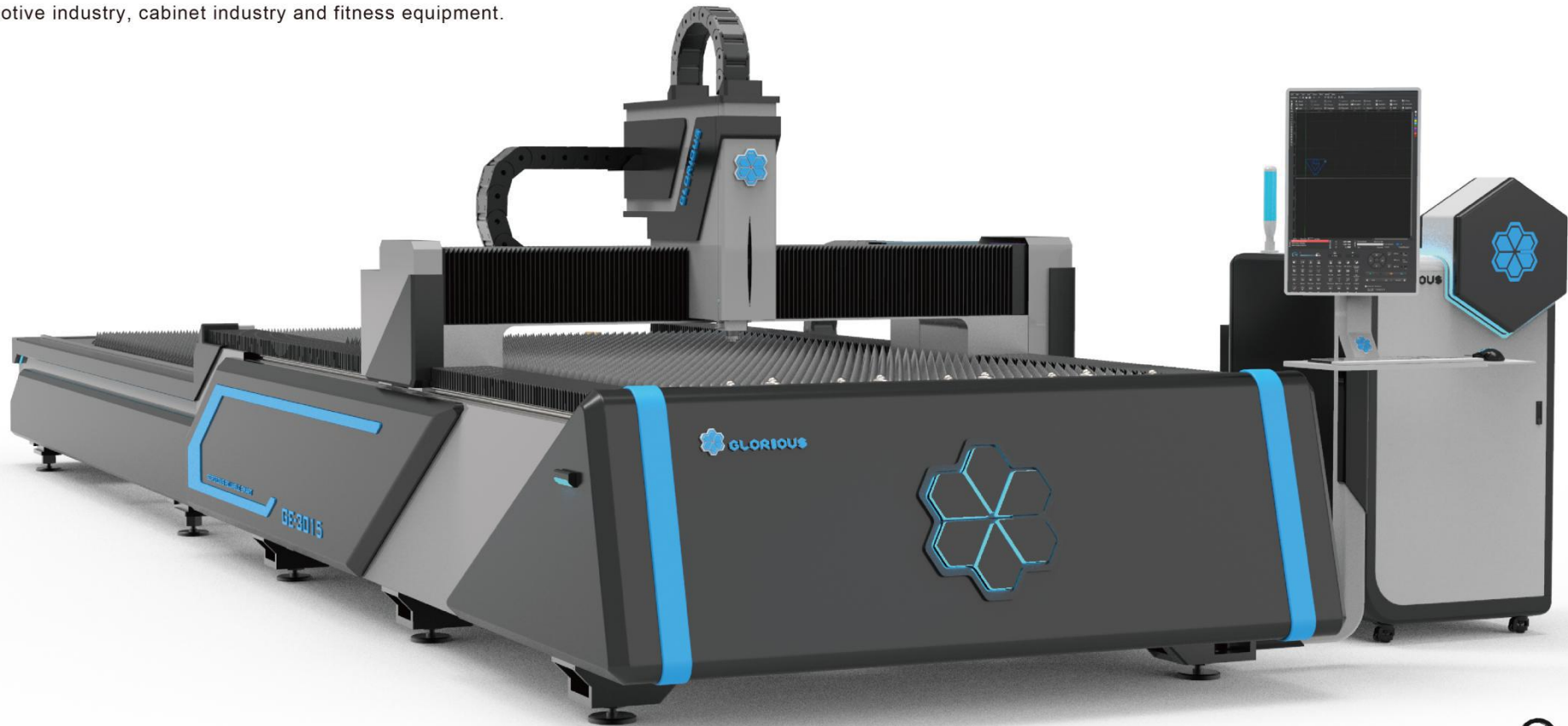
Compared with traditional cutting equipment, fiber laser machine has the characteristics of faster cutting speed, higher cutting accuracy, better cutting performance, lower use cost and so on. The model uses a graphite cast iron bed with the heavier weight, which not only has a longer service life, but also has stable accuracy under high-speed cutting and excellent cutting performance. The autofocus laser head and the unique UI interface operating system respond to the operation faster and improve the cutting efficiency. This model is widely used in sheet metal processing, kitchenware processing, automotive industry, cabinet industry, fitness equipment and etc.



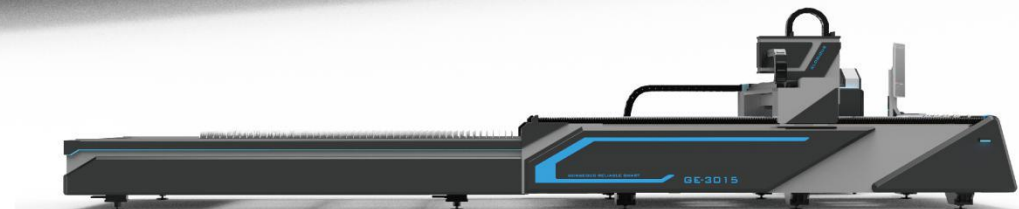
Model	GF3015	GF4020	GF6015	GF6020	GF6025
Working area	3000mm*1524mm	4000mm*2000mm	6100mm*1524mm	6100mm*2000mm	6100mm*2500mm
Power Range			1-6kw		
Max. linkage speed			140m/min		
Positioning accuracy	0.03mm	0.05mm	0.05mm	0.05mm	0.05mm

## Fiber Laser Cutting Machine With Pallet Changer **GE3015 SERIES**

Fiber laser cutting machine GE series adds pallet changer, making feeding easier. The pallet changer is driven by the gear rack and sprocket chain, and the fastest exchange time can be achieved in 15 seconds. Improve feeding efficiency and cutting efficiency, very suitable for customers with large demand for cutting. The cast iron bed not only has a longer service life, but also has stable accuracy under high-speed cutting conditions and excellent cutting performance. This model is widely used in sheet metal processing, kitchenware processing, automotive industry, cabinet industry and fitness equipment.



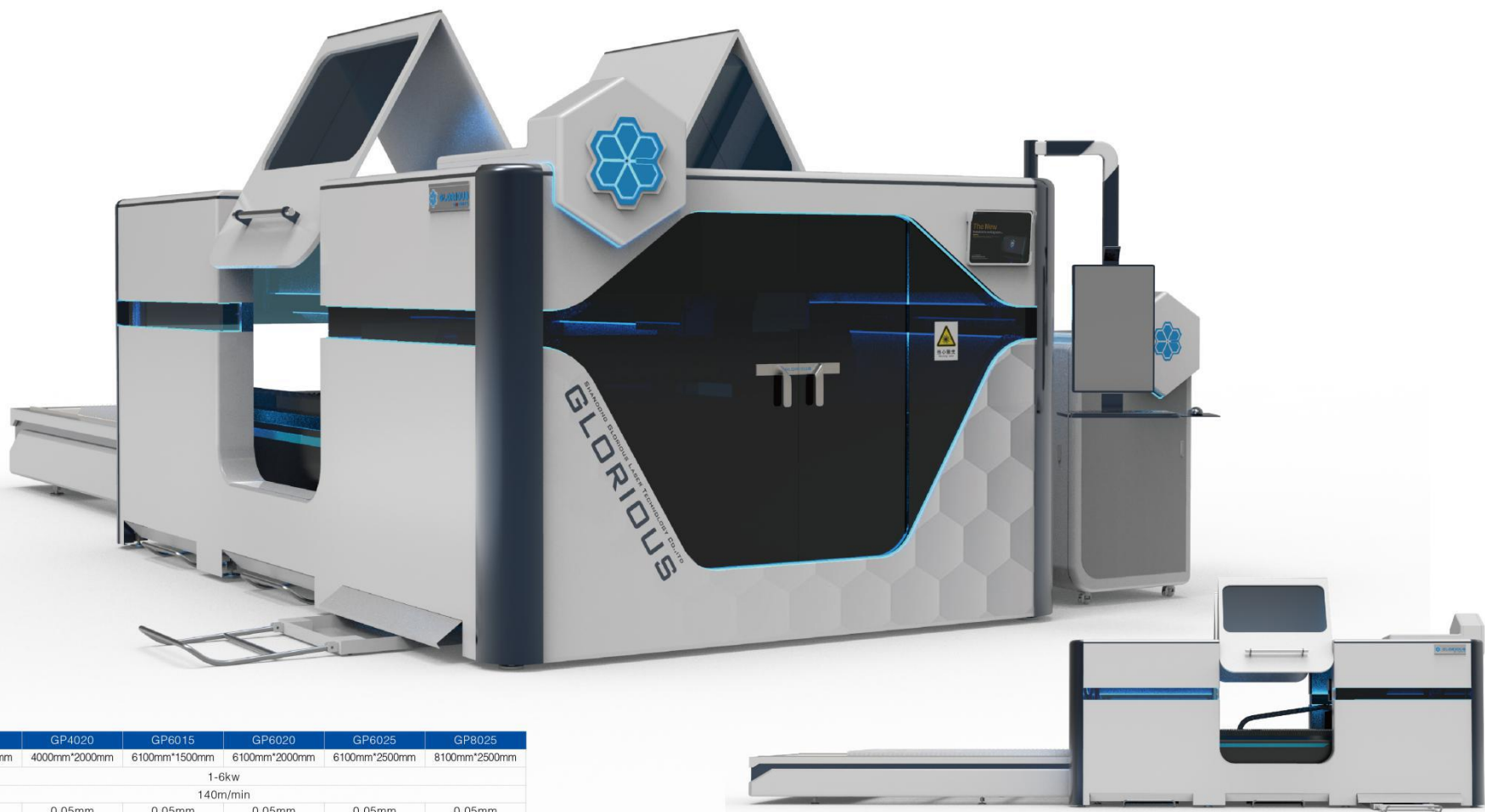
Model	GE3015	GE4020	GE6015	GE6020	GE6025	GE8025
Working area	3000mm*1500mm	4000mm*2000mm	6100mm*1500mm	6100mm*2000mm	6100mm*2500mm	8100mm*2500mm
Power Range	1-6kw					
Max. linkage speed	140m/min					
Positioning accuracy	0.03mm	0.05mm	0.05mm	0.05mm	0.05mm	0.05mm





Metal Sheet Laser Cutting Machine **GP SERIES**

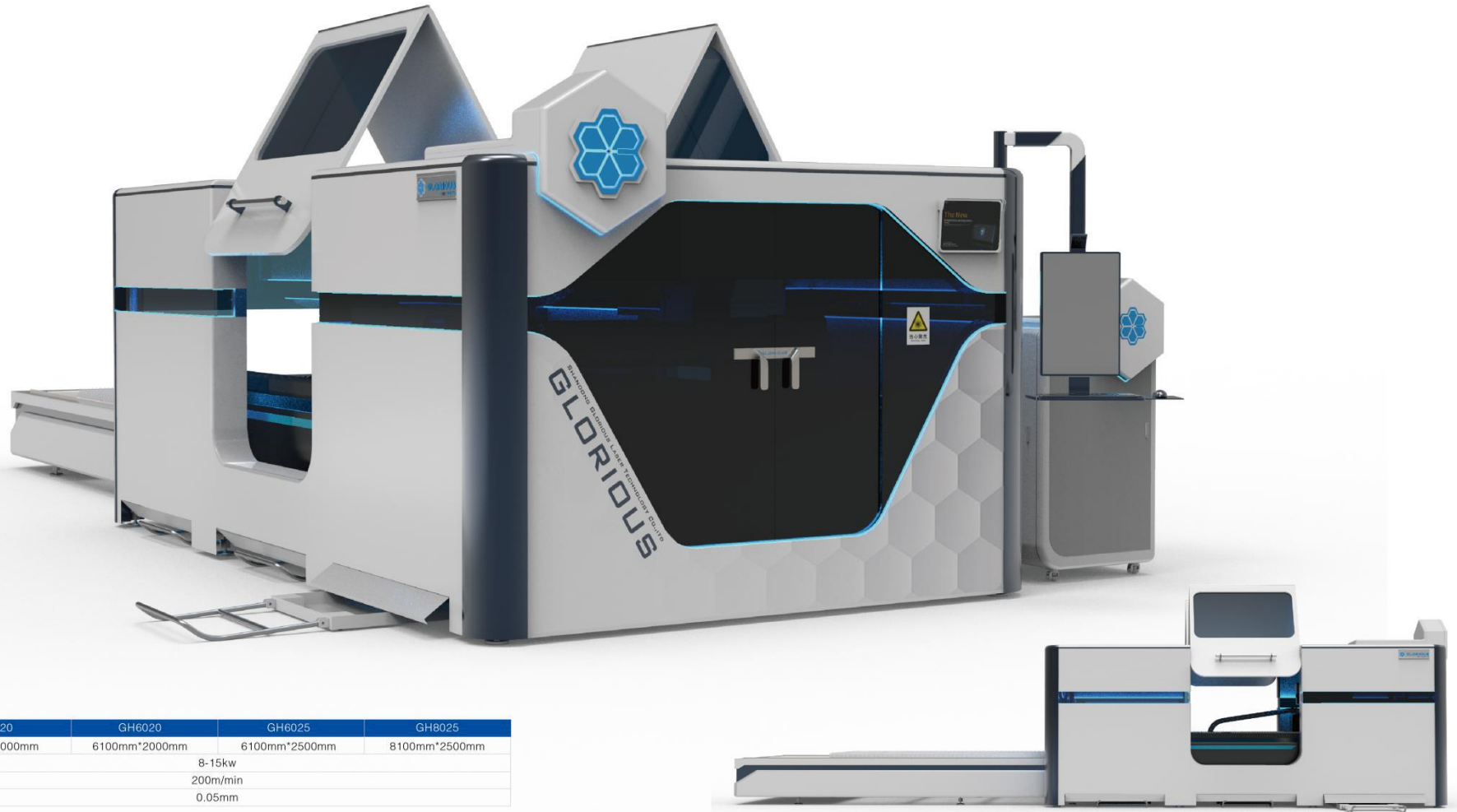
This laser cutting machine adopts a fully enclosed design, and adopts laser protective glass according to health and safety regulations. When the equipment is running, it reduces light pollution and smoke pollution caused by laser cutting. The cast iron bed is used to improve the structural strength of the bed; the uniquely designed exchange platform completes the exchange within 15 seconds, greatly improving the cutting efficiency.



Model	GP3015	GP4020	GP6015	GP6020	GP6025	GP8025
Working area	3000mm*1500mm	4000mm*2000mm	6100mm*1500mm	6100mm*2000mm	6100mm*2500mm	8100mm*2500mm
Power Range	1-6kw					
Max. linkage speed	140m/min					
Positioning accuracy	0.03mm	0.05mm	0.05mm	0.05mm	0.05mm	0.05mm

## Metal Sheet Laser Cutting Machine GH SERIES

This laser cutting machine adopts a fully enclosed design, and adopts laser protective glass according to health and safety regulations. When the equipment is running, it reduces light pollution and smoke pollution caused by laser cutting. The cast iron bed is used to improve the structural strength of the bed; the uniquely designed exchange platform completes the exchange within 15 seconds, greatly improving the cutting efficiency.



Model	GH4020	GH6020	GH6025	GH8025
Working area	4000mm*2000mm	6100mm*2000mm	6100mm*2500mm	8100mm*2500mm
Power Range			8-15kw	
Max. linkage speed			200m/min	
Positioning accuracy			0.05mm	

## Combined fiber laser cutting machine GF-T SERIES

This model machine adds tubes cutting function on the basis of traditional plate cutting machine and has a wide range of applications. The machine can cut round tubes of 3 meters and 6 meters of 20mm-220mm diameter and square tubes of 20mm-150mm. The unique design of the integration of plate and tube achieves the dual use of one machine, saves the purchasing cost of customers, and solves the problem of insufficient workshop area of some customers.



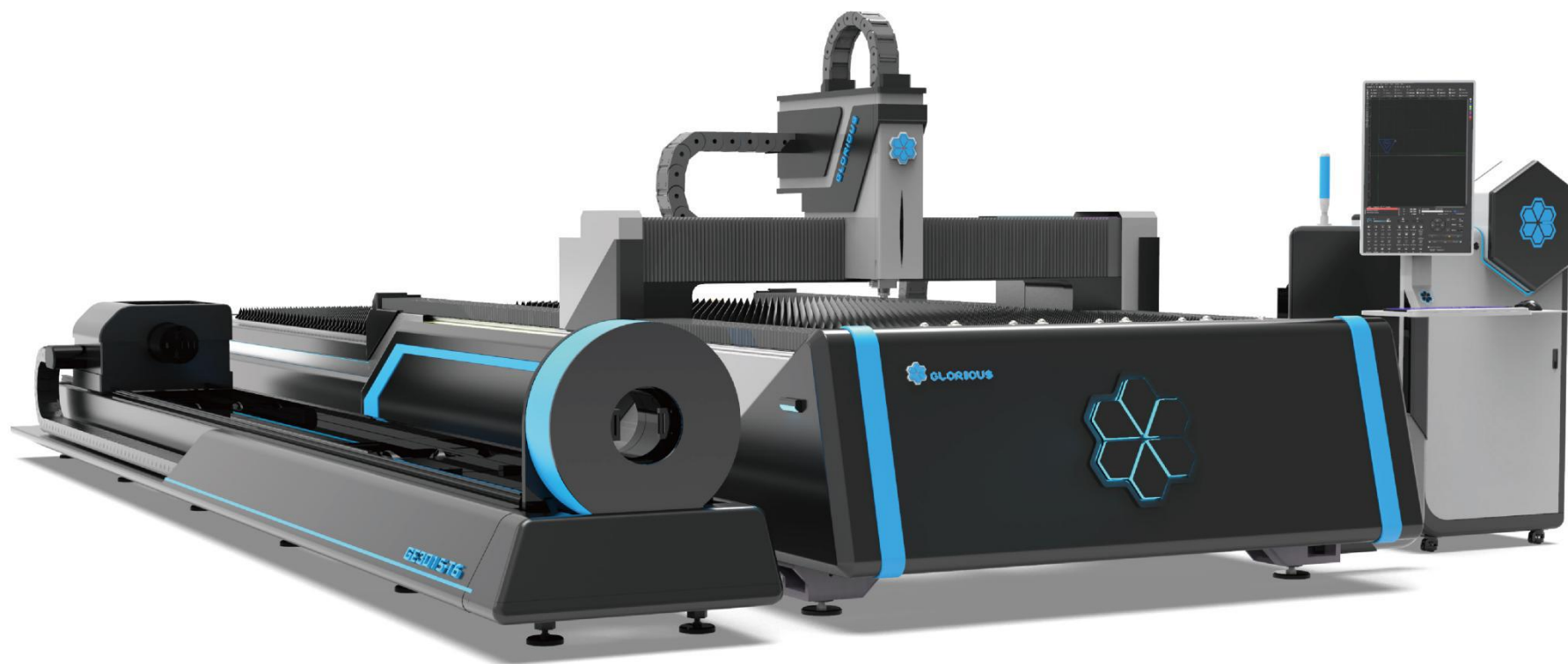
Model	GF3015T	GF4020T	GF6015T	GF6020T
Working area	3000mm*1524mm	4000mm*2000mm	6100mm*1524mm	6100mm*2000mm
Power Range	1-6kw			
Max. linkage speed	140m/min	100m/min	100m/min	100m/min
Positioning accuracy	0.03mm	0.05mm	0.05mm	0.05mm
Tube size range	Round tube: $\Phi 20$ - $\Phi 230$ mm; Square tube: $\square 20$ - $\square 160$ mm; Rectangular tube: $170\text{mm} \geq \text{Side length} \geq 20\text{mm}$ , Circumscribed circle diameter $\leq 230\text{mm}$			



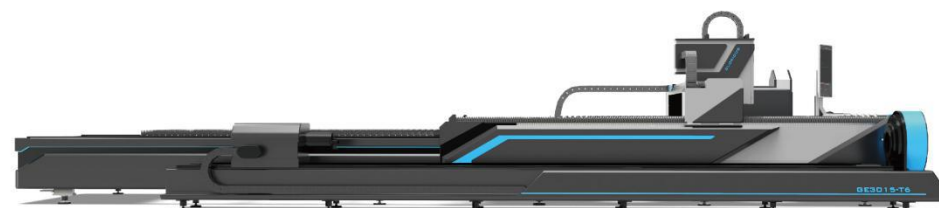


## Combined Fiber Laser Cutting Machine **GE-T SERIES**

This model machine adds tubes cutting function on fiber laser cutting machine with pallet changer and has a wide range of applications. The machine can cut round tubes of 3 meters and 6 meters of 20mm-220mm diameter and square tubes of 20mm-150mm. The unique design of the integration of plate and tube achieves the dual use of one machine, saves the purchasing cost of customers.

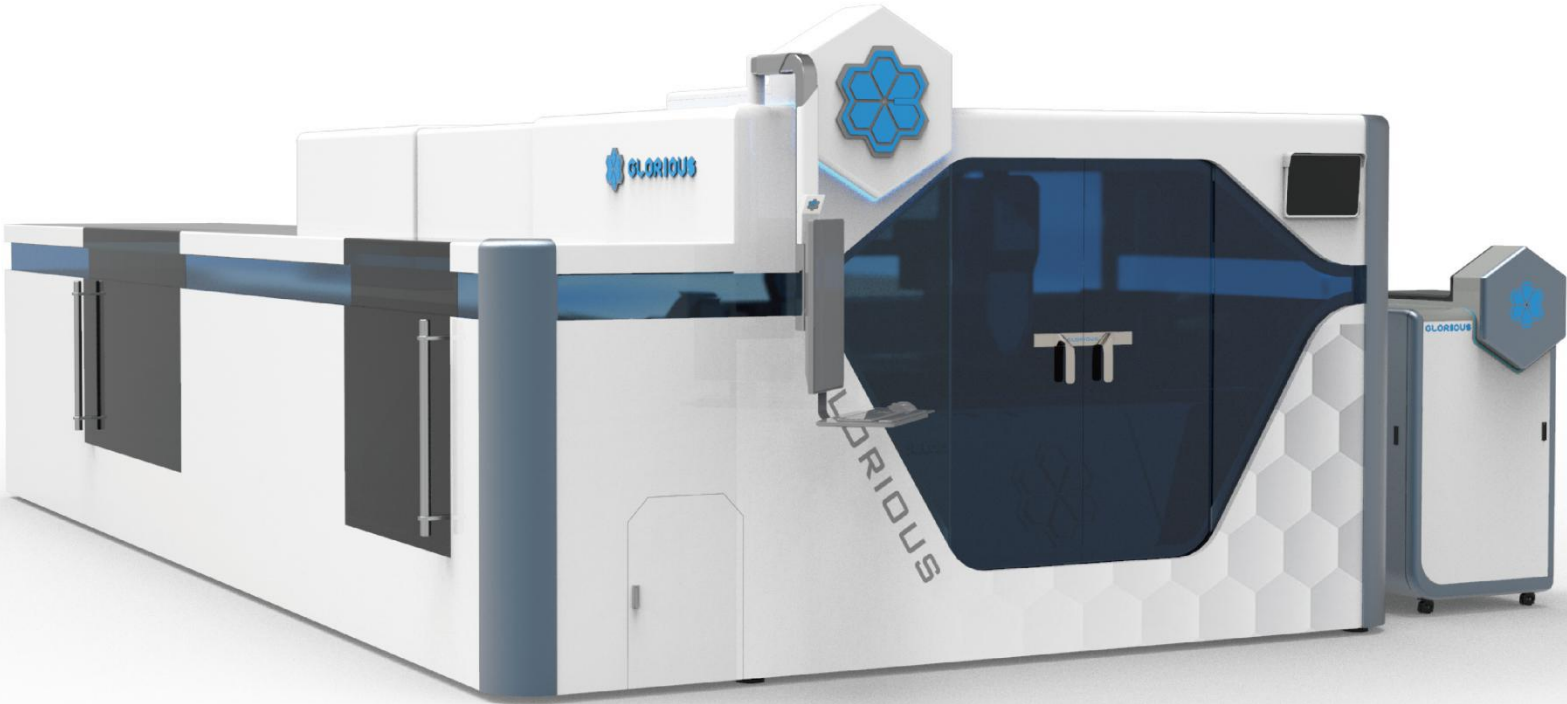


Model	GE3015T	GE4020T	GE6015T	GE6020T
Working area	3000mm*1524mm	4000mm*2000mm	6100mm*1500mm	6100mm*2000mm
Power Range	1-6kw			
Max. linkage speed	100m/min			
Positioning accuracy	0.05mm			
Tube size range	Round tube: $\Phi 20$ - $\Phi 230$ mm; Square tube $\square 20$ - $\square 160$ mm ; Rectangular tube: 170mm $\geq$ Side length $\geq$ 20mm, Circumscribed circle diameter $\leq$ 230mm			



# Metal Sheet Laser Cutting Machine GP-T SERIES

The unique design of the integration of plate and tube achieves the dual use of one machine, saves the purchasing cost of customers, and solves the problem of insufficient workshop area of some customers. The unique design of the integration of plate and tube achieves the dual use of one machine, saves the purchasing cost of customers, and solves the problem of insufficient workshop area of some customers.



Model	GP3015T	GP4020T
Working area	3000mm*1500mm	4000mm*2000mm
Power Range	1-6kw	
Max. linkage speed	100m/min	
Positioning accuracy	0.05mm	
Tube size range	Round tube: Φ20-Φ230mm; Square tube: □20 - □160mm ; Rectangular tube: 170mm≥Side length≥20mm, Circumscribed circle diameter≤230mm	



Fiber Laser Tube Cutting Machine **GT SERIES**

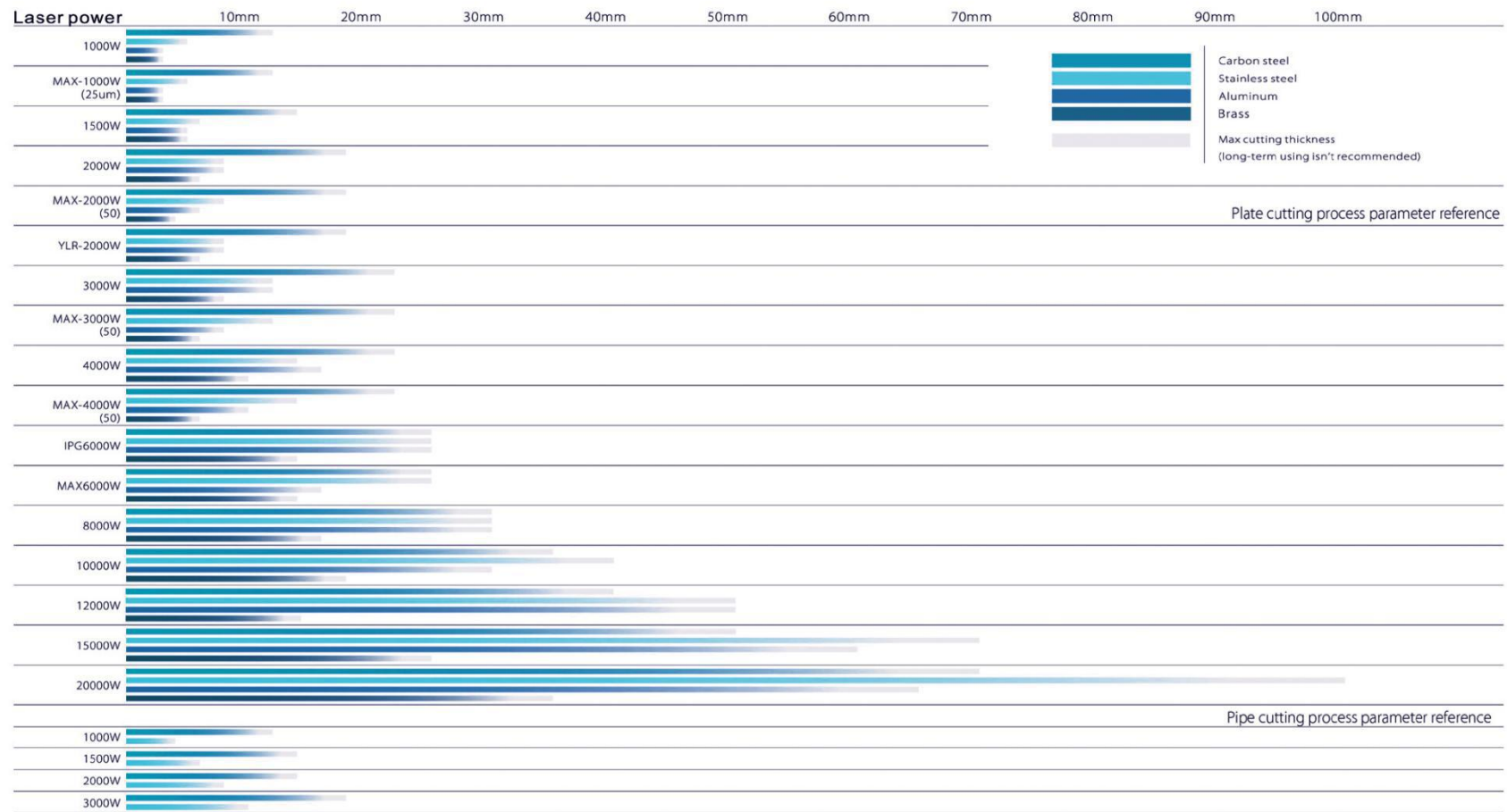
High clamping accuracy, long service life.  
GT series is popular model for tubes cutting, it has 6500mm and 7500mm tube cutting length, cutting tube diameter is 20mm-220mm for round tube, 20mm -155mm for square tubes.  
Using self-centering pneumatic chuck, which has high clamping accuracy, long service life.



Model	GT6	GT9
Power Range	1-3kw	
Maximum machinable tube length	6000mm	9000mm
Positioning accuracy	0.05mm	
Tube size range	Round tube: Φ20-Φ230mm; Square tube 20 - 160mm ; Rectangular tube: 170mm≥Side length≥20mm, Circumscribed circle diameter≤230mm	



## CUTTING CAPACITY



## FIBER LASER CUTTING PROCESS PARAMETERS

		1000W	MAX-1000W (25um)	1500W	2000W	MAX- 2000W(50)	YLR- 2000W	3000W	MAX- 3000W(50)	4000W	MAX- 4000W(50)	IPG6000W	MAX- 6000W	8000W	10000W	12000W	15000W	20000W
Material	Thickness	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min
Carbon steel (Q235A) Q2	1	8.0-10	8.0-10	8.0-10	8.0-10	8.0-10	8.0-10	8.0-10	8.0-10	8-10	8-10	8-10	8-10	8-10	9-11	9-11	9-11	9-11
	2	4.0-6.5	4.5-7.0	4.5-6.5	4.7-6.5	4.7-6.5	4.7-6.5	4.8-7.5	4.8-7.5	5-7.5	5-7.5	5-7.5	5-7.5	5-7.5	5-7.5	5-7.5	5-7.5	5-7.5
	3	2.4-3.0	2.4-3.0	2.6-4.0	3.0-4.8	3.0-4.8	3.0-4.8	3.3-5.0	3.3-5.0	3.5-5.0	3.5-5.0	3.5-5.0	3.5-5.0	3.5-5.5	3.5-5.5	3.5-5.5	3.5-5.5	3.5-5.5
	4	2.0-2.4	2.0-2.4	2.5-3.0	2.8-3.5	2.8-3.5	2.8-3.5	3.0-4.2	3.0-4.2	3.0-4.0	3.0-4.5	3.0-4.5	3.0-4.5	3.5-5.0	3.5-5.0	3.5-5.0	3.5-5.0	3.5-5.0
	5	1.5-2.0	1.5-2.0	2.0-2.5	2.2-3.0	2.2-3.0	2.2-3.0	2.6-3.5	2.6-3.5	2.7-3.6	2.7-3.6	3.0-4.2	3.0-4.2	3.0-4.2	3.3-4.0	3.3-4.8	3.3-4.8	3.3-4.8
	6	1.4-1.6	1.4-1.6	1.6-2.2	1.8-2.6	1.8-2.6	1.8-2.6	2.3-3.2	2.3-3.2	2.5-3.4	2.5-3.4	2.5-3.5	2.5-3.5	2.6-3.7	3.0-4.0	3.0-4.2	3.0-4.2	3.0-4.2
	8	0.8-1.2	0.8-1.2	1.0-1.4	1.2-1.8	1.2-1.8	1.2-1.8	1.8-2.6	1.8-2.6	2.0-3.0	2.0-3.0	2.2-3.2	2.2-3.2	2.3-3.5	2.5-3.5	2.5-3.5	2.5-3.5	2.5-3.5
	10	0.6-1.0	0.6-1.0	0.8-1.1	1.1-1.3	1.1-1.3	1.1-1.3	1.2-2.0	1.2-2.0	1.5-2.4	1.5-2.4	1.8-2.5	1.5-2.2	2-2.5	2.0-2.7	2.2-2.7	2.2-2.7	2.2-2.7
	12	0.5-0.8	0.5-0.8	0.7-1.0	0.9-1.2	0.9-1.2	0.9-1.2	1.0-1.6	1.0-1.6	1.2-1.8	1.2-1.8	1.2-2.0	1.2-2.0	1.2-2.1	1.2-2.1	1.2-2.1	1.4-2.1	
	14			0.5-0.7	0.7-0.8	0.7-0.9	0.8-1.0	0.9-1.2	0.9-1.2	0.9-1.2	0.9-1.2	1.2-1.8	1.0-1.5	1.2-1.9	1.7-1.9	1.5-1.9	1.5-1.9	
	16				0.6-0.7	0.6-0.8	0.6-0.8	0.7-1.0	0.7-1.0	0.8-1.0	0.8-1.0	0.8-1.3	0.7-1.2	0.8-1.5	1.1-1.7	1.2-1.7	1.2-1.8	
	18				0.4-0.6	0.5-0.7	0.5-0.7	0.6-0.8	0.6-0.8	0.6-0.9	0.6-0.9	0.6-0.9	0.6-0.9	0.8-1.5	0.8-1.6	1.0-1.8	1.2-1.5	1.2-1.8
	20							0.5-0.8	0.5-0.8	0.5-0.8	0.5-0.8	0.5-0.8	0.5-0.8	0.6-1.3	0.6-1.4	0.6-1.5	1.2-1.5	1.2-1.6
	22								0.3-0.7	0.3-0.7	0.4-0.8	0.4-0.8	0.4-0.8	0.4-0.6	0.5-0.8	0.6-1.4	0.5-1.5	1.0-1.5
	25											0.3-0.55	0.2-0.5		0.3-0.7	0.5-1.0	0.5-1.1	0.8-1.5
	30													0.2-0.7	0.3-0.8	0.3-0.9	0.6-1.0	0.8-1.2
	35														0.2-0.4	0.3-0.5	0.4-0.6	0.6-0.9
	40															0.2-0.4	0.3-0.5	0.5-0.8
Stainless steel (201) N2	1	18-25	24-36	20-27	24-30	24-30	24-30	30-35	30-58	32-45	40-72	42-52	42-52	50-65	60-72	70-85	72-100	72-100
	2	5-7.5	6-10	8.0-12	9.0-12	9.0-14	9.0-15	13-21	13-39	16-28	24-45	20-33	20-33	30-40	35-45	40-66	45-70	50-75
	3	1.8-2.5	2.2-3.5	3.0-5.0	4.0-6.5	4.0-7.0	4.8-7.5	6.0-10	6-14	7.0-15	7.0-18	15-22	15-22	18-27	20-30	35-45	38-50	38-55
	4	1.2-1.3	1.2-1.6	1.5-2.4	3.0-4.2	3.2-4.5	3.2-4.5	4.0-6.0	4.0-7.0	5.0-8.0	6.0-10.0	10-15	10-15	12-16	15-22	20-32	25-35	25-33
	5	0.6-0.7	0.6-0.75	0.7-1.3	1.8-2.5	2.0-2.8	2.0-2.8	3.0-5.0	3.0-5.0	3.5-5.0	4.0-6.0	6.0-12	6.5-8.0	10-15	10-18	18-25	20-30	22-30
	6			0.7-1.0	1.2-1.8	1.2-2.0	1.2-2.0	2.0-4.0	2.0-4.0	2.5-4.5	3.0-4.5	4.8-8.0	4.2-6.0	6.0-10.0	8-12	12-15	15.0-25.0	17-25
	8				0.7-1.0	0.7-1.0	0.7-1.0	1.5-2.0	1.2-2.0	1.2-2.0	3.0-4.0	2.5-3.5	3.5-5.0	5.0-7.5	8-12	8.0-12.0	12-18	
	10							0.6-0.8	0.6-0.8	0.8-1.2	0.8-1.2	1.6-2.5	1.2-2.0	2.0-2.7	3.0-7.0	6.0-8.0	6.0-10.0	6.0-12.0
	12							0.4-0.6	0.4-0.6			0.5-0.8	0.8-1.5	0.8-1.5	1.2-2.0	2.5-3.9	4.0-5.5	4.0-8.5
	14									0.4-0.6	0.4-0.6	0.6-0.8	0.5-0.8	1.2-1.8	1.8-2.8	3.0-5.0	3.5-6.0	3.5-6.0
	16											0.5-0.8	0.4-0.7	1.0-1.6	1.7-2.3	2.2-2.8	2.5-3.0	2.5-3.3
	18											0.4-0.6	0.3-0.6	0.8-1.2	1.2-1.8	1.2-2.0	1.2-2.2	1.8-2.7
	20											0.3-0.5	0.2-0.5	0.4-0.7	0.9-1.5	1.0-1.6	1.3-1.8	1.5-2.0
	25											0.2-0.4	0.2-0.4	0.3-0.5	0.6-0.7	0.5-0.8	0.6-1.2	1.0-1.5
	30													0.2-0.4	0.3-0.6	0.3-0.6	0.5-1.0	0.5-1.1
	35														0.3-0.5	0.3-0.5	0.4-0.8	0.4-0.8
	40															0.3-0.5	0.3-0.6	0.3-0.6
	45															0.2-0.4	0.2-0.5	0.2-0.6
	50														0.1-0.2	0.1-0.5	0.2-0.5	
	60															0.1-0.2	0.1-0.3	0.1-0.3
	70															0.05-0.1	0.1-0.3	
	80																0.1-0.3	
	90																0.1-0.2	
	100																0.07-0.1	
	110																0.05-0.1	

		1000W	MAX-1000W (25um)	1500W	2000W	MAX- 2000W(50)	YLR- 2000W	3000W	MAX- 3000W(50)	4000W	MAX- 4000W(50)	IPG6000W	MAX- 6000W	8000W	10000W	12000W	15000W	20000W
Material	Thickness	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min	Speed m/min
Aluminum N2	1	6.0-10	6.0-10	10-20	15-25	15-25	20-30	25-38	25-40	35-45	35-45	42-55	42-55	48-65	55-65	60-85	70-100	70-100
	2	2.8-3.6	2.8-3.6	50-7.0	7-10	7-10	10-15	10-18	13-20	13-24	13-24	20-40	20-40	25-48	33-45	38-50	40-55	40-55
	3	0.7-1.5	0.7-1.5	2.0-4.0	4.0-6.0	4.0-6.0	5.0-7.0	6.5-8.0	6.5-8.0	70-13	7.0-13	15-25	15-25	20-33	25-35	30-40	35-45	35-45
	4			1.0-1.5	2.0-3.0	3.5-4.0	3.5-5.0	3.5-5.0	3.5-5.0	4.0-5.5	4.0-5.5	9.5-12	9.5-12	13-18	15-25	20-30	30-40	30-40
	5			0.7-1.0	1.2-1.8	1.2-1.8	1.8-2.5	2.5-3.5	2.5-3.5	3.0-4.5	3.0-4.5	5.0-8.0	5.0-8.0	9.0-12	13-20	15-25	20-30	20-30
	6				0.7-1.0	1.0-1.5	1.0-1.5	1.5-2.5	1.5-2.5	2.0-3.5	2.0-3.5	3.8-5.0	3.8-5.0	4.5-8.0	9.0-12	10-15	15-24	15-24
	8				0.6-0.8		0.6-0.8	0.7-1.0	0.7-1.0	0.9-1.6	0.9-1.6	2.0-2.5	2.0-2.5	4.0-5.5	4.5-6.5	7.0-12	8.0-12.0	8.0-12.0
	10							0.4-0.7		0.6-1.2	0.6-1.2	1.0-1.5	1.0-1.5	2.2-3.0	2.8-4.0	4.5-8.0	6.0-10.0	6.0-10.0
	12							0.3-0.45		0.4-0.6		0.8-1.0	0.8-1.0	1.5-1.8	1.9-2.5	4.0-5.0	4.0-6.0	4.0-6.0
	16									0.3-0.4		0.5-0.8	0.5-0.8	1.0-1.6	1.5-2.0	1.5-2.5	2.0-3.0	2.0-3.0
	20											0.5-0.7		0.7-1.0	0.8-1.2	0.9-1.5	1.3-1.8	1.3-1.8
	25											0.3-0.5		0.4-0.7	0.6-0.8	0.6-0.9	0.6-1.2	0.6-1.2
	30													0.3-0.6	0.3-0.7	0.3-0.8	0.5-1.0	0.5-1.0
	35																0.3-0.6	0.3-0.8
	40																0.2-0.4	0.2-0.5
	50																0.1-0.2	0.3-0.7
	60																	0.2-0.5
	65																	0.1-0.3
Brass N2	1	6.0-10	6.0-10	8.0-13	10-16	10-16	12-18	20-35	20-35	25-35	25-35	35-45	35-45	40-55	50-60	55-65	75-85	75-85
	2	2.8-3.6	2.8-3.6	3.0-4.5	4.5-7.5	5.0-6.0	6.0-8.5	6.0-10	6.0-10	8.0-12	8.0-12	20-30	20-30	28-40	33-40	38-50	40-55	40-55
	3	0.5-1.0	0.5-1.0	1.5-2.5	2.5-4.0	2.5-4.0	4.0-6.0	4.0-6.0	5.0-8.0	5.0-8.0	12-18	12-18	20-30	20-30	15-23	20-30	32-50	32-50
	4			1.0-1.6	1.5-2.0	2.0-3.0	2.0-3.0	3.0-5.0	3.2-5.5	3.2-5.5	5.0-8.0	5.0-8.0	10-15	10-16	15-20	27-35	27-35	27-35
	5			0.5-0.7	0.9-1.2		0.9-1.2	1.5-2.0	1.5-2.0	2.0-3.0	2.0-3.0	4.5-6.0	4.5-6.0	6.0-9.0	9.0-13	10-15	18-26	18-26
	6						0.4-0.9	1.0-1.8	1.0-1.8	1.4-2.0	1.4-2.0	3.0-4.5	3.0-4.5	4.5-6.5	7.0-9.0	6.0-8.0	10-18	10-18
	8							0.5-0.7		0.7-1.2		1.6-2.2	1.6-2.2	2.4-4.0	4.5-6.5	5.0-7.0	8.0-10.0	8.0-10.0
	10									0.2-0.5		0.8-1.2	0.8-1.2	1.5-2.2	2.4-4.0	4.5-6.5	5.0-7.0	5.0-7.0
	12											0.3-0.5	0.3-0.5	0.8-1.2	1.5-2.2	2.4-4.0	2.8-4.2	2.8-4.2
	14											0.3-0.4	0.3-0.4	0.4-0.6	0.6-1.2	0.8-1.5	1.0-1.8	1.0-1.8
	16													0.3-0.5	0.4-0.6	0.6-1.2	0.8-1.5	0.8-1.5
	18														0.3-0.5	0.4-0.6	0.6-0.8	0.6-0.8
	20															0.3-0.5	0.4-0.6	0.4-0.6
	25																0.3-0.5	0.3-0.5
	30																	0.2-0.4
35																	0.1-0.2	

# CAST IRON BED



## STABLE

Due to its material properties, the strength and rigidity of the cast iron bed are high, and the deformation is small, which is not easy to deform. Therefore, the structure of the whole machine is more durable, and the accuracy is higher. The using life for the welding bed accuracy is about 5-7 years, while the guarantee time for the casting bed accuracy is about 15-20 years.



## ANTI-DEFORMATION

The high carbon content of cast iron makes it less susceptible to thermal deformation. Laser cutting, as a kind of thermal processing, generates more heat. The low thermal sensitivity of the cast iron bed body prevents it from being affected by thermal deformation and affecting machine tool accuracy.



# ADVANTAGES

01

## Sliding laser head protective shell

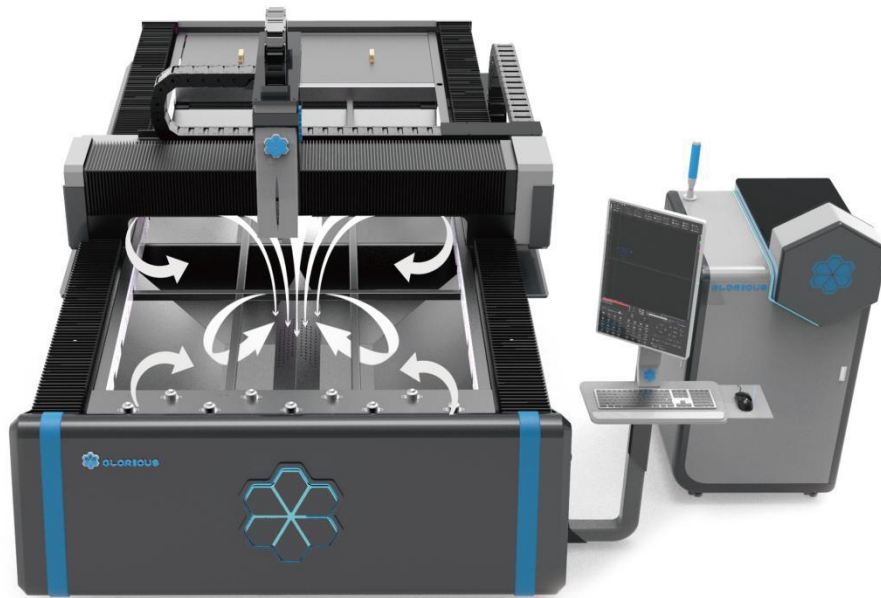
The unique laser head protective shell equipped with locking screws greatly improves the convenience of loading and unloading the laser head while being beautiful. When cutting, the noise is smaller and the stability is improved.



02

## A new generation of safety following module

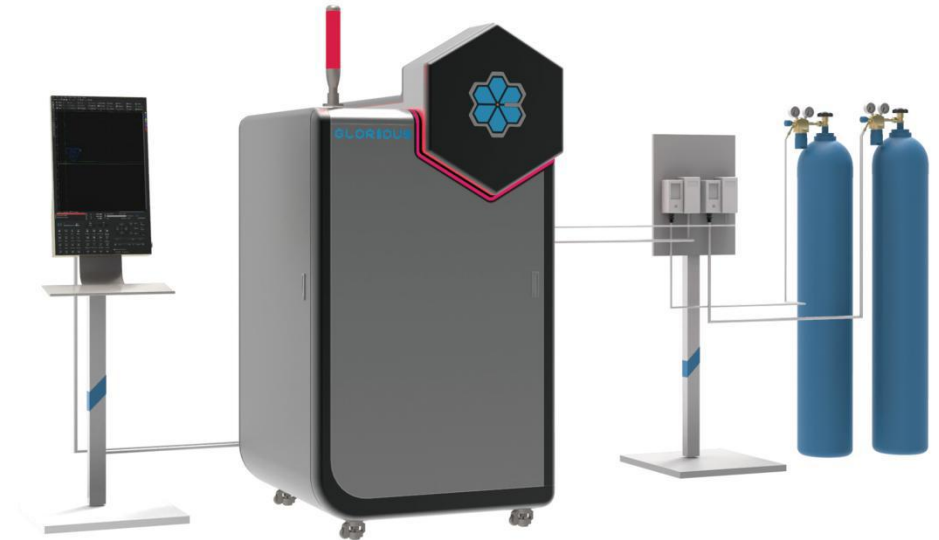
Laser head keeping distance with work piece in cutting process can reduce collision risks. It will stop cutting when colliding plate. The safety following module reduces accident rate and improves cutting performance.



01

#### ENVIRONMENTAL PROTECTION:

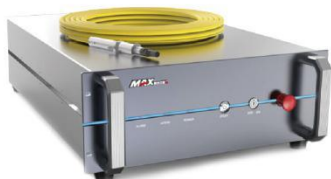
The beam is equipped with a dust removal system, and the bed is equipped with a centrifugal fan, which can discharge the smoke and dust generated during cutting. Protect the safety of operator. At the same time, the environment of the workshop is protected.



02

#### INTELLIGENT BUZZING ALARM SYSTEM:

The system will start full abnormal alarm and push it to the interface through control center when equipment is abnormal. Finding equipment abnormal in advance and reducing hidden dangers can multiply improve the equipment troubleshooting efficiency.



GRS provides customers with IPG, GW, MAX, Raycus laser sources with power from 1kw to 15kw. And provide installation and technical training services. At the same time, GRS provides customers with warranty services (see GRS warranty policy for details).



Yaskawa servo motors set a new industry standard in servo capability, with features that advance Yaskawa's 25-year reputation for redefining the possibilities in motion automation. Easily paired with a Yaskawa machine controller to create a motion automation system with the industry's highest quality and reliability.



High square block  
Standard length CA (size 15 – 65) or long length HA (size 20 – 65)  
4-row recirculation ball bearing guide  
45° contact angle  
High loading capacity in all mounting positions  
High rigidity



Standard laser source cooling system configuration, can keep a constant temperature of the laser source, which prevent the overheating and extend service life of laser source.

The simplicity of the Cypcut software allows you to shorten the time the mid-level expert learns the basic work of the machine. The work cost of mid-level experts will be much lower than highly intelligent experts, which will have a positive impact on production costs. Cypcut software also offers free upgrades.



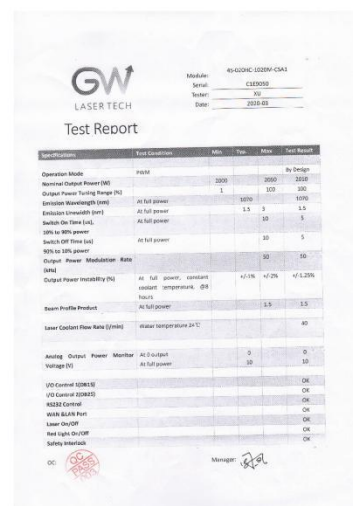
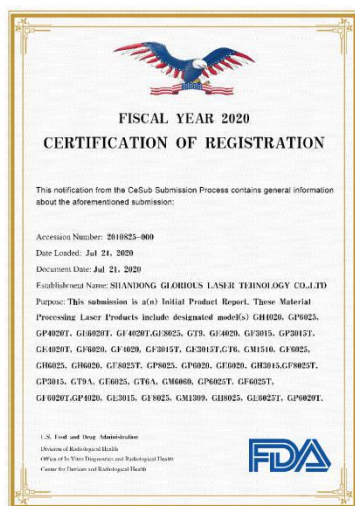
Helping keep constant temperature and humidity of electric cabinet to protect all the electric parts and laser source.



Centrifugal fans can help collect dust and smoke generated during cutting, purify the air in the workshop, and protect operators from pneumoconiosis.



GRS's productions meet the European standards and international quality control, obtain certificates such as CE/F- DA/ISO9001/SGS etc.



## WHAT IS LASER?

"LASER" is actually an acronym for light amplification by stimulated emission of radiation.

## How does a Laser-cutter work?

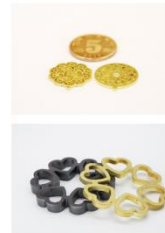
Industrial laser cutting concentrates high amounts of energy into a small, well-defined spot. The resulting heat energy created by the laser vaporizes materials in this small-defined area and a gas such as oxygen, nitrogen, or compressed air is used to blow the vaporized material out of the kerf

## What are the benefits of using Laser-cutting?

There are many reasons to choose a laser cutting machine. There is almost no limit to the cutting path of a laser—the point can move in any direction. This means that very complex designs can easily be performed without expensive tooling costs or long lead times. Small diameter holes that cannot be made with other machining processes can easily and quickly be produced with a laser. The process is noncontact allowing very fragile parts to be cut with little or no support and the part keeps its original shape from start to finish. Lasers can cut at very high speeds. Lasers do not have parts that will dull and need to be replaced or that can break easily. Lasers allow you to cut a wide range of materials and produce a high quality cut without requiring secondary processes. Fiber laser cutting is a very cost effective process with low operating and maintenance costs and maximum flexibility.

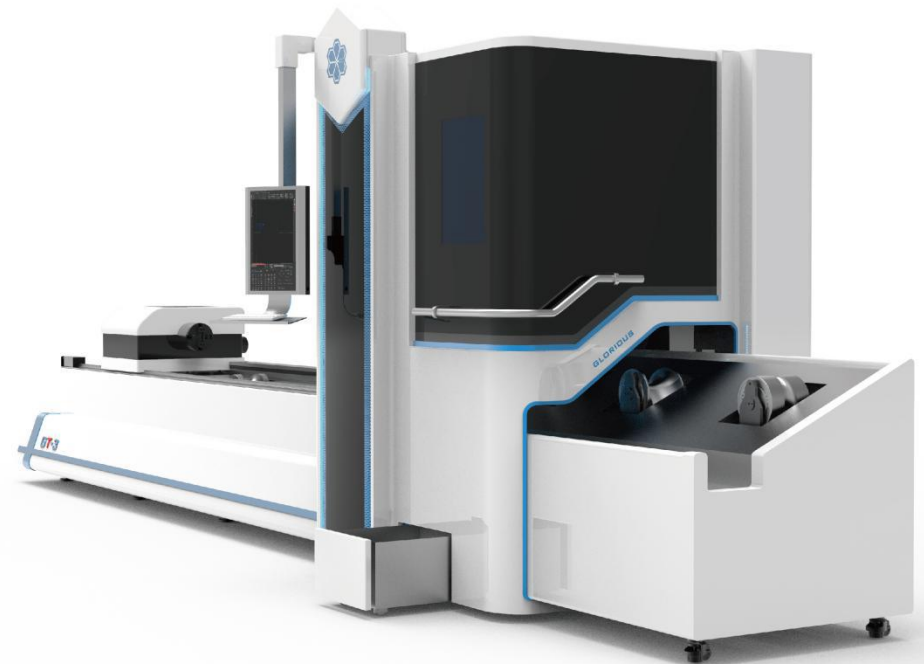


## FAQ



## How is Fiber Laser different from CO2 Laser?

A CO2 laser needs many components to generate a beam. These include a special gas mixture (helium, carbon dioxide, and nitrogen), vacuum pump, turbine to circulate the gas, mirrors for delivery, a lot of electricity, and a cooling system to protect all these components. A typical 4kW CO2 resonator will need about 120KVA of power to operate beam). The beam's energy is applied directly where it is needed minimizing the Heat Affected Zone (HAZ) surrounding the area being cut.



## CUTTING

### What materials can Fiber Laser Cut?

Fiber lasers are particularly well-suited to cutting metals. Steel, stainless steel, aluminum, copper, and brass can all be easily cut with this technology. A 12KW fiber can now cut almost 60mm of mild steel.

### How do I determine the Fiber Laser power for my needs?

Fiber power determines cut speed and maximum thickness. Although a 2KW fiber will cut 1/4" steel it will do so at about 80 IPM. A 6KW fiber resonator will cut the same material at 200 IPM. As with any laser purchase the buyer must reconcile projected material types and thicknesses being processed with budget limitations while considering the cost advantages of higher cutting speeds.

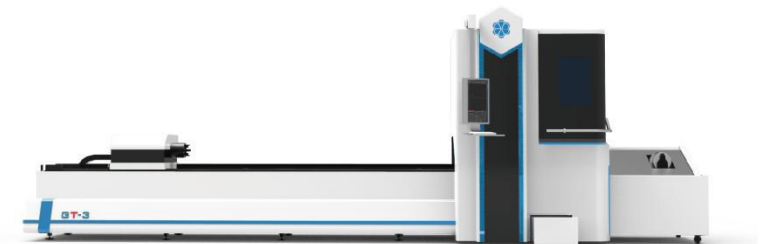
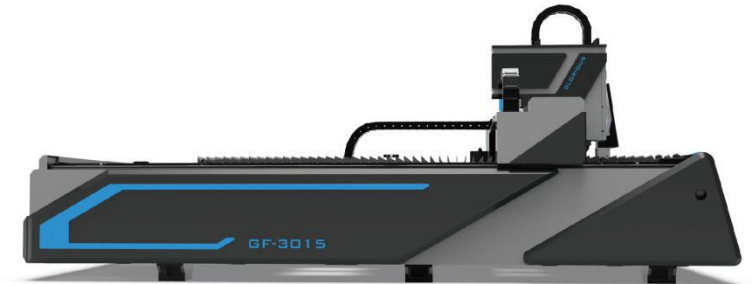
## MAINTENANCE

### 01 How much maintenance does a Fiber Laser need?

As with any machine tool all drive components need lubrication except for linear drives. Only the guide rails need maintenance in this situation and higher end machines will have automated lubrication systems. There are no mirrors or blowers to maintain and clean. The only consumables are the nozzle and lens protector.

### 02 Do I need certified technician to perform maintenance on a Fiber Laser?

Regular maintenance can be performed by the operator. Many machines are now being designed to require little or no maintenance. Some will even contact the factory via an internet connection when a problem is detected well before the operator is aware of it.





## ABOUT LASERS



A Fiber laser uses a solid state resonator (no moving parts) to generate the beam using diodes as the light source. The light energy is delivered to the head via a Fiber-optic cable eliminating the need for mirrors. Very little cooling is required and there is no maintenance required. A 4kW Fiber resonator may consume 35KVA in power at peak usage. The lower power requirements coupled with the lack of moving parts and mirrors result in substantially

### How does a Fiber Laser compare to Waterjet?

Waterjet is an abrasive cutting process. Fine garnet (sand) is delivered to the head via a high-pressure water stream. The head “focuses” the stream to about 010” in diameter for maximum cutting effect. The garnet erodes the material being cut. The water is simply the delivery medium for the abrasive garnet. The advantage of waterjet technology is that it can cut virtually anything from food products to stone and metal. Very thick slabs of material can be cut as well (i.e. 10” aluminum or thick blocks of tool steel). Waterjet cutting speeds in sheet metal, however, do not compare to that of Fiber lasers. A waterjet operating at 90,000 PSI will cut ¼” steel at a rate of 10 to 15 IPM. A 6KW Fiber laser using nitrogen for assist gas will cut the same material at about 200 IPM.

## RETURN ON INVESTMENT (ROI)



### What cost savings can I expect when I switch to Fiber Laser?

1. Reducing Energy Costs (60 to 70% less Power Consumption than CO2)
2. Reducing Maintenance Cost (i.e. the cost of replacing the blower works out to \$2000 per year when considering a typical Fanuc 12K hour blower amortized over 6 years).
3. Eliminating optics will further reduce costs by \$2000 to \$3000 a year when factoring the cost of mirrors, replacement by a technician, and the regular cleaning intervals.
4. No LASER gas required
5. Systems Take Up Less Valuable Floor Space (More Compact)
6. Reduce Production Downtime (Quick Installation and Start Up)
7. Increases Production Speed and Output (Fastest Cutting Speeds)

## «After-sale warranty of laser metal cutting machines»

First of all, thank you very much for purchasing a GRS product. In order to guarantee the smooth processing of after-sales service, we will make the following announcements:

General principles

1. We are responsible for the maintenance of facilities which are within the Warranty conditions.

2. Users must keep the machine's integrity and independence during operation. In the following situation, our company will not take any direct, indirect or joint liability. Furthermore, if any equipment is damaged or there are any losses in either economic or reputation to our company due to the following situation, we, GRS company, reserve the right to investigate any legal liability.

- 1) Using the equipment in an environment that it was not designed for.
- 2) Altering the machines privately, including, adding parts, reducing parts, dismounting, using another brand's parts, etc.
- 3) Human damage or doing operations and maintenance without following the requirements in the instructions.
- 4) Damage caused by movement or transportation.

On condition of not influencing the machine's performance, our company reserves the right to change the product's specifications and name the products before informing the customer.

Our company is responsible for the quality and performance of the machine we sell. However, we are not responsible for other indirect obligations and responsibilities.

Detailed Principles

a. Equipment Warranty: 3 years. Calculated from the production date in machine's nameplate. Specific details are as below:

1. The consumable parts are not within the warranty range, such as various of glass mirrors, nozzles, switches, crystal rods, foot switches etc.
  2. Warranty of machine's peripheral devices (if the machine has them):
- b. Laser module Warranty Period:
- (1) Fiber module's warranty: 2 years normally.

3 years on 2KW and above it, but 2 years on IPG-YLR Series 2KW are 2 years.

(2) CO2 tubes' warranty:

Glass Tube's warranty period: 40w tube: 4 months .

RECI tube: W1、W2、W4 18 months ; W6 、W8 12 months

Warranty of peripheral devices is 1 year, calculated from the production date in the device's tag. Maintained by device's manufacturers as standard, our company assist maintenance. Peripheral devices including water chillers, air fans, air compressors, PC controllers (if the machine has them).

Accessories repair and shipping cost**Within the warranty period:**

For free repair or replacement of accessories, the buyer should bear the shipping costs from their local place to our company if it needs to be tested, repaired or replaced.

If the failure cause by the parts' quality after testing (non human factors and use environment etc.), it will be repaired or replaced free of charge, and GRS company will bear the return shipping cost. If the failure doesn't cause by the parts' quality, the buyer should pay the repair fees and round-trip shipping cost.

P.S. The repaired parts should be returned to our factory. If the buyer is in arrears of spare parts, GRS company will cancel the warranty terms of the machine).

**Outside the warranty period:**

The buyer should pay for repairs and round-trip shipping.



### Door to Door Service Policies

GRS supplies door to door services all over the world. Charging standards and service processes are as below:

#### **(A). Charging standards:**

1. Technician visa fees, domestic travel expenses (including transportation cost occurred during handling documents);
2. Training and maintenance fees: \$100/day/person (take the time of landing and starting off of plane in customer's country as standard) ;
3. International round-trip tickets (reserved and paid by the buyer, and supply the e-ticket information to our company );
4. Abroad accommodation(arranged and paid by the buyer)

#### **(B).Overseas training/maintenance processes:**

1. GRS company will calculate the fees of item 1 and item 2 above, and then inform the buyer. After the buyer pays the fees, GRS company will arrange for the technician to apply for a visa.
2. We will inform the buyer after the technician gets the visa. The buyer should supply the round-trip ticket information mentioned above in item 3, and arrange accommodation from item 4 after the technician arrives.
3. Only after getting the approval of GRS company, the buyer can apply for an extension for the training and maintenance.The buyers should pay for the“extend training and maintenance service fees”before the start of the extend service.



## Electrical &amp; Gas Consumption Table

<b>GF series 1000W Fiber Laser Using Cost</b>			
Consumption		Assisted gas	
		Oxygen	Nitrogen
Power Consumption	Laser module	3.2kw	
	Water Chiller Group	2.8kw	
	Main Machine	6kw	
	Dust Exhausting system	3kw	
Total Power		15kw	
Average Power Consumption (Take 60% Cutting Efficiency)		$15 \times 60\% = 9\text{kw}$	
Consumable Part		0.5 \$/h	
Gas consumption		20L/h	50L/h

Glorious Laser

Glorious Laser

## Electrical &amp; Gas Consumption Table

<b>GF series 2000W Fiber Laser Using Cost</b>			
Consumption		Assisted gas	
		Oxygen	Nitrogen
Power Consumption	Laser module	6.1kw	
	Water Chiller Group	3.1kw	
	Main Machine	6kw	
	Dust Exhausting system	3kw	
Total Power		18.2kw	
Average Power Consumption (Take 60% Cutting Efficiency)		$18.2 \times 60\% = 10.92\text{kw}$	
Consumable Part		0.5 \$/h	
Gas consumption		20L/h	50L/h



## Electrical &amp; Gas Consumption Table

<b>GF series 3000W Fiber Laser Using Cost</b>			
Consumption		Assisted gas	
		Oxygen	Nitrogen
Power Consumption	Laser module	9.3kw	
	Water Chiller Group	4.94kw	
	Main Machine	6kw	
	Dust Exhausting system	3kw	
Total Power		23.24kw	
Average Power Consumption (Take 60% Cutting Efficiency)		$23.24 \times 60\% = 13.9 \text{ kw}$	
Consumable Part		0.6 \$/h	
Gas consumption		20L/h	50L/h

## Electrical &amp; Gas Consumption Table

<b>GF series 4000W Fiber Laser Using Cost</b>			
Consumption		Assisted gas	
		Oxygen	Nitrogen
Power Consumption	Laser module	11.5kw	
	Water Chiller Group	5.7kw	
	Main Machine	6kw	
	Dust Exhausting system	3kw	
Total Power		26.2kw	
Average Power Consumption (Take 60% Cutting Efficiency)		$26.2 \times 60\% = 15.7\text{kw}$	
Consumable Part		0.6 \$/h	
Gas consumption		20L/h	50L/h