

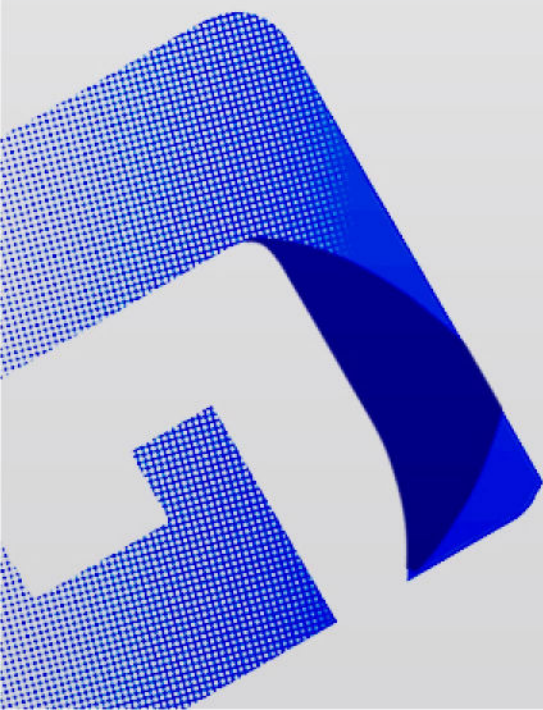


TECHNICAL PROPOSAL

LF4020GA

1000W-8000W

WHOLE COVER LASER CUTTING MACHINE



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Gold Quality,

Made With Wisdom By GWeike.

Customer-Centric, Quality Supreme

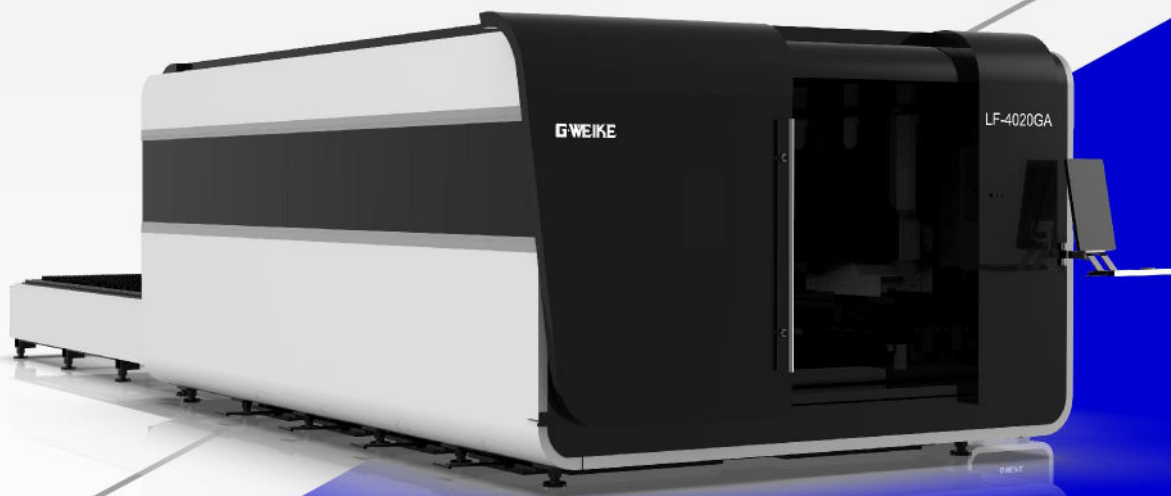


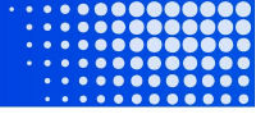
▶ **PRODUCT OVERVIEW**

- LF4020GA fiber laser cutting machine can carry up to 8000W laser power, so for most thickness, it is a very good choice.
- For example, agricultural machinery, textile machinery, food machinery and construction machinery and other large machinery and equipment manufacturing, usually use high power fiber laser cutting machine for processing. Suitable for stainless steel, carbon steel, silicon steel, aluminum alloy, titanium alloy, galvanized steel, aluminum-plating zinc plate, copper, and other metals.

▼ **ADVANTAGE**

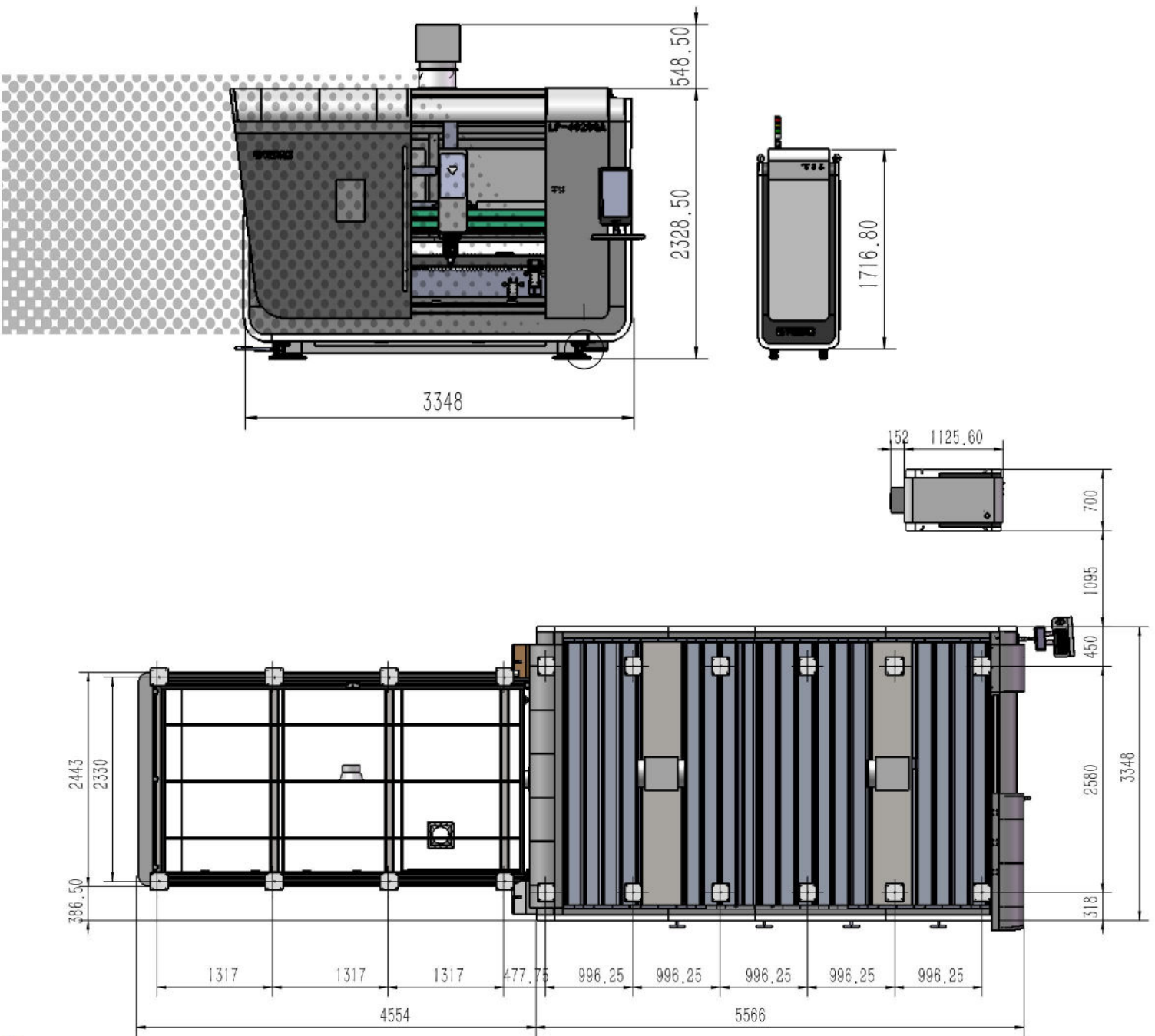
- Aviation Aluminum Gantry
- CE protection standard
- High configuration

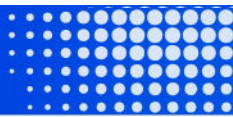




▶ PRODUCT DESCRIPTION

— LF4020GA —





► TECHNICAL PARAMETERS

Model	LF4020GA
Maximum processing range	2000x4000mm
X-axis travel	2000mm
Y-axis travel	4000mm
Z-axis travel	290mm
X / Y axis positioning accuracy	±0.03mm
X / Y axis repeat positioning accuracy	±0.02mm
X / Y axis maximum moving speed	80m/min
X / Y maximum acceleration	1G
Transmission type	Dual drive rack
Y-axis motor power	1.3KW*2
Working platform exchange time	15-17s
Guide width	35MM
Working platform load	1100kg
Enclosed laser protection	Yes
Lubrication type	Automatic oiling
Power available	1000-8000W
Dimension	10750*3350*2310MM
Total Weight	7904kg

**LF4020GA Main Specification**

No.	Name	Quantity	Brand
1	Laser source	1 set	Raycus/IPG/MAX
2	Laser head	1 set	Raytools/Precitec/Boci BLT
3	Machine body	1 set	Gweike
4	Gear and Rack	1 set	Taiwan YYC
5	Reducer	1 set	France Motoreducer
6	Motor on X, Y axis	1 set	Inovance
7	Motor on Z axis	1 set	Inovance
8	Exhaust Smoke System	1 set	China
9	Guide rail	1 set	HIWIN /DTX
10	Electronic Components	1 set	France Schneider/Taiwan Delixi
11	Pneumatic Components	1 set	Japan SMC/Taiwan AirTac
12	Control system	1 set	Cypcut
13	Water chiller	1 set	S&A Water Chiller
14	Control cabinet	1 unit	Gweike
15	3rd generation aviation aluminum Beam	1 unit	Gweike
16	Auto higher	1 unit	Cypcut
17	Auto lubrication	1 set	China
18	Industrial computer	1 set	HP
19	All closed protective cover	1 set	Gweike
20	Exchange table	1 set	Gweike



MAIN CONFIGURATION



▼ RAYCUS Laser Source

- High Electro-optic Conversion Efficiency
- High reliability, long service life
- Maintenance-free Operation



▼ BM110

- Auto focus
- Optimized optical configuration
- Protect modules for calibration and focus lens
- Drawer-type of lens mount, quick and easy use



▼ France MOTOREDUCER

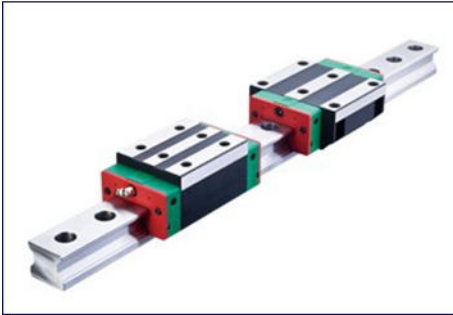
- Stable operation
- Low noise
- Large output torque
- High speed ratio



▼ Taiwan - YYC

- High precision
- Accurate instantaneous transmission ratio
- High transmission efficiency;
- Long life

▶▶ MAIN CONFIGURATION



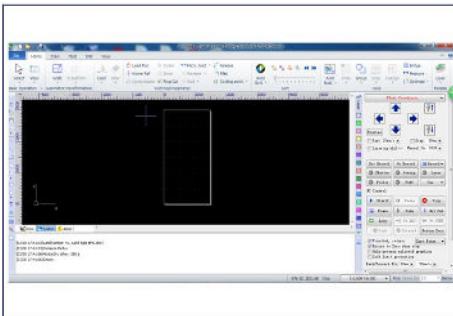
▼ Square Rail-Taiwan HIWIN

- Low noise
- Wear-resistant
- Smoothly, enable fast speed



▼ Servo Motor-Inovance

- High accuracy
- High-speed performance
- High adaptability & stability
- Timeliness, short dynamic response time of motor



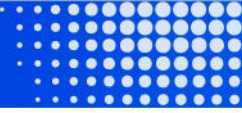
▼ CYPCUT control system

- Easy to use
- Various file editing functions
- Support remote control
- Real-time alarm and protection



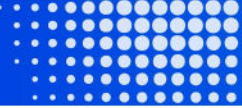
▼ TongFei / S&A Water Chiller

- Dual cooling function
- Real-time alarm
- Machine protection



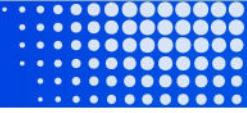
▶ CUTTING PARAMETERS

IPG YLS 8000W			
Material	Thickness	Assisted Gas	Max Speed
Carbon steel	1.0	Nitrogen	50.0-65.0
	2.0		6.8-7.2
	3.0		4.7-5.3
	4.0		3.8-4.3
	5.0		3.3-3.8
	6.0	Oxygen	3.0-3.4
	8.0		2.3-2.6
	10.0		2.0-2.5
	12.0		1.7-2.2
	14.0		1.4-1.6
	16.0		1.2-1.4
	26.0		1.0-1.1
	20.0		0.9-1.0
	25.0		0.6-0.7
30.0	0.3-0.6		
Stainless steel	0.5	Nitrogen	80.0-100.0
	1.0		63.0-66.0
	2.0		40.0-44.0
	3.0		25.0-28.0
	4.0		15.0-18.0
	5.0		12.0-14.0
	6.0		9.0-9.5
	8.0		5.0-5.3
	10.0		3.8-4.0
	12.0		2.5-2.7
	14.0		1.8-1.9
	16.0		1.3-1.5
	20.0		0.7-0.8
	25.0		0.5-0.6
			1.0

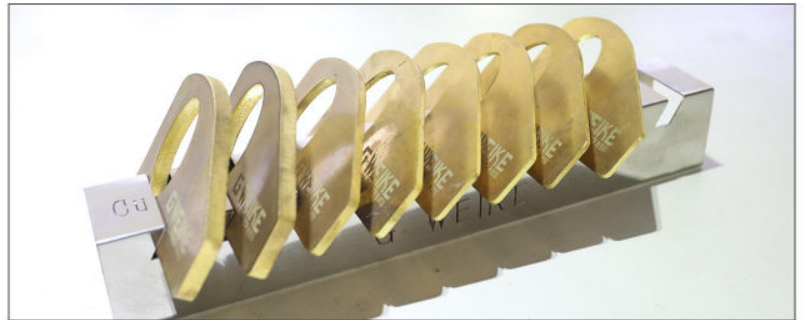
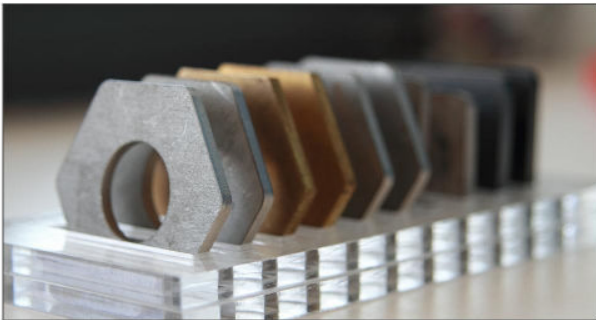
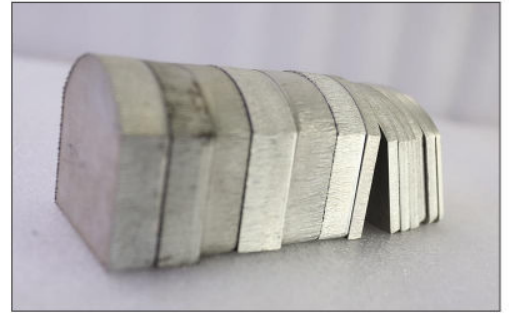
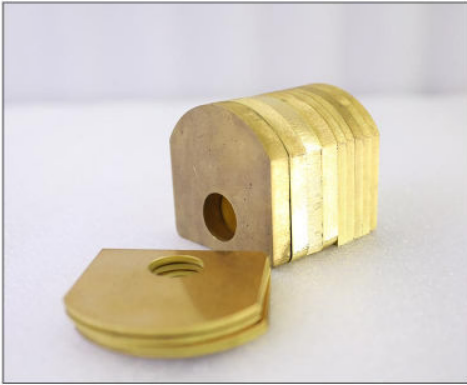


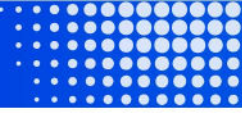
▶ CUTTING PARAMETERS

IPG YLS 8000W			
Material	Thickness	Assisted Gas	Max Speed
Brass	2.0	Nitrogen	27.0-32.0
	3.0		13.0-20.0
	4.0		10.0-12.0
	5.0		7.0-9.0
	6.0		4.0-5.5
	8.0		2.0-2.5
	10.0		1.6-2.2
	12.0		0.8-1.2
Copper	1.0	Oxygen	30.0-40.0
	2.0		9.0-11.0
	3.0		3.0-4.0
	4.0		1.2-2.0
	6.0		0.8-1.3
	8.0		0.6-1.0
Aluminum	1.0	Nitrogen	53.0-65.0
	2.0		30.0-40.0
	3.0		15.0-23.0
	4.0		12.0-16.0
	5.0		7.0-10.0
	6.0		5.0-7.0
	8.0		2.5-4.0
	10.0		1.5-2.8
	12.0		1.0-1.6
	14.0		0.8-1.2
	16.0		0.6-0.8
	20.0		0.5-0.7
25.0	0.3		



▶ SAMPLES

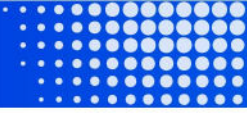




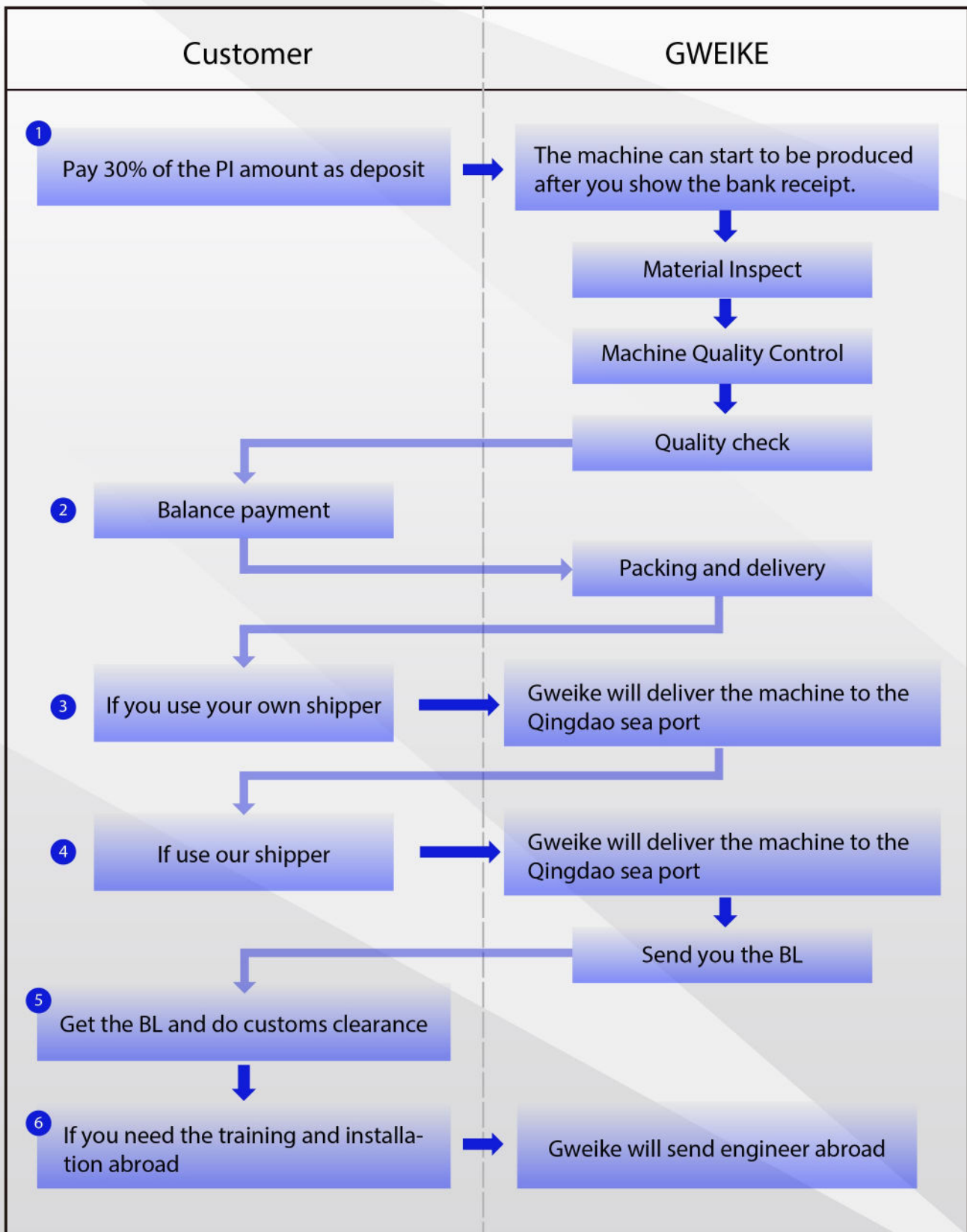
▶ COST ANALYSIS

8000W FIBER LASER USING COST

Assisted gas Consumption		Choose I :using aircompressor Group asair supply to cutting Stainless steel	Choose II :using O2Cutting Stainless steel	ChooseIII:using N2Cutting Stainless steel
Power Consumption	Laser module	24kw	24kw	24kw
	Water Chiller Group	11kw	11kw	11kw
	Host Machine	16kw	16kw	16kw
	Dust Exhausting Equipment	5kw	5kw	5kw
Quick-wear Part		2.5 RMB/h	2.5 RMB/h	2.5 RMB/h
Gas Consumption		15kw	(About) 25 RMB/h	(About) 100 RMB/h
Total Power		71kw	56 kw	56 kw
Average Power Consumption (Take 60%Cutting Efficiency)		$71 \times 60\% = 42.6 \text{ kw}$	$56 \times 60\% = 33.6 \text{ kw}$	$56 \times 60\% = 33.6 \text{ kw}$
All Cost (1RMB/kwh)		$42.6 + 2.5 = 45.1 \text{ RMB/h}$	$33.6 + 25 + 2.5 = 61.1 \text{ RMB/h}$	$33.6 + 100 + 2.5 = 136.1 \text{ RMB/h}$



▶ SERVICE SYSTEM





Gweike Tech Co., Ltd. is established in July 2004, a company with 18 years of production experience in the development, production and sales of fiber laser cutting machines.



90000+

The production base covers an area of 90,000 square meters



1000+

Office area of more than 1,000 square meters



800+

More than 800 employees



100+

R&D and production team of more than 100 people



21+

21 Services Office All Over The World



▶ EXPO STAFF

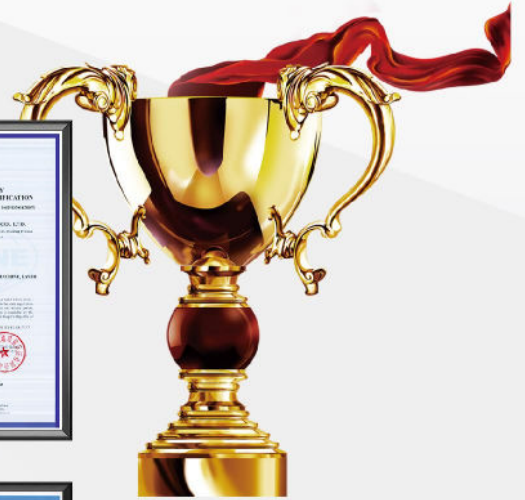


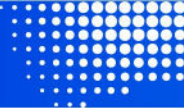
**SERVICE FOR 150
COUNTRIES**





▶ QUALIFICATION/ HONOR





▶ QUALITY CONTROL PROCESS

① Incoming Quality Inspection

Laser Source Test



Laser Head Test



Rack Detection



Motor / Reducer Testing



**Machine Parts Qualification
And trades Certificate**





② Production process quality control

①

**Machine
Bed Welding**



②

**Machine Bed
Heat Treatment**



③

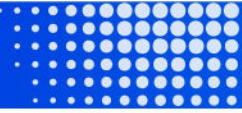
Milling Machine



④

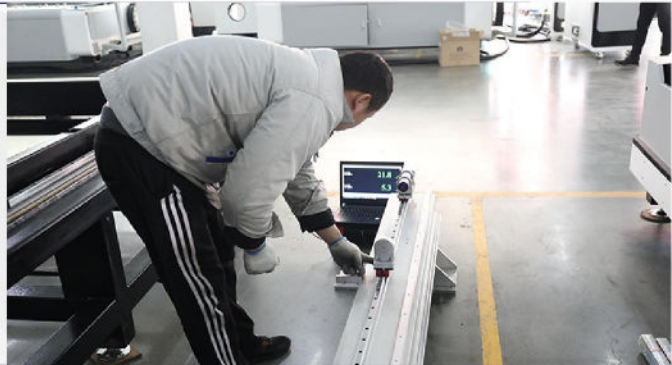
**Accurate
Installation**





⑤

Collimator Tests



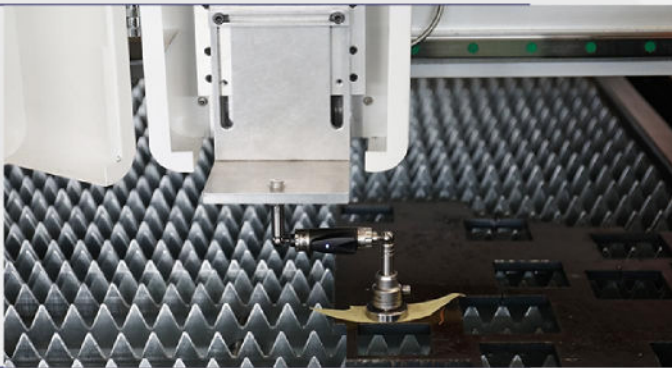
⑥

Marble Square Ruler



⑦

Double Ball Bar Test



⑧

Laser Interferometer Test





3 Before Package

①

Machine Running Test



②

Machine Cutting Test



③

Outlook Quality Test



④

Quality Check Report

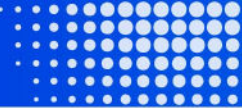
GWEIKE

光纤切割机质检报告

机床编号: 2020 机床型号: GWEIKE 控制电机: 功率: _____
 厂家: _____ 规格: _____ 光纤激光功率: _____ 型号: _____
 切割机型号: _____ 规格: _____ 版本型号: _____

以下检测内容按照出厂标准进行:

序号	检测内容	检测方法/标准	检测工具	责任人	确认日期	质检确认
1	Z轴导轨、丝杆、滚珠丝杆固定、平行度	Z轴导轨高度 ± 0.05 MM, 高度与导轨平行度 ± 0.05 MM, 两导轨平行度 ± 0.05 MM, 丝杆与导轨平行度 ± 0.05 MM, 丝杆垂直度 ± 0.05 MM	大理石平台+百分表		2/10	
2	丝杆精度	Z轴丝杆、丝杆、滚珠丝杆垂直度 ± 0.05 MM	百分表			
3	X轴导轨、丝杆、滚珠丝杆固定、平行度	X轴导轨高度 ± 0.05 MM, 高度与导轨平行度 ± 0.05 MM, 两导轨平行度 ± 0.05 MM, 丝杆与导轨平行度 ± 0.05 MM, 丝杆垂直度 ± 0.05 MM	大理石平台+百分表		2/17	
4	丝杆精度	X轴丝杆、丝杆、滚珠丝杆垂直度 ± 0.05 MM	百分表		2/17	
5	龙门架垂直度检测	龙门架垂直度 ± 0.05 MM, 龙门架与X轴平行, 垂直度 ± 0.05 MM	大理石平台+百分表		2/17	
6	导轨、丝杆、滚珠丝杆固定、平行度	丝杆垂直度 ± 0.05 MM	大理石平台+百分表		2/17	



▶ STRICT PACKAGE PROCESS



01
Machine Cleaning



02
Protective Oil Processing



03
Protective Film Wrapping



06
Wooden Box Seal



05
Box Nailing



04
Wooden Box Delivery



07
Container Loading



08
Container Sealing



09
Transportation