



# GEM Laser Cutting Machine

GEMQG-3015F-2000



## GEM LASER LIMITED

A Legend Laser machine Manufacture & Solutions

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## OVERVIEW

The energy released by a laser beam when the laser beam irradiates the surface of the sheet metal. The metal plate is melted and blown away by the gas. Since the laser force is very concentrated, only a small amount of heat is passed to other parts of the sheet metal, resulting in little or no deformation. The laser can be used to cut the blanks of complex shapes very accurately, and the blanks need not be further treated.

## FEATURES

- 1) the machine adopts the movable Gantry structure, high precision wire rod and linear guide rail, the transmission is stable and the precision is high.
- 2) and mobile bed beam are welded after annealing, rough machining, and then the vibration aging treatment can completely eliminate the stress of welding and machining, good rigidity, high precision, can be kept for long time using deformation.
- 3) X, Y and Z shaft adopt imported servo motor, high precision, high speed, big torque, big inertia, stable and durable performance. It guarantees the high speed and acceleration of the whole machine.
- 4) adopt CPY based optical fiber laser cutting machine special CNC system based on Windows operating system. It integrates many special function modules of laser cutting control. It has powerful function, good man-machine interface and simple operation.
- 5) the cutting head uses the fiber laser special cutting head produced by the Laser mech and the capacitive sensor. The sensing precision is high, the reaction is sensitive, and the performance is most stable and reliable.
- 6) high-precision electronic control proportional valve, accurate control of cutting auxiliary gas pressure, so as to achieve the best cutting effect.

## SPECIFICATIONS

Model	GEMQG-3015F-2000
Laser wavelength	1070nm
Maximum average power of laser output	2000W
Laser repetition frequency	CW
Energy instability	≤2%
Minimum cutting line width	0.2mm (under 0.4mm material)
Maximum cutting speed	≤20m/min(due to material)
Maximum cutting thickness	≤10mm (Carbon steel) (oxygen) ; ≤5mm(Stainless) (nitrogen)
Continuous working time	≥20hours
Maximum cut width (double platform switching)	Y;3000mm, X:1500mm, Z:120mm
Mechanical accuracy of table	±0.05mm/m
X, Y and Z repeated positioning accuracy	±0.05mm
Power Supply	Three-phase five wire AC 380V + 5%, 50Hz + 1%
Table Loading	1000KG
Equipment weight (estimated)	3500KG

Device configuration list (Standard, Option)

Item	Subsystem	Component	Model	Quantity	Mark
1	Laser marking head	High speed scanning galvanometer	Light Φ10mm	1pcs	China
		Galvanometer drive card		1pcs	
		Scanning field mirror	f=160mm	1pcs	China/Import
		Beam expander	10X	1pcs	China/Import
2	Laser	Green Laser	pulse-532-005	1set	China
3	Laser marking machine cabinet	Cabinet		1set	GEM
4	Computer&software	Computer	Desktop	1set	Lenovo
		Software	Software	1set	GEM
6	Workbench	Precision workstation		1set	GEM
7	Seat				

Laser Marked Samples



Applications

Applicable : metal cutting, electrical switch manufacturing, elevator manufacturing, household appliances manufacturing, kitchenware manufacturing, tool processing, and other machinery manufacturing processing industry.

Applicable materials: mainly used for cutting a variety of thin sheet metal cutting, high quality carbon steel 0.5~6mm, 0.5~5mm stainless steel plate, but also can cut Aluminum Alloy plate, galvanized plate, electrolytic plate, silicon steel, titanium alloy, aluminium zinc plate, thin brass sheet and other metal materials.