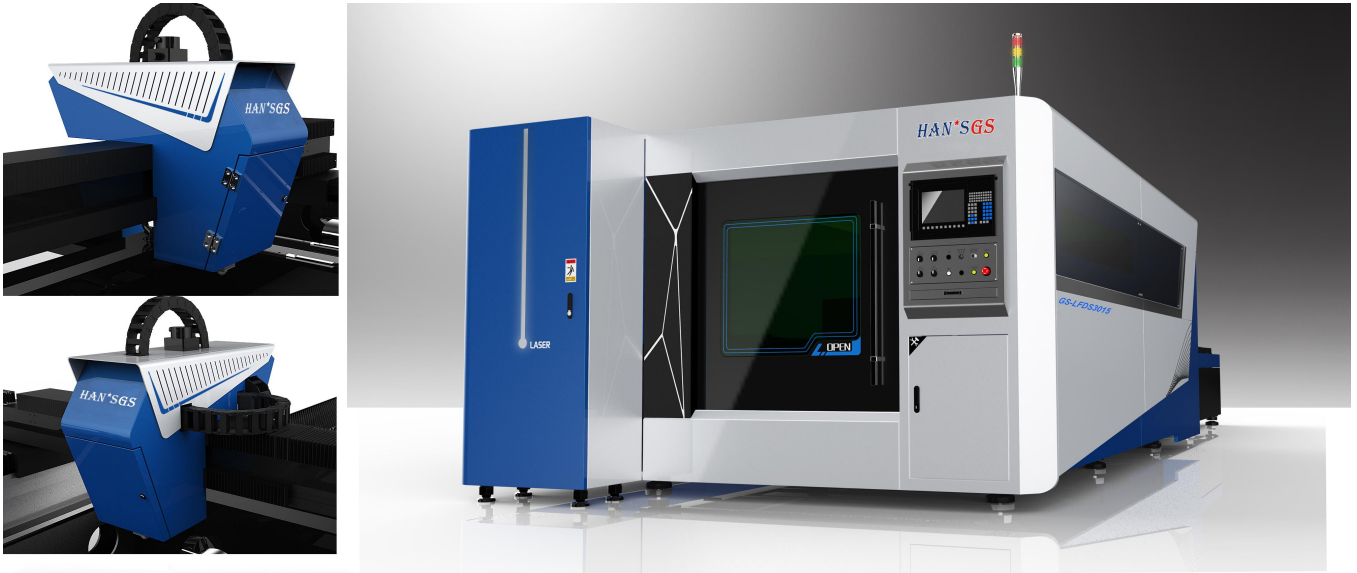


## Double Drive CNC Fiber Metal Cutter

### Product Introductions



GS-LFDS3015 Exchangeable Working Table Fiber Laser Cutter (double drive)

### 2.1 Advantage of Fiber Laser Cutting Machine

Compare of different laser sources

Model of Laser Source	Fiber	CO2	Disc
Electro-optical Conversion Efficiency	30%	10%	15%
Max. Output	50Kw	20Kw	8Kw
BPP (4/5Kw)	<2.5	6	8
Life of Diode Pumped	> 100,000	NA.	10,000
Occupied Area (4/5Kw)	< 1M <sup>2</sup>	3M <sup>2</sup>	> 4M <sup>2</sup>
Maintenance	no need	need	Often
Soft Processing	more suitable	unsuitable	suitable
Stability	best	good	good
Absorption rate%--steel	35	12	35
Absorption rate%--aluminum	7	2	7
Replaced Parts	High brightness semiconductor laser broadband single core, more than 100,000 hours of pump. Damage to one of the semiconductor does not affect the normal work of the laser, but less and less power, because each semiconductor pump sources are used to separate each other.	Laser work requires gas supplement, reflection lens replacement.	Semiconductor Bar (array) maximum pulse model 5000 hours or 10000 hours continuous mode. Laser use the pump sources are used in the process of often need to change, each time change need to

			be between \$200,000-230,000.
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## 2.2 Laser cutting advantages over other thermal cutting methods

### 2.2.1. The cutting quality is good:

Because of the small laser spot, high energy density, fast cutting speed, laser cutting can therefore get better cutting quality.

(1) Cutting knife is narrow and parallel on both sides, also perpendicular to surface, cutting tolerance of cutting pieces can be up to  $+ / - 0.05$  mm.

(2) Cutting surface is smooth and beautiful, the surface roughness is only a few dozen microns, laser cutting can be used as the final working procedure, parts can be even used directly without mechanical processing.

(3) Heat affected zone is very small, material performance is hardly affected near the kerf width, and the workpiece deformation is small. Also, kerf geometry is good, slitting rectangular cross-section shapes appear to be regular.

### 2.2.2. Highly automation:

Adopts digital control, you only need to use CAD to draw the picture and import to specialized software, laser cutting machine can cut out the artifacts you need, moreover there is intelligent type setting function, thus can save raw material costs to the greatest extent.

### 2.2.3. High cutting efficiency:

Due to the transmission properties of laser, laser cutting machine has equipped with many sets of CNC work bench to realize numerical control. You only need to change the CNC program to cut different shape, as well as for two-dimensional cutting, and three-dimensional cutting.

### 2.2.4. Fast cutting speed:

The cutting speed can be up to 600 cm/min when using 1200W laser to cut 2mm low carbon steel plate, and can up to 120 m/min when cutting 5mm polypropylene resin plate. Material does not need clamping fixed for cutting, thus can save the jig and auxiliary time for material upload and download.

### 2.2.5. Non-contact cutting:

There is no contact for work piece and laser head, so there is no tool wear. No need to change "tool" for different shapes parts processing, only need to change the output parameters. Laser, low noise, small vibration, and no pollution while cutting.

### 2.2.6. Variety cutting material:

Compared with oxyacetylene cutting and plasma cutting, laser can cut many kinds of materials, including metal, nonmetal, metal and nonmetal based composite material, leather, wood, fiber, etc. But for different material, it shows different laser cutting adaptability due to its thermal physical properties and different laser absorption rate.

## 2.3 Cutting Materials

It is used to cut the metal materials, such as stainless steel, carbon steel, alloy steel, silicon steel, spring steel, galvanize plate, pickled plate, copper plate, aluminum plate, etc.

## 2.4 Application Industry

Widely used in sheet metal processing, aviation, aerospace, electronics, electrical appliances, tube fittings, automobile, food machinery, engineering machinery, precision parts, ships, metallurgical equipment, elevators, household appliances, kitchen utensils and appliances, craft gifts, tool processing, decoration, advertising and other manufacturing industries.

### Samples



1mm stainless steel



3.5mm stainless steel



5mm carbon steel



5mm stainless



10mm carbon steel



10mm stainless steel