

SF6016T-1500W

TECHNICAL SOLUTION

Price: FOB Qingdao port 45000USD



I.Introduction

SF6016T metal tube laser cutter is also called tube laser cutting machine, which is used for cutting round tube, square tube and other metal tube. Pipe processing range $\phi 10\sim 160\text{mm}$ (square tube: $10\sim 110\text{mm}$).

SF6016T metal tube laser cutting machine is equipped with fiber laser device, laser power from 1.5kw to 3kw.



II. Technical Parameter

Item	Parameter		
	1.5kw	2KW	3KW
Pipe length	1000~7100mm		
Pipe diameter	Φ10~Φ160mm		
Z-axis Travel	170mm		
X/Y axis Positioning accuracy	±0.05mm		
X/Y axis Repeated positioning	±0.02mm		
Maximum Feeding speed	120m/min		
Max Rotating speed	120r/min		
Maximum acceleration	1.2G		
Machine Total weight(KG)	3130KG	3300KG	3500KG
Table maximum load(KG)	100KG	100KG	100KG
Outline size (mm)	9221*1145*2246mm		
Power parameters	Three-phase AC 380V 50Hz		
Protection Level of Total Power Supply	IP54		

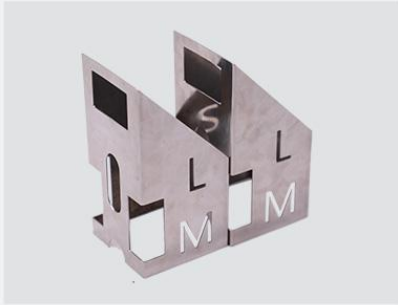
III.Configuration

NAME	NO.	BRAND
FIBER LASER DEVICE		
1500W fiber laser	1 set	Raycus/MAX
LASER HEAD		
Laser head	1 set	WSX
Main Machine		
Transmission	4 set	SENFENG
Machine bed accessories	1 set	SENFENG
Motor reducer	4 set	MOTOREDUCER
Electrical and pneumatic	1 set	SCHNEIDER SMC/AIRTAC
Server motor and driver	5 set	Lead Motion from Germany
Water cooling	1 set	HANLI
CNC CONTROL SYSTEM		
Control system	1 set	Raytools XC4000-T2

IV.Cutting Capability and Application

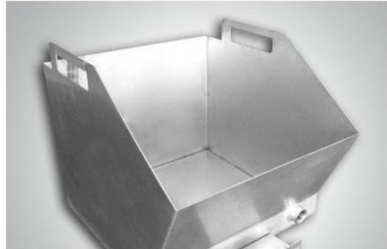
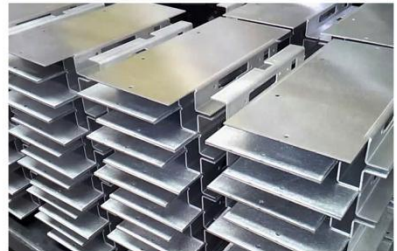
◆ Cutting Materials

Carbon steel, stainless steel, aluminum alloy, brass, copper, galvanized sheet, silicon steel sheet, electrolytic sheet, titanium alloy, manganese alloy, etc.



◆ Application Industry

Sheet metal processing, machinery manufacturing, auto parts manufacturing, electrical manufacturing, elevator manufacturing, petroleum machinery, food machinery, shipbuilding etc.



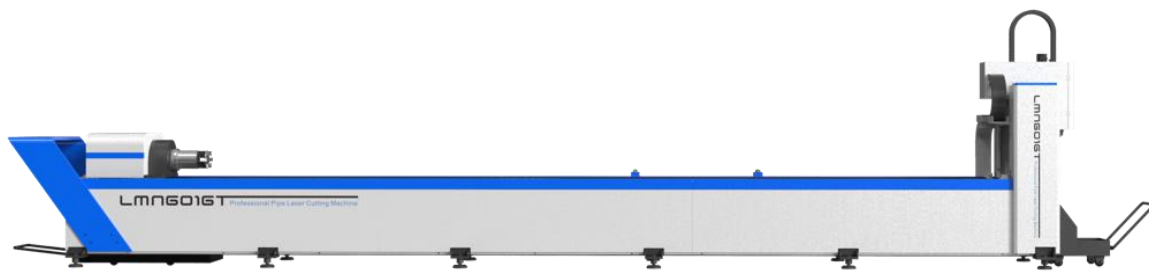
Cutting parameter

材料 Material	厚度 Thickness (MM)	切割速度 Speed (m/min)	气体 Gas
不锈钢 Stainless steel	1mm	15 — 18	N ₂
	2mm	6 — 7	
	3mm	2.5 — 3	
	4mm	1.3 — 1.7	
	5mm	0.8 — 1.1	
	6mm	0.3 — 0.6	
碳钢 Carbon steel	1mm	10 — 13	O ₂
	2mm	4.8 — 5.5	
	3mm	3.5 — 4	
	4mm	2.4-3	
	5mm	1.7-2	
	6mm	1.5-1.8	
	8mm	1.1-1.4	
	10mm	0.8-1.1	

V.Main Features

◆ High strength machine bed

The high strength machine bed is welded with high-quality steel plates and pipes. After welding, stress relief annealing, secondary aging treatment, and ultra-large gantry milling machine precision processing ensure that the bed has sufficient structural stability and shock resistance. Withstand higher acceleration. There is no connection inside the bed to block heat transfer, avoiding the heat generated by cutting from being transferred to the bed and affecting the processing accuracy. The bed will not be deformed after long-term use, which improves the service life of the equipment.



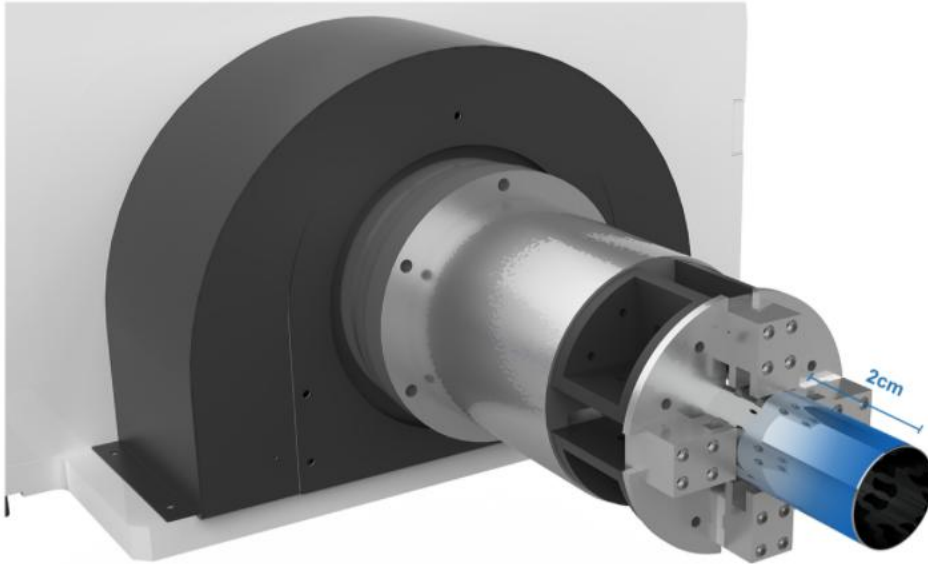
➔ **Machine body processing process**

Senfeng has an independent bed production workshop. Many important process such as bed welding, heat treatment, shot blasting, cleaning, painting are all carried out in the workshop. Strictly control the quality of the bed, and timely delivery.



◆ “0” Tail Material

The minimum tail length is 5cm, which truly realizes 0 tail cutting, reduces the cost of raw materials, and brings great production benefits



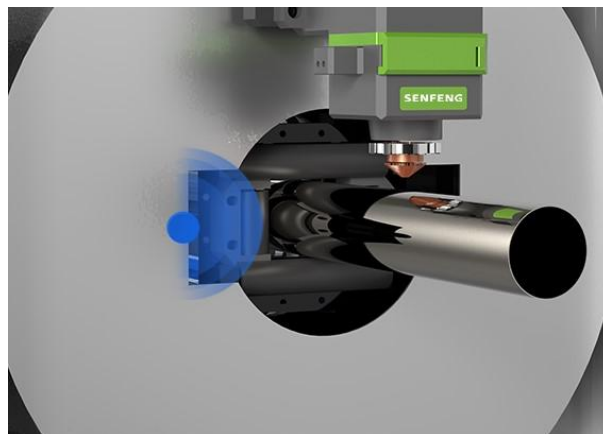
◆ Ultra-fast Tube Cutting

The first ultra-fast tube cutting process, the chuck speed can reach 120r/min; the running speed can reach 120m/min; the motion acceleration has reached 1.2G, which is the current tube cutting field, which has achieved fast dynamic performance and excellent equipment one. The cutting speed has reached 60m/min, which has a high market position in the industry.

◆ Unique Chuck Release Detection Function

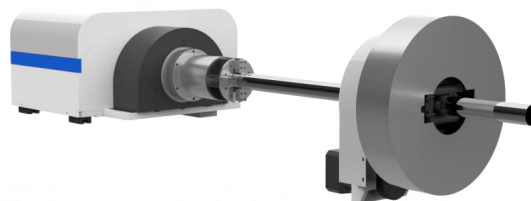
Extend equipment service life, reduce equipment maintenance time, and make laser tube cutting easier;

It greatly improves the reliability of the chuck operation, and is the core support technology and process system for dual chucks to achieve "zero" tailings.



◆ Pneumatic Self-centering Chuck

Clamp has high precision and fast speed; the gear drive is self-centering, and the efficiency is high; the load-bearing capacity of the pipe can reach 100KG, breaking the industry's clamp limit



VI. More Details



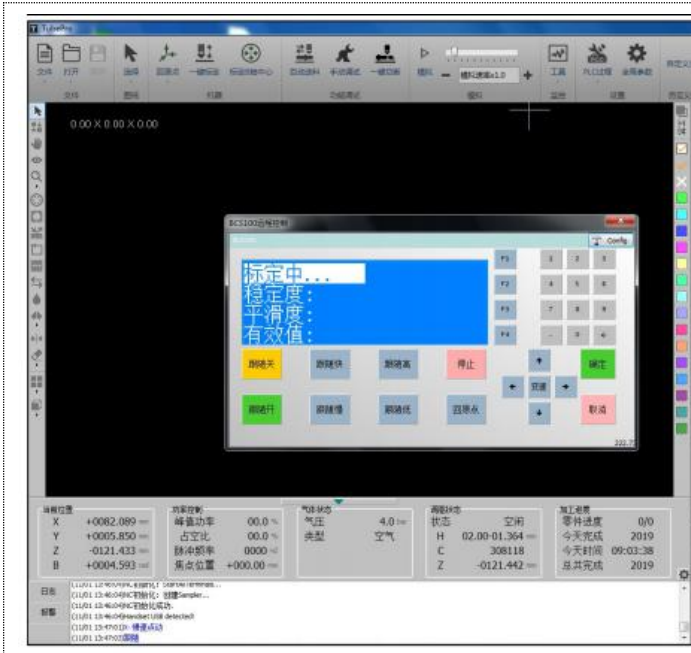
Automatic Focusing Fiber Laser Cutting Head

1. This kind laser head has a strong advantage on medium power large format fiber laser cutting application.
2. Completely sealed internal structure of laser head can avoid optical part polluted by dust.
3. Two point centering adjustment of laser head; the focus adjusting take imported motor driving and has great improvement in perforation.
4. Protective lens take more convenient replacement drawer installation way.
5. Can be equipped with various kind of QBH connectors laser machine.



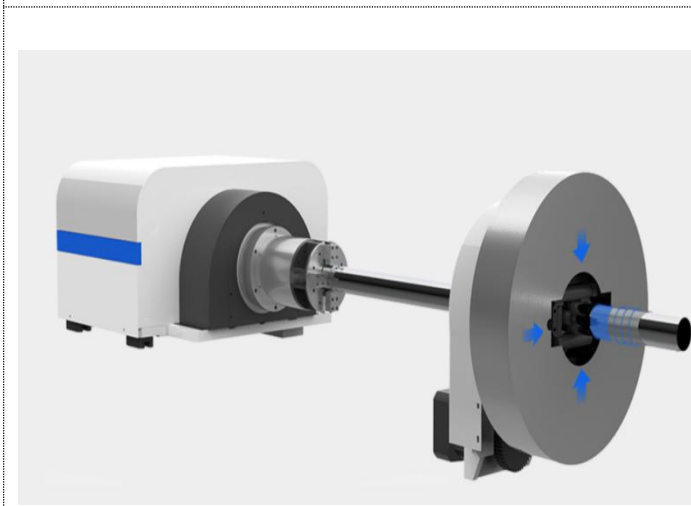
Raycus Laser Device

It has the advantages of high electro-optical conversion efficiency (>40%), good beam quality, high energy density, wide modulation frequency, strong reliability, long life, and maintenance-free operation. It can be widely used in welding, precision cutting, cladding, and surface treatment, 3D printing and other fields.



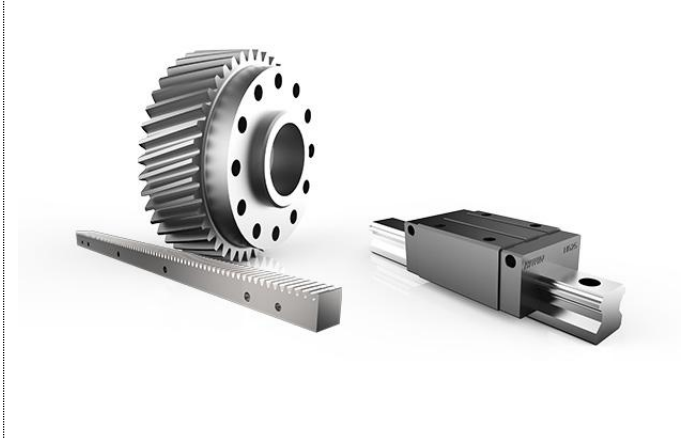
Professional Tube cutting Control System

Tube pro pipe cutting control software is used in SF6016T ultra-high speed laser pipe cutting machine. It has the functions of automatic feeding, manual debugging, one key cutting, one key aligning pipe head, automatic centering, corner technology, weld detection, curve monitoring, fast frog leaping, and pipe core deviation compensation.



Double Chuck Clamping

Clamping round tube $\phi 10 \sim \phi 160 \text{mm}$. Servo motor and reducer are driven synchronously to ensure processing accuracy. Both front and rear chucks are pneumatically tightened.



Transmission System

High precision, long life, can provide rigorous support for quenching helical gears and grinding helical gears, so that the load drive structure is compact, can effectively reduce the driving torque.

VII. Cost

Mode		1.5kw			2KW			3KW		
		Air compress	O2	N2	Air compress	O2	N2	Air compress	O2	N2
Electricity consumption	laser device	6KW			7KW			10.5KW		
	Chiller power	3.3KW			3.6KW			7.37KW		
	Air compressor power	11KW	/	/	11KW	/	/	11KW	/	/
	Main body	17KW								
	USD/H	0.08								
Consumable parts & Gas Consumption	RMB/H	0.5	4.5	60.5	0.5	4.5	60.5	0.5	4.5	60.5
	USD/H(1USD ≈ 6.4116RMB)	0.078	0.702	9.438	0.078	0.702	9.438	0.078	0.702	9.438
Total Power (KW)		37.3	26.3	26.3	38.6	27.6	27.6	48.9	37.9	37.9
Total Power Consumption(KW/H)		22.4	15.8	15.8	23.2	16.6	16.6	29.3	22.7	22.7
Total Operation Cost 1RMB/KW/H		22.9	20.3	76.3	23.7	21.1	77.1	29.8	27.2	83.2
Total Operation Cost 1USD/KW/H		3.57	3.16	11.9	3.69	3.29	12.02	4.65	4.24	12.97

VIII.Product Certification

Senfeng leiming fiber laser machines have passed CE from TÜV,ROHS,FDA,ETL certificates, which is in line with European and American standards.



IX.5 Star Service

◆ High efficiency

1.24 hours a day (mainly for international), 7 days a week, 365 days a year at any time to receive repair calls;

2.Within 10 minutes, technical engineers will consult, fix maintenance plan in one hour, and send engineers in one working day.

◆ After-sale service

1.The seller provides one time free installation and training in buyer's factory. Seller pays for the airplane tickets and salary for engineers, buyer should provide accommodation and food to engineers.

2.The seller will provide technical guide's e-mail, telephone, WeChat, WhatsApp and so on.

3.The seller should pay for the travel expense if local service needed within warranty time.

◆ Warranty

1.The warranty of laser source is 2 years.

2.The warranty of the machine is 2 years (main spare parts) ,except for the consumable parts such as ceramic ring, focus lens, nozzle etc. Warranty counts from the date marked

on the label of the laser source and machine.

3.Except the damage artificially, seller is responsible for offering the fittings free of charge during the warranty period.

4.Exceeding the warranty period, parts need to be repaired or changed, shall be paid.

◆ Worry-free

1.Pre-sale service: theoretical + practical operation training, self-diagnosis training for common faults, guidance for quick repair of difficult faults, and warning of matters needing attention in use;

2.Regular service: regular maintenance reminder, regular door-to-door service, regular promotional activities;

3.Value-added services: equipment software and hardware upgrading services, financial leasing services, delayed warranty service.

◆ Field Service

Our branches in United States,Germany, India,Pakistan,Serbia provide localized services and technical support for global customers.

X.Customer Testimonials



XI. Company Strength

◆ Company Profile

SENFENG LEIMING LASER is a leading manufacturer engaged in the research, development, production, sale and service of fiber laser cutters, fiber laser cleaning machine, laser marking machine, laser welding machine, 3D robot, press brake bending machine, metal sander, etc. Products sold in more than 180 countries and regions.



120,000+

Factory area

60,000+

Customers

1,000+

Employees

300+

R&D personnel



◆ Product Line

Metal Sheet Cutting Machine



SF3015H
Full Cover Fiber Laser Cutter



SF3015G
Open Type Fiber Laser Cutter



SF1530G
Security Protective Fiber Laser Cutter



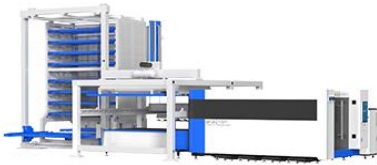
SF15015S
Fiber Laser Blanking System



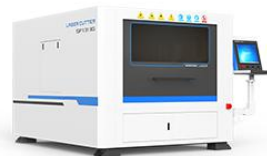
SF12030TX
Ultra Large Bevel Fiber Laser Cutter



SF20040R
Ultra Large Metal Laser Cutter

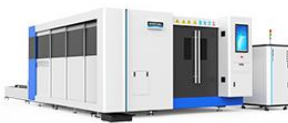


SF15MH
Automatic Laser Cutting Production Line



SF1313G
Full Protection Fiber Small Laser Cutter

Plate And Tube Cutting Machine



SF3015HM
Steel Sheet and Tube Laser Cutter



SF3015M3
Open Type Metal Sheet and Pipe Laser Cutter

Tube Laser Cutting Machine



SF6020GT
Bevel Tube Laser Cutting Machine



SF6020T
Professional Pipe Laser Cutter



SF6016T
Ultra High Speed Laser Tube Cutter

Fiber Laser Cleaning Machine



Handheld
Fiber Laser Cleaning Machine



3D Robot
Laser Cleaning Machine

Fiber Laser Welding Machine



Handheld
Fiber Laser Welding Machine



3D Robot
Fiber Laser Welding Machine

Laser Cladding Equipment



SFHS3050
Metal additive machine



Robot
Laser Cladding Workstation



SF-RF1500
Laser Cladding Machine

Metal sheet bending machine

DES-180
Servo Electric Press Brake

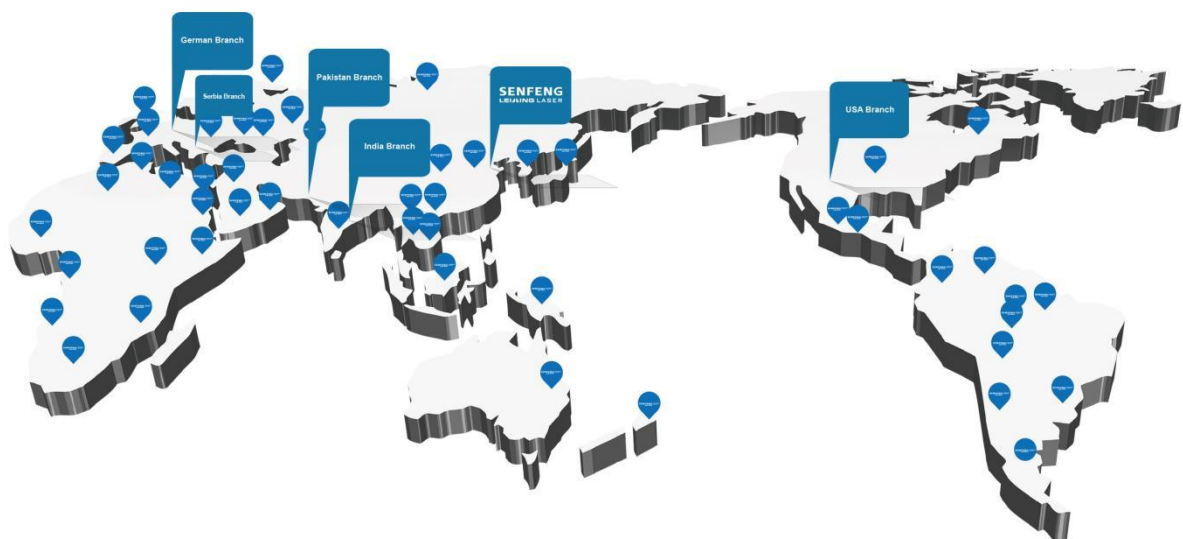


◆ Global Layout

SENFENG LEIMING LASER has established many branches in United States, Germany, India, Pakistan, Serbia with perfect quality and service, to provide localized services and technical support for global customers.



Products sold in more than 180 countries and regions.



◆ Core Technology-Independent Developed Laser

Head&Device

➤ Auto Focus

Operator can set consequent focus adjustment by procedure, finishing quick piercing to thick plates and cutting different thickness plates automatically.

➤ water cooling

Focusing parts of laser cutting head with water cooling, reducing high temperature and flog by long time cutting.

➤ storm cut

Storm cut technology with ultra high power laser source, with SENFENG cutting technology, realizing high speed cutting.

➤ Bright Cut Technology

Bright Cut Technology developed by SENFENG LASER can efficiently solve: too much burr, cutting surface not smoothly, difficult to cut high-reflect material etc.



More details about SENFENG LEIMING R&D, feel free to visit website: www.sfcnclaser.com

Senfeng laser generators which are independently developed have been widely used in laser cutting, welding, cleaning, cladding additive and other fields



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