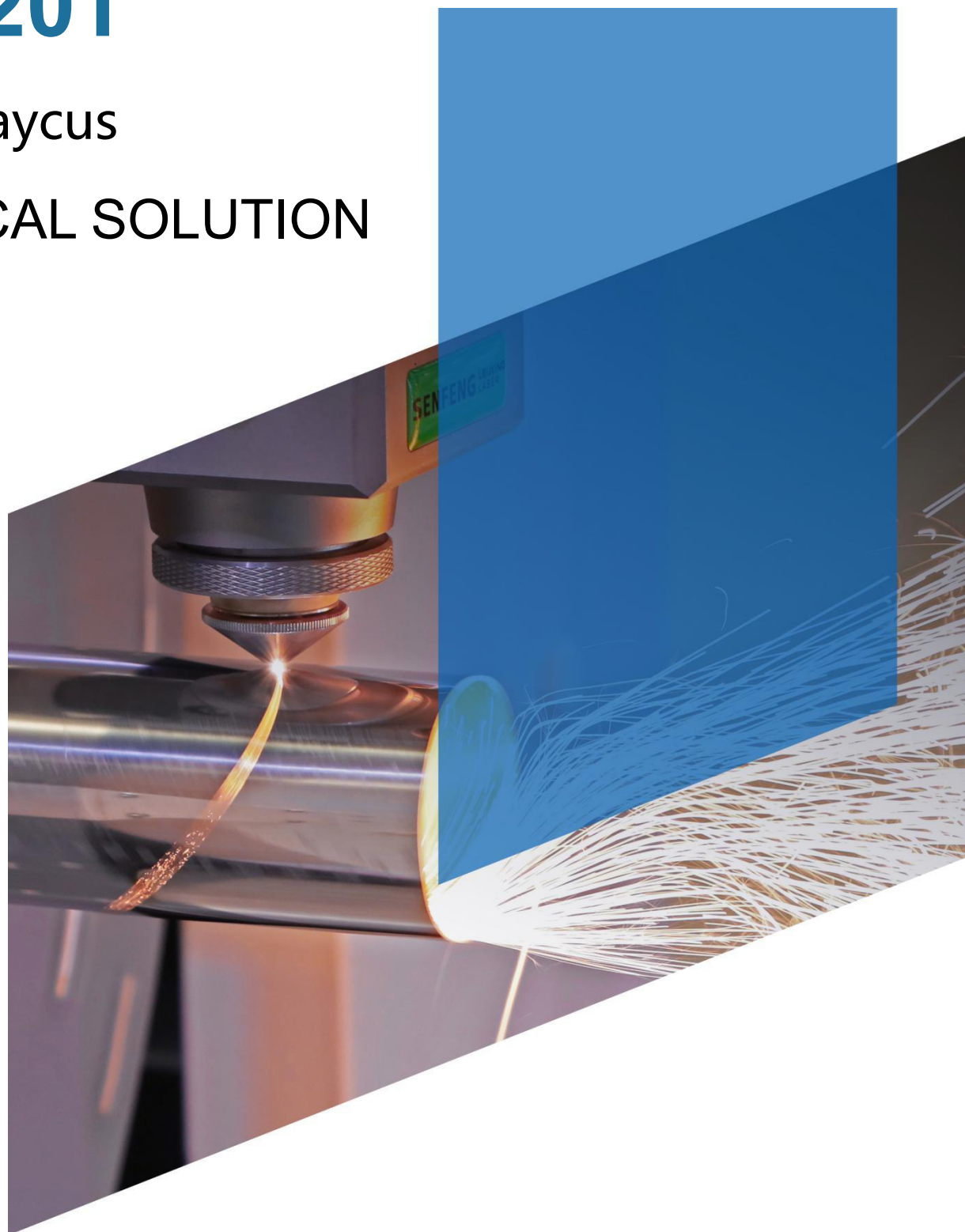


SF6020T

3000W Raycus

TECHNICAL SOLUTION



I.Introduction

SF6020T 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 6000mm* ϕ 10~220mm (square tube: 10*10-150*150mm).



II. Technical Parameter

Item	Parameter
	3000W
Pipe Length	1000~6000mm
Pipe Diameter	Φ10~Φ220mm
Z-axis Travel	170mm
X/Y axis Positioning Accuracy	±0.05mm
X/Y axis Repeated Positioning	±0.02mm
Maximum Speed	100m/min
Chuck Maximum speed	100r/min
Maximum Acceleration	0.8G
Machine Total Weight(KG)	4310KG
Table Maximum Load(KG)	150KG
Outline size (mm)	9700*1900*2300mm
Power parameters	Three-phase AC 380V 50Hz
Protection Level of Total Power Supply	IP54

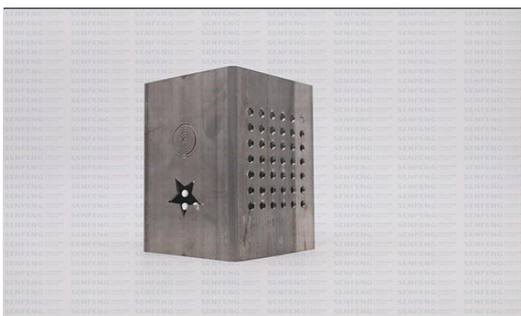
III.Configuration

NAME	NO.	BRAND
FIBER LASER DEVICE		
3000W Fiber Laser	1 set	Raycus
LASER HEAD		
Laser Head	1 set	WSX
Main Machine		
Transmission	4 set	LAPPING/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	DELTA
Water Cooling	1 set	HANLI
CNC CONTROL SYSTEM		
FSCUT System	1 set	FSCUT 3000S

IV. Cutting Capability and Application

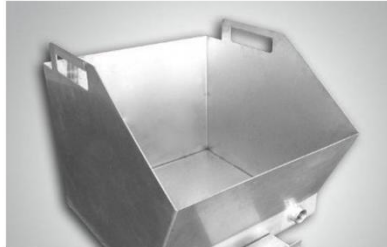
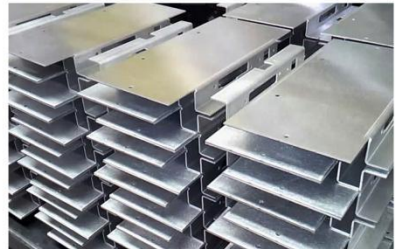
◆ Cutting Materials

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



◆ Application Industry

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



◆ Cutting Thickness

Cutting wall thickness: 1.0-10mm carbon steel pipe

1.0-6mm stainless steel pipe

1.0-5mm aluminum alloy pipe

Cutting diameter: round tube 10~220mm

square tube side length: 10~150mm

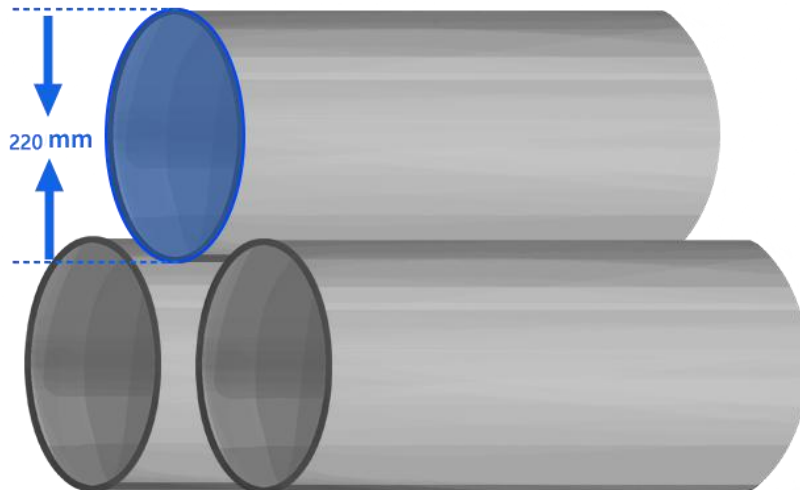
◆ Cutting Parameters

Material	Thickness (MM)	4KW
		Cutting Speed (m/min) (gas)
Stainless Steel	1	20-25(N2)
	2	10-12(N2)
	3	5-6(N2)
	4	4-5(N2)
	5	3-4(N2)
	6	2-3(N2)
Carbon Steel	1	25-30(N2)
	2	13-17(N2)
	3	4.5-5(O2)
	4	3.5-4(O2)
	5	3.0-3.2(O2)
	6	2-2.5(O2)
	8	1.8-2.2(O2)
	10	1.2-1.5(O2)
	12	0.9-1.2(O2)
Aluminum	1	20-25(N2)
	2	12-14(N2)
	3	5-7(N2)
	4	4-5(N2)
	5	2-3(N2)
	6	1-2(N2)

V.Main Features

◆ Wide Processing Range, Large Loading Ability

- Round Tube Diameter: Φ 10mm-220mm
- Square Tube Length: 10*10mm-150*150mm
- Processing round pipes, square pipes, rectangular pipes.
- Single tube load bearing up to 150kg.



◆ Powerful Dynamic Performance

Maximum speed can reach 100m/min, the chuck speed can reach 100r/min, which has achieved fast dynamic performance. This new tube laser cutting machine, with ultra-high performance and ultra-high precision, can meet your strict requirements for products in the field of tube cutting.

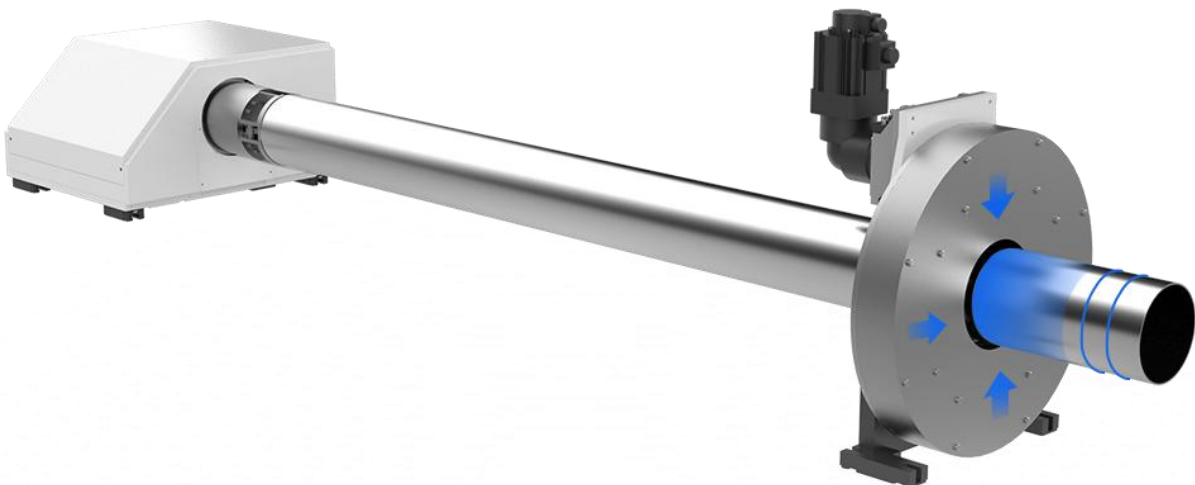
◆ Automatic Loading and Unloading System(Optional)

- The whole bundle of pipes, intelligent distribution, loading and unloading;
- Loading capacity is 3000KG;
- Processed products and waste materials are automatically sorted, reducing labor costs.



◆ Pneumatic Self-Centering Chuck

- High clamping accuracy and fast speed.
- Self-centering gear transmission, high efficiency.
- Intelligent pneumatic jaws, large clamping force, stable feeding, more precise cutting.



VI. More Details



SF6020T fiber laser cutting machine adopts professional fiber special cutting head

1. The internal structure of the laser head is completely enclosed, which can prevent the optical part from being polluted by dust

2. The laser head adopts two-point centering adjustment, and the focusing adopts servo drive.

In terms of perforation

Significantly improved efficiency

3. Compatible with all QBH connector lasers with 6000 watts and below



SF6020T fiber laser cutting machine adopts Raycus 3000 fiber laser has the following characteristics:

1) The minimum fiber core can reach 50nm

2) 100nm mode 3 times optional output

3) A new generation of intelligent control system

4) Multi-level security and high anti-protection

5) The electro-optical efficiency is as high as 35%



Professional Tube cutting Control System

TubePro pipe cutting control software is equipped with FSCUT3000S pipe cutting system, which supports high-precision and high-efficiency cutting of square pipes, round pipes, racetrack-shaped and oval-shaped stretched pipes, as well as angle steel and channel steel.

VII. Cost

Mode		3000W		
		Air compress	O2	N2
Electricity Consumption	Laser Device	12.6KW		
	Chiller power	6KW		
	Air Compressor Power	15KW	/	/
	Main Body	17KW		
	Dust Exhausting Equipment	3KW		
Gas Consumption	RMB/H	0.5	4.5	60.5
	USD/H(1USD ≈ 6.4479RMB)	0.077	0.698	9.383
Total Power (KW)		53.6	38.6	38.6
Total Power Consumption(KW/H)		32.2KW/H	23.2KW/H	23.2KW/H
Total Operation Cost(RMB) 1RMB/KW/H		32.7	27.7	83.7
Total Operation Cost(USD)		5.1	4.3	13.1

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.