



SENFENG

Cutting | Cladding | Cleaning | Welding | Bending | Automation

SF3015H

Fiber laser cutter technical solutions

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I. Product introduction

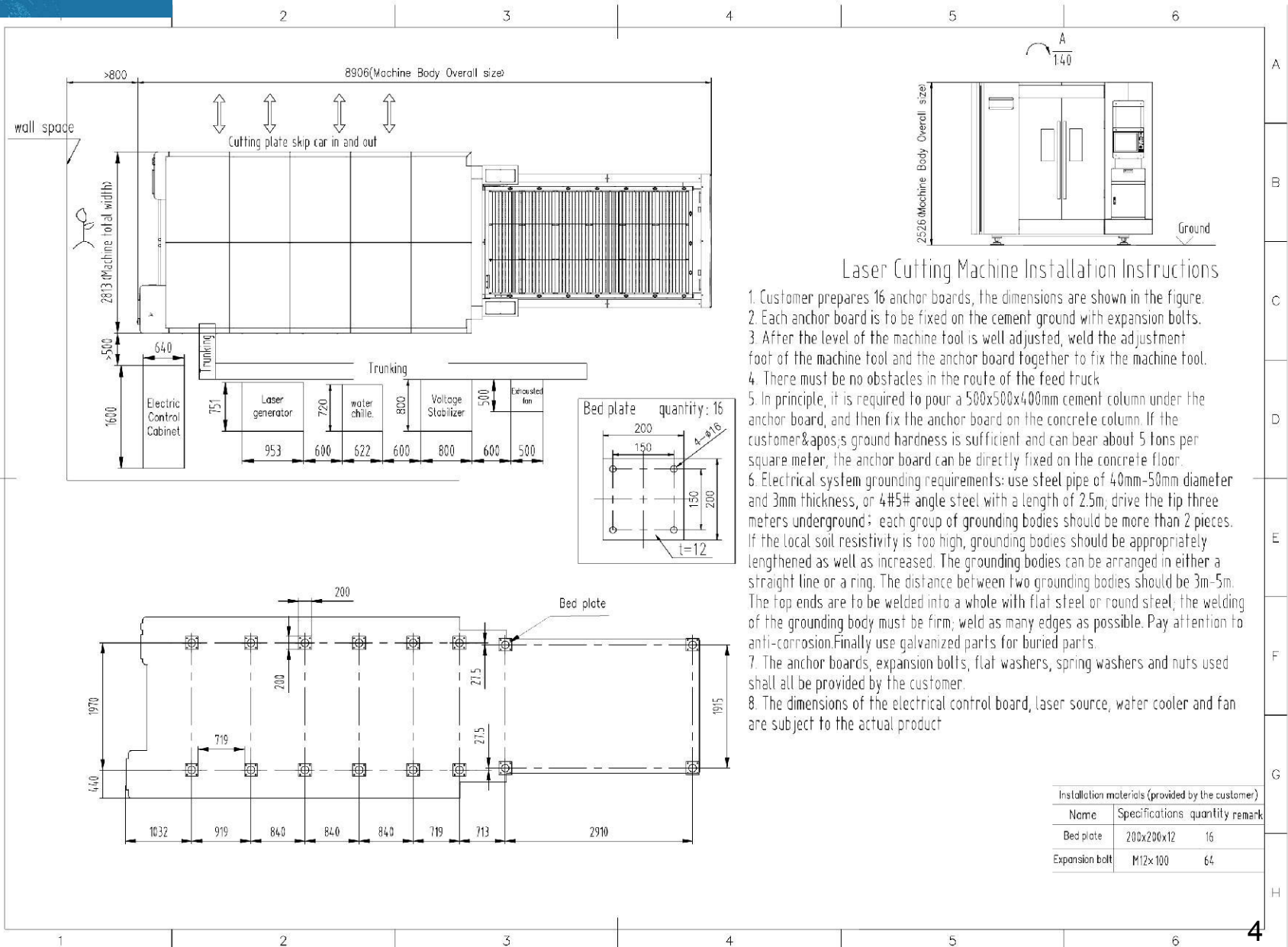
SF3015H
Fiber laser cutter



- The SF3015H fiber laser cutter is mainly designed for high power :8kw to 20kw, it is with full-protection cover, which can prevent the laser radiation and protect the worker safety, reduce the environment pollution;
- It is also with auto-exchangeable platforms, which can save the materials loading time, improve the processing efficiency.
- The machine bed is with metal-plates welding structure, and aviation-grade aluminum beam structure, stronger, stable and fast moving.
- The dust removal area adopts partition automatic extraction smoke system to ensure that the cutting position has a good dust removal effect; You can choose to equip a dust filter for smoke collection to ensure no pollution during the operation.

II. Technical Parameter

Item	Parameter					
	8KW	10KW	12KW	15KW	20KW	30KW
Work Area	3050*1530mm/10*5ft					
X-axis Travel	1530mm/5ft					
Y-axis Travel	3050mm/10ft					
Z-axis Travel	390mm/1.27ft					
Positioning Accuracy	±0.05mm					
Repeated Positioning	±0.02mm					
Maximum Speed	200m/min					
Maximum Acceleration	2.8G					
Machine Total Weight(KG)	7257	7357	7457	7802	7977	8267
Table Maximum Load(KG)	1400					
Outline size (mm)	8854*2813*2513					
PowerParameters	Three-Phase AC380V 50Hz/60Hz					
Protection Level of Total Power Supply	IP54					



Laser Cutting Machine Installation Instructions

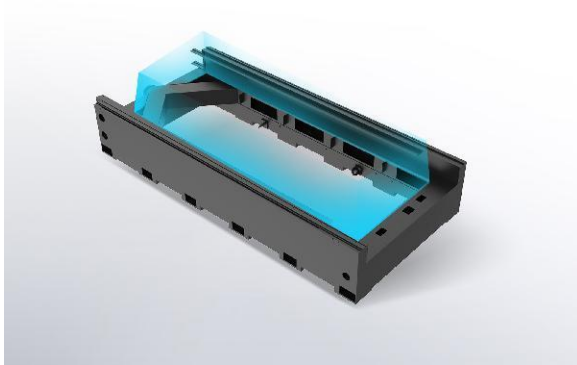
- Customer prepares 16 anchor boards, the dimensions are shown in the figure.
- Each anchor board is to be fixed on the cement ground with expansion bolts.
- After the level of the machine tool is well adjusted, weld the adjustment foot of the machine tool and the anchor board together to fix the machine tool.
- There must be no obstacles in the route of the feed truck
- In principle, it is required to pour a 500x500x400mm cement column under the anchor board, and then fix the anchor board on the concrete column. If the customer's ground hardness is sufficient and can bear about 5 tons per square meter, the anchor board can be directly fixed on the concrete floor.
- Electrical system grounding requirements: use steel pipe of 40mm-50mm diameter and 3mm thickness, or 4#5# angle steel with a length of 2.5m, drive the tip three meters underground; each group of grounding bodies should be more than 2 pieces. If the local soil resistivity is too high, grounding bodies should be appropriately lengthened as well as increased. The grounding bodies can be arranged in either a straight line or a ring. The distance between two grounding bodies should be 3m-5m. The top ends are to be welded into a whole with flat steel or round steel, the welding of the grounding body must be firm; weld as many edges as possible. Pay attention to anti-corrosion. Finally use galvanized parts for buried parts.
- The anchor boards, expansion bolts, flat washers, spring washers and nuts used shall all be provided by the customer.
- The dimensions of the electrical control board, laser source, water cooler and fan are subject to the actual product

III. Configuration

NAME	NO.	BRAND
Fiber Laser	1 set	Max / IPG
Laser Head	1 set	BOCI
Transmission	4 set	LAPPING/SENFENG
Machine Bed Accessories	1 set	SENFENG
Motor Reducer	3 set	MOTOREDUCER
Electrical and Pneumatic	1 set	SCHNEIDER/SMC/AIRTAC
Server Motor and Driver	5 set	YASKAWA-S
Water Cooling	1 set	HANLI
Control System	1 set	FSCUT8000

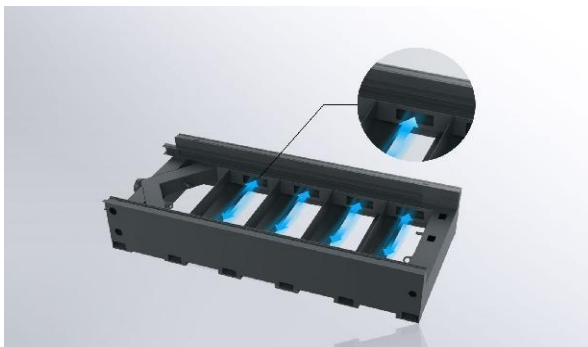
IV. Main Features

Heavy-duty thermally isolated hollow bed



- The heavy-duty thermally isolated hollow 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.

Intelligent surrounding spiral negative pressure dust removal



- Intelligent surrounding spiral negative pressure partition dust removal system, according to the current cutting position, intelligently switch the air outlet, time-sharing, partition, and sectional air exhaust, and cooperate with the back-shaped sealing structure design at the bottom of the base to realize smokeless cutting.

Graphite, copper protection($\geq 8000w$)



- The thermal conductivity of graphite is poor, which effectively prevents the machine bed from being deformed by heat and guarantees the service life.

Strong Aviation Aluminum Beam



- The use of aviation-grade high-strength aluminum alloy beams, light weight, low inertia;
- Built-in triangular reinforced structure, strong rigidity, good shock absorption;
- Rough machining after annealing to eliminate internal stress, and fine machining after secondary vibration aging treatment to ensure improve the overall strength and stability of the beam.

BOCI professional optical fiber laser cutting head



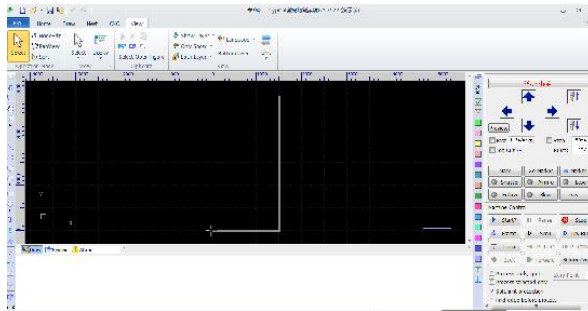
- In continuous cutting operations, the perforation quality can be guaranteed and the operation safety can be improved
- Compared with traditional perforation, it greatly saves perforation time and improves production efficiency
- Extend the service life of consumables and reduce production costs
- Detect cutting interruption and reduce material loss

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.

FSCUT 8000($\geq 8000W$) high power laser cutting system



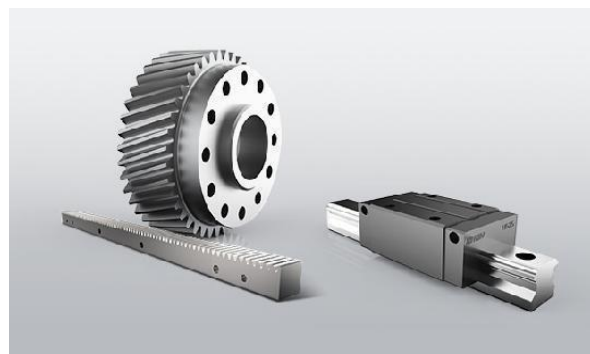
- Convenient installation, easy debugging, excellent performance, complete solutions, stable and reliable, easy deployment, easy debugging, safe production, rich functions, excellent performance, etc.;
- support and provide modular, personalized, automated, and information solutions that can be realized Memory cache, powerful cutting process database, all kinds of cutting parameters of different thicknesses and different plates, fast operation and efficient cutting.

Metal Wheel Exchange Table



More durable and stable, ensuring the fast exchanging time

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.

Circuit board



Water Cooling System



- Large cooling capacity, stable performance, trouble-free, clean water quality, good heat exchange effect with fiber laser, and linkage signal to protect the laser.

Height Controller



Automatic Lubrication System



- Lubricating the guide rails of X axis, Y axis, Z axis automatically, which could reduce maintenance cost and save time significantly.
- Oiling time can be adjusted according to processing amount, which is more humanized.

V. 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



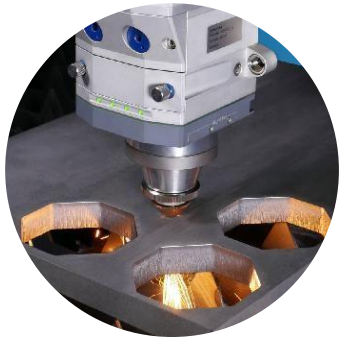
Car Manufacturing



Ship/Aerospace



Mechanical processing



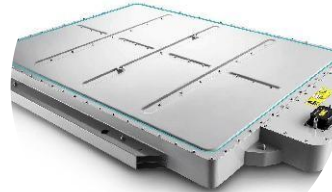
Sheet Metal Fabrication

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Metallurgy

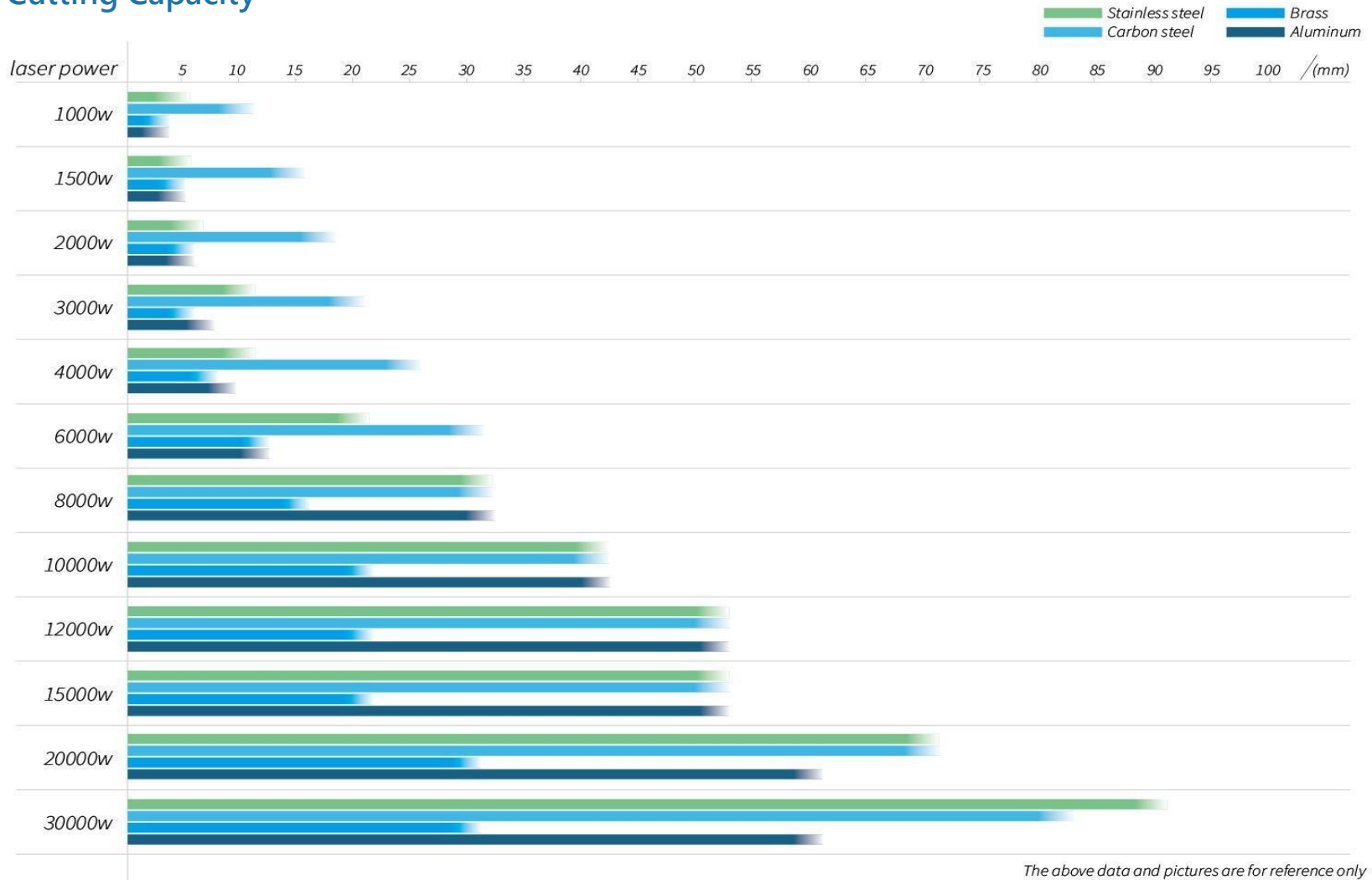


Power Battery



Petroleum machinery

Cutting Capacity



The above data and pictures are for reference only

Cutting Thickness

Material	Thickness (MM)	1KW	1.5kw	2KW	3KW	4KW	6KW	8KW	10KW	12KW	15KW	20KW	30KW
		Cutting Speed (m/min) (gas)											
Stainless Steel	1	18-20(N ₂)	23-30(N ₂)	30-35(N ₂)	30-45(N ₂)	45-55(N ₂)	50-55(N ₂)	50-65(N ₂)	60-80(N ₂ air)				
	2	6.0-8.0(N ₂)	7.0-13(N ₂)	10-15(N ₂)	20-25(N ₂)	25-30(N ₂)	30-35(N ₂)						
	3	2.8-3.5(N ₂)	4.5-5.5(N ₂)	5.0-6.5(N ₂)	8.0-10(N ₂)	8.5-12(N ₂)	18-22(N ₂)	21-25(N ₂)	28-33(N ₂ air)				
	4	1.5-2.0(N ₂)	2.0-2.5(N ₂)	4.0-5.0(N ₂)	6.0-9.0(N ₂)	6.0-9.3(N ₂)	10-14(N ₂)						
	5	0.8-1.0(N ₂)	1.4-1.8(N ₂)	2.0-2.3(N ₂)			8.0-10(N ₂)	10-14(N ₂)	17-20(N ₂ air)		17-22(N ₂ air)		
	6		1.0-1.2(N ₂)	1.5-2.0(N ₂)	3.0-3.5(N ₂)	4.0-5.0(N ₂)	6.0-7.0(N ₂)			17-20(N ₂ air)		23-25(N ₂)	24-26(N ₂)
	8			0.8-1.2(N ₂)	1.0-1.5(N ₂)	2.0-3.0(N ₂)	4.0-5.0(N ₂)	5-6(N ₂)	5.5-7(N ₂ air)	8.0-11(N ₂ air)	11-15(N ₂ air)		
	10				0.6-1.0(N ₂)	1.2-1.6(N ₂)	1.8-2.5(N ₂)	3.5-4(N ₂)	4.0-5(N ₂ air)	7.0-9.0(N ₂ air)	8-11(N ₂ air)	15-17(N ₂)	15-18(N ₂)
	12				0.4-0.6(N ₂)	0.8-1.2(N ₂)	1.0-1.5(N ₂)	2-2.5(N ₂)		5-5.5(N ₂ air)			
	14						0.8-1.2(N ₂)	1.5-2(N ₂)	2.0-2.7(N ₂ air)	3.0-3.5(N ₂ air)		10-12(N ₂)	10-13(N ₂)
	16						0.6-1.0(N ₂)	1.0-1.4(N ₂)	1.5-1.9(N ₂ air)	2-2.3(N ₂ air)	2.8-3.8(N ₂ air)		
	18									1.4-2.0(N ₂ air)			
	20						0.4-0.5(air)	0.9-1.1(N ₂)	1.0-1.2(N ₂ air)	1.4-1.8(N ₂ air)	1.8-2.5(N ₂ air)	3-3.2(N ₂)	4-5(N ₂)
	25							0.3-0.6(N ₂)	0.4-0.7(N ₂ air)	0.7-1.2(N ₂ air)		2.5-2.8(N ₂)	3-3.5(N ₂)
	30							0.2-0.4(N ₂)	0.3-0.5(N ₂ air)	0.6-0.8(N ₂ air)	0.7-1.0(N ₂ air)	1.5-1.8(N ₂)	1.5-2(N ₂)
	35											1-1.3(N ₂)	1-1.5(N ₂)
	40								0.2-0.3(N ₂ air)	0.25-0.5(N ₂ air)	0.3-0.6(N ₂ air)	0.5-0.8(N ₂)	0.6-0.8(N ₂)
	45											0.3-0.5(N ₂)	0.3-0.5(N ₂)
50									0.1-0.3(N ₂ air)	0.15-0.35(N ₂ air)	0.2-0.3(N ₂)	0.2-0.3(N ₂)	
60											0.15-0.2(N ₂)	0.15-0.2(N ₂)	
70											0.1-0.13(N ₂)	0.1-0.13(N ₂)	
80												0.08-1.1(N ₂)	
90												0.05-0.06(N ₂)	

Note: As gas purity, on-site voltage and current, plate type and operator expertise are different, the cutting parameters above are only for your reference.

Cutting Thickness

Material	Thickness (MM)	1KW	1.5kw	2KW	3KW	4KW	6KW	8KW	10KW	12KW	15KW	20KW	30KW
		Cutting Speed (m/min) (gas)											
Carbon Steel	1	15-18 (N ₂)	25-28 (O ₂)	25-35(O ₂)	30-40(N ₂ /Air)	35-40(N ₂ /Air)	40-45(N ₂ /Air)	40-65(N ₂)	60-70(N ₂ air)	15-25(N ₂ air)			
	2	5.0-7.0 (O ₂)	6.2-8.5 (O ₂)	10-15(O ₂)	15-17(N ₂ /Air)	15-20(N ₂ /Air)	20-25(N ₂ /Air)						
	3	3.0-4.0 (O ₂)	3.5-5.0 (O ₂)	3.5-5.5(O ₂)	4.5-5.0 (O ₂)	7.0-9.0(N ₂ /Air)	10-15(N ₂ /Air)	21-25(N ₂ air)	30-35(N ₂ air)				
	4	2.0-3.5 (O ₂)	3.5-4.0 (O ₂)	3.8-4.5(O ₂)	2.8-3.5 (O ₂)	3.5-4.5(O ₂)	8-10(N ₂ /Air)						
	5	1.8-2.5 (O ₂)						13-15(N ₂ air)	15-17(N ₂ air)		18-25(air)	23-28(N ₂ air)	24-30(N ₂ air)
	6	1.5-2.2 (O ₂)	1.7-2.5(O ₂)	2.0-2.7(O ₂)	2.8-3.5(O ₂)	2.8-4.0(O ₂)	3-4.5(O ₂)					21-25(N ₂ air)	20-27(N ₂ air)
	8	1.0-1.5 (O ₂)	1.2-1.6(O ₂)	1.3-1.7(O ₂)	2.3-2.5(O ₂)	2.3-3.0(O ₂)	2.3-3.5(O ₂)	5-7(N ₂ air)	6-8.5(N ₂ air)	9-12(N ₂ air)	10-13(air)	14-16(N ₂ air)	14-18(N ₂ air)
	10	0.8-1.0 (O ₂)	1.0-1.2(O ₂)	1.0-1.6(O ₂)	1.8-2.1(O ₂)	2.0-2.3(O ₂)	2.0-2.5(O ₂)	2-2.8(N ₂)	3-5(N ₂ air)	2.3-3.0/8.0-9.0(O ₂ air)	8-10(air)	10-12(N ₂ air)	12-14(N ₂ air)
	12	0.6-0.8 (O ₂)	0.8-1.0(O ₂)	0.8-1.2(O ₂)	1.4-1.6(O ₂)	1.5-1.7(O ₂)	1.8-2.2(O ₂)		2.0-2.5(O ₂)				8-10(N ₂ air)
	14		0.6-0.7(O ₂)	0.8-1.0(O ₂)	1.0-1.3(O ₂)	1.0-1.4(O ₂)	1.4-1.7(O ₂)	1.4-1.8(O ₂)	1.7-2.0(O ₂)			6-8(N ₂ air)	8-8.5(N ₂ air)
	16		0.5-0.6(O ₂)	0.7-1.0(O ₂)	0.7-1.2(O ₂)	0.8-1.4(O ₂)	1.0-1.6(O ₂)	1.5-2.0(O ₂)	1.5-2.3(O ₂)	1.5-3.0(O ₂)	3-3.5(air)	5-6(N ₂ air)	5.5-6.5(N ₂ air)
	18			0.5-0.6(O ₂)								3.2-4(N ₂ air)	4.5-5.5(N ₂ air)
	20				0.5-0.7(O ₂)	0.6-0.8(O ₂)	0.6-1.2(O ₂)	0.9-1.5(O ₂)	1.0-1.8(O ₂)	1.2-1.5(O ₂)	1.2-1.5(O ₂)	2.7-3.2(N ₂ air)	
	22								0.5-0.9(O ₂)				
	25					0.4-0.6(O ₂)	0.5-0.7(O ₂)	0.5-0.8(O ₂)	0.5-0.8(O ₂)	0.8-1.1(O ₂)	0.8-1.1(O ₂)	1.3-1.5(O ₂)	2.8-3.2(N ₂ air)
	30						0.4-0.6(O ₂)	0.4-0.8(O ₂)	0.1-0.3(O ₂)	0.5-1.0(O ₂)	0.5-1.0(O ₂)	1.2-1.3(O ₂)	1.3-1.4(O ₂)
	35											0.9-1.2(O ₂)	0.9-1.2(O ₂)
	40									0.3-0.5(O ₂)	0.3-0.5(O ₂)	0.6-0.9(O ₂)	0.9-1.3(O ₂)
50									0.18(O ₂)	0.2-0.3(O ₂)	0.3-0.5(O ₂)	0.6-0.8(O ₂)	
60											0.17-0.22(O ₂)	0.2-0.25(O ₂)	
70											0.15-0.18(O ₂)	0.18-0.2(O ₂)	
80												0.12-0.15(O ₂)	

Note: As gas purity, on-site voltage and current, plate type and operator expertise are different, the cutting parameters above are only for your reference.

Cutting Thickness

Material	Thickness (MM)	1KW	1.5kw	2KW	3KW	4KW	6KW	8KW	10KW	12KW	15KW	20KW	30KW	
		Cutting Speed (m/min) (gas)												
Brass	1	10.0-12.0 (N ₂)	12.0-13.0 (N ₂)	15-25 (N ₂)	25-35 (N ₂)	30-35 (N ₂)	40-45 (N ₂)	40-55 (N ₂)	40-55 (N ₂)					
	2	4.5-5.0 (N ₂)	5.0-6.0 (N ₂)	8.0-11 (N ₂)	12-18 (N ₂)	15-18 (N ₂)	20-25 (N ₂)							
	3	1.0-1.2 (N ₂)	1.5-2.0 (N ₂)	3.0-4.5 (N ₂)	6.0-8.0 (N ₂)	8.0-12 (N ₂)	12-15 (N ₂)	15-20 (N ₂)	20-30 (N ₂)					
	4			1.3-1.7 (N ₂)	3.0-4.0 (N ₂)	3.0-4.0 (N ₂)								
	5		0.5-0.7 (N ₂)		1.8-2.0 (N ₂)	2.0-2.5 (N ₂)	5.0-6.0 (N ₂)	5-9 (N ₂)	9-13 (N ₂)	13-16 (N ₂)	13-17 (N ₂)	25-28(N ₂)	25-28(N ₂)	
	6			0.6-0.8 (N ₂)	0.8-1.0 (N ₂)	1.0-1.6 (N ₂)	3.5-4.5 (N ₂)							
	8						1.5-2.0 (N ₂)	2-3.5 (N ₂)	5-6.5 (N ₂)	6.0-8.0 (N ₂)	6-9 (N ₂)	17-20(N ₂)	17-20(N ₂)	
	10						1.0-1.5 (N ₂)	1.5-2.2 (N ₂)	2.5-3.5 (N ₂)	4.5-5.5 (N ₂)	4.5-6 (N ₂)	10-13(N ₂)	10-13(N ₂)	
	12						0.8-1 (N ₂)	1-1.4 (N ₂)				6-8(N ₂)	6-8(N ₂)	
	14							0.8-1 (N ₂)	1.0-1.4 (N ₂)		1.7-2.5 (N ₂)	4-5(N ₂)	4-5(N ₂)	
	16								0.5-0.7 (N ₂)	0.7-0.9 (N ₂)	1.7-2.3 (N ₂)	2.5-3.5(N ₂)	2.5-3.5(N ₂)	
	18													
	20									0.2-0.4 (N ₂)	1.5-2.5 (N ₂)	1.5-2.8 (N ₂)	1.8-2.3(N ₂)	1.8-2.3(N ₂)
	22													
	25												1.2-1.5(N ₂)	1.2-1.5(N ₂)

Note: As gas purity, on-site voltage and current, plate type and operator expertise are different, the cutting parameters above are only for your reference.

Cutting Thickness

Material	Thickness (MM)	1KW	1.5kw	2KW	3KW	4KW	6KW	8KW	10KW	12KW	15KW	20KW	30KW	
		Cutting Speed (m/min) (gas)												
Aluminum	1	13-17 (N ₂)	15-23 (N ₂)	20-25(N ₂)	30-35(N ₂)	35-40(N ₂)	50-55(N ₂ /Air)	50-65(N ₂)	50-65(N ₂ /Air)					
	2	4.8-5.2 (N ₂)	6.0-8.0 (N ₂)	10-15(N ₂)	14-20(N ₂)	20-25(N ₂)	25-30(N ₂ /Air)							
	3	1.2-1.6 (N ₂)	2.0-3.0 (N ₂)	4.0-5.0(N ₂)	8.0-10(N ₂)	8.0-13(N ₂)	12-15(N ₂ /Air)	20-30(N ₂)	25-30(N ₂ /Air)					
	4		1.0-1.7 (N ₂)	2.0-2.5(N ₂)	5.0-7.5(N ₂)	6.0-7.5(N ₂)	10-13(N ₂ /Air)							
	5		0.5-0.8 (N ₂)		3.0-3.5(N ₂)			10-15(N ₂)	13-16(N ₂ /Air)	15-17(N ₂ /Air)	17-20(N ₂ /Air)	21-24(N ₂)	21-24(N ₂)	
	6			0.6-1.0(N ₂)	1.2-1.5(N ₂)	3.5-4.0(N ₂)	4.0-5.0(N ₂ /Air)							
	8				0.7-1.0(N ₂)	2.0-2.5(N ₂)	2.0-3.0(N ₂ /Air)	4-6(N ₂)	5-7.5(N ₂ /Air)	6-10(N ₂ /Air)	11-15(N ₂ /Air)	18-20(N ₂)	18-20(N ₂)	
	10					1.0-1.2(N ₂)	1.0-1.7(N ₂ /Air)	2-3(N ₂)	4-6(N ₂ /Air)	5-7(N ₂ /Air)	7-9(N ₂ /Air)	14-16(N ₂)		
	12					0.4--0.6(N ₂)	0.7-1.2(N ₂ /Air)		2-3(N ₂ /Air)				14-16(N ₂)	
	16								1-1.4(N ₂)	1.0-1.8(N ₂ /Air)	1.5-1.8(N ₂ /Air)	1.8-2.0(N ₂ /Air)	5-8(N ₂)	5-8(N ₂)
	20								0.6-1(N ₂)	1.0-1.4(N ₂ /Air)	1.0-1.5(N ₂ /Air)	1.0-1.8(N ₂ /Air)	2.5-4.5(N ₂)	2.5-4.5(N ₂)
	25								0.3-0.6(N ₂)					
	30								0.3-0.5(N ₂)	0.3-0.6(N ₂ /Air)	0.4-0.7(N ₂ /Air)	0.6-0.8(N ₂ /Air)	1.8-2.3(N ₂)	1.8-2.3(N ₂)
	35												1.3-1.5(N ₂)	1.3-1.5(N ₂)
	40									0.2-0.3(N ₂ /Air)	0.3-0.5(N ₂ /Air)	0.3-0.5(N ₂ /Air)	0.8-1(N ₂)	0.8-1(N ₂)
50										0.1-0.3(N ₂ /Air)	0.2-0.3(N ₂ /Air)	0.4-0.6(N ₂)	0.4-0.6(N ₂)	
60												0.2-0.3(N ₂)		

Note: As gas purity, on-site voltage and current, plate type and operator expertise are different, the cutting parameters above are only for your reference.

VI.Cost

Mode		8KW			10KW			12KW			15KW			20KW			30KW		
		Air Com press	O2	N2	Air Com press	O2	N2	Air Compress	O2	N2	Air Com press	O2	N2	Air Compress	O2	N2	Air Com press	O2	N2
Electricity Consumption (Peak Power Consumption)	Laser Device	30KW			35KW			42KW			48KW			67KW			85KW		
	Chiller Power	19KW			14.5KW			18KW			28KW			32KW			35KW		
	Air Compressor Power	15KW	/	/	22KW	/	/	22KW	/	/	22KW	/	/	22KW	/	/	22KW	/	/
	Main Body	18KW																	
	Dust Removal Equipment	3KW																	
	Consumable Parts	RMB/H	0.5																
USD/H		0.0777(1USD ≈ 6.4388RMB)																	
Gas Consumption	RMB/H	0	4.5	60	0	4.5	60	0	4.5	60	0	4.5	60	0	4.5	60	0	4.5	60
	USD/H	0	0.69	9.32	0	0.69	9.32	0	0.69	9.32	0	0.69	9.32	0	0.69	9.32	0	0.69	9.32
Total Power(KW)		85	70	70	92.5	70.5	70.5	103	81	81	119	97	97	142	120	120	163	141	141
Total Power Consumption(KW/H)		51	42	42	55.5	42.3	42.3	61.8	48.6	48.6	71.4	58.2	58.2	85.2	72	72	97.8	84.6	84.6
Total Operation Cost1RMB/KWH	RMB	51.5	47.0	102.5	56.0	47.3	102.8	62.3	53.6	109.1	71.9	63.2	118.7	85.7	77.0	132.5	98.3	89.6	145.1
	USD	8.00	7.30	15.92	8.70	7.35	15.97	9.68	8.32	16.94	11.17	9.82	18.44	13.31	11.96	20.58	15.27	13.92	22.54

VII. Bed body processing process



01 Metal Cutting

The raw materials for machine bed welding are all cut by laser.



02 Machine Bed Welding

Machine bed welding adapts mixed gas (80% argon 20% carbon dioxide) which can better ensure the formation, firmness and smoothness of the welding, to improve the overall quality of the bed.



03 Natural Aging Treatment

The bed will be placed outdoors for 1 to 6 months after welding, under the overload caused by thermal stress, the residual stress is relaxed and the dimensional accuracy is stabilized.



04 Heat Treatment

It takes about 24 hours for the overall heat treatment of a bed, achieving the purpose of eliminating residual stress, stabilizing size, reducing deformation and cracks, making our bed more durable and longer in service life.





05 Shot Blasting

It can clear the excess rust layer, oxide skin and oil stains on the bed, which can greatly improve the cleaning efficiency and strengthen the surface quality of the bed.



06 Spray

We adopt automatic process, which is safe and stable, and efficient; the high temperature paint baking room can heat up quickly, dry quickly, and make the surface of the bed smooth and without impurities.



07 Machining

The final finishing of the bed and beam can completely eliminate the stress caused by welding and processing, ensuring the stability and high precision of the bed, which will run for a long time without deformation.



08 Accuracy Detection

We use CMM and other instruments to test the accuracy of the bed.

VIII. Product Certification

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



IX .5 Star Service



High efficiency

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

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



After-sale service

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.

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

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



Warranty

The warranty of laser source is 2 years.

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.

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

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



Worry-free

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;

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

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



Field Service

Our subsidiaries and service centers provide local service and technical support for global customers.

Service Oriented and Customer First



X.Customer Testimonials



XI.Trade show



SENFENG
LASER



XII. Company Strength



About us

Senfeng is a leading manufacturer engaged in the research, development, Production, sale and service of fiber laser cutters, fiber laser cleaning machine, laser cladding machine, laser welding machine, 3D robot, press brake bending machine, metal sander, etc.



XIII. Product Line

Fully Enclosed Metal Sheet Cutter

SF3015H

Fourth Generation Metal Fiber Laser Cutter



SF1530G

Security Protective Fiber Laser Cutter



Automatic Laser Cutting Production Line



Metal Sheet Cutting Machine

SF3015G

Open Type Metal Sheet Laser Cutting Machine



SF20040R

Ultra Large Metal Laser Cutter

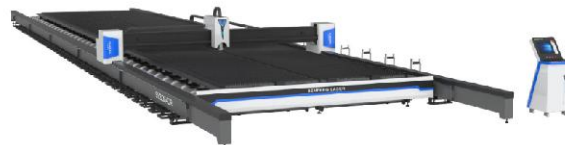


Plate And Tube Cutting Machine

SF3015HM

Full Protection Steel Sheet and Tube Laser Cutter



Tube Laser Cutting Machine

SF6020GT

Bevel Tube Laser Cutting Machine



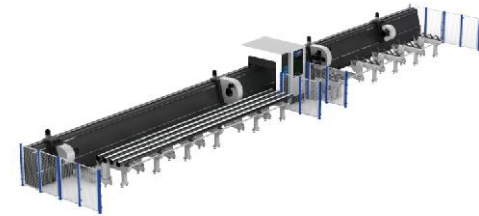
SF6020TZ

Affordable metal tube laser cutter



SF12038HT

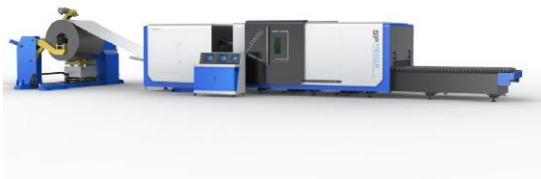
Ultra Heavy Four-chuck Tube Laser Cutting Machine



Coil Fed Laser Cutting System

SF1503CLH

Aluminum Coil-fed Laser Cutting Machine



SF2014CH

Heavy-load coil laser cutting machine



SF1503CH

Coiled Fiber Laser cutting machine



Fiber Laser Welding Machine / Fiber Laser Cleaning Machine

SF1500HWM

Handheld Fiber Laser Welding Machine



SF200HC

Fiber Laser Cleaning Machine



SF1500HC

Portable laser cleaning machine



3D Robot

3D Robot Laser System



3D Robot Fiber Laser Cutting Machine



3D robot fiber laser welding machine



Laser Cladding Equipment

SFHS3050

Metal additive machine



SFR6063

Robot Laser Cladding Machine



SFMR02

Mobile Robot Laser Cladding System



Metal sheet bending machine

BDE13032

CNC Bending Machine



BDC-1800

Servo Electric Press Brake



Wide Belt Sheet Metal Sander

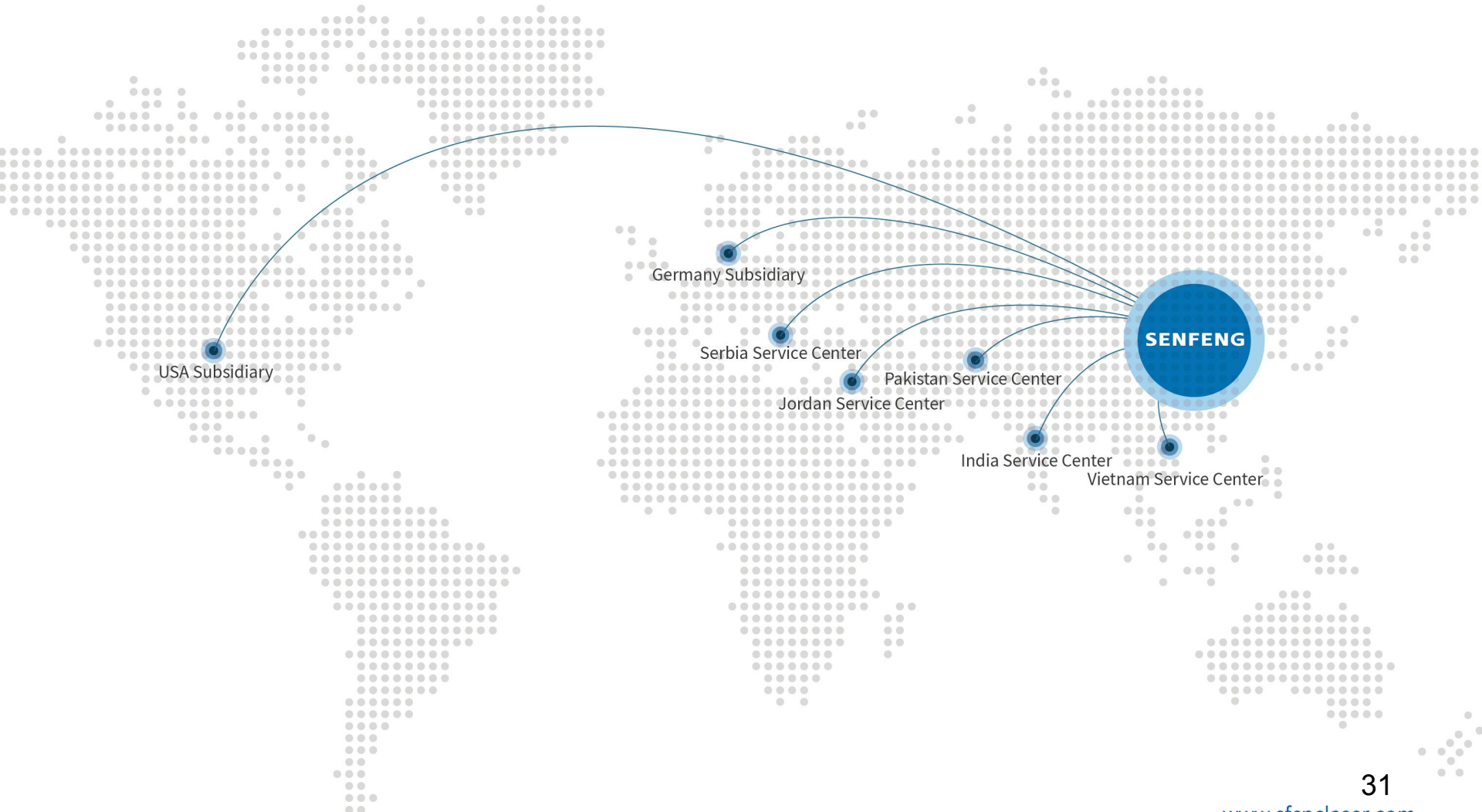
SF1000SSD

Automatic Wide Belt Sheet Metal Sander



XIV. Global Layout

Senfeng Laser to provide localized services and technical support for global customers.



XV.Core Technology

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



- Auto Focus

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

- Storm cut

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

- Water cooling

Focusing parts of laser cutting head with water cooling, reducing high temperature and flog by long time 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 R&D, feel free to visit website: www.sfcnclaser.com

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