

# Alpha ST Series Fiber Laser Cutting Machine

## 3015ST/ 4015ST/ 6015ST



ALPHA ST series fiber laser cutting machine has been designed for small and medium sheet metal workshop. 600° C heat treatment has been done on the whole machine body, which give Alpha ST series laser cutting machine a minimum 20 years life without mechanical distortion. With most updated fiber laser technology, you can cut your job faster and cheaper.

### Features:

- ❖ 1500x3000mm cutting area
- ❖ Designed for thin sheet metal
- ❖ Good energy efficiency, low power consumption and environmental friendly
- ❖ With laser gas or clean dry compressed air
- ❖ Equipped with Raycus laser/IPG laser
- ❖ 1.5KW ,2KW, 3KW or 6KW fiber laser

### Typical running cost of 3kW fiber laser

Description	Cost based on 38hours per week
Machine devaluation	\$90 per week
Power consumption	\$180 per week
Consumables(nozzle, lens)	\$40 per week
Cutting gas cost	\$80 - \$750 per week depends on oxygen or nitrogen gas
Maintenance	\$50 per week
Labour cost	\$1,140 per week



Model	3015ST
Working Area	1500 x 3000mm
Weight	2500kg
Z axis travel	90mm
Laser power	1500W/2000W/3000W/6000W
Rapid speed	80m/min
Repetition	0.05mm
Power supply	415V/50Hz 3 phase
Power Consumption	Depends on laser power
File formats	DXF,NC CODE
Suitable material	Mild steel, stainless steel, Galvanised steel, aluminium



### Performance comparison of 3000W and 2000W fiber laser source

3000W fiber cutting speed				2000W fiber cutting speed			
Cutting carbon steel by Oxygen				Cutting carbon steel by Oxygen			
Materials	Thickness(mm)	Gas	Cutting speed (m/min)	Steel	Thickness(mm)	Gas	Cutting speed (m/min)
Carbon steel	1	N <sub>2</sub>	40	Carbon steel	1	N <sub>2</sub>	25
	2	N <sub>2</sub>	20		2	N <sub>2</sub>	9
	3	O <sub>2</sub>	5.5		3	O <sub>2</sub>	4.2
	6	O <sub>2</sub>	2.7		6	O <sub>2</sub>	1.8
	8	O <sub>2</sub>	2.2		8	O <sub>2</sub>	1.3
	12	O <sub>2</sub>	1.1		12	O <sub>2</sub>	0.9
	16	O <sub>2</sub>	0.75		16	O <sub>2</sub>	0.7
Cutting stainless steel by nitrogen				Cutting stainless steel by nitrogen			
Materials	Thickness(mm)	Gas	Cutting speed (m/min)	Materials	Thickness(mm)	Gas	Cutting speed (m/min)
Stainless steel 304	1	N <sub>2</sub>	45	Stainless steel 304	1	N <sub>2</sub>	28
	1.5	N <sub>2</sub>	33		1.5	N <sub>2</sub>	15
	2	N <sub>2</sub>	24		2	N <sub>2</sub>	10
	3	N <sub>2</sub>	9		3	N <sub>2</sub>	5
	5	N <sub>2</sub>	3.6		4	N <sub>2</sub>	3
	6	N <sub>2</sub>	2.7		5	N <sub>2</sub>	2
	8	N <sub>2</sub>	1.2		6	N <sub>2</sub>	1.5