

# **SERIES LASER MACHINES**

CFFP CFFC CFFT



# **Restart for new Perfection**

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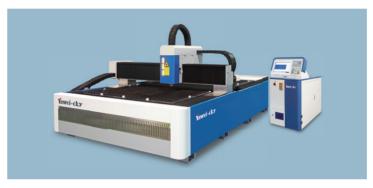
Jiangsu Yawei Chuangkeyuan Laser Equipment Co., Ltd. (hereinafter referred to as "Yawei Chuangkeyuan") head-quarter located in Wuxi City. The company was founded in 2008 and it is a wholly-owned subsidiary of Jiangsu Yawei Machine Tool Co., Ltd. (stock name: Yawei stock, Stock code: 002559). As a professional laser processing equipment sub-brand of Yawei, it is a high-tech enterprise specializing in R&D, production and sales of laser processing equipment.

Yawei Chuangkeyuan provides laser cutting system, laser welding system, laser cladding system and laser quenching system. It has established long-term and stable interaction and cooperation with research institutes such as Suzhou University and Jiangnan University, providing users with complete laser processing solutions and corresponding supporting facilities, which are widely used in rail transit, automobile and auto parts, construction machinery and ships, instrumentation, measuring tools, electronic communications, aerospace, petrochemical, military products, pharmaceutical food packaging and other industries.



CFFP-D Series

**Fiber Laser Cutting Machine** 



CFFP-B Series

**Fiber Laser Cutting Machine** 



CFFC

2D Laser Cutting Machine with Tube Cutting





**Fiber Laser Tube Cutting Machine** 



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# **Originality Manufacture**



- Latest generation of high-performance fiber laser cutting machine
- Using BOCHU cutting system, More functions, More efficient, smarter and more stable performance
- High integration of cutting-edge laser technology and advanced numerical control technology, Fully upgraded HMI and cutting parameter database
- Imported AC servo system and transmission system to ensure high speed, high precision and high reliability
- High precision, narrow cutting kerf, smooth cutting surface and fast cutting speed
- Centralized lubrication and section type dust exhaust system to ensure long-term stable running of the machine

## **Key Technical Parameters**

NAME	UNIT	CFFP-3015D	CFFP-4020D	CFFP-6020D	CFFP-6025D	CFFP-8025D
Cutting range	mm	3000×1500	4000×2000	6000×2000	6000×2500	8000×2500
X axis stroke	mm	3040	4040	6040	6040	8040
Y axis stroke	mm	1520	2020	2020	2520	2520
Z axis stroke	mm	240	240	240	240	240
X axis positioning speed	m / min	100	100	100	100	100
Y axis positioning speed	m / min	100	100	100	100	100
X / Y maximum trajectory speed	m / min	141	141	141	141	141
X / Y acceleration	G	1.2	1.2	1.2	1	1
Positioning accuracy	mm	±0.03	±0.03	±0.03	±0.03	±0.03
Repositioning accuracy	mm	±0.02	±0.02	±0.02	±0.02	±0.02
Maximum load of worktable	kg	900	1600	2400	3000	4000
Machine layout dimension (L×W×H)	mm	8838×4165×2250	11200×4835×2250	15480×4835×2250	15480×5535×2250	19880×5535×2250
Machine weight	kg	7000	9500	14000	16000	19000
Laser generator power	kw	0.7/1/1.5/2/3/4/6				
Machine power(Approximately)	kw	27 / 29 / 30 / 32.5 / 36 / 41.5 / 49.5 (For reference only, adjust in according to the laser model)				

**CFFP-D Series** 

# Simple and practical



- Open type gantry double drive structure, stable performance
- Welding structure with Aluminum alloy beam, meet the requirement of high acceleration
- Separate electric control cabinet, compact in structure, save space
- The whole machine has compact structure and small floor space
- Open type structure, easy loading and unloading, suitable for different working conditions
- Section dust exhaust structure, the dust exhaust port close to the cutting area, which greatly improves the dust exhaust efficiency and ensures the service life of machine

## **Key Technical Parameters**

NAME	UNIT	CFFP-3015B	CFFP-4020B	CFFP-6020B
Cutting range	mm	3000×1500	4000×2000	6000×2000
X axis stroke	mm	3040	4040	6040
Y axis stroke	mm	1520	2020	2020
Z axis stroke	mm	120	120	120
X axis positioning speed	m / min	100	100	100
Y axis positioning speed	m / min	100	100	100
X / Y maximum trajectory speed	m / min	141	141	141
X / Y acceleration	G	1.2	1.2	1.2
Positioning accuracy	mm	±0.03	±0.03	±0.03
Repositioning accuracy	mm	±0.02	±0.02	±0.02
Maximum load of worktable	kg	800	1000	1600
Machine layout dimension (L×W×H)	mm	5000×3900×2100	6200×3900×2100	8800×3900×2100
Laser generator power	kw	0.7/1/1.5/2/3/4/6		

# **Multi-purpose**



- Powerful and wide-used cutting function, able to cut pipe and flat sheet
- Manual or automatic chucks can be selected to clamp square pipe, round pipe and rectangular pipe
- Gantry with high-strength aluminum alloy beam, which has the advantages of light weight and good dynamic response
- High-precision rack and pinion transmission mechanism ensures the accuracy and speed during the cutting process
- Easy to control, controlled by BOCHU CNC system, and real-time feedback on the processing status, ensuring the orderly processing

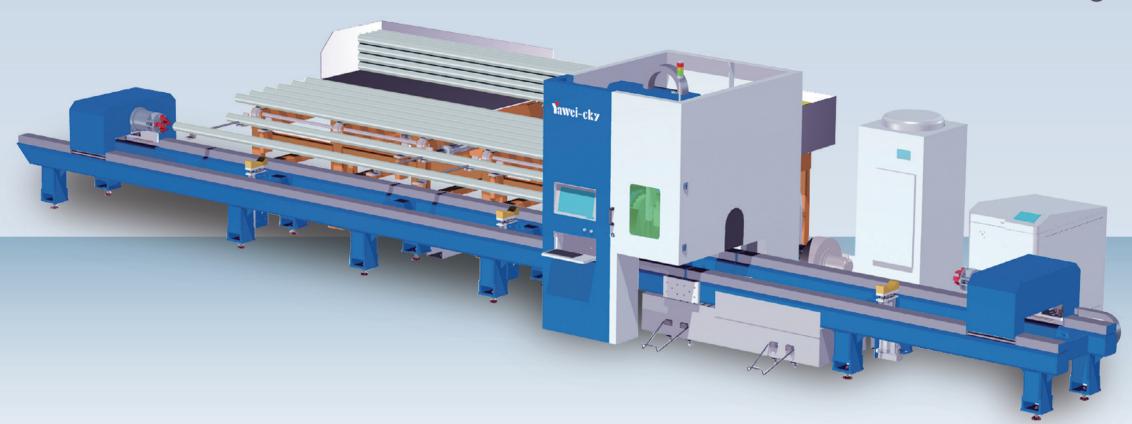
## **Key Technical Parameters**

NAME	UNIT	3015B	3015D	
2D cutting range	mm	3000×1500	3000×1500	
Tube processing range	mm	6000×φ20-φ155 6000×φ20-φ100	6000×φ20-φ155 6000×φ20-φ100	
		(Or other tube that circumcircle not exceeding φ155mm)	(Or other tube that circumcircle not exceeding $\phi$ 155mm )	
X axis stroke	200.000	0 1	0 1	
	mm	1520 (2350)	1520 (2350)	
Y axis stroke	mm	3040	3040	
Z axis stroke	mm	240	240	
W axis stroke (horizontal axis)	mm	6200	6200	
B1/B2 axis stroke (rotation axis)		Unlimited rotary	Unlimited rotary	
X/Y/W axis max speed	m/min	100	100	
B1/B2 axis max speed	r/min	50	50	
X/Y/W axis max acceleration	G	1	1	
B1/B2 axis max acceleration	rad/s	60	60	
Positioning accuracy	mm	±0.05	±0.05	
Repositioning accuracy	mm	±0.03	±0.03	
Machine dimension (L×W×H)	mm	8800×4800×2100	9100×4800×2300	
Laser generator power	kw	0.7 / 1 / 1.5 / 2	0.7 / 1 / 1.5 / 2	
Maximum load of worktable	kg	500	500	
Weight	kg	6500	8000	
Machine covering area (L×W×H)	mm	9500×6200×2100	9100×6100×2300	

# For tube only

# **CFFT**

# Fiber Laser Tube Cutting Machine

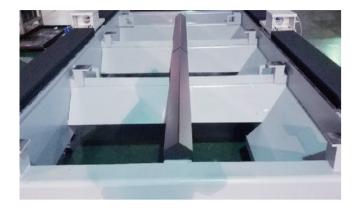


## **Key Technical Parameters**

Item	Unit	6020	6015
	mm	6000×ф20-ф200	6000×φ20-φ155
Tube presenting range		6000×φ20-φ140	6000×φ20-φ100
Tube processing range		(Or other tube that circumcircle not exceeding	(Or other tube that circumcircle not exceeding
		ф200mm )	φ155mm
X axis stroke	mm	200	200
Z axis stroke	mm	240	240
W axis stroke (horizontal axis) mm		6200	6200
B1/B2 axis stroke (rotation axis)		Unlimited rotary	Unlimited rotary
X/Y/W axis max speed	m/min	100	100
B1/B2 axis max speed	r/min	50	50
X/Y/W axis max acceleration	G	1	1
B1/B2 axis max acceleration	rad/s	60	60
Positioning accuracy	mm	±0.05	±0.05
Repositioning accuracy mm		±0.03	±0.03
Laser generator power	kw	0.7 / 1 / 1.5 / 2	0.7/1/ 1.5/2

- Powerful and wide-used cutting function, able to cut square pipe, round pipe, rectangular pipe and all kinds of special-shaped pipe at the same time
- Rack and pinion transmission structure ensures cutting accuracy and speed effectively
- Manual or automatic chucks can be selected to meet different needs of customers
- Automatic loading can be selected with good openness, easy and simple operation
- Easy to control with BOCHU CNC controller to control both automatic loading machine and main tube cutting machine

# **High Quality Parts**





1.725e-002

1.568e-002

1.411e-002

1. 255e-002 1. 098e-002

9.410e-003

7 842e-003

6.273e-003

4.705e-003 3.137e-003 Beam

chine

**Machine Body** 



Steel welded frame with internal reinforcemen en-

After high temperature tempering to eliminate the welding stress, it can prevent the structure deformation and ensure the accuracy and life of the ma-

sures good rigidity and high strength

 Natural aging, integral processing, with small deformation, good rigidity, high strength, ensure longterm stability

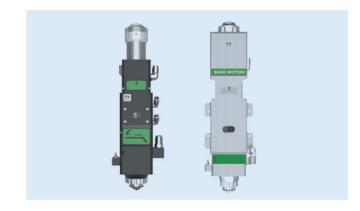


## **Transmission Parts**

- Original imported rack and pinion transmission system overcomes the disadvantages of ball screw long-distance transmission
- Original imported linear guide with lower friction and longer service life
- High positioning accuracy and good synchronization performance

## **Chuck Parts**

- Manual chuck and automatic chuck are optional
- Automatic chuck has pneumatic and electric options
- Automatic chuck has full stroke and half stroke options





# O Totaless



# **Cutting Head**

- Raytools is standard, and Precitec is optional
- The capacitive sensor can sense the deformation of the plate automatically and keep the cutting height constant
- While obtaining the best cutting quality, the ideal cutting speed can be achieved
- Manual focusing is standard, and automatic focusing is optional

## Fiber Laser Generator

- Constant BPP over full power range, excellent light beam quality, and small laser facula
- High photoelectric conversion efficiency
- Modular "plug & play" design
- Compact and firm structure, and convenient installation
- Optional other brand laser resonator

## **CNC System**

- Providing graphic processing, parameter setting, custom cutting process editing, simulation, sorting functions
- all in Chinese menu,intuitional and simple,to master the operation method with a short time
- Automatic nesting according to the processing graphics and raw material size. (Option)
- Powerful function, easy to achieve automatic height tracking, piecewise perforation, progressive perforation, automatic side search, frog jump upward, flight path compensation etc

## **Servo Motor**

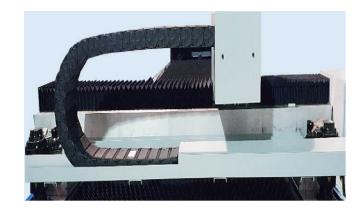
The imported servo system can realize acceleration and deceleration at high speed, which is helpful to improve mechanical stability



# **Advanced Technologies**

# **Wide Applications**





# Y axis bilateral synchronous drive

- Advanced bilateral synchronous control technology, balanced and stable driving force
- Double side support gantry structure with better rigidity and less deformation
- Synchronization error free, higher positioning accuracy and faster positioning speed

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## Laser power control

- In the cutting process, the laser output power is controlled in real time according to the change of path and speed
- The best cutting effect can be achieved by avoiding over-burning when cutting sharp corners or small shapes



## Automatic edge-finding function

- Through the laser cutting head sensor, the edge of the plate can be found quickly and automatically, and its vertex position and Angle can be detected
- Automatic adjustment of coordinate system according to the actual position of the plate can greatly save operation time and reduce labor intensity of workers



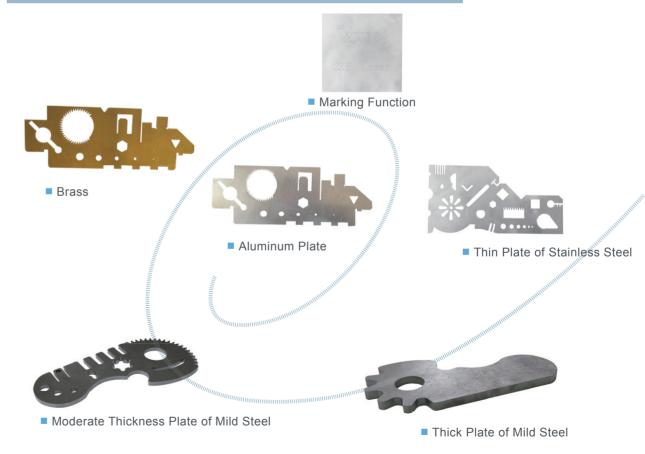
## **Automatic Layout**

- Reasonable use of each plate, cost saving
- The optimal cutting path can shorten the processing time

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- The process capacity chart shows the testing data under specific conditions
- Even if for the same material, the cutting quality may differ due to different chemical composition contents, and processing shapes, etc

## **Cutting Samples**















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