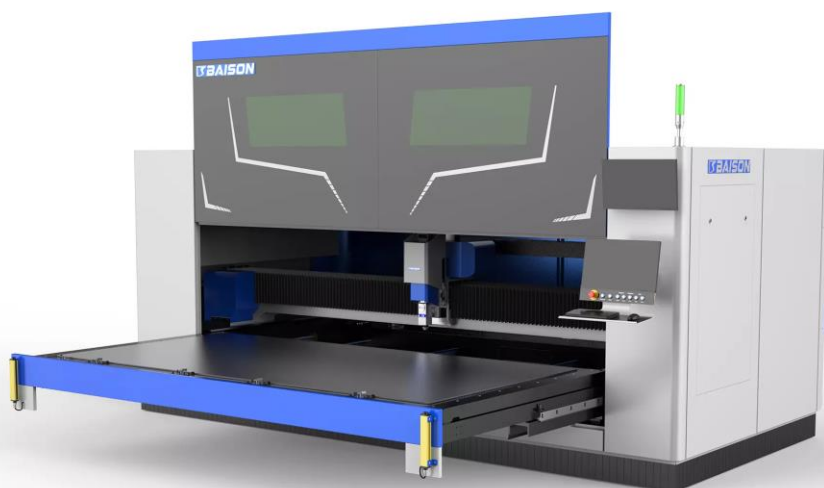


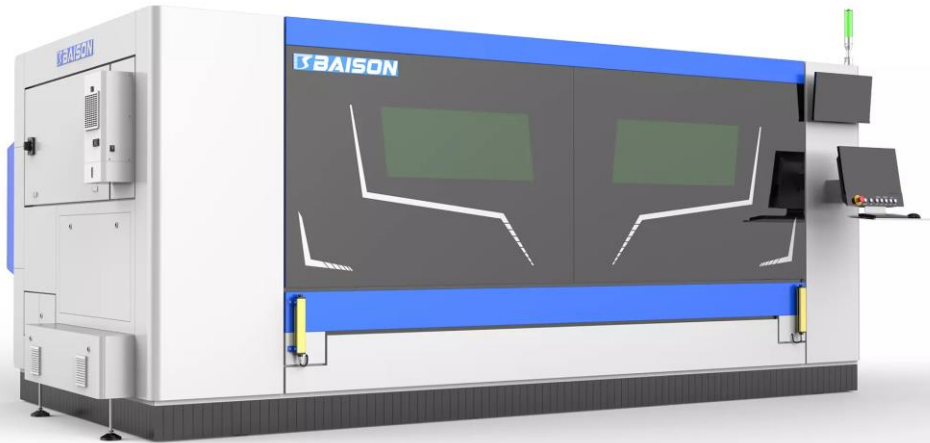


TECHNICAL PROPOSAL



M3-F3015ME

Product Overview



M3-F3015ME

ADVANTAGES

- **High Cutting Accuracy**

Adopting an imported servo motor and a guide transmission mechanism.

- **Simple and Convenient Operation**

Professional software to design various graphics or text for immediate and flexible processing.



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Technical Parameter

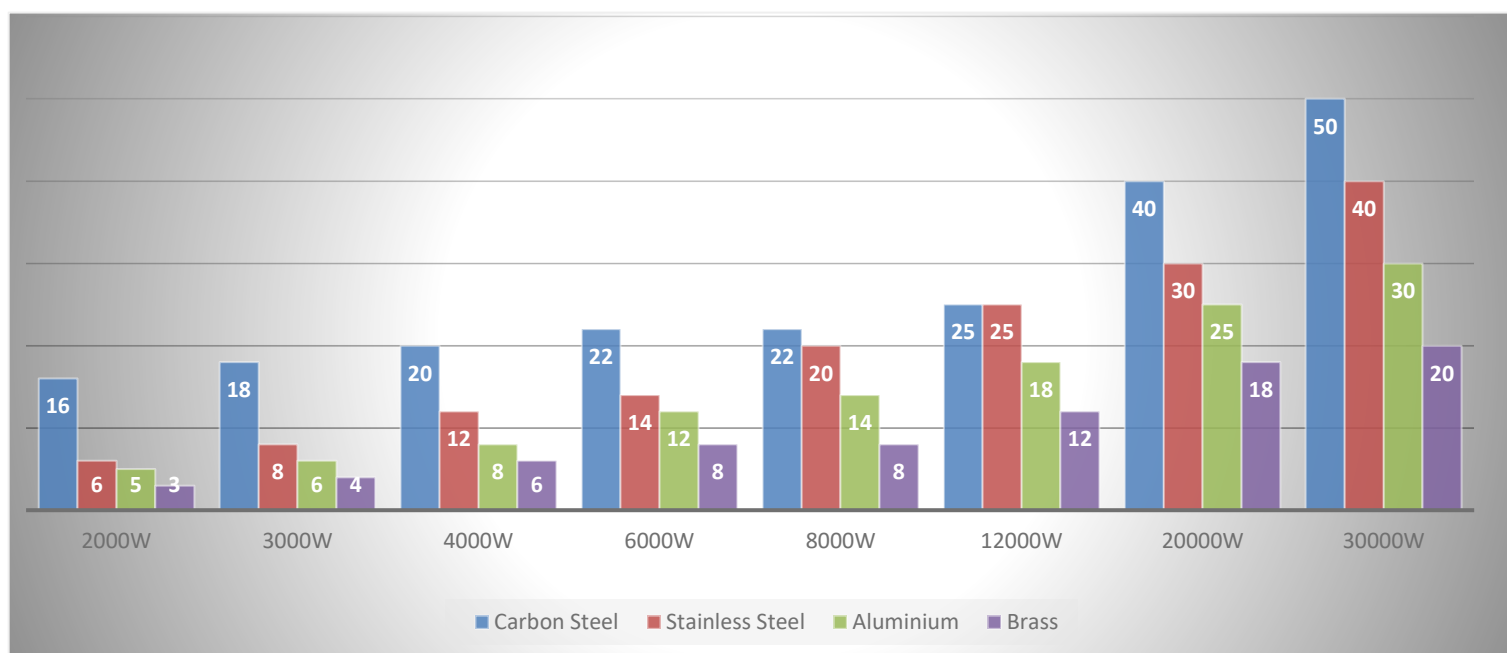
Processing Format & Working Range	
Processing Area(L × W)	3000mm×1500mm
X-axis Max. Stroke	1550mm
Y-axis Max. Stroke	3100mm
Z-axis Max. Stroke	100mm
Accuracy	
X/Y Axis Positioning Accuracy	±0.03mm/m
X/Y Axis Repositioning Accuracy	±0.03mm
Speed	
Max. Moving Speed	120m/min
Max. Acc. Speed	1.2G
Power Parameters	
Phase	3
Rated Voltage	380V
Frequency	50Hz
Protection Grade	IP54
Weight & Size	
Max Single Worktable Loading	1000kg
Machine Weight	4550kg
Dimension (L×W×H)	4261*2431*1789mm

Note:

- 1: To a certain extent, the accuracy depends on the type of workpiece, the pretreatment, the size of the plate and the position of the plate in the working area.
2. The above parameters are subject to change without notice. The final technical parameters are subject to the actual order agreement.
- 3.The above data is for reference only.



Processing Capability



CUTTING SAMPLES

M3-F3015ME



Note:

The above parameters are the max processing capabilities.

The above data are for reference only, not as acceptance criteria.



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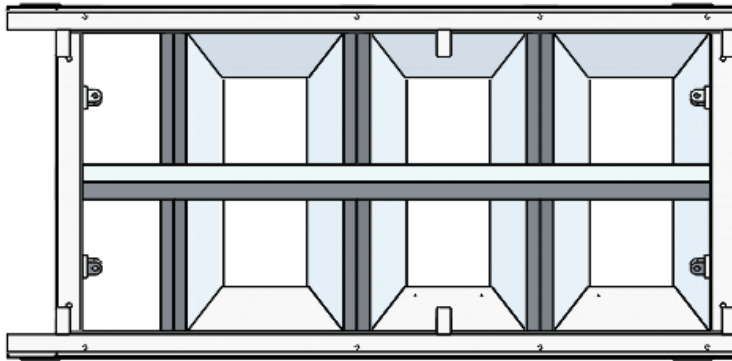
Product Configuration

Configuration	Brand / Specification
M3-F3015ME	3000W & 6000W
Control System	FSCUT2000E
Laser Source	Raycus/MAX
Cutting Head	Raytools
Servo Motor	VEICHI/YASKAWA
Gear And Rack	KH
Guide	SHAC
Proportional Valve	SMC
Reducer	TECHMECH
Control Computer	BAISON
Water Chiller	HANLI



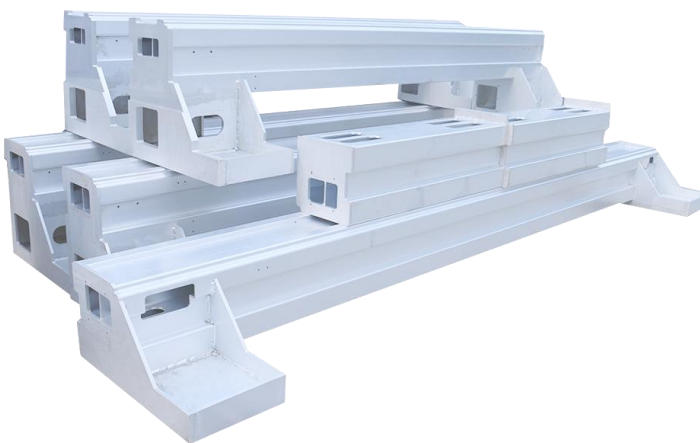
Product Configuration

Super Heavy Steel Welding Machine Bed



- Adopts a 12mm super-thick monolithic steel plate for laser blanking.
- The groove welding method is used to make the plates reach an equal strength butt.
- Stress annealing and natural aging treatment are applied to eliminate internal stress.

Aviation Aluminum Alloy Beam



- The use of aerospace aluminum crossbeam provides a lightweight and rigid structure, ensuring cutting accuracy during high-speed operation.
- The one-piece extrusion stretch film technology makes the crossbeam more robust in overall construction, resulting in a longer lifespan of the machine.

Laser Source



- Higher Electro-optic conversion efficiency
- Superior reliability & modularity
- Easy maintenance and low down time
- Anti high reflection function



Product Configuration

Laser Cutting Head



- Auto focus
- Higher accuracy
- Longer service life
- Calibration and focus lenses and nozzle better protection

MOTOREDUCER



- Stable operation
- Low noise
- Large output torque
- High speed ratio

Servo Motor

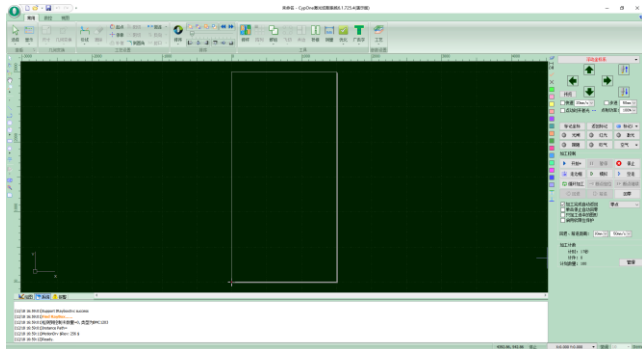


- High accuracy
- High-speed performance
- High adaptability & stability
- Timeliness, short dynamic response time of motor
- Comfort less fever and noise



Product Configuration

CYPCUT Control System



- Easy to use
- Various file editing functions
- Real-time alarm and protection
- Built-in simple nesting function maximizes the utilization of the sheet metal.
- Fly cutting / Secondary perforation cutting, etc.

Water Cooling System



Guide

- Dual cooling function
- Real-time alarm
- Machine protection



- Low noise
- Wear-resistant
- Smoothly,enable fast speed



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Processing Cost

Items		Air	Oxygen	Nitrogen
Peak Power Consumption (3KW)	Laser	10.00	10.00	10.00
	Water Cooling	4.16	4.16	4.16
	Air Compressor	11.00	/	/
	Machine Mainframe	12.00	12.00	12.00
	Dust Removal Equipment	5.50	5.50	5.50
Total Power(KW)		42.66	31.66	31.66
Typical Power Consumption(KW) (*75% Total power)		32.00	23.75	23.75
Power Consumption Cost (0.15USD/kwh)		4.80	3.56	3.56
Consumable Parts (USD/h)		0.2	0.2	0.2
Gas Consumption(USD/h)		0	2.5	6
Total Operating Cost (USD/h)		5.00	6.26	9.76

If the cutting gas is the dry treated compressed air, the cost is actual the air compressor operating electricity + machine power + consumables (protective lens, cutting mouth).

Note:

1. The electricity price and gas price in the above list are for reference only, and the prices will be different in different regions.
2. Auxiliary gas consumption varies when cutting plates of other thickness.



Processing Cost

Items		Air	Oxygen	Nitrogen
Peak Power Consumption (6KW)	Laser	18.50	18.50	18.50
	Water Cooling	11.00	11.00	11.00
	Air Compressor	11.00	/	/
	Machine Mainframe	7.00	7.00	7.00
	Dust Removal Equipment	1.50	1.50	1.50
Total Power(KW)		49.00	38.00	38.00
Typical Power Consumption(KW) (*75% Total power)		36.75	28.50	28.50
Power Consumption Cost (0.15USD/kwh)		5.51	4.28	4.28
Consumable Parts (USD/h)		0.2	0.2	0.2
Gas Consumption(USD/h)		0	2.5	6
Total Operating Cost (USD/h)		5.71	6.98	10.48

If the cutting gas is the dry treated compressed air, the cost is actual the air compressor operating electricity + machine power + consumables (protective lens, cutting mouth).

Note:

1. The electricity price and gas price in the above list are for reference only, and the prices will be different in different regions.
2. Auxiliary gas consumption varies when cutting plates of other thickness.



Inspection & Assembly

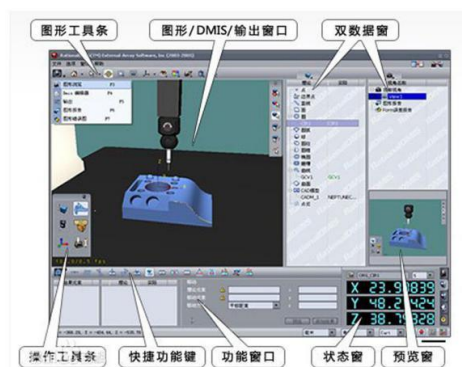
DURING ASSEMBLY

Check whether the beam machining form and position tolerance is within the design scope to ensure the equipment quality.



THREE COORDINATE INSPECTION OF BEAM

Three coordinate measuring machine (CMM) is a kind of instrument that can calculate all kinds of geometric shapes and dimensions according to the point data returned by the probe system in three-dimensional measurable space. It is also called three-dimensional element.



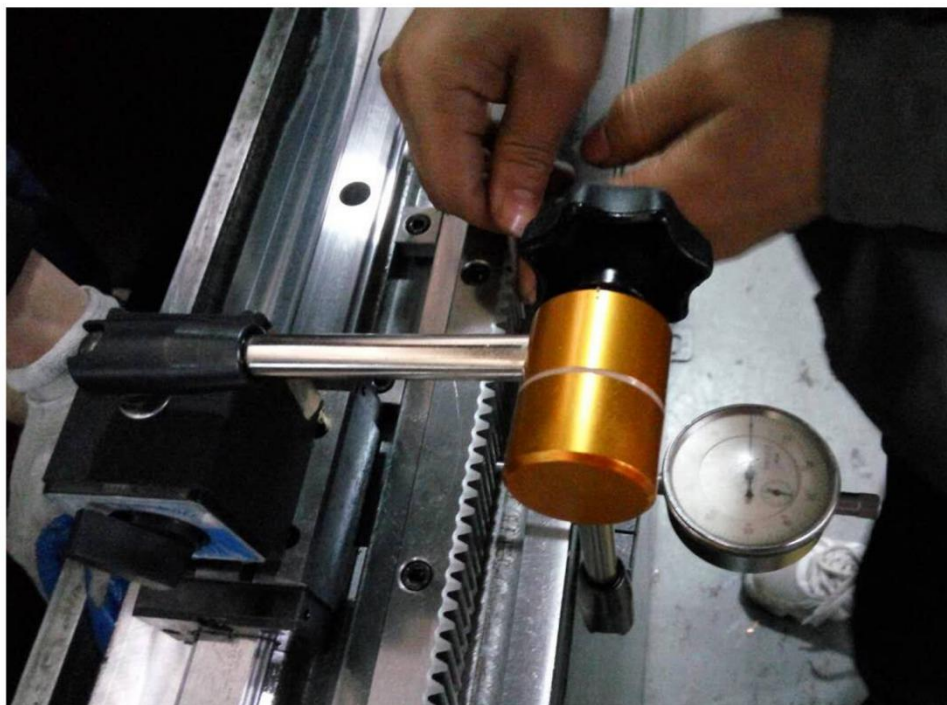
The bed beam collimator detects the guide rail surface - measures the straightness of the guide rail to ensure the accuracy of each equipment.



Inspection & Assembly

DURING ASSEMBLY

Installation detection and fixation of guide rail and rack. The professional technicians assemble such important precision parts such as guide rail and rack and adjust them with a dial indicator so as to ensure rack&pinion is assembled properly.



ASSEMBLY COMPLETION DETECTION

Laser interferometer-It has such advantages as high measurement accuracy and speed,etc Interferometer,mainly laser as light source, constitutes a measuring system withinterference. A laser interferometer with various refractive mirror to the linear position, speed, angle, flatness,straightness, parallelism and perpendicularity measurement work, and can be used as calibration of precision machine tool or measuring instrument.

