



JIANGSU SANHUI INTELLIGENT TECHNOLOGY CO.,LTD

CNC GANTRY TYPE PLASMA & FLAME CUTTING MACHINE RM-GB4080

Parameters & Basic Assembly			
S.N	Item	Qty	Note
01	Machine	1pc	Gantry Type Plasma & Flame Cutting Machine
02	Lifting station	1 PCS	Plasma or flame
03	Track width	4000mm	Effective cutting width 3100mm
04	Track length	8000mm	Effective cutting length 6000mm
05	CNC controller	1pc	Shanghai Fangling 2300BX(for pipe cutting)
06	THC	1pc	Shanghai Fangling F1620
07	Capacity sensor	1pc	For flame torch
08	Operation panel	1pc	Touch screen Panel
09	Panasonic Servo motor	4pcs	4 pcs for X aixs, one pc for Y axis and one for rotary
10	Gearbox	3pcs	
11	Y axis rail	15pcs	24Kg harden rail, 2m/pc, total 8m
12	X axis rail	2pcs	Linear, Dia 30mm
13	Servo motor for pipe cutting	1 set	3000W servo motor
15	X rotary frame	2 sets	
16	Track for pipe cutting	6m	
Specification			
Item	Descriptions	Specification	
Machine Body	Gantry Width (mm)	4000	
	Rail length (mm)	8000	
	Effective Cutting Area(mm)	3100x6000	
	Drive motor	Dual-drive / Panasonic AC servo motor	
	Max traveling speed(mm/min)	12000mm/min	
Flame Torch	Flame Cutting Torch Number	depends	
	Flame Cutting Thickness(mm)	6-300mm	
	Flame Cutting Speed(mm/min)	50-800mm/min	

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	Flame cutting Gas Pressure and Flow Request	Oxygen:0.5-0.8MPa Purity: 99.5%; Flow:1.0M ³ /h Fuel Gas :Propane or Acetylene Pressure:0.05-0.1MPa
Plasma Torch	Plasma Cutting Torch Number	0
	Plasma Torch Height Sensor	HYD XPTHC-400-PT
	Model	
	Plasma Cutting Thickness(mm)	
	Max current output	
	Duty cycle	
	Plasma Cutting Gas Request	Basically gas: dry and oil free compressed air Pressure and Flow as per Plasma Manuel
CNC Controller	Shanghai Fangling F2300BX	10.4" LCD (Made in Shanghai)
Nest Software	Nest Software	Fanging Tube master for pipe cutting

Circumstances Requirement

Circumstances Around	No impact within 5m,
Temperature	0-45℃
Relative Humidity	90% Non-condensation
Voltage(Machine)	220V ± 5%
Frequency	50HZ

Main Parts Description

1,Machine Frame



It's heavy duty gantry type structure,which is made by the main beam,secondary beam and lengthwise supports. The beams and supports are welded of mild steel. It's processed in machining center after welding and heat working,which ensures the beams and supports are of hardness and stiffness. We can install several lifting stations to the main beam so as to achieve several torches working together.

2, Panasonic Servo motor 400W and 750W



Work together with Panasonic Driver



3, Lifting Station



- ◆ Adopting closed-loop servo motor drive, higher accuracy, and faster response
- ◆ Can be used together with Sensor THC for initial location and arc control to realize fine hole cutting
- ◆ Stroke 250mm, up-down speed 10m/min, Max acceleration 100mg, positioning accuracy ± 0.1 mm
- ◆ Matching magnetic plasma anti-collision unit to enhance cutting torch self-protection ability
- ◆ Several kinds of initial positioning mode make water cutting, under water cutting feasible
- ◆ Dedicated arc voltage acquisition module is applicable to a variety of plasma

4, Shanghai Fangling F2300BX controller for pipe cutting



- ◆ 512M RAM, At least 80GB Hard Disk
- ◆ Air-Conditioner for CNC & Electrical Components
- ◆ USB & RJ45 Interfaces for loading in cutting files.
- ◆ EMI for Servo Driver System.
- ◆ CNC functions:

(a). Configurable Watch Windows enable on-screen real-time monitoring of key performance parameters while cutting

(b). Critical plasma, THC and cutting machine parameters can be controlled in the part program using Part Program Support (PPS) for optimal and repeatable cut quality

(c). Hardware and software designed for a broad range of processes such as oxyfuel, laser, waterjet, tube/pipe and plasma cutting, including pipe and bevel cutting applications

(d). The patent-pending CutPro wizard is an intuitive step-by-step process that guides the operator through the most frequently required job setup steps. In field trials, new operators began cutting high-quality parts in less than 5 minutes without training, drastically reducing the “hire to cut” time. This means that multiple operators across multiple shifts can quickly produce consistent results, making it so you have your best operator on every shift

As easy as 1, 2, 3, cut!



Select program



Select process

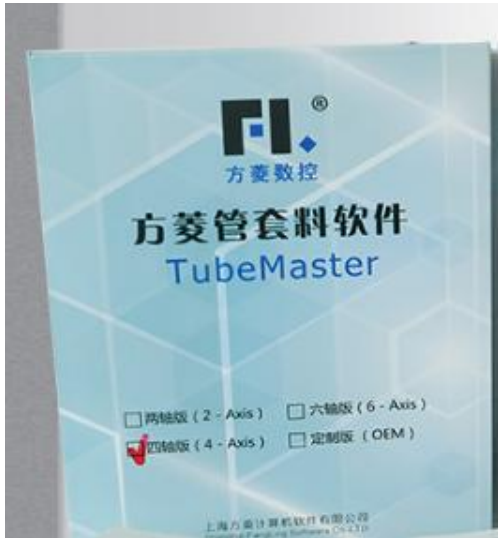


Align part/plate



Cut

5, Fangling TubeMaster nesting software special for pipe cutting And StarCAM nesting software



Fangling TubeMaster nesting software special for pipe cutting:

Fangling TubeMaster nesting software:

- 1)Draw: similar with CAD, to draw all kinds of parts
- 2)CAD compatible and Optimizer: to read in and optimize DXF/DWG files by delete, compress, extract, explode
- 3)Cutting functions: Kerf compensation, plasma bridge, common line cutting, corners, CAD layers, word label

Fangling TubeMaster nesting software automatic nesting module:

- 1)Manual nesting, easy & convenient to use
- 2)Automatic nesting in a row or in a matrix
- 3)Common line cutting for a pair of part

Fangling TubeMaster nesting software automatic pathing module:

- 1)Programming: automatic & manual pathing include marking, path optimizer, multi-layer cutting
- 2)Support multiple CNC control, ESSi&EIA G/M code
- 3)Support Kerfs comp., pre-pierce, stitch& tag cutting

Fangling TubeMaster nesting software verification module:

- 1)NC Verification: automatic & manual simulation, dimension and kerf compensation verification
- 2)Costing: utilization, cut length, pierce & cutting cost
- 3)Transfer NC files to CAM/DXF/DWG files

7, Torch Height Controller HYD XPTHC -400-PT



Basic functions,

- A、 Auto Initial Height Sensing(IHS):
- B、 Torch Anti-Collision Function:
- C、 Freeze Auto Height Control on Corner Signal
- D、 Lifting torch Up on IHS Disabled status.
- E、 Lifting Torch Up on TURN ON or Arc Off:
- F、 Set Pierce Delay Time.
- G、 Manual Operation

Many functions can be Manually operated on Operation Panel of XPTHC-100, such as, set Auto/Manual mode of THC, manually control torch Up and Down, IHS test, Arc Start test...etc.

- H. Arc Voltage Divide

8, Holder Plasma cutting torch



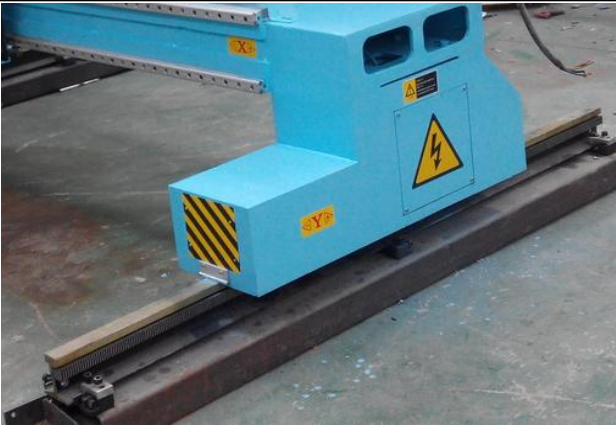
With anti-collision holder, during the cutting, when the torch touched the steel, torch will automatically pause, after the obstacle away, the torch will continue move, it protect the torch from damage.

9, Flame cutting torch



Could install several flame cutting torches, to cut many pieces work pieces at same time.

10, 24KG High precision fine grinding guide rail



11. Rotary motor750W



12. Rotary X frame



13. Pipe holder and ground track rail

