CNC PLASMA

LIGHT DESIGN OF CROSSBEAM WHO ENSURE GOOD RIGIDITY

INCLUDET 60A PLASMA

1 YEAR WARRANTY AND UNLIMITED SUPPORT

Input voltage & frequency	220V
Rated power supply	5.0kW
LCD Dimension	7 Inches color display
Size X-axis	1700mm
Size Y-axis	3600mm
Effective cutting width (X axis)	1500mm
Effective cutting length (Y axis)	3000mm
Cutting speed	0-10000mm/min
Plasma power supply	60A
Driver	Dual Drive Transversal: mix. servo motor driver Longitudinal: mix. servo motor driver
Torch No.	1 plasma station with anti-collision & arc voltage THC
CNC Controller	Fangling controller with THC inside
Plasma THC	Fangling arc voltage THC inside CNC with anti-collision
Cutting accuracy	+/- 0.5mm (JB/T5102-1999)
Plasma air	Only pressed air
Plasma air pressure	Max. 1.0MPa
Nesting software	FastCAM Software (professional version)
Transmission	Transversal: Slider Longitudinal: Slider
Tube transmission	Transversal & longitudinal: engineering plastic towline
File transfer	USB
Machine size	3620x2200x1200mm
Packing size	3850x1150x660mm
Weight	850kg

RK-153M-ECO is a table CNC cutting machine for different metal sheet cutting. Using integrated modular structure, making installation quick and easy.

- Economical
- Disassemble
- Customizable
- Both plasma and flame
- Crossbeam made of aluminum alloy, no deformation
- Y axis adopting dual steeper motor for machine drive
- Precise rack with special gearbox to ensure transmission accuracy
- Installation and disassembly are convenient

FEATURES AND ADVANTAGES

- The machine adopts integral structure, making installation easier and more reliable.
- The machine adopts double-side driving to make torch do longitudinal movement followed straight tracks.
- The light design of crossbeam has a good rigidity, light self-weight and good stability of movement.
- FastCAM reading and changing CAD files into cutting code.
- More sensitive torch height controller for automatic torch height control.

CNC SYSTEM FUNCTION

- English/French/Portuguese/Russian/Denmark/Korean language menu, the menu can be switched only by one key.
- 47 categories different graphics (including grid pattern), chip part and hole part are alternative.
- Support the EIA code (G code) and various FastCAM, FreeNest, SmartNest,IBE software.
- Graphics have some operations such as proportion, rotate, and mirror.
- Graphics can be arrayed in matrix, interaction, stacked modes.
- Self-diagnostic function, to diagnose the key status and all the IO status, facilitate inspection and debug.
- Support the flame, plasma, dusting draw and demonstration four kinds of mode.
- Flame and plasma are separated in the control IO ports.
- Support THC, two-level preheat, three-level pierce in flame mode.
- Plasma arc feedback, positioning feedback, automatically shut down the arc at the corner.
- Built-in plasma arc auto/manual turn high function: display actual arc pressure and set arc pressure, set THC parameter, check for collision/position successful signal, control arcing signal, check for location.
- Plasma arc controlling supports two close arc THC ways of speed and distance to make the machine more stable and safer.
- Support edge cutting. It can save the preheat time for the thick steel plate.
- Movement speed can be real-time acceleration, deceleration.
- According to plate thickness, the cutting speed is automatically restricted by a speed limit in the corner, effectively preventing over burn
- Dynamic/static illustration of the process, graphics zoom in / out, dynamically tracking cut-off point under zooming state.
- DSP as core can control the machine move in high speed accurately, stability and in low noise.
- "Cutting offset" function can avoid waste the steel plate when the nesting of the plate is calculated wrong.
- Long-distance remote control can control the machine to move forward, backward, left, right and cutting start, stop and so on (optional configuration).
- Plasma arc controller support two modes of close arc THC: rate and distance, making machine more stable and safer.

THC CONTROLLER

- Auto initial height sensing(IHS).
- Auto arc voltage height control.
- Auto torch promote after collision.
- Auto torch promote after torch is accomplished.
- Manual operation.
- Auto operate
- The function of displaying and monitoring.

- Menu operation.
- Spin button operation.
- High and low level control.
- The function of avoiding collision.
- Intelligent arc voltage adjust.
- Dynamic pierce function.
- Collision signal feedback.

MECHNICAL SYSTEM

- Crossbeam: longitudinal drive adopts belt pulley rigid synchronous structure to ensure synchronized motion of electrical and mechanical parts. Besides, synchronous belt is used to achieve shock absorption and then ensure a fast and good cutting.

FASTCAM NESTING SOFTWARE

- **FastCAM drawing module:**
    1. Draw: similar with CAD, to draw all kinds of parts.
    2. CAD Optimizer: to optimize DXF/DWG files by the tools of delete, compress, extract and explode.
    3. Cutting functions: Kerf compensation, bridge, corners, CAD layers, word label and marking.
- **FastNEST automatic nesting module:**
    1. Automatic, manual and interactive nesting.
    2. Common cut & continue cut to reduce pre-pierce.
    3. Remnant nesting for irregular remnant or parts.
- **FastPATH automatic pathing module:**
    1. Programming: automatic & manual pathing include marking, path optimizer, multi-layer cutting.
    2. Support multi-CNC machines: to switch NC format between different CNC machines.
    3. Cutting functions: Kerf compensation, pre-pierce, stitch and tag cutting.

PLASMA POWER TECHNICAL PARAMETERS

Model	LGK-60IGBT
Rated input capacity	15.6KVA
Rated output current	70A
Rated output voltage	100V
Rated load sustainability	100%
No-load voltage	300VDC
Regulating range of current	30~70A
High quality cutting thickness	0.3-12mm
Maximum cutting thickness	15mm
Use of plasma gas	Compressed air
Working gas pressure	0.4~0.6MPa
The cooling method of cutting torch	Air-cooled
Dimension	585x280x485mm
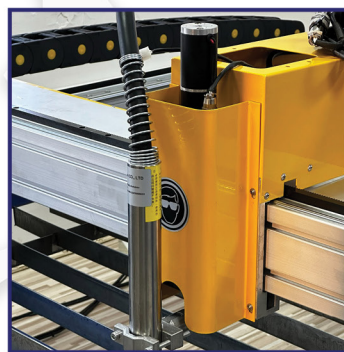
CNC SYSTEM TECHNICAL INDICATORS

Control axis	2 axis linkage(3 axis customizable)
Control accuracy	+/-0.001mm
Coordinate range	+/- 99999.99mm
Max. pulses	200 kHz
Max. speed	15,000 mm/m
Max. lines of code	150,000lines
Max. size of single code file	4M
Max. power of drive arc THC motor	45W
Time resolution	10ms
Working voltage	DC +24V direct-current power input, power>80W
Working temperature	-10°C~+60°C. Relative Humidity, 0~95%

SAMPLES