

2D/3D Flat & Rotary CNC Carving Router

(Gantry Move)





Features

- 1. Heavy duty machine body, thick steel tube welding structure, ensures stable work and high accuracy.
- 2. FR series CNC router is professional in making 2D and 3D engraving jobs. Multiple spindle and rotary axes can process on cylinder materials as well as flat ones with high efficiency.
- 3. Use power mill software to make special design for realize 4 axis (XYZA) movements at the same time.
- 4. Max. Z axis plate width is 900mm, ensures the balance during working to avoid vibration.
- 5. Big size with more heads (up to 16 heads) can be customized.

Applications

Material: engraving and cutting on flat and column material, such as: wood, acrylic, PVC, ABS, aluminum, brass, etc.

Field: Mostly used for making antique furniture, Mahogany furniture, European style furniture, doors, windows, stairs, handrails, Buddha, kitchen cabinet, bookcase, etc.

Technical Parameters

Model	VCT-1518FR-4H	VCT-1525FR-6H	VCT-2225FR-8H	VCT-3230FR-2Z-10H
Dimension	2000×2200mm	2000×2900mm	2700×2900mm	3700×3400mm
	(6.6'x7.2')	(6.6'x9.5')	(8.9'x9.5')	(12.1'x11.1')
2D Working Size	1500×1800×200mm	1500×2500×200mm	2200×2500×200mm	3200 x3000×20 mm
	(4.92'x5.90'x0.66')	(4.92'x8.20'x0.66')	(7.2'x8.20'x0.66')	(10.5' x 9.8' x 0.66')
3D Rotary Working Size (L*D)	1500 x 250mm	2000 x 250mm	2000 x 250mm	2000 x 250 mm
Cuindle Davies	Water cooling	Water cooling	Water cooling	Water cooling
Spindle Power	2.2kw	2.2kw	2.2kw	2.2kw
No. Of Rotary	4 PCS	6 PCS	8 PCS	10 PCS
No. Of Motors & Drivers	8pcs stepper motors (servo is optional)	10pcs stepper motors (servo is optional)	6pcs Panasonic/Schneider Servo Motors	7pcs Panasonic /Schneider Servo Motors
Air Cylinder Support	Yes (300MM long air cylinder)			
Oil Lubrication system	Yes			
Tool Diameter	4,6, 8, 12mm			
Body Structure	Heavy-duty steel tube welding			
XYZ Transmission	XZ TBI ball screw, Y gear rack			
Guiding Rails	XYZ PMI or HIWIN linear square rails			
Reposition Accuracy	<0.03/300mm			
Max Engraving Speed	12000mm /m			
Spindle Speed	6000~24000rpm			
Controller	4 axis NC Studio controller with handle wheel(use computer to control the machine)			



Format of instructions	G code or HPGL			
Voltage	380V/60Hz or 220V/50HZ			
Weight	800KG	1500KG	2500KG	3000KG
Packing size	1485x 1950x1750mm (5CBM)	1900×2200×2200m m(9.2CBM)	3000×2200×2200mm(15CBM)	4200x2200x2200mm (21CBM)

Details

Seq.	Picture	Detail Instruction
1.		Base Frame: The heavier base frame is made of heavy-duty tubular steel that is welded, precisely machined by gantry milling machine and stress relieved by vibration device so that the foundation remains true and steady over the operational life of the machine.
2.		Multiple Cooling Spindle: Multiple spindles for mass processing on solid wood, MDF, acrylic, aluminum and plastics, etc; we offers different spindle options which available with 220V-2 Phase-50-60Hz or 220V-3 Phase-50-60Hz or 380V, 3Phase-50-60Hz. Tools diameter are 3.175mm, 4mm, 6mm, 8mm and 12.7mm.
3.		Ball Screw: High accuracy ball screw for Z axis, quality TBI Anti-Backlash center driven ball screws with 25mm or 40mm diameter and 0.01mm repositioning accuracy. The combination of ball screw and gear rack offers accuracy and high speed machining.
4.		Gear Rack and Linear guide: We use precision gear racks for XY AXIS, PMI linear guide rails for XYZ axis, carefully installed and regulated by experienced worker with special purpose instrument, and this assures smooth motion and long term reliability.



	ANHUI WILLIAM(VICUI) CNC TECHNOLOGY CO.,LID				
5.		NC Studio 4 AXIS Controller: 85A model. PC based NC Studio Controller with friendlier Human& machine interface/HMI, fully executed with computer. It well realizes high-speed and high-precision motion control. Handle wheel can be used to control the movement of machine.			
6.		Rotary Axis: Available with different cylinders, irregular objects, crutch and cylinder crafts with various diameters; we can put different number of rotary axis according to specified requirement.			
7.		Motor and Driver: We use high accuracy stepper/servo motor drivers for small size rotary machine; each stepper motor supports each rotary device. For big size machine, we use 6 sets of Panasonic servo motors and drivers, including 2 sets support 8 rotary, 2 motors for Y axis, 1 motor for X axis, 1 motor for Z axis.			
8.		Central oil Lubricator: Easier to lubricate the Guide units regularly, just pull it gently and oil will go when it is needed.			
9.		Control Cabinet: All the electrical components are housed and wired in a mobile, double door electrical enclosure. This allows for easy access and service when needed. Every wire is tagged so that when service is required, the customer can easily navigate the cabinet.			
10.	Constitution Const	Processing Software: You can use power-mill software to make processing of 3D files, which was scanned with 3D scanner. We can make 4 axis movements. (AXYZ axis moves at the same time).			

Extra Optional Parts

Seq.	Picture	Detail Instruction
1.		3D Scanner: with the 3D scanner you can scan any objects which you want to make by machine, input the scan file generated by scanner to computer, and process it with post processor software, saved it as G code which can be recognized by CNC router.
2		Control cabinet with air conditioner: the air conditional installed on the control cabinet, ensure the machine can be used in tropical area countries to reduce the temperature inside of the cabinet, avoid damage of the electric components

Working Samples











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Factory View











Package





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