

PRODUCT PROFILE & 5 Axis CNC Engraving Machine : CS-150150-5M Production Specification



Granite Monuments
& Tombstones



Stone Pillar Craving



Stone Sculpture

WELCOME



ABOUT THE COMPANY

Established in 2012 as **FUSION TECHNOCRAFT** and incorporated as an LLP on May 17, 2018, **FUSION CNC TECHSYSTEMS LLP** is a leading manufacturer and importer of advanced CNC Stone Carving and Cutting Machine technology and stone diamond tools. Under the visionary leadership of **Mr. Manish Sukhadia**, Founder and Managing Partner, the company specializes in a diverse product range including CNC engraving and cutting machines, profiling machines, stone temple and pillar carving systems, sculptures, granite monuments, and tombstone machinery. Renowned for exceptional performance, high durability, low maintenance costs, and competitive pricing, Fusion CNC ensures the highest quality by using premium raw materials and maintaining a robust network of trusted vendors with an efficient bulk manufacturing infrastructure. Driven by innovation and guided by experience, Fusion CNC continues to build a strong presence in the stone processing machinery industry and shape excellence in CNC technology and stone craftsmanship.



+900
CUSTOMER



+100
PROJECT DONE

13+
YEARS OF EXPERIENCE



**5 Axis CNC Engraving Machine :
CS-150150-5M Production Specification**

1. Preface:

Thank you for your attention to our products. This five-axis stone engraving machine has added b and c axis compared to the three-axis engraving machine, which can complete more complex work. It supports multi-angle and multi- directional engraving, and can handle complex curved surfaces, special- shaped structures and tiny features, breaking through the limitations of traditional three-axis and four-axis engraving machines .

2. Productions



And can complete all the functions of 3-axis and 4- axis engraving machines.

3. Reference production efficiency

Product	size	Tool Consumables	Time	Cost Accounting
	<p>Marble 1200*400*400mm</p>	<p>Rough machining 1: 20hr Fine carving 2: 20hr</p>	<p>40 h/pcs</p>	<p>Electricity fee: 2KWH*40*electricity fee standard Water fee: Recycling Tools: Roughing tools and finishing tools</p>
	<p>Marble 1000*1000*1000mm</p>	<p>Rough machining 1: 23 hr Fine carving 2: 41 hr</p>	<p>64 h/pcs</p>	<p>Electricity fee: 2KWH*64*electricity fee standard Water fee: Recycling Tools: Roughing tools and finishing tools</p>
	<p>Granite 1200*600*100mm</p>	<p>Edge shaping: 5h 3 sides finishing carving 2: 15h</p>	<p>20 h/pcs</p>	<p>Electricity fee: 2KWH*20*electricity fee standard Water fee: Recycling Tools: Edge shaping tools and finishing tools</p>

4. Technical Support-For very special sculpture



The customer makes a request and needs to provide photos or sketches and other expected modification suggestions and size requirements



Make clay sculptures and modify local details according to new suggestions from customers



After confirming the model, 3D scanning is performed and an STL file is generated, and a machining program is generated at the same time.



Processing on machines (95% of these finished by machine and manual finishing of details)

For sculptures withless complex shapes, we can also provide computermodeling.

Module Name	CS-150150-5M
Basic Parameters	
Machine size (length, width and height)	3800mm*3200mm*3200mm
Packing Specifications	3800mm*2200mm*2300mm
Workbench size	2500mm*2000mm
Maximum workpiece size for rotating shape	Maximum sculpture: ϕ 1500mm-H 1500mm;
Maximum load	12,000Kg
Supply Parameters	
Operating voltage	AC 380V/50Hz
Water supply	3m ³ /h Automatic control by controller
Gas supply	0.4mpa dry gas
Minimum floor space	18m ²
Foundation requirements	Hard concrete floor
Circulating water	External circulating water required
Technical Parameters	
Machine power	16KW
Spindle parameters	7.5KW water cooling splinder- rpm18000 - 24000 with air seal protection
Repeat positioning accuracy	\pm 0.03mm
Processing accuracy	\pm 0.1mm
Maximum empty line speed	25m/min

Control System	Weihong ncstudio 5-axis with RTCP
Servo motor	XY:1.5KW; Z:1.8KW with brake; B:0.75 KW; C:1.5KW
Travelling rail	X/Y 30,Z 45 linear guide rail
Ball Screw System	3210,TBI-Taiwan ,Ball screw
Processing speed	15m/min factory default value, maximum 25m/min
Supported program output software	Type3, ArtCam , Rhino, SprutCAM , MasterCAM , PowerMill , SolidCAM , Alphacam , FeatureCAM , Pegasus, etc.
Identifiable code	G-code,ENG, NC, etc.
Post-processor	XYZBC-PowerMill post-processor
Control System	Industrialcontrol integrated machineequippedwith Win 10 system

6. Configuration Introduction

(1) Front-end program

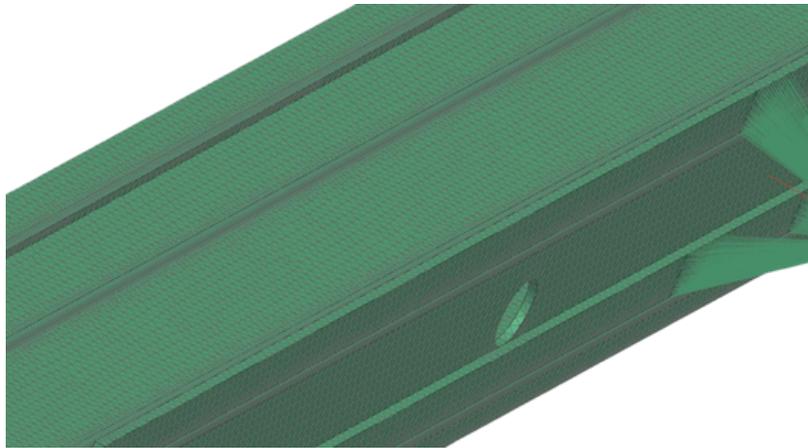
Output software (software needs to be purchased by yourself, only PowerMill post-processing is provided free of charge, other software post-processing files need to be customized for a fee) PowerMill , Type3, ArtCam , Rhino, SprutCAM , MasterCAM , SolidCAM , Alphacam , FeatureCAM , Pegasus, etc.

(2) Backend operating system



Adopt the latest generation of Weihong Ncstudio (EPC100SC) with RTCP function operating system, equipped with Weihong professional-grade anti-interference, static, waterproof and dustproof industrial control all-in-one machine

(3) Design details - design concept based on Ansys finite element analysis



All steel structures are subjected to Ansys stress analysis. Before the analysis, a high-density micro-grid is evenly distributed. These micro-grid units are used to simulate the mechanical properties of the actual material. The grid division will also directly affect the accuracy of the subsequent calculation and analysis results. At the same time, it is more conducive to observing the stress concentration point during the force analysis, so as to adjust and change the structure in time to achieve the optimal solution of the geometry.

(4) Servo motor and servo drive



Well-known Chinese Weihong brand servo system:

high response frequency, faster dynamic response, backlash compensation , servo motor with IP67 waterproof rating, more resistant to water vapor and oil. The driver seals the internal circuit of the driver through rubber and plastic parts, greatly improving the anti-pollution ability, and uses high-conductivity materials to quickly reduce the internal temperature of the driver to ensure stable performance.

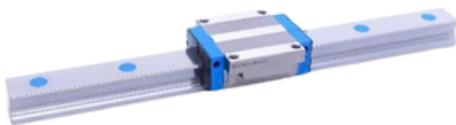
(5) Ball Screw- Hiwin

Highprecision,highspeed, high load, low friction, no backlash.



Hiwin ball screws are manufactured with a very sophisticated process, strictly controlling the size and quality of each part to ensure accuracy and stability. At the same time, the contact between the ball and the guide rail makes it more accurate and stable than traditional threaded screws, and is particularly outstanding in precision machining and repeated positioning .

(6) Linear Guides - Hiwin



Hiwin linear guides can reduce the friction coefficient to 1/50, so they can respond sensitively to micro- movements and achieve precise positioning. Because of the reduction in friction coefficient, production electricity costs can be greatly saved. High precision and small gap .

(7) Reducer-JapanNidec



All transmission shafts of XYZA are driven by C high-precision planetary reducers, which have a torque 3 to 5 times higher than that of models without reducers, and do not produce gaps, so there is no loss of precision .

(8) Oil supply

Y-axis oil bath lubrication, slide block, gear row maintenance-free , XZ motion mechanism fully automatic centralized oil supply system, oil filling time can be freely set according to production conditions and fully automatic lubrication of all motion mechanisms

(9) Except for the docking part , the entire design of the guide rail and gearrow

Except for the segmented parts, all guide rails and racks adopt the whole continuous solution to ensure the precision and reliability of all operating mechanisms during operation.

(10) Industrial Refrigeration Machine



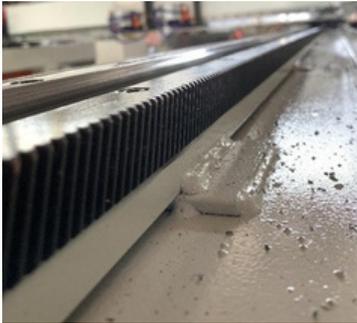
industrial chiller can always provide low-temperature coolant below 30°C to the high-speed rotating spindle to ensure that the spindle will not overheat and cause a drop in thermal power.

(11) Tool setting probe - tool calibration



The tool setting instrument can automatically control the tool length to match the program output Z coordinates, allowing you to quickly input the data on the worktable surface (Z=0) and the height of the material when you start working. It provides fast parameter input and protects the worktable, while also ensuring the accuracy of continued processing after the tool is broken and replaced. This improves machine productivity and safe operation.

(12) Oil bath Y axis



The Y-axis is equipped with oil bath and high-precision rack, which is maintenance-free and has higher speed.

7. about Us



<p>PRICE</p>	<p>47,25,000/- INR + GST 18% +TRANSPORATION</p>
<p>Payment Terms & Conditions</p> <p>Local Tax</p> <p>Warranty Period</p> <p>Delivery</p> <p>Transposition</p> <p>Payment</p> <p>Order Confirmation</p> <p>Installation & Training</p> <p>Training & Service</p>	<p>GST 18% will be charged extra. All over Indiapurchaser</p> <p>1. One year against faulty parts of the CNCmachine.Machinewarrantyis start from Invoice date one year's warranty. 2.Our warranty of machine does not coverthedamagescausedthroughfire created by any means, outside force,operation'smistake,naturalcalamity Items not covered under warranty suchasTool&Collet.NoWarrantyfor Vacuum pipes and dust collector pipes. 3.Spindle have 6 months warranty</p> <p>Within 65 to 75 days after the receipt of order confirmation sign and stamp and Advance payment dated.</p> <p>Delivery Charge will Extra from customer side (Ahmedabad H.O.)</p> <p>50% Advance along with Purchase Order and the buyer shall pay balance payment 50% in advance before shipment and the seller shall arrange shipment after receiving the payment. Demand Draft / At Par Cheque for the payment should be in the name for "FUSION CNC TECHSYSTEMS LLP" payable at Ahmedabad Demand Draft / At Par Cheque for the payment should be in the name for "FUSION CNC TECHSYSTEMS LLP" payable at Ahmedabad</p> <p>Once the offer is accepted by purchaser by purchase order in writing or on receipt of the advance amount, such order shall be deemed to be confirmed orders. If the purchase order is cancelled then the advanced payment amount is not refundable.</p> <p>FUSION will depute service engineer charge for installation and training to the purchaser. Only actual expense for traveling, boarding and lodging will be charged extra. The purchaser shall be ready with the installation requirements (space, raw material, electrical connections, compressed air, Stabilizer as per requirement and tools etc.). FUSION will require 3-4 days to plan and depute service engineer at your site, if you require more days for training so per day charge is INR 5000.</p> <p>FUSION will provide operational training to customer's technical team. Once installation gets completed and machine is handed over to customer, all trainings required in future, will be on paid basis.</p>
<p>For Service During warranty period free of cost, Only actual expense for traveling, boarding and lodging will be from Customer side.</p>	
<p>Dispute</p>	<p>All disputes will be subject to Ahmedabad jurisdiction</p>



PROUD TO BE MEMBER OF



Centre for
Development of Stones



CONTACT US

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