



## Automatic Tool Changing CNC

The SUNNA ATC Cnc tool changer has items of automatic tool changer, tool holder claw clamp, cnc engraving machine and air cooled spindle. The SUNNA INTL new series Automatic tool changing CNC engraving machine are meets a wide range of application requirements, particularly in volume-oriented companies that need to handle a variety of sheet widths, individual components, and solid wood products. The SUNNA ATC Series qualifies due to its above-average “up-times”, low maintenance requirements, and ease of use.

## 1. Product Introduction

The SUNNA ATC CNC router machine has two types of tool magazines: linear and carousel. Both of them can be installed beside the spindle or on the side of the machine bed. By changing different tools automatically, the ATC CNC machine can complete multiple and complex woodworking processes at one operation. It can realize cutting, carving, engraving, drilling, routing, grooving, and pocketing of wood, MDF, acrylic, PVC, plastic, foam, stone, soft metal and other materials. It is also called ATC CNC wood carving machine, wood engraving machine. Basic type 3 Axis ATC CNC can be upgraded to be 4 Axis, 5 Axis, Rotary type, etc.



## Description of Automatic Tool Changing CNC Engraving Machine

ATC CNC Router machine can complete multiple and complex woodworking processes at one operation. It can realize cutting, carving, engraving, drilling, routing, grooving, and pocketing of wood, MDF, acrylic, PVC, plastic, foam, stone, soft metal and other materials. It is also called ATC CNC wood carving machine, wood engraving machine.

## 2. Machine features :

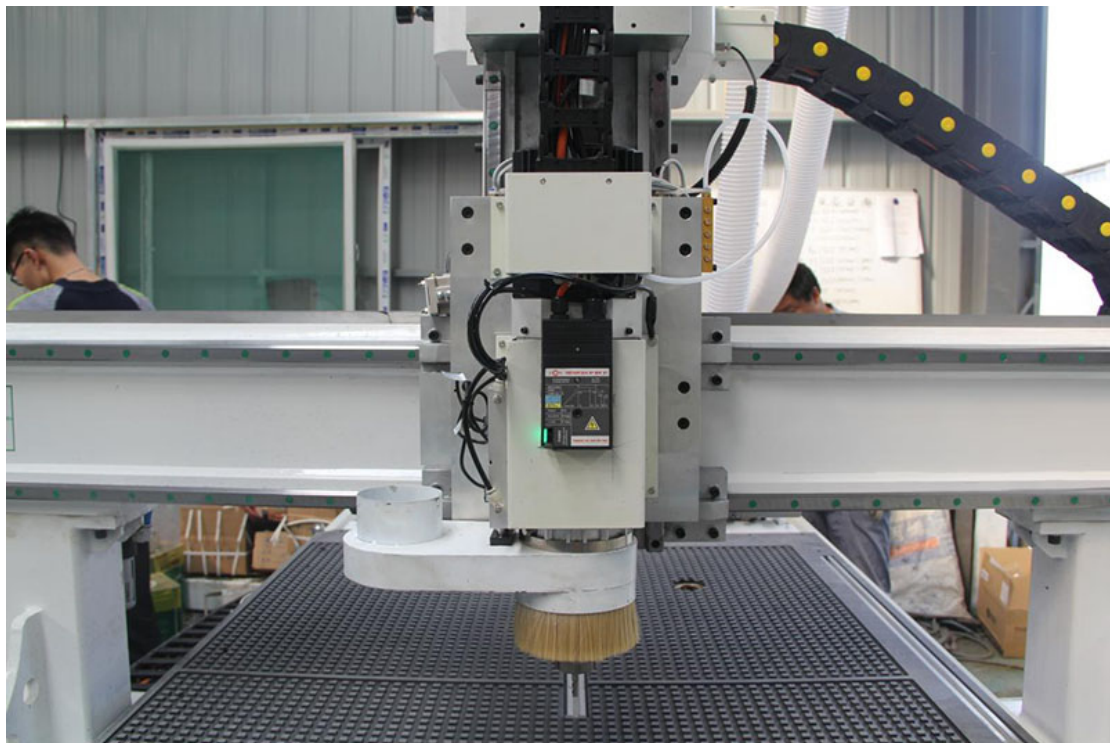
1. SUNNA ATC adopts a heavy lathe body structure and crossbeam transmission design, main body with Industrial welding technology, quench dealing method, and then with high Jinan Sunna International Trade Co.,Ltd.

precision milling machine to build. All the accessories are all made one time by 5 axis machining center to ensure the machine's rigidity and accuracy.

2. X, Y-axis with imported high-precision rack, Z-axis with imported high-precision grinding grade ball screw.
3. Spindle with high precision, high speed, constant torque, low beating, strong stability, and long life characteristics.
4. Supporting G code and PLT code format generated by Type3, MASTERCAM, CASMATE, Artcam, AUTOCAD, UG, CorelDraw, and other CAD / CAM software.

### **China CNC Router HQD 9.0KW air-cooled spindle**

The HQD 9kw frequency spindle on the ATC CNC router has adjustable speeds of up to 18,000 -24,000RPM.



### **All-Steel Reinforced Gantry**

Rigidity has been increased for even higher accuracy. Vibration is reduced, and the longevity and dependability are increased.



## High Precision Linear Guide

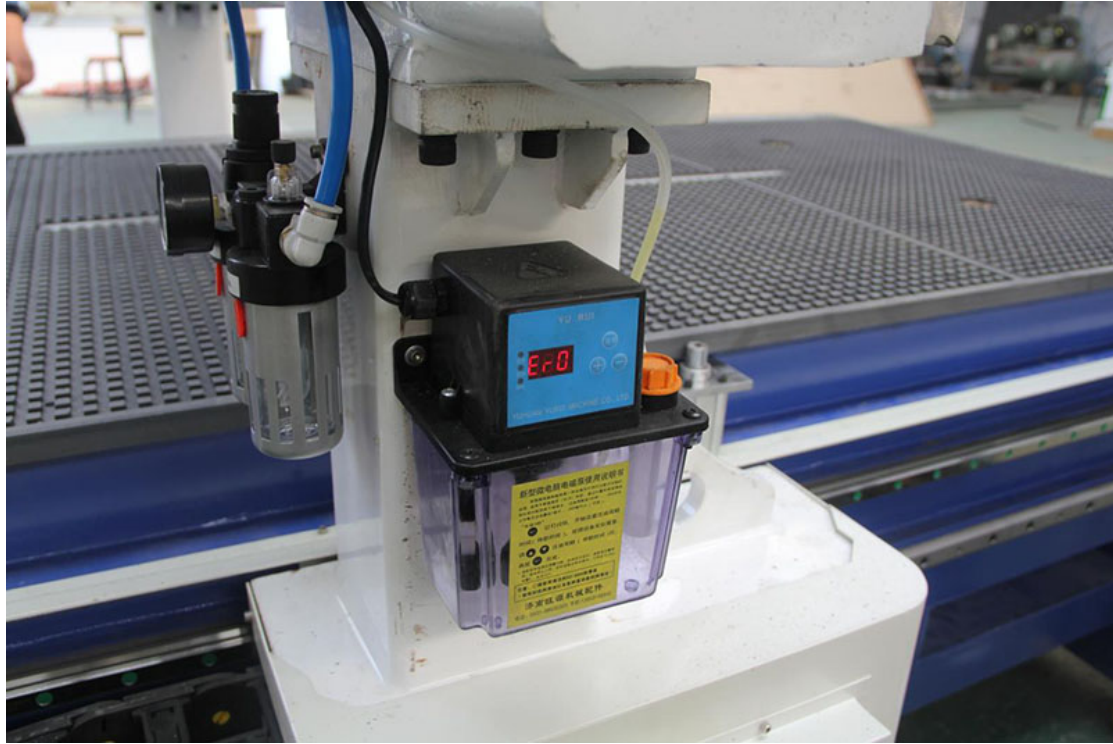
Linear motion is provided by rack and pinion on the x and y axes, and ball screw drive on the z axis. On all axes, the SUNNA Series CNC Router has 30mm or 25mm 20mm linear rail systems.





## Oil mist/fog lubrication pump

It is driven by compressed air, sprays oil fog particles in the size between 0.5 and 15 0.5-15 $\mu\text{m}$ . It is application for lubrication and cooling of lubrication points. It is equipped with electromagnetic valve. When connected with main unit electric control, it can realize control of lubrication time.



## Linear ATC

The tool changer magazine has as many as 8 tool positions, and a variety of combined tools are available at any time, and there is no need for operator intervention when changing tools during processing.



## CNC Router Hand Wheel

Through wireless transmission technology to connect with the receiver, the operator can hold the handwheel, get rid of the connection of the spring wire, can walk freely, the operation is convenient, free, stable, and reliable, and the failure rate is reduced.



## TBI Ball screw

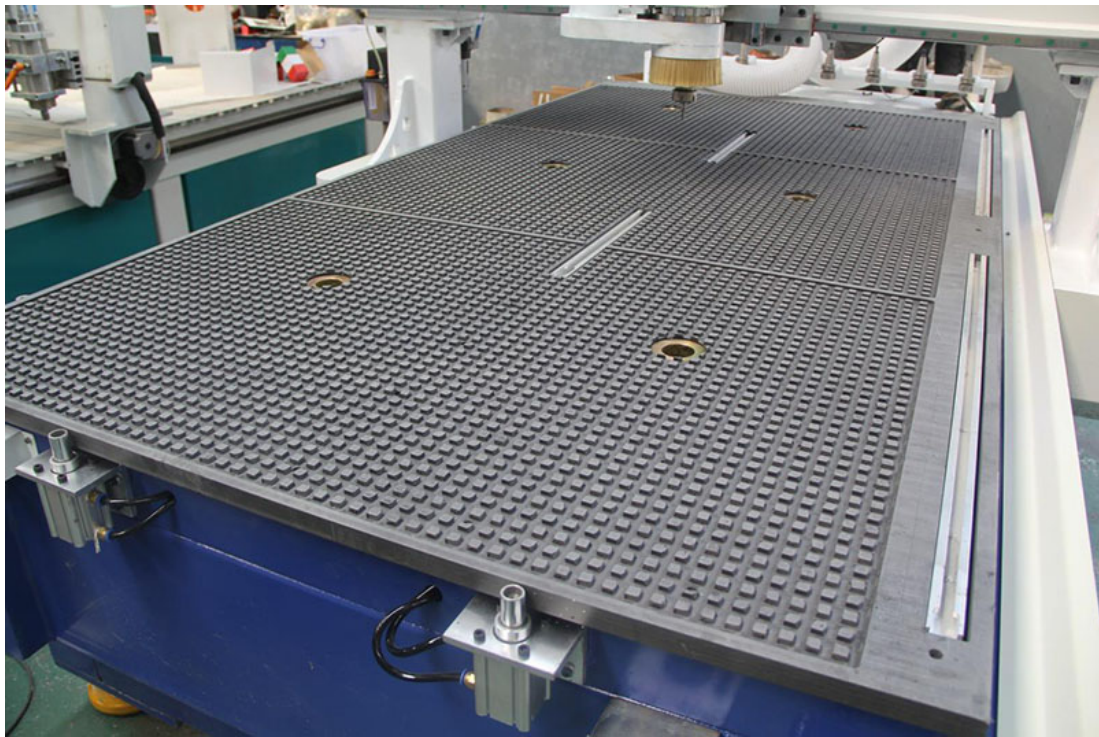
High precision , durable and trustworthy without deformation



## Vacuum Table

The T-slot vacuum table can absorb very small piece material.





### Japan YASKAWA servo motor

Faster speed with signal feedback. Low heat radiation.

Run smoothly at ultra-low speed. Reduce the vibration, avoid oscillation.



### vacuum pump 7.5 kw optional

※No oily odors.,Low noise and libration,Maintenance-free.

※High pressure and low noise

※Max output 4.66m<sup>3</sup>/min

※Ultimate vacuum: 0.097 Mpa

※Speed 1450rpm/min



### 3.Product Parameter (Specification)

Description	Parameter
X,Y,Z Working Area	1300x2500x200mm
Table Size	1300×2500mm
X/Y axis max. rapid Travel Rate	50-90m/min
X/Y axis max. working speed	10-25m/min
Z axis max working speed	6m/min

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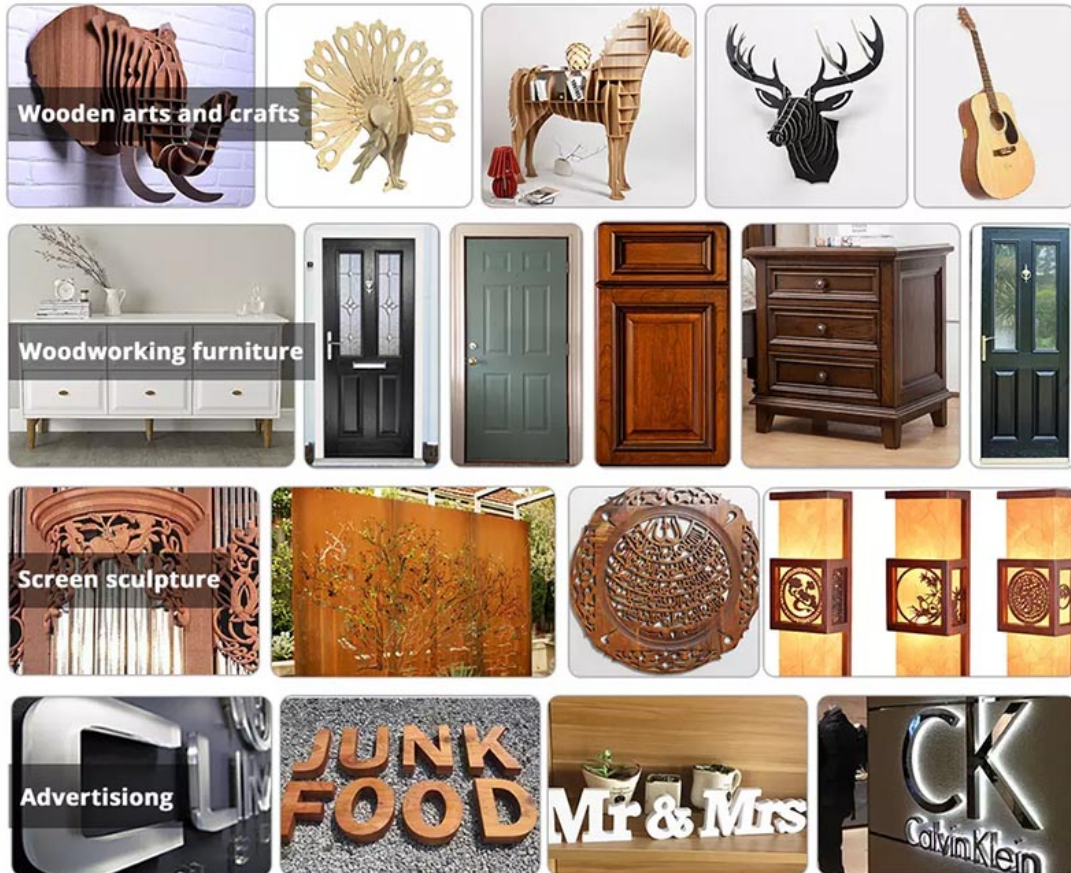


Table Surface	Vacuum and T-slot working table
Frame	Heavy Steel Tube Structure
X, Y Structure	Gear Rack transmission, Hiwin Rail Linear Bearings
Z Structure	Hiwin Rail Linear Bearings and TBI Ball Screw
Max. Power Consumption	(Without Spindle) 12.5Kw
Spindle Power	China HQD 9.0KW air-cooled spindle
Spindle Speed	18000-24000RPM
Drive Motors	Japan YASKAWA servo motor
Inverter	11kw Fuling inverter
Working Voltage	AC380V/50/60Hz, 3PH (Option: 220V)
Dust collector	5.5Kw
Command Language	G Code
Operating System	Taiwan SYNTEC control System (Weihong is optional)
Computer Interface	USB
Collet	ISO30
X,Y Resolution	<0.01mm
Software Compatibility	Type3/UcancameV9 Software, (Option: Artcam Software)

#### **4.Application:**

Automatic tool changing CNC engraving machine is suitable for wood, acrylic, aluminum, copper, plastic, and carbon fiber composite materials, carving, and milling, widely used in soft metal and sheet metal processing areas.

## Product Application & Sample



### 5.SUNNA INTL After-Service:

The guarantee period of quality shall be 12 months counting from the date on which the commodity arrives at the port of destination.

We are responsible for offering the fittings free of charge during the guarantee period, while it is preferred you send the damaged fittings to us by courier with your charge for our testing, after confirming damage, we will send back the alternative fittings to you. After the guarantee of quality period, the parts required repairing or change, if any, shall be paid.

When you meet some complicated problem and online-support can not solve it, we can offer Door-Visiting Service. If our engineer to assemble or/and maintain or/and adjust the machine is/are required, we shall assist to deal with the visa formality and prepaid traveling expenses and accommodation to us during the business trip and the service period before their dispatch. And you can arrange for the translating person for the

service engineer during their service period. Or you can send your engineer to China. We will offer long-term technical training to him for free.

## **6.Training, Commissioning & Start up of SUNNA CNC**

### **Router**

We will supply with the machine Operation Manual and Training CD in English version for Installing and operation, including introduction for the composing of equipment, working principle equipment, common knowledge of computer, controlling principle of electronic devices, daily maintenance measures of equipment. Personal demonstration for installation, adjusting and operation of equipment, and the computer. Common malfunction eliminating measures, etc.

We will supply Instruction for simple troubleshooting of the machine when dispatching, which can help you dealing with the common problems happened unluckily. Also, one set of "Instruction Book", "Operation Manual" and "Training Video Disk" for machine/software will be sent to you along with the machine, which could be easily understood and friendly handled by you and your customers.

ODM/OEM customized projects allocate sufficient resources to ensure the first response, efficient collaboration with customers, shorten the research and development cycle, and help customers quickly realize product marketization.

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