

CNC 6-Sided Drilling Machine

ND510S

(with grooving saw blade)



Description

- Multi-functional CNC drilling machine is able to drill from 6 sides.
- Top grooving,
- Simple routing meets different process requests and gives batch-size-one production max flexibility;
- Machine is configured with one top and one bottom drilling blocks, one 3.5kw top main spindle.
- Software is open port, support most formats in market.
- Compact design, save space

Details

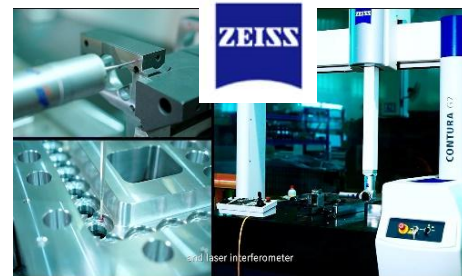
1. Machine body

- Heavy duty machine body is welded with square tube and laser-cut steel plates, then through processing of advanced CNC machine for metal work, hence enhance the stability and strength, reduce the vibration in the process; Gantry and machine body have been designed as one organic structure of high rigidity; Machine net weight up to 2800kg- **very heavy duty**;
- Frame body pass the **heat treatment** and **vibration aging treatment** to guarantees the whole service life without deforming.
- After **sandblasting** and **painting**, the top-grade CNC metal processing machines are used to process the body and components to make sure perfect quality and detail.



2. Quality control

- Advanced measuring equipment and strict QC system also help to make sure the final machine we offer to our customers are of high quality;
- All the machines are delivered with Quality Certificate signed by QC specialist.



3. Professional assembly line

- Assembly is final and important step for better machine performance. Nanxing's professional assembly lines from machine body to small electrical components were by experienced technicians that guarantee machine standardization and performance.



4. Long clamp beam & fast clamps

- The design of 3.3m longer high-rigidity clamp beam on two sides ensure stable and fast clamp moving with least vibration, and reduces the frequency of switching clamp during processing, thus higher efficiency.
- The movement of clamps is controlled by servo and along inclined rack&pinion for accuracy in process;
- High quality cable chain



5. Infeed air float table

- Floating feed table in front makes boards smoothly moving on table, avoid scratches on panel surface.
- Standard with air blower
- Floating feed table size :500*1613mm
Air blower power :1.1kw
Air inlet diameter : $\Phi 75$



6. Feed-out

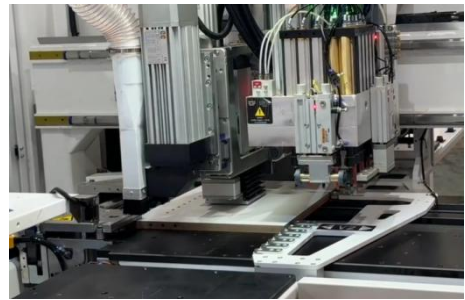
- Optionally feed out from front or back, air floating table makes boards smoothly moving on table, avoid scratches on panel surface.
- Size: 500*1613mm



7. Positioning

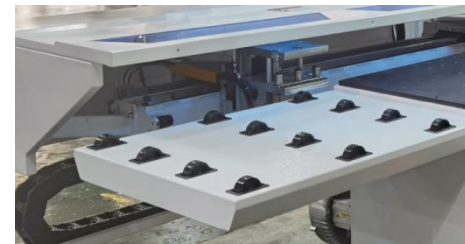
Side aligner

- Dual clampers cooperate well with auto side alignment to guarantee precision and stability in panel processing.



Stopper

- The stop is strong design to offer stable alignment. Besides, the sensor can measure the workpiece X length.



8. Accurate movement of each axis

X, Y, U direction

- Transported by inclined rack and pinion of large bearing capacity and strong stability;



Z direction

- Ball screw rod gives the machine added precision in Z direction.



Servo motor

- The accurate movement of each axis is ensured by the high quality servo motors.
- Max travelling speed:
X/U/Y/Z/V:135/135/75/30/30m/min



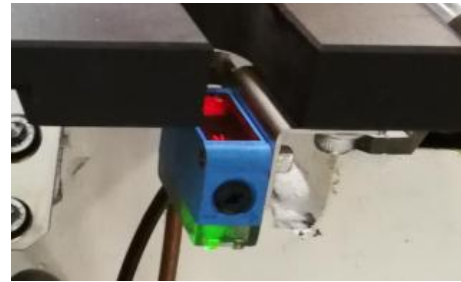
9. Auto greasing

- Linear guiding rail and bearings can be greased automatically by electrically controlled greasing pump, save maintaining job.



10. Board length detector

- There would be alarm when lengthwise detector detects length is not correct to ensure operator puts the right board.

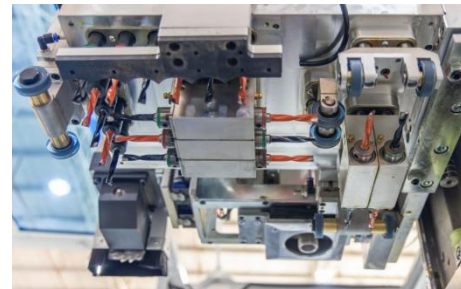


11. Processing unit

Top processing unit

1 Top drilling block

- Vertical drills: 10;
Horizontal drills: 2+2 in X direction; 3+3 in Y direction. 5000rpm rotating speed, hole edge is smoother, friendly for hinge hole.



➤ One 3.5kw main spindle

Type:ER35



➤ Independent grooving saw

Motor:1.7KW*1

Saw blade size:Φ100*Φ22*δ4

Only can be processed in X direction. It is fixed and cannot be turned.

Processing range:50-1000mm,the panel width cannot be less than 50mm.

Processing depth: within 12mm

The groove width:4-8mm,when the groove width is 4mm,it can be done in one time, if the groove width is greater than 4mm,need to mill 2 times.



Bottom processing unit

Drilling block:

- 9 vertical drills
- Collinear vertical drills of top and bottom drilling blocks, faster to drill through holes.
- Support plates prevent boards from deforming when processing on top



12. Quick change tool

- Machine has a door, tool can be accessed by opening the door.
- Drills rods are quick install head, easy to change.



13. Cable chain

- High-quality cable chain used to drag and protect electric wire and air tube during movement of each axis for longer service life.



14. Min. processing size

- Drilling block design and software can do drilling for narrow parts
- Panel length: 200-3000mm
Panel width 30-1000mm



15. Stack processing

- Support stacking processing if hole position is mirror



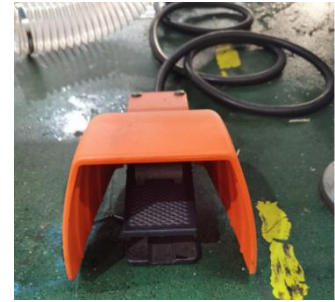
16. Hand controller

- Hand controller makes commissioning more convenient.



17. Start button & pedal switch

- Starts by Start Button or foot pedal
- Machine featured start pulling bar, easy to start especially for long boards.



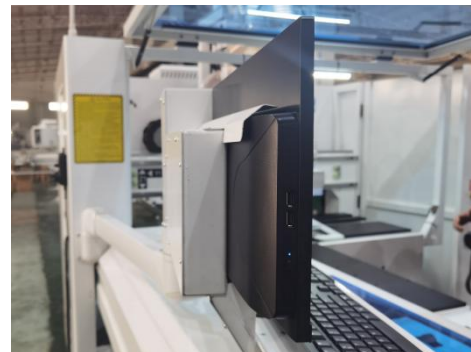
18. E-stop & Pause bar

- Machine featured pause bar, safety for operator
- E-stop



19. Industrial computer

- Windows 10 operating system.
- All-in-one industrial computer



20. Control system

- SYNTEC CNC control system and Operation Software, reliable and the process efficiency is 20%-25% faster



21. Industrial computer

- Windows 10 operating system.
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22. Excellent electrical components

- Electrical parts and components are in reliable brand, standard and clean wiring connection make machine reliability and stability.



23. Bar-code reader

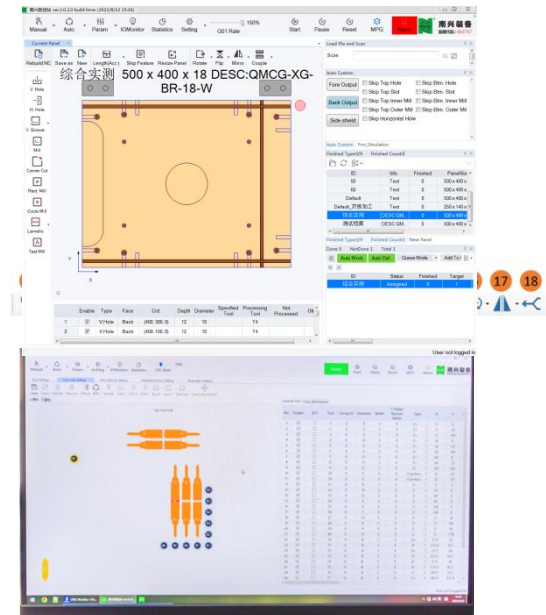
- Read the panel processing information generated by furniture making software, machine will recall corresponding program to process automatically by scanning the Bar code info.
- Wireless



24. User-friendly operation

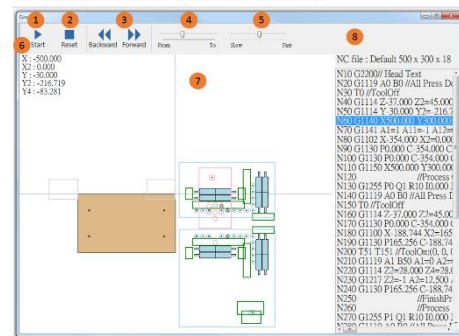
- Control interface is modern and friendly,
- Manual programming interface is easy to operate, functions are available at a glance like horizontal hole, vertical hole, grooving, flip, mirror, rotate etc.

- Tool management



- Simulation function

9.6 Drill Machine PC CAM - Auto Mode - Simulation



25. File format support.

- Open port to interface with furniture design software, support the file format: MPR, DXF, BAN, BPP, PDX; XML; XXL.



26. Air conditioner on control cabinet

- Suitable for hotter area.



27. Air jet for Gripper

28. Board thickness sensor

- Board thickness sensor to avoid the possible influence caused by putting wrong thick board



Technical Data

Total power	13.87 KW	
Machine size	3962*2222*2271 mm	
Power supply	415V/50Hz	
Air supply	0.6-0.7MPa	
Control system	Brand	SYNTEC
Panel size	Length	200-3,000mm
	Width	30-1,000mm
	Thickness	10-60mm
Max. traveling speed	(X /U) axis	135m/min
	Y axis	75m/min
	Z axis	30m/min
	V axis (push)	30m/min
Working table	Material	HPL
	Table size	1232 x 275 mm
	height	955mm
Drilling blocks	Drilling block qty	Top 1; Bottom 1
	Vert. drills qty (top)	10
	Horiz. drills qty (top)	X: 6 + Y: 4
	Vert. drills qty (Bottom)	9
	Max drill diameter	Φ35mm
	Drill spacing	32mm
	Rotation speed	5000rpm
	Shank diameter	Φ10mm
	Drill length	70mm
Main spindle	qty	1 (top)



	power	3.5kw
Dust collector	qty	2
	diameter	Top 200mm×1 Bottom 125mm×1
	speed	≥28m/min

**Thanks for the attention!*

The company continuous to improve the product specifications and design details, the specifications are subject to change without notice. 240321