

SINGLE ITEM SPECIFICATIONS

CNC 6-Side Drilling Machine

ND612DT | Nanxing Machinery

Two top drilling blocks, one bottom drilling block and a six-slot automatic tool magazine.



Configured for Caple

SYNTEC CNC control with an all-in-one industrial computer and machining software.

Top vertical drills: 19×2 ; top horizontal drills: X 3×4 and Y 2×4 ; bottom vertical drills: 9.

Top spindle: 5.5kw ATC, ISO30 / ER32. Bottom spindle: 3.5kw, ER25. Values follow the detailed OEM specification and technical table.

Seven file formats: MPR, DXF, BAN, BPP, PDX, XML and XXL.

Included configuration: two-head side-routing aggregate, board thickness sensor and control-cabinet air conditioner. See points 27-29.

Details

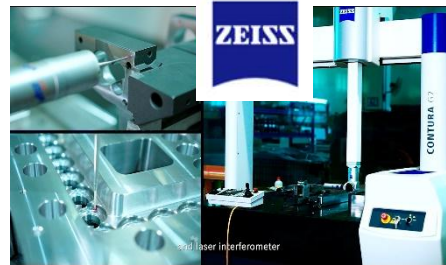
1. Machine body

- The machine adopts an integrated heavy-duty frame structure body, designed with finite element analysis to ensure operational precision.
- The entire bed undergoes stress-relief annealing, vibration aging, and shot peening treatment to enhance stability.
- Constructed with rectangular square tubes and a monolithic frame, the machine is integrally formed in a single process using Japan's SNK machine tools."



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.



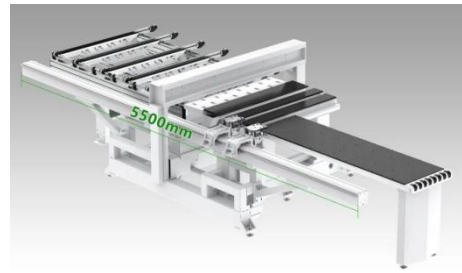
3. Professional assembly line

- 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.



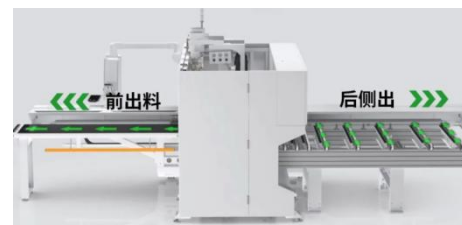
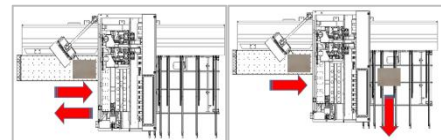
4. Long clamp beam & fast clamps

- The design of 5.5m longer high-rigidity clamp beam ensure stable and fast clamp moving with least vibration, and reduces the frequency of switching clamp during processing, thus higher efficiency.
- Clamp finger is 5-65mm open&closing range; working range 5.3m;



5. Feed-in&out table

- Can choose feed mode feed-in & out in front side or feed-in in front and feed-out in back.
- **Infeed table:** Floating table makes boards smoothly moving on table, avoid scratches on panel surface. Size 2000*615mm; Air blower: 1.1kw
- **Feed out table:** by crosswise belt table with brush at size of 2400mm*1630mm; The hairbrush and conveyor belt can offer very good protection to the surface.



6. Positioning

Side aligner

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



Support /press plates

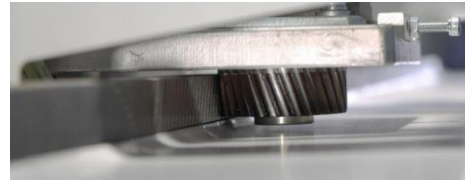
- Top and bottom drilling blocks and main spindles have support plate to offer the board a support force when the other side is being processed to ensure accuracy in process.



7. Accurate movement of each axis

Transmission mode

- X&Y axis by highly precise rack and pinion,
- Z axis by ball screw rod;



Servo motor

- The accurate movement of each axis is ensured by the high quality servo motors.
- X direction:0.75KW
- Y direction:1.3KW
- Z/W/V direction:0.85KW
- V2 axis: pusher :0.4KW
- Max travelling speed:
X/U/Y/Z/V:135/135/75/30/30m/min



8. Auto greasing

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



9. Board length&width detector

- There would be alarm when board is oversize to ensure operator puts the right board.



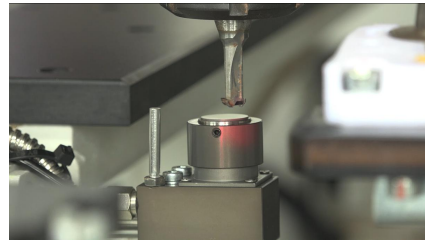
10. 6 slots tool changer

- 6 slots Tool Magazine
- Tool Holder: ISO30 | Collet Specification: ER32
- Crescent Clamp Tool: (12.7*9.8*7*20). Front (top) Lamello.
- Alloy Saw Blade: (D63x5.0). Side grooving (3-sided grooving, excluding gripper side).
- Lamello Saw Blade: (φ100*7*22), side Lamello: (3-sided grooving, excluding gripper side).
- Straight Milling Cutter, front grooving.



11. Tool setting gauge

- Without need of setting tool tip by manual, by using tool setting gauge, main spindle can change tool automatically;



12. 5.5kw+3.5kw main spindle

Top main spindle:

- Tool type ER32, 5.5kw ATC spindle ISO30; 18000rpm/min
- 2-piece independent presser for better dust performance;

Bottom: 3.5kw main spindle
ER25

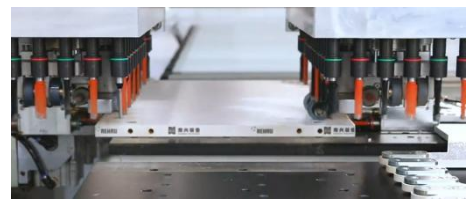
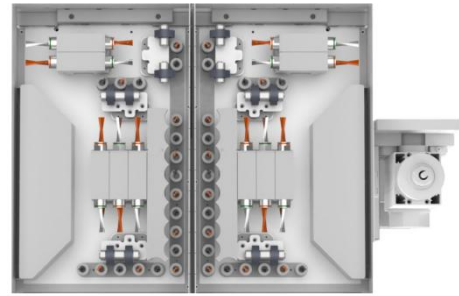


13. Optimized drilling blocks layout +saw blade

- With Stabilized pressure pump to ensure stable drilling;

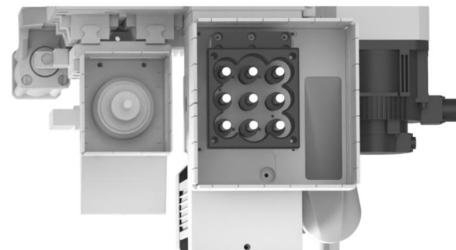
Top drilling block:

- 2 boring blocks 2.2kw,
- Optimized drilling blocks,more length-wise vertical drills,2 drilling blocks' vertical drills mini distance is 64mm, ideal for small board, increasing processing efficiency at lease by 30%;
- Vertical drills: 19+19
Horizontal drills: 3*4 in X direction; 2*4 in Y direction.
5000rpm rotating speed, hole edge is smoother, friendly for hinge hole.
- Optimal drill bit layout, fast mini-fix processing;
- Max drill bit diameter 35mm, spacing 32mm, holder diameter 10mm, length 70mm



Bottom drilling block:

- 1.6kw 9 vertical drills
- Bracket rises to support boards when do top processing, prevent accuracy issue caused by board deform;
- Col-linear vertical drills of top and bottom drilling blocks, faster to drill through holes.



14. Min. processing part

- Drilling block design and software can do drilling for narrow parts
- Panel length: 200-3000mm
Panel width 30-1200mm



15. Stack processing

- Support stacking processing if hole position is mirror
- Mirror grooving;



16. Invisible hardware

- Machine is configured with aggregate and tools to process Lamello groove and some invisible hardware processing.



Invisible hardware

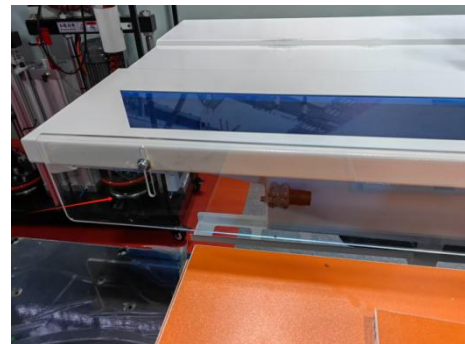
17. Side Grooving

- Side grooving by adding an saw blade head, suitable for light trough



18. Anti-handling device for infeed table

- The design of acrylic plate protects the operator's hand when put board;



19. Dust collection port

- Qty 3
- $\Phi 200\text{mm} \times 2$ (top) 、 $\Phi 125\text{mm}$ (bottom)
- Air speed: $\geq 28\text{m/min}$



20. 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.



21. Hand controller

- Hand controller makes commissioning more convenient.



22. Control system

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



23. Industrial computer

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



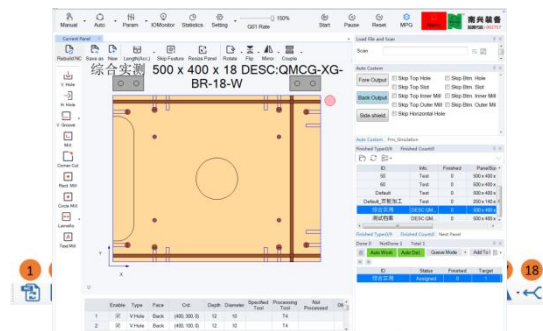
24. Excellent electrical components

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

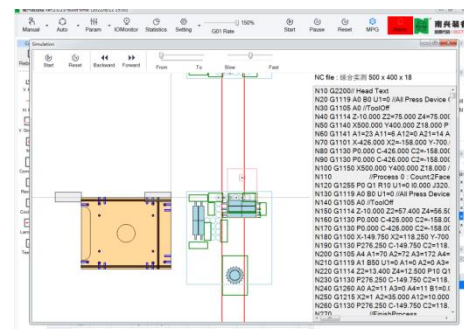


25. User-friendly operation

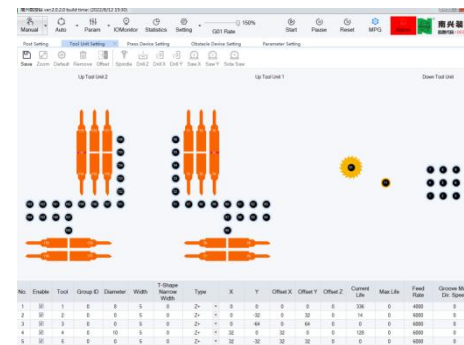
- Control interface is modern and friendly,
- Manual programming interface is easy to operate, functions are available at a glance like horizontal hole, vertical hole, grooving, flip, mirror, rotate etc.



- Simulation function



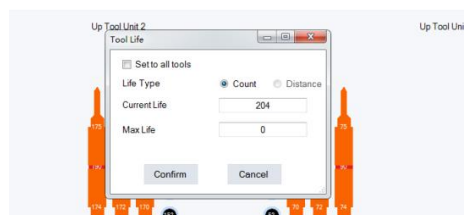
- Easy tools setting;



- Statistics function, production capacity is available at a glance



- Set tool life, software will remind when tool is time to change for smart tool management



26. File format support.

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



ND612DT | SPECIFICATIONS CONTINUED

Included configuration

Continuation after point 26. The following three features are included in this SKU configuration.

27. Side routing-Two head aggregate

ISO30 | ER32 | Max6000 RPM



28. Board thickness sensor

Board thickness sensor to avoid the possible influence caused by putting a board of the wrong thickness.



29. Air conditioner on control cabinet

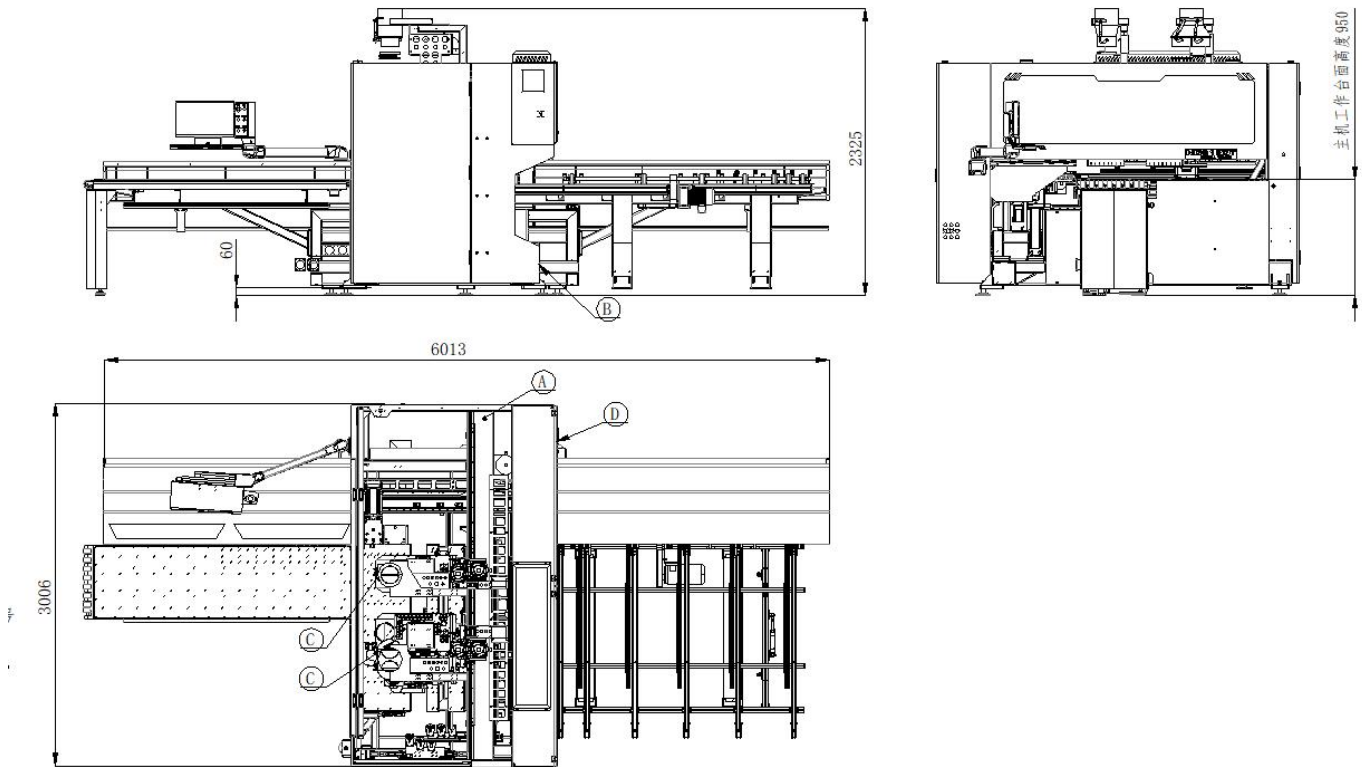
Controls the electrical cabinet temperature for longer service life, especially in high-temperature environments.



ND612DT | PLANNING

Machine layout

OEM layout drawing retained for reference. Confirm the final installation drawing and service clearances before preparing the site.



Machine size and weight

6,150 × 3,010 × 2,320 mm | 3,650Kg

These are the OEM machine dimensions and weight, not packed shipping dimensions or a complete installation-clearance envelope.

Technical Data

Total power	23.93KW	
Machine size	6, 150 * 3,010 * 2,320 mm	
Power supply	415V/50Hz	
Air supply	0.6-0.7MPa	
Total weight	3,650Kg	
Control system	Brand	SYNTEC
Panel size	Length	200-3,000mm
	Width	30-1,200mm (40mm with grooving)
	Thickness	10-60mm
Max. traveling speed	(X /U) axis	135m/min
	Y axis	75m/min
	Z axis	30m/min
Transmission mode	X axis	Rack and pinion
	Y axis	Rack and pinion
	Z axis	Ball screw rod
Boring blocks	Boring block qty	Top 2; Bottom 1
	Vert. drills qty (top)	19*2
	Horiz. drills qty (top)	X: 3×4 + Y: 2×4
	Vert. drills qty (Bottom)	9
	Max drill diameter	Φ35mm
	Drill spacing	32mm
	Rotation speed	5000rpm
	Shank diameter	Φ10mm
Main spindle	qty	Top tool ER32 holder ISO30 ; Bottom tool collet ER25

	power	5.5kw*1 ; 3.5kw*1	max.18000rpm
Dust collector	qty	3	
	diameter	Top 200mm×2 Lower 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. 250719

Technical confirmation required

The dust-collector speed unit is reproduced exactly from the OEM document. Confirm the required air velocity and extraction duty with Nanxing before system sizing. Configured power supply: 415V/50Hz, per Caple selection. Verify phase, protection and final electrical details against the approved machine drawing.