CNC 6-Sided Drilling Machine with Double Work Station

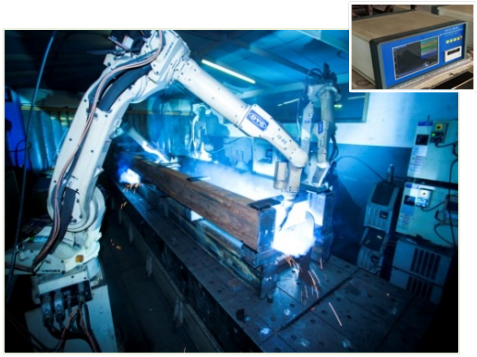
ND712DL 1200+650

Highlights

ND712DL is designed to have 2 independent work stations by integrating 2 machines on one machine, thus double the efficiency with less space requirement compare. Integrated machine body structure of high rigidity offers the whole machine longer service life and stably fast processing.

Details

1. Machine body

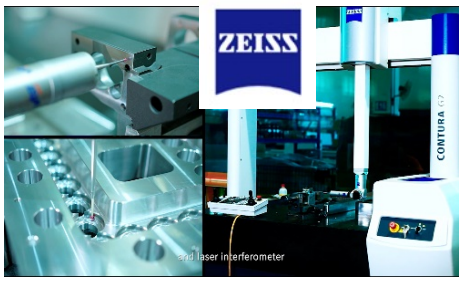


- Integrated frame-type body is welded with square tube and laser-cut steel plates, then through processing of advanced CNC machine for metal work, hence enhance the stability and strength, reduce the vibration in the process; Gantry and machine body have been designed as one organic structure of high rigidity;

- 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.

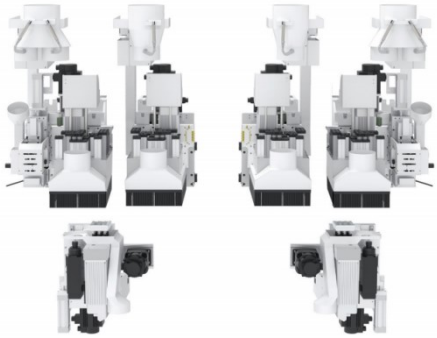
3. Professional assembly line

- 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. 2 work stations

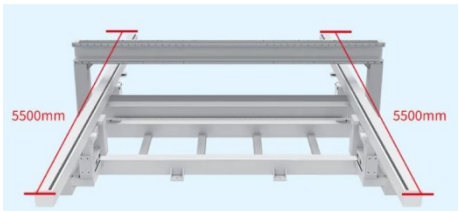
- Machine has 2 independent work station with independent computer and double processing units makes it possible to process 2 boards at the same time, double the efficiency.

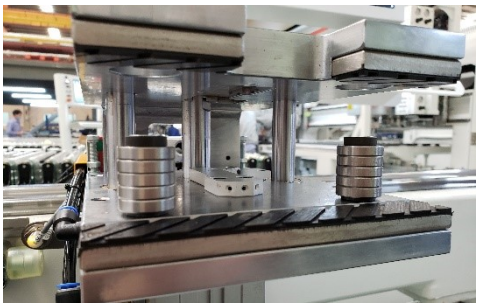
- Each work station 650mm working width meet most cabinets processing requirement.



- 2+2 drilling blocks & 1+1 Main spindle on top (3.5kw)
- 1+1 drilling blocks & 1+1 Main spindle on bottom (3.5kw)

5. Long clamp beams & fast clamps





- The design of 5.5m longer high-rigidity clamp beams 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 dual clamps on both sides is controlled by servo and along inclined rack&pinion for accuracy in process;
- Special air jet to remove the dust before clamping the board.

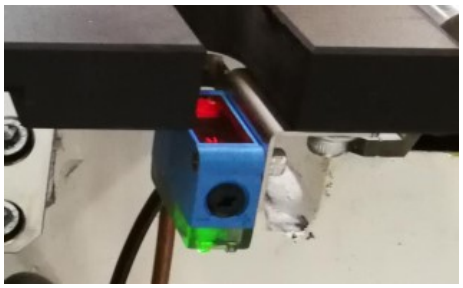
6. Infeed side alignment

- Side alignment device, positioning the workpiece advance.
- With roller conveyor

7. Board size detector

X direction board length detect

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



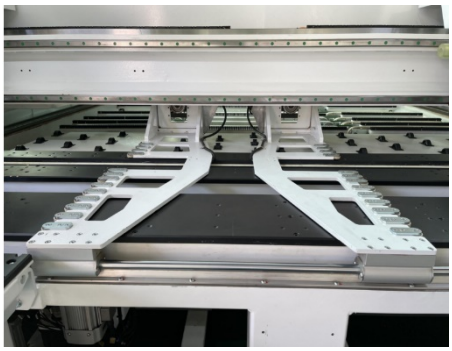
Board width detector

- Configured on drilling block to detect the board width and compensate the board width errors, so as to avoid the hole position error caused by different benchmarks. Accuracy is up to 0.02mm.

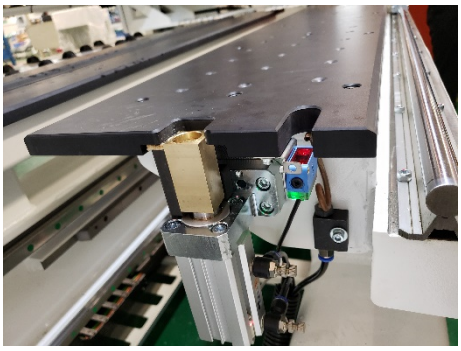
8. Positioning

Side aligner in 2 work station

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



Positioning cylinder



Support 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.

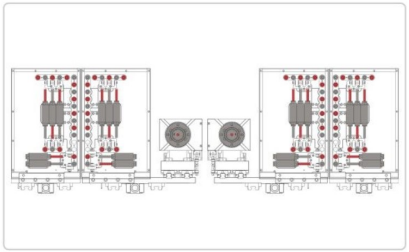
9. 2 sets independent processing Units

Top processing unit: for each L & R

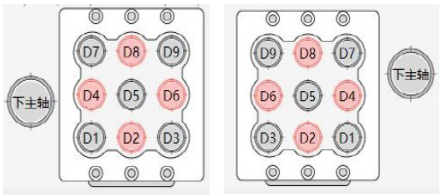
1* 3.5kw main spindles (ER32) 18000rpm/min
Horizontal drill: 3*4 in X direction & 2*2 in Y direction
Vertical drill: 19*2

Bottom processing unit:

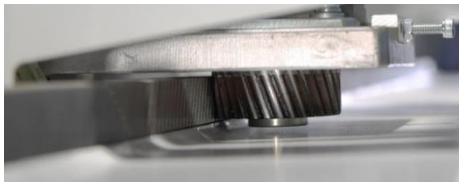
1* 3.5kw main spindles (ER32) 18000rpm/min
Vertical drill: 9*1
Max rotating speed 5000rpm, hole edge is smoother.



ND712DL上加工单元结构图
Structural diagram of the upper processing unit of ND712DL



10. Accurate movement of each axis



X and Y 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:135/135/75/30m/min

11. Quck change tool

- Both sides have door, tool can be changed by opening the door and from the middle of machine
- Drills rods are quick install head, easy to change.

12. Cable chain

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

13. Outfeed table

- 2 work stations have independent outfeed table, non-interference;
- Optional to feeout from front or back

14. Min. processing part

- ND712DPL drilling block design and software can do drilling for 50×200mm
- 50×200mm when without grooving

15. Stack processing

- Support stacking processing if hole position is mirror

16. Manual controller wheel

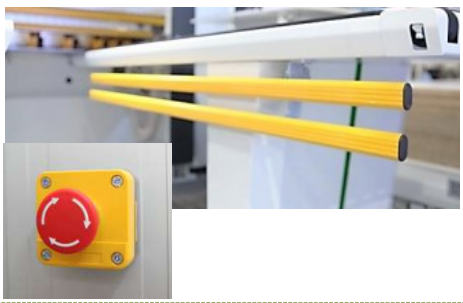
- Hand wheel makes commissioning more convenient.

17. Start button & foot pedal

- 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



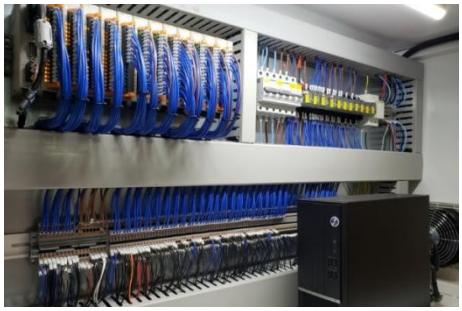
19. Industrial computer*2

- 2 sets independent Industrial computer on left and right work stations, even if one computer has problem, the other still works normally.
- Windows 10 operating system.
- 17'' DELL display;

20. Control system

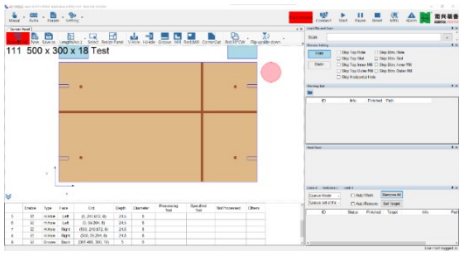
SYNTEC CNC control system and Operation Software, reliable and the process efficiency is 20%-25% faster

21. Excellent electrical components

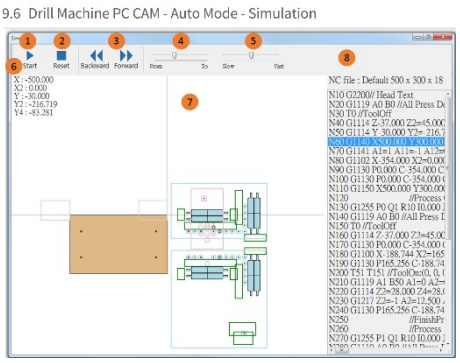


- Electrical parts and components are in reliable brand, standard and clean wiring connection make machine reliability and stability.

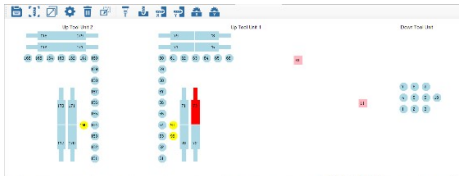
22. User-friendly operation

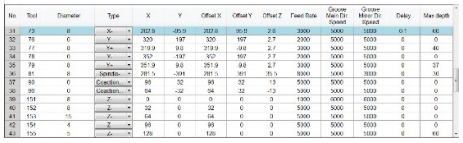


- Control interface is modern and friendly,
- Manual programming interface is easy to operate, functions are available at a glance like horizontal hole, vertical hole, grooving, flip, mirror, rotate etc.

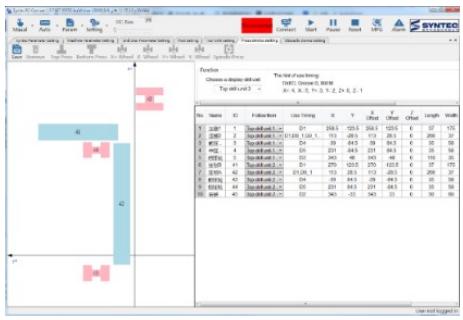


- Simulation function





- Easy tools setting;



- Press device setting;

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.

24. File format support.

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

Technical Data

Total power	48.36KW	
Machine size	7,400 * 4,470 * 2,380 mm	
Power supply	380V/50Hz 3PH / 380V/60Hz 3PH	
Air supply	0.6-0.7MPa	
Total weight	6,300Kg	
Control system	Brand	SYNTEC
Panel size	Length	200-3,000mm
	Width	30-650mm
	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
Drilling blocks	Boring block qty	Top 2+2; Bottom 1+1
	Vert. drills qty (top)	19*4
	Horiz. drills qty (top)	X: 3×8 + Y: 2×4
	Vert. drills qty (Bottom)	9 × 2

	Max drill diameter	Φ35mm
	Drill spacing	32mm
	Rotation speed	5000rpm
	Shank diameter	Φ10mm
Main spindle	qty	4* ER32
	power	4*3.5kw max.18000rpm
Dust collector	qty	4
	diameter	Top 200mm×4 Bottom 125mm×2
	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. 240228