

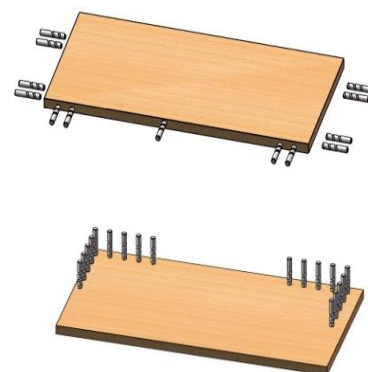
## Auto Boring Line N2508

Nanxing Machinery  
Guangdong China

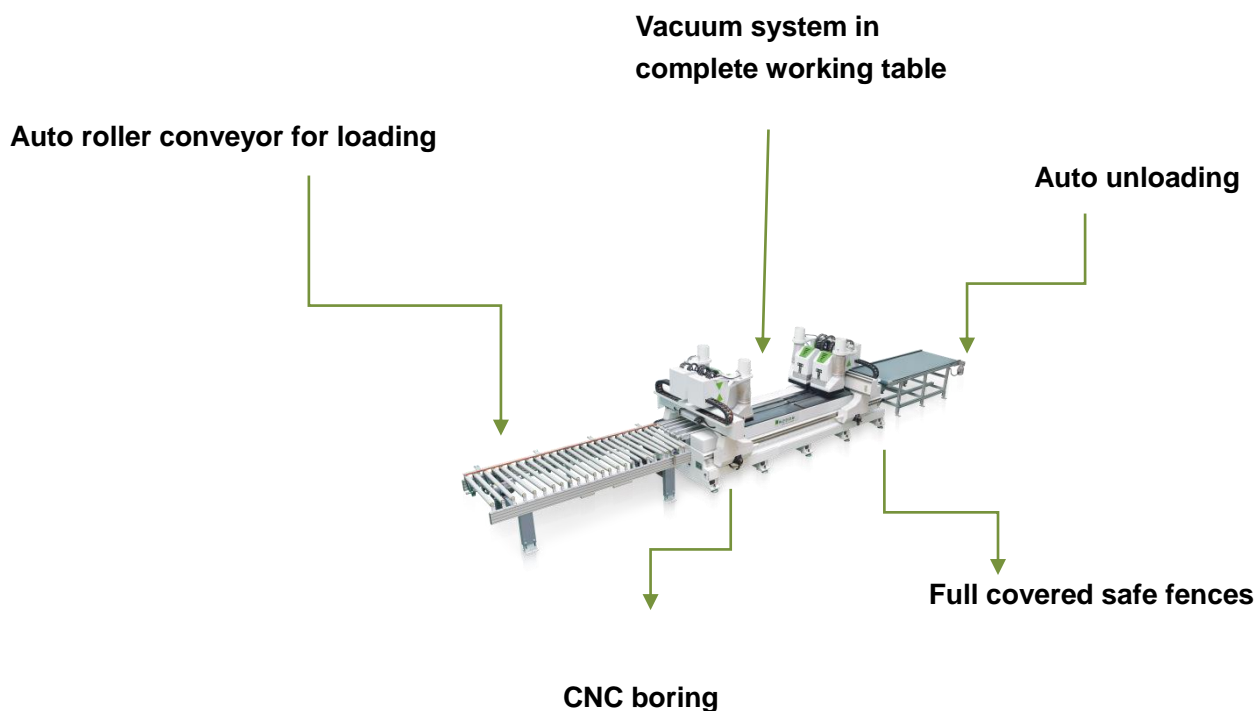


### Description

Auto Boring Line (ABL) N2508 is a continuous boring CNC convenient for various batch sizes, with high efficiency, accuracy, flexibility, and more advantages in production. It is particularly suitable for boring non standard products for lowering production cost and shortening production cycle that is one of the best choices for customized orders. This ABL and the relevant furniture software can be linked without extra set up work, boring 4 sides in one process. The dual gantries with 4 boring blocks totally 84 vertical bits and 16 horizontal bits, each boring block and its bits can be operated independently according to the most fit boring arrangement on different sizes of panels.



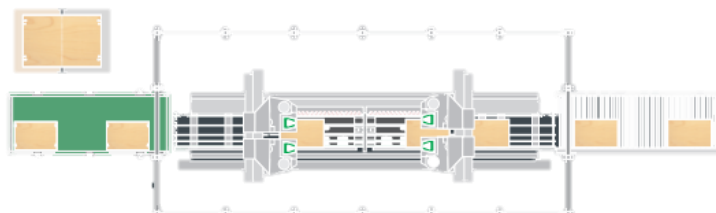
## Main Parts



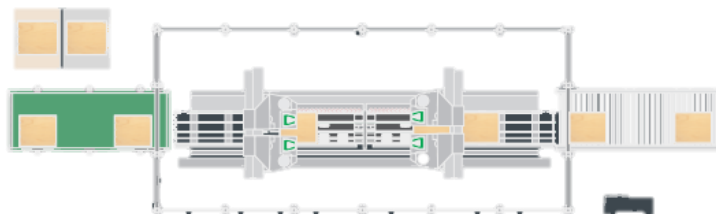
## 3 Machining Modes

2 sets of boring units process the same work piece

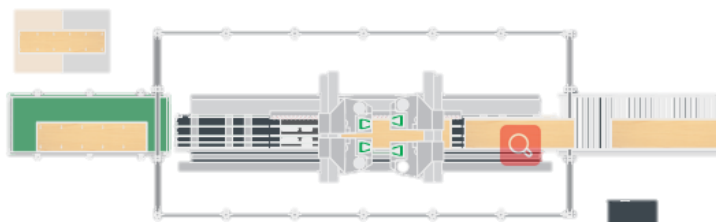
No. 1 Boring blocks processing the right side;  
No. 2 boring blocks processing the left side



2 sets of boring units process different work piece at the same time if  $< 1300\text{mm}$



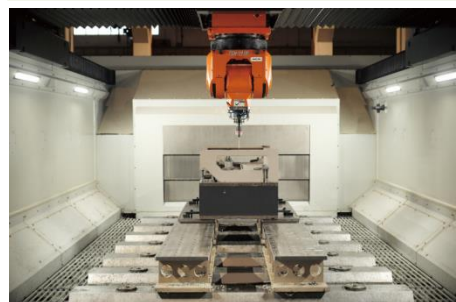
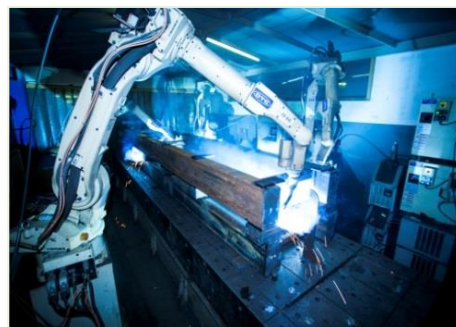
If work piece longer than 1300mm less than 2500mm, 2 sets of boring units process the same work piece simultaneously.



## Details

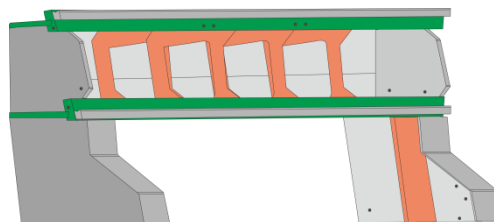
### 1. Machine body

- Heavy duty “bed” structure 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;
- Some casting parts used on the machine guarantees long service life without deforming.



### 2. 2 gantries

- Compact support ribs inside each gantry ensure the higher strength and stability that means higher machining quality and longer service life;
- All the machine bodies and gantries are through stress relief before installation.



### 3. Quality control

- Advanced measuring equipment and strict QC system also help to make sure the final machines we offer to our customers are of high quality.



#### 4. Auto feeding conveyor

- Feeding conveyor driven by powerful motor are covered with rubber, that prevent panels from abnormal movement and prepared well for following processing procedure;
- Automatic loading allows machine well to be connected to production line, so as to achieve production automation.



#### 5. Working table

##### 4-sections rubber belt conveyor

- 4 PU belt conveyors on 4 stations (including pending station, 2 working stations, unloading station) controlled separately to achieve continuous working. Belt activated by servo motor goes up and down independently according to processing requirements cooperating well with vacuum pods.

##### Vacuum system in complete working table

- Vacuum by pads and together with side aligning bar, ensuring perfect holding of panel in position before drilling.

##### Table plate

- Black phenol plate provides excellent flatness and mechanical strength, not easy to out of shape, results in higher precision of vertical drilling depth and horizontal drilling. Convenient for disassembly and maintenance.



#### 6. Vacuum pump

- 5.5kw air cooling vacuum pump with suction flow rate 160m³/h, pressure 0.5 kg/cm² for high-performance sorption on the table.



## 7. Press rollers

- Press the panels tightly while drilling horizontal holes, thus the drilling accuracy is guaranteed.



## 8. Side guiding bar

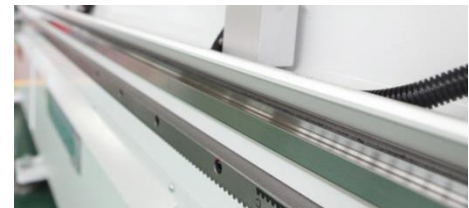
- Side guiding bar dropping down to allow space for drilling holes on side of panel; Hooking with buffer device for positioning, placing panel absolutely right.



## 9. Movement of each axis

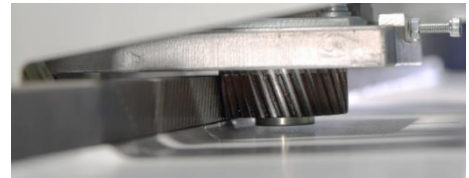
### X direction

- Long rack and pinion along X direction, improve accurate movement of twin gantries, partly reducing the possible vibration at the same time in the process.



### Y direction

- Transmitted by high-stiffness inclined rack and pinion, ensure the high precision, stability, smooth running and long service life



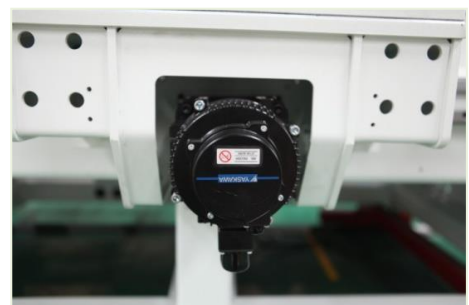
### Z direction

- Ball screw with fine screw threads gives the machine added precision in Z direction.



### Servo Motor

- The accurate movement each axis is ensured by high quality Yaskawa servo motors; Each gantry activated by two servo motors for stable processing and high accuracy.
- X axis: 1.8 kw\*4; Y axis: 1.8 kw \*4; Z axis: 1.3 kw\*4  
Max travelling speed: X/Y/Z: 100/100/20m/min





## 10. Automatic lubrication

- Grease main transmission components automatically so as to ensure smooth movement of each axis, reduce the maintenance work by operators.



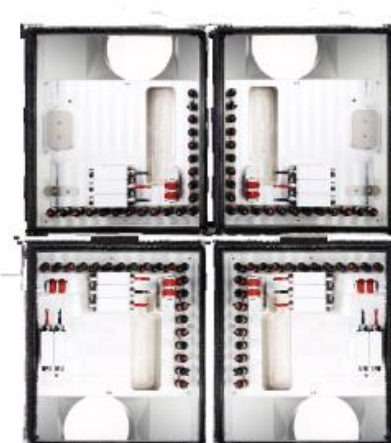
## 11. Drag chain

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



## 12. 4 boring blocks

- Designed with 2 gantries, 4 boring blocks totally 84 vertical bits and 16 horizontal bits, giving drilling in different combinations to meet highest production requirements. 2+2 drilling units from both ends, flexibly processing either 1 large panel, or 2 small panels by control. Rotating speed to to 4000rpm.



## 13. Auto unloading

- Unloading table also equipped with dust extraction on the end reduces dust and chips further while unloading work pieces for better working condition;



#### 14. Dust extraction

- Simple dust collection pipeline of each boring block improves the extraction performance, dust and scraps generated in the process could be cleared directly and efficiently to get better working condition.
- Hose diameter:  $\Phi 200 \times 4$ ;  $\Phi 125 \times 2$   
Required suction speed: 28 m/s.



#### 15. Hand wheel

- Hand wheel makes commissioning more convenient.



#### 16. Bar-code reader

- Read the panel processing information generated by furniture making software, Panel processing can be simply performed by scanning the Bar code, especially suitable for production line.



#### 17. Indicating light

- Imported operation indicating light, the operation status of the machine is available at a glance.



## 18. Control

### Computer

- IPC with Windows 7 operating system;  
17" DELL display;  
USB port

### Control system

- SYNTEC control system provides stable performance, powerful functions and ease of use with friendly interface. (English and Chinese language are available)
- Open port to link with various international furniture software even no extra set up work, boring 4 sides in one process(top, left, right, and front side).

### Independent control cabinet

- Electric components are of high quality and famous brand.





## Technical Data

<b>Panel size</b>	Panel length:	Max.:2500mm	Mini.:250mm
		Max: 2*1300mm (dual working stations)	Mini: 2*250mm
	Panel width:	Max=800 mm;	Min=120mm
	Panel thickness:	Max=50mm;	Min=12mm
<b>Drilling block</b>	Vertical drills: 21*4		
	Horizontal drills: X=3*4, Y=2*2		
	Rotating speed: 4000rpm		
<b>Traveling speed</b>	Max. speed along X direction: 100m/min		
	Max. speed along Z direction: 20m/min		
	Max. speed along Y direction: 100m/min		
	Max. conveying speed: 80m/min		
<b>Vacuum pump</b>	Power: 5.5 kW		
	Suction flow rate: 160m <sup>3</sup> /h		
	Suction pressure: 0.5 kg/cm <sup>2</sup>		
<b>Dust extraction</b>	Outlet diameter: Φ200 mm*4; Φ125mm*2		
	Speed required: 28 m/s		
<b>Air supply</b>	Air pressure: 7 kg/cm <sup>2</sup>		
<b>Power supply</b>	Voltage: 380V, 3-phase		
	Frequency: 50 Hz		
<b>Total power</b>	41 kW		
<b>Floor space</b>	LxWxH: 13,000x2,100x2,300mm		
<b>Net weight</b>	5,500 kg		

*\*Thanks for the attention!*

*The company continuous to improve the product specifications and design details, the specifications are subject to change without notice. 80907*