

Auto Double Sided Edge Banding Machine NB7CS2IIP

With grooving

Nanxing Machinery
Guangdong China



Description

- ✓ Edge banding of two sides edge could be done in one process.
- ✓ Panels are evenly pressed by V-belt to maximize stability;
- ✓ 2 tapes changing system;
- ✓ Large pre-melt tank allows sufficient glue for even fast continuous edge banding;
- ✓ Use of dual rails for end trimming, efficient with higher performance;
- ✓ Fine trimming /scraping units adjustable for different thickness by cylinders.

Edge banding direction



Details

1. Machine body

- Heavy machine body is welded by robots with laser-cut steel plates, then through trimming of advanced CNC machine for metal work, hence enhance the stability and strength, and reduce the vibration in the process.
- Some casting parts used on the machine guarantees long service life without deforming.



2. 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.



3. 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;



4. Width adjustment and positioning

- Two machines bodies are connected by high-rigidity and strength connection frame,
- 2 ball screw rods on two ends driven by precise servo motor guarantee the adjusting precision ensure two ends move synchronously. Width in between is easy to adjust just by one-click setting.



5. Feeding assistance

- Two sets of feeding assisting presser driven by cylinder in front of the machine go down to press the work piece and rise automatically.
- One set of single-side assistance presser ensures the stable work piece feeding, air filled tyres prevent any scraps on panel surface.



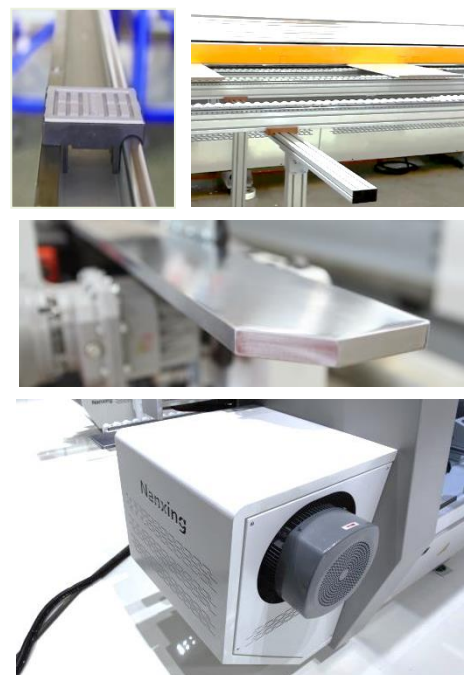
6. Top presser

- Reinforced with fiber in V-belt system to maximize stability. Heavy duty aluminum alloy for pressure beam with long service life but not deformation.
- The height of pressure beam is able to adjust by electronic regulator, its movement driven by asynchronous motor, controlled by encoder that is available to operate in touch screen.



7. Conveyor

- Long straight semicircle guide rail is through hard treatment before installation, conveyor piece can perfectly contact with the guide rail, almost no gap;
- 2 sets of stretched support conveyor with compact rollers helps to support large work piece in the process which avoids the influence caused by unbalance of large work piece;
- Thick steel guiding plate of high rigidity and stability prevents the deformation, and offers extra stability during the banding work;
- The motor makes variable frequency starting possible, very stable and equipped with braking system. The cover installed protects motor well from dust and scraps for longer service life.



8. Dog head

- Auto raised up positioning by “dog head” in conveying chain help to convey narrow long work piece.



9. Cleaning and release agent

- Spraying before pre-milling and buffing unit make sure nice and clean finishing surface.



10. Pre-milling

- Pre-milling with diamond cutter $\varnothing 125 \times H63 \times \varnothing 30$ Z3+3 simply handle the work piece edge before gluing offers optimum basis of binding effect.
- Two motors controlled pneumatically, milling panel edge intermittent. $2 \times 3.7\text{kW}$ motors; 200Hz
Rotating speed: 12,000 rpm.
- Fully covered dust cover.



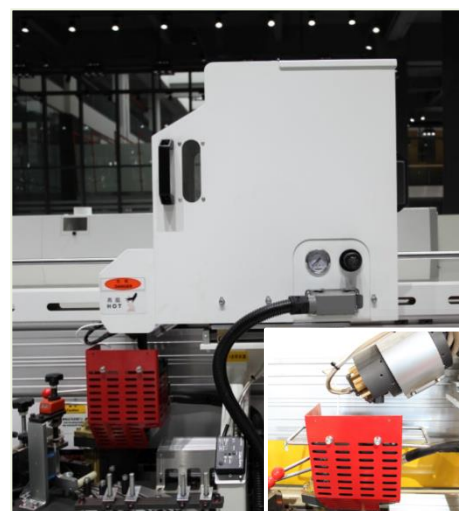
11. Pre-heating

- Pre-heating before gluing forms the optimum basis of a high standard of gluing performance especially for low-temperature region.



12. Gluing Quick-melt tank

- Quick-melt gluing unit saving heating-up time, reducing the carbonization and vulcanization from burning up of glue resins, also binding better between tape and panel
- Glue particle dissolve device, the glue volume up to 820g~920g/min (parameter will change on the basis of different glue) as air pressure of pushing glue reaches 4 bar.
- Liquid level sensor detector to control glue volume, prevent glue from spill.



13. Two tapes changing system

- Two edge tape storages, auto switch to next tape if finished without need of stopping the machine.



14. Snipping

- Air cylinder with electric control switch of snipping unit is capable of mass production requirements.



15. Pressure roller

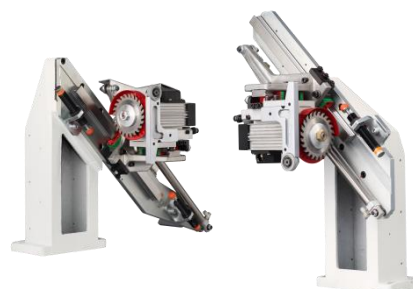
- One pre-pressure roller with a diameter of 100mm plus 4 post rollers to press edge tape on panel surface firmly.

Pressure regulating valve 1.5~2.5 bar.



16. Dual rails for end trimming

- Dual rail end trimming unit: front & back tape trimmings by two separated cutters mounted on rails, no waiting from only one single rail, hence higher productivity and stability. Min. panel interval 300mm
- The angle 45 degrees is able to adjust due to motor manual rotating device.
- 2 motors with power of 0.37kw, frequency of 200hz, rotating speed of 12000rpm/min; 2 cutters have a specification of 115*2.6*22*24Z with independent protective cover.



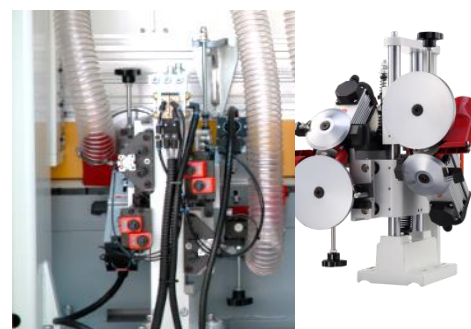
17. Rough trimming

- Rough trimming unit with 2 milling cutters and 2 powerful motors (power 0.75kw; frequency 200hz; rotating speed 1,2000rpm/min) is used to trim out top and bottom excess edge;
- 5 degree tiltable;
- Independent dust extraction.



18. Fine trimming with Pneumatic adjustment

- Motor: 0.5kw*2
Frequency: 200Hz;
Rotating speed: 12000rpm/min
Circular arc radius R2 4Z



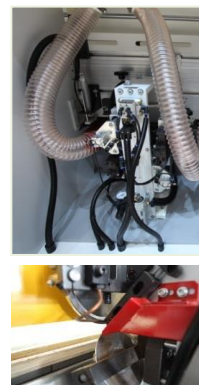
19. Corner trimming

- Designed to trim sharp corner on front, back and two straight edges so as to achieve R circular arc radius.
- Driven by 4 motors (power: 0.3kw; frequency: 200 Hz, rotating speed: 12000rpm/min).
- Planar linkage with 4 corner trimming tool R2 3Z



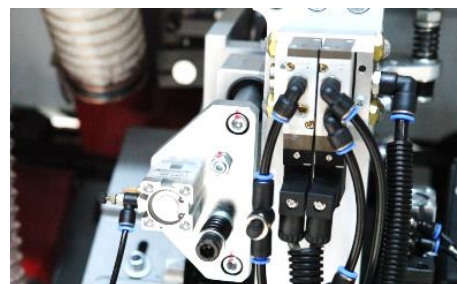
20. Scraping units with Pneumatic adjustment

- Scraping the edge by R1.5 cutters, making edge banding more beautiful.
- Air blowing device blowing toward the scraping cutters on upside and underside for cleaning the scraps on cutter surface and cooling.



21. Auto tool adjustment

- Adjustable for different thickness by cylinders, fast switch between thin tape and thick tape due to adjustable 2 sets of each fine trimming units and scraping units, resulting shorter setting up time, stable quality, max convenience and higher productivity.



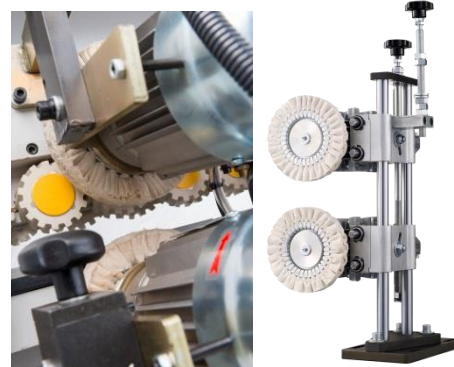
22. Pneumatic flat scraping

- Excess glue line can be totally cleared for better edge banding performance.



23. Buffing

- Buffing by dual screen cloth structure is the last step to make perfect edge banding to make the edge shining, more stable.
- Clean the edge of the workpiece and remove excess glue.



24. Bottom grooving

- Fixed end grooving on panel bottom saves other processing steps.
- 9mm thickness of grooving tool



25. Support column

- With high rigidity and strength, pressure beam and the whole machine could be fixed stability.



26. Dust collector

- 360° fully covered dust collector for most units



27. Dust collection

- Independent suction hood ($\varnothing 125\text{mm}$) fully covered on processing units, totally 14 pcs dust collectors provides excellent working condition, prevent any influence caused by scraps for longer service life.



28. Switch

- A switch enables the operator to stop or start the machine anytime during the process that provides the max. convenience to adjust or test the machine.
- Operation indicating light, the operation status of the machine is available at a glance.



29. Safety device

Feeding protector and thickness detection

- Protector prevents any possible accidents and ensures safety of operators, automatic monitoring abnormal operation.
- Work piece thickness detection, if work piece thickness over the limited position, conveyor will stop at once to reduce machine damage.



Interval feeding detection system

- Keep work pieces in proper distance for max edge banding performance.



E-STOP

- To stop running at once, guarantee operator life safety.



30. Control

- Using encoder instead limit switches for lesser problems but higher accuracy and longer life span; also recording data for statistical analysis such as tape wastage and operating ratio, therefore better manufacturing management.
- 7" touch screen. Operation interface is intuitive and simple, available to control each component independently and generate statement accordingly. System languages: English, simplified Chinese, and traditional Chinese.



31. Electric equipment

- Input voltage, 3-380v, 50hz; Frequency converter with motor braking function; Phase sequence protector
- All the electric equipments of facilities confirm to relevant national standard. Permitting to be operated under the temperature of 0-40°C.



32. Energy saving

- Stand-by mode automatically turned on when machine stop working for a certain period (according to setting time); then glue temperature lower down to prevent carbonization, so as rotating of glue roller in order to save energy



Technical Data

Panel width:	285-2440 mm
Panel thickness:	10-60 mm
Edge tape thickness:	0.4-3 mm
Feeding speed:	16-26m/min
Power supply:	380 V; 50 Hz
Air pressure required:	0.7MPa
Operation system	7" touch screen
Dust collector	Φ125mm×14
Total power:	39.8 kW
Approx. weight:	12,980 kg
Overall dimension:	10,950*4,400*1,950 mm

**Thanks for your attention!*

The company continuous to improve the product specifications and design details, the specifications are subject to change without notice. 90503