

Double Sided Edge Banding Machine NB7CS2IIP



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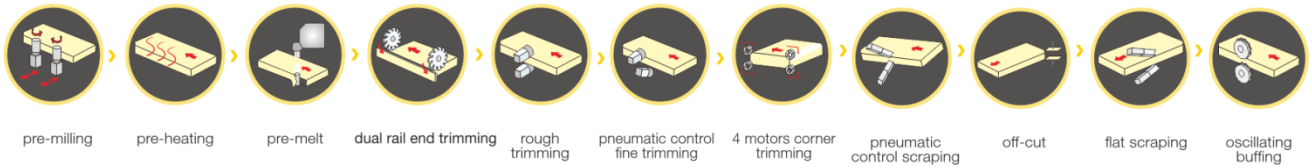
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Description

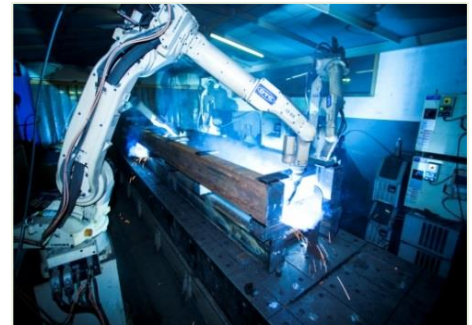
- Heavy duty machine body and most mechanical machine parts are proceed by advanced CNC machines for higher stability and longer service life without deforming ;
- Two sides edge banding can be done in one process.
- Panels evenly pressed by fiber reinforced V-belt to ensure smooth conveying, clean with no marks, resulting excellent edge banding quality
- Width adjustment and positioning by 2 ball screw rods on two ends which were driven by precise servo motor guarantee the adjusting precision. Auto adjusting in between mechanism according to panel width;
- Pre-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.
- Fine trimming and scraping adjustment by pneumatic control.



Details

1. Machine body

- Heavy duty machine body is welded with thick 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;
- 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. Professional assembly line

- Nanxing follow the SOP and set up the professional assembly lines. All the assembling is worked out by the experienced technicians that guarantee machine standardization and performance.



3. Quality control

- Advanced measuring equipment and strict QC system help to make sure the machines and parts are checked and certificated by very high standard.
- All the machines are delivered with Quality Certificate signed by QC specialist.



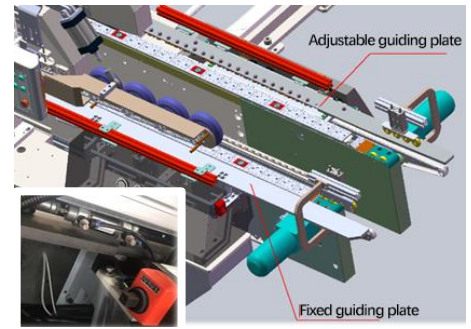
4. Width adjustment and positioning

- Two machines bodies are connected by high-rigidity and strength connection frame, guiding along guiding rail and blocks.
- The high-precision twin ball screws and servo drive ensure precise width positioning of two sides of the machine. Width in between is easy to adjust just by one-click setting.



5. Workpiece positioning

- Once left fixed guiding plate is adjusted to the proper place with the help of digital display meter, right side adjustable guiding plate motivated by cylinder will move to press the workpiece which ensures workpiece is well-positioned to enter the machine along with the fixed guiding plate.



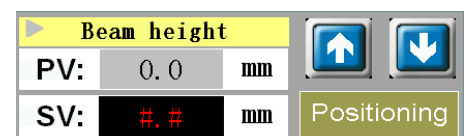
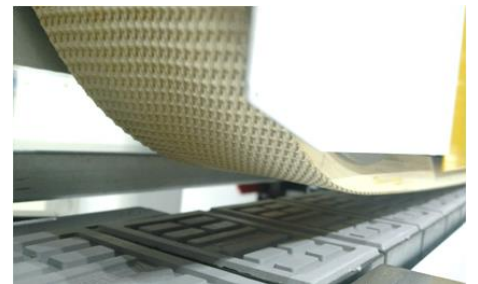
6. Feeding assistance

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



7. Top presser

- Fiber reinforced v-belt with groove on surface ensures smooth and stable conveying of workpiece but clean with no marks, resulting excellent edge banding quality.
- Pressure beam of heavy duty aluminum alloy in high stability enable pressure force to be allocated evenly from front to the end but without 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.





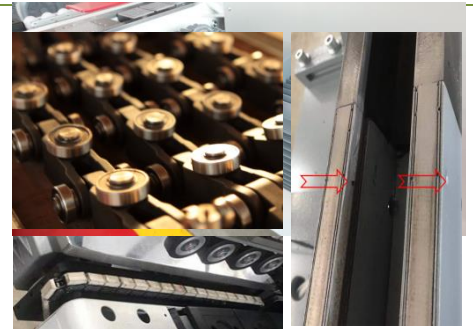
8. Support columns

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



9. Strong Conveyor

- Machine guiding rail is installed an extra steel plate to reinforce the complete structure;
- Heat treated steel track and chain provides machine added stability. Fully covered in feeding area to prevent dust.
- The motor makes variable frequency starting possible, very stable and equipped with braking system.



10. Stop cam

- Auto raised up positioning by “stop cam” in conveying chain avoid displacement of narrow long work piece.



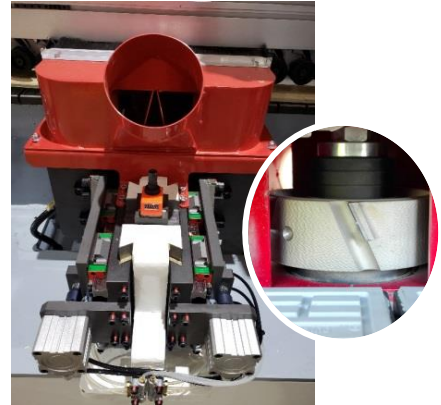
11. Spraying device (release+ clean agent)

- Spraying release agent on workpiece surface reduce the adhere of glue, then spray clean agent before buffing thus reduce possible glue line effectively.



12. Pre-milling

- Pre-milling with **diamond cutter** $\varnothing 125 \times H35 \times \varnothing 30$ Z3+3 simply mill the work piece edge surface a little bit to scratch the mark left by panel saw for better binding effect
- Two motors controlled pneumatically, milling panel edge intermittent. 2× 3.7kW motors; 200Hz
Rotating speed: 12,000 rpm.
- Air blower device cooperated with fully covered dust cover reduces the scraps.



13. Pre-heating

- Warm the work piece edge, the glue could well melt during gluing, especially suitable for wet or cold zones.



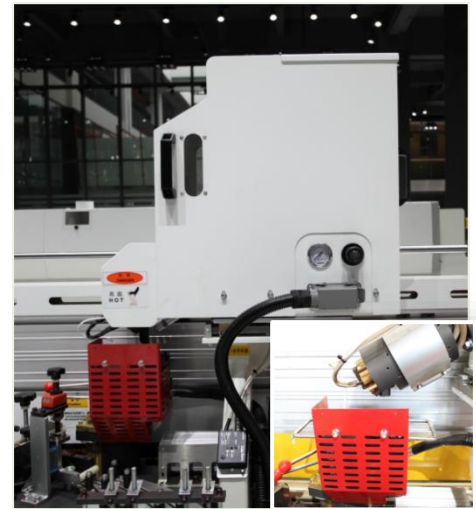
14. Edge tape feeder by servo motor

- Two edge tape storage is equipped with a tape detector that is able to auto switch to next tape if finished, avoids the waiting time to change edge tape.
- Compared with traditional edge tape feeder, higher trimming precision controlled by servo motor, cost saving up to RMB 20-50K per each machine due to shorter hanging out of tape at two ends.



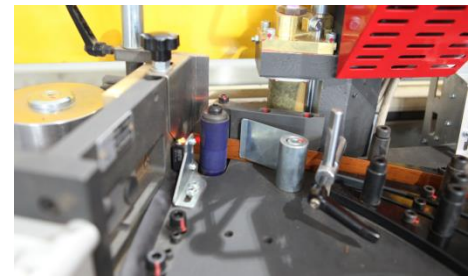
15. Pre-melt

- Pre-melt gluing unit offers proper glue volume according to processing, save heating-up time, reducing the carbonization and vulcanization from burning up of glue resins, also binding better between tape and work piece.
- Liquid level sensor detection device controls the glue amount accurately so as to prevent overflow.



16. Snipping

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



17. 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.



18. 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.
- 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.



19. Lubrication system

- Lubrication system could meet the requirement of daily maintenance, easy operation and save the possible costs.



20. Rough trimming

- Rough trimming unit with 2 powerful motors of world famous brand (power 0.75kw; frequency 200hz; rotating speed 1,200rpm/min), 2 milling cutters with two stiff steel positioning guides;
- Independent cover keeps scraps from flying, and guiding to machine bottom.



21. Fine trimming units with 2 position pneumatic

- 2 motors (power: 0.55kw; frequency: 200hz, rotating speed: 12000rpm/min). 2 fine trimming milling cutters (Standard: R1.5);
- Motor angle can be adjusted to most suitable angle for best R result.



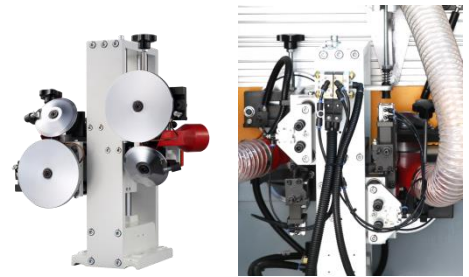
22. Corner trimming

- 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



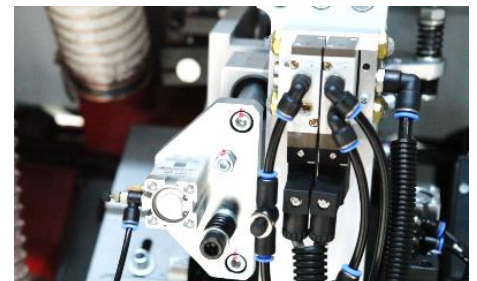
23. Scraping with 2 position pneumatic

- Scraping the edge by R1.5 cutters (Standard), 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.



24. 2 position pneumatic for different thickness

- 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.



25. Pneumatic flat scraping

- Remove extra glue line for perfect banding effect.



26. Buffing

- Unique oscillating buffing more effective, preventing high wear & tear, offering longer life time
- Driven by continuous current dynamo, more stably.
Motor: 0.37kw*2



27. Dust collector

- 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. Remote switch and indicator light

- A remote 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.

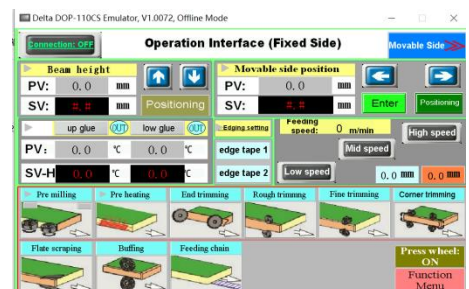
E-STOP

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



30. Control

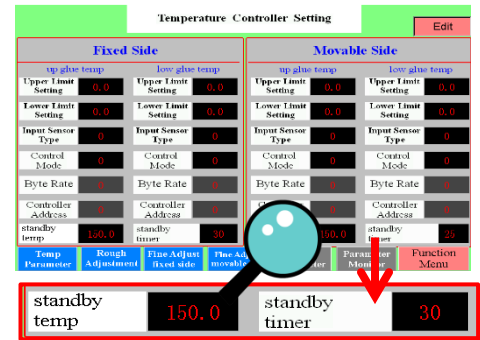
- 10" touch screen. Operation interface is intuitive and simple, available to control each component independently easy for testing and commission work.
- Up&down of pressure beam, edge tape changing, machine distance could be operated by just one button.
- System languages: English, simplified Chinese, and traditional Chinese.





31. Energy saving

- Stand-by mode automatically turned on when machine stops 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.
- One-click Selection, quick start/stop.



32. Electric equipmen

- PLC control, input voltage 380v, 50Hz (Standard).
- The position can be calculated precisely by encoder
- Each processing unit is controlled and protected by independent frequency converter with motor braking function.
- Most of electric components of the machine adopted international brands for high quality and generality.
- Good documentation, each wire has a unique code label which offers max convenience for troubleshooting and online support.



Output Monitor-1 (fixed side)					
Feeding chain motor Y00	Grooving air blow Y12	Solenoid valve of heat trimming Y24	Ready light Y36		
Clamp motor Y01	Air blow at exit Y13	Solenoid valve of fine trimming Y25	Running light Y37		
Pre milling motor Y02	Connection signal Y14	Solenoid valve of scraping Y26	Dog head Y40		
Front rest row end trimming motor Y03	Solenoid valve of pre milling-1 Y15	To mobile terminal Y27	Plate feeding glass Y41		
Rough trimming motor Y04	Solenoid valve of pre milling-2 Y16	Up glue heating-1 Y30	Beam feeding Y42		
Fine trimming motor Y05	Squence glue detector alarm Y17	Up glue heating-2 Y31	Grooving Y43		
Corner trimming motor Y06	Solenoid valve of tape feeding Y20	Low glue heating glue heating Y32	Pre heating-1 Y44		
Inverter reset Y07	Solenoid valve of mapping Y21	Beam lift motor Y33	Pre heating-2 Y45		
Pre milling air blow Y10	Pressure relief valve of top trimming Y22	Beam down motor Y34	Solenoid valve of front trimming Y46		
Scraping air blow Y11	Solenoid valve of front trimming Y23	Alarm light Y35	Solenoid valve of rear trimming Y47		
Running data	Input monitor fixed side-1	Output monitor fixed side-2	Input monitor mov side-1	Output monitor mov side-1	Function menu



Technical Data

Panel width:	285-2440 mm
Min panle size	285*285mm
Panel thickness:	9-60 mm
Edge tape thickness:	0.4-3 mm
Feeding speed:	16-20m/min
Power supply:	380 V; 50 Hz
Air pressure required:	0.7MPa
Operation system	10" touch screen
Dust collector	Φ125mm×14
Total power:	39.8 kW
Approx. weight:	12,980 kg
Overall dimension:	11,000*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. 200606