

SINGLE ITEM SPECIFICATIONS

PUR Edge Banding Machine

Nanxing NBF371 | NBF7PCG-PUR

Standard configuration for aluminium honeycomb board. No additional options selected.



Two-color PUR bonding and in-line finishing

Servo-controlled two-tape feeding, pre-milling and pre-heating prepare the edge for PUR application.

Roller and belt pressing support bonding, followed by end, rough, fine and four-motor corner trimming.

Two scraping sets, flat scraping, cleaning spray and oscillating buffing complete the finishing sequence.



Selected supply: 415V/50Hz

This is the user-selected configuration. The source PDF states 380V/50Hz; Nanxing must confirm the ordered electrical design before connection. Total power stated by OEM: 30 kW.

Details

1. Machine body

- Features a heavy-duty integrated steel frame, processed through strict procedures such as robotic welding, natural aging, annealing, and shot peening to ensure long-term stability during use. It is precisely machined in one setup using a world-class five-axis machining center to guarantee processing accuracy.



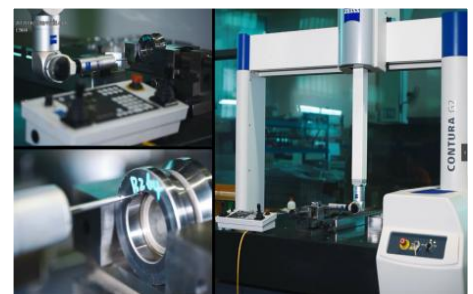
2. Professional assembly line

- Nanxing follows 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.



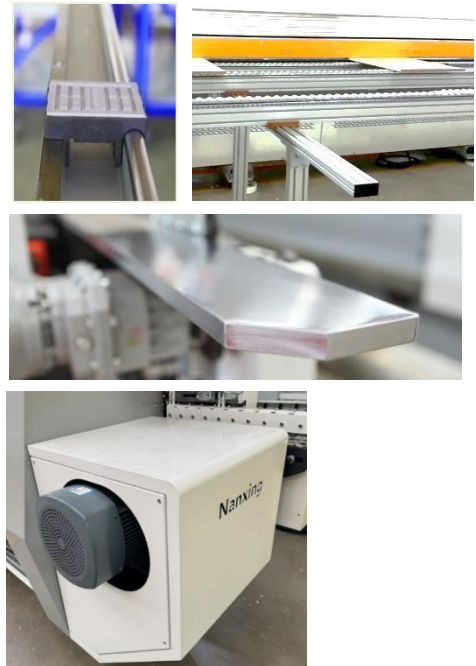
3. Quality control

- 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.



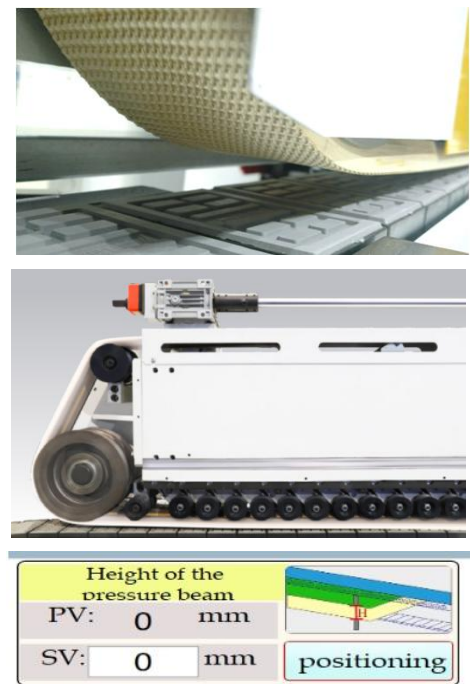
4. Conveyor

- 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 support plate of high rigidity and stability prevents the deformation, and offers extra stability during the banding work;
- The conveyor motor makes variable frequency starting possible, very stable and equipped with braking system. Easy to install or uninstall.



5. 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 integrated aluminum structure, welded with machine body and rail together, boards' conveying straightness is better, enable pressure force to be allocated evenly from front to the end but without deformation. High stability and pressing accuracy even if in high speed and long time usage;
- 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 PC.



6. Support columns

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



7. Side assistance rollers

- Several groups of additional rollers to help to press the panel when trimming.



8. Spraying device (release agent)

- Spraying release agent on workpiece surface reduce the adhere of glue.



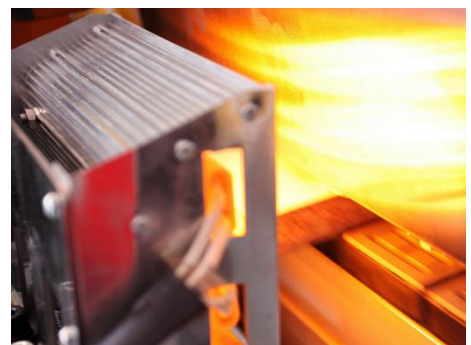
9. Pre-milling

- 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.



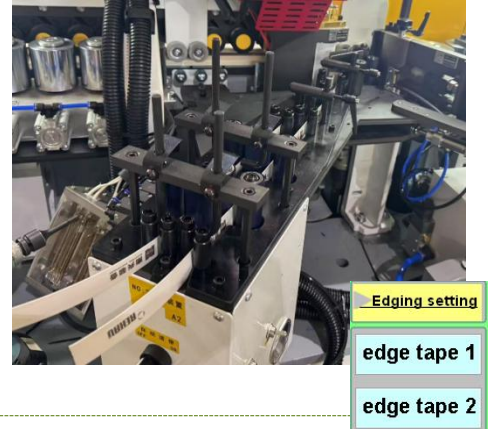
10. Pre-heating

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



11. Edge tape feeder by servo motor- 2 tape system

- Servo-controlled edge tape feeding supports accurate tape delivery with shorter overhang at both ends. The standard machine includes an edge tape detector.
- 2 tapes changing system make it easy to switch between two tapes, auto changing to next position if no tape in current storage that ensures the machine continuously working without stopping.



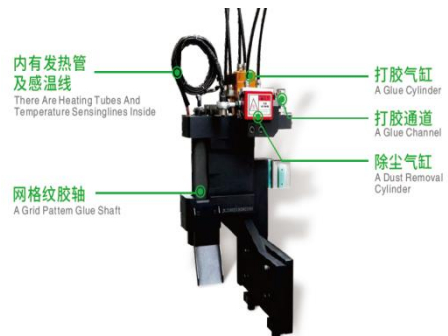
12. Snipping

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



13. PUR gluing applicator

- The unique glue gate structure utilizes a diverting scraper principle, preventing wood chips from clogging the glue shaft and eliminating stroke limitations, resulting in even and stable adhesive application. The upper cover is made from a single piece of ductile iron, ensuring high precision with a multi-seal design to prevent glue leakage during high-temperature use.



14. 2-color PUR heater

- It allows for quick switching between two types of PUR adhesives, enhancing processing efficiency.
- The intelligent control touchscreen makes operation simple and convenient.
- The integrated aluminum alloy pressure plate ensures uniform heating, high-temperature durability, and resistance to deformation.
- It uses imported Teflon heating glue tubes, which are durable, flexible, and have better non-stick properties.



15. Pressure rollers

- One pre-pressure roller with a diameter of 100mm plus 6 post rollers to press edge tape on panel surface firmly. Pressure regulating valve 1.5~2.5 bar.



16. Belt tape presser

- The belt edge banding system ensures stable adhesion to the panel, preventing vertical movement. It increases the edge banding travel to guarantee sufficient bonding of PUR adhesive with the panel. The system features an adjustable speed drive, allowing the belt speed to match the panel speed, ensuring a secure fit between the edge band and the workpiece.



17. Auto lubrication system

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



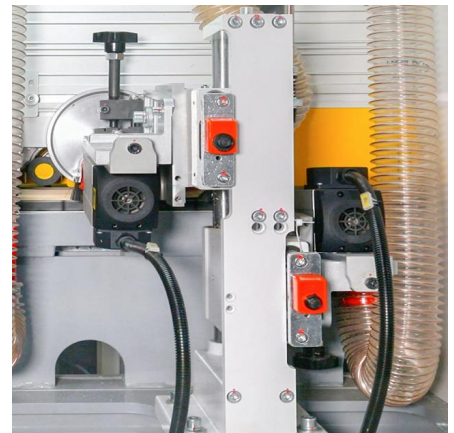
18. Dual rails for end trimming

- 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. 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.



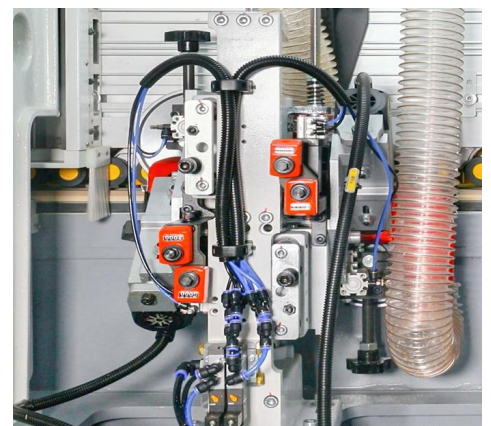
19. Rough trimming

- Rough trimming unit with 2 powerful motors of world famous brand (power 0.75kw; frequency 200hz; rotating speed 1,2000rpm/min), 2 milling cutters with two stiff steel positioning guides;
- Independent cover keeps scraps from flying, and guiding to machine bottom.



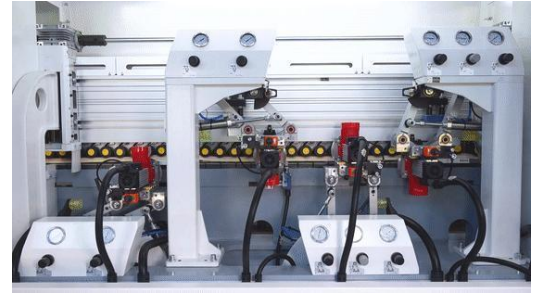
20. Fine trimming units

- 2 motors (power: 0.55kw; frequency: 200hz, rotating speed: 12000rpm/min). 2 fine trimming milling cutters (Standard: R1);



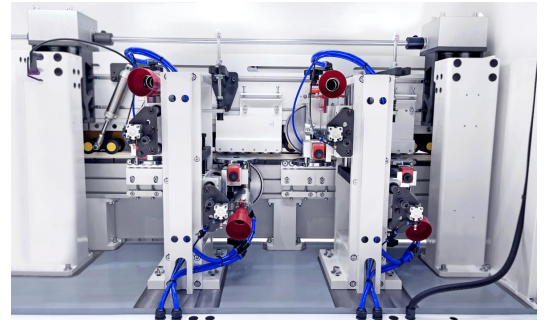
21. Corner trimming with 4 motors

- 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 R1 3Z
- Backward function to avoid waiting time of each processing;



22. Two sets of scraping units

- It is used to eliminate the ripple marks caused by the non-linear cutting process during edge trimming, making the upper and lower parts of the panel smoother and neater.
- Two sets of pneumatic retractable edge scrapers allow for quick switching between different thicknesses of edge banding and can also effectively remove film from panels, optimizing costs while saving setup time.
- Horizontal tracing arm enlarge contact surface for higher stability and better edge banding quality.



23. Off cut device

- Off cut device cleaning tape threads from scrapping, as to prevent any problem later during flat scraping and buffing.



24. Pneumatic flat scraping

- Remove extra glue line for perfect banding effect.



25. Spraying device (Clean agent)

- Spray clean agent before buffing thus reduce possible glue line effectively.



26. 2 sets Oscillating Buffing

- Unique oscillating buffing offers higher performance and longer life time
- Driven by continuous current dynamo, more stably.
Motor: 0.37kw*2



27. 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.



28. Dust collector

- Independent suction hood (φ125mm) fully covered on processing units, totally 8 pcs dust collectors provides excellent working condition, prevent any influence caused by scraps for longer service life.



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. Electric components

- PLC, input supply 415V/50Hz (selected configuration).
- 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.



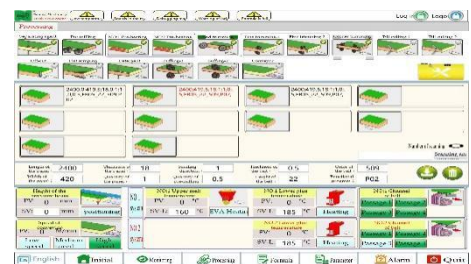
31. PC control

- PC control with Windows for infomatic production;



32. User-friendly interface

- 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 easily.
System languages: English, Chinese.



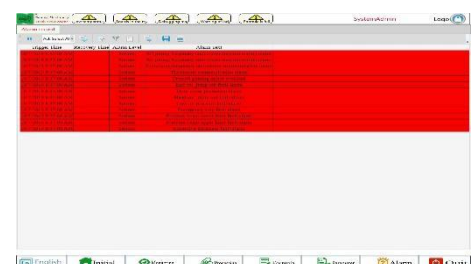
33. Production report

- Daily production included workpieces number and length is available at a glance.

Production Report			
Production Date	2018-08-08	Production Time	08:00-18:00
Operator	Admin	Machine No.	001
Material	1.2mm	Length	10000.0
Width	420	Weight	10000.0
Thickness	1.2	Volume	10000.0
Speed	100	Power	10000.0
Pressure	100	Distance	10000.0
Energy	100	Alarm	10000.0
Internal	100	Quit	10000.0

34. Easy Trouble-shooting

- Alarm shows clear info, easier to find problem



NBF371 | TECHNICAL DATA

Operating specifications

Parameter	Value
Panel length	≥120mm; ≥200mm with corner rounding
Panel width	≥80mm (see size conflict below)
Panel thickness	9-60mm; honeycomb: 9-22mm
Min. panel size	120×120mm; 200×50mm (unconfirmed)
Edge tape thickness	0.4-3mm; honeycomb: 1-2mm
Feeding speed	12/16/20m/min; honeycomb: 12/16m/min
Power supply	415V/50Hz (selected configuration)
Air pressure required	0.7MPa
Operation system	PC
Dust collector	125mm diameter × 9 (table; see conflict)
Total power	30 kW
Approx. weight	6,110 kg
Overall dimension	11200×1050×1850mm

OEM discrepancies requiring confirmation

Point 28 states 8 extraction hoods, while the technical table states 9. The minimum panel-size entry 200×50mm conflicts with the stated minimum panel width of 80mm. These entries are not verified operating permissions.

For aluminium honeycomb, use only the application-specific limits shown above. Confirm the actual panel construction, adhesive, edge tape and trial results before production.

Source revision: 250527. OEM specifications and design are subject to change; final order documents and approved drawings govern the supplied machine.



NBF371 | CONFIGURATION & CONFIRMATIONS

Confirm before commissioning

The supplied OEM document is retained as the technical source. The following items remain open; content approval is not engineering approval.

Electrical configuration

Supply: 415V/50Hz is the user-selected configuration; the original OEM PDF states 380V/50Hz. Obtain Nanxing's approved electrical drawing and nameplate before connection. Phase, full-load current, cable/protection sizing and any voltage-conversion requirement remain unconfirmed. The listed 30 kW is not a completed site feeder design.

Dust extraction

Extraction: the technical table lists $\Phi 125\text{mm} \times 9$, but point 28 states 8 pcs. The table value is the working reference only. Confirm port count, required airflow and static pressure before ordering extraction equipment.

Minimum panel size

Panel size: the table lists panel width $\geq 80\text{mm}$, but also gives a minimum panel size of $200 \times 50\text{mm}$. Preserve both source entries; do not promise 50mm-wide processing until Nanxing confirms the applicable conditions.

Rough-trimming speed

Rough-trimming speed is printed as 1,2000rpm/min. It appears to be a formatting error, but the intended speed must be confirmed before setup; no silent correction has been made.

Buffing motor allocation

Buffing: the heading states 2 sets, while the motor line states $0.37\text{kW} \times 2$. Confirm whether that motor allocation is total or per set.

Aluminium honeycomb limits

Aluminium honeycomb limits are narrower than the general limits: board thickness 9-22mm, edge thickness 1-2mm and feed speed 12/16m/min. Validate the customer's actual panel, adhesive and edge combination by trial; do not advertise the general 60mm / 20m/min limits as aluminium-honeycomb capability.