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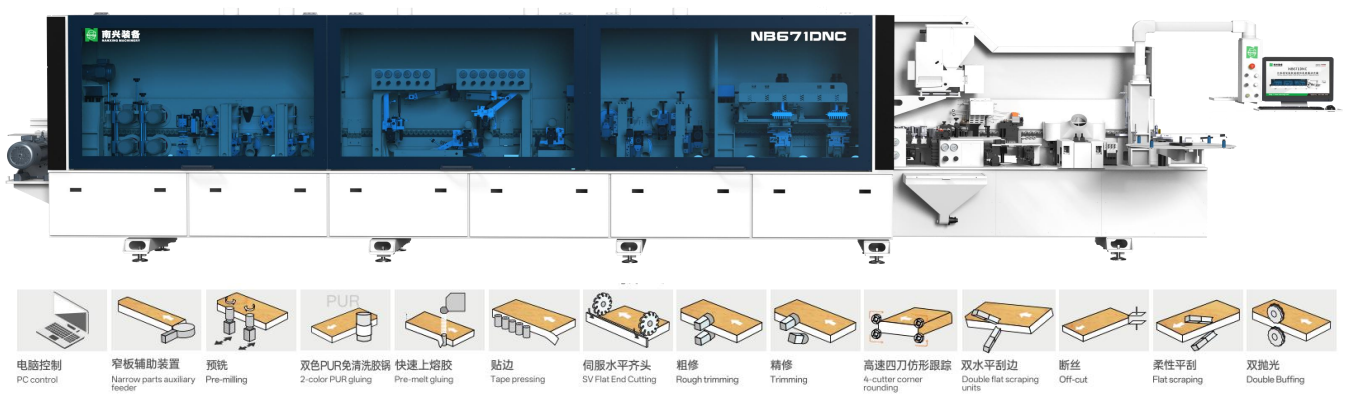
Edge Banding Machine for Narrow Parts

NB671DNC



Function

Narrow Panel Feeding Auxiliary Device,Release Agent sparyer,Pre-Milling,Pre-Heating, 2-Color PUR Gluing System, Pre-melt gluing units,Tape Feeding,Five-Roller Tape Presser, Servo end cutting,Rough trimming,Fine trimming,High-Speed 4-motor corner rounding, 2 sets Flat tracing arm Scraping units, Off cuts, Flat scraping, clean agent sprayer, 2 sets buffing;

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Highlights

The entire machine adopts a heavy-duty structural design, coupled with steel rail and beam support, ensuring rock-solid stability during operation. It remains deformation-free under prolonged high-load operation, with durability maximized! The heavy-duty body and steel rail-beam design, through their characteristics of "high rigidity, vibration resistance, strong load capacity, and long service life," fundamentally enhance the processing precision, stability, and durability of the intelligent edge banding machine. This serves as the key hardware guarantee for its adaptation to the "high precision, high efficiency, and multi-scenario" production demands of custom furniture.

[1] Ultra-narrow and ultra-thin edge banding limits: supports a minimum edge banding width of 35mm and a minimum thickness of 8mm, meeting the processing needs of fine materials;

[2] Heavy-duty rigid structure, with steel rail-beam and integrated frame design, ensures high-speed operational stability and long-term durability;

[3] Double glue pot system, 2-color PUR glue pot: supports mixed-color edge banding, eliminates frequent cleaning, and improves color change efficiency. Quick switch mode: optional pre-melt gluing system or laser edge banding, adapting to diverse process needs;

[4] Equipped with servo flat end trimming;

[5] Equipped with high-speed 4-motor corner rounding;

[6] Equipped with 2 scraping units with a new-generation flat scraping device, thoroughly removing glue residue and improving edge smoothness;

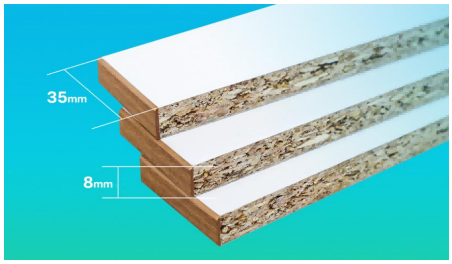
[7] Dual buffing units achieve seamless integration of the edge tape and the board;

[8] The new-generation control system integrates all functional modules, supports parameter presets and one-touch process calling, simplifying the operation process.

Machine features

Engineered for extreme applications

This machine achieves a minimum banding width of 35mm on materials as thin as 8mm, fulfilling the most demanding precision machining requirements.



Heavy-Duty Monoblock Frame with Steel Rail Beams

The machine body and guide rails are integrally welded and machined as a single unit, ensuring superior precision and stability. This monoblock construction guarantees optimal linearity for panel transportation and maintains perfect rail alignment. Supported by steel rail beams, the system operates with rock-solid stability, resists deformation under prolonged heavy-duty operation, and delivers maximum durability!

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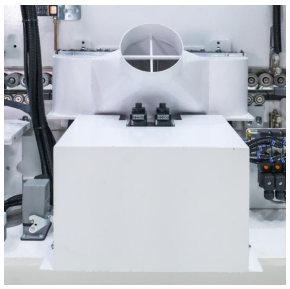
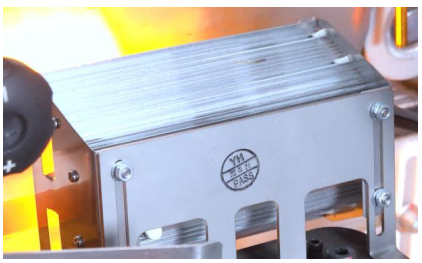
PC-Based Intelligent Control √ Enables one-touch start-up through scanning or manual program editing, boosting production efficiency and preventing errors. √ Supports seamless data integration with MES systems through PC-side databases.	
Feed Stopper √ Limits the spacing between incoming panels to ensure smooth operation of all workpieces. √ Provides overload protection: the conveyor automatically stops when a panel exceeds the preset thickness threshold. √ Guarantees safe and secure panel feeding.	
Electric lifting mechanism for the pressure beam √ The pressure beam lifting mechanism is electrically adjustable;	
Narrow Panel Feeding Auxiliary Device √ Enables smooth and efficient feeding of narrow panels into the machine for edge banding. √ Minimizes alignment instability during manual placement of narrow panels.	
Pre-milling Unit √ Utilizes high-speed rotating diamond cutters to mill the panel edges, removing cutting burrs and residual adhesive layers. √ Eliminates interference from impurities at the bonding interface between the edge band and panel, ensuring uniform glue penetration and enhancing edge bonding strength.	
Preheating Unit Preheats the board before gluing to enhance adhesive bonding strength with the edge banding.	

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Gluing System

√ Double gluing units (2-color PUR & pre-melt gluing) allows two different colors or types of glue to be held simultaneously. Enables quick glue switching without frequent tank cleaning, minimizing downtime.
√ Glue tanks feature precise metering and independent storage, supporting "melt-on-demand" to prevent carbonization caused by repeated heating.
√ The dual-color PUR system accommodates two distinct glue types for instant switching via intelligent control, adapting to various panel requirements:

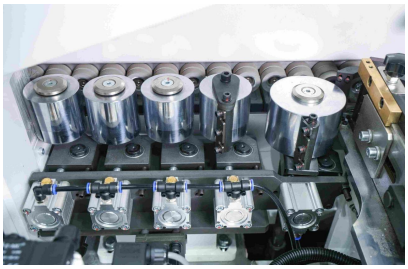
- Dark glue for dark panels to conceal glue lines
- Clear glue for light-colored panels
- Mixed-glue mode for enhanced aesthetics and strong, eco-friendly bonding.

2-color PUR Gluing units:

√Enables rapid switching between two types of PUR adhesive, boosting processing efficiency
√Features an intuitive smart control touchscreen for user-friendly operation
√Incorporates a one-piece molded aluminum alloy pressing plate for even heat distribution, high-temperature resistance, and deformation-free performance
√Utilizes imported Teflon heating hoses, offering enhanced durability, flexibility, and anti-stick properties

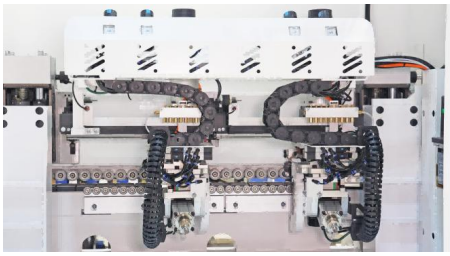
Pressure roller

One pre-pressure roller plus 4 post rollers to press edge tape on panel surface firmly. Pressure regulating valve 1.5~2.5 bar.



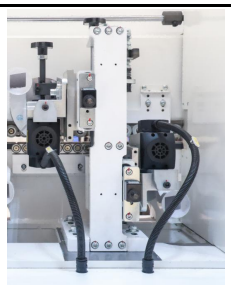
Servo-Controlled Horizontal End Trimming

√ Utilizes servo motor control for rapid response and smooth operation
√ Robust construction with horizontal sawing prevents workpiece scratching
√ Shortened tool travel increases cutting speed and thickness accuracy
√ Boosts overall edgebanding efficiency while enabling easy blade adjustment and replacement



Rough trimming

√Rough trimming unit with 2 powerful motors (power 0.75kw; frequency 200hz; rotating speed 12,000 rpm/min), 2 milling cutters with two stiff steel positioning guides;



Fine trimming：

12000 r/min 0.55kW×2

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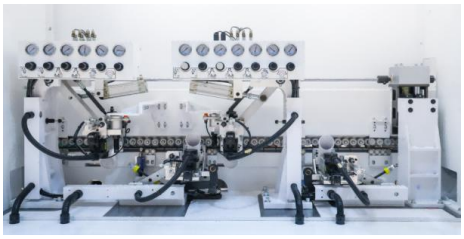
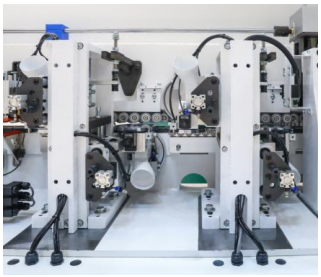
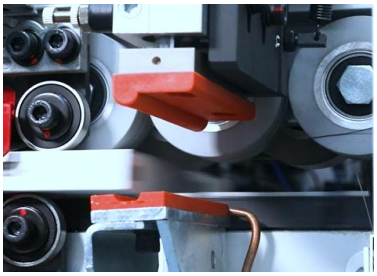
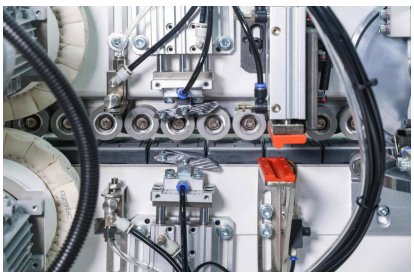
High-Speed Four-Knife Corner Rounding √ Performs high-precision profile tracking to round off edges at both ends and four corners of the workpiece, shaping edge banding into smooth arcs; √ Equipped with an independent dust cover for efficient chip removal; √ Features a dedicated air tank to ensure stable air pressure during operation; √ Matches the speed of the edgebander, adaptable to low/medium/high processing speeds; Up to 26m/min. √ Upper trimming unit fitted with cushioning devices on both top and bottom for stable and rapid movement;	
2 sets Scraping Unit with Flat Guide Wheel √ Eliminates wave patterns caused during non-linear trimming, delivering superior smoothness on both the top and bottom sections of the panel. √ Features two sets of horizontal guide wheel scrapers, each equipped with evasion control and targeted air-blowing for effective debris removal.	
Off cut device Off cut device solve the tape silk threads from scrapping, as to prevent any problem later during flat scraping and buffing.	
Flat scraping： Remove extra glue line on parts' surface for perfect banding effect.	
Release Agent & Cleaning Agent Sprayers √ Release Agent: Applied prior to the pre-milling, it creates a barrier to isolate excess glue, preventing it from bonding to the panel surface and ensuring a clean finish. √ Cleaning Agent: Used before the buffing, it effectively removes residual adhesive from the surface and corrects color discrepancies on the edge tape.	
2 sets Oscillating Buffing √ Oscillating buffing offers higher performance and longer life time √ Driven by continuous current dynamo, more stably. Motor: 0.37kw*2; 1400 r/min Tilt angle: 45°	

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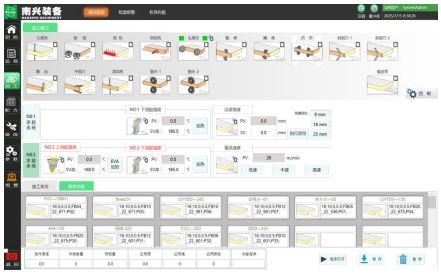
New Generation Intelligent Control System

√ Enables real-time control of critical parameters such as operational functions, glue tanks, edge tape channels, conveyor speed, and adhesive temperature to ensure optimal bonding strength and visual consistency.
√ Provides comprehensive data logging throughout the entire process, collecting real-time operational and production metrics while generating visualized reports via MES integration.



Tool speci

Pre-milling	Diamond 25×43×30 DKN8×3.3 Z3+3
Rough trimming	Diamondφ56×φ20×H14×4Z
Fine trimming	Diamond 70×6×16 Kn5×18.5
Corner rounding	Diamond 67×HSK25×Z6 R2
Scraping	Scraper R2

Tech Data

Model	NB671DNC		
Panel length	≥120mm	Infeed speed	18/22/26m/min
Panel width	≥35mm	Dustcollector	φ125mm×7
Mini workpiece size	300×35mm	Total Poser	34.5KW
Panel thickness	8-60mm	Machine size	10000×1050×1930mm
Tape thickness	0.4-3mm	Net Weight	5080kg