

AUTOMATIC EDGE BANDING MACHINE

GIBEN KS26 J EDGEBANDER (Or Approved Equal)

For application of veneer and coiled PVC (from 0.4 up to 3 mm of thickness) high pressure laminates and rigid wooden strips (up to 12 mm of thickness) to straight panels only.

Special Requirements

- Radio frequency safe switches for on the enclosure hoods.
- The electrical cabinet mounted on the end of the machine rather than below the machine.
- A four (4) roller pressure station that uses both tension springs and pneumatic pressure.
- The pressure roller area with its own enclosure.
- PLC for group automation and synchronization.
- Inverter for high frequency motors.
- Numeric heat regulator for the glue heating control.
- Pre-milling group installed on linear guides for precise movements and positioning.
- Clear and easy to use numeric counters.
- High quality components readily available in all markets.

AUTOMATIC EDGE BANDING MACHINE

Machine Structure

Machine structure able to absorb the vibrations and grant perfect stability during intensive production.

Panel Feeding Magazine

In-feed guide system composed of a steel chain with pads to control the material. Pads to be covered with high-grip rubber that are fixed. A pressing bar with two opposite rows of rubber cog-wheels. A movable extractable roller bar to assist the operator for heavy and large panel support.

Control Panel System

The control panel incorporates the operating controls of all the working units (by 7" "TOUCH SCREEN") and an emergency stop switch. The automation of all the working units and the heating of the gluing unit are handled by a PLC. The high-frequency motors are controlled by inverters, equipped with electronic braking circuit

EEC Standards

The machine must conform to EEC standards, being equipped with safety protection systems and guards. The cabinet shall contain all the working units and guarantee controlled noise emission protection for the operator.

EDGE BANDER CONFIGURATION

Pre-Milling Unit

Functions: milling of the panel side to be edge banded, with removal from 0 to 1 mm of thickness.

Equipment: two jumping head motors (0.75Kw – 12000 rpm – 200Hz), fixed on sliding machined surfaces with movement on prismatic guides; two diamond cutters, with opposite rotation in order to avoid chipping and obtain a perfect finishing; numerical indicator for removal adjustment; tools protection guards; two dust collection openings.

Gluing Applicator and Automatic Magazine Unit

Functions: Automatic loading of edgebanding material in rolls or strips and applying glue onto the panel.
Equipment: automatic feeding for the loading of edges in strips (with needle roller) or in rolls (with rubber roller); glue pot for melting with fast heating within 10-15 minutes; application roller with device to adjust the glue quantity that is applied on the panel; dual digital electronic control of the temperature in the tank and on the roller; setting of temperature of working pause at 130°; system equipped with quick change adapters for fast change out.

Pneumatic Pressure Rollers

Function: pressing of the edge against the panel after gluing and cutting of all edges in rolls up to 3 mm of thickness.
Equipment: first motorized roller, three idle rollers tapered in opposite directions; the rollers are covered in special non-stick material for easy cleanings; device for pneumatic adjustment of rollers' pressure; two numerical indicators for rollers' moving according to edge thickness; guillotine shear featuring pneumatic control suitable for PVC and ABS up to 3 mm of thickness.

End Cutting Flush Trim Unit

Functions: cutting of front and back surplus edge.
Equipment: two motors (0,25 Kw – 12000 rpm – 200Hz), fixed on sliding machined surfaces with running on prismatic guide; two circular saw blades, 70 mm of diameter; variable plunge speed for automatic adjustment of the speed according to panel feeding; device for blades tilting at 0° and 9°; easy system to adjust the material removal; two dust collection openings. Blade angle is adjustable from the control cabinet (two positions).

Top & Bottom Trimming Unit

Functions: trimming of top and bottom of applied edge.
Equipment: two motors (0.37 Kw – 12,000 rpm – 200Hz), fixed on sliding mounted ways running on prismatic guides; device for quick connect motors removal for a fast replacement of the tooling; two cutters, 70 mm of diameter, with knives with 2 shapes (selection between Flat +30°; Flat 5° +R3; FLAT 5° +R2; numerical indicators for easy and quick adjustments; dust collection openings.

Multi-Function Corning Rounding Unit

Functions: upper and lower trimming of edge applied onto straight panels with upper and lower rounding of edge applied onto post-formed panels.
Equipment: two motors (0.37 Kw – 12,000 rpm – 200Hz), fixed on sliding blocks with running on prismatic guides; device for quick connect motors removal for a fast replacement of the tooling; two cutters, 60 mm of diameter, 6 knives with 1 profile (R3, R2, R1, 5), for edge rounding.

Edge Finish Scraping Unit

Functions: perfect finishing of PVC and ABS edges, after trimming unit working. When using the flat edge of the tools, the unit can also work as Glue –Scraper.
Equipment: two knives with profile matching the multi-function unit.

Glue Finish Scraping Unit

Functions: removal of residual adhesive from the point of juncture between edge and panel.
Equipment: two knives with flat edge.

Buffing Polishing Unit

Functions: perfect brushing and polishing of PVC and ABS edges.

Equipment: two buffing wheels, 180 mm of diameter, of a resistant cloth; two motors; device for both height and depth adjustments.

Technical Features:

Min. and max. edge in roll thickness 0.4/3mm

Min. and max. edge in strip thickness 0.6/12mm

Min. and max. panel thickness 8/50mm

Minimum panel width 85mm

(Panel length must be a minimum of 300 mm)

Minimum panel length 140mm

(Panel width must be a minimum of 120 mm)

Feed speed 16 mt.min

(at 60 Hz)

Glue pot capacity 3 liters

Supply 480 volt

Inverter 200 Hz

Compressed air 7bar