

Homag Edgebanding Machine Tape Rocket 2.0

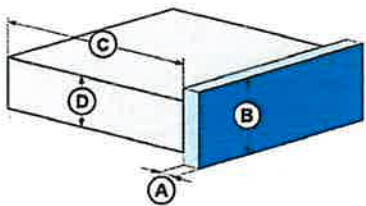
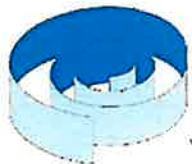
Homag is the most respected name in the woodworking equipment industry. Innovative engineering, automated technology, and exceptional system competence have placed Homag in its position as market leader in the field of machines, plants, and systems for the woodworking industry.

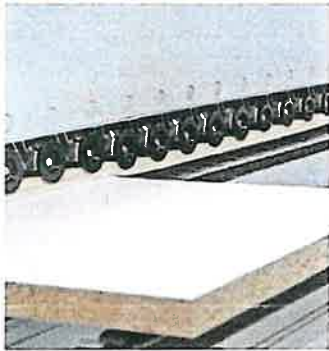
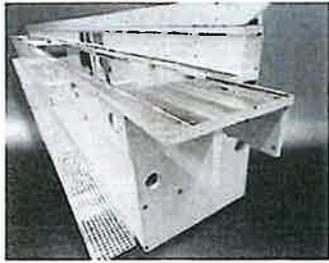
Homag designed the KAL 370 series machine for the world market to take advantage of economies of scale. At the same time, Stiles has tailored the machine features to target the U.S. market.

Advantages of Homag Edgebanding Machines

- Several machine models designed with your manufacturing needs in mind and a long list of standard features means less customization and lower costs.
- Standardization means efficient manufacturing and lower production costs.
- Lower energy costs through integrated energy-saving technology, for example standby mode, passive cooling, and “I” tooling.

Material Capabilities

		COILS
		
A	edge thickness:	0.3 – 3 mm
B	edge height:	12 – 64 mm
C	minimum workpiece width:	60 mm (with workpiece thickness ≤ 22 mm) 100 mm (with workpiece thickness > 22 mm)
D	workpiece thickness:	8 – 60 mm



Machine Design

All of the working units are mounted to the *left* of the chain track, as seen from the operator's feeding position. The machine is built on a rigid, welded steel frame with an outrigger-type workpiece support with extendable roller guides.

Transport Chain

A heavy-duty feed chain rides on precision-hardened, centrally-lubricated guides to transport the workpiece. Track pads are 80 mm in width and are topped with a rubber surface to securely hold the workpiece. Homag's industry-leading transport chain design provides for accuracy, durability, and longevity of the machine.

Upper Pressure Beam

A steel pressure beam applies even pressure by way of a double-wide compound V-belt with convenient programmable height adjustment and digital read-out. The double-wide V-belt provides superior workpiece hold-down allowing for better post-processing quality at higher feed rates.

Machine Specifications

machine length:	7,365 mm	(24 ft)
working height:	950 mm	(37 in)
extendable workpiece support:	1,000 mm	(39 in)
variable feed speed:	16 – 25 m/min	(52 1/2 – 82 ft/min)
workpiece overhang:	30 mm	(1 1/8 in)
operating voltage:	480 V	
control voltage:	24 V	
paint:	grey RDS 240 80 05	

Note:

Maximum feed speed is not necessarily the appropriate working speed.

Electrical equipment installed according to UL regulations.

Voltage supplied must not fluctuate in excess of $\pm 5\%$ of its stated value. Voltage must be balanced phase-to-phase and phase-to-ground.

Handheld Machine Set-Up Control

Set-up and trouble-shooting can be performed by one (1) operator, who can start and/or stop the feed chain to inspect each unit in operation as the workpiece is guided through the machine.

Benefits

- single-operator machine set-up
- fewer set-up parts results in less wasted material
- faster, safer machine adjustment



Top Pressure Belt Hold-Down, Motorized for Workpiece Thickness Adjustment

Programmable Height Adjustment

Machine is designed with programmable height adjustment of the top pressure beam and is interlinked with line control to ensure all workpieces have cleared the machine chain track before adjustments can be made.

Workpiece Spacing Control

- pneumatically-actuated pop-up pin for the appropriate feeding and spacing of workpieces

Benefits

- maximum productivity
- safer machine operation during program changeover

Manual Infeed Fence Adjustment

Used to control the amount of material removed by the pre-milling unit, the operator can manually adjust the infeed fence via a digital mechanical counter.

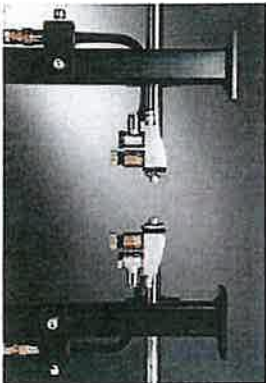
LPZ/II Release Agent Spraying Unit

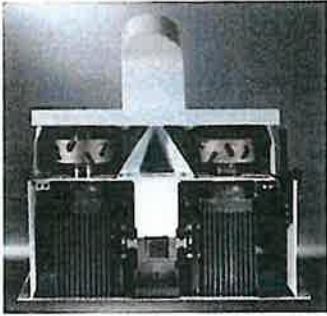
Release agent (LPZ/II) is sprayed onto the workpiece from above and below prior to pre-milling the workpiece.

- prevents the adhesion of glue residue on the upper and lower surfaces of the workpiece
- two (2) 2-liter reservoirs
- one (1) 2-liter bottle of release agent provided

Benefit

- along with the pre-milling unit, the release agent creates the foundation for optimum workpiece quality





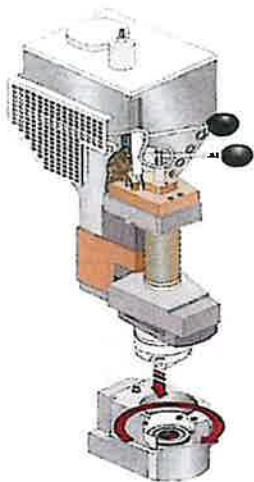
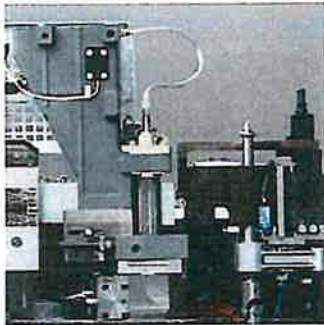
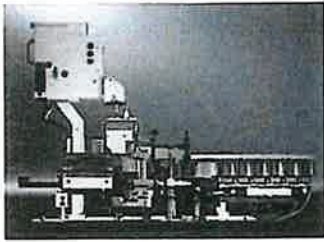
Pre-Milling Unit

Pre-milling prepares the workpiece edge for optimum glue bond and minimizes workpiece chips and inconsistencies caused by previous processing.

- two (2) counter-rotating motors (3 kW, 9,000 rpm) with electro-pneumatic jump control to prevent blowout on the leading and trailing workpiece edges
- air blow-off for workpiece cleaning
- chip-optimized "I" tooling™ provides maximum extraction and cleaner work surface
 - two (2) diamond milling heads: 125 x 43 x 30 mm
 - motor shaft diameter: 30 x 68 mm (keyway)
 - maximum workpiece thickness: 40 mm (60 mm optional)

Benefits

- thinnest possible glue line
- best possible adhesion of edgebanding material to the workpiece
- along with the release agent, the pre-milling unit creates the foundation for optimum workpiece quality
- service life is substantially higher than with smaller tool diameters



QA-65 EVA Quick Melt Gluing Unit

Homag is the original developer of the quick melt glue system.

- lower application unit is designed with the fewest number of wearing parts, which allows for ease of adjustment and reduces maintenance costs
- programmable thermostat for both upper and lower units, along with heated glue roller, allow for excellent control of temperature for optimum bonding results
- Vernier scale adjustment for leading and trailing glue gates
- granule hopper holds untreated granules prior to application
- lower melting unit equipped with built in automatic glue level control
- melting capacity: 6 – 12 kg/h

Quick Clamping System

- quick change over of the glue application unit for different glue colors or types
- five-minute (5) change over requires no tooling adjustments

Glue Roller Drive

Driven glue roller extends the life of the glue and application unit by providing constant circulation.

- the glue roller drive is off-set from the glue pot above to prevent accidental glue spillage from entering the drive system
- thermostatically controlled activation initiates glue roller drive when lower unit reaches melting temperature

Clamping Device for Glue Pot

- electro-pneumatic clamping of the glue roller and tank eliminates glue transfer to the trailing edge of the workpiece

Glue Container Retraction

The glue roller is retracted during feed track stoppage preventing glue build-up on the workpiece.

Benefits

- ten-minute (10) heat-up time reduces machine down time and maximizes productivity
- heated glue roller provides optimum bonding temperature
- Vernier scale adjustment allows for perfect metering of glue onto workpiece edge
- clamping device ensures consistent glue line



Two-Channel Multi-Purpose Magazine

An automatic, two-channel magazine for coil processing. Also included is a separate, two-roller vertical coil holder.

	COIL
edge thickness:	0.3 – 3 mm
edge height:	12 – 64 mm
maximum roll diameter:	830 mm (2x)

Precision-Controlled Edge Feeding

- reduction of overhang at front and rear edge to ± 2 mm in case of 25 m/min feed speed when running coiled material
- can be run with or without end trimming on coiled materials

Benefit

- optimized edgeband material overhang results in better yield and minimal waste

Guillotine

A guillotine cuts the edgeband material to length.

processing limits:	PVC	135 mm ²
	VENEER	100 mm ²

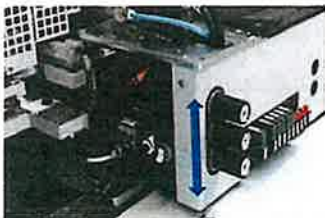
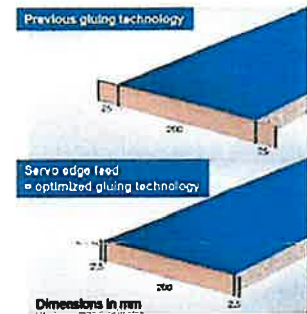
Magazine Height Adjustment

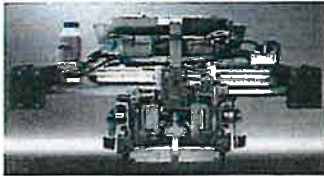
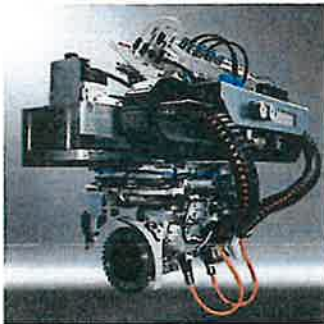
Magazine height adjustment enables the use of varying edgeband material heights. Raising and lowering the magazine table allows the operator to center the edgebanding material on the workpiece.

- manual adjustment via digital mechanical counter
- adjustment range: ± 5 mm

Benefits

- potential to reduce edgeband inventory
- even tool wear and longer tool life
- allows for greater processing consistency





Pressure Zone

- one (1) driven pressure roller, synchronized with the feed track (90 mm diameter)
- combination of four (4) conical and cylindrical pressure rollers (70 mm diameter)
- pneumatic pressure control for straight edges

Benefit

- results in the tightest possible glue line and greatest bond strength

PK 25 End Trimming Unit

This unit trims the overhanging edgebanding material at the leading and trailing edges.

- stationary trimming stop to protect sensitive workpieces from damage
- two (2) heavy-duty trimming motors (0.8 kW, 12,000 rpm)
- programmable electro-pneumatic reset from chamfer to straight trimming
- minimum workpiece gap: 350 mm at 20 m/min (trailing edge to leading edge)
- minimum workpiece gap: 1,000 mm (leading edge to leading edge)
- includes two (2) carbide-tipped saws (170 mm diameter) 1 ← 1

Note:

Minimum workpiece gaps are regulated by Workpiece Spacing Control.

Benefits

- optimized scrap removal – waste cannot interfere with unit processing
- smaller workpiece gap increases productivity and throughput
- easily accessible unit provides user-friendly maintenance

350



PF 20 Fine Trimming Unit

This fine trimming unit is designed for trimming of the top and bottom workpiece edges. By way of digital mechanical counter, this unit is capable of manually adjusting between different workpiece thicknesses.

- two (2) motors (0.4 kW, 12,000 rpm)
- height adjustment synchronized with top pressure beam
- swiveling range: 0° – 25°

HSK Interface / "I" System Tooling™

- two (2) "I" system chamfer diamond cutters (70 mm diameter)
 - chamfering angle is approximately 20°

Notes:

Machine is equipped with standard 20° chamfer tooling. If required, the customer must specify alternate tooling at time of order.

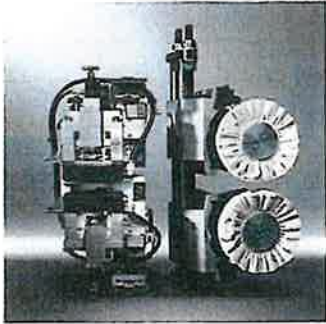
When equipped with the Radius Kit mentioned in the Optional Equipment and Services section below, this fine trimming unit is capable of manually adjusting between chamfer and radius.

Benefits

- reduces required dust extraction capacity by nearly 50%
- superior processing quality due to cleaner workpieces
- "I" System Tooling™
 - improved extraction of chips away from the cutters through the body of the tool
 - keeps tooling cool and prevents recuts which increases tool life
 - increases dust extraction efficiency
 - decreases CFM requirements

Open Space

Open space in the processing area for the future addition of a profile scraping unit.



Finishing

FA 20 Basic Glue Joint Scraping Unit

Glue joint scraping unit for the top and bottom is designed for removal of glue residue.

- height adjustment synchronized with top pressure beam
- electro-pneumatic positioning in and out of the processing area

FA 06 Edge Buffing Unit

Edge buffing unit for the top and bottom cleans and restores luster to plastic edges.

- height adjustment synchronized with top pressure beam

LP163/93 Cleaning Agent Spraying Unit

- applied by way of two (2) spray nozzles
- one (1) 2-liter bottle of release agent provided

Benefits

- removal of glue residue eliminates additional hand scraping and cleaning
- spraying of detergent prior to buffing assists in cleaning the edge

Sound Enclosure

The processing unit section of the edgebanding machine features a safety-interlocked sound enclosure that provides protection to the operator.

- individual dust extraction ports for processing units
- viewing windows
- illuminated for ease of operator inspection

Electronic Control

- multi-tasking control with programmable memory (PLC)
- indication of all inputs and outputs by means of luminous diodes
- integrated line control for remote control of processing units
- utilizes standardized interface across all Homag Group machinery
- recommended environmental temperature: 5° C (41° F) – 40° C (104° F)

WoodScout Diagnosis System

The WoodScout software is a graphical diagnostic tool designed to increase throughput and decrease down time.

- graphical PLC diagnosis display of the error location in the machine
- customer-specific data base system that allows the operator to enter the reason for the error as well as the corrective measures to assist with future troubleshooting

ecoPlus Technology

Standby Mode

- ecoPlus button for manual start and stop of the energy saving standby mode in which the control voltage is disconnected when the machine is not in production
- machine can automatically shift into standby mode when no parts are processed within a length of time predetermined by the operator

Patented Dual Pressure System

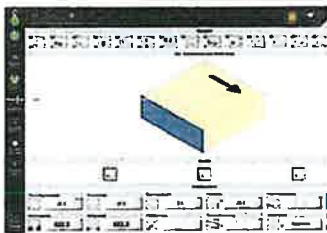
To save energy, the compressed air supply in the machine is divided into two pressure systems:

- 6 bar actuator network with integrated buffer
- 3 bar air jet network with particulate filter

Benefits

- reduced air consumption of the air jets does not drain the actuator network
- actuator network does not suddenly collapse





Homag Group powerTouch Control System

Hardware

- operating panel with 21.5" FULL-HD multi-touch display in widescreen format
- utilizes standardized interface across all Homag Group machinery
- ergonomic touch operation with gestures such as zooming, scrolling and swiping
- intelligent display of readiness of production by light function
- real-time production monitoring and reporting of important operating information (e.g. number of pieces, production time) with MMR Basic
- operating system Windows 7 Professional

Software

- menu-guided operation
- WoodCommander software kit
 - easy, graphic-supported creation and storage of machine programs
 - administration of tool data by tool macros
 - operator guiding system (BDL) for display of necessary manual adjustments at the machine for program-change over
 - error messages in plain text

Benefits

- standardized control system and HMI across all Homag Group products
- easy navigation for equal and intuitive operation of the machine
- remote diagnosis via internet

Documentation and Control Text

- production instructions consisting of operator's manual and maintenance guidelines (hardcopy and CD ROM)
- on-screen operator control texts for machine operators
- spare parts designations on CD ROM
- all documentation and control text in English and Spanish languages

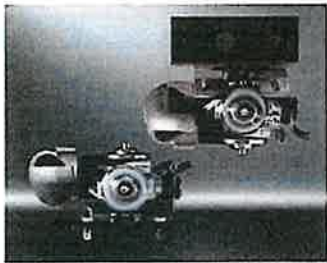
Tapio Ready

- The machine is prepared for connection to tapio Cloud

QA 65 Glue Pot

Additional glue pot.





Radius Kit

For radius processing, this kit includes diamond radius tooling for the PF 20 Fine Trimming Unit and a profile scraping unit that removes tooling marks left over from the trimming process.

HSK Interface / "I" System Tooling™ for Fine Trimming Unit

- two (2) "I" system radius diamond cutters (70 mm diameter)
 - chamfering angle is approximately 15°

Note:

The Fine Trimming Unit would be equipped with standard 3 mm radius tooling. If required, the customer must specify alternate tooling radii at time of order.

PN 10 Profile Scraping Unit

- tracing from top, bottom, and side
- pneumatically-controlled blow off nozzles
- height adjustment synchronized with top pressure beam
- suction collection box for edgebanding material scrapings
- electro-pneumatic positioning in and out of the processing area
- includes two (2) quick-change scraper heads and two (2) profile knives with reversible carbide tips

Notes:

The Profile Scraping Unit is equipped with standard 3 mm radius tooling. If required, the customer must specify alternate tooling radii at time of order.