

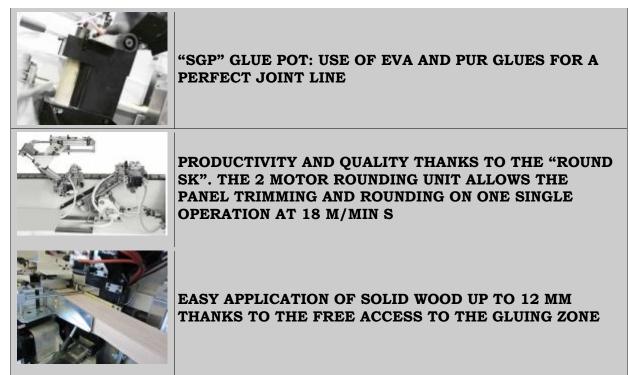
Automatic edge bander

stefani kd



(the image of the machine is not binding for the real technical features here below indicated)

MAIN FEATURES





GENERAL FEATURES

Automatic single-sided edge bander for the edge gluing with hot melt glue on straight panels, on all four panel sides, finishing and rounding-off of the panel corners.

Base and track support beam made of a single element with curved and welded steel plates to ensure a vibration free, highly rigid structure. Apertures with shoots to facilitate the clearance of shavings to the floor that are not collected by the dust extraction.

Top presser made of curved and welded steel plates and supported with cast-iron columns. It provides a vibration free structure on which the operating groups are located. Two rows of high-adherence rubber **panel pressure wheels** on the track and mounted on bearings. An enclosure covers the wheels.

Electronic adjustment of the upper presser when varying the panel thickness.

Top **operating groups** fixed to the presser or mechanically connected on to it to allow the automatic positioning according to the panel thickness. Lower groups fixed to the base or the horizontal beam for a precise reference with respect to the panel. All high frequency motors are equipped with static **inverter**.

Safety enclosure on all units installed after the gluing unit.

The enclosure doors have wide poly-carbonate windows for the groups visualisation during machining.

Safety enclosure lined with **soundproofing material**, **complete with lamps for internal lighting** of the gluing and machining zone.

Panel spacer, positioned on machine infeed to allow the panels loading into machine with the right space between them. Automatic change of the loading distance according to the selected working speed.

Exhaust outlets for the operating groups positioned on the top side of the safety enclosure.

Mobile control panel at machine infeed for an easy use from the operator''s working position.

Electrical cabinet in conformity with the current safety regulations.

Electrical components positioned inside the metal case, fixed to the machine base with door that allow an easy access in case of any maintenance operations.

Feed track





made of pads coated with high friction rubber fixed on **1-1/4"¾ industrial chain**. **Sliding of pads** on two guideways (in hardened and ground steel), one round and one flat, to ensure straightness of movement and resistance to side loads. Automatic pads lubrication.

The oil quantity is optimised by the machine control according to the machined panels.

Panel support rollers positioned parallel to the track. It can be extended on the entire length of the machine. It is made of telescopic opening system and panel sliding plastic wheels with steel pivot pins.

"StarTouch" electronic control



Main features:

- 12" Touch-Screen colour display
- operating groups and their status (on/off) are graphically shown
- graphic simulation of machining which will be carried out on each panel side
- no. 100 customisable working programs, 6 of them with keys for the rapid selection of the preferred ones ("preferred" function)
- operating units control and automatic start of motors
- glue pot temperature control and adjustment
- selection of first or second passage without changing program
- simple and controlled diagnostics for easy fault finding and rapid solution time.
- partial and absolute process statistical data: number of processed pieces and edges, machine start times, track feeding
- capacity of choosing dimensions in mm or inches
- operating temperature from 0 to 45° Celsius

Safety regulations

The machine is in conformity with the safety regulations according to the countries of machine destination.

Attention: for some countries it is necessary to select the specific optional code foreseen on the price list.



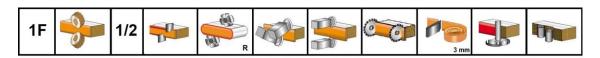
Codice produttivo: STEFANI KDR

A00068 UL/CSA version

N. 1

N. 1

R00415 stefani kd - "T-FR2" composition (51)



The machine includes the free space for the installation of the following optional units:

 $(\frac{1}{2})$ = Glue scraping unit

(1F) = Hot air blower

Machine length: mm 6055 (51)

TECHNICAL DATA

Variable track feed speed	m/min	10 - 20
Panel thickness	mm	8 - 60
Thickness of edges in strips	mm	0,4 - 12
Thickness of rolled edges	mm	0,4-3
Max. section of rolled edges	mm ²	135
Coil-holder plate diameter	mm	780
Exceeding material to the panel thickness	mm	2+3 (5)*
Distance between two successive panels 10 m/min	mm	500
Distance between two successive panels 20 m/min	mm	650
Minimum panel length (100 mm min. width): * with speed up to 18 m/min * with speed from 18.1 to 20 m/min	mm mm	140 250
Min. length of edge in rolls	mm	170
Min. length of edge in strips	mm	250
Min. panel width (210 mm min. length) * with panel thickness up to 40 mm * with panel thickness from 41 go 60 mm * with edge thickness over 3 mm	mm mm mm	55 80 80
Opening for panel support roller	mm	600
Worktable height	mm	950-980



OPERATING UNITS

"RT-E" pre-milling unit



It trims the panel edge obtaining a perfect uniform surface for the glue application and a perfect jointing line with the edge.

- Two high frequency motors. Motor operation is timed to prevent chipping on the panel
- exhaust hoods
- timed air blower for the cleaning of the machined panel surface
- panel edge trimming with a variable removal, adjusting the infeed fence position by means of knob and numerical readout.
 Two automatic fence positionings to work with motor switched on or off.
- height adjustment of the motors to vary the cutters working point
- complete with diamond tools (H=49 mm D=100mm Z=3+3)
 (45mm max. panel height to be processed)

	-	
Max. removal	mm^2	55
Max thickness removal	mm	3
Panel thickness		8-45 (60**)
Motors power	kW	1,8
Tool diameter	mm	100
Tool height	mm	49
Tool rotating speed	rpm	9.000
** with H=64 mm	·	

"VC-S4.1" gluing unit



It carries out the automatic gluing with hot melt glue of edges in rolls and strips on straight panels.



SGP glue pot with manual dosage

It allows a changeover of the glue type/colour. **Features:**

- specific **compact design** reduces to a minimum the melted glue before the application in order to maintain the best quality characteristics.
- spreading roller with **optimized graining** PLASMA anti-adherent treatment
- manual emptying cycle with collection of the residual glue on a removable tank
- automatic locking of glue loss with stopped machine (SCM GROUP patent)
- manual dosing adjustment by graduated knob, according to the used glue and/or to the panel type and finish quality.
- quick release device for the removal and easy replacement of the glue pot
- **simple and quick access** for the internal cleaning with the possibility to disassemble parts.
- short time of heating of the glue during the starting of the machine thanks to its dimensions
- double thermo-regulation system for an easy use of two types of glue with different melting temperature (not available when the EB 60V glue applicator or its prearrangement is fitted)
- " iGlue" device which includes:
 - * automatic locking of glue pot copying operation in the last panel sections; it avoids **a glue excess quantity** the panel rear side
 - * automatic glue pot exclusion
- digital thermostat to control the glue temperature
- automatic lowering of the temperature after a temporary non-use of the machine

Technical data:

Heating time from environment T°: <10 min

Heating time from pre-heating T°: <5min

Installed power: 2,63 kW

Edge loading

- single motor for feed roller and first edge pressure roller
- feed roller for the automatic edge loading when panel is approaching
- shear device for the automatic cutting of the coiled edge
- coil-holder plate
- automatic edge loading system for edge in strips
- 2 interchangeable feed rollers: needle roller for solid wood and knurled roller for thin and plastic edges
- series of additional pressure wheels installed to the top pressure device and the longitudinal member of the track. They guarantee optimal panel tightness when up to 12 mm solid wood is applied



Attention:

It is not possible to machine panels less than 150 mm wide, with application of solid wood thicker than 8 mm and panels less than 500mm long

Edge pressure rollers

- the first roller of large dimensions is powered and with clutch unit
- 3 idle rollers, 2 of them with opposed conicity to guarantee an optimised edge pressure
- timed intervention of the rollers on the panel
- pneumatic pressure rollers adjustment
- knob adjustment and numerical readout for the positioning according to the applied edge thickness

Installed power	kW	2,05
Heating time	min	10
Glue pot capacity	Kg	1,5

"K/SEL" end cutting unit



It carries out the cutting of the front and rear exceeding edge (also for post/soft formed panels).

- 2 high frequency motors
- 0-15° automatic independent blades tilting (front/rear)
- motor sliding without mechanical plays on prismatic guideways and recirculating ball pads.
- Copying devices for an accurate positioning of blades in relation to the cutting point
- exhaust hoods
- complete with cutters

Motors power	kW	0,35
Speed of cutters	rpm	12.000



"RS/K" in-line trimming unit



It carries out the trimming of the top and bottom exceeding edge

- 2 horizontal high frequency motors
- vertical rotating copying discs for an accurate positioning of tools with reference to the working point
- knobs and numerical readouts for the positionings
- pneumatic exclusion of the unit
- two independent pneumatic vertical working positions to carry out the trimming operation with or without exceeding edge
- exhaust hoods
- complete with straight cutters with throwaway knives

Motors power	kW	0,65
Speed of cutters	rpm	12.000
Minimum panel thickness	mm	8
Vertical copying devices		disc

"R-HP" trimming unit



It carries out the trimming of the top and bottom exceeding edge

- 2 high frequency motors with 20° tilting
- rotating copying discs for an accurate positioning of tools with reference to the working point
- exhaust hoods
- pneumatic independent group exclusion (upper/lower)



- automatic unit positioning for the following operations:

- * chamfering of a thin edge thickness (for ex. 0,6 mm)
- * trimming of a thick edge with radius (for ex. 2 mm)
- solid wood trimming of 12 mm maximum thickness, with manual set up

of the unit on double position mechanical stop.

- complete with multifunction tools

Motors power	KW	0,65
Speed of cutters	rpm	12.000
Min. panel thickness with radius	mm	10
Vertical/front copying devices		disc/disc
Knives radius	mm	2

"ROUND SK" rounding unit



It carries out the **rounding** of straight and shaped edge angles and the **trimming** of the upper/lower panel side

- 18 m/min max. working speed when rounding and 20 m/min when trimming
- 2 high frequency motors
- motor sliding without mechanical plays on prismatic guideways and recirculating ball pads.
- front and vertical copying device for an accurate positioning with reference to the working point
- two positions with automatic adjustment
- automatic exclusion of the unit
- independent working selection between trimming and rounding
- "ED_SYSTEM" exhaust hood
- complete with brazewelded cutters with radius (R=2)

Motors power	kW	0,55
Speed of cutters	rpm	12.000
Edge thickness	mm	0,4 - 3
Panel thickness: - with straight angle - with shaped angle (according to the profile)	mm mm	10-60 10-40/50
Min. panel length	mm	140
Max. working speed when rounding	mm	18 (*)
Max working speed when trimming	mm	20 (*)



Distance between two successive panels 12 m/min	mm	700
Distance between two successive panels 18 m/min	mm	800
Vertical/frontal copying devices		disc/pad
(*) The speed can vary according to the panel type and the processed material		

"RAS/1000" edge scraping unit



It eliminates the presence of notches left from the tools during the trimming from the plastic edges

- rotating copying discs for an accurate positioning of tools with reference to the working point
- rapid head release complete with cutter and vertical/front copying discs; it allows the quick unit set up when changing the edge.
- Independent pneumatic exclusion of the unit (lower/upper)
- knobs and numerical readouts for the positionings
- exhaust hoods and suitable container with filter for long chips
- complete with cutters (R=2)

Min. panel thickness	mm	13
Vertical/front copying devices		disc/disc

"SPN" brushing unit



with two motors for the cleaning and polishing of the edge



A00800 220/230 Voltage

621510 Maestro active edge control unit

Maestro active is the new human machine interface software (HMI) **which has been unified across all SCM technologies.** A single operator can easily and confidently run multiple SCM machines, reducing operator training times and facilitating entry into production.

Maestro active has been specifically designed and optimized for immediate use via touch screen. Graphics and icons have been redesigned for simple and comfortable navigation.

Maestro active edge, an interface software specifically addressed to SCM edge banders, characterized by the following **functions**: **Reporting system**: Maestro active edge can provide the following reports: production report, alarms, event, and maintenance reports;

- Maintenance support: Maestro active edge indicates the maintenance operations to be carried out on the machine, connecting them to the relative procedure;
- Diagnosis system: Maestro active edge detects and displays alarms and warnings; offering help to eliminate the current error;
- User management and shifts management;
- Machine records;
- Creation of the working programs with preview of the panel to be edge banded;
- Loading of lists, single and through barcode programs:
- Manual control on working units and axes
- Paddle commands (command virtual keyboard)
- Display of axes dimensions
- Edges, glues and tools database
- Tooling :
- **Backup** function and data import

Mobile consolle with integrated PC "eye-M"

It allows the usage of **Maestro active edge** and **Maestro connect** softwares.

The integrated LED light bar allows the operator to check in real time the state of the machine (emergency, operative, etc.) without the need to be on the consolle itself.

It is equipped with an iPC with "fanless" construction and IP53 grade protection (IP65 on the front side). This robust solution grants the highest durability even in the worst environmental conditions which an industrial site may present.

The 21,5" LCD color display through a 16/9 sized touch screen

N. 1



grants an unbeatable easiness and efficiency in controlling the main functions of the machine, also through:

- * Full HD display resolution 1920x1080
- * LED lighting
- * Cmulti-touch screen 10 points of contact
- * visual angle 176° Horizontal / 160° Vertical
- * "Zero Pixel Defect" quality

And furthermore:

- Intel Pentium 2,9 Ghz
- RAM 4GB DDR4
- Hard disk: SSD 256GB
- O.S. Windows10 IOT 64bit
- QWERTY keyboard with english layout
- Wired mouse 3 functions
- Ethernet port RJ45
- USB port 3.0 protocol supported
- Nominal operating temperature: +5°C / +35°

Prearrangement for bar code reader.

TEAMVIEWER[®] software equipment: Software for remote diagnostic control of the machine via internet

Furthermore it allows:

- view of operator interface
- signal diagnostic
- on-line checking and editing of the configuration, parameter and program status of the machine
- data backup and file transfer
- upgrade of the machine logic and operator interface.

The use of the service will be free during the warranty period of the machine.

Preparation of internet access on the machine PC is at customer's charge.



621512 Maestro connect: complete hardware + 1 year subscription N. 1 service

Maestro connect is able to offer customized services through the use of an Industrial IoT platform that supports the daily activities of the Customer, improving availability and use of machines or



systems.

Maestro connect displays, analyzes and monitors all data coming from connected machines, transforming them into useful information to increase productivity, reduce operating and maintenance costs.

The option includes:

required hardware equipment for activation of the IoT subscription contract.

* The option includes an additional industrial PC with gateway function located inside the machine electrical panel, also dedicated to data collection and event processing. This system allows the reduction of data traffic to the cloud, processing them without using machine PC resources. In case of interruption of the Internet connection, it allows the recording of data locally and then download them when the service will be restored.

- subscription to 1-year cloud services
- 5 simultaneous activations, i.e. the ability to create 5 users who simultaneously use the platform;
- an IoT Cloud level where data is aggregated;
- a database on Cloud (DataLake) to store and analyze the detected data;
- a responsive web app for smart device on which you can view reports on the machine operations, analyze its productivity, check the status and manage the maintenance.

Maestro Connect is accessible from a PC or *smart device* and inside it there are the following three sections:

- Smart Machine: for monitoring machines and main components;
- **Smart Maintenance**: for maintenance support services;
- Smart Management: for the control of the main performance indicators and to export historical reports

SMART MACHINE:

Section dedicated to the **continuous monitoring of machine operations,** with information about:

- Status: overview of machine status both *live* and historical. The provided representations allow the checking of the machine availability to identify possible bottlenecks in the production flow. It is therefore possible to obtain a detail of the *Production* and *Alarms* sections (by displaying, for example, the alarms descriptions that stopped the machine);
- *Production*: production *timeline* with the list of machine programs performed during the day: display in real time of the running programs and the potenitiometers;
- *Alarms*: alarms timeline and alarms list and warning occurred during the day.
- Components: real time visualisation of the functional parameters of the machine characteristic components



Everytime an alarm occurs, the platform sends *push* notifications to the user, allowing him to take immediate actions

SMART MAINTENANCE

Section organizing and managing the following management tasks:

- ordinary maintenances (maintenance tasks as prescribed and suggested in the User's manual);
- extra maintenances (unplanned tasks, triggered by alarms)
- programmed maintenance (maintenance tasks planned by the user);

Ordinary maintenance can be planned through Smart

Maintenance to have a better control on the machine maintenance status. This can lead to:

- decrease in unplanned maintenance work;
- improving the product quality, monitoring that the machines and equipment operate in optimal conditions.

Functions available for maintenance management.

 Maintenance check: this section provides a scheduling of maintenance operations. Maestro connect regularly report to the customer all the deadlines and maintenance interventions related to the SCM machine.

Furthermore the user can schedule customised "programmed maintenance tasks", linked to calendar periods (for example, basic machine cleaning every week)



Maintenance management: maestro connect both schedules and allows customer to assign a maintenance intervention. Not only the maintenance operation can be scheduled. It can be also assigned to an operator responsible to carry on the task and declare it concluded ("done") Maestro connect archives and store the entire list of maintenance performed.



 Smart Parts, Spare Parts suggestions and integration with Smart Parts e-shop. are scheduled proactively since the system provides current information on the conditions of the machine parts.





Video and tutorials for the support of the maintenance activities and problems resolution. Maestro connect allows a direct access to videos and smart documents to help the operator to self solve any issue. Documents and video clip are provided on association with any ordinary and extra maintenance action, so that customer can take an immediate quick self-made action solving the problem and saving time.



Click 2 open: automatic ticket opening function which allows the opening of an assistance request (ticket) directly from Maestro connect.

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SMART MANAGEMENT

Section dedicated to the KPIs presentation for all the machines connected to the platform.

Smart management automates the generation and presentation of the key metrics and qualitative information that companies use in their reliability programs, such as:

- the machine availability;
- the machine efficiency.

This kind of automation is a surprisingly powerful improvement lever, freeing maintenance staff from the time-consuming and error-prone process of data collection and analysis.

Moreover, it supports rapid trend identification, fact-based decision-making, and timely intervention, as well as changes in equipment investment, processes, and policies.





IMPORTANT NOTE : HIGHEST SECURITY STANDARDS

- Maestro Connect uses the standard OPC UA communication protocol, which guarantees the data encryption at the interface *Edge* level.
- Connect's Cloud and DataLake levels meet all state-of-the-art cyber-security requirements. Customer data is encrypted and authenticated with password to ensure total protection of sensitive information.
- Maestro Connect uses separate hardware gateway. It benefits of the last and most effective EdgeComputing technologies: using a powerful dedicated CPU cores in the hardware gateway, it's possible to post-process data&events locally, saving money and time respect to sending everything to the Cloud. The gateway software will be continuously improved, with no impact on the machine performance and behavior: no software issues due to interference between IoT and machine, more security, save time and money.

SCM will guarantee to operate in compliance with the following guidelines:

- Data storage and Safety: SCM guarantees to collect and process data with the customer's exclusive authorization;
- **Transparency:** at any time the customer can request to verify the data subject to monitoring and analysis;
- Confidentiality: all data will remain for the exclusive Customer's and SCM's use and will not be passed on to third parties.

NOTE

Maestro Connect services will be automatically renewed at the current price of the subscription, unless canceled by the buyer within 30 days from its expiry.

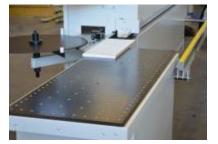


630528 Air cushion table at the machine entry

Air cushion table, placed at the machine entry, facilitating the loading of panels especially of large dimensions. It includes the extension of the machine entry guide. **Dimension of the table:**

Length: 1.600 mm

Width: 600 mm



A00883 Kit for "Nesting" copying devices

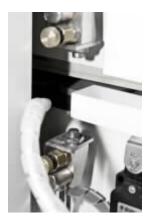
For processing panels coming from "nesting" working cycle. A copying device with 3 rotating contact points is installed in the upper part of all trimming/chamfering and edge scraping units, in place of the standard disc-shaped copying devices.

A00064 Tools kit R=3 instead of R=2

It replaces all R=2 mm tools with R=3 mm tools

A00007 "AAR" anti-adhesive device

positioned before the panel edge trimming unit. It prevents the glue sticking to the upper and lower panel surfaces, though improving the cleaning. This unit is complete with two spraying guns and tank for the anti-adhesive liquid.



N. 1

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A00013 "RCA/2C" glue scraping unit

It eliminates any excess of glue in the joint between panel and edge.

The unit consists of:

- two vertical rotating copiers
- self-adjusting throwaway knives
- air blowers for the knives cleaning
- independent pneumatic intervention (lower/upper)
- exhaust hood



A00016 "ID3000" edge brightening unit

With the heating of plastic edges it it allows the brightening of the colour. The unit includes a hot air blower with adjustable motor power up to 3.500 W

Attention! When the "spray-mist device for edge finishing" is present, the two units cannot be simultaneously used

N. 1





A00807	Copying devices kit for "RT-E" pre-milling unit The copying devices allow to carry out the panel geometry maintaining constant the preset removal. It is suggested for long panels and not perfectly straight	N. 1
A00065	Diamond tools h=64 for panel edge trimming unit in place of the standard ones D 100 H=64 Z 3+3 60 mm max. panel height.	N. 1

A00623 N. 1 "SGP" glue pot with NC dosing device instead of standard It allows the NC adjustment of the automatic dosage according to the requested glue and/or type of panel and finishing quality, instead of manual adjustment. Automatic glue emptying cycle.

A00814 "QMS-P" pre-melting device for eva glue N. 1 Device for the melting and supplying of the hot melt EVA glue in granules directly into the glue pot. It is advisable for machining with high glue consumption. Features - 0,5 Kg (2,05 kW) glue pot capacity instead of the standard one – glue level sensor inside the glue pot - manual control for glue emptying Technical data for pre-melting device up to 8,5 Kg/h pre-melting capacity tank capacity:



- 7 l with SGP glue pot - 51 with standard glue pot 1,75 kW installed motor power



A00027	Edge detecting sensor	N. 1
	It is suggested for the automatic loading of thin edges in strips (i.e.	
	veneered panels).	

A00030 **Electronic positioning of pressure rollers** N. 1

A00579 "SGP" additional glue pot with quantity dosing by NC - Manual N. 1 supply

It is interchangeable with the "SGP" glue pot installed on the machine.

A00817 Horizontal movement of "K-SEL" end cutting unit

It allows to automatically carry out the cut leaving an exceeding edge in the front and rear panel part in order to obtain an excellent angle rounding

It is advisable with ROUND unit.

A00819 "RI/800" tiltable trimming unit in substitution of the "R-HP" N. 1 trimming unit

Installed in place of the R-HP premilling unit, it carries out the trimming of the top and bottom exceeding edge on the upper and lower sides of the panel.

- 2 high frequency motors 0,65 kW 200 Hz 12.000 rpm
- 3 mm maximum edge thickness (according to the installed tools



radius)

- edge exceeding according to the panel thickness 2+2mm
- 0-25° manual **motor tilting**
- rotating copying discs for an accurate positioning of tools with reference to the working point
- electronic positioning of the front copiers with 2 CN axis
- two pneumatic motor positions. It allows the rapid work changeover between thin edge (ex. 0,4 mm) and thick edge (ex. R=2 mm)
- knobs and numerical readouts for the positioning
- pneumatic exclusion of the unit
- "ED-System" exhaust hoods
- complete with cutters R=2mm radius

Attention !!

The presence of the unit limits the maximum working speed of the machine to 18 m/min



621300 Straight cutters with throwaway knives for RI/800 Supplementary pair of straight cutters with throwaway knives for RI/800 trimming unit



621185	Pair of "ED-SYSTEM" brazewelded cutters R=1 mm for Round K unit	N. 1
621154	Pair of "ED-SYSTEM" braze-welded cutters R=2mm for Round K unit	N. 1

A00824 "RAS-HP 2R" edge scraping unit Installed in place of the standard RAS/1000 edge scraping unit, it allows the machining with 2 different radius with automatic tool adjustment and front copying device on 2 different working positions (for ex. 1 and 2 mm radius). - copying discs of large diameter for the adjustment of the tool

- copying discs of large diameter for the adjustment of the tool working point on the panel
- upper/lower splitted unit exclusion
- exhaust hoods and suitable container with filter for long chips
- complete with cutters with two radius.

Technical data:

Min. panel thickness: 10 mm Vertical/front copying devices: disc/disc



621186	Pair of cutters R=1 mm for edge scraping unit	N. 1
	Supplementary cutters. Knife-holders are not included	

160044Pair of cutters R=2 mm for edge scraping unitN. 1Supplementary cutters. Knife-holders are not included

RASR=1 Edge scraping unit radius = 1 mm



RASR=3	Edge scraping unit radius = 3 mm	N. 1
621521	Pneumatic tilting system for brushing unit Attention! When using the spray-mist device for edge finishing, the oscillation must be blocked manually for a correct finish of the panel.	N. 1
087108		N. 1
080848		N. 1
109991	Machine language: ENGLISH	N. 1