



PULCHRA | EFEDRA

Double-Knife Jointing Guillotine with Glue Application

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SEQUENCE OF OPERATION

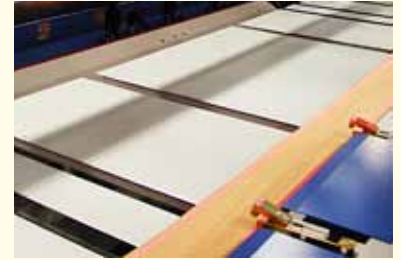
The veneer bundle is manually placed on the pre-feeding device and aligned on the gripper shafts. The grippers firmly clamp the veneer bundle as a pre-set laser line illuminates the position of the front knife. To optimise veneer yield, the manually operable laser line for the positioning of the back knife is quickly and exactly set and the data transferred to the computer at the push of a button.

THE FOLLOWING PROCESSES RUN AUTOMATICALLY:

The veneer bundle is placed in the machine, aligned at the position of the front cut and firmly held by the frontal pressure beam ❷. The grippers ❶ release the veneer bundle and revert to the initial position to retrieve the next bundle. In the meantime, the front knife ❸ accurately cuts the veneer bundle on the front edge.

The gluing roller ❹ now quickly applies the chilled glue on the complete bundle's edge in a clean and gapless fashion by travelling along the clamped bundle. The bundle keeps being pressed between the cutting and glue application processes. The grippers now position the veneer bundle at the rear cutting position. As the rear pressure beam lowers to clamp the bundle, the grippers retract and the rear knife cuts to width with optimum yield.

The rear gluing roller then evenly glues the edges of the veneer bundle still firmly clamped. After gluing, the rear pressure beam releases the veneer bundle before the grippers of the automatic discharge system ❺ deliver it to the roller conveyor for angular outfeed to a fanning station, for example FANNINGMASTER ❶.



PRE-FEEDING AND OPTIMIZATION DEVICE

The veneer bundle is manually placed on the pre-feeding device and aligned on the gripper shafts. To optimise veneer yield, the manually operable laser helps position the back knife. The maximum attainable veneer width is thus set and transferred to the computer at the push of a button.



PRESSURE BEAMS

The pressure beams press the veneer bundle in a single clamping both for cutting and gluing. The veneer bundle is being cut and glued directly afterwards under constant pressure. This ensures gapless glue application which is specifically useful when processing buckled veneers. The front and rear pressure beams work individually in continuous mode, whereas they work simultaneously in single mode.



FRONT AND REAR KNIVES

3. Both knives cut the veneer bundle in a straight and exactly parallel line. The swinging knife movement trims the veneer edges clean and square-edged. The knives cut against a flexible plastic strip.



GLUE APPLICATION HEADS

4. The glue application heads efficiently apply the glue in both traverse paths. Glue application occurs within the same clamping as the cutting, thus ensuring even and gapless glue application, even with wavy and buckled veneers. Chilled, large volume glue pots allow for high operating times without constant refilling.



AUTOMATIC DISCHARGE SYSTEM

5. After cutting and gluing, the veneer bundles are automatically taken over by a discharge system and transferred to a roller conveyor for angular outfeed to a fanning station.

COMPUTER CONTROL AND FORMAT DIMENSION STORAGE

6. The built-in computer, based on a Windows operating system, allows for a selection of programs and operating modes. The positioning control based on a micro processor with storage function for the most common widths accounts for economic optimising of veneer yield.



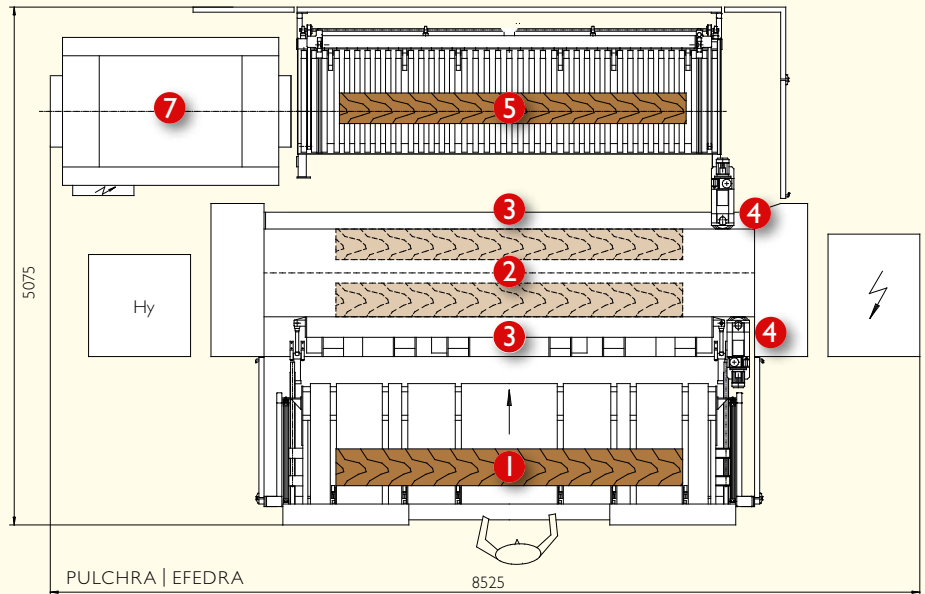
Three veneer bundles are simultaneously processed in continuous mode: the first on the pre-feeding and optimisation device, the second under the front pressure beam and the third under the rear pressure beam in front of the automatic discharge system.

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FEATURES AND BENEFITS AT A GLANCE

- trims and applies glue to up to 3 veneer bundles per minute under the supervision of one operator
- constant surface pressure on the veneer bundle during trimming and gluing accounts for precise glue application along the bundle's edge, even with buckled sliced and rotary cut veneers
- high cutting quality and perfect squared-edge cuts due to the swinging knife movement
- highest possible level of automation owing to fully automatic trimming, gluing and discharging processes
- less space requirements compared to traditional systems
- special control modes allow to split up or to double cut veneer bundles



- ❶ Pre-feeding and optimisation device ❷ Split pressure beam ❸ Front and rear knives
❹ Glue application heads ❺ Automatic discharge system ❻ FANNINGMASTER (optional)

fanningmaster



FANNINGMASTER (OPTIONAL)

7. For the fanning of pre-glued veneer bundles both in grain and cross-grain direction, thereby keeping the veneer strips from sticking together. The **FANNINGMASTER** is commonly used in combination with the **GLUEMASTER** glue application machine or the **PULCHRA** and **EFEDRA** double-knife jointing guillotines with built-in automatic glue application. Automated production lines typically rely on these machines.



The veneer bundle is fanned both in grain and cross-grain direction directly after glue application.

PULCHRA

DOUBLE KNIFE GUILLOTINE WITH GLUE APPLICATION

	35/3400	35/3800	45/3400	45/3800
Veneer specifications				
Max. cutting length (grain direction)	3400 mm	3800 mm	3400 mm	3800 mm
Min. cutting length (grain direction)	1050 mm	1050 mm	1050 mm	1050 mm
Cutting width (cross grain) continuously	65 - 350 mm	65 - 350 mm	65 - 450 mm	65 - 450 mm
Cutting width (cross grain) discontinuously	350 - 600 mm	350 - 600 mm	450 - 800 mm	450 - 800 mm
Beam opening of clamps	10 - 25 mm	10 - 25 mm	10 - 25 mm	10 - 25 mm
Strip thickness	0,4 - 1,5 mm	0,4 - 1,5 mm	0,4 - 1,5 mm	0,4 - 1,5 mm
Cutting specification	radius cut			
Machine capacity				
Cycle time				
2 cuts, glue application, continuously	20 sec.	20 sec.	25 sec.	25 sec.
Cycle time				
2 cuts, glue application, discontinuously	40 sec.	40 sec.	40 sec.	40 sec.
No. of bundles/min., continuously	approx. 3	approx. 3	approx. 2,5	approx. 2,5
No. of bundles/min., discontinuously	approx. 1,5	approx. 1,5	approx. 1,5	approx. 1,5
Glue application				
Glue types	PVAc / UREA	PVAc / UREA	PVAc / UREA	PVAc / UREA
Glue filling quantity	2 x 1,5 l	2 x 1,5 l	2 x 1,5 l	2 x 1,5 l
Glue pot cooling unit	incl.	incl.	incl.	incl.
max. glue application speed	38 m/min.	38 m/min.	38 m/min.	38 m/min.
Machine specifications				
Connection data	25 kW	25 kW	25 kW	25 kW
Electric energy	18 kWh	18 kWh	18 kWh	18 kWh
Compressed air	6 bar	6 bar	6 bar	6 bar
Air consumption	70 NL	70 NL	70 NL	70 NL
Hydraulic system	Vikers	Vikers	Vikers	Vikers
Hydraulic oil filling quantity	250 l	250 l	250 l	250 l
Electric components	Siemens	Siemens	Siemens	Siemens
Mechanical guiding	Star	Star	Star	Star
Dimensions / weight				
Length	8150 mm	8150 mm	8550 mm	8550 mm
Width	5075 mm	5075 mm	5275 mm	5275 mm
Working height	950 mm	950 mm	950 mm	950 mm
Net weight, approx.	17500 kg	18500 kg	19000 kg	20000 kg

Colors Blue
Warm-grey (light)
Warm-grey (dark)

The capacity figures are not binding and depend on local circumstances.

"Technical data subject to change."

DOUBLE KNIFE GUILLOTINE WITH GLUE PULCHRA



THE GUILLOTINE **PULCHRA** ALLOWS TO CUT AND TO APPLY THE GLUE ON BOTH SIDES OF THE VENEER BUNDLE BY A SINGLE OPERATOR. THE MACHINE IS EQUIPPED WITH HYBLY INNOVATIVE DEVICES LIKE LINEAR MOTORS FOR FAST SLIDING OF THE GLUE UNITS AND COMPUTER TOUCH SCREEN. IT'S IDEAL FOR LARGE PRODUCTION OF PANELS AND DOORS. MAIN ADVANTAGES:

- ABSOLUTE AND GUARANTED QUALITY BY THE CUT PERFECTLY PARALLEL AND BY THE APPLICATION OF THE GLUE THAT OCCURS AT FIRM BUNDLE;
- CUT AND APPLICATION OF THE GLUE ON TWO VENEER BUNDLES IN ONE MINUTE;
- POSSIBILITY TO SERVE UP TO TWO/THREE CROSS SPLICER MACHINES;
- POSSIBILITY TO SHARE IN TWO PARTS THE VENEER BUNDLE;
- SPACE SAVING AS TO THE TRADITIONAL SYSTEM.



FRONT LOADING TABLE



GLUE UNIT



BACK UNLOADING UNIT

FOCUS: PULCHRA PLUS

- DOUBLE KNIFE GUILLOTINE WITH GLUE AND MILLING UNITS
- IDEAL FOR VENEER WITH THICKNESS FROM 0,6 MM TO 3 MM
- IDEAL FOR THE BIG PRODUCTION



MILLING AND GLUE UNITS

TECHNICAL DATA PULCHRA

MODEL	3400	3800
MAX CUTTING WIDTH CONTINUOUS CYCLE	350/500 mm	350/500 mm
MAX CUTTING WIDTH SINGLE CYCLE	700/1000 mm	700/1000 mm
MIN CUTTING WIDTH	65 mm	65 mm
MAX CUTTING LENGHT	3450 mm	3850 mm