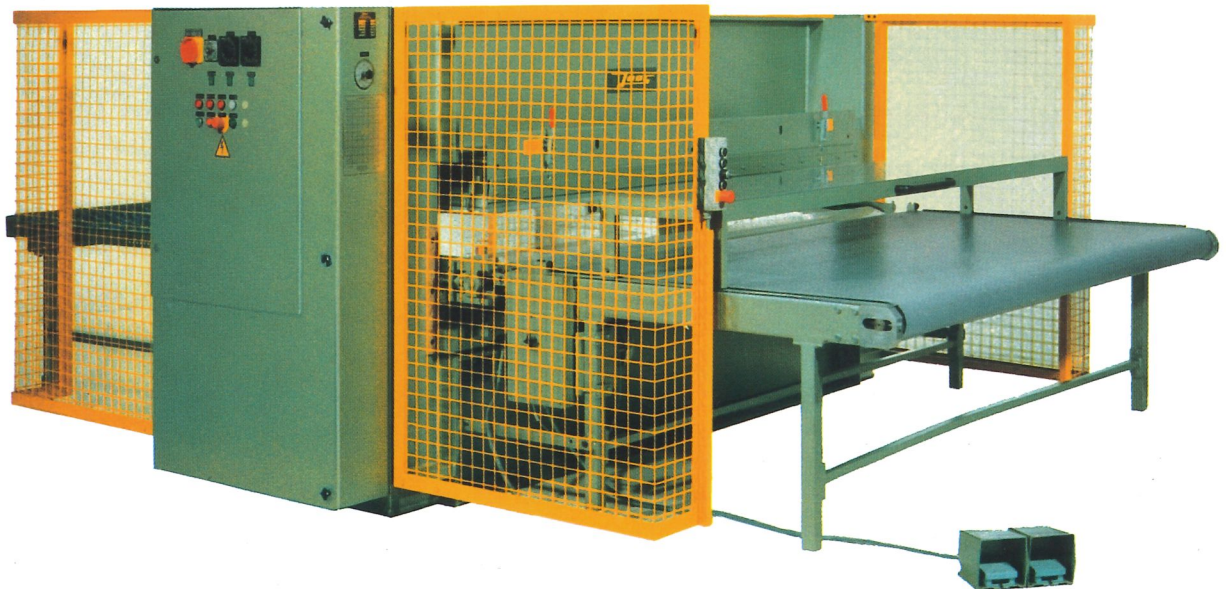


Joos-Throughfeed-Presses DLP Economic System 2000

Joos-Quality-Products
prove themselves
through their
innovative techniques.
They provide the
highest quality down
to the smallest detail.

**Compare all details
that matter**



**Joos-Quality
makes the difference**

PRESSEN + TECHNOLOGIE



GOTTFRIED JOOS MASCHINENFABRIK

Perfection in Press Building

Joos has been realising Perfection in Press Building for more than 75 years with great success and two gold medals.

A whole series of technical innovations and new impulses in the press building originated from Joos. Then as now, our uppermost principle is to introduce to the market only those products that meet the highest requirements of

- **economy**
- **ease of operation**
- **safety**
- **reliability**

Joos-Business philosophy

Technology and Quality

We develop and manufacture technologically mature products for trade and industry in the highest quality.

Customer orientation

We work out individual solutions with the customer and for the customer.

Service

Joos is committed to providing high quality service for its customers.

Employees

We think that qualification of the employees and encouragement of their own ideas is the basis of innovative and contented employees.

Competition

In dealing with competitors Joos is a reputable fellow competitor and is concerned about co-operation.

Responsibility

We take responsibility for our products and services. We declare ourselves for the achievement principle and the location Germany.

The company Joos is a German enterprise, which strives for the position of the market leader in the production and trade of quality machines for the wood-processing at home and abroad.



Ask for solutions by Joos

A perfect glue application is the basis for an efficient veneering

The even and thin glue application is the prerequisite for a short setting time during the pressing process.

This process requires a number of technical requirements:

Joos-Glue-Spreading-Rollers have a special diameter and therefore guarantee an even and efficient glue application, even with thin veneers.

Joos guarantees a long lifetime of your LAM due to high abrasion-resistant rubber rollers. The solid rubber rollers can often be re-fluted.

The rollers can be easily cleaned due to the simple and quickly removable glue vessels.

The Joos-Glue-Spreader is mobile and therefore useable in any location of your company.

The low-vibration drive of the machine also provides for very quiet running.

2-roller-LAM consumes approx. 120 g glue/m².
A 4-roller-LAM consumes approx. 80 g glue/m².

The Joos-Glue-Spreader is available in a 2-roller design or in a 4-roller design. We will also manufacture special designs for your company on request.



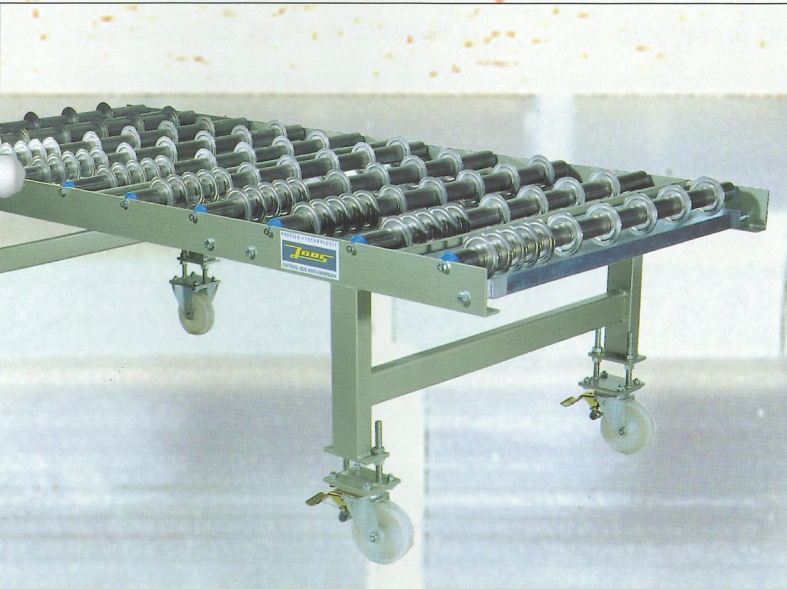
Technical data:

Working width:	650 / 1000 / 1300 / 1600
Roller diameter:	165 mm
Roller fluting:	14 threads per inch
Max. passing height:	80 mm
Passing time approx:	20 m / min

Options:



Safe and fast transport of the glued parts to the press



Joos-Cutter-Disc-Conveyors transport the glued parts quickly and safely to the press.

Due to this the glue's structure remains the same from the gluing to the pressing process.

The cycle will also be rationalised by shortening the handling times and creating buffer zones for the veneering process.

We fit to the customer's requirements:

- length and width of the conveyor
- number and distance of the discs
- working height of the table
- with either driven or free running discs
- mobile or fixed

Joos supplies the following handling systems:

- scissors lifting tables
- feeding units
- roller conveyors and cutter disc conveyors
- stacking devices

Compare all details that matter.

Efficient Veneering

Joos has been constructing presses for the industry for many years. The Joos-Throughfeed-Press DLP Economic System 2000 (Pat. No. 512 300) is the result of this experience.

The Joos-Throughfeed-Press has multiple applications and requires little space. Because of the excellent price/performance ratio the machine is ideally suitable for trade as well as for the industry.

The fundamental advantages of the veneering technique are:

- a simultaneous feeding and heating through of the veneer parts which increase the veneer quality
- a working height of 800-850 mm for a user-friendly work station lay-out
- a reduction of staff and energy costs therefore competitive prices for the customer
- an increasing of the cycles by up to 60 %, including feeding and unloading
- a reduction of pressing times by up to 50 %

The Joos-Throughfeed-Press DLP Economic System 2000 will pay for itself within only 2 veneering days per week.

Ask Joos for your individual evaluation of economic efficiency.



Joos-Throughfeed-Press DLP Economic System 2000 (Pat. No. 512 300)
Feeding from the longitudinal side.

Technical information:

We develop and produce **Joos-Throughfeed-Presses DLP Economic System 2000 (Pat. No. 512 300)** according to the customers' requirements.

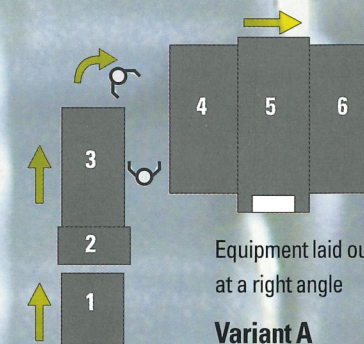
Minimum pressing surface:	2000 x 1000 mm
Maximum pressing surface:	3200 x 1600 mm
Maximum loading width:	3100 mm
Maximum specific pressure:	5 daN/cm ²
Belt speed:	22 m/min.
Closing speed:	35 mm/sec.
Cycle time (without pressing time):	approx. 20 sec.
Heating medium:	- electric - water external - water internal - steam - thermo-oil

Presses with different standards are constructed as down-acting presses.

Name

- 1 Roller conveyor or scissor lifting table
- 2 Joos-Glue-Spreader
- 3 Cutter disc roller conveyor
- 4 Loading belt
- 5 Throughfeed-Press
- 6 Delivery roller conveyor

→ Flow of material



Patented Table Construction

The press table consists of a solid steel plate (80 mm) and is dynamically mounted on cylinders. During the closing process the press table is driven upwards and presses the cantilevered heating platen against the solid upper part of the press.

The machine automatically opens on completion of the operation. Rotating press belts feed and unload the press simultaneously.

The patented table construction is the basis of the robust and simple upstroke design.

Short, rotating press belts

The special table construction makes it possible that the conveyor belts inside the press rotate around the lower heating platen and therefore be protected from soiling and damage. The belt length is identical to the dimension of the pressing surface. This results in the following advantages:

No stretching problems, very short delivery paths between loading and conveyor belts, extremely simple belt change, no extra guides or belt tightener, optimum synchronous running during the loading phase.

Practical machine construction

For Joos high quality, economy and ease of operation have absolute priority.

So for example, the control cabinet is installed in an electrically monitored swivelling door on the front. The well arranged, highly efficient hydraulic unit is fixed behind it. There is free access to the pressing area.

Therefore, maintenance and cleaning of the heating platens or the units can be carried out economically and safely.

Ergonomic operating

All operating elements are well adapted to the people in production.

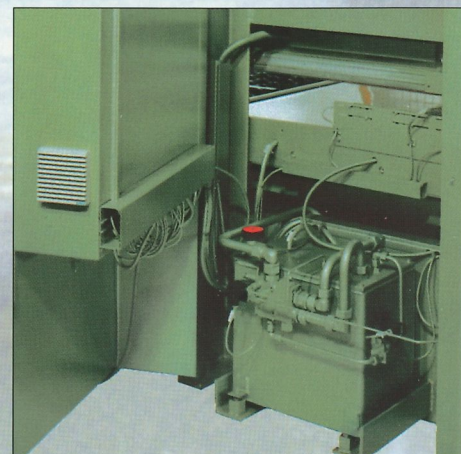
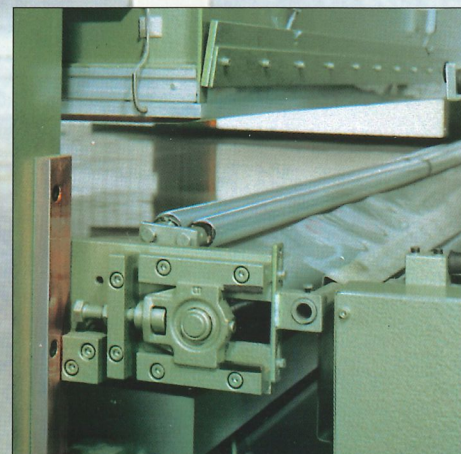
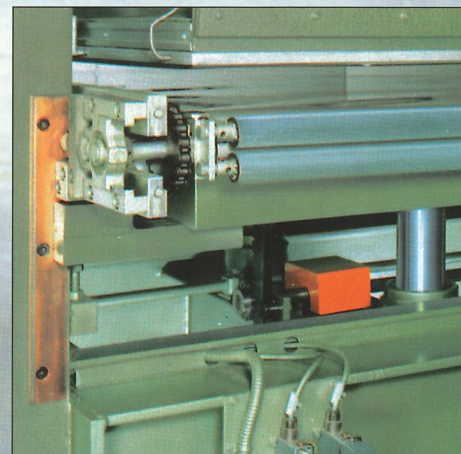
Sheets of veneer from the mobile veneering carriage are placed on the prepared work pieces on the loading belt. The belt is then driven and the new work pieces are transported into the press. The work pieces currently in the press are simultaneously driven out to be unloaded. This process is controlled using push buttons.

For optimum use of working time, the loading belt can be loaded and indexed forward again during the pressing process.

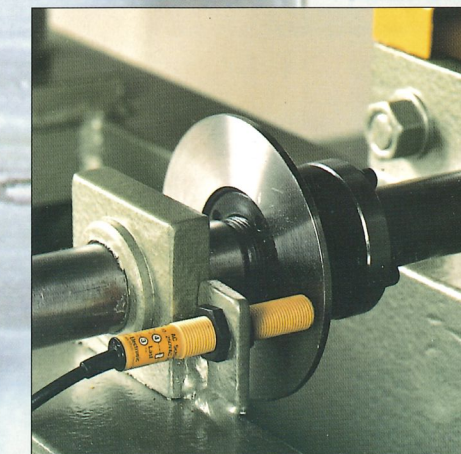
Quality and know-how down to the detail

The standard equipment of the Joos-Throughfeed-Presses Economic System 2000 includes:

- Joos A.B.S. safety system
- Automatic opening
- Electronic temperature regulation
- Dynamic piston arrangement
- Infinitely variable pressure adjustment
- Hard anodised heating platen surfaces

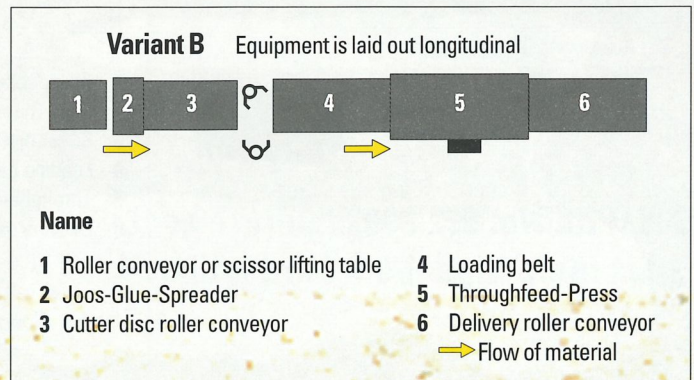


Details that matter.





**Joos-Throughfeed-Press DLP
Economic System 2000 (Pat. No. 512 300)
Feeding from the front side**



Optical loading control

The controlled indexing forward of the loading belt can accelerate the manual loading of the belt. This is an advantage especially in series production.

Joos use an optical loading control that automatically stops the feed belt when it senses the leading edge of a work piece.

This prevents damage to both the press and material should the work pieces not be correctly positioned by stopping the feed before they reach past the end of the belt.

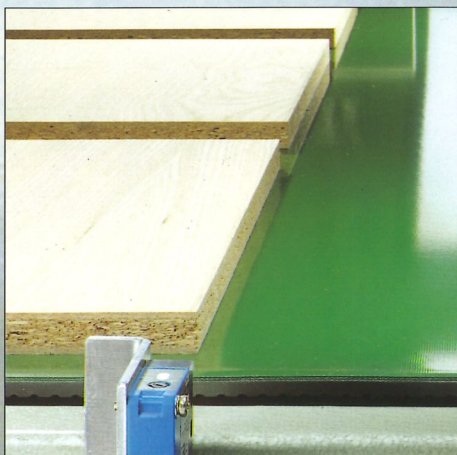
Cylinders which can be switched off

For getting optimum pressure and heating distribution the pressing surfaces should be evenly loaded with veneering material or dummy pieces.

Time consuming loading with dummy pieces can be avoided by reducing the pressing surface by switching off one pair of cylinders.

Important prerequisites:

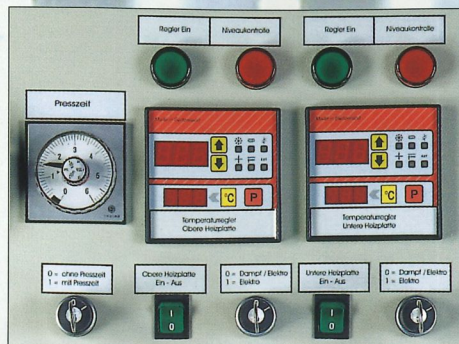
- A heating system which control itself (electric heated platens are not suitable)
- The control of the loading by optical sensors



**We are in the
lead because
of our
experience.**

Joos-Heating systems for practical use:

An absolutely reliable working heating system is the prerequisite for perfect veneering.
Short pressing times demand a lot of the temperature control systems and the heating platens.



Temperature control systems

Joos-Throughfeed-Presses DLP are equipped with electric short cycle heating platens and are controlled by means of an electronic four point control. Four sensors per heating platen determine the current temperature of the platen and report these results to the electronic control. When required, heat will be supplied again and a regular temperature on the whole working surface is maintained.

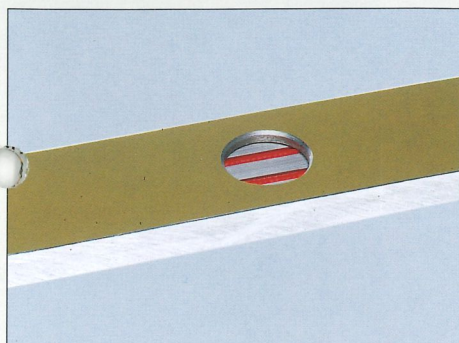
The water temperature or thermo-oil temperature is measured with Joos-Ökotherm-Plus heating platens or steel heating platens. The short-term power feed by the temperature regulator devices is also electronically controlled.

Electric short cycle heating platens

Suitable for an operating temperature around 110 °C, maximum temperature limit 130 °C.

Electric short-cycle heating platens are used when the size of the veneering material is already fixed so that the pressing surfaces can be adapted to this. This provides the necessarily complete loading of the pressing surfaces.

Details: Elektric heating platen is made out of solid hard aluminium in thermic solid sandwich construction. The heat conductor is embraced with glass silk and Teflon and three circled put in two levels. The heating platens are hard anodised and the cover plates are safety riveted in the margin area.

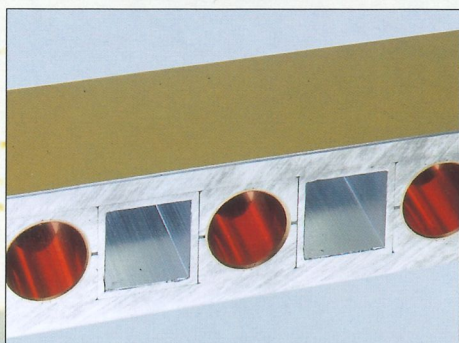


Ökotherm-Plus heating platens

Suitable for an operating temperature around 120 °C, maximum temperature limit 140 °C.

The combination of different NE-profile systems with specific heat conductor profiles result in an extremely light heating platen. This small mass consumes up to 60 % less energy than conventional heating platens to reach the same working temperatures.

Details: Meandering heat conductive system made out of pressure resistant and corrosion resistant precision aluminium profiles which are coated with aluminium half-shells in thermic stable composite design. The surfaces of the cover plates are hard anodised.

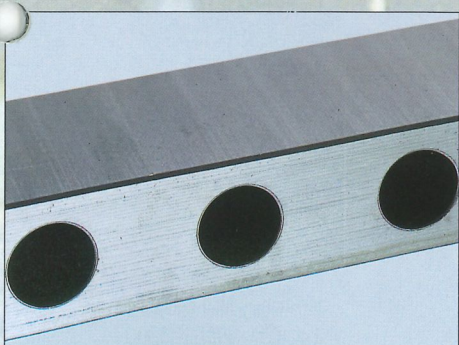


Steel heating platens

Suitable for an operating temperature around 180 °C, maximum temperature limit 200 °C.

The drilled solid steel heating platens are especially suitable for high pressure and the heating with high-pressure steam or thermo-oil. The use of circulating heating mediums provides an even heat spreading in the steel heating platen.

Details: Drilled steel heating platen made out of solid material RSt 37-3, machined on all sides, surfaces broad cut finished or ground. Number and size of the holes depend on the required temperature.



Alternative internal, external or combined heating

The heating platens can be heated with fluid heating mediums either internally by connected temperature regulator devices or externally by heating sources belonging to the company.

Joos alternatively offers the following solutions:

1. Exclusive heating by internal temperature regulator devices
2. Exclusive heating by the company's heating sources such as water or steam
3. The combination of both possibilities by integrated heat exchanger



All values specified in this brochure are approximate.
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Joos-Partner can be found world-wide, even near you.



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