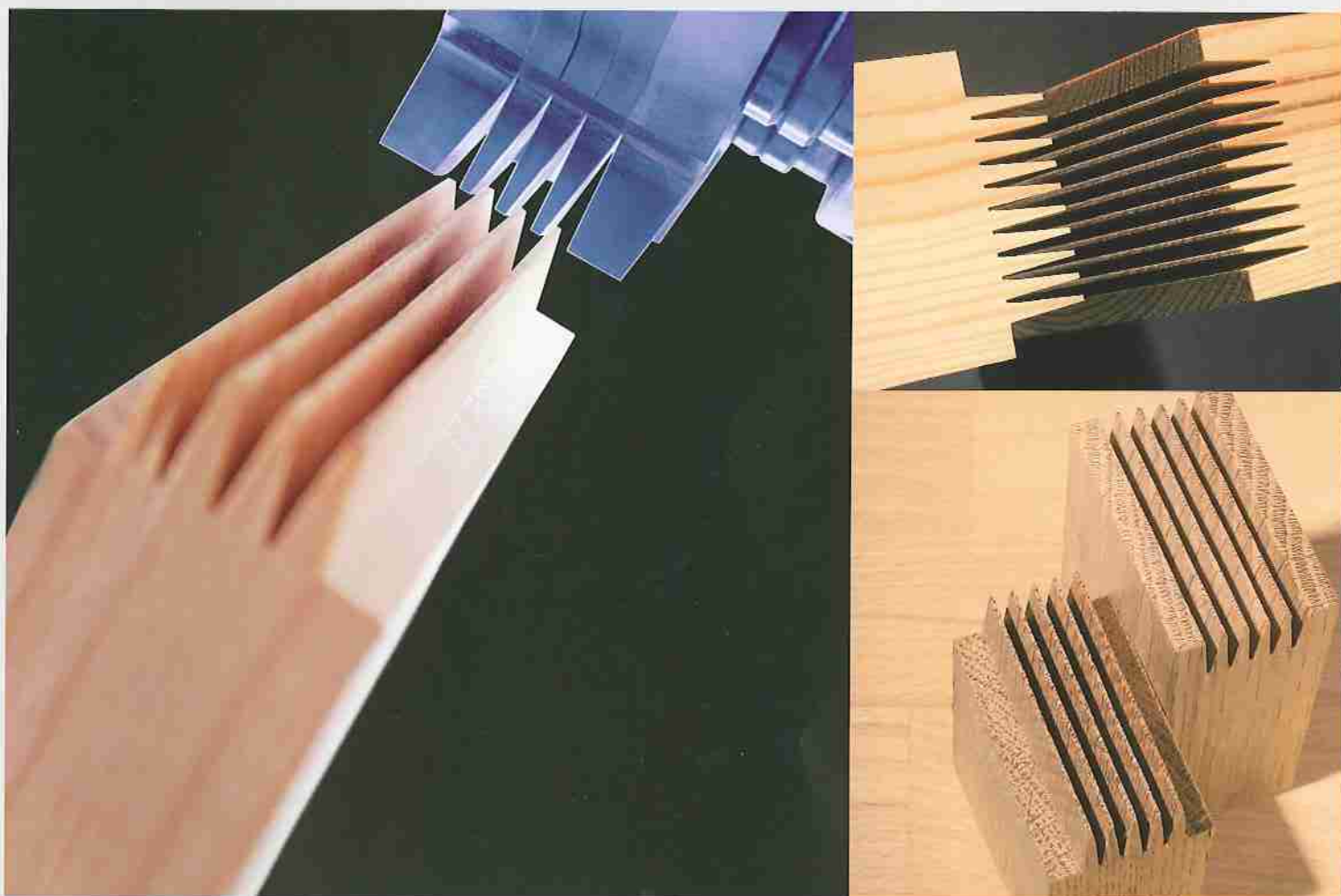


Horizontal finger jointing lines HS

The innovative solution
for horizontal finger jointing



GRECON high-capacity horizontal finger jointing lines – technology and speed for economical and efficient production

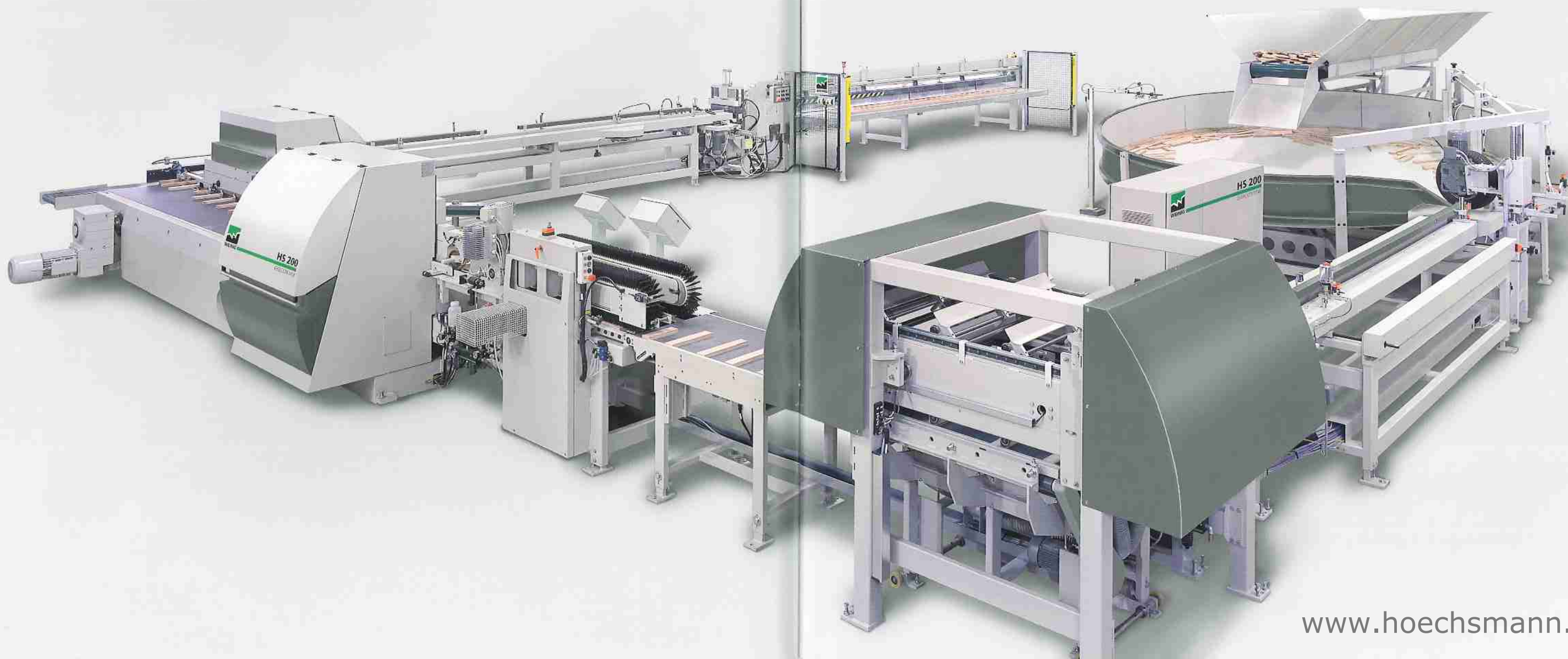
GRECON is the leading manufacturer of innovative finger jointing lines. The models HS 120 and HS 200 (horizontal single board shapers) are a logically consistent and future-oriented development of this machine type, thus rounding off the top range of the versatile GRECON product range of finger jointing lines.

Advantages that will make your business better – selecting the HS is a proven investment with a fast return



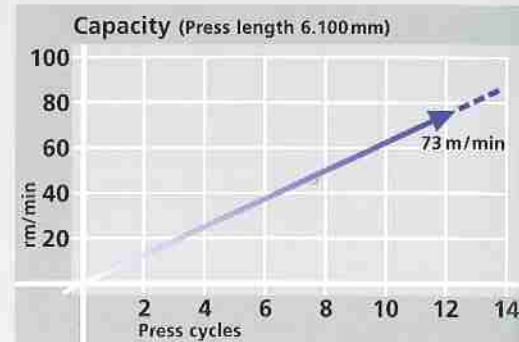
The HS model

- Up to 200 timber pieces per minute can be processed on these dual single board shapers – for both soft and hard wood.
- Precision finger joints ensured by heavy duty cast iron machine and state of the art tooling.
- The design of the machine is totally based on tried and tested high capacity experience for over many years.
- Efficient and cost-effective production sequence, ease of operation and short set-up times.
- The modular design of the horizontal finger jointing lines ensures meeting customers' technical requirements all the way up to a fully automatic feeding of the finger jointing lines by means of a Lugloader and Spinfeeder.
- Optional equipment, such as trimming saws, planer heads (one-sided, two-sided), TrimSaver, timber moisture meter, glue detection, cut-to-length saws installed at the outfeed area of the press, stackers, etc., can be supplied.
- High production capacities can be reached up to 35 km / shift (22 miles / shift).



Finger jointing with GRECON: Highest quality standard in all capacity ranges.

Perfected technology and innovative overall concepts characterize the single board shapers. No matter what the field of application is – gluelam panels used for furniture and interior decoration, stairs, solid wood floors, parquet, molding blanks, etc. The GRECON finger jointing lines are taken as an industry standard with regard to precision and quality. In addition, you can make a profit from the increasing popularity of finger jointed solid wood products sold in a variety of markets.



Finger joints with automatic control: The easiest operation of complex lines

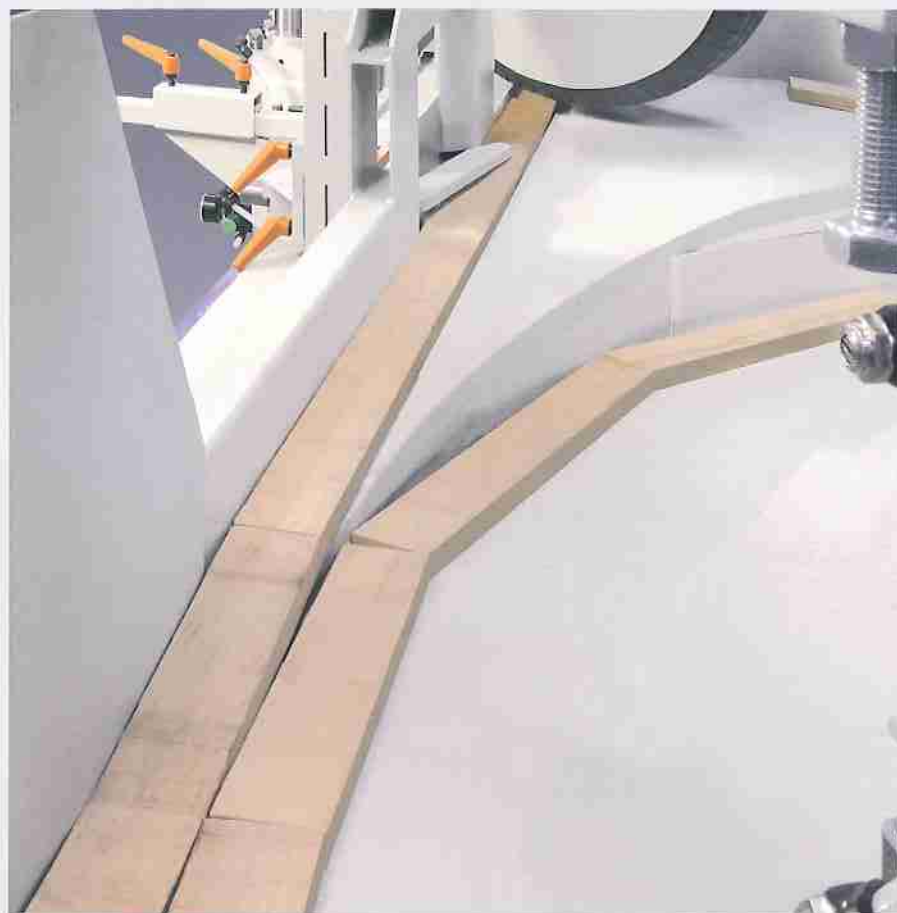
The machine controls for all finger jointing lines define a new state-of-art. The simplicity and clear arrangement of the operating unit make a handling with few efforts possible.

Your advantages:

- All production statistics as production performance and conditions of the plant are displayed.
- Minimisation of trouble shooting times by most exact monitoring and display of protective motor switches, frequency converters, bus modules, limit switches, etc.
- Process failures and operating errors are indicated with component description and location.
- The operating unit is integrated in the main panel. Failures are identified immediately and changes of the plant are implemented quickly and easily.
- Teleservice and a modem in the line facilitate the update of the latest programs as well as a trouble shooting directly from GRECON.



GRECON horizontal finger jointing lines – high capacity potential in combination with the Spinfeeder.



The HS 200 Spinfeeder is the automatic alternative to any other highspeed feeding unit of a horizontal finger jointing line. The short timber pieces are automatically fed into the finger jointer, no matter whether they are initially coming from an optimizing cut-off saw or from a container. The unsorted timber pieces are aligned by the centrifugal force in a centrifuge and are then transferred to a feeding channel. Any misaligned timber pieces (length and width ratio) are automatically ejected. The buffer zone ensures continuous feeding. The servo-controlled 3-roller infeed unit installed downstream transports more than 3 pieces per second to the cross conveying unit. The timber pieces are aligned at the limit stop and transported to the Lugloader.

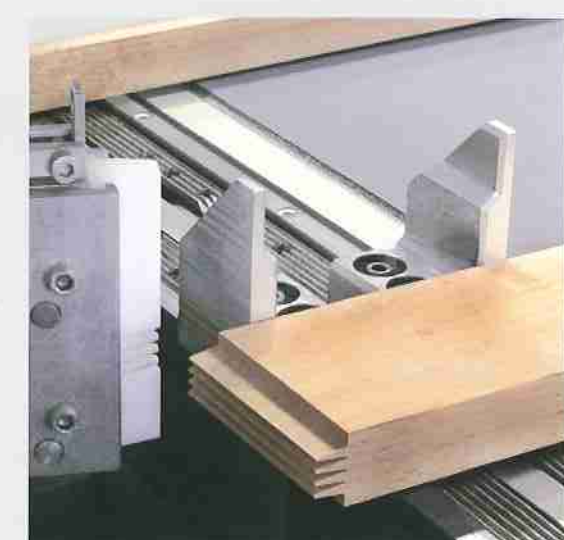


Tools for any type of application: Optimized tooling for exact finger jointing



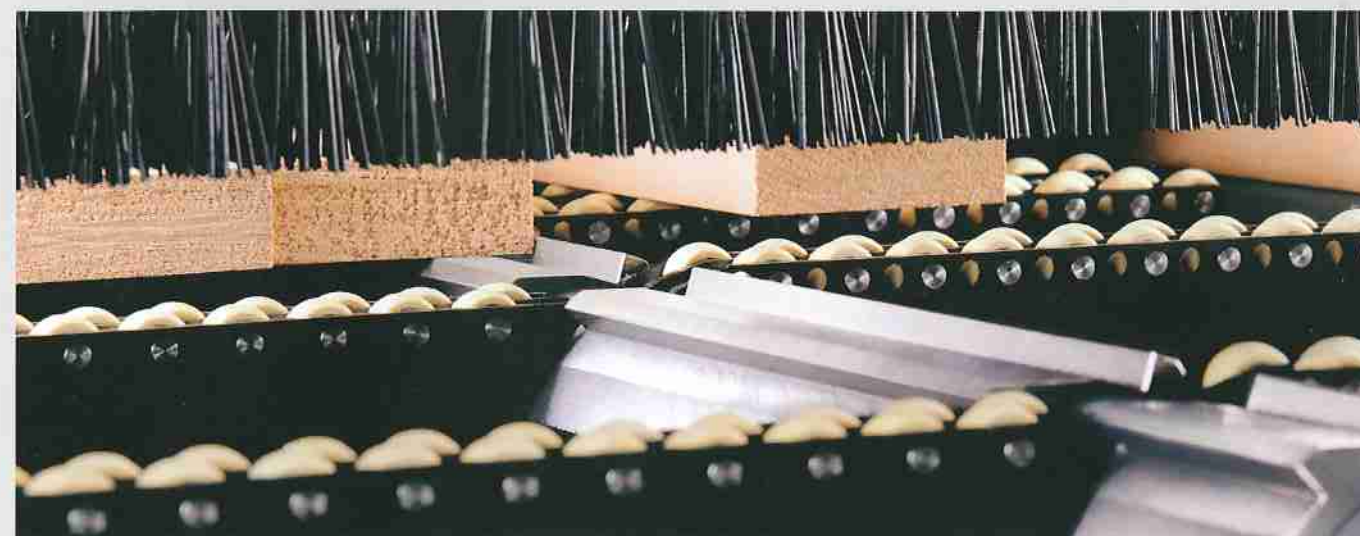
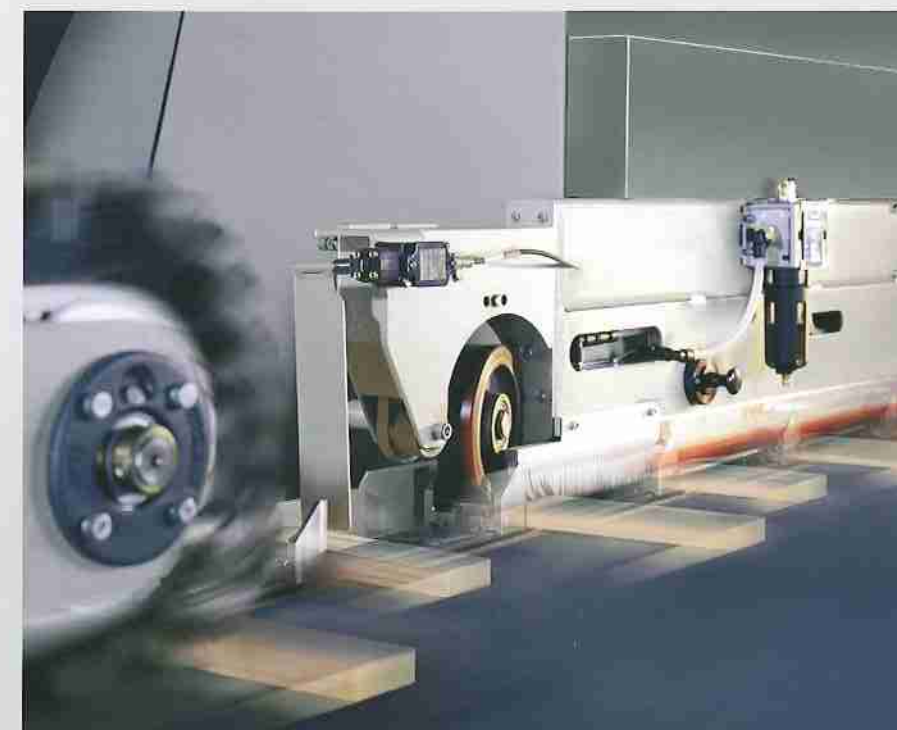
An excellent tool configuration including scoring saws from the top and bottom, hogs and cutters (adjustable within a 1/100 mm range) is the basis of the production of precise finger joint profiles. The scoring saws are synchronized to prevent tear out. The indirect drive of the maintenance-free WEINIG built tool spindles ensures high capacity reserves and vibration-free processing of short timber pieces. This ensures precise joint quality without any chip-out from the finger base to finger point and an absolutely tight finger joint.

FlankenJet glue application system
The glue application system developed by GRECON provides for an exactly proportioned and specific glue application all the way down to the finger base, even with critical profiles. The glue film is distributed on the entire surface of the joints; dripping is eliminated.



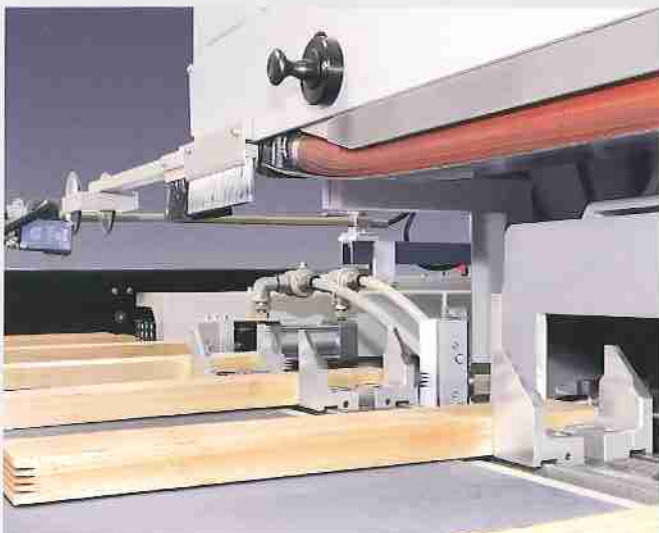
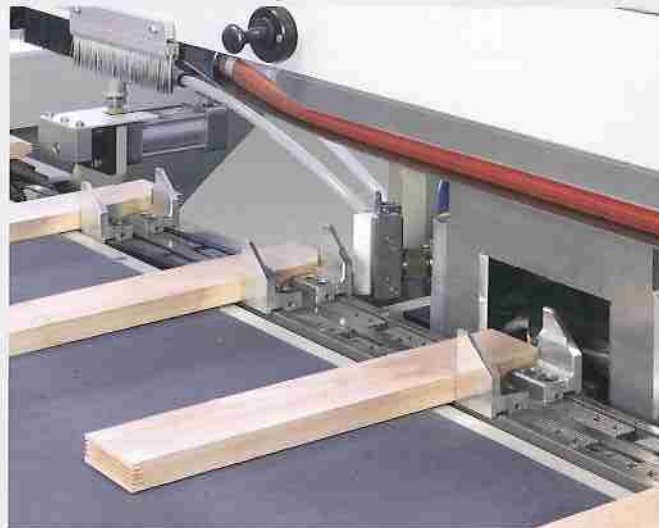
GRECON horizontal finger jointing lines – automatic feeding by the Lugloader

Due to the Lugloader, it is possible to achieve a continuous feeding of 200 pieces per minute. It does not matter whether a short timber piece is followed by a long one; the timber pieces are cycled and transported at an optimum (complete length spectrum). The servo control of the Lugloader automatically adjusts to the feed speed of the single board shaper. By entering the board width at the central operating panel, the cycle roller is automatically adjusted.

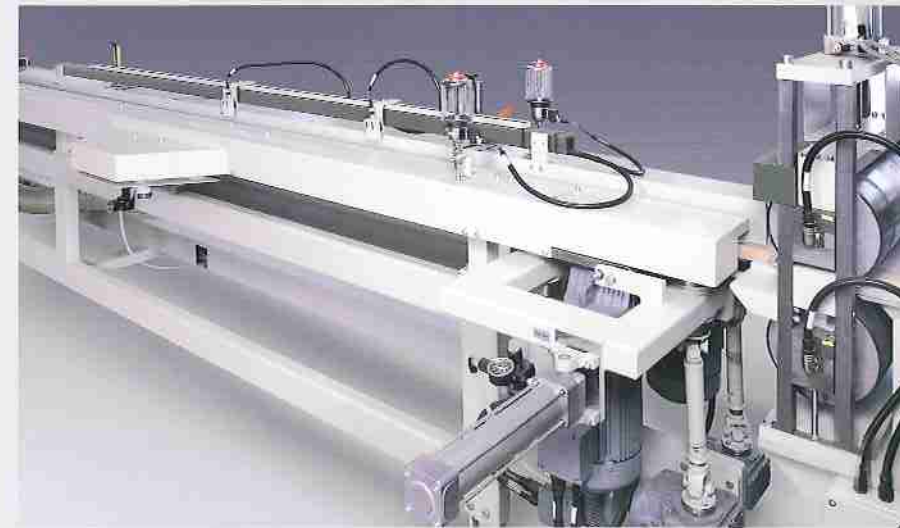


GRECON horizontal finger jointing lines – an intelligent machine technology

- Motor-driven top pressure, to be opened up to 300 mm, for an easy tool change and access to the V-rails.
- Quick change of top pressure units possible.
- Fully enclosed, easily removable extraction hood used as a protection device of the cutting tools.
- Ejector for faulty timber pieces (fingers too short, incorrect glue application). Faulty timber pieces are removed from the line before the transfer station.
- Fully automatic transfer station incl. patented suction air belt to transfer the pieces to the feed-in track without any slipping (easy access, no mechanically movable parts, thus no malfunction).
- Feed-in track including non-contact, electronic filling control and automatic adjustment of the feed speed of the shaper.
- Lateral chains and pressure rollers ensure the precise alignment of the timber bar on one side.
- Automatic tensioning of the chains by means of air cylinders.



- Automatic lubricating device (oil) used for the chains.
- Frequency-controlled feed motors ensure fast feeding of the press.
- A brake unit required for prepressing and the subsequent length measurement ensure the exact feeding of the press.
- Two-channel-press; feeding and pressing are carried out at the same time; capacities up to 12 cycles per minute (73 m / min, 240 ft / min).
- Intermediate cuts are possible by entering the dimensions at the central operating panel.



Synoptic table for Horizontal finger jointing lines HS –

The matrix shows the significant features of difference between the single models. Your GRECON expert provides you any information taking into consideration your individual needs, as for example for HS 120, HS 120 Capacity, HS 200, HS 200 Spinfeeder.



Facts

Infeed length	110 - 900 mm	110 - 900 mm	110 - 900 mm	110 - 900 mm
Timber width	37 - 152 (203) mm	37 - 152 (203) mm	37 - 152 (203) mm	37 - 152 (203) mm
Timber thickness	16 - 50 (70) mm	16 - 50 (70) mm	16 - 50 (70) mm	16 - 50 (70) mm
Outfeed length	3000 - 6100 mm	3000 - 6100 mm	3000 - 6100 mm	3000 - 6100 mm
Thrust force	120 (145) kN	120 (145) kN	120 (145) kN	120 (145) kN
Timber cross section at a finger length of 10/11 mm (softwood)	100 (120) cm ²	100 (120) cm ²	100 (120) cm ²	100 (120) cm ²
Timber cross section at a finger length of 10/11 mm (hardwood)	80 (96) cm ²	80 (96) cm ²	80 (96) cm ²	80 (96) cm ²
Vertical jointing	–	–	–	–
Horizontal jointing	●	●	●	●
Capacity (horizontal jointing) with 22 mm x 50 mm x 350 mm	42 m/min	42 m/min	70 m/min	70 m/min
Feeding system	Feeding conveyor	Automatic brush feeding unit	Automatic brush feeding unit	Spinfeeder
Shaper types	Horizontal shaper combi.	Horizontal shaper combi.	Horizontal shaper combi.	Horizontal shaper combi.
Transfer	automatic	automatic	automatic	automatic
Press	Two-channel press	Two-channel press	Two-channel press	Two-channel press
Production statistics	●	●	●	●
Diagnosis system	●	●	●	●
Multiple length	●	●	●	●
Intermediate cuts	∞	∞	∞	∞
Scoring units (top and bottom)	●	●	●	●
Timber thickness max. 72 mm	○	○	○	○
Timber width min. 30 mm	○	○	○	○
Timber width max. 203 mm	○	○	○	○
Timber monitoring	○	○	○	○
Quality inspection	○	○	○	○
Glue application FlankenJet	●	●	●	●
Communication (Teleservice)	○	○	○	○
Servo- controlled advance	●	●	●	●
Power cutter spindle	15 kW (20 Hp)	15 kW (20 Hp)	15 kW (20 Hp)	15 kW (20 Hp)
Power Hogger + scoring units	11.5 kW (15 Hp)	11.5 kW (15 Hp)	11.5 kW (15 Hp)	11.5 kW (15 Hp)
Cutter spindle diameter 50 mm	●	●	●	●
Cutter spindle diameter 1 13/16 "	○	○	○	○
Cutter diameter	228,6 - 266,7 mm	228,6 - 266,7 mm	228,6 - 266,7 mm	228,6 - 266,7 mm
Cutter diameter	9" - 10,5"	9" - 10,5"	9" - 10,5"	9" - 10,5"

Technical modifications reserved. Information and figures in this brochure also include special equipment which is not part of the standard scope of supply. Protection covers partially removed for the photos. For additional products regarding finger jointing see special brochure.

● Standard ○ Option