

Finger Jointing Lines

The convincing system concept
for all performance categories



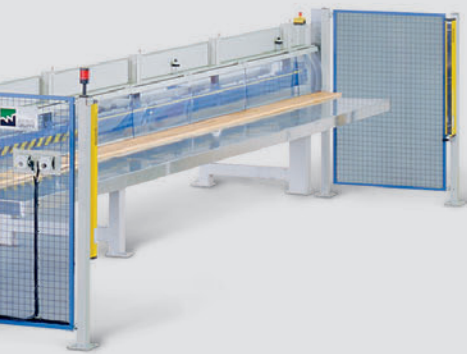
Finger jointing lines from GRECON: The fastest way to a high added value

The finger jointing process proved to be the most stable method of timber longitudinal joints. The one who needs this technology has no other alternative than to take GRECON. We are experts and the worldwide market leader for more than 25 years. GRECON finger jointing technology aims at highest precision. This means lowest dimensional allowances, timber losses and overheads with highest technical availability. Thus, residual timber preparation and revaluation by finger jointing become easy and profitable for you!



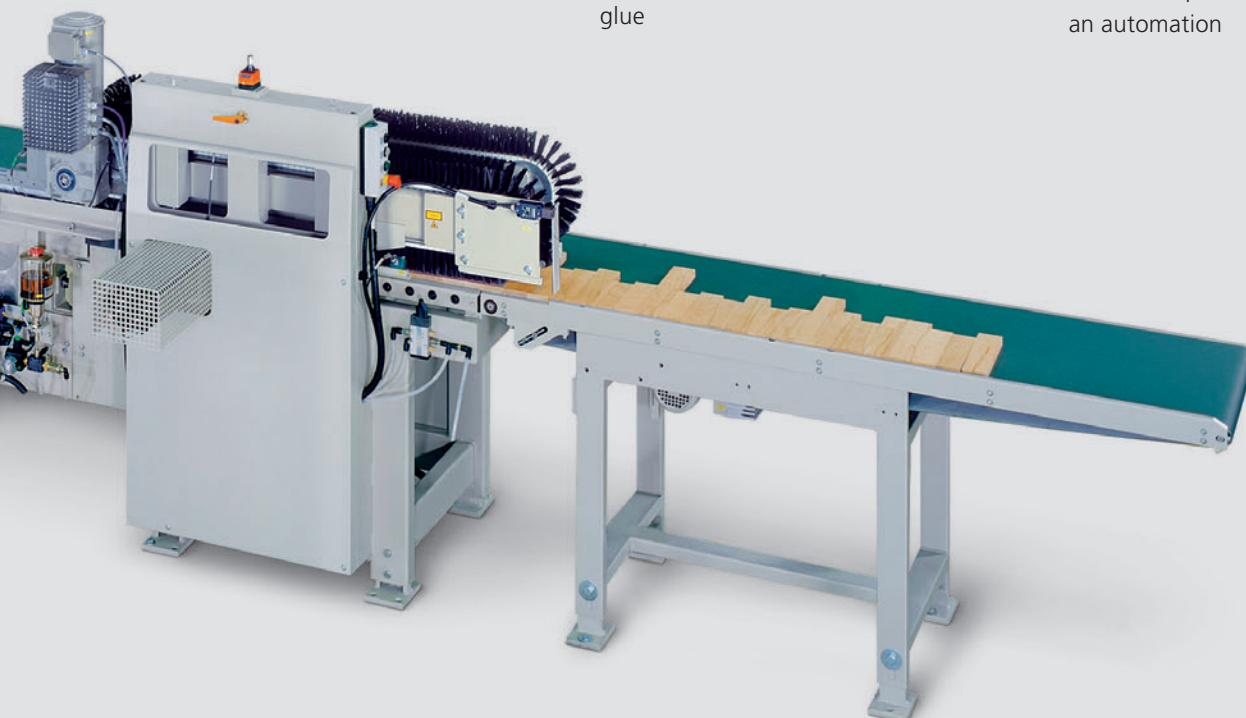



All plants can be upgraded in modular design according to your requirements. Thus, high flexibility is achieved either for standardised or for customer-specific solutions. From the starter model ProfiJoint via the versions Ultra, CombiPact and Turbo-S to the high-performance category of the horizontal jointing lines HS120 and HS180. In short: GRECON system concepts live up to all performance categories.



GRECON finger jointing lines – and your residual timber becomes a valuable high-end product:

- Finger joint profiles for all fields of application
- Highest quality of jointing
- Highest precision and stability of the finger joints
- Use of single and two-component glue
- High operational performances up to 180 parts/min (35 km/shift)
- Shortest set-up times
- Comfortable, easy usability
- Simple, efficient production process
- For different requirements: horizontal and vertical finger joints
- Refitting possibilities for an optimisation of the performance as well as for an automation





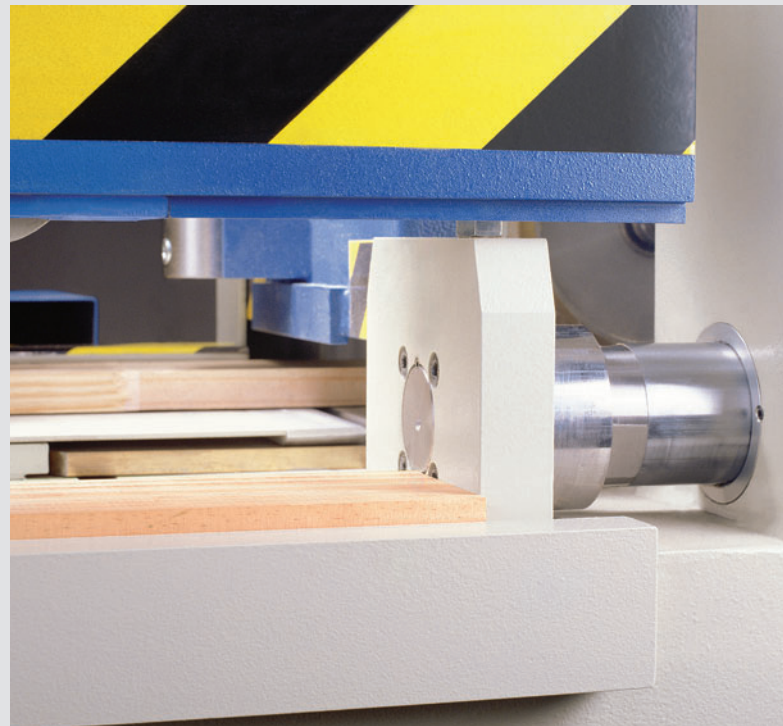
Tool system and spindles

The tool spindles are provided with an indirect belt drive and special bearing for vibration-free power transfer.

The tool spindles are adjusted precisely in the range of 1/100 mm. All short wood lines are equipped with scoring units. Best finger quality is the result.

Timber treatment becomes efficient with GRECON: Cutting, gluing, and pressing at full speed

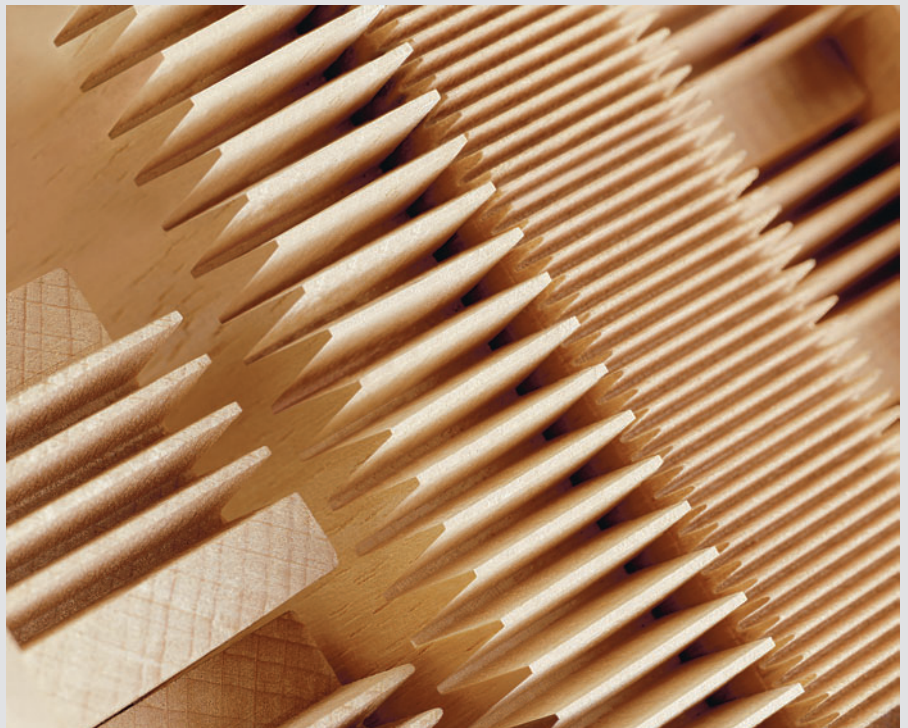
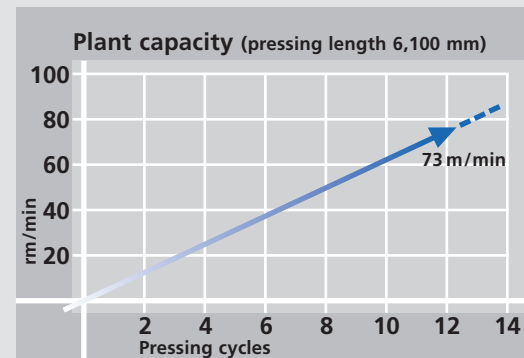
All plants are characterised by a simple, efficient production process. Automatic quality features, as vibration stop, timber front control with following adjustment or transfer outwards, splinter protection and scoring unit produce tear-free and closed finger joints. By different tools it is possible to process both soft- and hard wood on all plants. The glue application system "Flankenjet" developed by GRECON ensures a saving of glue up to 30% by an exact dosing possibility. GRECON standard presses are appropriate for timber with a length between 6,100 mm and 12,000 mm and dispose of thrust forces between 100 kN (10 t) and 160 kN (16 t).

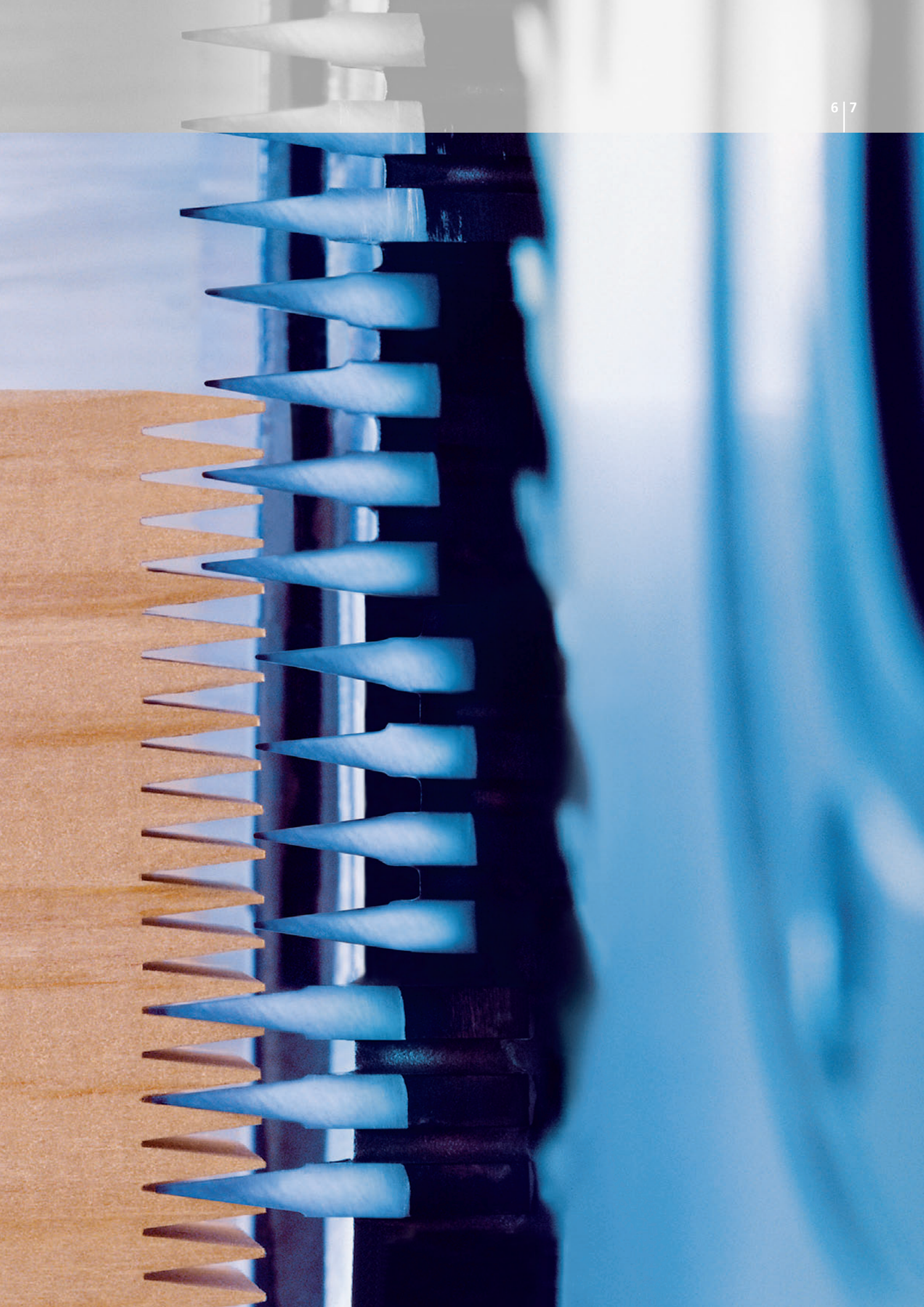


Finger joints with GRECON: Highest quality standard in all performance categories

Sophisticated technique and perfect overall concepts for package and horizontal finger jointing lines. No matter whether glue wood plates for furniture construction and completion of interior, window scantling, stair construction, flooring in solid wood, construction and glued laminated wood and other products shall be manufactured – the finger jointing plants from GRECON set benchmarks in precision and quality.

Furthermore, you will benefit from the increasing popularity of improved solid wood materials on all markets.





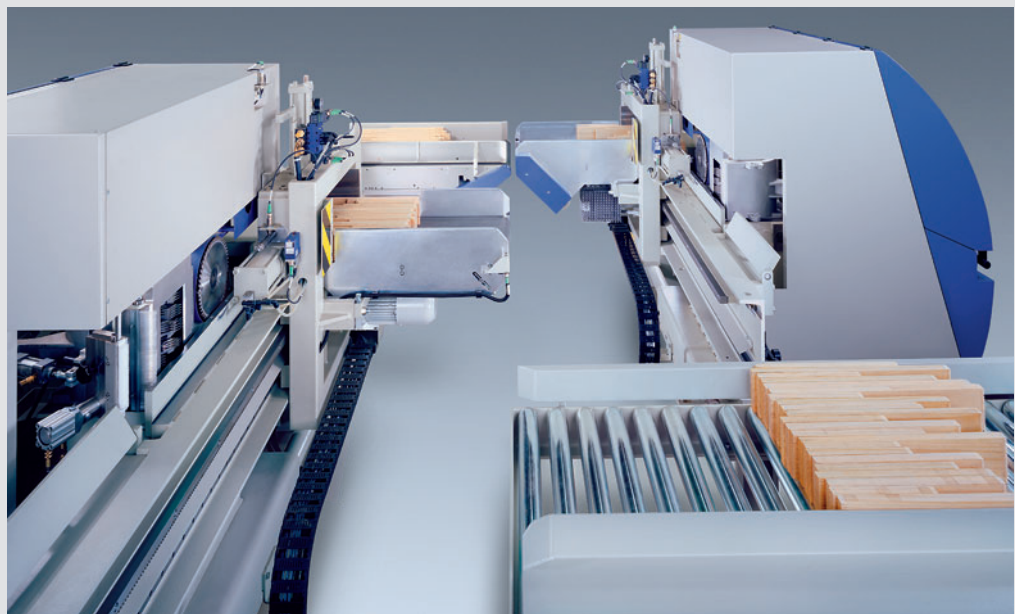
GRECON finger jointing lines ProfiJoint: Large performance potential for starters



The newly developed starter model ProfiJoint can be extended up to the shaper combination by the modular system. Timber widths up to 150 mm, timber thicknesses up to 50 mm and min. infeed lengths of 150 mm can be processed without any problems. A casting reduces vibrations in the area in which a precise jointing is of importance. No matter whether joints shall be vertical or horizontal with scoring units; the product family of the ProfiJoint model is provided with the same tool technology as the high performance categories from GRECON.

GRECON finger jointing line ProfiJoint combination: The highest extension level of the ProfiJoint

By a combination of 2 cutters, performance is doubled. The cutting process is carried out completely automatically on both sides. The 2-spindle system facilitates the production of special profiles. The ProfiJoint single cutter can be upgraded to a ProfiJoint combination at any time.



CRECON finger jointing line Ultra: The highly efficient medium range



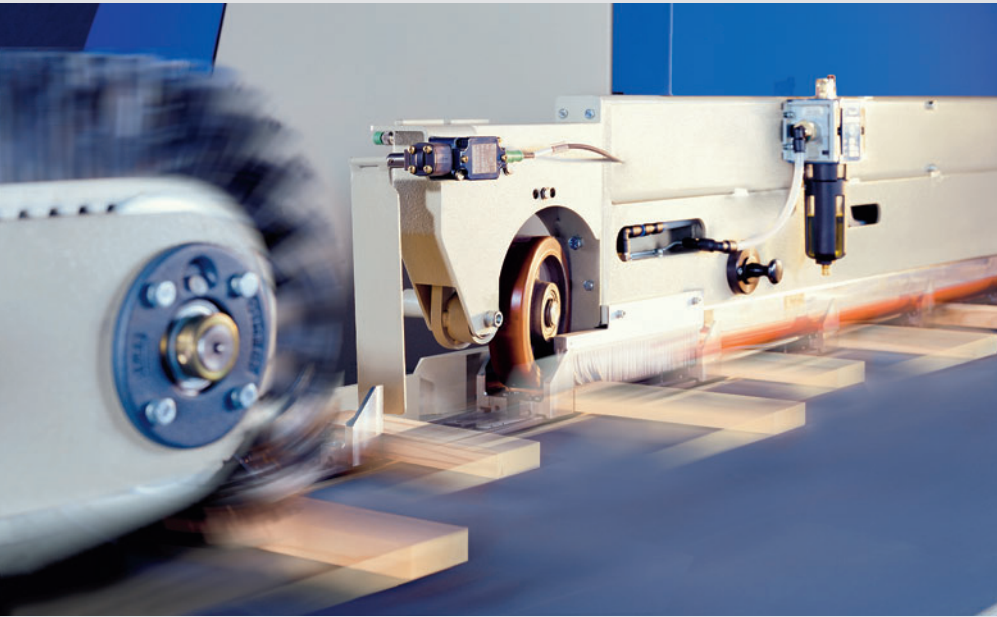
The compact Ultra offers all advantages of the sophisticated GRECON technique, much performance and substantial flexibility. It represents the perfect solution for an economic utilisation of the residual timber in medium-sized companies with its revolving, optionally manual or automatic turntable. In standard design for a timber width of 205 mm and timber infeed lengths between 150 and 1000 mm. But also timber infeed lengths of 2 or 3 m are possible. Even large cross sections can be processed safely and precisely by increasing the thrust force up to 160 kN (16 t).

GRECON finger jointing line CombiPact: The flexible line for vertical and horizontal profiles



By this universally usable full-automatic line you meet all requirements – quickly and on highest quality level. No matter whether vertical, positive / negative, reverse profiles or half shoulder profiles, everything is possible! An excellent feature of the CombiPact is the double shaper. This development with 2 opposite shapers stands for a special performance and high speed. By the connection of the two shapers via a basic body, the line is very compact and stable. The low vibrating design provides for excellent results.

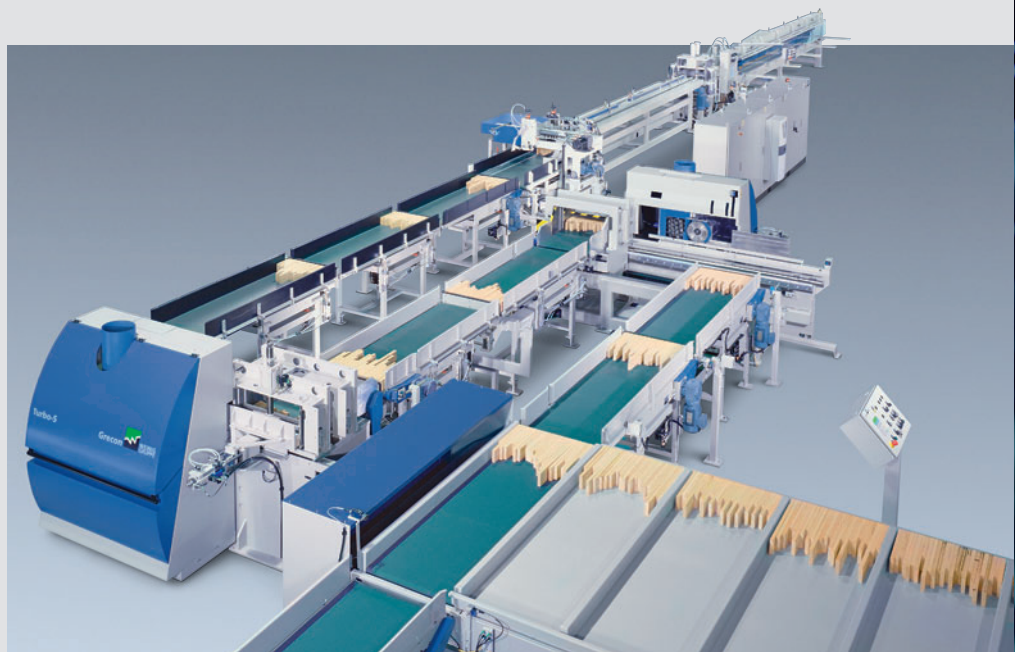
GRECON finger jointing lines HS 120 and HS 180: The unrivalled line in the high-performance range



The horizontal single timber shapers from GRECON are the quickest equipment available on the world market. Up to 180 parts per minute in continuous operation and 12 pressing cycles per minute turn this line to a production giant. High-performance components, as the automatic feeding system, can be integrated in addition. Also cutting tool systems with a diameter between 228.6 mm and 266.7 mm (9 to 10.5") may be operated.

GRECON finger jointing line Turbo-S 1000: Package line for highest performance and demands

The patented shaper combination of the Turbo-S 1000 satisfies all wishes of performance and quality. Two shapers connected by intermediate belts work independently from each other in the line. Top performance is achieved by the previous alignment of the packages on the intermediate belts. Quality standards, as package monitoring, splinter protection, scoring unit, are available. Timber infeed lengths of 2 m and more can be realised.

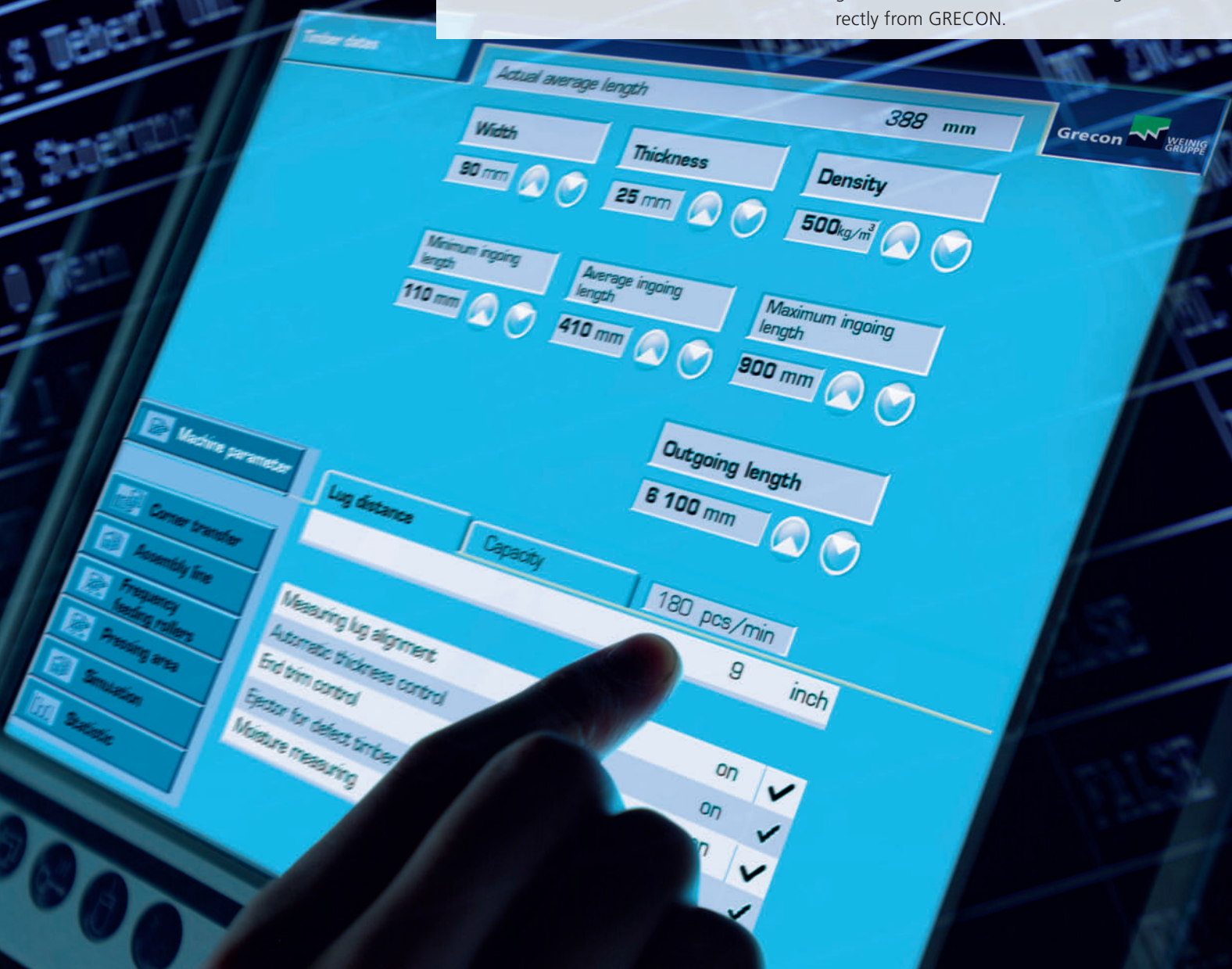


Finger joints with automatic control: The easiest operation of complex lines

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.



Finger jointing lines with the glue application system FlankenJet: GRECON system with up to 30% glue saving

The glue application system FlankenJet developed by GRECON provides for an exactly proportioned and specific application of the glue on the bottom of the joints, even with critical profiles. Different viscosities of the glue are processed smoothly by the nozzle slide system with different borings. The glue film is distributed on the entire surface of the joints; drops do not exist anymore. FlankenJet can be cleaned quickly and easily and saves up to 30 % of the glue compared with conventional glue application systems.



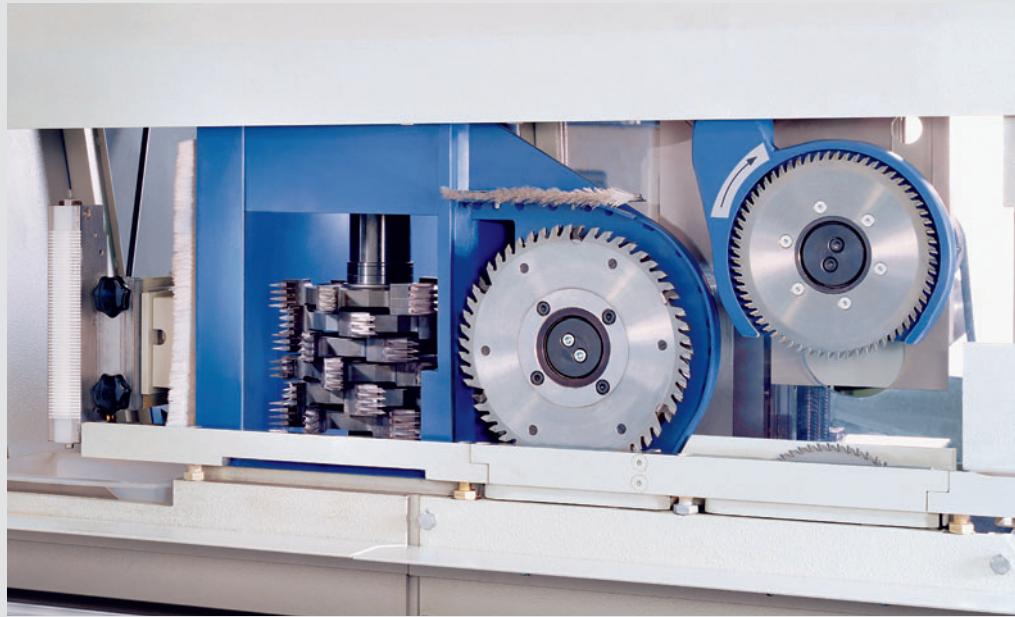
Finger jointing lines with package monitoring: Laser light barriers for a continuous cutting quality

When high-performance with full-automatic lines is of importance, these systems monitor the alignment of the timbers in the package during the process and restart alignment, if necessary. Thus, the joints are cut precisely and a product of high quality is generated. A counter-profile provides for a tear-free quality of the last timber in the package. This splinter protection can be adapted individually to the finger joint profile.

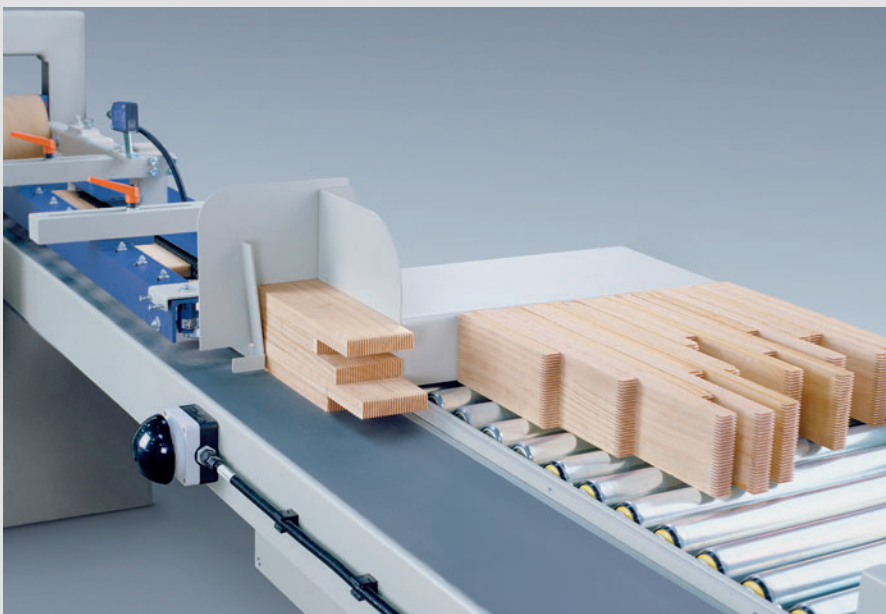


Tools for any application: Optimised processing aggregates for exact finger jointing

An excellent tool standard with slitting saws from the top and the bottom, huggers and finger cutters forms the basis for the production of finger joint profiles. The slitting saws are synchronised, i.e. they cut into the wood and avoid tear-outs at the outlet. The indirect drive of the maintenance-free WEINIG tool spindles ensures high performance reserves and a vibration-free processing of short pieces. Only by this method the joint quality can be generated precisely without splinters to the bottom of the joints with an absolutetight junction of wood.



Finger jointing lines from a manual to a full-automatic modular design

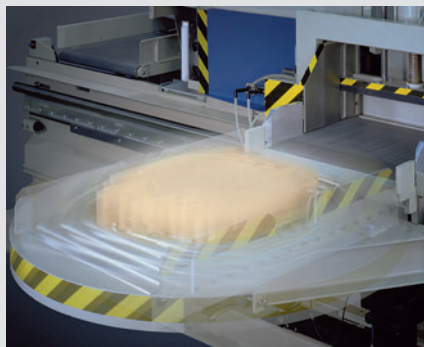
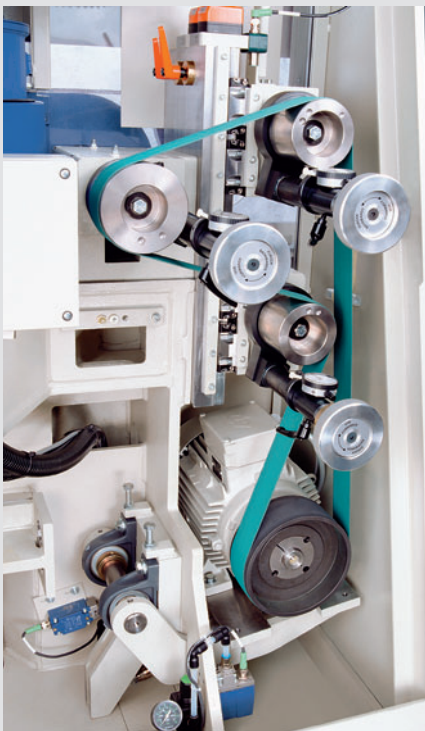


By the modular design of a finger jointing line you can determine the degree of automation yourself. No matter whether you wish to operate a manual, semi-automatic or full-automatic line: Depending on the requirements GRECON recommends the right degree of automation.



GRECON automation module: For the smooth transport through the entire plant

Only the intertwining of all automation modules by control technique on highest levels makes permanent and continuous performances without interruptions possible. GRECON experts develop solutions for your specific requirements from proven, reliable elements.



Powerful motors

provide for speed and optimal cycle in every station of the plant: advance chain motor with 7.5 kW shaper motors with 15, 22 or 37 kW scoring unit / hogger motor with 5.5 – 11 kW. All tool drives are equipped with brake motors.

Automation modules from GRECON

With these modules you exhaust the enormous performance potential of your finger jointing line completely. The optimal solution is available for every requirement. From feeding to the deposit of the final products:

- From the manual to the automatic turntable for package plants of the type Ultra
- Full-automatic feeding to use the full capacity of the line
- Automatic transfer from the shaper into the press
- Optimised production process and high performances by timber infeed / outfeed conveyors
- Full-automatic production from feeding to piling

Synoptical table for finger jointing lines: Standards and options

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 construction wood.

	ProfiJoint	ProfiJoint Combination
Infeed length	150 – 700 mm	150 – 900 mm
Timber width	40 – 150 mm	40 – 150 mm
Timber thickness	18 – 50 (80) mm	18 – 80 mm
Outfeed length	3,000 – 6,100 mm	3,000 – 6,100 mm
Thrust force	105 (120) kN	120 kN
Timber cross section at a finger length of 10/11 mm (softwood)	75 cm ² (120 cm ²)	120 cm ²
Timber cross section at a finger length of 10/11 mm (hardwood)	75 cm ² (90 cm ²)	90 cm ²
Capacity (vertical jointing) with 30x90x400	12.2 – 12.8 m/min	24.4 m/min
Capacity (horizontal jointing) with 22x50x350	5.04 m/min	10.08 m/min
Feeding system	Feeding conveyor	Feeding conveyor
Shaper types	Package single shaper	Package shaper combination
Transfer	manual/semi-automatic	semi-automatic/automatic
Press	One-channel-press / two-channel press	Two-channel press
Production statistics	—	○
Diagnosis system	—	○
Multiple lengths	—	○
Intermediate cuts	0 (5)	5 (∞)
Timber tear-out prevention (scoring unit at the bottom)	○	○
Timber thickness min. 16 mm	—	—
Timber thickness max. 72 mm	—	—
Timber thickness max. 100 mm	—	—
Timber width min. 30 mm	○	○
Vibratory stop	○	○
Timber monitoring	○	○
Quality inspection	—	—
Splinter protection	●	●
Glue application system FlankenJet	●	●
Communication (teleservice)	—	○
Capacity reserve cutter spindle drive	○	○
Frequency controlled advance	●	●
Servo-controlled advance	—	—
Power shaper	15 (22) kW	15 (22) kW
Power hogger (+ scoring unit)	5.5 (11.5) kW	5.5 (11.5) kW

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



Ultra	CombiPact	Turbo-S 1000	HS 120 / 180
150 – 1,000 mm	150 – 1,000 mm	150 – 1,000 mm	110 – 900 mm
40 – 205 mm	40 – 205 mm	40 – 205 mm	37 – 152 (203 mm)
20 – 80 mm	20 – 80 mm	20 – 80 mm	16 – 55 mm
3,000 – 6,100 mm	3,000 – 6,100 mm	3,000 – 6,100 mm	3,000 – 6,100 mm
120 (145) kN	120 (145) kN	120 (145) kN	120 (145) kN
120 (145) cm ²	120 (145) cm ²	120 (145) cm ²	120 (145) cm ²
90 (110) cm ²	90 (110) cm ²	90 (110) cm ²	90 (110) cm ²
16 – 30.4 m/min	41.8 m/min	53.2 m/min	—
14 – 15.4 m/min	19.25 m/min	25.03 m/min	42 m/min 63 m/min
Turntable	Feeding conveyor/compartiment type conveyor	Compartiment type conveyor	Feeding conveyor / automatic brush feeding
Package single shaper	Package shaper combination	Package shaper combination	Horizontal shaper combination
semi-automatic/automatic	automatic	automatic	automatic
Two-channel press	Two-channel press	Two-channel press	Two-channel press
●	●	●	●
●	●	●	●
○	●	●	●
5 (∞)	∞	∞	∞
○	○	○	●
○	○	○	●
—	—	—	○
○	○	○	—
○	●	●	—
○	●	●	○
—	—	—	○
●	●	●	—
●	●	●	●
○	○	○	○
○	○	○	—
●	●	—	—
○	○	●	●
22 (37) kW	22 (37) kW	22 (37) kW	15 kW
11.5 kW	11.5 kW	11.5 kW	11.5 kW

● Standard

○ Option

We will meet all of your expectations: WEINIG GROUP – Your partner for the future

Concentrate on your business, we will do the rest for you!
The WEINIG GROUP is not only the leading technology supplier for the solid wood processing industry and trade. With comprehensive services and system solutions to turnkey production plants the WEINIG GROUP is your ideal all-around partner, whenever production has to be flexible and profitable.



The WEINIG ExpoCenter

In our ExpoCenter we demonstrate what top technology can do for you. Here, you can see our machines life in operation.



Training

We want that you benefit the best way possible as quickly as possible from your investment. The proven WEINIG training concepts provides for it. Effective training by experiences WEINIG experts ensures that the machine will be available to you with its full potential.



Kaizen

The production organisation at WEINIG is based on the Kaizen method, consequently and successfully. In a continuous improvement process quality and efficiency are optimised step-by-step. Benefit from it for your business: we appreciate to impart our experience of many years in workshops.



Service

With offices in all parts of the world and a large, mobile team of service technicians we guarantee worldwide service, which is unique in this industry. Quickest spare parts supplies at any place as well as contact partners who speak your language are part of our traditional customer orientation.

**WEINIG**

World market leader for moulding machines

WACO

No. 1 for high-performance planers and moulding machines

GRECON

Powerful finger jointing lines

DIMTER

Specialist for optimising cut-off saws and gluing presses

RAIMANN

Advanced technique for cut-optimisation

CONCEPT

The competent partner for overall solutions

The WEINIG GROUP: We combine all components from the solid wood treatment seamlessly

To the turnkey production plant

To build innovative machines is one thing, to offer system solutions is something completely different. More and more often our customers wish to have the whole works. This is a job for our team of WEINIG CONCEPT where the competence of the WEINIG GROUP is combined in a very special way.

From planning to turnkey production plants, our pros do the entire job. Worldwide. Taking the complete responsibility. For you.

A strong team

Every member of the WEINIG GROUP is a leader in his field of activity generating valuable synergy effects from which you can benefit incomparably.



Finger Jointing Lines

**Production:**

GRECON DIMTER Holzoptimierung
Nord GmbH & Co.KG
Hannoversche Straße 58
31061 Alfeld / Hannover
Germany

Phone +49 (0) 51 81 / 9 39-0

Fax +49 (0) 51 81 / 9 39-2 25

E-mail info@grecon-weinig.de

Internet www.weinig.com

Sales:

MICHAEL WEINIG AG
Weinigstraße 2/4
97941 Tauberbischofsheim
Germany

Phone +49 (0) 93 41 / 86-0

Fax +49 (0) 93 41 / 70 80

E-mail info@weinig.de

Internet www.weinig.com