

Combining what belongs together.

HE HOMAG

Our Laminating Systems

LAMTEQ F-200

LAMTEQ F-300

YOUR SOLUTION





NEW

The intelliLaminating App is your perfect companion for everything concerning laminating. Download the app from your store today!





Laminating with HOMAG

Laminating is experiencing something of a renaissance in the field of decorative finishing of wood-based panels. Major trends such as natural and tactile structured surfaces are raising the bar for surfaces in the furniture industry. Today, technical innovations and continuous developments are making laminating a powerful, flexible, and reliable finishing procedure. Progress made in using hot-melt glues — and in particular, reactive PUR — is replacing entire generations of glues such as PVAc. Improved quality in resistance to moisture and temperature qualify PUR in particular for use as a binding agent between panels and surface films.

The different requirements for surfaces in furniture manufacturing demand clever production solutions that can be achieved by utilizing the experience and solid process expertise of HOMAG. HOMAG has aligned and expanded its portfolio on this basis. Customized laminating technology for customer-specific solutions.

YOUR SOLUTION

MORE ON:



LAMTEQ F-200

CONTENTS

- 04 The LAMTEQ series – a product guide
- 06 LAMTEQ F-200 – laminating with PUR adhesives
- 08 The concept of a PUR laminating line
- 10 The system that grows with you
- 12 Pioneering lamination
- 14 The lay-up stations of the LAMTEQ F-200
- 16 Cell concepts of the LAMTEQ F-200
- 20 High-performance laminating lines: the LAMTEQ F-300
- 24 The concept of the LAMTEQ F-300 / The laminating process
- 28 LAMTEQ F-300 completeLine
- 32 tapio
- 34 Life Cycle Services

Discover what we have to offer

Regardless of whether you are in trade or are an industrial manufacturer, whether you manufacture furniture parts or flooring panels, whether you use coating materials that come in rolls or sheets: HOMAG laminating systems offer a

wide range of possibilities and therefore the right solution to meet your requirements. The product guide outlines which laminating line is the right one for you.

LAMTEQ SERIES PRODUCT GUIDE

Laminating solutions	Parts range					Production parameters						
	Furniture and kitchen furniture	Parts with high-gloss/supermatt surfaces	Parts with veneer surfaces	Honeycomb panels and composite materials	Flooring panels	Feed speed up to 25 m/min.	Feed speed up to 40 m/min.	Feed speed up to 60 m/min.	Single-sided lamination	Double-sided lamination	Surface lamination	Surface and edge lamination
LAMTEQ F-200 PUR surface laminating line	X	X	X	X	X	X			X		X	
LAMTEQ F-300 Hot-melt surface laminating line	X	X			X			X	X	X	X	X



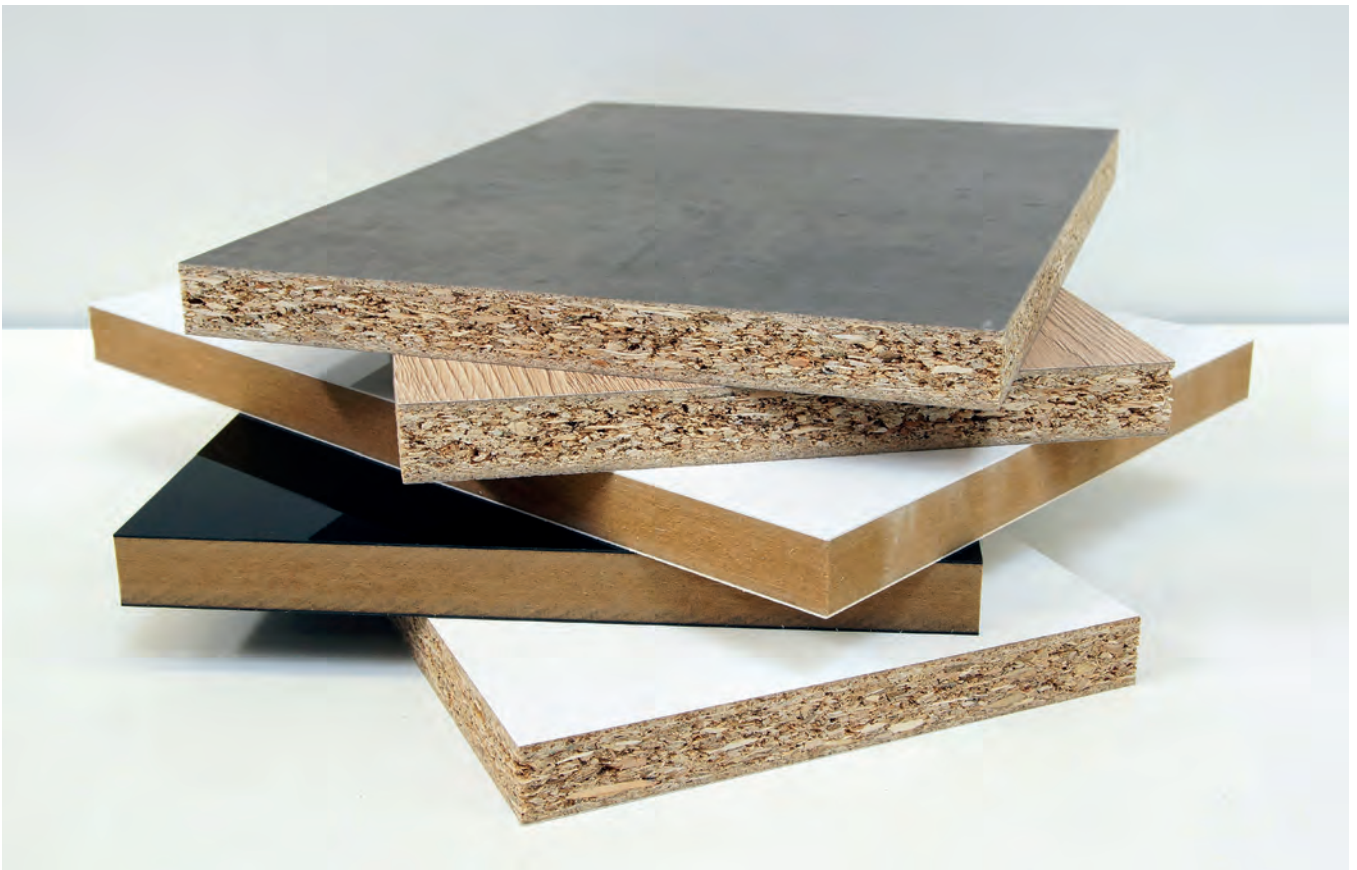
Adhesives					Adhesive application method				Coating material				
PUR hot-melt	PVAc dispersion	reactTec Inline (application on film)	reactTec Offline (preglued film)	PO, EVA hot-melt	Application on the workpiece with a roller	Application on the coating material with a roller	Application on the coating material with a slot nozzle	Application on the coating material with a roller bar	Thermoplastic films (PVC, PP, PET) on rolls	High-gloss and supermatt films on rolls	Decorative papers on rolls	Sheet laminates (HPL, CPL, PMMA, PET)	Sheet veneers
X					X				X	X	X	X	X
X		X	X	X			X	X	X	X	X		



LAMTEQ F-200 – laminating with PUR adhesives

Polyurethane-based adhesives offer a wide range of applications and a broad spectrum of properties. They are distinguished by maximum adhesion, are suitable for both indoor and outdoor components, and are highly resistant to solvents, water, steam, heat, and cold. Since PUR adhesives do not contain any moisture, substrates do not swell and

stresses during the drying process are prevented. PUR adhesives are suitable for bonding a vast array of materials. Due to the low processing temperature, they are ideal for thin thermoplastic films and are used wherever high-quality standards are a must.



High-quality furniture parts: Materials laminated in a throughfeed process and glued with PUR.

„Our wealth of experience and expertise in laminating technology allows us to offer you customized and clever solutions. Using a modular system, we can meet your requirements right through to the final installation.“

Philipp Henry, Product Manager Lamination, HOMAG

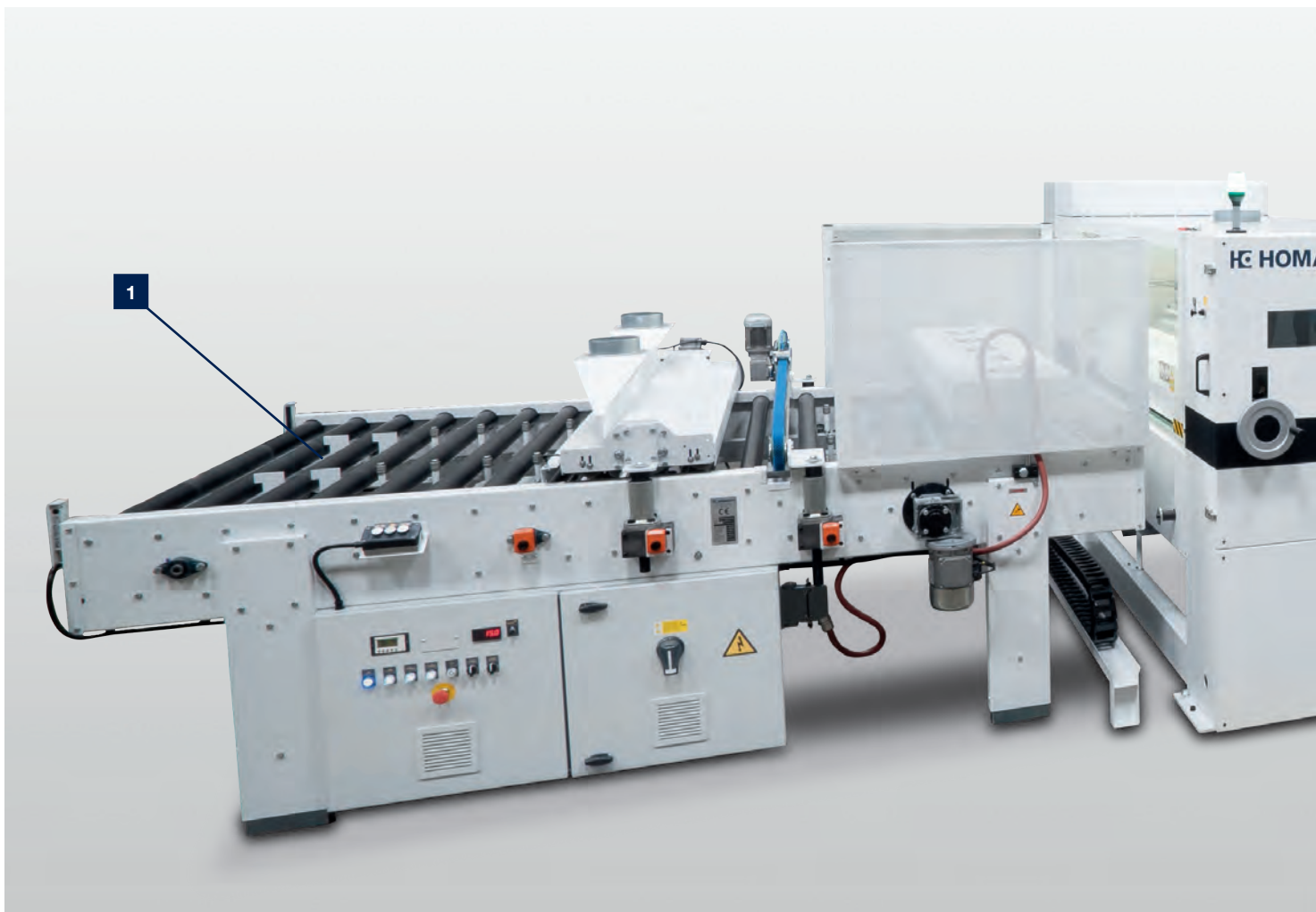
Basic focus of the LAMTEQ F-200:

- Focused on PUR adhesive
- Single-sided lamination of the surfaces from the top
- Modular machine concept allows different configurations of line layouts
- HOMAG offers manual or fully automated solutions for any capacity or application

The concept of a PUR laminating line

The core elements of every LAMTEQ F-200 are a glue application machine, a lay-up station, and a laminating calendar. The glue application machine applies the PUR adhesive to the base panel using a rubberized application roller. The base panel is merged with the coating material

in the lay-up station. A pair of rollers presses the base panel and the coating material together in a throughfeed process in the laminating calendar. These core elements can be configured to meet the individual requirements of our customers by the use of optional equipment.



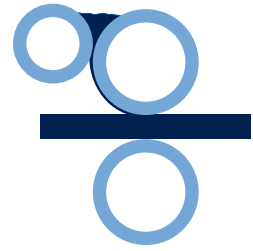
1 Infeed roller conveyor can be equipped with workpiece guides, rotational and transverse brushes, workpiece preheating

2 Glue application machine with heated application rollers for applying PUR adhesive

3 Lay-up station with shelf for sheets of coating material

„The heart of a laminating system is the glue application. Only an even application across the entire surface with equal grammage achieves the same properties and visual appearance throughout.“

Stephan Kleinlanghorst, Application Engineering, HOMAG



4 Laminating calender for pressing base panel and coating material together

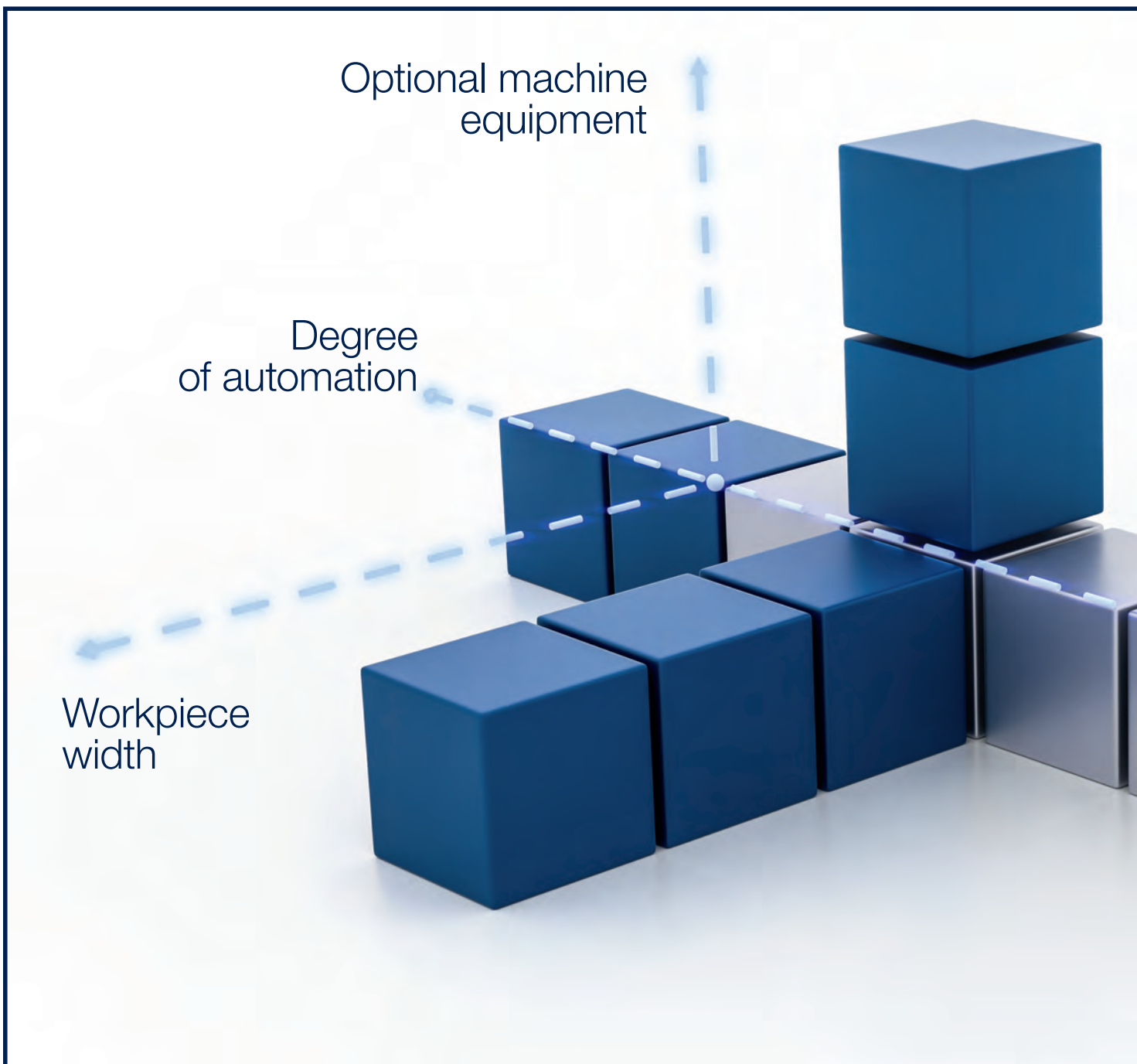
5 Unwinding station mounted on the laminating calender for paper, CPL, and thermoplastic films on rolls. Available with a rotative knife for cutting the rolled coating material

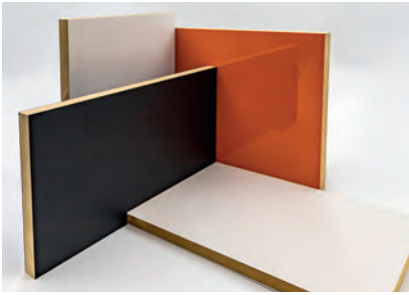
6 Outfeed conveyor, can be extended with automatic destacking

Flexible and modular: the LAMTEQ F-200 grows with you

Flexibility and modularity are the distinguishing features of our LAMTEQ F-200 series. And it is precisely these features that make the laminating system the perfect tool for our customers. The specific configuration of a system can always be converted to meet customer requirements — and when

they change, the LAMTEQ F-200 does too. Thanks to our concept, the laminating system has sufficient freedom to always be able to meet future needs. Come and talk to us — we will be happy to advise you!





Perfect look. Materials laminated in a throughfeed process.



PUR flat laminating machine
LAMTEQ F-200

You can choose:

- Workpiece width of 1300 mm, 1500 mm, or 1700 mm
- Process steps: e.g. cleaning, preheating, cutting
- Machine equipment: e.g. cleaning modules, tilt tables, automatic lay-up stations, foil cutting devices etc.
- Degree of automation: e.g. roller conveyors at the infeed and outfeed, feeding and stacking for automated supply/removal of workpieces, material handling systems such as turners, angular transfers, or return stations



Process
steps



Temperature up to
degrees

165

Feed

5 – 25

meters per minute

Workpiece widths up to

1700

millimeters in the standard version

Pioneering lamination...

It is not only the quality of the base panel material and the coating material that is vital to the result of the laminated end product: The quality of the glue application has a decisive impact on the quality of the laminating. Our glue application machine enables you to achieve the best results. To ensure



a uniform application of PUR glue, the LAMTEQ F-200 glue application machine is extraordinarily solid. Furthermore, our gluing concept offers innovative technical functions that underline the solution-oriented focus of the LAMTEQ F-200 series.



1 Control panel for entering parameters, checking the machine status as well as for starting and executing cleaning programs

2 Extraction socket

3 Outfeed transport

4 Application roller

5 Integrated switch cabinet

6 Fine adjustment of the dosing roller

7 Monitoring window

Highlights

Automatic adhesive grammage regulation:

- Applied adhesive quantity is determined by retrieving several process parameters and is automatically adjusted.

Automatic cleaning program:

- Cleaning cycles and durations are monitored.
- Operator is guided in detail through the cleaning program.

Automatic preheating of dosing roller:

- Dosing roller can be preheated automatically to the operating temperature before production starts.

Customer benefits

Functionality:

- Good accessibility
- Easy roller change
- Intuitive operation

Uniformity and continuity:

- Uniform and consistent adhesive application over the entire workpiece
- Repeatability of the settings
- Recording of the current production data

Efficiency:

- Avoidance of gluing errors
- Prevention of mishandling
- Accurate application of the specified adhesive quantity



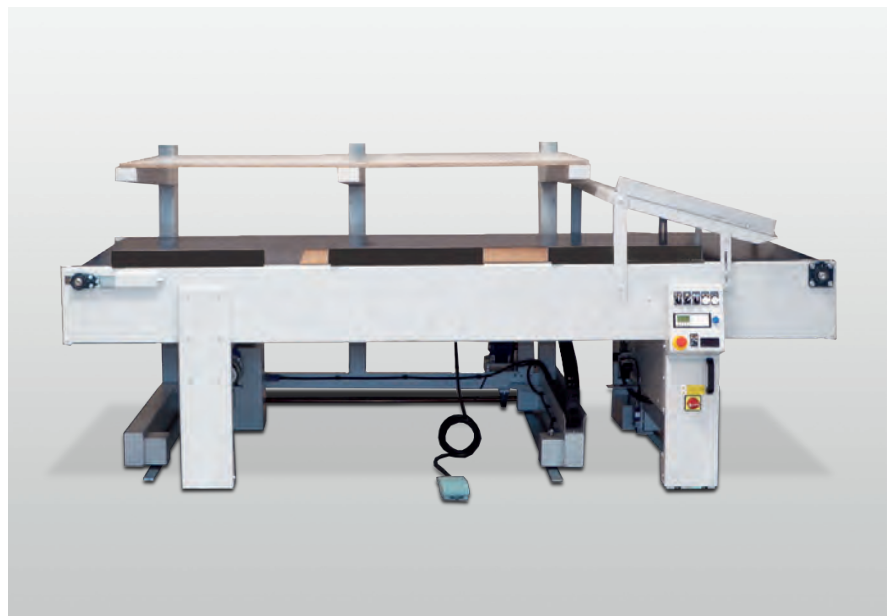
The different lay-up stations of the LAMTEQ F-200

To underline the modularity and flexibility of the LAMTEQ F-200, we offer different configurations of lay-up stations. Adapted to the coating material to be processed there are lay-up stations available for workpiece lengths

of 1200–4000 mm. You can also select different degrees of automation, for pure manual placement up to automatic separation and supply of the sheets of material.

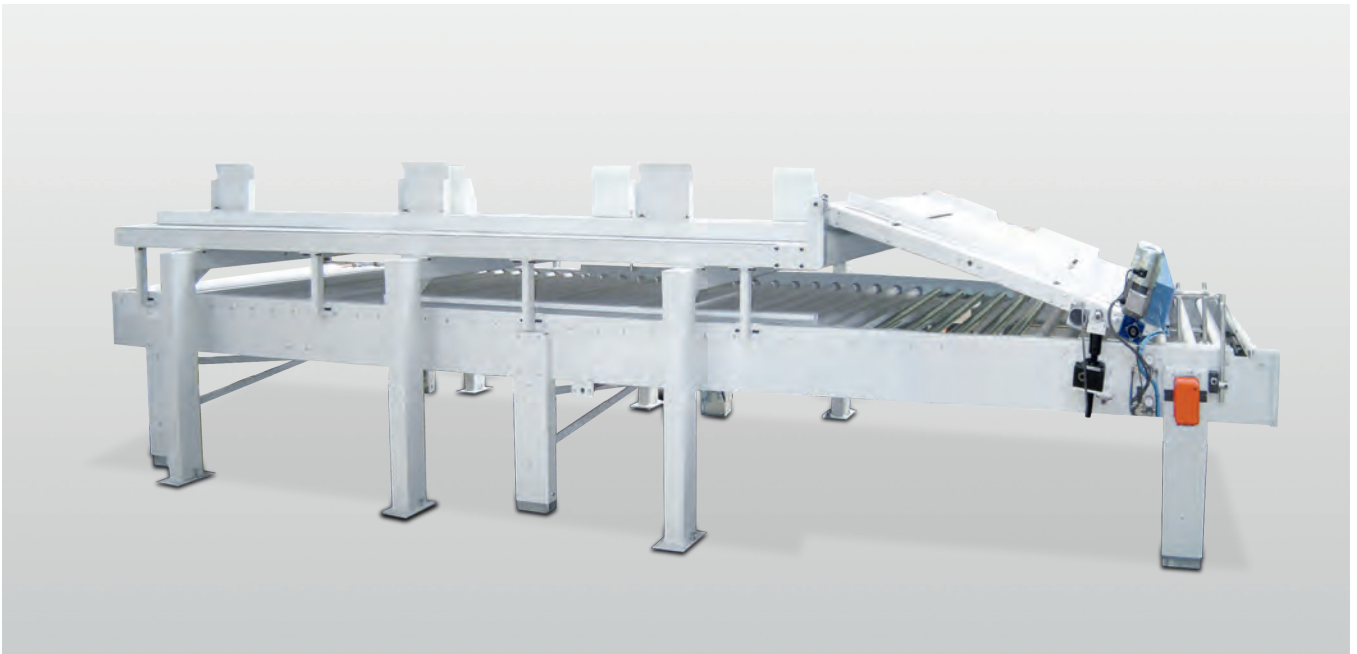
Lay-up station Classic for manual placement of laminates

- Consisting of a placement rack for the laminate and a conveyor belt beneath that for transporting the workpiece.
- The placement rack and the conveyor belt can be moved crosswise to the throughfeed direction independently of one another. Regardless of the workpiece width, the operator can always work directly close to the workpiece.
- Manual feeding of the laminate via a ramp to a glued workpiece.
- Crosswise supply of rigid materials via movable placement rack.



Lay-up station Performance for semi-automated placement of laminates

- Consisting of a laminate magazine, a supply ramp with an attached pinch roller and a workpiece conveyor beneath that.
- The operator supplies the laminates manually from the magazine via a ramp, aligns them to a fixed edge and releases the process by pushing a button. The laminate is automatically placed on the workpiece at synchronized speed without stopping the feed.



Lay-up station Power

- Optional extension of the lay-up station Performance for automatic separation and supply of laminates.
- Three powered belts combined with a vacuum system and a drive roller separate a laminate from the magazine and automatically supply this to the pair of pinch rollers of the lay-up station.
- The vacuum system is stopped automatically as soon as the laminate is positioned.

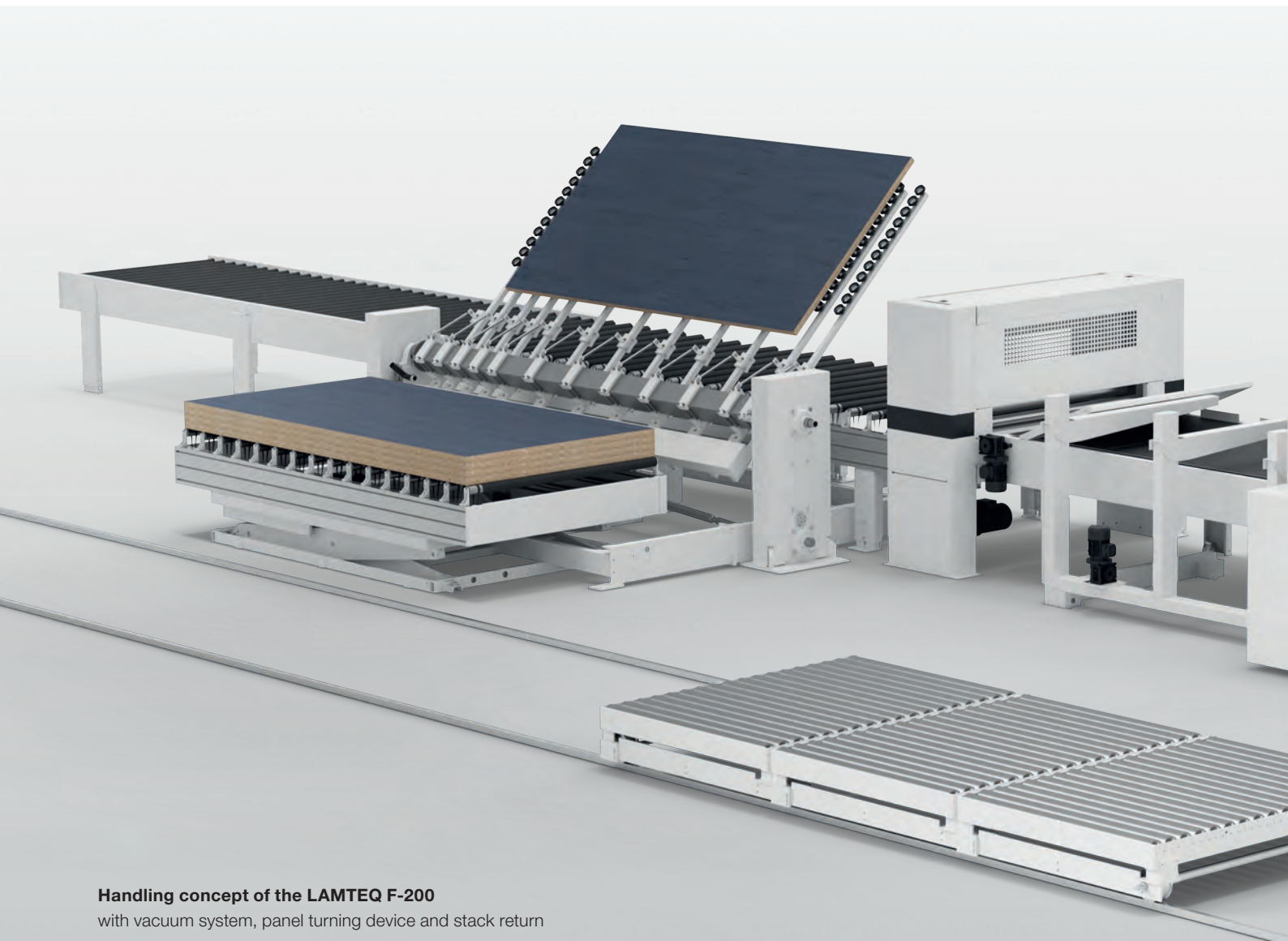


Flexible and clever solutions for a wide variety of conditions: the LAMTEQ F-200

The modularity and flexibility of our LAMTEQ F-200 and the diverse possibilities for use of PUR adhesives mean that the HOMAG laminating system can be used to manufacture a wealth of different products. One of the following concepts will certainly meet your requirements and thus enable you to start planning your system easily.

The shown handling concept means less personnel are required for operation and also removes the need for physically demanding lifting, carrying and flipping of unwieldy panels. This partly-automated handling solution consists of

a vacuum-suction traverse at the infeed, an automatic panel turner behind the system and a stack return feed system. All this makes it possible for one person to manage all the workpiece transport. If another colleague applies the coating materials, the laminating plant can be safely and easily operated by just two people. What is more, the optimized parts flow increases the plant's productivity, since travel paths and manual parts handling is kept to a minimum. This allows operators to concentrate on value-adding activities. In short: More parts laminated with less personnel.



Handling concept of the LAMTEQ F-200
with vacuum system, panel turning device and stack return

Up to

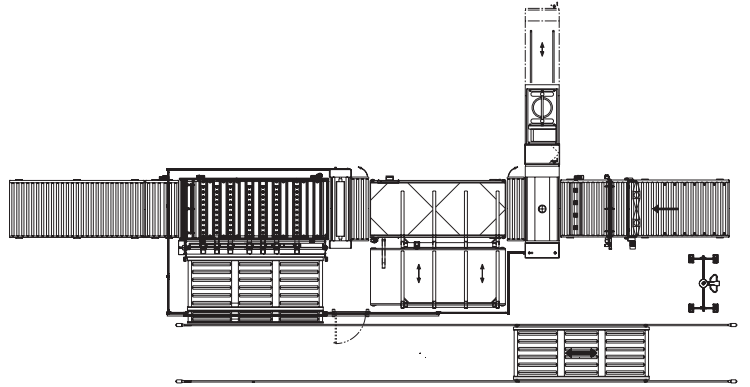
600

coatings per shift

Requires only about

210

squaremeters of production area



The fully automated cell concept of the LAMTEQ F-200

A PUR laminating system that leaves nothing to be desired. Thanks to this cell concept, the extensive mechanization allows a large production quantity to be realized while

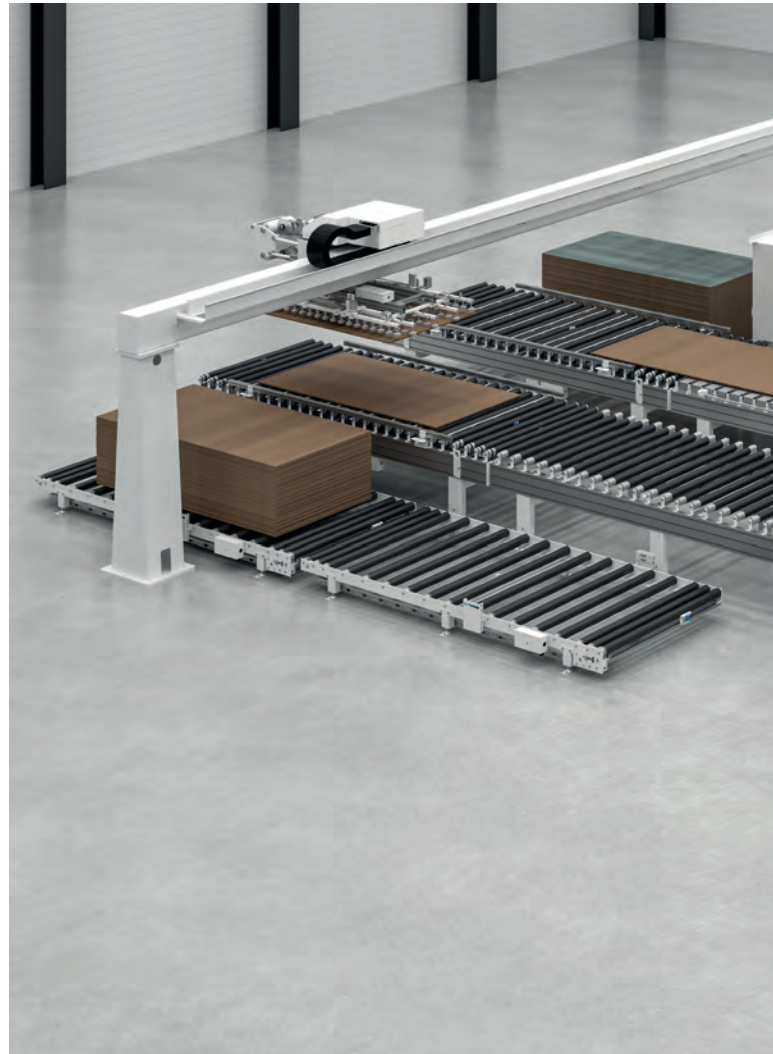
requiring few staff. All process steps are automated, which means operating personnel only monitor continuous production and ensure a high level of quality.



Automation with integrated destacking



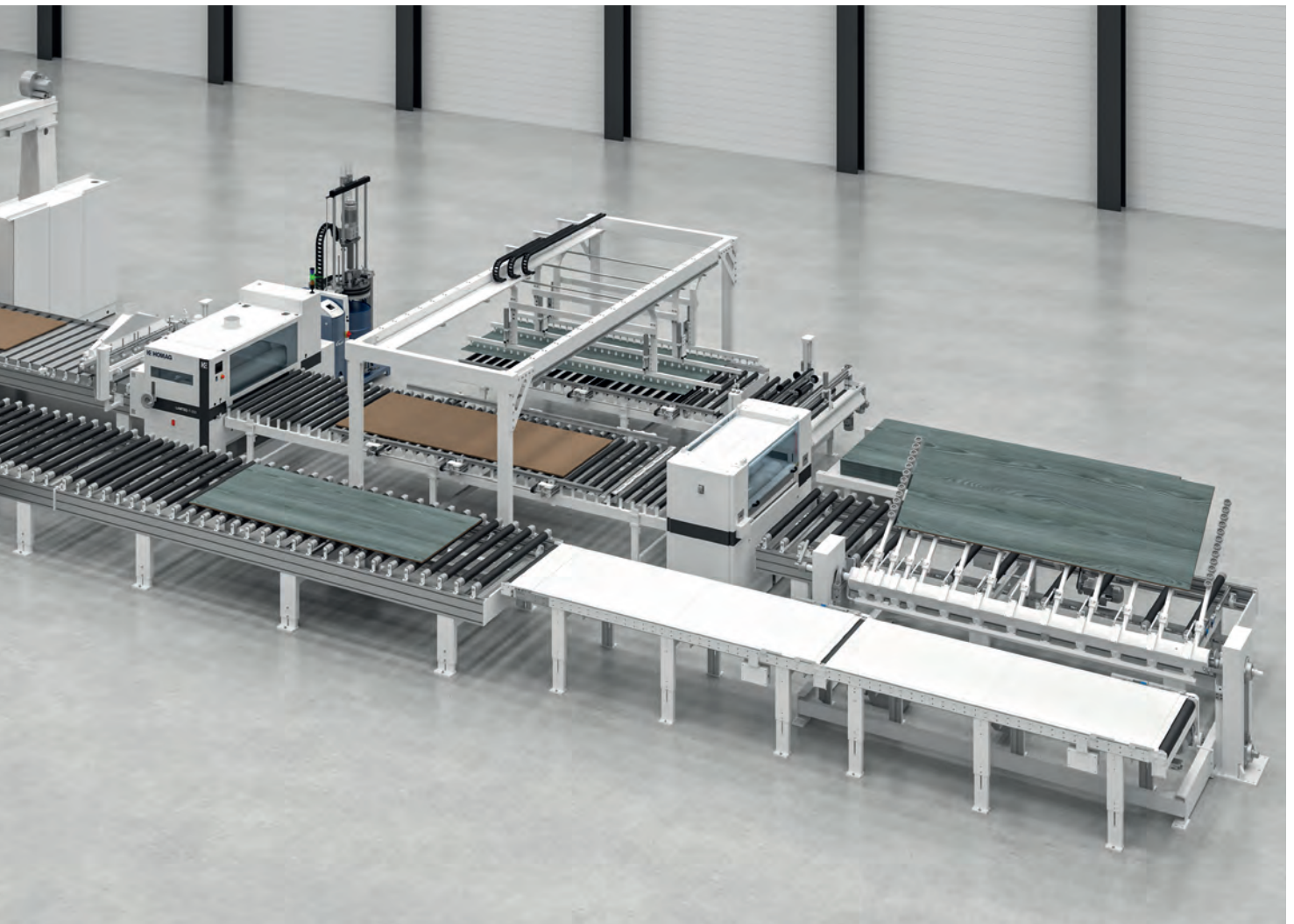
Laminating calender with a pair of rollers for pressing glued workpieces with applied coating materials.



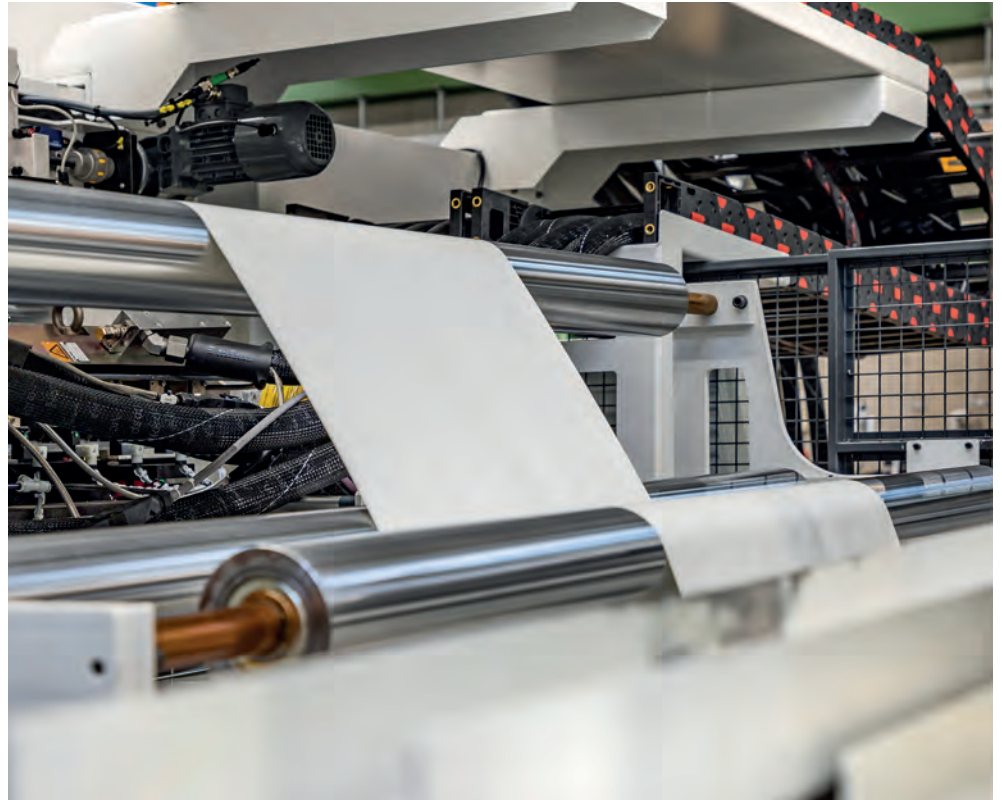
Fully automated cell concept of the LAMTEQ F-200 series with return and circulation for production of table tops

Key Facts

- The setup for all machines is controlled by barcode
- Operation of cell parameters via a centralized control system with an option to connect to higher level ERP systems
- Integrated cleaning for carrier material and coating material
- Wide range of parts from 400 x 400 mm to 1600 x 3600 mm
- Double-sided laminating is possible with a single-sided system with no additional handling
- Machine-controlled placement of the coating material







Foil feeding

When performance is wanted:
the LAMTEQ F-300 laminating line



Laminating calender



High-performance laminating lines: the LAMTEQ F-300

The offer: economic solutions for industrial mass manufacturers.

The challenge: application of hot-melt and reacTec glue using nozzles in the thinnest layers possible, without any stripes, evenly on the rear of a wide variety of finishing papers and films.

HOMAG has successfully mastered this challenge.

Basic orientation of the LAMTEQ F-300 series:

- Processing of the common adhesives EVA and PO hot-melt, as well as the innovative reacTec hot sealing adhesive
- Single-sided or double-sided laminating
- The lamination of the surface or alternatively the surface and edge lamination
- System configuration tailored to customer requirements

„HOMAG is the trusted partner for discerning customers in the industrial lamination sector. We offer economic solutions at feed speeds of up to 60 m/min.“

Josef Zerle, Executive Director Surface Processing, HOMAG



The concept of the LAMTEQ F-300

The LAMTEQ F-300 is the answer to all requirements of industrial manufacturers for a high-performance laminating system. The series is economical, has a feed of 60 m/min and can be equipped with the latest glue application methods; it thus redefines quality and efficiency in the production of building components and furniture.

The reactec process is unique to the LAMTEQ F-300. This innovative laminating technology impresses not only commercially but also ecologically; not only does it offer savings thanks to low manufacturing costs, it also allows you to operate in an environmentally responsible manner.



LAMTEQ F-300 laminating line for double-sided coating with the reactec process.

Feed of up to **60** meters
per minute

Up to
11 Mio.
square meters per year



Features of the LAMTEQ F-300

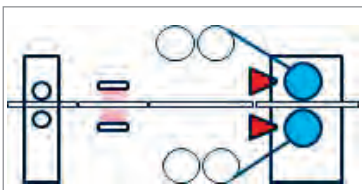
- Single-sided or double-sided lamination
- Workpiece width up to 1300 mm
- Glue application via slot nozzle or roller bar nozzle
- Processing of thermoplastic films, high-gloss and supermatt films, as well as decorative papers all on rolls
- completeLine: possible combination of surface lamination with wrapping of the workpiece longitudinal edges
- Laminating system with automatic change of film without interrupting the feed



Furniture parts with the surface and edges coated in a completeLine.

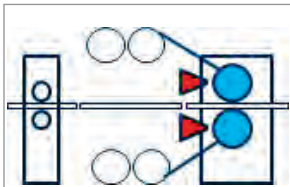
Comparing laminating processes

Familiar laminating processes using urea resin glue, dispersion glue, hot-melt glue, and reactec all offer different advantages and disadvantages. A comparison of the relevant process steps, the gluing method, and the production costs makes this clear.



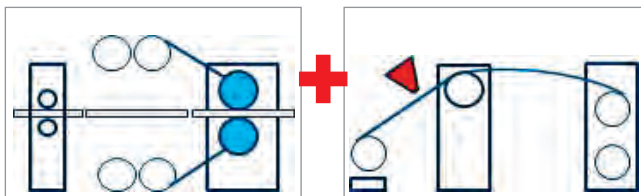
LAMTEQ F-300 – hot-melt concept

- Hot-melt glue application on the coating material with a slot nozzle
- User-friendly for series production processes
- For surface laminating and wrapping
- High feed speeds
- Excellent surface quality



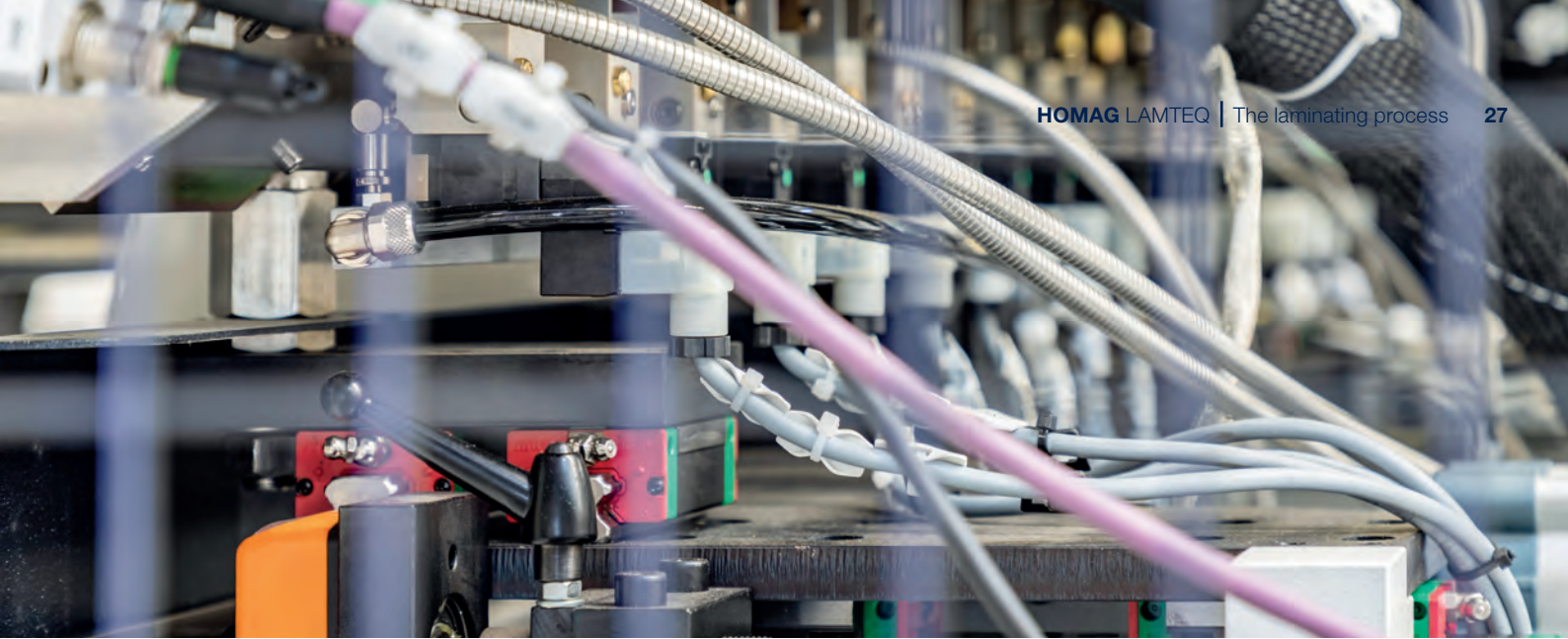
LAMTEQ F-300 – reactec inline

- Moisture-resistant like urea
- Temperature-resistant, similar to urea
- Bond joint hardness, similar to urea
- User-friendly like hot-melt
- For the thinnest of coating materials
- With the inline process, direct application of the glue onto the coating material



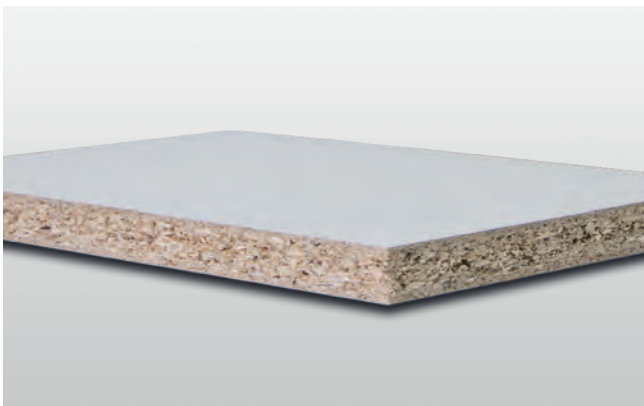
LAMTEQ F-300 – reactec-offline + LAMTEQ C-300

- With the offline process, the application of the glue onto the coating material and the laminating process are separate, both in time and location



reactTec inline process

The glue is applied to the coating material and the decorative film to the workpiece in a single line. This process is ideal for cost-effective production of large batch sizes.



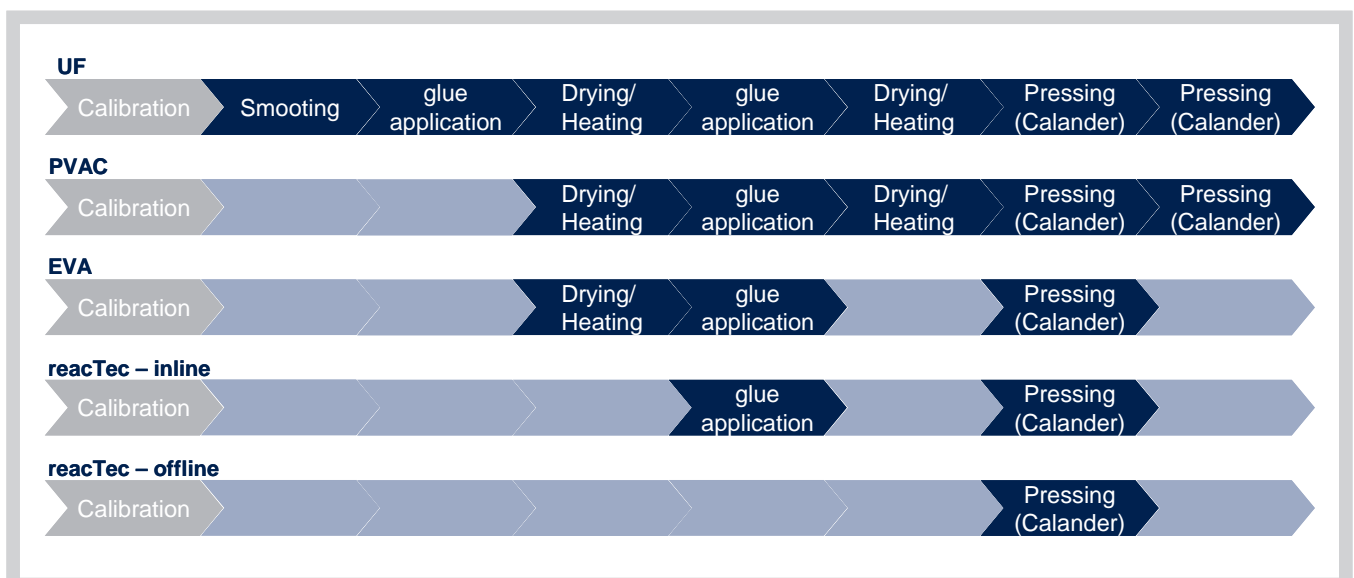
Surface lamination with reactTec

In the reactTec process, the surface is continuously laminated with film or paper.



completeLine with reactTec

completeLine systems size the raw panels, coat the surface and simultaneously seal the longitudinal edges. The material to be laminated is wrapped with film or paper on two sides in a continuous process. The result is a workpiece with no joint on the longitudinal edge – the surfaces and the edges look identical.





LAMTEQ F-300 completeLine – a quantum leap in technology and efficiency

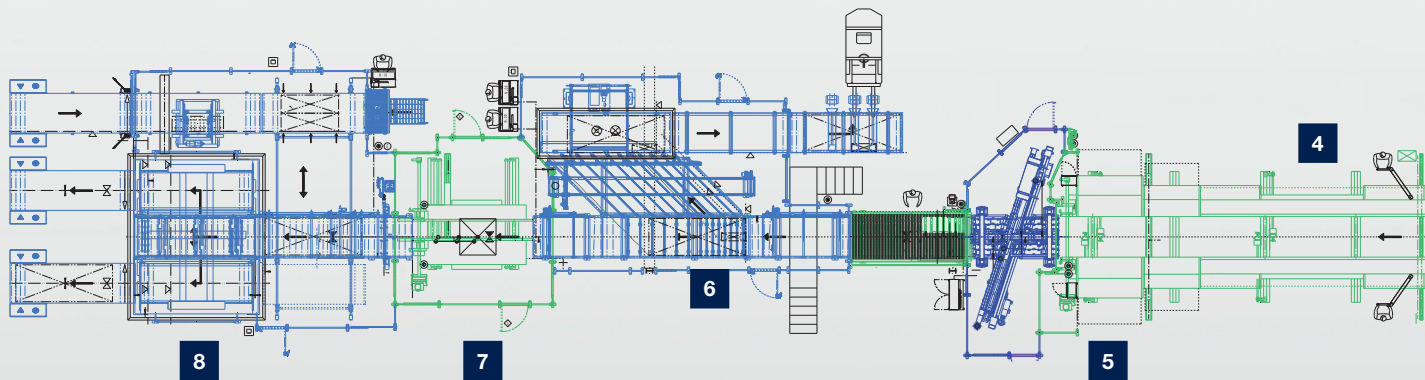
The LAMTEQ F-300 completeLine combines the process and material benefits of surface lamination in one throughfeed with edge coating and post- and softforming. This pays off in terms of the workpiece quality and efficiency.

This process is therefore ideal for cost-effective production of furniture and semi-finished products for construction elements in medium to large batches.

NO TOCAR
RUEDAS
EN MOVIMIENTO.
WARNING
DON'T TOUCH
ROLLERS
IN MOVEMENT



ATENCIÓN
RODAR
JERES
MOVIMIENTO
WARNING
DON'T TOUCH
ROLLERS
IN MOVEMENT



1 TBE 899 double-sided feeding with a pit

- Endless supply of unprocessed panels
- Multi-track supply
- Up to 36 parts/minute
- Protection board management

2 TENONTEQ D-800 double-end profiler

- Edge profiling
- Quick-change system for tools
- Motorized axes for quick profile change
- Edge sealing in one process step

3 LAMTEQ F-300 double-sided laminating machine

- Workpiece cleaning
- Dual unwinding at the top and bottom for continuous operation
- TrueCoat FS slot nozzle for minimum glue application quantity
- Heated calender with a diameter of 500 mm

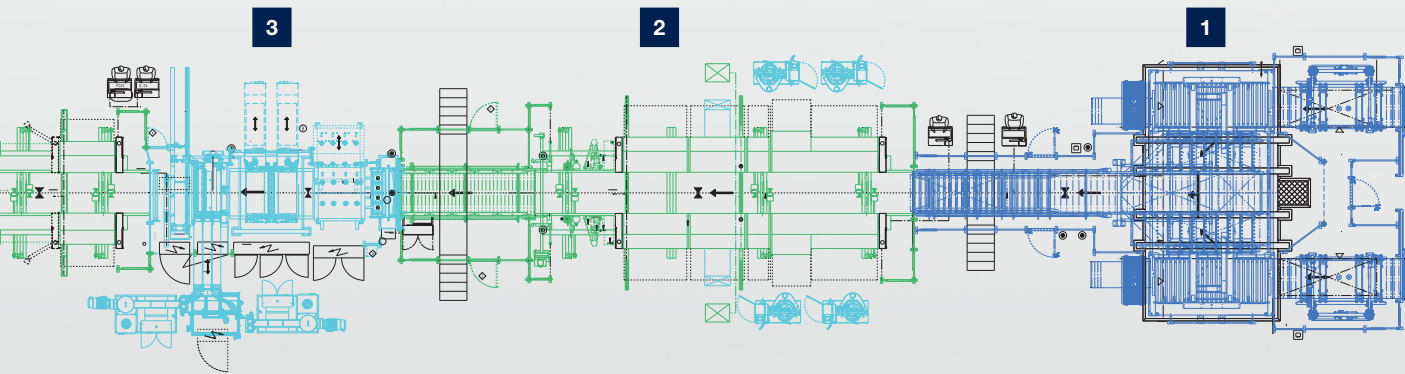
4 EDGETEQ S-810 wrapping machine

- Formatting of the paper overhang at flat laminating
- For L, inlay (U), and roof profiles
- Finish processing of the edges
- Units for grooving trimming etc.

LAMTEQ F-300 completeLine

Unbeatable: With our LAMTEQ F-300 completeLine, the unprocessed chipboard is formatted, the longitudinal edges profiled and finished, the surface is laminated and the edges are wrapped in a single throughfeed. The chipboard is then cut with a diagonal saw and, where required, the panels divided in the middle. The surface is bonded with hot-melt

glues. All common edge profiles can be executed, from a simple L profile to a U profile, with butt joint for coating from below. Thanks to the high system availability, our LAMTEQ F-300 completeLine can be easily integrated into highly automated total production systems.



5 Diagonal saw

- Separating device for separating the workpieces in a laminated strand
- Deviding of the panel in the center

7 SAWTEQ C-700 separating double-end profiler

- For central division of the workpieces when laminated in double-width (e.g. side panels of a cabinet)
- Further processing via a groove trimmer

6 TFR 560 ejection station

- For ejecting scrap parts and workpieces with faults
- Ejection at production speed
- Can be extended with a check point

8 STACKTEQ C-500 destacking

- Multi-track destacking of workpieces
- Up to 36 parts/minute

Excellent workpiece quality

- No glue joints
- Decorative film on the surface and edges with no joint
- Closed, secure filling of the edge cavities
- Integrated edge sealing with no post-processing
- Flawless edge finish
- Greater impact resistance on the edges

Excellent efficiency

- 25 – 30% cost saving due to cheaper raw materials and more economic process
- Shortened production times thanks to a minimum performance increase of 35% compared to known wrapping processes
- Short amortization time
- Change of decorative films without interruption
- High system availability
- Low space requirement
- Low storage

Easy to get. And easy to use.

tapio is the open wood industry ecosystem

This means that everyone involved in the wood industry can participate.
Because together with our business partners, we develop digital solutions for everyone.



Just have a try:

Free use of the MachineBoard app! Just register under tapio and „connect“ the machine www.tapio.one. The complimentary usage is limited in time.

Apps that make working life easier

tapio

Partner

DataSave

- Protects machine and configuration expertise
- Faster service for machine breakdowns
- Saves time when restarting production
- Saves on maintenance costs
- Automatic backups of several machines

ServiceBoard

- Create service cases quickly and easily and send them to the correct service partner
- Live video diagnostics to solve service cases with image support
- Video reduces the language and distance barriers
- Also works without a machine connection to tapio (and is therefore ideal for older machines)

MachineBoard

- Push notifications
- Machine data and status can be viewed from anywhere in real time
- Lists of errors, warnings, maintenance tasks and actions
- Displays the remaining time until the next intervention by the machine operator



Free demo for all tapio apps, no registration required. Simply download and test.

Currently available in the EU and Switzerland

(Due to the fast pace of the IT-landscape, the compatibility to the tapio platform is warranted for five years.)

HC LIFE CYCLE SERVICES

Optimal service and individual consultations are included in the purchase of our machines. We support you with service innovations and products which are especially tailored to your requirements. With short response times and fast

customer solutions we guarantee consistently high availability and economical production – over the entire life cycle of your machine.



REMOTE SERVICE

- Hotline support via remote diagnosis by our trained experts regarding control, mechanics and process technology. Thus, more than 90% less on-site service required and consequently a faster solution for you!
- The ServiceBoard App helps to solve tasks in a fast, simple and concrete way. This is achieved by mobile live video diagnosis, automatic sending of service requests or the online spare parts catalog eParts.



SPARE PARTS SERVICE

- High spare parts availability and fast delivery.
- Ensuring quality by predefined spare parts and wear parts kits, comprising original spare parts.
- Identify and inquire for spare parts online under www.eParts.de 24/7, or buy even faster and more comfortably in the new HOMAG Webshop eCommerce.



MODERNIZATION

- Keep your machinery up to date and increase your productivity as well as your product quality, This is how you can meet tomorrow's requirements today!
- We support you with upgrades, modernization as well as individual consultancy and developments.



DIGITAL SERVICES

- ISN (intelliServiceNet) – The new remote service solution of the future! Fast restart of production because the remote service employee has extensive access to relevant physical data.
- intelliAdvice App – provides help for self-help. The preventive solutions proposed in the new App are the combination of our experiences and existing machine data.



SOFTWARE

- Telephone support and consultancy through software support.
- Digitalization of your spare parts via 3D scanning saves time and money compared to new programming.
- Subsequent networking of your machinery with intelligent software solutions ranging from construction to production.



FIELD SERVICE

- Increased machine availability and product quality by certified service staff.
- Regular checks through maintenance / inspection guarantee the highest quality of your products.
- We offer you the highest availability of technicians in order to reduce downtimes in case of unpredictable troubles.



For you more than...

1,350

service employees worldwide

90%

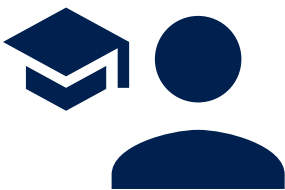
less on-site service thanks to successful remote diagnosis

5,000

customer training sessions per / year

150,000

machines, all electronically documented in 28 different languages – in eParts



TRAINING

- Thanks to training perfectly suited to your requirements, your machine operators can optimally operate and maintain the HOMAG machines.
- The training also include customer-specific training documents with exercises proven in practice.
- Online training and webinars. Learn without traveling, meet your trainer in the digital classroom.

HOMAG Group AG

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YOUR SOLUTION