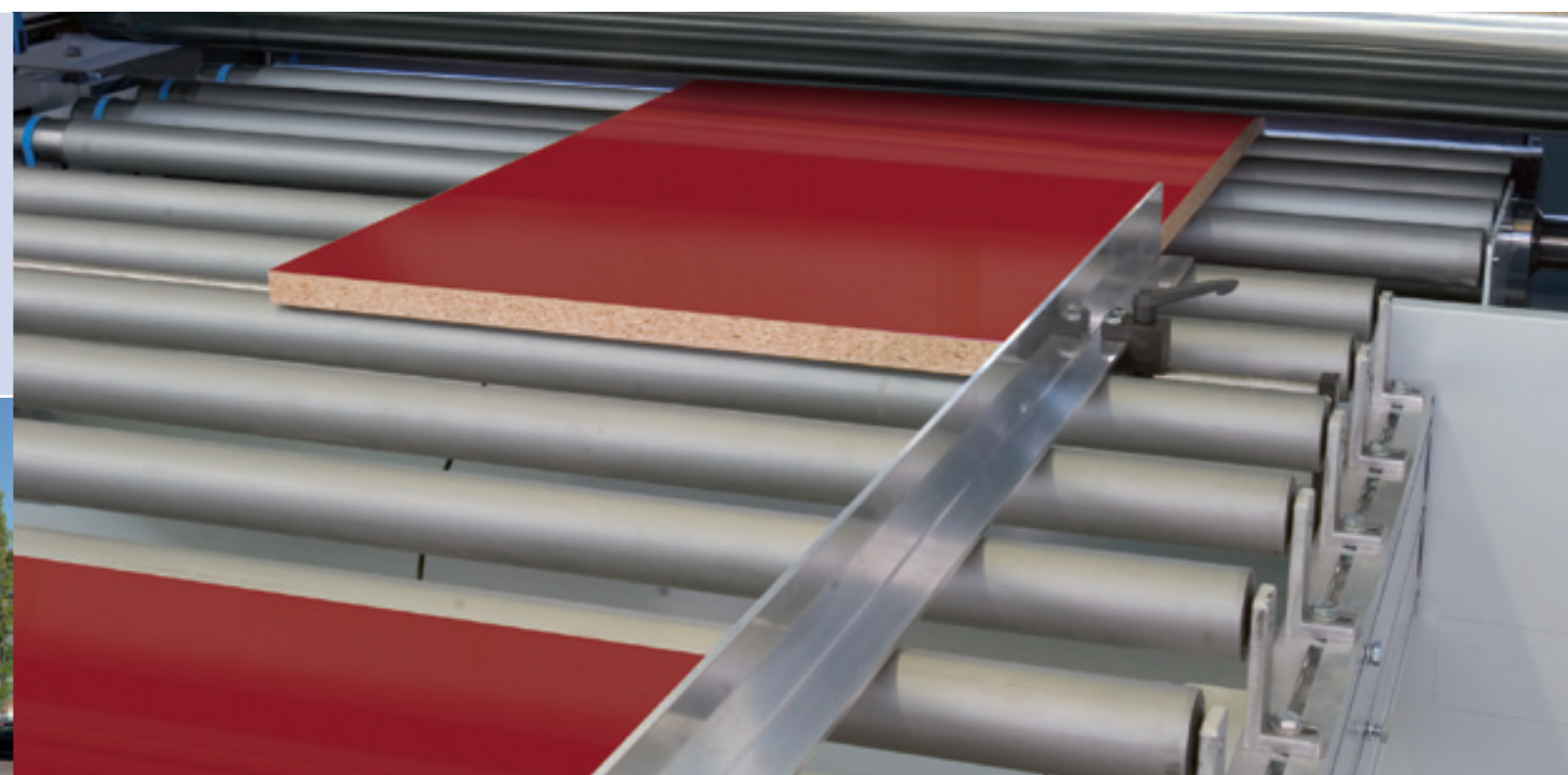


Compound and lightweight panel machines



A company of the HOMAG Group



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Innovative machine concepts for the production and coating of compound and lightweight panels

In order to meet the special demands of the individual customers regarding surface quality, glueing quality, constructional requirements or required capacities, TORWEGGE has created a modular system which can meet nearly every customer demand.

TORWEGGE provides solutions for the production of furniture elements, kitchens, doors, window shutters, insulating panels as well as for the booth and store construction and suppliers. The machines of the PWR series are suitable for the production of batch size 1 up to demanding serial production.

From the entry level model PWR 100 up to industrial large-scale plants TORWEGGE offers the appropriate solution for every requirement. Various automation levels of the plants for stacking as well as layer feeding allow to design customer-specific plants with a high performance potential.

A later capacity increase is possible on account of further modules or machine components, such as e.g. belt presses or double calenders. Moreover, the integration into existing systems, such as multi-storey presses can be realized without problems.



Fence guide for accurate positioning of the workpieces on the machine for an exact processing result



Top picture:
Motorized positioning rack for material storage and simplified positioning of workpieces

Bottom picture:
Sword brush in front of the glue application to clean the workpieces for a high quality of the final product

Diversity without limits: one machine – processing materials of any kind

The high flexibility of the TORWEGGE compound and lightweight panel machine provide a large combination of different materials for the panel production or the coating of carrying materials.

The basic panels may consist of wooden materials, such as chipboard, MDF-panels, plywood, OSB-panels or many other materials. However, styrofoam, foamed panels, PUR-carriers, aluminium cores or hexagonal paper honeycombs can also be used as central layers.

Electronic thickness measuring system in automated production for individual material thicknesses in one passage



One glue for a comprehensive material mixture

Same as for the carrying materials, the respective coatings of the panels can be of different materials.

The TORWEGGE machines allow to glue the basic carriers with, for example, aluminium sheet, thin steel plate, plumb, different plastics or coating with HPL or CPL already now in a very economic and highly efficient way.

A PUR hotmelt glue is used to glue the individual components.

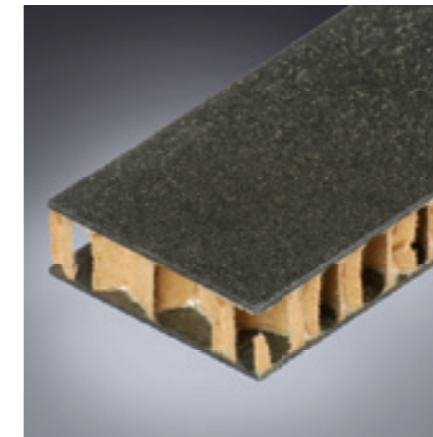
As the application of the glue can be regulated, the TORWEGGE machines provide excellent results. The glueing leads to very smooth and quiet surfaces, as the PUR glue is a reactive glue and no dispersion glue.

This is an essential feature for the production of high-quality fronts, for example, with high-gloss material.

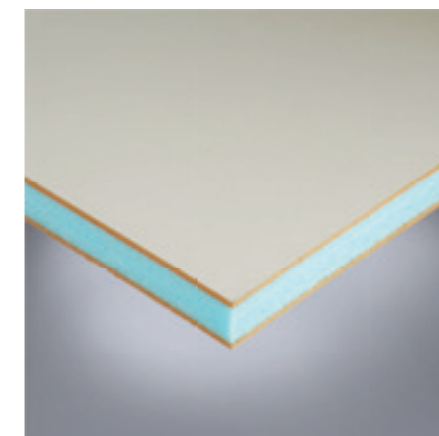
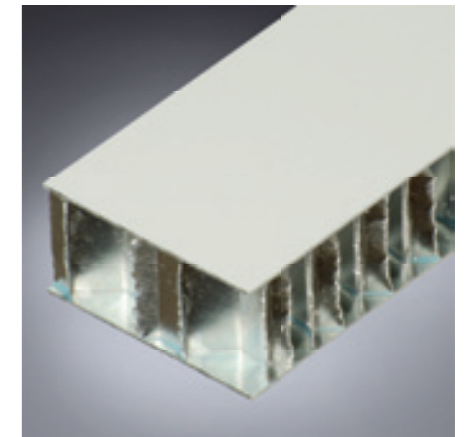
Paper honeycomb with MDF layer



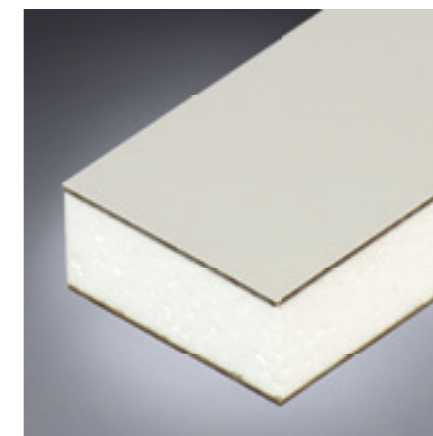
Paper honeycomb with plastic layer



Aluminium honeycomb with aluminium layer



Insulating material with MDF layer



Styrofoam insert with aluminium layer



Tubular chipboard with HPL layer

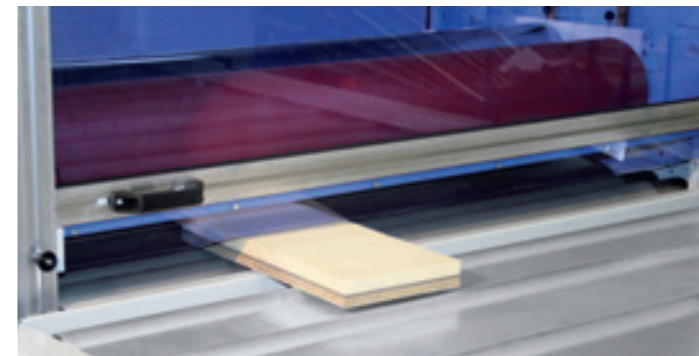
Future-oriented lightweight technology for handicraft business and industry

The PWR 100 is a machine which allows a cost-efficient and flexible production of compound and lightweight panels. The optimum price-performance ratio of this machine ensures an economic entry as well as an efficient production of the compound and lightweight panels.

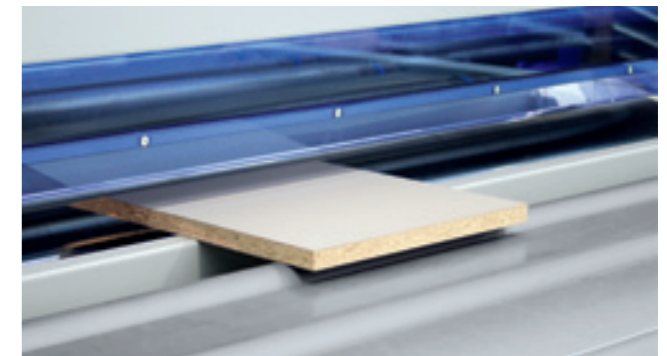
The basic machine consists of the following components:

- Driven infeed transport
- Glue application unit
- Panel positioning section with driven roller conveyor
- Single-sided glue application from top
- Pressing calender as well as driven outfeed transport
- Frequency-controlled regulation roller drive
- Outfeed device for glue application

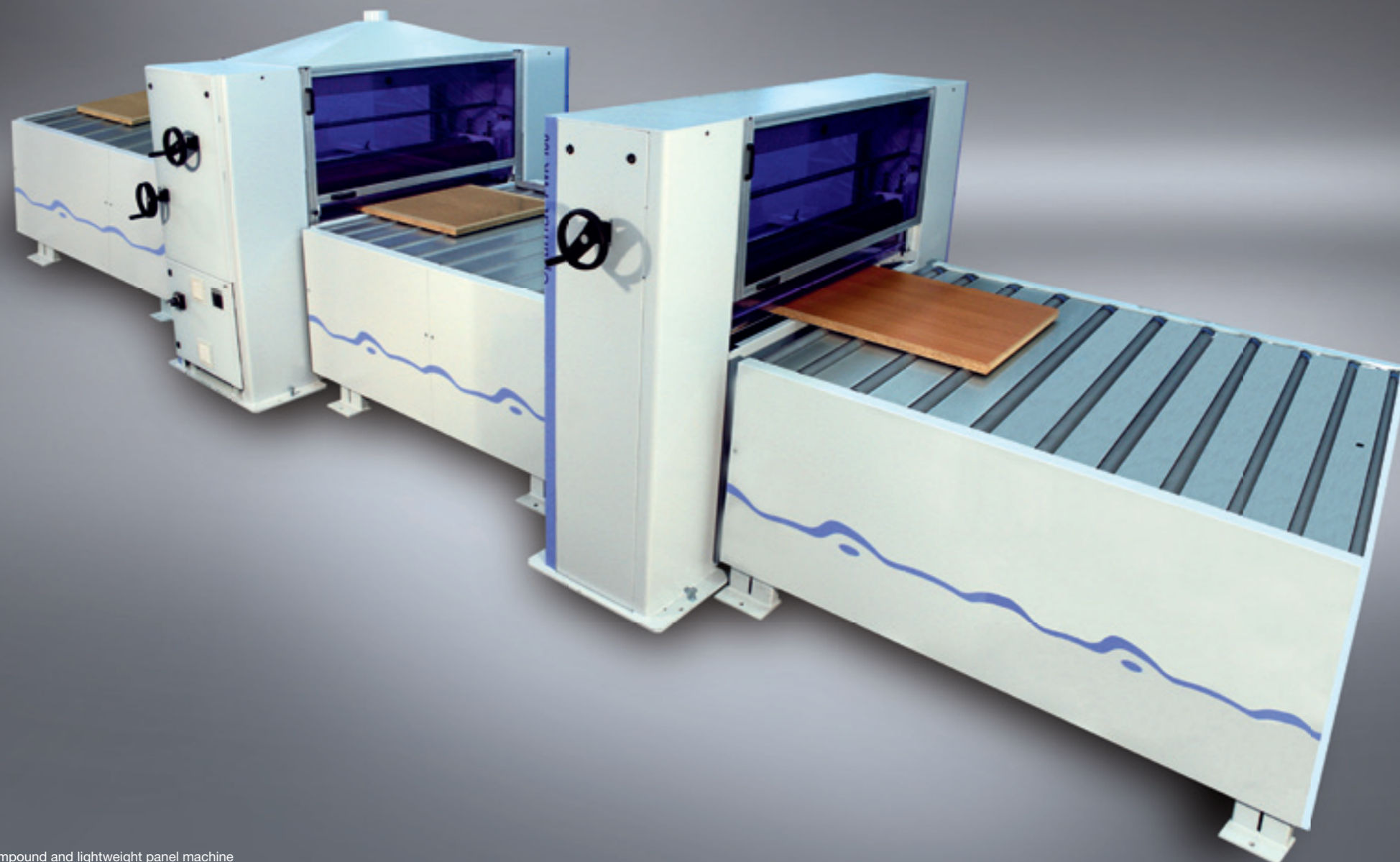
Compound and lightweight panel machine PWR 100



Safe production by protection hoods at the glue application



Protection hoods at the pressing calender for optimum safety



The modular design of the Optimat PWR 100 provides a sensible and efficient use of the options according to customer's requirements:

- PLC control
- Pre-heating for carrying panels
- Sword brush to clean the carrying panels
- Barrel melting units (20 or 200 litres)
- Turning device at the outfeed
- Returning device of the workpieces
- Motorized positioning rack

These options allow a customer-specific design of the Optimat PWR 100.

Technical Data	
Workpiece dimensions	Length: 800 - 2.500 mm (option 3.000 mm) Width: 200 - 1.300 mm, Thickness: 3 - 80 mm
Working height	approx. 950 mm
Heating power	9 kW
Feed speed	20 m/min.
Control side	right hand side

Technical data are not binding in every detail. We specially reserve the right to modifications in the course of further developments. Special dimensions on demand.

Automated compound and lightweight panel production

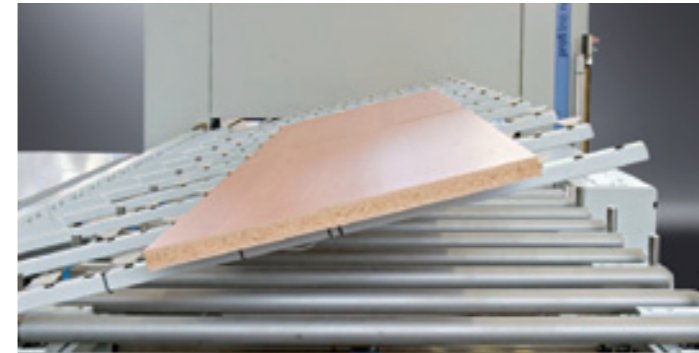
The profiLine PWR 500 is a machine with single-sided glue application which allows a low-cost and economic production of compound and lightweight panels with different production methods and design versions.

The basic machine consists of the following components:

- Driven infeed transport
- Glue application unit
- Positioning section with driven roller conveyor
- Pressing calender as well as driven outfeed transport
- Frequency-controlled regulation roller drive
- Single-sided glue application from top

The large variety of efficient options allows to design and automate the PWR 500 according to the production requirements.

Compound and lightweight panel machine profiLine PWR 500



Servo-driven turning device for turning and stacking of workpieces



Regulation and application roller with special sealing system for an efficient and clean production



In this product line it is possible to equip the machine with a double-sided glue application which applies the PUR glue on both sides of the carrying panel.

By means of this production method, the compound and lightweight panel is produced in one passage and directly stacked after the pressing without any further processing.

Technical Data	
Workpiece dimensions	Length: 600 - 4.500 mm, Width: 200 - 2.200 mm Thickness: 3 - 100 mm, Option: 350 mm
Working height	approx. 950 - 1.200 mm
Capacity	1 - 6 pcs/min.
No. of layers	2 - 7 layers/pc
Glue types	PUR glue, PVAc glue, UF glue

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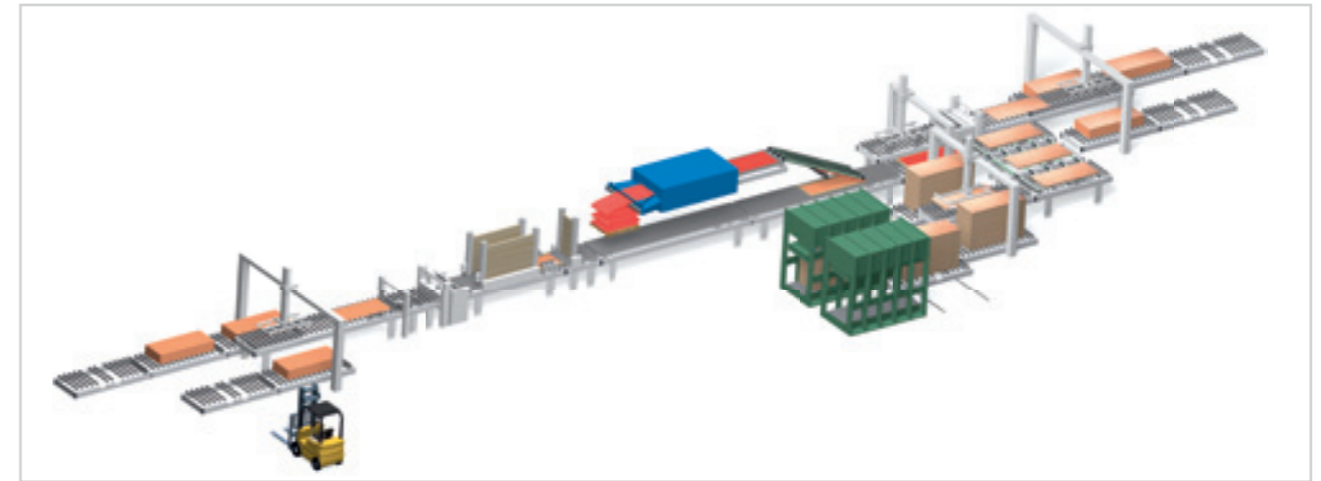
Compound and lightweight panel systems with automation

According to the requirements and desired capacities TORWEGGE compound and lightweight panel machines can be automated in different ways. The automation systems can be adjusted to the required capacities or to the conditions and dimensions of the products to be manufactured.

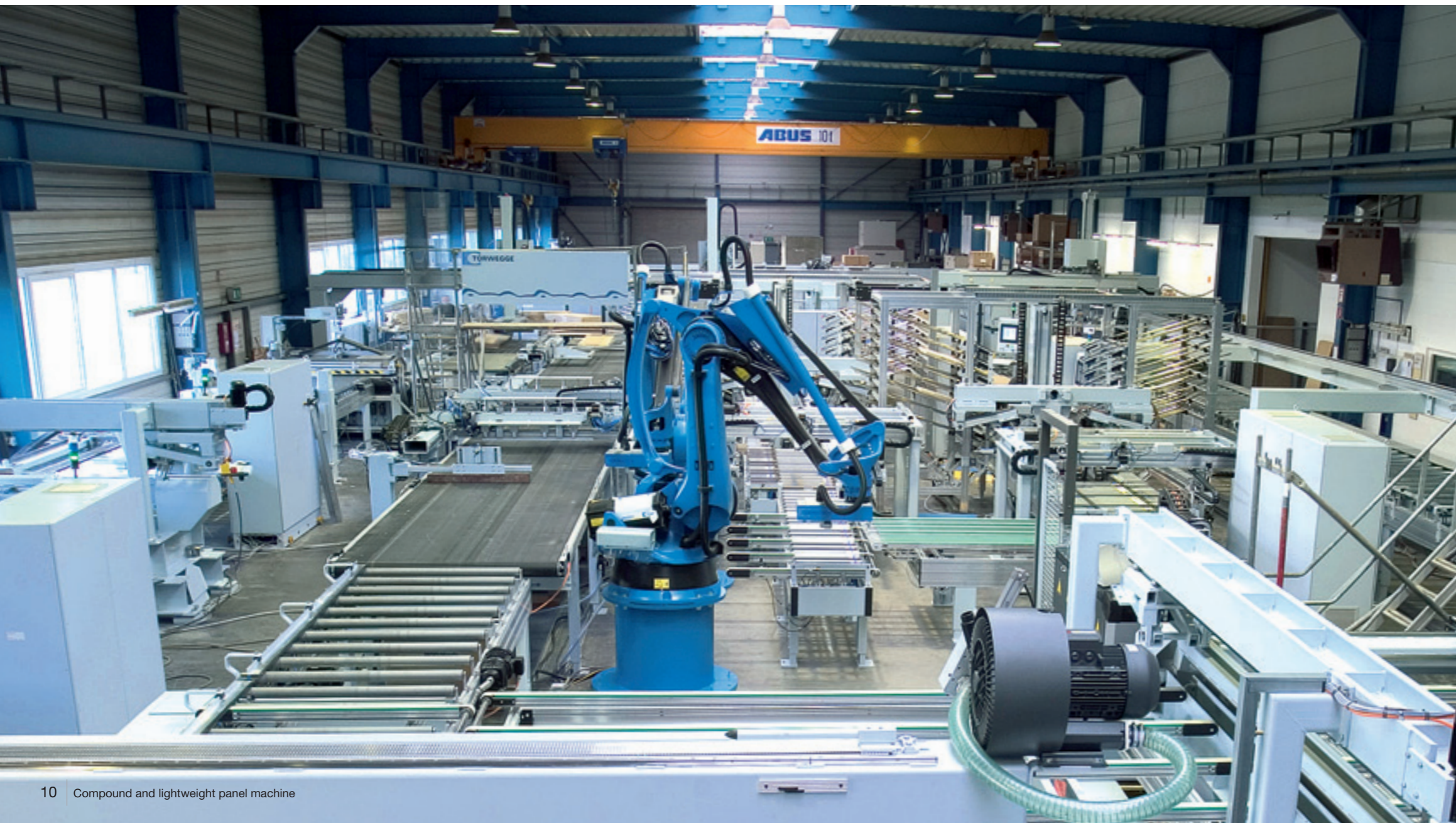
The following components are possible:

- Thin panel feeding for top and bottom layers
- Vacuum feeding systems for top/bottom layers
- Feeding systems for central layers
- Automatic turning systems to place layers on central layers
- Robot for rail positioning
- Feeding systems for manual positioning for central layers or top/bottom layers
- Return systems
- Workpiece stacking designed as turning unit or with vacuum suction elements
- Automatic barrel melting unit

Fully automatic compound and lightweight panel plant with automatic rail magazine and frame positioning station for the production of door leaf blanks



Fully automatic production line for the production of compound and lightweight panels with longitudinal and cross rails on the basis of PVAc glue



As all components of the automated production lines are included in a modular construction system, customer-specific dimensions as well as many different machine equipments are possible.

The aim of these complex and very efficient production lines is to combine several individual steps, for example for the production of door leaf blanks, in one machinery line. As a result, the handling and administration logistics are reduced to a minimum and a considerable cost reduction can be reached.

Technical Data	
Workpiece dimensions	Length: 600 - 4.500 mm, Width: 200 - 2.200 mm Thickness: 3 - 100 mm
Working height	Approx. 950 - 1.200 mm (depending on machine configuration)
Capacity	1 - 6 pcs/min. (depending on machine type and configuration)
No. of layers	2 - 7 layers/pc (depending on workpiece specification)
Glue types	PUR glue, PVAc glue, UF glue (depending on machine configuration)

Technical data are not binding in every detail. We specially reserve the right to modifications in the course of further developments. Special dimensions on demand.