Competence in LAMINATING

Ideas that bond.
Since 1949, we have been writing internationally successful machine history when it comes to subject of bonding, coating, pressing, or molding.

We welcome the opportunity to convince you – visit us at our facility and take the opportunity to find the most suitable solution for you in our Competence Center.

As a family owned enterprise, we see the commitment to combine tradition and innovation – let’s bond!

Welcome to the world of MEYER machines. We appreciate your interest in our products, system solutions, and services.

Foundation: 1949
Production area: 15,000 m²
Employees: 170
### FUSING
- Continuous fusing machines
  - RPS series
    - L
    - E1
    - E2
    - E2 Leather
    - E4
- Discontinuous fusing machines

### LAMINATING
- KFK series
  - C
  - E, EL, X
  - XL
  - P
  - V
  - L
- Options
  - Tensile stress control
  - Ascending batch winder
  - Big batch winder
  - Electric winder
  - Handling systems
  - Material storage
  - Cross cutting device
  - Longitudinal cutting device
  - Edge trimming

### SCATTERING
- PST series
  - Powder scattering
  - Coating line
- Options
  - See brochure "Scattering"

### PRESSES
- System
  - Thermo-molding
  - Thermo-stamping
  - Thermo-consolidation
  - Thermo-transfer

### LAMINATING
- Options
  - See brochure "Fusing"

### SERVICES
- After sales service
- Competence Center for customer trials
- Contract manufacture
- Contract laminating
The materials to be laminated are gently heated – the individual lengths of the heating zone achieve an optimal bonding with strong adhesive strength. After heating up the material, it is pressed by means of calander rollers or, per request, calibrated to a defined thickness. Additional stabilization is reached by the cooling process inside the machine. Because of high precision workflow, flat passing, as well as precise height adjustments high-strength blanks up to a thickness of 150 mm can be laminated.

Our flatbed laminating machines are continuously working, double belt presses with integrated contact heating and contact cooling.

We look forward to advising you on the make-up of your machine as well as on the selection of your bonding materials – together we will find the optimal solution in our in-house Competence Center.
With our lamination system solutions, we normally use thermoplastic adhesives as they provide a simple, environmentally friendly and, for almost any application, usable solution. In addition to environmental and health aspects, recyclability, purity of variety or fogging become an important matter. Depending on the individualized specifications, alternative adhesive systems such as reactive adhesive can be run with our machines.

There are four types of adhesives which can be used for composite production:
- Thermoplastics
- Reactive adhesions
- Self-adhesive systems
- Solvent adhesives

Types of appearance:
- powder
- dispersion, paste-like, or fluid
- webs, nets, or films
- thermo-liquefied granules or block shapes
The heating zones are normally equipped with electric heating elements but can be optionally designed as an oil heating system for high-precision temperature control.

Established and proven modular design of the KFK series allows machine widths between 400 mm (15.7”) and 3,100 mm (122.0”).

Our heating modules are designed as „Quick Change“ modules (precisely manufactured aluminium elements with special surface coating) for time and cost-effective exchange.

The heating arrangement is characterized by three central zones flanked by three edge zones (EZ). This is the same for top and bottom heating systems resulting in 18 control zones for optimal temperature control.

Our heating and cooling system consist of individually spring-mounted elements adapting perfectly to the material to be laminated thus assuring a homogeneous heat transfer.

Depending on heat requirements, we offer:

- Interval heating system (a.),
- Contact heating system (b.) or
- Contact PLUS heating system (c.).

The heating zones are normally equipped with electric heating elements but can be optionally designed as an oil heating system for high-precision temperature control.

Our heating modules are designed as „Quick Change“ modules (precisely manufactured aluminium elements with special surface coating) for time and cost-effective exchange.
Constructive skills with the experience of over 6 decades of machine development and implementation have solidified our reputation as a reliable machine manufacturer worldwide. Our in-house developed and partly patented modular solutions are characterized by longevity and, just in case, by easy and time-optimized exchangeability. This proverbial MEYER quality ensures our customers economical use of their machinery.

The top belt unit is adjusted precisely by means of motorized spindles in order to adapt the gap between the belts perfectly to the material to be laminated. In addition, the pressure and level of the top pressure roller can be adjusted for perfect calibration results.

The top belt unit is adjusted precisely by means of motorized spindles in order to adapt the gap between the belts perfectly to the material to be laminated. In addition, the pressure and level of the top pressure roller can be adjusted for perfect calibration results.

Stable and steady run of conveyor belts

Top: chain guided conveyor belts as reliable solution allowing the installation of very thin belts

Bottom: proportionally tracked conveyor belts for easy belt change
Compact solutions with the skills of the Great

The system KFK-C is optimally suitable to laminate multilayer materials. Textiles, textile-like and flexible materials as well as rigid blanks with a thickness up to 50 mm can be processed without any difficulties. As a result of an integrated cooling system, materials may also be coated.

Furthermore, this machine is suitable to calibrate voluminous materials on account of the 4-fold height adjustment and adjustable calibration rollers. Adjustable sloped inlet.

The installation of endless belts is possible. The belts are proportionally tracked resulting in minimal cross movements.

Technical data:

<table>
<thead>
<tr>
<th>Width (mm)</th>
<th>1,100</th>
<th>1,500</th>
<th>1,900</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height adjustment</td>
<td>quadruple, 0 to 50 mm (1.96&quot;) manual</td>
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<tr>
<td>Heating zone Interval (mm)</td>
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<tr>
<td>Cooling zone Interval (mm)</td>
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</tr>
<tr>
<td>Running speed (m/min.)</td>
<td>1 to 15</td>
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</tbody>
</table>

Versions

- Integrated heating and cooling zone
- Only with heating zone
- Only with cooling zone
Flatbed laminating machine KFK-E

Designed in sturdy frame construction, we install separately spring-mounted elements, large roller diameters for precise pressure and combine chain guided, servo-driven conveyor belts.

The height adjustment as well as level adjustments of the top pressure roller is motor-controlled by means of a precisely adjustable lifting spindle. All relevant parameters can be set and controlled via proven SIEMENS touch control.

The solid solution for multi-purpose use

Heating register

Cooling register

Technical data:

<table>
<thead>
<tr>
<th>Width (mm)</th>
<th>1,100</th>
<th>1,300</th>
<th>1,500</th>
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<table>
<thead>
<tr>
<th>Height adjustment (mm)</th>
<th>0 to 150 mm (5.90&quot;)</th>
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<table>
<thead>
<tr>
<th>Heating zone (mm)</th>
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<tr>
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<tr>
<td>Control zones (number)</td>
<td>18</td>
</tr>
<tr>
<td>Running speed (m/min.)</td>
<td>0.5 to 30</td>
</tr>
</tbody>
</table>

Options:

- Endless belt
- Length of loading belt
- Chilled pressure rollers
Higher energy input for increased demands

**Flatbed laminating machine**

Designed in sturdy frame construction, we install separately spring-mounted elements, large roller diameters for precise pressure and combine chain guided, servo-driven conveyor belts. The reliable and powerful heating system can be designed in three different versions of heating capacities.

The 18 control zones are electrically heated. For optimal energy conservation, heating and cooling sections are insulated. The height adjustment as well as the level adjustment of the top pressure roller is motor-controlled by means of a precisely adjustable lifting spindle. All relevant parameters can be set and controlled via proven SIEMENS touch control.

**Technical data:**

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<thead>
<tr>
<th>Width (mm)</th>
<th>1,100</th>
<th>1,300</th>
<th>1,500</th>
<th>1,700</th>
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<td>2,500</td>
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<tr>
<td>Height adjustment</td>
<td>0 to 150 mm (5.90&quot;)</td>
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<tr>
<td>Heating zone (mm)</td>
<td>2,300</td>
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<tr>
<td>Cooling zone (mm)</td>
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<td>Control zones (number)</td>
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<td>Running speed (m/min.)</td>
<td>0.5 to 30</td>
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**Options**

- Length of loading belt
- Chilled pressure rollers
- Adjustable pressure system for heating and cooling zones
Flatbed laminating machine KFK-X

The combination of a reliable and powerful heating system with an effective cooling system allows processing of challenging materials with increased cooling demand.

The height adjustment as well as the level adjustment of the top pressure roller is motor-controlled by means of a precisely adjustable lifting spindle. All relevant parameters can be set and controlled via proven SIEMENS touch control.

Heating and cooling in perfect balance

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### Technical data:

<table>
<thead>
<tr>
<th>Parameter</th>
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<td>Height adjustment</td>
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<td>Heating zone (mm)</td>
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<tr>
<td>Cooling zone (mm)</td>
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<tr>
<td>Control zones (number)</td>
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<tr>
<td>Running speed (m/min.)</td>
<td>0.5 to 30</td>
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### Options

- Length of loading belt
- Chilled pressure rollers
Skills in new dimensions

We meet the increasing demands of long heating and cooling zones as well as large widths with large-sized drive rollers.

Belt’s tension is generated either by means of springs or hydraulics. Belt control is carried out either by means of chain guidance or proportionally controlled belts.

Technical data:

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<th>Width (mm)</th>
<th>1,100</th>
<th>1,300</th>
<th>1,500</th>
<th>1,700</th>
<th>1,900</th>
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<th>2,300</th>
<th>2,500</th>
<th>2,700</th>
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<th>3,100</th>
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<td>Height adjustment</td>
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<tr>
<td>Heating zone (mm)</td>
<td>3,000, extendable in 1,500 mm increments</td>
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<tr>
<td>Cooling zone (mm)</td>
<td>1,500, extendable in 1,500 mm increments</td>
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<td>Control zones (number)</td>
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<tr>
<td>Running speed (m/min.)</td>
<td>0.5 to 30</td>
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Options

- Extension heating/cooling zone
- Chilled pressure rollers
- Adj. pressure system for heating and cooling zones
- Add. calibration roller modules
- Sep. height adjustment of modules

Versions

- Integrated heating and cooling zone
- Only with heating zone
- Only with cooling zone

Flatbed laminating machine

Designed in sturdy frame construction, we install separately spring-mounted elements, large roller diameters for precise pressure and combine chain guided, servo-driven conveyor belts.
High-pressure double-belt press KFK-P

This precise system development represents the processing of organo sheets, fiber reinforced composites, and composites. Due to the consistent design for high pressures and high temperatures as well as the modular design, this is the economical alternative to the traditional steel belt lines.

Technical highlights are coated steel elements, hydraulic belt tension, hydraulically generated high pressure by means of pressure rollers, and pneumatic surface pressure onto the material to be laminated.

Heating and cooling elements made of steel transfer significantly higher forces onto the material to be laminated than conventional standard machines.

Highest pressures at high temperatures

Technical data:

<table>
<thead>
<tr>
<th>Width (mm)</th>
<th>Working width (mm)</th>
<th>Length heating module (mm)</th>
<th>Length cooling module (mm)</th>
<th>Heating power / module (kW)</th>
<th>Temperature max. (°C)*</th>
<th>Line pressure of rollers max. (N/mm), rubber-coated</th>
<th>Surface pressure of rollers max. (N/cm²), rubber-coated</th>
<th>Pressure 800 mm zone max. (N/cm²)</th>
<th>Pressure in all 4 zones max. (N/cm²)</th>
<th>Total pressure max. (N/cm²)</th>
<th>Height adjustment</th>
<th>Dimensions L x W x H (mm)</th>
<th>Weight approx. (kg)</th>
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</thead>
<tbody>
<tr>
<td>1,100</td>
<td>1,500</td>
<td>1,900</td>
<td>70 (70)**</td>
<td>6 (6)**</td>
<td>300</td>
<td>260 (260)**</td>
<td>3.6</td>
<td>10</td>
<td>10</td>
<td>14.6</td>
<td>0 - 150 mm (5.90&quot;)</td>
<td>6,300 x 2,600 x 2,350</td>
<td>19,000</td>
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<tr>
<td>1,000</td>
<td>1,400</td>
<td>1,800</td>
<td>70 (70)**</td>
<td>6 (6)**</td>
<td>300</td>
<td>260 (260)**</td>
<td>3.6</td>
<td>10</td>
<td>10</td>
<td>14.6</td>
<td>0 - 150 mm (5.90&quot;)</td>
<td>6,300 x 3,000 x 2,350</td>
<td>22,000</td>
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<tr>
<td>1,500</td>
<td>1,500, extendable in 1,500 mm modules</td>
<td>1,800, extendable in 1,500 mm modules</td>
<td>70 (70)**</td>
<td>6 (6)**</td>
<td>300</td>
<td>260 (260)**</td>
<td>3.6</td>
<td>10</td>
<td>10</td>
<td>14.6</td>
<td>0 - 150 mm (5.90&quot;)</td>
<td>6,300 x 3,400 x 2,350</td>
<td>25,000</td>
</tr>
</tbody>
</table>

*Max. working temperature for PTFE coated belts: 250°C
**Max. pressure using double shell pressure rollers
The patented solutions for vacuum lamination

Flexible thin films, functional textiles or composites – even with height differences in the material to be laminated – are processed in each of the 5 zones under vacuum conditions avoiding air pockets in a continuous production process in an effective and energy-saving way.

Optimal laminating results ensure the zones, separately adjustable in vacuum and temperature, which are individually designed as heating or cooling zones depending on the specifications. Additionally, they can be equipped with IR heating elements.

Technical data:
- Working width (mm): 800
- Temperature max. (°C): 250
- Pressure / zone max. (bar): 0.8
- Pressure in all zones max. (bar): 3.5
- Length / zone (mm): 800
- Length of all zones (mm): 4,000
- Thickness lamin. mat. max. (mm): 5
- Running speed (m/min.): 0.1 to 7
- Heating power (kW): 170
- Dimensions L x W x H (mm): 5,000 x 2,500 x 1,700
- Weight (kg): 7,000
We developed this laboratory laminating machine for smaller sizes as well as for manageable volumes. This stand-alone version represents a compact solution with one heating zone, equipped with separately spring-mounted elements and an integrated cooling zone.

Small system solution – modular add-ons

The level of the pressure rollers as well as the pressure are individually manually adjustable. Steady guided conveyor belts and the intuitive operator guidance by means of the proven SIEMENS control represents new quality for laminating machines.

Technical data:
- Width (mm): 400, 600
- Height adjustment: 0 to 25 mm (0.98”)
- Heating zone (mm): 470
- Cooling zone (mm): 360
- Running speed (m/min.): 0.2 to 9

Options
- Endless belts
- Adjustable surface pressure

Using extension modules for roll-off and winders, scattering, as well as IR heating fields makes it a complete laminating line.
With experience and conviction, we develop the optimal production lines according to the specifications of the project. Take advantage of our decade-long accumulated know-how.
In our well equipped Competence Center, all relevant parameters to achieve the perfect customer solution can be worked out together with our engineers. On site, we will find the ideal solution together – let’s bond!

- **Thermo lamination of granulates**
  - Granulate scattering device
  - IR heating field
  - Heating zones
  - Winder
  - Cooling zones
  - Roll-off device

- **Lamination with separate cooling unit**
  - Roll-off device
  - Heating zones
  - Cooling zones
  - Flatbed cooling machine
  - Winder
  - IR heating field

- **Powder coating with calander**
  - Roll-off device with material storage
  - Powder scattering device
  - Calander and cooling roller
  - Winder
  - IR heating field
  - Powder scattering device
OPTIONS

Tensile stress control by means of measuring and expander rollers

Ascending batch winder with dancer control of tensile stress

Electric winder with tensile stress control

Automatic filling device for powder scattering device

Big-batch winder with dancer control of tensile stress
For perfect production arrangement

Our in-house developed modules and optional components increase the safety, economic efficiency and relieve the operator as far as possible.

It is our goal to develop together with you, the ideal and most efficient configuration for your laminating application. We take pleasure in comprehensively advising you – just let us know your preferences.

**MODULES**

- Edge trimming with adjustable width
- Powder scattering device with IR heating field
- Longitudinal cutting device
- Cross cutting device, moving, with circular or pulling knives
System solutions for bonding technique for
- Garment industry
- Textile industry (textile lamination, powder coating...)
- Technical textiles (powder coating, impregnation...)
- Automotive interior and acoustics
- Composites (honeycomb sandwich sheets, fiber reinforced composites...)
- Medical (consolidate, calibrate, membrane foil coating...)

Together we are able to configure your ideal machine concept during free initial trials. Visit our Competence Center.

We look forward to the challenge.