



High-efficiency Machines and Lines for the Production of Floor Coverings



OLBRICH

Create intelligent solutions.



Efficiency for your Production.

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www.olbrich.com/floorcoverings

Floor Covering Industry

High-efficiency Machines and Lines for the Production of Floor Coverings

More than 60 years of experience and our own pilot plant have made Olbrich the first choice when it comes to production lines for flexible floor coverings. The first 4 m and 5 m wide coating line for heterogeneous PVC coverings worldwide and the introduction of the consistent inline production – from the substrate up to the ready-to-sell packaged roll – are only a few of the groundbreaking milestones we have set for the floor covering industry.

For the efficient production of flexible floor coverings, Olbrich is your competent partner for all process steps today: from the product structure and the surface finishing all the way up to converting the product into a roll ready for sale.

Our Customers' Products

- Heterogeneous floor coverings
- Homogeneous floor coverings
- CV flooring
- Safety flooring
- Acoustic flooring
- Sports flooring
- Design flooring / LVT
- PVC-free flooring
- VCT
- Linoleum
- Rubber flooring



Inline Production Technology

From the substrate to the ready-to-sell, packed roll, today all production steps are combined in complex Inline-processes. The processing of working widths of 2 m, 4 m and even 5 m is realised inline on Olbrich Machines. Applying this technology the availability of the line and thus also the overall efficiency are considerably improved.

The complete product structure is manufactured in a single pass through the line. The continuous production operation is guaranteed by modern machine solutions:

- Quick adjustments of the coating heads with highest-possible repeat accuracy and formulation administration
- Printing line with up to 12 printing heads for quick design changes
- Quick change of embossing tools by turret embossers with 2, 3 or 4 embossing rollers in the machine
- Lacquering units with double heads for a flying lacquer change
- High-efficiency winding and packaging lines for up to 2 rolls/min and / or 4 rolls/min in the case of a production of 2 x 2 m

Line Concepts

- Coating lines
- Printing lines
- Laminating lines
- Embossing lines
- Lacquering lines
- Tempering lines
- Winding and packaging lines
- Complete Inline solutions and factory planning



Coating

- Knife coaters for direct coating. Doctor bar equipped with up to 3 coating knives for shortest-possible changeover times
- Combined knife coaters with additional take-off roller for both direct and indirect coating technology in one machine
- Reverse roll coaters for thin coats and special applications
- Designs with heated rollers and heated knives for the coating of high-viscosity compounds, such as hot melts, APP and, e.g. bitumen for coating the back-side of carpets
- Automatic, motorised gap adjustments by formulation-control systems for excellent repeatability of machine settings
- Paste-feeding systems which can be designed as static system with fixed piping and a quick-change system or as dynamic system with automatic traverse motion

Gelling

- Pre-gelling units with heated gelling drums for a perfectly smooth printing basis
- Operating modes of the pressure contact roller with pressure regulation, gap regulation or both
- Optional with upstream infrared heating fields for optimised impregnation of the substrate and for increased efficiency of the complete system
- With quick-change system for a quick adaptation of the working widths of the pressure roller
- With downstream smoothing / embossing calenders for further surface effects, such as scattered-in design chips or 3-D printing effects
- Housing of the entire machinery for safe operation and extraction of vapours

Printing

- Offline printing lines for high printing speeds
- Inline printing lines with up to 12 printing heads for flying design changes during ongoing production
- Doctor chamber system for reduced ink consumption
- Quick adjustment of working widths by means of a revolving turret for up to 4 impression rollers
- Digital presetting of the registration system
- Latest servo drive technology for each head with integrated registration technology
- High-efficiency drying systems

Drying / Gelling

- Heating of the recirculated air by thermal oil, steam or natural gas
- High precision of air temperature and air speed to achieve perfect drying and foaming results
- Combined or separate upper and lower air control for gelling and fusion of the entire product structure in a single pass through the line
- Customer-specific concepts for the exhaust-air treatment, including heat-recovery technologies
- Specific material-transport systems with belts or rollers throughout the oven
- The original Olbrich roller-conveyer technology for gentle material transport



Laminating

- Line concepts for highest-possible efficiency for multi-layer structures
- Precise temperature control systems for the individual film properties
- Exact control of the nip pressure
- Reliable web guiding and web-tension regulation
- Mechanical surface embossing can be integrated
- Non-stop design changes during the production run
- Short changeover times in combination with automatic winding systems
- Highest-possible repeat accuracy by digital controls and the formulation-control system

Embossing

- Horizontal or vertical web guiding
- Optional embossing or smoothing operations
- Back-side and top-side embossing
- Single-roller or multi-roller embossers as turret embossers for the shortest-possible changeover times
- Temperature-control systems for best-possible energy efficiency
- Operating mode with a pressure-control system, a gap-control system or both

Lacquering

- Coating of the material all over the surface or in register with high-performance lacquer systems as topcoats for the floor covering
- Processing of water-based-, solvent-based- or 100 % solid UV-lacquer-systems
- Application technology for direct and / or indirect coating
- Forward or reverse coating systems
- Twin coating systems for quick product changes
- Specific lacquer-recirculation and -heating systems with integrated cleaning program
- Fully automated gap and pressure control for highest-possible repeatability in combination with formulation-control system

Annealing

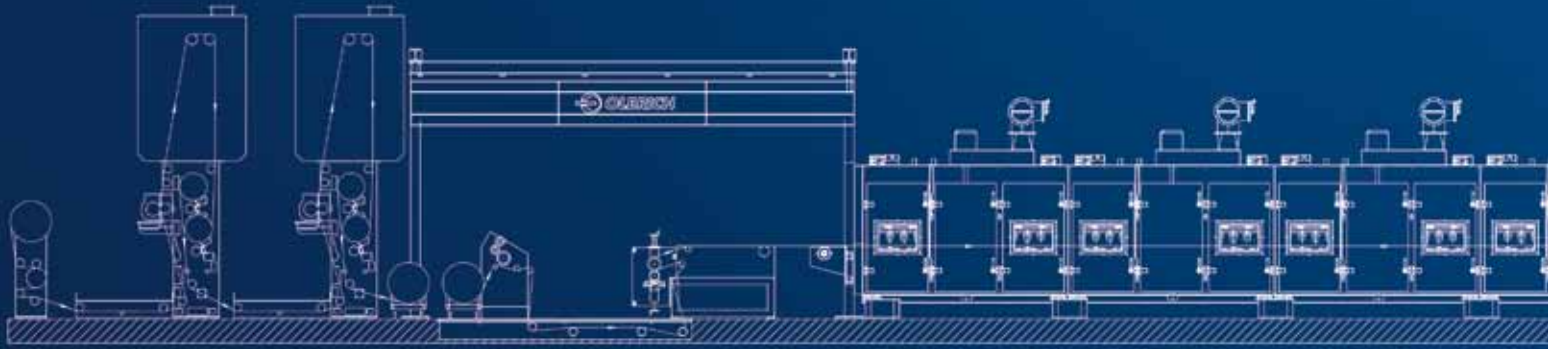
- Design of annealing ovens and product relaxation sections according to individual product requirements
- Relaxation of internal stresses by means of a specific temperature profile
- Maximum heat-transfer rates for highest energy efficiency
- Transport systems for a low-stress material transport

Winding and Packaging

- Inline solutions for highest-possible efficiency; integrated into the main production line
- Offline solutions tailor-made to the customer's specifications
- Fully automated winding machines with automated core insertion and automated start of winding sequence
- Specific winding parameters for web-tension control and perfectly straight roll edges
- Fully automated machine adjustments of the working widths
- Flying changeover from a 4 m production width to a production width of 2 x 2 m
- Optimisation software for cutting scripts and roll lengths
- Fully automated packing lines for craft paper or film wrapping

Drive and Control Technology

- All switch plants are designed and built by Olbrich and thus optimally suit your machines
- With extended formulation functions and formulation administration for quick product changes upon operator's request
- Modernisation of existing or outdated drive and control technology, even of third-party products



Pilot Plant

Realising Innovation – Our Pilot Plant!

➤ You want to know more: www.olbrich.com/pilotplant

To ensure reliable, precise and trouble-free operation of your line from the start, at Olbrich each line is individually tailored to the specific requirements for the production of floor coverings. For this reason we use our pilot plant, because especially for the development of new machine concepts and innovative processes or product ideas it is important for planned investments to gain proven insights on real production conditions.

Apart from a multi-purpose coating and laminating line (material widths up to 600 mm) and a state-of-the-art laminating and embossing line (material widths up to 1,000 mm), our experienced process engineers use comprehensive computer-based simulations and process analyses to help advise you.

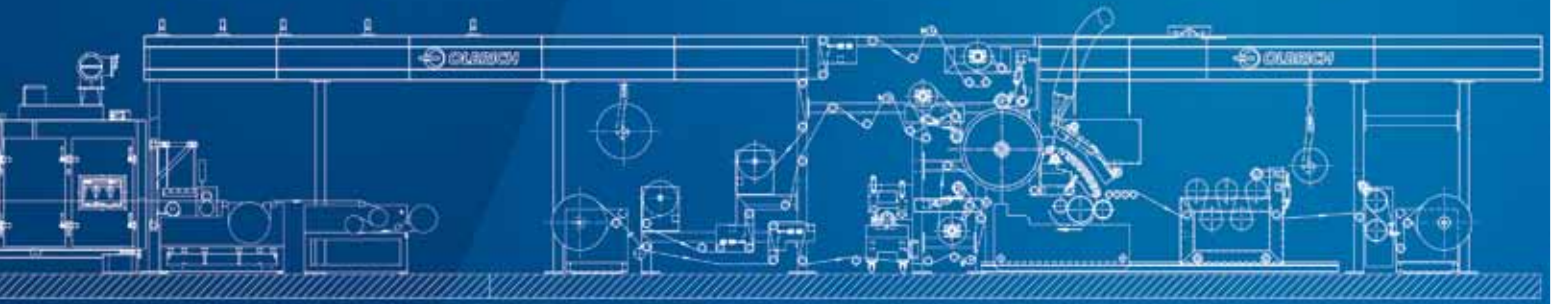
Come, look and see!

Technologies

- Coating processes (RRC, RC, spreading machine and others) for PVC emulsions
- High-efficiency driers with special nozzle design for all coating media
- Material-preserving conveyor belt systems
- Gelling processes by means of a gelling oven or a gelling drum
- Printing processes – gravure and screen printing
- Embossing technology including register-embossing processes
- Lacquering processes (direct and indirect) for water-based systems, solvent-based systems and 100 % lacquer systems
- UV-light curing systems
- Various infrared heating fields for temperature control
- Laminating technology, including multi-layer product structures

Lines

- Multifunctional coating and printing lines, working width: max. 550 mm
- Production-related laminating and embossing line, working width: max. 1,000 mm



Company

Inspiring Engineering – Convincing Technology!

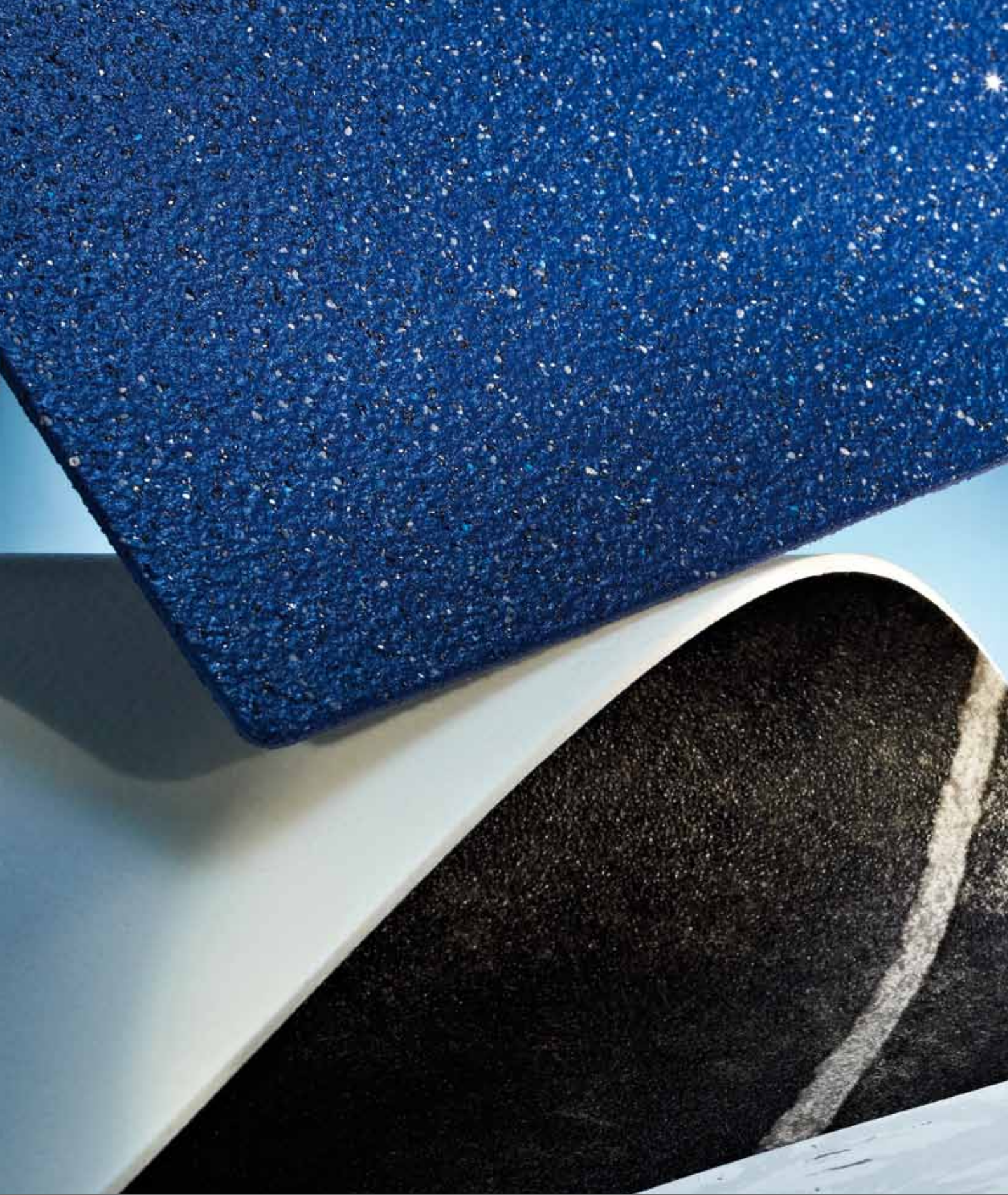
➤ You want to know more: www.olbrich.com/company

Olbrich is your system supplier of intelligent machine and line concepts for the production of web products, such as wallpaper, floor coverings, film, foils and technical textiles. In the course of more than 60 years of experience in widely varying fields of application, our interdisciplinary team of specialist engineers has developed comprehensive technological expertise. This allows us to individually tailor each line to the specific requirements of your intended application – from the engineering through to the manufacturing process and final commissioning. By using our own pilot plant, we are also in a position to combine established technologies to develop new machine concepts or processes resulting in the development of innovative new products that create a competitive advantage.

Please feel free to contact us!

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