

LAUFFER Pressen

Forming your ideas

For over 150 years, LAUFFER has proven that consistent quality and extensive process knowledge prevail in the market. Today, we are among the leading manufacturers of hydraulic presses and equipment in the fields of laminating and composit technology, plastic and wrap technology, forming technology and powder technology. With over 280 dedicated employees, we develop solutions to build presses, making our customers successful worldwide. We are dealing with the thoughts and ideas of our customers and providing solutions for their tasks. Therefore, we are always a reliable partner. We build presses with progress and tradition.

- » Laminating Technology
- » Plastic Processing Technology





Laminating Technology **Plastic Processing Technology Encapsulation Technology**

Forming Technology

Powder Technology

Services

LAUFFER Lamination Technology

Lamination systems for variouse applications

Flexible, fast, efficient

The LAUFFER Lamination Technology Portfolio

RMV-Series

Modular, thermal oil heated lamination systems from stand-alone to fully automatic

RLKV-Series

Modular, electrically heated lamination systems from stand-alone to fully automatic

UVL and UVL/E-Series

Thermo-oil and electrically heated laboratory and small lot production presses

LCL and CLC-Series

Thermo-oil heated twin-stack lamination systems

SLS-Series

Multi-press, short cycle lamination system for single sheet / single tool lamination

SL-Series

Combined roll-to-roll / sheet lamination systems

Automation

Modular and flexible automation solutions encompassing loading / unloading, storages, layup, de-stacking, de-pinning, tool and plate handling, etc.

RMV Series





Press Attributes

Today, LAUFFER PRESSEN lamination systems are being used for a wide range of industrial and R&D applications. Whether in the production of printed circuit boards / CCL base materials or in other thermal bonding and activation processes - the decisive factor for the efficient use of laminating technology is the correct interaction of all core press process parameters such as pressure, temperature, parallelism / evenness, and the potential use of vacuum.

At the very same time, many other factors also determine the ideal concept for your laminating process. Be it energy efficiency, floor space considerations, automation needs and overall capacity- and expansion considerations. LAUFFER PRESSEN offers a wide range of proven processes solutions for established processes as well as technology platforms for new processes requirements.

» Pressure Ranges

Typical pressure ranges from 5 - 2.100 metric tons

- » Platen Formats Typical platen formats ranging from 500x500mm to 1500x1500mm or larger
- » Vacuum Functionality Vacuum function in most press systems with <= 10mBar
- » Flatness / Parallelism Standard +/- 0,05mm. Higher tolerances upon request
- » Temperature ranges Typical temperature ranges until 400°C (thermal oil based) and > 400°C (electrically heated)

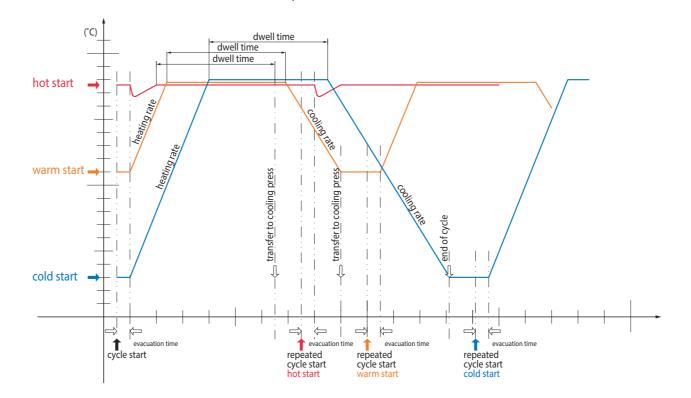
Hot & Cold Lamination Processes

Cold Start

Warm Start

Entire laminating process in the heating press. Generally, this process is used with stand-alone presses or sensitive materials which can only be pressure released on low temperatures due e.g. shrinkage.

Laminate transfer from the heating press to the cooling press at a temperature below the glass transition of the laminate. The advantages are a shorter process time in the heating press and a reduced power consumption. Even extremely

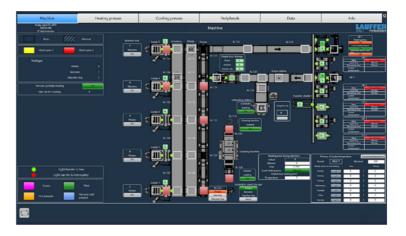


Hot Start

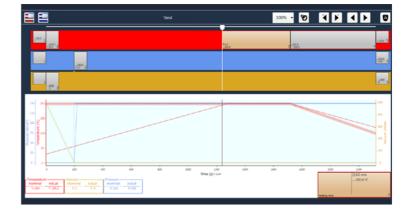
intricate products can be laminated.

Laminate transfer from the heating press to the cooling press at process temperature. Highest productivity in the heating press with lowest power consumption.





LAUFFER Pressen Process and Tool Management has been established and improved based on customer orientated requirements. Small lot sizes, mixed panel formats, short lead-times are only a few of your challenges in the present market. LAUFFER Tool Management is classifying and organizing the work gueue controlled by prioritization, waiting time, batch collection with direct interfaces into your existing MES/ERP system. Process and running history can be added to your data collection and linked directly to the final product.



LAUFFER Pressen Tool Management manages the balance between fast-track prototyping and efficient mass production with the advantage of direct personal interaction.

Key features of the LAUFFER LaHMI press control system with Tool Management

- » Convenient recipe development with event triggered technology
- » Comprehensive process statistics and production tracking including external process / material data (e.g. raw material batch info, presspad info, presspad counter, etc.)
- » Work queue controlled by prioritization, waiting time, batch collection and other variables according to your production demands
- » Direct interfaces into your existing MES/ERP environment
- » Solid hardware infrastructure based on the Siemens S7-1500 eco system

