



# LIGHTWEIGHT PANEL LINES

Wemhöner Lightweight Panel  
Equipment optimises  
your production process.  
Worldwide.



## WEMHÖNER SURFACE TECHNOLOGIES

Technology, quality, innovation – these are the three pillars in the success story of Wemhöner over more than 85 years. Traditionally linked with the wood based panel industry, the furniture industry and their suppliers, around 300 employees produce machines and equipment for value adding of wood based panels.

New technologies are developed at the highest level and quality standards are optimised at the headquarters in Germany, always in close cooperation with the customers. Wemhöner sets standards with its short-cycle and throughfeed press lines, 3D VARIOPRESS® systems, lightweight panel equipment, digital- and direct printing and lacquering equipment. Worldwide.

Wemhöner provides complete system solutions which guarantee optimal production processes and reliable production, due to the perfect combination of technology and the company's decades of engineering experience.

Headquartered in Herford, Germany since 1925: Wemhöner Surface Technologies.





The plant in Changzhou, China.

The international focus and the continuous efforts to create new ideas are the reason for the global success of Wemhöner Surface Technologies. Wemhöner (Changzhou) Machinery Manufacturing was founded in 2006 with the intention to be present in the most important future market for the production of furniture.

Since the summer of 2007 the first factory outside Germany has been in operation. Until today, more than 50 3D Eagle press lines have been produced for the Chinese and international market. In 2008 the first throughfeed press line was built. Short-cycle press lines and lightweight panel equipment expand the portfolio of Wemhöner Changzhou since 2009. As a result of this success in China, the production area was doubled to 6,000 m<sup>2</sup> in 2011.

Due to the headquarters in Europe and its additional facility in China, Wemhöner is well prepared for the future and is able to react immediately on growing trends in established markets, but first of all to break into emerging markets. That makes the state-of-the-art technologies from Wemhöner available for customer's worldwide.





## TECHNOLOGY, DESIGN AND ENVIRONMENT

Design is increasingly gaining importance for the suppliers of the furniture industry. The products must resemble “high end” goods and be functional at the same time. Our society is becoming more and more mobile. Criteria such as easy transport of the product and environmental issues are increasingly influencing the purchasing decisions of buyers.

The lightweight board is environmentally friendly due to the fact that natural resources are being used carefully for its production. This is a very positive aspect considering current levels of rising raw material and energy costs. While the physical and mechanical strength properties are similar to solid panels, the weight is 20 – 80 % lower, making lightweight panels a material of the future in the furniture industry.



Depending on the requirements, various production concepts will be considered. Wemhöner is well represented in all segments, through a wide range of products. Structural demands on the furniture boards such as frames or inserts for fixing elements are realised technically in highly-efficient lines.

Wemhöner Surface Technologies processing lines offer state-of-the-art technology for the continuous production of lightweight panels. Individual components of the line can be integrated into existing production lines or entire production lines can be supplied as well. At the factory in Herford, Germany, all lines are designed and assembled prior to installation and start-up at customers premises. The excellence of Wemhöner lightweight panel lines is displayed by the superior quality of the final good.







## NOT ONLY “LIGHT WEIGHT”

The lightweight panel is ideally suited for industrial production of furniture. It will be cut-to-size and further processed in a later processing step offering the highest level of flexibility.

The skins (top/bottom surfaces) employed are either thin particle board or MDF panels. The surface of the skins can be raw, laminated or lacquered. Whereby the finishing of the surfaces takes place prior to the pressing process. The type of skin varies between 3 and 10 mm in thickness.





## TECHNICAL DATA

### Application:

Lightweight panels in thickness from 16 to 120 mm.

### Products:

Furniture elements and panels, worktops, dividing walls.

### Dimensions:

Pressing area depending on requirements.

For the middle layer a variety of materials can be used such as paper-based honey comb, cardboard-based honeycomb, low density board or foam. The material most widely utilised is hexagonal paper-based honeycomb due to its good price to mechanical strength ratio. Further advantage of the material is the ability of transporting it in a compressed state resulting in low storage volume.

During the production process this middle layer is stretched by a special honey comb stretching device. Once the material is stretched, the adhesive will be applied onto the skins and subsequently the continuous pressing process takes place. After a conditioning phase the lightweight panel will be further processed.

The trend towards furniture and kitchens with thick worktops and other components will increase the demand for light basic materials. Taking this into consideration, Wemhöner lightweight panel lines process panels of up to 120 mm thickness. In order to avoid short-term “fashion trends” Wemhöner Surface Technologies offers the flexibility of processing lightweight panels in standard thicknesses such as 19 mm.

## A GLIMPSE OF THE FUTURE

## **Wemhöner Surface Technologies**

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