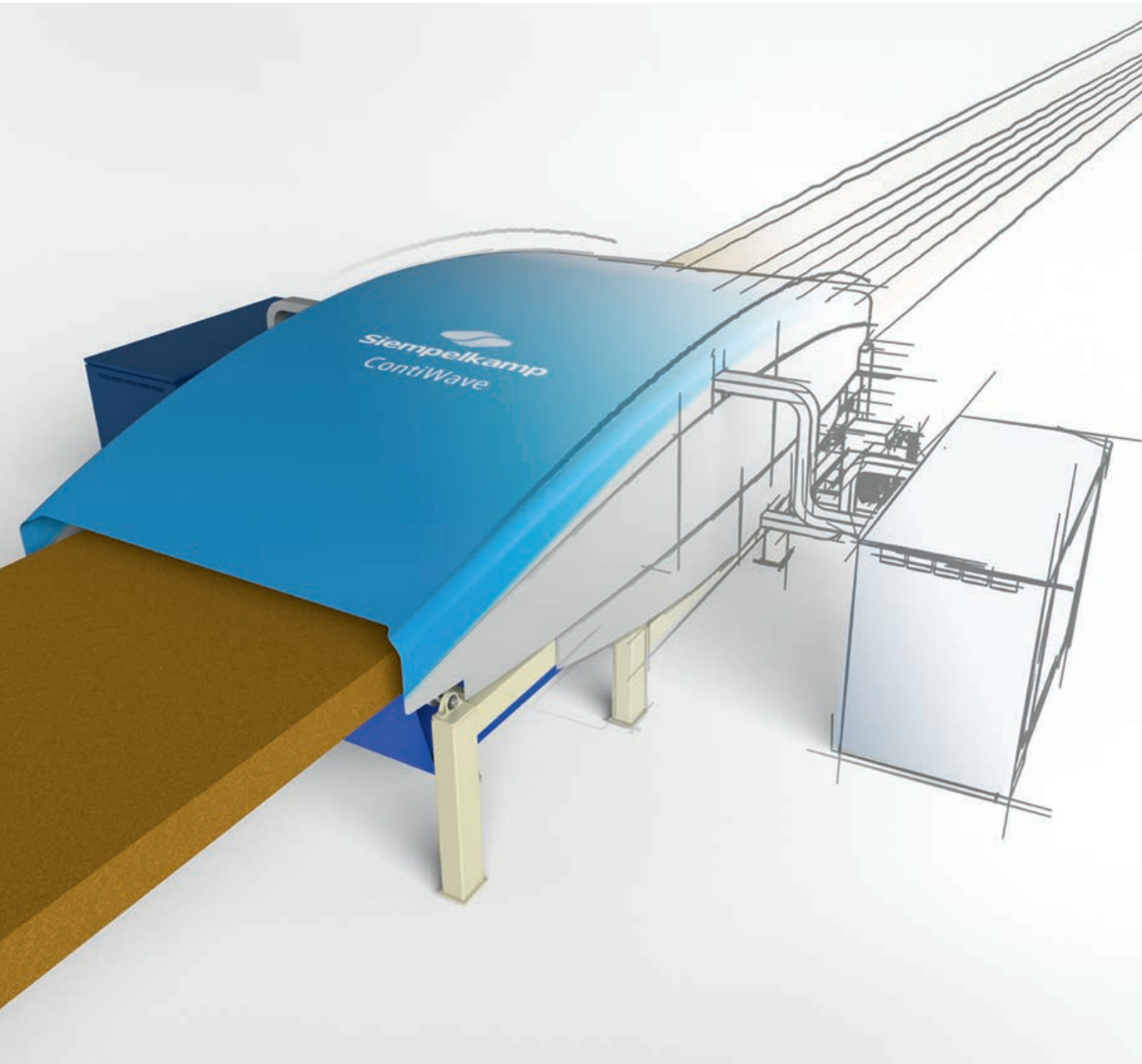




Siempelkamp



ContiWave

microwave mat preheater

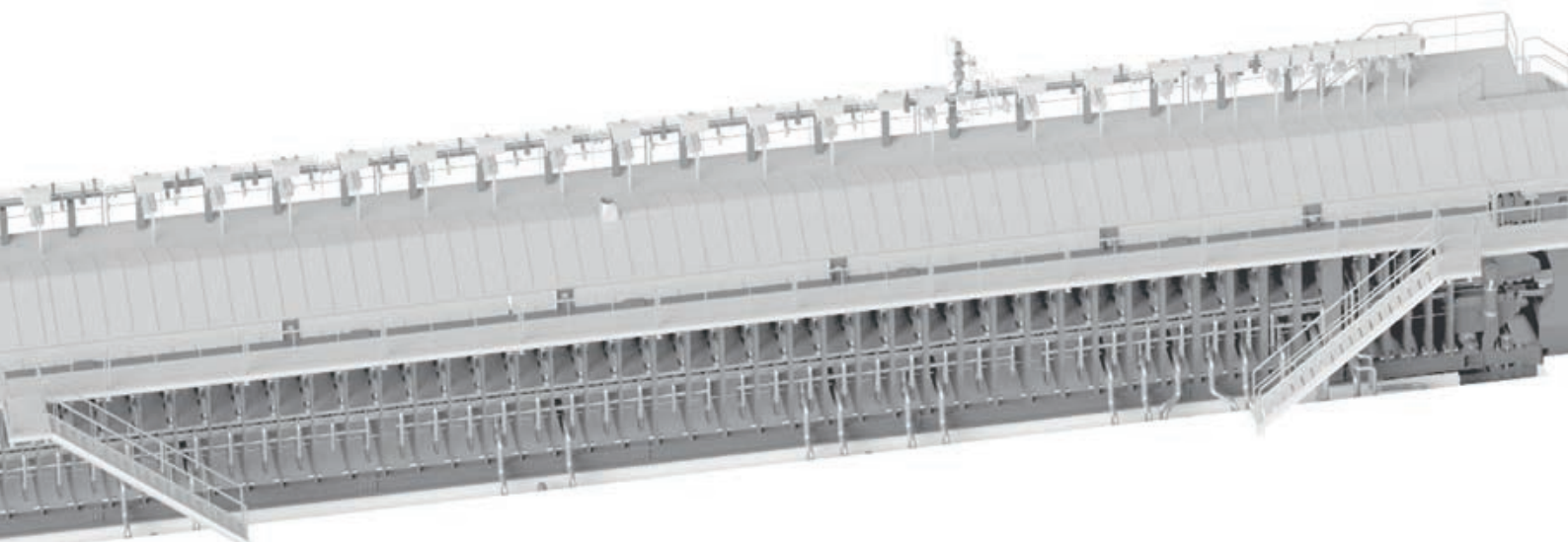
Microwave mat preheater

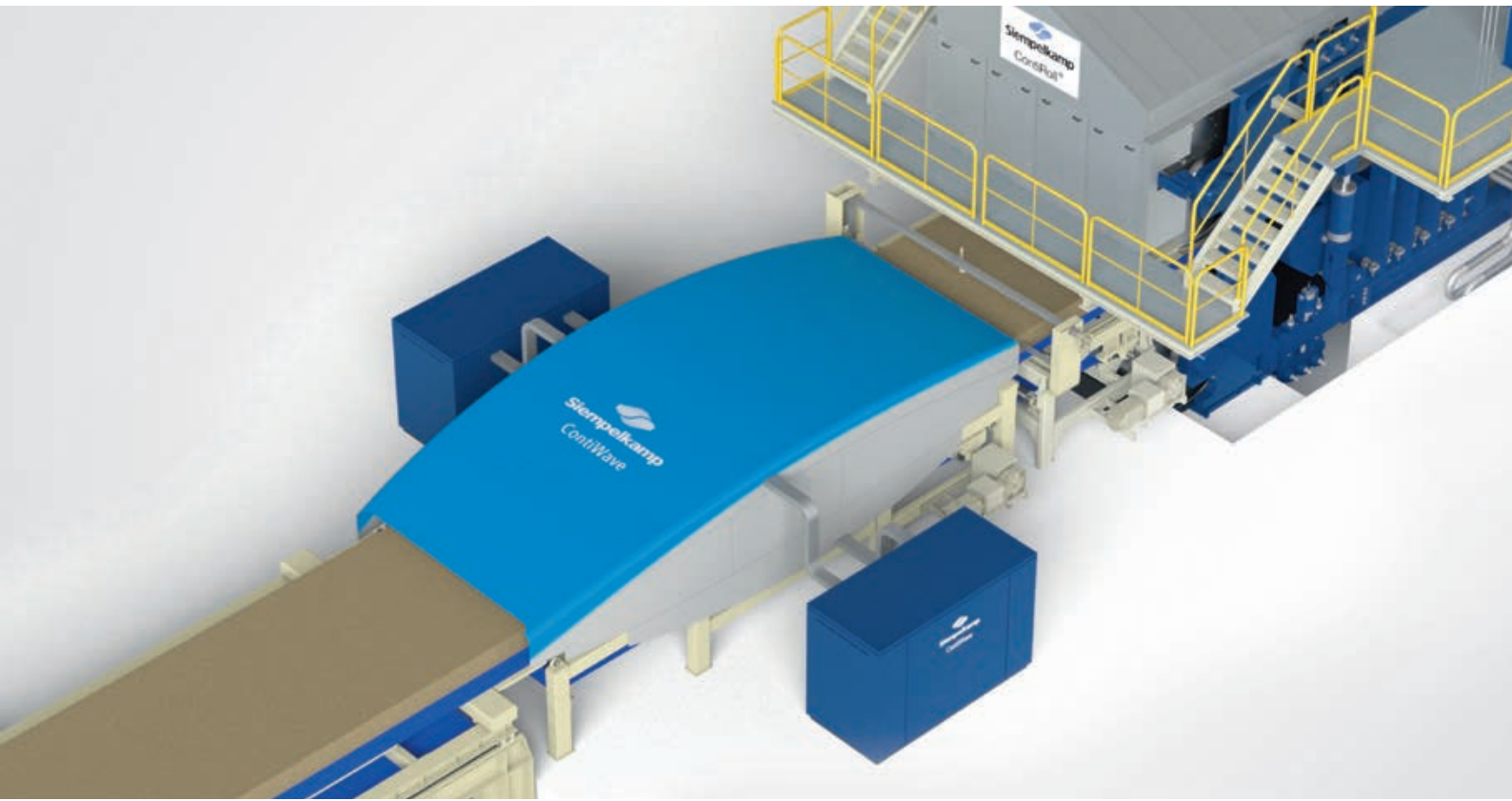
The ContiWave, a microwave preheater developed by Siempelkamp, increases the production capacities of particleboard, MDF and OSB production plants significantly. Besides, it enables fast and reliable thick-board production.

The ContiWave is specifically designed as a retrofit for existing plants used for the production of thick boards. This is a most attractive alternative to any press extension, as the mat enters the press at elevated temperatures already. Seasonal temperature variations are compensated by the ContiWave, stable and consistent production conditions are guaranteed at any time. Special products like LVL (Laminated Veneer Lumber) benefit enormously from the homogeneous heat distribution throughout the mat. Benefits: Increased product quality and higher output.

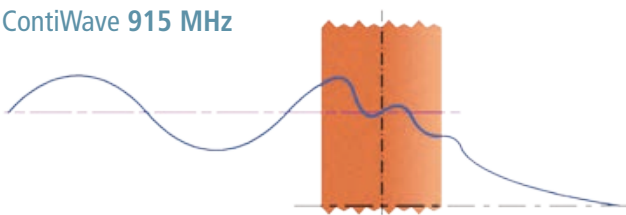
The modular design enables an optimal microwave preheating adjusted to the product; the total capacity amounts to more than 600 kW. The ideal microwave frequency is 915 MHz offering the highest efficiency at the optimal penetration depth. Slot antennae above and underneath the product ensure an extremely effective coupling of the microwaves, heating the mat fast and homogeneously. System-inherent shielding in a ContiWave prevents hot spots from occurring by wave interference of individual, direct magnetrons in the mat.

Owing to the precise heater control a ContiWave may be optimally adjusted to the cycle operation of multi-daylight presses. Almost 100% of the microwave radiation is shielded by special filter elements in the inlet and outlet tubes. The emission is far below all statutory limit values. The ContiWave thus has the best possible operational safety.

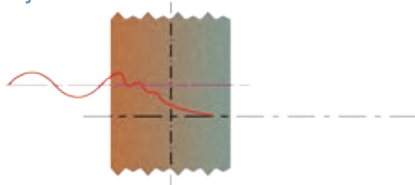




ContiWave 915 MHz



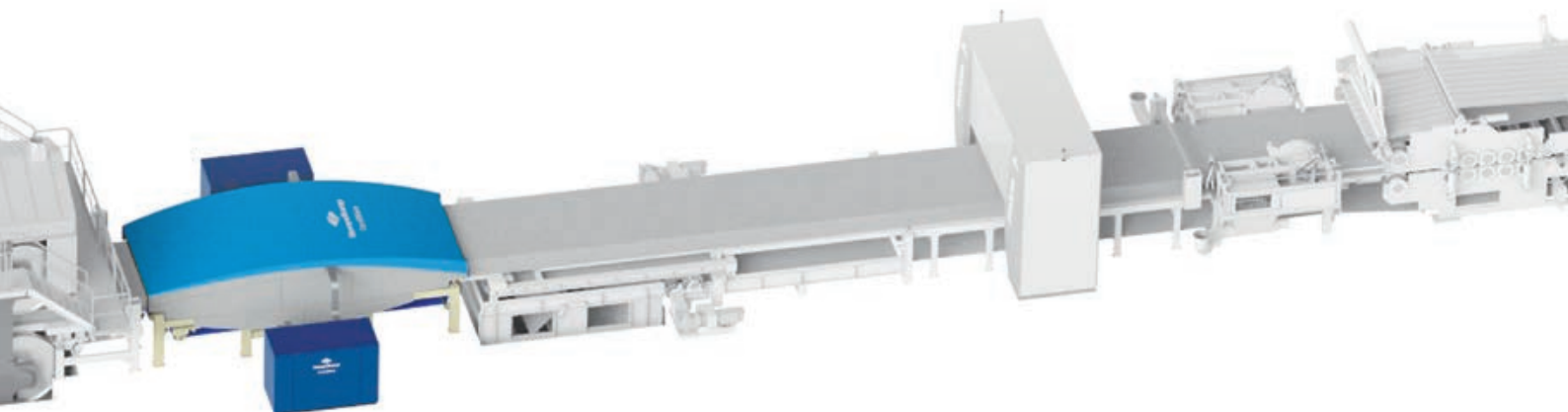
Comparable frequency
2.450 MHz



Penetration depth and energy distribution

ContiWave is using a microwave frequency of 915 MHz which is ideal for wood-based material production. Measurement procedures have verified a material-dependent penetration depth of 15–20 cm, for which approx. 70% of the microwave power is converted into thermal energy. At 2,450 MHz the penetration depth amounts to 5.6–7.5 cm.

The 915 MHz Magnetron technology has an efficiency of at least 90%, while the 2,450 MHz technology has an efficiency of approx. 70% (electrical output at the Magnetron in relation to the generated MW output of the tube).





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