

PROCEDURE OF OPTIMIZING SOLID OAK WOOD (*Quercus robur L.*) BENDING PROCESS IN FURNITURE MANUFACTURE

Mislav Mikšik, Stjepan Pervan, Silvana Prekrat, Mladen Brezovi

ABSTRACT

*Solid wood bending is a type of processing with certain levels of mechanical destruction. Higher material utilization, small investments in technology, high strength and stiffness of bent wood elements, and uniformity of structure in furniture parts are some advantages of wood bending. Sawn elements have their grain slope cut off in certain parts, which lowers the strength and load-bearing capacity of the final piece of furniture, contrary to the continuous grain slope in bent counterparts. In this research, the procedure for optimizing the solid oak wood bending (*Quercus robur L.*) process in furniture manufacture will be explained. All the challenges encountered while attempting to optimize the bending process by using a combination of steaming and drying with high frequency (HF) will be described and explained. Utilization comparisons at the beginning of the process and after optimizing it, including the current state, will be presented.*

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