

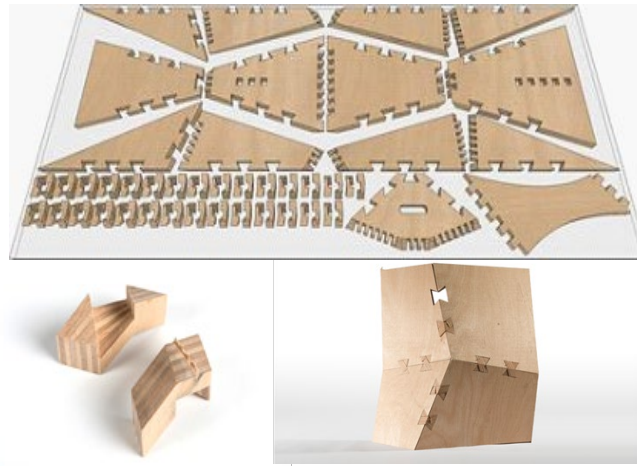
TECHNOLOGY OFFER

CNC CUT DOVETAIL JOINTS ALLOWING ANGLES FROM 60° TO 300°

Dovetail joints are very strong joints, known from traditional carpentry. For the first time, the traditional wood joint "entwined dovetail" can now be fabricated with computer automation and applied to polyhedral structures with angles from 60° to 300°. This opens up a large diversity of different forms, and automated production of complex geometric designs, manufacturing all parts in one production process. Thus, automated production of complex geometries in architecture and furniture design is made easy.

TECHNOLOGY

Traditional wood joints, which are handcrafted, are not or only partially suitable for automated fabrication processes. This invention offers a solution for wooden joints which are also suitable for geometrically complex, non-orthogonal geometries in architecture and furniture construction that can be produced industrially (e.g. CNC or water jet cutting) and applied to polyhedral structures. Automated production of complex geometric shapes opens up a wide variety of different designs. All components can be manufactured in one production process and from one single board.



Images: Chair with dovetail joints cut from one single board.

APPLICATIONS

Possible areas of application range from the construction and furniture industry structural and formwork engineering, mould construction, facade design, prefabricated house construction, trade show stands, exhibition and stage construction to furniture and interior finishing, acoustic panels and partition walls.

ADVANTAGES

- Flexural rigid connections
- Cut of panels and joints from the same wood or fiber board
- Automated (e.g. water jet, CNC or laser) cutting processes
- Reduced planning, production and assembly costs
- Individual and complex designs possible
- Immediate stability after insertion of the crossed dovetails into the corresponding tines.

REFERENCE

M068/2014

APPLICATIONS

Architecture, furniture design, structural and formwork engineering

DEVELOPMENT STATUS

Prototype available; CAD software for the board cut available

OPTIONS

License, project cooperation

KEYWORDS

- Wooden joinery
- CAD/ CAM software
- CNC cut

IPR

AT 516.502 granted

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